# ECMS Highway Construction

## Contract: 24706

**MEKIS Construction Corporation XX-XXXXXXX**

**FENELTON**

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**info@mekisconstruction.com**

**Prime Business Partner**

**ButlerCounty**

**SR 3025, Section 251**

**Little Creek Road Br #3**

**Location**

**T102-268-L11E**

**Federal Project**

**P-903025T7251-1020-362-1**

**WBS Element**

**September 13, 2012**

**Bid Opening**

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## Contract

Addendum issued subsequent to the printed proposal have been incorporated into the text of this contract and the modified portions are annotated in the contract - e.g., A1, A2 etc.

Incorporated Addendum is As follows:

**Addendum No. 1,** **A1,** dated 08/15/2012

THIS AGREEMENT, Made this *9* day of *October* A.D. *2012*, between the Commonwealth of Pennsylvania by the Secretary of Transportation, hereinafter called the Commonwealth and *MEKIS Construction Corporation* his, hers, its or their executors,administrators, successors, or assigns, hereinafter called the Contractor.

**W I T N E S S E T H:**

1. That the Contractor, for and in consideration of the payment or payments herein specified and agreed to by the Commonwealth, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work and labor in the improvement of a certain section of highway at the unit prices bid by said Contractor for the respective estimated quantities aggregating approximately the sum of *$1,510,178.48* and such other items as are mentioned in the Contractor's original proposal, which proposal and prices named, together with Publication 408/2011-2 - Specifications (as specified in the proposal), are made a part of this contract and accepted as such, also the drawings of the project, prepared and/or approved by the Department of Transportation, which drawings are also agreed by each party as being a part hereof.

2. The location and description being situated as follows:
The description and location of the project is as follows: For the replacement of the existing structure carrying SR 3025 over the Little Connoquenessing Creek with a two lane, two span Continuous Steel Girder Bridge with minimal approach work and other miscellaneous construction, as indicated on the approved drawings included in the bid package for STATE ROUTE 3025, SECTION 251, in Butler COUNTY Lancaster TOWNSHIP from approximately one mile east of the SR 3025/SR 3027 intersection at segment 0050 offset 3530 to approximately the SR 3025/Little Creek Road (TWP) intersection at segment 0060 offset 0420.

3. The Contractor further covenants and agrees that all work shall be performed in the best and most workmanlike manner. He also agrees that all materials furnished and labor performed shall be in strict and complete conformity, in every respect, with all parts of this contract and shall be subject to the inspection and acceptance of authorized representatives of the Department of Transportation. In the event that any portion of work (including materials supplied pursuant thereto) performed by the Contractor is rejected by the Department's authorized representatives as defective, unsuitable, or unacceptable, the Contractor agrees to remove and replace all such rejected portions of work in conformance with this contract and to the satisfaction of and at no expense to the Department. The Contractor further covenants that prompt payment will be made in full for all labor and materials used in the performance of work on this project.

4. The Contractor covenants and agrees that all work (including, but not limited to, all labor performed and all materials supplied) on this project shall be performed and completed to the satisfaction of the Chief Highway Engineer of the Department of Transportation on or before the expiration date of *08/26/2013*. If, for any

reason, except as provided in the contract, the Contractor fails to complete all work on this project to the satisfaction of the Chief Highway Engineer within the aforementioned time allowed, the Department shall deduct from any sums due or which may become due the Contractor the amount indicated in the Specifications for each calendar day used in excess of the aforementioned number of days allowed, or, in case a completion date is fixed, for each calendar day elapsing between that completion date and the actual date of completion. If no sums are due the Contractor, the Contractor agrees to remit to the Department the aforementioned sum for each day used in excess of the time allowed for completion of the contract. The amounts deducted or remitted under this paragraph are liquidated damages and not penalties.

5. The Contractor further covenants and warrants that the Contractor has had sufficient time to examine and has examined the site of the contract work to ascertain for itself those conditions such as may be determined by inspection, investigation, and inquiry, including the location, accessibility, and general character of the site.

6. The Contractor further covenants that he has not relied upon any information provided by the Department, including information contained in the Special Provisions, concerning the time within which publicly or privately- owned facilities below, at or above the ground are expected to be installed, removed, repaired, replaced, and/ or relocated; that he has not relied upon any information provided by the Department concerning the location or existence of all such facilities that might be below, at or above the ground; that he has contacted or will contact all owner of such facilities to verify the location and position of all such facilities and the time within which work on such facilities will be performed; and that he is aware delays might be incurred in the performance of work on this project as a result of work being performed or that will be performed on such facilities by their owners. It is understood further that, notwithstanding assistance of any kind and extent that might be provided by the Department, the Contractor, in every instance, bears the ultimate responsibility of resolving all disputes of every kind with the owners of such facilities. The Contractor agrees to save and hold the Department harmless from liability for all delays, interference and interruptions that might arise during the performance of work on this project as a result of work being or that will be performed on such publicly or privately-owned facilities.

7. The Contractor further covenants and warrants that he has read, is completely familiar with and understands thoroughly the General Conditions; the Specifications of the Commonwealth of Pennsylvania, Department of Transportation, currently in effect; the Supplements, Special Provisions and/or Conditions; and any other addenda or requirements, contained in the governing the performance of work under this contract, whether attached hereto and made a part hereof, or incorporated herein by reference.

8. It is distinctly understood and agreed that the Contractor shall not do any work (including, but not limited to, the supply of labor and/or materials) not covered by the specifications and the contract, unless such work has been authorized in writing as provided in the Specifications. In no event shall the Contractor incur any liability by reason of refusing to obey any verbal directions or instructions that he might be given to perform additional or extra work. Likewise, the Department will not be liable for any work performed as additional or extra work, unless such work is required of the Contractor in writing as provided in the Specifications. All such work which might have been performed by the Contractor without such written order first being given shall be at the Contractor's risk, cost, and expense, and the Contractor hereby covenants and agrees that, without such written order, he shall make no claim for compensation for such unauthorized work.

9. It is further distinctly agreed that the Contractor shall not assign this contract, nor any part thereof, nor any right to any sums to be paid him hereunder, nor shall any part of the work to be done or material furnished under this contract be sublet, without the consent in writing of the Secretary of Transportation.

10. It is also agreed and understood that the acceptance of the final payment by the Contractor shall be considered as a release in full of all claims against the Commonwealth of Pennsylvania arising out of, or by reason of, the work done and materials furnished under this contract.

11. The Contractor shall accept, insofar as the work covered by the contract is concerned, the provisions of the Workmens Compensation Act of 1915, and any supplements or amendments thereto, and shall insure his liability thereunder or file with the Department of Transportation a certificate of exemption from insurance from the Bureau of Workers' Compensation of the Department of Labor and Industry.

12. In order to secure proper and complete compliance with the terms and provisions of this contract, the Contractor shall provide a bond in a sum equal to one hundred percent (100%) of the total contract price of the work to be done. The Contractor shall also secure an additional bond in the same amount for the prompt payment in full for all labor and materials supplied in performing work on this project. Both bonds are attached to and made a part of this contract.

13. Conditioned upon compliance by the Contractor with all pertinent conditions and procedures contained in the contract, claims for damages or extra costs in excess of three hundred dollars ($300.00) arising out of disputes pertaining to this contract shall be referred to the Board of Claims pursuant to Section 1724(a) of the Commonwealth Procurement Code, 62 Pa. C.S. § 1724(a).

14. If for any reason the Commonwealth Procurement Code is inoperative or the Board of Claims cannot function, such claims shall be referred and decided by a panel consisting of the Secretary of Transportation and the General Counsel or their respective deputy or deputies.

15. The Contractor hereby further agrees to receive and the Commonwealth agrees to pay the prices set forth in the linked bid items as full compensation for furnishing all the materials and labor which may be required in the prosecution and completion of all work to be done under this contract, and in all respects to complete the contract to the satisfaction of the Secretary of Transportation.

16. The Contractor certified in his, her, its or their bid submission (covering federal aid projects only) to the disclosure of lobbying activities and, if applicable, completed the disclosure form and by said certification understands that Public Law 101-121, Section 319, prohibits federal funds from being expended by recipient or any lower tier sub-recipients of a federal contract, grant, loan or cooperative agreement to pay any person for influencing or attempting to influence a federal agency or Congress in connection with the awarding of any federal contract, the making of any federal grant or loan, or the entering into of any cooperative agreement.

17. If federal funds are involved, the Contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. Contractor shall carry out applicable requirements of 49 C.F.R. Part 26 - DATED OCTOBER 16, 2001 in the award and administration of United States Department of Transportation assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Pennsylvania Department of Transportation deems appropriate. Contractor must include this assurance in each subcontract that it signs with a subcontractor.

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**Fiscal Information:**

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|---|---|
| **Recorded Number:** | 24706 |
| **Certified Fund Available Under Activity Program:** | 362 |
| **Symbol:** | 010-008-26185-12/13-2 |
| **Amount:** | $1,510,178.48 |

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**Contract Workflow Status**

| Status | Name | Disposition | Date/Time |
|---|---|---|---|
| Draft | Becki G Mescher-Vuxta/ PennDOT | Award | 10/03/2012 10:59:08 AM |
| Contractor Review | Anthony J Bertolino MR/ PennDOT BP-000566 | Sign | 10/04/2012 10:28:47 AM |
| BOD CMD Review | Roland L Rode/PennDOT | Accept | 10/05/2012 08:07:48 AM |
| BOD Director Review | R. Wayne Willey/PennDOT | Sign | 10/05/2012 05:38:20 PM |
| Chief Counsel Preliminary Review | Joanne L Lubart/PennDOT | Accept | 10/09/2012 10:24:08 AM |
| Chief Counsel Final Review | Joanne L Lubart/PennDOT | Accept | 10/09/2012 10:24:12 AM |
| Comptroller Review | Matthew P Eng/PennDOT | Accept | 10/09/2012 10:50:54 AM |
| CMD Execute | Becki G Mescher-Vuxta/ PennDOT | Submit | 10/09/2012 12:33:24 PM |

# Addenda

## Addendum: 1

**Description:**

The description and location of the project is as follows: For the replacement of the existing structure carrying SR 3025 over the Little Connoquenessing Creek with a two lane, two span Continuous Steel Girder Bridge with minimal approach work and other miscellaneous construction, as indicated on the approved drawings included in the bid package for STATE ROUTE 3025, SECTION 251, in Butler COUNTY Lancaster TOWNSHIP from approximately one mile east of the SR 3025/SR 3027 intersection at segment 0050 offset 3530 to approximately the SR 3025/Little Creek Road (TWP) intersection at segment 0060 offset 0420.

| | |
|---|---|
| **Estimated Project:** | $1,645,969.00 |
| **Federal Project Status:** | PENNDOT Oversight Non-NHS |
| **DBE:** | 6.00% |
| **Structure Work:** | 65.00% |
| **Wage Rates:** | Yes |
| **Project Type:** | Standard |
| **State Type of Work:** | BRIDGE REPLACEMENT |
| **Prequalification Required:** | Yes |
| **Pre-Bid Meeting:** | None |
| **Scheduled Let:** | 09/13/2012 11:00:00 AM |
| **New Let:** | |
| **Let Date Move:** | |
| **Anticipated NTP:** | 10/29/2012 |
| **Required Completion:** | 08/26/2013 |

**Additional Information**

This is an ECMS project. All Addenda will be electronically posted. Place for delivery of diskette bid before 11:00 a.m. prevailing local time on the scheduled let date: PENNDOT CONTRACT AWARDS ROOM, 7TH FLOOR; COMMONWEALTH KEYSTONE BUILDING; 400 NORTH STREET; HARRISBURG PA 17120

**Item and Quantity**

**Special Provision**

**Other**

Attached E & S Plans and Signing and Pavement Marking Plans

## Bid Items

| Item | Description | Quantity | Unit Price | Item Total | Addendum |
|---|---|---|---|---|---|
| 0201-0001 | CLEARING AND GRUBBING | 1.000 | $20,000.00 | $20,000.00 | |
| 0203-0001 | CLASS 1 EXCAVATION | 1,605.000 | $15.00 | $24,075.00 | |
| 0204-0001 | CLASS 2 EXCAVATION | 54.000 | $20.00 | $1,080.00 | |
| 0204-0150 | CLASS 4 EXCAVATION | 103.000 | $15.00 | $1,545.00 | |
| 0205-0100 | FOREIGN BORROW EXCAVATION | 610.000 | $10.00 | $6,100.00 | |
| 0205-0281 | SELECTED BORROW EXCAVATION, COARSE AGGREGATE, NO. 1 | 123.000 | $35.00 | $4,305.00 | |
| 0205-0363 | SELECTED BORROW EXCAVATION ROCK, CLASS R-3 | 135.000 | $40.00 | $5,400.00 | |
| 4205-0367 | SELECTED BORROW EXCAVATION ROCK, CLASS R-7 (MODIFIED) | 75.000 | $90.00 | $6,750.00 | |
| 0205-0368 | SELECTED BORROW EXCAVATION ROCK, CLASS R-8 | 525.000 | $30.00 | $15,750.00 | |
| 0212-0001 | GEOTEXTILE, CLASS 1 | 245.000 | $0.50 | $122.50 | |
| 0212-0002 | GEOTEXTILE, CLASS 2, TYPE A | 73.000 | $1.00 | $73.00 | |
| 0212-0014 | GEOTEXTILE, CLASS 4, TYPE A | 1,380.000 | $2.50 | $3,450.00 | |
| 0212-0015 | GEOTEXTILE, CLASS 4, TYPE B | 367.000 | $2.50 | $917.50 | |
| 0309-0422 | SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 0.3 TO < 3 MILLION ESALs, 25.0 MM MIX, 4" DEPTH | 1,163.000 | $22.00 | $25,586.00 | |
| 0350-0106 | SUBBASE 6" DEPTH (NO. 2A) | 1,672.000 | $18.00 | $30,096.00 | |
| 0409-0484 | SUPERPAVE ASPHALT MIXTURE DESIGN, HMA WEARING COURSE, PG 64-22, 0.3 TO < 3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-M | 1,425.000 | $10.00 | $14,250.00 | |
| 0409-6450 | SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BINDER COURSE, PG 64-22, 0.3 TO < 3 MILLION ESALS, 19.0 MM MIX, 2 1/2" DEPTH | 1,163.000 | $15.00 | $17,445.00 | |
| 0460-0001 | BITUMINOUS TACK COAT | 2,671.000 | $0.50 | $1,335.50 | |
| 4461-0001 | BITUMINOUS PRIME COAT (MODIFIED) | 554.000 | $4.00 | $2,216.00 | |
| 0491-0012 | MILLING OF BITUMINOUS PAVEMENT SURFACE, 1 1/2" DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR | 262.000 | $12.00 | $3,144.00 | |
| 0601-9003 | 18" CORRUGATED GALVANIZED STEEL PIPE, TYPE I, (2 2/3" X 1/2" CORRUGATIONS), 16 GAGE | 300.000 | $75.00 | $22,500.00 | |
| 0605-2731 | TYPE M CONCRETE TOP UNIT AND BICYCLE SAFE GRATE | 2.000 | $900.00 | $1,800.00 | |
| 0605-2741 | TYPE S CONCRETE TOP UNIT AND BICYCLE SAFE GRATE | 1.000 | $900.00 | $900.00 | |
| 0605-2850 | STANDARD INLET BOX, HEIGHT < /= 10' | 3.000 | $1,500.00 | $4,500.00 | |
| 0608-0001 | MOBILIZATION | 1.000 | $50,000.00 | $50,000.00 | |
| 0609-0003 | INSPECTOR'S FIELD OFFICE AND INSPECTION FACILITIES, TYPE B | 1.000 | $5,000.00 | $5,000.00 | |
| 0609-0009 | EQUIPMENT PACKAGE | 1.000 | $1,000.00 | $1,000.00 | |
| 0610-7002 | 6" PAVEMENT BASE DRAIN | 245.000 | $10.00 | $2,450.00 | |
| 0615-0022 | 6" SUBSURFACE DRAIN OUTLETS | 18.000 | $10.00 | $180.00 | |
| 0615-0040 | SUBSURFACE DRAIN OUTLET ENDWALL | 2.000 | $200.00 | $400.00 | |
| 0615-0066 | 66" RED SUBSURFACE DRAIN OUTLET MARKER | 2.000 | $30.00 | $60.00 | |
| 0616-0009 | STEEL END SECTION, METALLIC COATED, 16 GAGE FOR 18" PIPE | 4.000 | $350.00 | $1,400.00 | |
| 0620-0010 | TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION WITHOUT INLET PLACEMENT | 4.000 | $1,750.00 | $7,000.00 | |
| 0620-0400 | TERMINAL SECTION, SINGLE | 2.000 | $75.00 | $150.00 | |
| 0620-0503 | REMOVE EXISTING GUIDE RAIL (CONTRACTOR'S PROPERTY) | 425.000 | $4.00 | $1,700.00 | |
| 0620-1075 | TYPE 2-S GUIDE RAIL | 250.000 | $15.00 | $3,750.00 | |
| 4620-1075 | TYPE 2-S GUIDE RAIL (MODIFIED) | 100.000 | $17.00 | $1,700.00 | |
| 0620-1100 | TYPE 2-SC GUIDE RAIL | 50.000 | $28.00 | $1,400.00 | |
| 0620-1250 | TYPE 2 STRONG POST END TREATMENT | 2.000 | $1,000.00 | $2,000.00 | |
| 0656-0005 | PAVED SHOULDERS, TYPE 6- SP | 83.000 | $95.00 | $7,885.00 | |
| 0677-0001 | SELECTED MATERIAL SURFACING | 5.000 | $45.00 | $225.00 | |

| | | | | |
|---|---|---|---|---|
| 0686-0020 | CONSTRUCTION SURVEYING, TYPE B | 1.000 | $1,500.00 | $1,500.00 |
| 0686-0050 | CONSTRUCTION SURVEYING, TYPE D | 1.000 | $1,500.00 | $1,500.00 |
| 0689-0003 | CPM SCHEDULE | 1.000 | $500.00 | $500.00 |
| 0703-0020 | NO. 1 COARSE AGGREGATE | 156.000 | $45.00 | $7,020.00 |
| 0703-0025 | NO. 57 COARSE AGGREGATE | 3.000 | $50.00 | $150.00 |
| 0803-0001 | PLACING STOCKPILED TOPSOIL | 242.000 | $15.00 | $3,630.00 |
| 0804-0011 | SEEDING AND SOIL SUPPLEMENTS - FORMULA B | 46.000 | $30.00 | $1,380.00 |
| 0804-0013 | SEEDING AND SOIL SUPPLEMENTS - FORMULA D | 15.000 | $30.00 | $450.00 |
| 0804-0014 | SEEDING - FORMULA E | 26.000 | $2.00 | $52.00 |
| 0804-0020 | SEEDING AND SOIL SUPPLEMENTS - FORMULA L | 45.000 | $30.00 | $1,350.00 |
| 0805-0021 | MULCHING - HAY | 3.000 | $150.00 | $450.00 |
| 0805-0022 | MULCHING - STRAW | 2.000 | $150.00 | $300.00 |
| 0805-0030 | MULCHING - BONDED FIBER MATRIX | 1,864.000 | $1.50 | $2,796.00 |
| 0805-0050 | MULCH CONTROL NETTING | 2,396.000 | $0.50 | $1,198.00 |
| 0806-0050 | EROSION CONTROL MAT | 2,195.000 | $1.70 | $3,731.50 |
| 0806-0055 | TURF REINFORCEMENT MAT | 90.000 | $6.00 | $540.00 |
| 0810-0024 | TREE TRIMMING TO AN UNLIMITED HEIGHT | 1.000 | $2,000.00 | $2,000.00 |
| 0811-0003 | TEMPORARY PROTECTIVE FENCE | 560.000 | $5.00 | $2,800.00 |
| 0845-0001 | UNFORESEEN WATER POLLUTION CONTROL | 500.000 | $1.00 | $500.00 |
| 0850-0032 | ROCK, CLASS R-4 | 27.000 | $50.00 | $1,350.00 |
| 0855-0003 | PUMPED WATER FILTER BAG | 2.000 | $300.00 | $600.00 |
| 0860-0000 | INLET FILTER BAG FOR TYPE M INLET | 2.000 | $100.00 | $200.00 |
| 0860-0001 | INLET FILTER BAG FOR TYPE S INLET | 1.000 | $100.00 | $100.00 |
| 0865-0001 | SILT BARRIER FENCE, 18" HEIGHT | 369.000 | $4.00 | $1,476.00 |
| 0901-0001 | MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION | 1.000 | $5,000.00 | $5,000.00 |
| 0901-0231 | ADDITIONAL WARNING LIGHTS, TYPE B | 12.000 | $1.00 | $12.00 |
| 0901-0240 | ADDITIONAL TRAFFIC CONTROL SIGNS | 250.000 | $5.00 | $1,250.00 |
| 0931-0001 | POST MOUNTED SIGNS, TYPE B | 93.000 | $30.00 | $2,790.00 |
| 0935-0001 | POST MOUNTED SIGNS, TYPE F | 9.000 | $15.00 | $135.00 |
| 0937-0104 | GUIDE RAIL MOUNTED DELINEATOR TYPE B, (Y/B) | 3.000 | $15.00 | $45.00 |
| 0937-0106 | GUIDE RAIL MOUNTED DELINEATOR TYPE B, (W/B) | 7.000 | $15.00 | $105.00 |
| 0937-0112 | GUIDE RAIL MOUNTED DELINEATOR TYPE D, (Y/B) | 3.000 | $5.00 | $15.00 |
| 0937-0113 | GUIDE RAIL MOUNTED DELINEATOR TYPE D, (W/B) | 7.000 | $5.00 | $35.00 |
| 0937-0202 | BARRIER MOUNTED DELINEATOR, SIDE-MOUNT TYPE O, (Y/B) | 2.000 | $5.00 | $10.00 |
| 0937-0203 | BARRIER MOUNTED DELINEATOR, SIDE-MOUNT TYPE O, (W/B) | 2.000 | $5.00 | $10.00 |
| 0937-0210 | BARRIER MOUNTED DELINEATOR, TOP-MOUNT TYPE S, (Y/B) | 2.000 | $25.00 | $50.00 |
| 0937-0211 | BARRIER MOUNTED DELINEATOR, TOP-MOUNT TYPE S, (W/B) | 2.000 | $25.00 | $50.00 |
| 0962-1000 | 4" WHITE WATERBORNE PAVEMENT MARKINGS | 1,070.000 | $0.50 | $535.00 |
| 0962-1005 | 4" YELLOW WATERBORNE PAVEMENT MARKINGS | 1,070.000 | $0.50 | $535.00 |
| 0971-0001 | REMOVE POST MOUNTED SIGNS, TYPE B | 5.000 | $150.00 | $750.00 |
| 0975-0001 | REMOVE POST MOUNTED SIGNS, TYPE F | 1.000 | $150.00 | $150.00 |
| 1002-0053 | REINFORCEMENT BARS, EPOXY COATED | 87,570.000 | $1.70 | $148,869.00 |
| 1005-1126 | STEEL BEAM BEARING PILES, HP14X89 | 164.000 | $80.00 | $13,120.00 |
| 5005-1156 | STEEL BEAM PILE TIP REINFORCEMENT, HP14X89 (MODIFIED) | 3.000 | $150.00 | $450.00 |
| 1005-1156 | STEEL BEAM PILE TIP REINFORCEMENT, HP14X89 | 3.000 | $110.00 | $330.00 |
| 5018-0001 | REMOVAL OF EXISTING BRIDGE (MODIFIED) | 1.000 | $75,000.00 | $75,000.00 |
| 8120-0001 | BRIDGE STRUCTURE, AS DESIGNED, S-31582 | 1.000 | $758,867.50 | $758,867.50 |
| 9000-0004 | COFFERDAM FOR PIER | 1.000 | $75,000.00 | $75,000.00 |
| 9000-0005 | TREMIE ANCHORS | 8.000 | $0.01 | $0.08 |
| 9000-0051 | REPAIR OF DETOUR ROADS | 10,000.000 | $1.00 | $10,000.00 |
| 9000-0053 | UNFORESEEN DESIGN AND REPAIR OF SEPTIC TANK SYSTEM | 10,000.000 | $1.00 | $10,000.00 |
| 9000-0100 | PRE-DRILLING AND BACKFILLING FOR INTEGRAL ABUTMENT PILES | 245.000 | $130.00 | $31,850.00 |
| 9000-0150 | BACKFILLING WITH CLASS C CEMENT CONCRETE | 25.000 | $200.00 | $5,000.00 |
| 9000-0500 | TEMPORARY CAUSEWAY | 1.000 | $35,000.00 | $35,000.00 |

| | | | | |
|---|---|---|---|---|
| 9601-0001 | TEMPORARY PIPE | 90.000 | $0.01 | $0.90 |

**Contract Total:** $1,510,178.48

**Bid Total:** $1,510,178.48

# Special Provisions

## G2A - a00002 PUBLIC BID OPENING LOCATION

**Addendum:**

**Associated Item(s):**

**Header:**
PUBLIC BID OPENING LOCATION

**Provision Body:**

The location of the public bid opening is the Commonwealth Keystone Building, 7th Floor, Contract Awards Room, 400 North Street, Harrisburg. Allow sufficient time before the bid opening to obtain a visitor pass on the 5th Floor and to be escorted to the 7th Floor Contract Awards Room.

## G101B - a00101 GOVERNING SPECIFICATIONS AND APPLICABLE DESIGNATED SPECIAL PROVISIONS

**Addendum:**

**Associated Item(s):**

**Header:**
GOVERNING SPECIFICATIONS AND APPLICABLE DESIGNATED SPECIAL PROVISIONS

**Provision Body:**

I. GOVERNING SPECIFICATIONS. This bid proposal is made under, subject to, and governed by:

Specifications 408/2011, Change No. 2, effective April 6, 2012, of the Pennsylvania Department of Transportation. Within these Specifications where dual measurement and tabular options are presented English standards apply.

II. APPLICABLE DESIGNATED SPECIAL PROVISIONS. The following Designated Special Provisions are found in Appendix C to the above Governing Specifications. Those that apply to this bid proposal are preceded with a check (i.e., "***X***"). Goals, minimum levels of participation, or other project specific requirements associated with these documents are also established where applicable:

**(X_)** DSP1. Offset Provision for Commonwealth Contracts.

**(X_)** DSP2. Contractor Responsibility Provisions.

**(X_)** DSP3. Provisions for Commonwealth Contracts Concerning the Americans with Disabilities Act.

**(__)** DSP4. Minority Business and Women Business Enterprise Participation Requirements. This is used on 100% State projects requiring Prequalification. The minimum levels of participation for this project are:

MBE ; WBE

(***fill in***)% (***fill in***)%

**(__)** DSP5. Minority Business and Women Business Enterprise Program. This is used only on 100% State projects over $100,000 requiring Prequalification and where DSP4 does not apply.

**(__)** DSP6. Minority Business and Women Business Enterprise Utilization Requirements. This is used on State projects without Prequalification requirements. Minimum participation levels of 5% for MBE and 3% for WBE of the dollar amount of the bid have been established for this project.

**(X_)** DSP7. Disadvantaged Business Enterprise Requirements. This is used on Federal - aid projects only. In conjunction with this contract a goal of 6% of the original contract amount has been established.

**(X_)** DSP9. Special Supplement - Anti-Pollution Measures - August 26, 1999.

**(X_)** DSP10. Nondiscrimination/Sexual Harassment Clause.

**(X_)** DSP11. Contractor Integrity Provisions.

**(X_)** DSP12. Executive Order 11246, with Appendix A and B.

## G113B - a00113 CONTRACT PROVISIONS - RIGHT-TO-KNOW LAW

**Addendum:**

**Associated Item(s):**

**Header:**
CONTRACT PROVISIONS - RIGHT TO KNOW LAW

**Provision Body:**

**I. Contract Provisions – Right to Know Law 8-K-1532**

**a.** The Pennsylvania Right-to-Know Law (RTKL), 65 P.S. §§ 67.101-3104, applies to this Contract.

**b.** If the Department needs assistance in any matter arising out of the RTKL related to this Contract, the Department will notify the Contractor using the legal contact information provided in this Contract. The Contractor, at any time, may designate a different contact for such purpose upon reasonable prior written notice to the Department.

**c.** Upon written notification from the Department that it requires assistance in responding to a request under the RTKL for information related to this Contract that may be in the Contractor's possession, constituting, or alleged to constitute, a public record in accordance with the RTKL ("Requested Information"), the Contractor will:

**1.** Provide the Department, within 10 calendar days after receipt of written notification, access to, and copies of, any document or information in the Contractor's possession arising out of this Contract that the Department reasonably believes is Requested Information and may be a public record under the RTKL; and

**2.** Provide such other assistance as the Department may reasonably request, in order to comply with the RTKL with respect to this Contract.

**d.** If the Contractor considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, or other information that the Contractor considers exempt from production under the RTKL, notify the Department and provide, within 7 calendar days of receiving the written notification, a written statement signed by a representative of the Contractor explaining why the requested material is exempt from public disclosure under the RTKL.

**e.** The Department will rely upon the written statement from the Contractor in denying a RTKL request for the Requested Information unless the Department determines that the Requested Information is clearly not protected from disclosure under the RTKL. Should the Department determine that the Requested Information is clearly not exempt from disclosure, provide the Requested Information within 7 calendar days of receipt of written notification of the Department's determination.

**f.** Failing to provide the Requested Information within the time period required by these provisions, indemnify and hold the Department harmless for any damages, penalties, costs, detriment or harm that the Department may incur as a result of this failure, including any statutory damages assessed against the Department.

**g.** The Department will reimburse the Contractor for any costs associated with complying with these provisions only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.

**h.** The Contractor may file a legal challenge to any Department decision to release a record to the public with the Office of Open Records, or in the Pennsylvania Courts, however, indemnify the Department for any legal expenses incurred by the Department as a result of such a challenge and hold the Department harmless for any damages, penalties, costs, detriment or harm that the Department may incur as a result of the failure, including any statutory damages assessed against the Department, regardless of the outcome of such legal challenge. As between the parties, agree to waive all rights or remedies that may be available as a result of the Department's disclosure of Requested information pursuant to the RTKL.

**i.** The Contractor's duties relating to the RTKL are continuing duties that survive the expiration of this Contract and continue as long as the Requested Information remains in the Contractor's possession.

## G311A - a00311 ROAD USER LIQUIDATED DAMAGES (RULD)

**Addendum:**

**Associated Item(s):**

**Header:**

ROAD USER LIQUIDATED DAMAGES (RULD)

**Provision Body:**

Road User Liquidated Damages (RULDs) will be assessed as specified in Section 108.07(b) and as follows:

Unrestricted traffic is defined as opening the roadway/ structure full width including shoulders and ramps as approved by the Representative with no further need for traffic restrictive devices.

24 hours in advance of the completion of portions of the work which control the assessment of liquidated damages, notify the Representative so that a mutual inspection can be performed. If the Representative determines that the work is completed satisfactorily, the travel lanes will be opened to unrestricted traffic and no further liquidated damages will be assessed for that portion of work.

Damage charges as outlined below will be assessed independent of and concurrent with, as appropriate, Construction Engineering Liquidated Damages (CELD) as specified in Section 108.07(a).

RULDs as specified will be deducted from money due or to become due.

The contractor will notify all emergency services, post offices, school districts and bus companies a minimum of two weeks prior to placing the detour. Notify parties by certified letter with a copy to the Department Inspector in Charge.

**Detour**

RULDs in the amount of $4600 will be assessed for each day/or portion of day that the detour for SR 3025 is not removed and traffic is open to unrestricted traffic in all lanes 137 consecutive calendar days from the date said detour was implemented.

## G4301D - a04301 UTILITIES--THE REQUIREMENT TO LIST INFORMATION

**Addendum:**

**Associated Item(s):**

**Header:**
UTILITIES--THE REQUIREMENT TO LIST INFORMATION

**Provision Body:**

**I.** Cooperate with the public utility companies and local authorities in the placement, replacement, relocation, adjustment, or reconstruction of their structures and facilities during construction. Contact all utility representatives at least 15 calendar days before starting operations.

| | |
|---|---|
| PRIOR | Anticipated completion before the Notice to Proceed is issued. Use actual or anticipated completion date shown. |
| RESTRICTIVE | To be completed by the utility or string of utilities before operating without restriction. Number of calendar days will start from the actual notice to proceed that is issued to the contractor. |
| CONCURRENT | Simultaneous with, but not restricting, operations. Number of calendar days required. |
| COORDINATED | Phasing with specific construction operations. Number of calendar days required after completion of specific construction operations. |
| NOT AFFECTED | Identifies utility with facilities in the construction area not anticipated to be affected. Specific information may be provided by the utility. |
| INCORPORATED | Utility relocation work to be incorporated into the prime highway construction contract. |
| CONDITIONAL RESTRICTIONS AND TIME REQUIREMENTS | Identify conditions affecting the utility's ability to perform a certain type of utility relocation work, i. e., certain times of the day, week, or year that a facility cannot be shut down, acquisition of Right-of-Way by the state, or demolition of buildings. |

ARMSTRONG

Contact: Mike Cratty, telephone 724-452-5695 x 224

COORDINATED:

(Aerial) SR 3025 Sta 109 + 85 Rt. Attach lines after Verizon sets pole #71-65. Fourteen (14) calendar days required to complete.

PENNSYLVANIA AMERICAN WATER COMPANY

Contact: Bill Lage, telephone 724-654-3706

Construction contact: Jake Gentile, telephone 724-287-1744

CONCURRENT:

(U/G) SR 3025 Sta 107 + 65 Rt. Grade adjust water valves. One (1) calendar day required to complete.

RESTRICTIVE:

(U/G) SR 3025 Sta 180 +10 Rt. Relocate fire hydrant. One calendar day required to complete.

VERIZON PENNSYLVANIA, INC.Contact: Fred Fraer, telephone 412-237-2292

PRIOR:

(Aerial) SR 3025 Sta 109 + 85 Rt. Relocate pole #71-65. Estimated completion date September 28, 2012.

PEOPLES NATURAL GAS COMPANY LLCContact: Leo Freismuth, telephone 724-444-3236

COORDINATED:

(U/G) SR 3025 Sta 107 + 65 Rt. Grade adjust or relocate 4” gate valve. One (1) calendar day required to complete.

RESTRICTIVE:

(U/G) SR 109 + 70 to Sta 112 + 00 Rt. Cut/cap 4” plastic gas line. One (1) calendar day required to complete.

PENN POWER

Contact: Dave Nickel, telephone 724-962-1083

NOT AFFECTED: (Aerial) SR 3025 Sta 107 + 05 to Sta 107 + 28 Rt.

## G4802A - a04802 INDEX PRICE FOR DIESEL FUEL

**Addendum:**

**Associated Item(s):**

**Header:**
Index Price for Diesel Fuel

**Provision Body:**

The index price for diesel fuel (FB), as determined by the Department, is $3.05/Gallon. Use this index price in accordance with Section 110.12 PRICE ADJUSTMENT FOR DIESEL FUEL COST FLUCTUATIONS.

## G4811D - a04811 PRICE ADJUSTMENT FOR DIESEL FUEL COST FLUCTUATIONS FOR WARM MIX ASPHALT

**Addendum:**

**Associated Item(s):**

**Header:**
Price Adjustment for Diesel Fuel Cost Fluctuations for Warm Mix Asphalt

**Provision Body:**

**Revise Section 110.12(a)1.c to read as follows:**

**1.c Category C - Flexible Bases and Pavements.** Contract items constructed under Sections 309, 311, 316, 409, 411, 419, 422, 430, 431, 439*, 440*, 450, 470*, 471*, 480*, 481*, 651, 653, 654**, 656**, and 657, including any modified standard or nonstandard item where the character of the work to be performed is considered construction of a flexible base, pavement, pavement patch, or shoulder. The sum of the plan quantity for each applicable item in the category must exceed 4,535 tonnes (5, 000 tons).

*When measured and paid for on a Material Used Basis, price adjustments, when applicable, will be computed based on the coarse aggregate item quantity ($m^2$ or SY) only, as paid on current estimates. For seal coats / surface treatments paid on an Area Basis, a depth equal to the maximum allowable size of the type of aggregate used, as specified in Section 703.2, Table C, will be assumed.

**Excluding shoulder backfill.

## G4891C - a04891 PRICE INDEX FOR WARM MIX ASPHALT

**Addendum:**

**Associated Item(s):**

**Header:**
Price Index for Warm Mix Asphalt

**Provision Body:**

Section 110.04 PRICE ADJUSTMENT OF BITUMINOUS MATERIALS. Revise the list of Sections to which specified price adjustment provisions will be applied to read:

309 360 430 461 481 657

311 409 431 467 482

316 410 439 469 651

320 411 440 470 653

341 419 450 471 654

342 422 460 480 656

## G4901A - a04901 PRICE INDEX FOR ASPHALT CEMENT

**Addendum:**

**Associated Item(s):**

**Header:**
PRICE INDEX FOR ASPHALT CEMENT

**Provision Body:**

The price index for asphalt cement (PG 64-22), as determined by the Department is $577.00/ Ton. Use this price index in accordance with Section 110.04 PRICE ADJUSTMENT OF BITUMINOUS MATERIALS.

## G4902C - a04902 PRICE ADJUSTMENT FOR STEEL COST FLUCTUATIONS

**Addendum:**

**Associated Item(s):**

**Header:**
PRICE ADJUSTMENT FOR STEEL COST FLUCTUATIONS

**Provision Body:**

These requirements provide for a price adjustment, in the form of a payment to the Contractor or a rebate to the Department, for fluctuations in the cost of the steel used in the applicable materials placed as part of the construction work specified in Sections 620, 621, 948, 1002, 1005, 1050, 1056, 1080, and 1085.

**(a) General.** These price adjustment provisions apply to items in the contract Schedule of Prices, as specified above, including any modified standard or non-standard item where the work to be performed includes incorporation of one or more of the applicable steel materials specified in the above Sections and addressed herein. Additionally, items in the Component Item Schedule (CIS) for an "as-designed" or alternate design structure, as well as work performed under a design-build contract, will be included when applying the specified price adjustment requirements, provided the work to be performed includes incorporation of one or more of the applicable steel materials specified in the above Sections and addressed herein. Terminal sections, end treatments, transitions, and transition treatments associated with guide rail and metal median barrier work; as well as mechanical splice systems, pile tip reinforcement, high load multi-rotational bearings, shear connectors, and scuppers; will not be subject to the price adjustment criteria and conditions specified herein.

To elect to have these price adjustment provisions apply to one or more of the steel product categories identified herein, when planned for incorporation into a specific project, advance notification must be submitted to the Department. The apparent low bidder is required to submit the Steel Escalation Option form attached to the proposal, via fax, to (717) 705-1504, or email to steeloptions@pa.gov by 3:00 pm prevailing local time within 7 calendar days after the bid opening. When the seventh calendar

day after the bid opening falls on a day PENNDOT offices are closed, submit the Steel Escalation Option form by 3:00 pm prevailing local time on the next business day. If a properly completed Steel Escalation Option form is not provided by the apparent low bidder within the time specified, the Department will consider the option to apply these price adjustment provisions to the project to be declined. Furthermore, if a Steel Escalation Option form, when provided within the specified time, has been completed such that the Department is unable to ascertain the bidder's intention with regard to the inclusion of any one of the applicable steel product categories, the Department will consider the option to apply these price adjustment provisions to that product category to be declined. No further opportunity to elect steel escalation for the project or an individual steel product category will be made available. In the event the apparent low bid is rejected, the next lowest bidder will be notified to submit the Steel Escalation Option form by 3:00 pm prevailing local time within 7 calendar days after notification.

The Department posts a monthly index price for steel ($ per ton) based on data obtained from the U.S. Department of Labor (USDOL), Bureau of Labor Statistics, which publishes monthly Producer Price Index (PPI) values for various commodities. The statewide index price for steel will be based on the PPI value posted by USDOL for "Semi-finished Steel Mill Products" (Series ID: WPU101702). The Department will post its monthly index price for steel after the USDOL lists the PPI value on which it is based as final.

The "base / benchmark" index price, SB, will be the steel index price posted by the Department, determined as specified above, for the month in which project letting occurred.

The "invoice" index price, SI, will be the steel index price posted by the Department, determined as specified above, for the month in which applicable steel material is invoiced.

Steel material will be considered invoiced as of the date when an invoice from the steel mill providing the necessary raw material is sent to the Contractor or to a subcontractor, fabricator, manufacturer, or supplier. The steel price adjustment provisions specified herein are not applicable to raw steel material having a mill invoice date that precedes the project letting date. On a quarterly basis, provide documentation of the invoice date for applicable steel material incorporated into the work during the prior 3-month period. Documentation is to be in the form of a tabulation that lists all material invoiced during the period, in chronological order by invoice date; the quantity invoiced; and the applicable contract item(s) and corresponding project location(s) where the invoiced quantity or portion thereof was incorporated, along with copies of supporting invoices. Have a representative of the Contractor, authorized to make such statements, certify that the information provided in the tabulation is complete and accurate and may be relied upon by the Department.

Failure to provide the required tabulation within 10 calendar days of the end of each, applicable 3-month period will result in the Department computing a price adjustment (rebate or increase) using a value for SI that results in the greatest possible price rebate or least possible price increase based on the monthly index prices posted by the Department, to date, since work on the project began.

**(b) Price Adjustment Criteria and Conditions.** The following criteria and conditions will be considered in determining a price adjustment for steel cost fluctuations.

**1. No Price Adjustment.** When the ratio SI/ SB falls within the range of 0.95 to 1.05, no price adjustment will be made for applicable steel material having an invoice date that falls within the month for which the SI index price was posted.

**2. Price Rebate.** When the ratio SI/SB is calculated to be less than 0.95, the Department will receive an automatic price rebate, for applicable steel material having an invoice date that falls within the month for which the SI index price was posted, to be determined in accordance with the following formula:

$$P.R. = (0.95 - SI / SB)\ (SB)\ (ST)$$

where:

P.R. = Price Rebate

SI = Index price for the month in which applicable steel material is invoiced.

SB = Index price for the month in which project letting occurred.

ST = Quantity (tons) of applicable steel material incorporated into the work during the applicable 3-month period.*

*Computed based on the quantity paid, under applicable contract items, on current estimates processed during the 3-month period addressed in the tabulation provided by the Contractor. Not to exceed the total tonnage of applicable steel material invoiced during the month for which the SI index price was posted, as shown on the Contractor's tabulation.

**3. Price Increase.** When the ratio SI/SB is calculated to be greater than 1.05, the Contractor will receive a price increase, for applicable steel material having an invoice date that falls within the month for which the SI index price was posted, to be determined in accordance with the following formula:

$$P.I. = (SI / SB - 1.05)(SB)(ST)$$

where:

P.I. = Price Increase

SI = Index price for the month in which applicable steel material is invoiced.

SB = Index price for the month in which project letting occurred.

ST = Quantity (tons) of applicable steel material incorporated into the work during the applicable 3-month period.*

* Computed based on the quantity paid, under applicable contract items, on current estimates processed during the 3-month period addressed in the tabulation provided by the Contractor. Not to exceed the total tonnage of applicable steel material invoiced during the month for which the SI index price was posted, as shown on the Contractor's tabulation.

**4. Equivalent Tonnage.** For applicable steel material furnished under a separate contract item, under a design-bid-build contract, or under a design-build contract the equivalent steel tonnage will be computed as indicate in the following sections.

For design-build contracts, provide an itemized breakdown of the applicable steel materials addressed herein incorporated into the work and indicate the quantity of each actually installed. Indicated quantities should be based on field measurements or take-offs from the approved plans or shop drawings and be equivalent to those used to compute payments made against the Lump Sum construction item on current estimates.

**4.a Guide Rail and Metal Median Barrier.** For applicable guide rail and metal median barrier components (i.e. rail elements, posts, and rubbing rail) furnished under separate contract items or as part of a single contract item for guide rail / metal median barrier complete in place, the equivalent steel tonnage is computed as follows:

**4.a.1 Guide Rail or Median Barrier Rail Element (Weak Post or Strong Post).**

$$\text{Steel Tonnage (ST)} = 7.84\ (Q) / 2000$$

where:

Q = Quantity (linear feet) of weak post or strong post guide rail element paid on current estimates processed during the applicable 3-month period

**4.a.2. Type 2W Posts.**

$$\text{Steel Tonnage (ST)} = 8.67\ (L)\ (Q) / 2000$$

where:

L = Length of each post (feet) as required by the Standard Drawings or as specified

Q = Quantity (each) of Type 2W posts paid on current estimates processed during the applicable 3-month period.

**4.a.3 Type 2S Posts.**

Steel Tonnage (ST) = 9.17 (L) (Q) / 2000

where:

L = Length of each post (feet) as required by the Standard Drawings or as specified

Q = Quantity (each) of Type 2S posts paid on current estimates processed during the applicable 3-month period

**4.a.4 Rubbing Rail.**

Steel Tonnage (ST) = 8.56 (Q) / 2000

where:

Q = Quantity (linear feet) of rubbing rail paid on current estimates processed during the applicable 3-month period

**4.b Reinforcement Bars.** For applicable reinforcement bars furnished under a separate contract item, as a component item associated with an alternate design structure, or as a component item associated with a design-build contract, the equivalent steel tonnage is computed as follows:

Steel Tonnage (ST) = (Q) / 2000

where:

Q = Quantity (pounds) of reinforcement bars paid on current estimates processed during the applicable 3-month period.

**4.c Piles.** For applicable steel beam bearing piles, cast-in-place concrete bearing piles, cast-in-place concrete piles, and steel pipe piles, furnished under a separate contract item, as a component item associated with an alternate design structure, or as a component item associated with a design-build contract, the equivalent tonnage is computed as follows:

**4.c.1 Steel H-Piles.**

Steel Tonnage (ST) = (UW) (Q) / 2000

where:

UW= Unit Weight of the Steel Beam* (pounds per foot)

Q = Quantity (linear feet) of steel piles paid on current estimates processed during the applicable 3-month period.

* The unit weight of steel will be the second of the two numbers associated with the size designation for the beam as cited in the item description (i.e. If the item description is "Steel Beam Bearing Piles, HP12x74", the unit weight of the steel is 74 pounds per foot).

**4.c.2 Cast-in-Place Concrete Piles.**

Steel Tonnage (ST) = 2.80 (D) (Q) / 2000

where:

D = Diameter of the steel shell (inches)*

Q = Quantity (linear feet) of cast-in-place concrete piles paid on current estimates processed during the applicable 3-month period.

* From the approved structure Plans or field measurements. For cylindrical shells of varying diameter, a weighted average diameter will be used, computed based on the number of shells of each diameter actually installed. For tapered shells, an average diameter will be used, computed as the average of the shell diameters at the butt end and at the tip.

**4.c.3 Pipe Piles.**

Steel Tonnage (ST) = 6.70 (D) (Q) / 2000

where:

D = Diameter of the steel pipe (inches)*

Q = Quantity (linear feet) of pipe piles paid on current estimates processed during the applicable 3-month period.

* From the approved structure Plans or field measurements.

**4.d Steel Sign Structure.** For applicable steel sign structures constructed under a separate contract item, the equivalent tonnage is computed as follows:

Steel Tonnage (ST) = (Q) / 2000

where:

Q = Quantity (pounds) of steel in each sign structure, or portion thereof, paid on current estimates processed during the applicable 3-month period.*

*Not to exceed the estimated weight of each sign structure as indicated on the structure Plans.

**4.e Fabricated Structural Steel.** For applicable fabricated structural steel; furnished under a separate contract item, as a component item associated with an "as-designed" or alternate design structure, or as a component item associated with a design-build contract; the equivalent tonnage is computed as follows:

Steel Tonnage (ST) = (Q) / 2000

where:

Q = Quantity (pounds) of fabricated structural steel girders, rolled beams, angle, and plate paid on current estimates processed during the applicable 3-month period.

**4.f Precast Reinforced Concrete Box Culverts and Prestressed Concrete Bridge Beams.** For applicable precast reinforced concrete box culvert segments and prestressed concrete bridge beams; furnished under a separate contract item, as a component item associated with an "as- designed" or alternate design structure, or as a component item associated with a design- build contract; the equivalent tonnage is computed as follows:

Steel Tonnage (ST) = (UW)(Q)/2000

where:

UW= Unit Weight (pounds per foot) of reinforcing steel in a box culvert segment or of reinforcing steel and prestressing strands in a prestressed bridge beam.*

Q = Quantity (linear feet) of precast reinforced concrete box culvert segments and prestressed concrete bridge beams paid on current estimates processed during the applicable 3-month period.

* Submit documentation indicating the weight (pounds) of reinforcing steel included in and the length (feet) of each box culvert segment, and the weight (pounds) of mild reinforcing steel and prestressing strands included in and the length (feet) of each prestressed bridge beam. UW will be computed as the average of the unit weight of steel (i.e. weight of steel divided by length) in each box culvert segment, or as the average of the unit weight of steel (i.e. weight of steel divided by length) in each prestressed bridge beam. Documentation must be submitted at the time required shop drawings are submitted for approval.

**5. Payment/Rebate.** The price adjustment will be paid, or rebated, upon approval of a contract adjustment to be prepared on a quarterly basis as applicable work is completed. Cumulative quarterly price adjustments amounting to less than $1,000 will be disregarded.

**6. Expiration of Contract Time.** When eligible materials are purchased after expiration of contract time and liquidated damages are chargeable, the value for SI used to compute the price adjustment will be either the index price for the month in which applicable steel material is invoiced or the index price at the time contract time expired, whichever is less.

**7. Final Quantities.** Upon completion of the work and determination of final pay quantities, a final contract adjustment may be prepared to reconcile any difference between estimated quantities previously paid and the final quantities. In this situation, the value for SI used in the price adjustment formula will be the average of all SI values previously used for computing price adjustments.

**8. Inspection of Records.** The Department, through the Office of Inspector General, reserves the right to inspect the records of the prime contractor and its subcontractors and material fabricators and suppliers to ascertain actual invoicing dates and quantity information for the steel material used in the performance of applicable items of work.

**9. Extra Work.** When applicable items of work, as specified herein, are added to the contract as Extra Work, in accordance with the provisions of Section 110.03, no price adjustment will be made for fluctuations in the cost of the steel used in manufacturing the materials placed during performance of the extra work. The current price for steel is to be used when preparing required backup data for extra work to be performed at a negotiated price. For extra work performed on a force account basis, reimbursement of actual material costs, along with the specified overhead and profit markup, will be considered to include full compensation for the current cost of steel.

## G7022A - a07022 CHANGES TO SPECIFICATION: SECTION 107

**Addendum:**

**Associated Item(s):**

**Header:**

CHANGES TO SPECIFICATIONS: SECTION 107

**Provision Body:**

**SECTION 107 - Legal Relations and Responsibility to the Public**

- Section 107.30(a)1. Revise to read as follows:

**1.** Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity, as required by Executive Order 11246 and Executive Order 11375, are set forth in Required Contract Provisions (Form FHWA-1273, except V. 2.b. revise first sentence to read as follows: the payroll records shall contain the name; an individually identifying number [e.g., the last four digits of the employee's social security number]; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid) and these requirements; imposed pursuant to 23 U.S.C. 140, as established by Section 22 of the Federal-Aid Highway Act of 1968. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-43 and the provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. The requirements set forth herein constitute the specific affirmative action

requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.

## G7037D - a07037 CHANGES TO SPECIFICATIONS: SECTIONS 106, 108, 514, 515, 516, 676, AND 1107

**Addendum:**

**Associated Item(s):**

**Header:**

Changes to Specifications: Sections 106, 108, 514, 515, 516, 676, and 1107

**Provision Body:**

**SECTION 106—CONTROL OF MATERIAL**

- **Section 106.01 General.Revise to read as follows:**

**106.01 GENERAL**—Use material complying with the requirements of these specifications. At the pre-construction conference, submit a list of material to be sampled and tested by the Contractor and a list of material to be sampled and tested by the Department.

Comply with the provisions of the Pennsylvania Trade Practices Act, 71 P.S. Section 773.101, et seq., concerning the purchase of aluminum and steel products produced in a foreign country. On Federal-Aid projects, also comply with the provisions specified in Section 106.10.

Comply with the provisions of the Steel Products Procurement Act, 73 P.S. Section 1881, et seq. in the performance of the contract or any subcontract.

Following contract execution, furnish to the Department a complete statement of the project construction material's origin, composition, and manufacture.

For Fabricated Structural Steel materials, as identified in Section 1105.01(a) and inspected in accordance with Section 1105.01(e), and any other fabricated aluminum, precast or prestressed concrete products inspected during manufacturing, stamped and approved for shipment by the Department's Representative, furnish Form CS-4171 to the Inspector-in-Charge. Certified mill test reports for any steel included will be reviewed by the Department's Inspector and retained by the fabricator.

For all other steel products or products containing steel that will serve a permanent functional use in the project, provide the Inspector-in-Charge the following when the product is delivered to the project site:

- For any "identifiable" steel products, certification that Section 4 of the Steel Products Procurement Act, 73 P.S. Section 1884, has been complied with.Identifiable steel products are steel products which contain permanent markings which indicate the material was both melted and manufactured in the United States.
- For all other "unidentifiable" steel products, documentation such as invoices, bills of lading, and mill certification that positively identify that the steel was melted and manufactured in the United States.

The provisions of the Steel Products Procurement Act will not be waived unless the Secretary has determined, under authority granted in Section 4(b) of the act, that a certain steel product or products is not produced in the United States in sufficient quantities to meet contract requirements. Such a determination will be set forth in a proposal for the Department's review and response. Include with the proposal a comprehensive list of sources, including names and contact information, for verification. The Secretary does not have the authority to waive the provisions specified in Section 106.10.

Steel products are defined as products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated, otherwise similarly processed, or processed by a combination of two or more of these operations from steel made in the United States by the open hearth, basic oxygen, electric furnace, Bessemer, or any other steel - producing process. Included are cast iron products and machinery and equipment as listed in United States Department of Commerce Standard Industrial Classification 25, 35, and 37 and made of, fabricated from, or containing steel components. If a product, as delivered to the project, contains both foreign and United States steel, such product is considered to be a United States steel product only if at least 75% of the cost of the articles, materials, and supplies have been mined, produced, or manufactured, as the case may be, in the United States. On Federal - Aid projects, comply with the provisions specified in Section 106.10.

No payment will be made on the contract if unidentified steel products are supplied, until the hereinbefore requirements are met.

Any payments made that should not have been made may be recoverable from a manufacturer or supplier as well as from a contractor or subcontractor.

Any person who willfully violates the Steel Products Procurement Act will be prohibited from submitting bids for any contract for a period of 5 years from the date of determination that a violation has occurred. If a subcontractor, manufacturer or supplier, violates the Steel Products Procurement Act, such person will be prohibited from performing any work or supplying any materials to the Department for a period of 5 years from the date of determination that a violation has occurred.

If steel products are used as a construction tool or appurtenance and will not serve a permanent functional use in the project, compliance with the Steel Products Procurement Act is not required.

When standard manufactured items are specified and these items are identified by unit mass (unit weight), section dimensions, or similar characteristics, their identification will be considered to be nominal masses (weights) or dimensions. Unless more stringently controlled by specified tolerances, industry established manufacturing tolerances will be accepted.

**SECTION 108—PERFORMANCE AND PROGRESS**

- **Section 108.07(a) Construction Engineering Liquidated Damages. Revise to read as follows:**

**(a) Construction Engineering Liquidated Damages** . For each day that any physical work remains uncompleted after the Required Completion Date, the sum per day specified in the following schedule, unless otherwise stated in the proposal, will be deducted from money due or to become due. This deduction will not be as a penalty, but as Construction Engineering Liquidated Damages.

| **Original Contract Amount** | | Schedule of Daily Charges For Construction Engineering Liquidated Damages |
|---|---|---|
| From More Than | To and Including | Per Calendar Day |
| $ 0 | $ 400,000 | $ 825 |
| 400,000 | 1,000,000 | 1,535 |
| 1,000,000 | 5,000,000 | 2,085 |
| 5,000,000 | 10,000,000 | 3,280 |
| 10,000,000 | 15,000,000 | 4,285 |
| 15,000,000 | | 5,660 |

In the event the Contractor is declared in default, as specified in Section 108.08, Construction Engineering Liquidated Damages will be charged as provided by this section. If the total amount chargeable as Construction Engineering Liquidated Damages exceeds the amount payable to the Contractor or the surety, the excess is to be paid to the State by the Contractor or the surety.

**SECTION 514—DIAMOND GRINDING OF CONCRETE PAVEMENT**

- **SECTION 514.3(e) Concrete Pavement Rehabilitation. Revise to read as follows:**

**(e) Concrete Pavement Rehabilitation.** Concrete pavement repairs including concrete pavement patching, concrete spall repair, dowel retrofit, slab stabilization, and slab jacking must be completed before the start of any diamond grinding operations.

After completing the concrete rehabilitation operation, determine the ride quality of the existing pavement in accordance with Section 507.3(a) and Section 507.3(b), before performing any diamond grinding. After completing the diamond grinding operations, reevaluate the ride quality of the pavement surface according to Section 507.3(a) and Section 507.3(b). Use the same pavement surface profile measuring equipment to perform all ride quality evaluations on the project.

After diamond grinding the pavement surface, provide a maximum IRI of 70 in/mile for facilities where posted speed limits are greater than 45 miles per hour, and a maximum IRI of 90 in/mile for facilities where posted speed limits are less than or equal to 45 miles per hour. Meet these requirements in all IRI lots where diamond grinding of the pavement was performed to receive payment.

**1. Lots.** A full lot is 528 feet of a single lane. The Representative will designate lots starting at the beginning ride quality limit and continuing to the ending ride quality limit for each pavement lane and ramp that is 12 feet or wider. Do not include the length of excluded areas in the 528 feet. Excluded areas will consist of; bridge decks, ramps less than 1,500 feet,in length, tapered pavements less than 12 feet wide, partial lots less than 100 feet in length, shoulders, medians, and other pavement surfaces as indicated.

**SECTION 515—SAWING AND SEALING OF BITUMINOUS OVERLAYS**

- **SECTION 515.3(b) Sawing. Revise to read as follows:**

**(b) Sawing.** Make all saw-cuts directly above the existing transverse joints within ± 1 inch. Saw-cuts which do not meet this tolerance will be declared defective as outlined in Section 105.12. Do not saw cut until the bituminous course has cooled below 140F. Perform saw cutting within 7 days after placing the wearing course. Perform this work on all finished overlay areas before discontinuing work due to seasonal paving limitations.

Make saw-cuts only in the lane in which the existing joint is located. Extend the saw-cuts through any existing widening. Provide separate saw-cuts in each lane if existing transverse joints are offset more than 1 inch.

Use the following table to determine saw-cut reservoir size:

| **Overlay Thickness** | **Reservoir** |
|---|---|
| **inches** | **inches** |
| ≤1 1/2 | 1/2 deep by 1/2 wide |
| >1 1/2 | 1 deep by 1/2 wide |

Additionally, if the total depth of overlay is 3 1/2 inches or greater, make an initial saw-cut 1/8 inch wide to a depth of 1 1/2 inches or one-third of the total overlay thickness, whichever is greater. Indicated overlay depths do not include scratch or leveling courses less than 1 inch.

If wet sawing, immediately flush the reservoir with water.

If not placing the wearing course within the same construction season, provide a 1/8- inch wide saw- cut in the last placed bituminous course to a minimum depth of 1 inch or one-third the thickness of the bituminous material placed, whichever is greater.

**SECTION 516—CONCRETE PAVEMENT PATCHING**

- **SECTION 516—Description. Revise to read as follows:**

**516.1 DESCRIPTION—**This work is the construction of single course, full depth, normal strength or accelerated strength, cement concrete pavement patches. Do not patch less than one lane width. If diamond grinding is to be performed, test the pavement surface in the longitudinal direction as specified in Section 514.3(d)2.

**(a) Patching Joint.** Provide full depth saw- cuts at the existing pavement/ patch interface, install load transfer dowels in the transverse faces of the existing pavement, construct a sealant reservoir, and seal the joint.

**(b) New Pavement Joint.** Provide load transfer unit, construct sealant reservoir, and seal the joint.

**(c) Normal and Accelerated Concrete Pavement Patching, Type A.** Construct patches between 6 feet and 20 feet long.

**(d) Normal and Accelerated Concrete Pavement Patching, Type B.** Construct patches between 20.1 feet and 65 feet long.

**(e) Normal and Accelerated Concrete Pavement Patching, Type C.** Construct patches between 65.1 feet and 500 feet long.

- **Section 516.2(a) – Cement Concrete—Class AA. Revise to read as follows:**

**(a) Cement Concrete—Class AA.** Section 704

- **Section 516.2(g) Concrete Curing Materials. Revise to read as follows:**

**(g) Concrete Curing Materials.** For normal strength concrete, use Section 711.1 (a), (b), (c), (d), and (e); or Section 711.2 (a), Type 2.

For accelerated strength concrete, use Section 711.1(b) and Section 711.2(a), Type 2, or 711.2(b).

- **Section 516.2(j) Tape Bond Breaker. Revise to read as follows:**

**(j) Tape Bond Breaker.** An approved self adhesive tape.

- **Section 516.2(k) Anchor Material. Revise to read as follows:**

**(k) Anchor Material.** An approved adhesive anchoring material listed in Bulletin 15.

- **Section 516.3(a) General. Revise to read as follows:**

**(a) General.** Prepare a QC Plan as specified in Section 106.03(a)2.a and submit it for review. The QC Plan must describe appropriate action points for all phases of construction, including concrete mixing and curing, joint sawing and sealing, and sampling and testing for opening to traffic. If patching adjacent lanes, construct concrete pavement patches one lane at a time where two lane width construction would interfere with traffic. The Representative will surface mark patch areas in advance of the sawing operations.

Protect traffic from drop off conditions as specified in Section 901.3(j). Do not allow excavated patch areas to remain un-patched for more than 2 calendar days or over weekends or holidays.

If it rains while the patch area is open, excavate an outlet through the shoulder at the lowest point of the patch as directed. Repair any damage to the existing shoulders as a result of this work, at no expense to the Department. After saw cutting the existing pavement, allow traffic on patch areas of existing pavement for a maximum of 72 hours. Do not allow saw cuts in excess of 1/2 inch in width to be opened to traffic.

For normal strength patches, do not place concrete if the air temperature falls below 40F. For accelerated strength patches, do not place concrete if the air temperature falls below 45F. Before placing concrete, ensure adequate equipment and trained personnel are available, and sufficient hauling units scheduled, to maintain continuity in placement.

- **Section 516.3(b) Saw Cutting. Revise to read as follows:**

**(b) Saw Cutting.** Use a saw equipped with a diamond-tipped blade, a blade guard, alignment guides, water cooling system, and cut-depth controls for saw cutting the perimeter of the patch. Do not allow cooling water, slurry, and dust from the sawing operation to enter any lane opened to traffic. Make all required full depth longitudinal saw cuts along the perimeter of the patch prior to making any full depth transverse saw cuts.

Where only one lane is being patched, make a full depth saw-cut in the existing longitudinal joint for the full length of the patch. Where multiple lanes are being patched one lane at a time, perform one of the following:

- Make a full depth saw-cut within the adjacent lane to be patched. Make the saw-cut parallel and not more than 1 foot from the existing longitudinal joint. Form the patch joint in the same location as the existing longitudinal joint and backfill behind the forms with aggregate at no additional cost to the Department.

- Make a full depth saw-cut in the existing longitudinal joint for the length of the patch and insert a temporary rigid separator between the adjacent lane and the patch area. Do not use a temporary rigid separator greater than 1/8 inch thick.

Make full depth transverse saw-cuts at the locations marked on the pavement surface. Do not break back the underside of the existing pavement. If break back or spalling occurs, make a new full depth transverse saw-cut beyond the area of break back or spalling. Place the additional length of patch at no expense to the Department. If break back or spalling occurs in the adjacent lane, repair the damaged area at a minimum with a full depth Type A concrete patch at no additional expense to the Department. Full depth saw cuts at the patch limits will be allowed to extend transversely into the adjacent pavement up to full depth + 2 inches provided dowel bars in the adjacent lane are not damaged. Additional full depth transverse saw cuts will be allowed to facilitate slab removal but may not extend transversely into the adjacent pavement to remain in place.

- **Section 516.3(c) Removal of Existing Pavement. Revise to read as follows:**

**(c) Removal of Existing Pavement.** Remove concrete between narrowly spaced saw-cuts at the end of a proposed patch area in a manner that does not damage any adjacent pavement that is to remain in place.

As an alternate, a wheel saw having carbide steel tips may be used before making the full depth transverse saw-cuts necessary for the patching joint. Limit penetration of the wheel to minimize disturbance to the subbase. Do not allow wheel saws with carbide steel tips to cut into pavement that is to remain in place. Discontinue using a wheel saw if unsatisfactory results are obtained as determined by the Representative.

Remove the concrete in the patch area in one or more pieces minimizing disturbance to the subbase, subgrade, and the adjacent pavement to remain in place. Do not use drop hammers or hydro hammers. If damage occurs to pavement to remain in place, repair as specified in Section 516.3(b) at no additional cost to the Department.

If the surface of the subbase is disturbed by the removal technique, recompact the surface using small vibratory compactors. If the disturbed material is deeper than 1 inch, remove the disturbed material with hand tools and replace with concrete during paving at no expense to the Department.

Correct all subbase surface irregularities exceeding 1 inch in depth by loosening the surface and removing or adding material as required. Compact the corrected area and surrounding surface by rolling to proper grade and slope.

- **Section 516.3(j) Curing of Concrete. Revise to read as follows:**

**(j) Curing of Concrete.** For normal strength patches, immediately after finishing operations have been completed, cover and cure the patch surface as specified in Section 501.3(l).

For accelerated patches, cure concrete as specified in Section 501.3(l)1.b or using approved curing insulation materials. Apply white membrane-forming curing compound as specified in Section 501.3(l)1.c. The Contractor may use black membrane-forming curing compound provided the patch area will not be accessible to traffic before placement of a surface course. Discontinue use of black membrane-forming curing compound if it performs unsatisfactorily as a curing agent, and resume curing by other methods as specified. Cure test cylinders under the same conditions as the concrete pavement patch. Provide insulation or heating of patches if the ambient temperature drops below 80F during the curing operation. Control the curing temperature and monitor at least hourly to ensure that the concrete pavement patch does not experience a curing temperature change in excess 40F within any 1-hour period during the curing operation. If a change in curing temperature in excess of 40F occurs in the concrete pavement patch within any 1-hour period, the work will be considered defective.

- **Section 516.3(m) Longitudinal Joints. Revise to read as follows:**

(**m) Longitudinal Joints.** In two lane width patching being performed at the same time, construct a Type L joint as shown on the Standard Drawings.

In two lane patching being performed one lane at a time, or one lane patching, provide a 1/4-inch, full depth, polystyrene board bond breaker in the longitudinal joint of Type A and B patches. Do not provide a bond breaker in the longitudinal joint of Type C patches. Provide tiebars in all Type C patches. For all patch types, saw cut the longitudinal joint 1/4 inch wide and 1 inch deep. Center the saw-cut over the joint.

- **Section 516.3(n) Sealing. Revise to read as follows:**

**(n) Sealing.** Seal all longitudinal and transverse joints constructed as part of this work, as specified in Section 501.3(n).

Seal all saw-cuts extending beyond the patch limits.

- **Section 516.3(q) Opening to Traffic. Revise to read as follows:**

**(q) Opening to Traffic.** For normal strength patches, do not open the repaired area to traffic until the concrete has obtained a minimum compressive strength of 3,000 pounds per square inch, when tested according to PTM No. 604.

For accelerated strength patches, obtain samples of plastic concrete, for compressive strength testing for opening to traffic, from each 100 cubic yards or fraction thereof of the day's placement, and, unless otherwise required, from the last mixer load of the

day, according to the approved QC Plan. Sample locations will be selected according to PTM No. 1. Test concrete for compressive strength according to PTM No. 604, at the time of opening to traffic but no later than 7 hours after the test specimens were molded. Concrete lots that have not attained a minimum compressive strength of 1,200 pounds per square inch at the time of opening to traffic will be considered defective work.

**SECTION 676—CEMENT CONCRETE SIDEWALKS**

- **Section 676.3(h) Curb Ramps.Revise to read as follows.**

**(h)Curb Ramps**. As required and where indicated, construct cement concrete sidewalk for curb ramp configurations as indicated on Standard Drawing RC 67M except for the detectable warning surface located at the bottom of each ramp. Construct the detectable warning surface as specified in Section 695.

Create a slip-resistant textured surface for the full width and length of the curb ramp and any side-flares excluding the detectable warning surface. Use a coarse, stiff-toothed broom to create a textured pattern that is worked perpendicular to the slopes of the curb ramp.

Shape rounded edges instead of sharp angled edges while the concrete is still plastic for all slope changes of the curb ramp especially where the top of the curb ramp meets adjacent sidewalk surfaces.

Embed detectable warning surface in fresh, wet concrete at the proper location for the curb ramp before the wet concrete has set.

**SECTION 1107—PRESTRESSED CONCRETE BRIDGE BEAMS**

- **Section 1107.03(d)5.b. Air Content. Revise to read as follows:**

**5.b Air Content.** Provide an air content of 6% ± 1.5% for traditional mixes and 7% ± 2% for self consolidating (SCC) mixes. The air content requirement may be waived if the mix meets the following additional qualification tests before production:

- Rapid Chloride Permeability, AASHTO T277: 1500 coulombs at 56-days
- Freeze Thaw Resistance, ASTM C666, Procedure A or B: Minimum durability factor of 90 at 300 cycles.

## G7038B - a07038 Changes to Specifications: Sections 101, 103, 110, 419, 695, 930, 931, 932, 934, 935, 938,

**Addendum:**

**Associated Item(s):**

**Header:**

a07038 Changes to Specifications: Sections 101, 103, 110, 419, 695, 930, 931, 932, 934, 935, 938, 1012, 1015, and 1103

**Provision Body:**

**SECTION 101—ABBREVIATIONS AND DEFINITIONS OF TERMS**

- **Section 101.03 DEFINITIONS.Revise to include the following:**

**MAJOR ITEM OF WORK**—Any item having a unit of measure of other than Lump Sum, Call, Dollar, or Predetermined Amount (PDA).

**SECTION 103—AWARD AND EXECUTION OF CONTRACT**

- **Section 103.03 Cancellation of Award.Revise to read as follows:**

**103.03CANCELLATION OF AWARD**—The Secretary reserves the right to cancel the award of any contract at any time before its approval by the Chief Counsel, the General Counsel, and/or the Attorney General, or their designees, when such cancellation is in the best interests of the State. In the event of such cancellation, payment will be made for the documented costs of insurance and surety bonds required under Sections 103.04 and 103.05, and the documented cost of actual expenses reasonably incurred in accordance with a Letter of Intent, when specified and issued by the Deputy Secretary for Highway Administration.No payment will be made for damages of any other kind including, but not limited to, lost profits.

- **Section 103.07 Cancellation of Contract.Revise to read as follows:**

**103.07 CANCELLATION OF CONTRACT**—The contract may be canceled by either party if the Notice to Proceed is not issued on or before the Anticipated Notice to Proceed Date specified in the bid package or within 30 days of the Award of the contract, whichever is later. Extension(s) of the cancellation period will be made only by mutual written consent of the parties to the contract provided such written consent is given before the expiration of the cancellation period. Prices will not be renegotiated. The Secretary also reserves the right to cancel the contract any time before the actual Notice to Proceed Date. If the contract is canceled, payment will be made for the documented costs of insurance and surety bonds required under Sections 103.04 and 103.05, and the documented cost of actual expenses reasonably incurred in accordance with a Letter of Intent, when specified and issued by the Deputy Secretary for Highway Administration. No payment will be made for damages of any other kind including, but not limited to, lost profits.

**SECTION 110—PAYMENT**

- **Section 110.02(d) Required Changes in the Scope of Work.Revise to read as follows:**

**(d)Required Changes in the Scope of Work.**The Department reserves the right to make, in writing, at any time, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations in the work will neither invalidate the contract or release the surety, and the Contractor agrees to perform the work as changed or altered.

If alterations in the work or changes in quantities do not significantly change the character of the work to be performed under the contract, the work will be paid for at the original contract unit price.

If alterations in the work or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding loss of anticipated profits, will be made as specified in Section 110.03. The basis for the adjustment will be agreed upon before the performance of the work. If a basis cannot be agreed upon, the work will be paid for as extra work as specified in Section 110.03.

The term “significant change in character” applies only to the following circumstances:

- If the work as altered differs materially in kind or nature from that involved or included in the original proposed construction, or
- If any major item of work as defined in Section 101 is increased to in excess of 125% or decreased to below 75% of the original contract quantity. Any allowance for an increase in quantity applies only to that portion in excess of 125% of the original contract item quantity or, in case of a decrease below 75%, to the actual quantity of work performed.

When a contract item experiences a significant change in character as a result of a decrease to below 75% of the original contract quantity, the actual quantity of work performed may be paid at an adjusted price, as agreed upon with the Contractor and as approved; however, total compensation will not exceed the contract item’s original value. Item value is defined as the original contract quantity multiplied by the contract unit price.

**SECTION 419—STONE MATRIX ASPHALT MIXTURE DESIGN, RPS CONSTRUCTION OF PLANT-MIXED HMA WEARING COURSES**

- **Section 419.2(d) Stabilizer.Revise to read as follows:**

**(d) Stabilizer.** Provide mineral fiber, cellulose fiber, or crumb rubber (CR) stabilizers conforming to the requirements below and added at a rate specified in Table B.Use the dosage rate prescribed in the JMF.

**1.Requirements for All Fiber Types.** Fibers must prevent draindown in the mixture according to the tolerances in Table B.Use a fiber of the type and properties appropriate to the plant's metering and delivery system.

**2.Cellulose Fibers.** Fibers must be of sufficient quality to prevent mixture draindown.

**3.Cellulose Pellets.** Use cellulose fiber stabilizing additive in pellet form that disperses sufficiently at mixing temperature to blend uniformly into the asphalt mixture.Use pellets that do not exceed 6 mm (0.25 inch) average diameter.Pellets may contain binder ingredients such as asphalt cement, wax, or polymer.Do not use pellets if the binder ingredient exceeds 20.0% of the total mass (weight) of the pellets.Use binder that produces no measurable effect on the properties of the asphalt cement.Do not use fiber pellets which soften or clump together when stored at temperatures up to 50 °C (122F).

Note: If the binder material constitutes more than 3% of the pellet mass (weight), base the dosage rate on the net fiber content.

**4.Mineral Fibers.**Use mineral fibers made from virgin basalt, diabase, slag, or other silicate rock.Use an approved mineral fiber meeting the following requirements for shot content, as tested according to ASTM C 612.

| **Sieve** | **Percent Passing** |
|---|---|
| 250 µm (No. 60) | 85 - 95 |
| 63 µm (No. 230) | 60 - 80 |

**5.Crumb Rubber (CR).** Use CR derived from the processing of recycled tires.Rubber tire buffings produced by the retreading process qualify as a source of CR.Furnish processed, free flowing CR from a manufacturer listed in Bulletin 15, certified as specified in Section 106.03(b)3.

**5.aGradation.**Meet the following gradation as determined according to ASTM D 5461 using 200 mm diameter sized sieves and maintaining a maximum allowable loss after sieve analysis of 7.65%.As an alternative dry sieve analysis test method, perform the sieve analysis of the CR according to Florida Test Method, FM 5-559.

| **CR Gradation** | |
|---|---|
| **Sieve Size** | **Percent Passing** |
| 4.75 mm (No. 200) | 100 |
| 2.36 mm | 98 - 100 |
| 75 µm (No. 200) | 0 - 3 |

**5.b Contaminants.** Provide CR relatively free from fabric, wire, cord, and other contaminating materials to a maximum total contaminant content of 2.5% (maximum of 1.0% iron, 1.0% fiber, and 0.5% other contaminants by mass (weight) of total CR sample components).

Remove rubber particles from the fiber balls before weighing.Determine the metal content by thoroughly passing a magnet through a 50 ± g (1.76 ± 0.004 ounces) sample.Determine fiber content by weighing fiber balls, which are formed during the gradation test procedure.

- **Section 419.2(d) Table B.Revise to read as follows:**

**TABLE B**

**Mix Design Requirements for SMA Mixtures**

| **AGGREGATE GRADATION REQUIREMENTS, PERCENT PASSING** | | |
|---|---|---|
| **Sieve Size** | **9.5-mm Mixture** | **12.5-mm Mixture** |
| 19.0 mm (3/4 inch) | - | 100 |
| 12.5 mm (1/2 inch) | 100 | 90 – 99 |
| 9.5 mm (3/8 inch) | 75 – 95 | 70 – 85 |
| 4.75 (No. 4) | 30 – 50 | 28 – 40 |
| 2.36 mm (No. 8) | 20 – 30 | 20 – 30 |
| 1.18 mm (No. 16) | - | - |
| 600 mm (No. 30) | - | - |
| 300 mm (No. 50) | - | - |
| 150 mm (No. 100) | - | - |
| 75 mm (No. 200) | 8 – 13 | 8 – 11 |
| **VOLUMETRIC DESIGN REQUIREMENTS** | | |
| **Design Gyrations ($N_{design}$)** | 100 | |
| **Voids in Mineral Aggregate** | 18.0 % Minimum | |
| **Voids in Course Aggregate (VCA)** | $VCA_{mix} < VCA_{dry\ rodded}$ | |
| **Design air voids** | 3.5 - 4.0 % | |
| **Minimum asphalt binder content** | Table C | |
| **Binder grade** | PG 76-22 | |
| **Stabilizer content** | Cellulose:0.2 to 0.4 % by total mix mass (weight) | |

| | |
|---|---|
| | Mineral:0.3 to 0.4 % by total mix mass (weight)<br>CR:0.3 to 1 % by total mix mass (weight) |
| **Draindown** | 0.3 % maximum |

- **Section 419.3(l) Joints.Revise to read as follows:**

**(l)Joints.**Section 409.3(k).

**SECTION 695—DETECTABLE WARNING SURFACE**

- **Section 695.2(a) Detectable Warning Surface (DWS).Revise to read as follows:**

**(a) Detectable Warning Surface (DWS).** Provide a DWS product from a manufacturer listed in Bulletin 15 and meeting the requirements of the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG). Provide certification as specified in Section 106.03(b)3 that the DWS meets the following PROWAG criteria:

- **General**.Detectable warning surface with the surface comprised of truncated domes.Dome size and spacing as specified and as indicated on Standard Drawing, RC-67M.
- **Surface**.Slip resistant.
- **Contrast**.Provide a DWS color, as approved by the Representative, that contrasts visually with adjacent walking surfaces either light-on-dark or dark-on-light.

**SECTION 930—POST MOUNTED SIGNS, TYPE A**

- **SECTION 930.2(a) Extruded Aluminum Channel Signs, Posts, and Miscellaneous Material.Revise to read as follows:**

**(a) Extruded Aluminum Channel Signs, Posts, and Miscellaneous Material.**

- Extruded Aluminum Channel Signs—Section 1103.02
- Steel S or W Beam Posts and Breakaway System—Section 1103.07
- Galvanized Steel Hex Head Bolts, Nuts, Lock-Washers; Aluminum Post-Clips, Auxiliary Supports for Exit Panels, 1/8-inch Rivets—Section 1103.11

- **SECTION 930.3(h) Erection.Revise to read as follows:**

**(h) Erection.** Install nuts on post clips with a torque wrench for extruded aluminum channels. Apply 225 inch-pounds of torque to each galvanized nut with the threads dry, clean, and unlubricated.

Attach the sign to posts with twist-in toggle and buckle straps or stainless steel post-clips for flat sheet aluminum. Apply 225 inch-pounds of torque to each stainless steel nut with the threads dry, clean, and unlubricated.

Clean signs after erection, removing any accumulation of oil, grease, dirt, or foreign material.

Brace the panel with one or more auxiliary supports if exit panels cannot be supported by two sign posts.

**SECTION 931—POST MOUNTED SIGNS, TYPE B**

- **SECTION 931.2 MATERIAL. Revise to read as follows:**

**931.2MATERIAL**—As shown on the Standard Drawings and as follows:

- Flat Sheet Signs—Section 1103.04
- Breakaway Steel Posts—From a manufacturer listed in Bulletin 15, and as specified in Section 1103.08.
- Anti-Theft Hardware—Section 1103.11, System A
- Packaged Dry Concrete—Section 624.2(b)

**SECTION 932—POST MOUNTED SIGNS, TYPE C**

- **SECTION 932.2(a) Signs, Posts, Supports, and Miscellaneous Material.Revise to read as follows:**

**(a)Signs, Posts, Supports, and Miscellaneous Material.**

- Flat Sheet Signs—Section 1103.04
- Treated Wood Posts—Section 1103.09
- Anti-Theft Hardware—Section 1103.11, System A
- Lag Screws—Section 1103.11(d)
- Shims and Bars—Section 1105.02(a)2
- Brackets—Section 1105.02(f)2

**SECTION 934—POST MOUNTED SIGNS, TYPE E**

- **SECTION 934.2(a) Extruded Aluminum Channel Signs, Posts, Supports, and Miscellaneous Material.Revise to read as follows:**

**(a)Extruded Aluminum Channel Signs, Posts, Supports, and Miscellaneous Material.**

- Extruded Aluminum Channel Signs—Section 1103.02
- Treated Wood Posts—Section 1103.09(a)
- Composite Posts—Section 1103.09(b)
- Galvanized Steel Hex Head Bolts, Nuts, Lock-Washers; Aluminum Post-Clips, Auxiliary Supports for Exit Panels, Rivets—Section 1103.11
- Angles (Supports)—Section 1103.12(g)
- Shim Bars and Plates (Supports)—Section 1105.02(a)2

- **SECTION 934.2(b) Flat Sheet Aluminum Signs with Stiffeners, Posts, and Miscellaneous Material.Revise to read as follows:**

**(b)Flat Sheet Aluminum Signs with Stiffeners, Posts, and Miscellaneous Material.**

- Flat Sheet Aluminum Signs with Stiffeners—Section 1103.03
- Treated Wood Posts—Section 1103.09(a)
- Composite Posts—Section 1103.09(b)
- Rivets—Section 1103.11(e)
- Stainless Steel Bolts, Nuts, Washers, Post-Clips; Twist-In Toggles and Buckle Straps; Butting Plates; Auxiliary Supports for Exit Panels—Section 1103.11
- Angles (Support)—Section 1103.12(g)
- Shim Bars and Plates (Supports)—Section 1105.02(a)2

**SECTION 935—POST MOUNTED SIGNS, TYPE F**

- **SECTION 935.2 MATERIAL.Revise to read as follows:**

**935.2MATERIAL**—As shown on the Standard Drawing for the corresponding type post and as follows:

- Flat Sheet Signs—Section 1103.04
- Brackets and Bars (Supports)—Section 1103.12
- Extruded Aluminum Channel Signs—Section 1103.02
- Flat Sheet Aluminum Signs with Stiffeners—Section 1103.03
- Galvanized Steel Hex Head Bolts, Nuts, Lock-Washers; Aluminum Post-Clips; Lag Screws; Rivets; Anti-Theft Sign Hardware (System A)—Section 1103.11

**SECTION 938—DISTANCE MARKERS**

- **SECTION 938.2 MATERIAL.Revise to read as follows:**

**938.2MATERIAL**—As shown on the Standard Drawings and as follows:

- Aluminum Blanks—Section 1103.04(a)
- Breakaway Steel Posts—Section 1103.08
- Anti - Theft Hardware—Section 1103.11(j)
- Brackets, Bars, Clamps, Straps and Gussett Plates (Supports)—Section 1103.12(i)

**SECTION 1012—PEDESTRIAN RAILING**

- **SECTION 1012.2(a) Railing.Revise to read as follows:**

**(a)Railing.**

- Aluminum-Alloy Casting—ASTM B 26/B 26M, Alloy SG70A-T6 or ASTM B 108, Alloy SG70A-T6.
- Aluminum-Alloy Bolts—ASTM B 211/B 211M, Alloy 2024-T4.
- Aluminum-Alloy Nuts—ASTM B 211/B 211M, Alloy 6061-T6.
- Nylon Washers—Section 1103.11(j)2
- Bolt Heads—Regular hexagon, ANSI B18.2.3.5M (ANSI B18.2).
- Nuts. Finished hexagon, ANSI B18.2.4.6M (ANSI B18.2)—Threads, Class 6, 6g, or 6H (Threads, Class 2, 2A, or 2B).
- Aluminum Alloy Balusters – ASTM B 221/B 221M, Alloy 6061-T4.
- Post assembly and panel to post aluminum washers – ASTM B209, Alloy 2024-T3.
- Cast Aluminum Post Base – ASTM B 26/B 26M, Alloy SG70A-T6 or ASTM B 108/ B 108M, Alloy SG70A-T6.
- Other Aluminum Alloys—Section 1013.2(a)

Certify as specified in Section 106.03(b)3.

**SECTION 1015—PROTECTIVE BARRIER**

- **SECTION 1015.2(a) Barrier.Revise to read as follows:**

**(a)Barrier.**

- Aluminum-Alloy Extruded Section—ASTM B 221/B 221M, Alloy 6061-T6 or 6351-T5.
- Aluminum-Alloy Sheet and Plate—Alloy 6061-T6
- Aluminum-Alloy Bolts— ASTM B 211, Alloy 2024-T6 or 6061-T6
- Aluminum-Alloy Nuts—ASTM B 211/B 211M, Alloy 6061-T6.
- Nylon Washers—Section 1103.11(j)2
- Bolt Heads—Regular hexagon. ANSI B18.2.3.5M (B18.2)
- Nuts—Finished hexagon, ANSI B18.2.4.6M (B18.2) Thread, Class 6, 6g, or 6H (2, 2A, or 2B)
- Other Aluminum Alloys—Section 1013.02(a)

Certify as specified in Section 106.03(b)3.

**SECTION 1103—TRAFFIC SIGNING AND MARKING**

- **SECTION 1103.11 MISCELLANEOUS MATERIALS.Revise to read as follows:**

**1103.11MISCELLANEOUS MATERIALS—**

(a) **Hex Head Bolts, Nuts, and Washers for Extruded Panel Sign Post-Clips.**Galvanized steel as specified in Section 1105.02 (s):

**1. Hex Head Bolts.**ASTM A307, Grade A or B.

**2.Nut.**ASTM A563 DH or ASTM A194 Grade 1 or 2.

**3.Washer.**Carbon steel helical coil or ASTM F436 or ASTM F844 (Note 1)

**Note 1:**If either ASTM F436 or ASTM F844 flat washers are used, bolt must be fastened either using two nuts or a single nut with the threads galled adjacent to the nut to prevent loosening.

**(b)Post - Clips.**For extruded panel signs, aluminum, conforming to ASTM B 108, Alloy 356-T6. For flat sheet aluminum signs with stiffeners, stainless steel, Type 304, 14 gage.

**(c) Auxiliary Supports for Exit Panels.** Aluminum conforming to ASTM B 211/B 211M, Alloy 6061-T6. 3 inches by 3 inches by 3/16-inch angle, 6 1/2 feet long or long enough to attach to three stiffeners on the main sign.

**(d) Lag Screws.** 5/16-inch round head, galvanized steel as specified in Section 1105.02(s); ASTM A 307.

**(e) Rivets.** Aluminum, self-plugging or hollow-core, as follows:

- 3/16-inch for mounting reflective units and distance plaques—Alloy 5056 with 7178 mandrels.
- 3/16-inch for mounting flat aluminum sheets to stiffeners sections— Alloy 5056 with carbon steel mandrels.

Rivet size specified is the minimum shank diameter. Use rivets with sufficient grip range to attach to background sign material, stiffeners, or posts. Use a No. 10 drill for 3/16-inch rivets for attachment of stiffeners and splice bars.

**(f) Bolts, Nuts, and Washers for Flat Sheet Aluminum Signs with Stiffeners.** Stainless steel, Type 304 bolts. Use 5/16-inch by 1 inch long for butting plates and 5/16-inch by 2 inches long for post-clips. Use standard connection bolts or twist-in bolts.

**(g) Twist-in Toggle and Buckle Straps.** Stainless steel, Type 201, and 0.75 inch wide and 0.03 inch thick, with rounded edges. Spot welded, twist-in type toggle on end of strap. Spot welded, antirotational buckle on other end of strap. Toggles and buckles shall be stainless steel, Type 304, and 1/16 inch thick.

**(h) Butting Plates.** Fabricate from stainless steel, Type 304.

**(i) Anchors.** Section 1105.02(c)2. From a manufacturer listed in Bulletin 15.

**(j) Anti-Theft Sign Hardware.**

**1. System A.**

- **Bolts.** Section 1105.02(c)1 and as follows:

  Provide 5/16 inch by 2 1/2-inch steel carriage bolts with minimum 1711/16-inch diameter round head, square neck, and threads to within 1 inch of head.

  Furnish bolts having a mechanically deposited cadmium coating, ASTM B 696, or zinc, Type I coating as specified in Section 1105.02(s).

- **Nuts.** Square, pyramidal-shaped nuts with all four sides sloping at an angle of 41 degrees; 5/16-18 UNC threads; C-1010 cold-rolled steel, case hardened to Rockwell hardness of 55 to 60.

  Furnish nuts having a 0.002 inch to 0.005 inch thick, mechanically deposited, zinc, Type II yellow chromate coating as specified in Section 1105.02 (s) (ASTM B 695), tested according to ASTM B 201.

**2. System B.**

- **Bolts.** Section 1103.11(m) and as follows:

  Provide 5/16-inch by 2 1/2-inch and 5/16-inch by 3-inch bolts with minimum 9/16-inch diameter one-way heads and threads to within 1 inch of head.

- **Nuts.** Section 1103.11(n) and as follows:

  Provide nuts, Alloy 2011-T3, double-chamfered hexagon with self-locking conical shape 9/16-inch - 3/8-inch by 3/16-inch unit under the nut with 5/16-18 UNC threads. Hexagon portion should break away from self-locking unit with 5/16-18 UNC to 40 inch-pounds to 80 inch-pounds of torque.

- **Washers.** Nylon 1/8 inch thick by 1-inch minimum outside diameter with 480 inch-pounds maximum allowable applied torque.

**(k) Banding.** Stainless steel, Type 201, 0.750 inch wide by 0.030 inch thick, with rounded edges for handling ease and safety. Buckles and other necessary hardware shall be of stainless steel, Type 304.

**(m) Aluminum Bolts.** ASTM B 211/B 211M. Alloy 2024-T4, thread fit, ANSI Class 6g, and threads shall be within two threads of the head or a minimum of 1 3/4 inches.

**(n) Aluminum Nuts.** ASTM B 211/B 211M. Alloy 2024-T6, thread fit, ANSI Class 6H (ANSI Class 2B, 18 UNC threads).

## S1033C - b01033 SECTION 103.2(a) LETTER OF INTENT

**Addendum:**

**Associated Item(s):**

**Header:**
SECTION 103.02(a) LETTER OF INTENT

**Provision Body:**

- **SECTION 103.02 AWARD OF CONTRACT- Revise by adding the following new subsection:**

**(a) Letter of Intent.** It has been determined that the nature of this project is such that advance preparation by the Contractor may be required. Therefore, prior to the Notice to Proceed Date, a Letter of Intent may be issued by the Deputy Secretary for Highway Administration. The project-specific Letter of Intent will outline the extent to which the Contractor may prepare to start work and incur costs in preparation for performance of the contract.

The following have been identified by the Deputy Secretary as being preparatory costs that may be incurred for this contract with the Department's assurance that actual expenses will be reimbursed in the event the contract is canceled before the Notice to Proceed Date: Prior to proceeding with any design work identified below, the Design-Build Design Activities Firm Identification and Qualifications form must be approved by the District Project Manager.

- Orders for the fabrication of steel beams and steel components.
- Preparation of shop drawings for beams and other steel components required.

No work may commence at the construction site and no payments will be made until the contract is fully executed.

In the event the Secretary elects to cancel the award of the contract or the contract, as specified in Sections 103.03 and 103.07, reimbursement will be made for the documented cost of insurance and surety bonds required under Sections 103.04 and 103.05, and the documented cost of actual expenses reasonably incurred in accordance with the Letter of Intent issued by the Deputy Secretary for Highway Administration. Any material reimbursed at actual purchase price becomes Department property. Alternatively, the Department is to receive credit for the salvage value of any material, for which reimbursement is made, that is then retained by the Contractor. No payment will be made for damages of any kind including, but not limited to, loss of anticipated profit, loss of use of money, or administrative or overhead costs.

## S2011A - b02011 EMERALD ASH BORER QUARANTINE

**Addendum:**

**Associated Item(s):**

**Header:**
Emerald Ash Borer Quarantine

**Provision Body:**

This project contains regulated articles as defined by the Pennsylvania Department of Agriculture, Order of Quarantine that are located within the Pennsylvania Emerald Ash Borer (EAB) quarantine.

Regulated articles are:

- The EAB in any living stage of development;
- Ash trees of any size;
- Ash limbs, branches, stumps, and roots;
- Any cut, non-coniferous (hardwood) firewood:
- Non-coniferous (hardwood) bark and non-coniferous (hardwood) wood chips larger than 25.4 mm (1 inch) in two dimensions;
- Ash logs and lumber with either the bark or the outer 25.4 mm (1 inch) of sapwood, or both, attached;
- Any other article, product or means of conveyance determined by the Department to present a risk of spreading the EAB infestation.

Pennsylvania's EAB quarantine restricts the movement from the quarantined area of any regulated articles. Regulated articles are to remain onsite and within the quarantined areas at approved stockpile areas that will not interfere with construction operations, future maintenance operations, obstruct drainage, or cause water pollution, unless indicated otherwise.

This work will be considered incidental to other items of work.

## S6081C - b06081 SECTION 608 - MOBILIZATION

**Addendum:**

**Associated Item(s):**

**Header:**

SECTION 608 - MOBILIZATION

**Provision Body:**

- Section 608.1 Description. Revise by adding the following:

When developing agreements with DBE subcontractors include an opportunity for the DBE to identify an item for their mobilization. Include any agreed upon amounts in the contract lump sum price bid for mobilization. Also, list agreed to amounts for each DBE subcontractor on the DBE Participation for Federal Projects form specified in the "Disadvantage Business Enterprise Requirements" Designated Special Provision in Appendix C of Pub. 408.

- Section 608.4 Measurement and Payment. Revise by adding the following:

(c) DBE Payment Schedule. Within the Schedule submitted as specified in Section 108.03, indicate the starting date of work subcontracted to DBE's. One month before the scheduled start of subcontracted DBE work, but not earlier than the Notice to Proceed, pay 25% of the amount shown for mobilization on the applicable DBE Participation for Federal Projects form. Pay the remaining 75% of the amount shown for mobilization on the applicable DBE Participation for Federal Projects form, in three equal payments, when subcontracted DBE work is 25%, 50%, and 75% complete. Pay the affected DBE within 7 days of its reaching the specified milestones for percentage of work completed.

## S6092A - b06092-SECTION 609.2(g) MISCELLANEOUS MATERIALS

**Addendum:**

**Associated Item(s):**

**Header:**

SECTION 609.2(g) MISCELLANEOUS MATERIALS

**Provision Body:**

**Section 609.2(g) Miscellaneous Materials. Add the following new set of bullets:**

The laser printer(s) and/or color printer(s) needed for this project will be obtained for Department use through a statewide lease agreement and not as part of the Equipment Package contract item.

A total of (*See "a" in Project Specific Details)* Laser Printer(s) and (*See "b" in Project Specific Details)* Color Printer(s) will be leased for the project.

Provide compatible toner cartridges for each laser printer and compatible ink jet cartridges for each color printer indicated above, as required. The exact make and model of laser printer and/or color printer being used on the project will not be known until the start of work. For cost estimating purposes, toner cartridges and/or ink jet cartridges furnished must be usable with the type of printer specified in Section 609.2(d)3. and Section 609.2(d)4., as applicable.

**Project Specific Details:**

a.One (1)

b. One (1)

## 00 - bCLASS AA CEMENT CONCRETE MODIFIED

**Addendum:**

**Associated Item(s):**

**Header:**

CLASS AA CEMENT CONCRETE MODIFIED

**Provision Body:**

In accordance with Section 1001, Section 704 and as follows:

Section 704.1(b) Material. Revise as follows:

Coarse Aggregate, Type A, No. 8 for bridge and abutment barriers only.

Section 1001.2(a) Cement Concrete. Add the following paragraph:

Add synthetic fibers to Class AA cement concrete for barriers and curbs. Provide synthetic fibers complying with ASTM C1116, Type III. Use 100% virgin polypropylene, fibrillated fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement. Use a minimum of 1.5 pounds of fibers per cubic yard of cement concrete. Use fibers 3/4" in length. Provide a mix that is workable and one that does not contain fiber balls. Develop and submit the concrete mix design with fibers for Department review and approval at least 10 days prior to use.

## 00 - bNOTICE TO CONTRACTOR

**Addendum:**

**Associated Item(s):**

**Header:**

NOTICE TO CONTRACTOR

**Provision Body:**

1. SR 3025 bridge shall be open to traffic no later than August 15, 2013.

2. Contractor shall adhere to current and applicable Lancaster Township noise ordinances.

3. Tree Cutting Restrictions:

a. Cut trees between November 16 and March 31. This measure is necessary to avoid killing or injuring endangered bats.

## 00 - bPROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS)

**Addendum:**

**Associated Item(s):**

**Header:**
PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS)

**Provision Body:**
DESCRIPTION - This work is applying a protective coating as specified and as directed.
MATERIAL - Section 1019.2 with revisions and additions as follows:
Section 1019.2(c) revise title as follows:
(c) Penetrating Sealers (for Reinforced Concrete Surfaces Not Exposed to Vehicular Traffic).
(d) Penetrating Sealers (for Reinforced Concrete Surfaces Exposed to Vehicular Traffic).Furnish a penetrating sealer from a manufacturer listed in Bulletin 15 as follows:
1. Silicates in Water. Certify as specified in Section 106.03 (b) 3. Meet the following requirements:

| Property | Test Method | Requirements |
|---|---|---|
| Freeze/ Thaw Resistance | ASTM C 666, Procedure A, modified as follows: Use Class AA cement concrete for the test specimens. Test 4 specimens; 2 with sealer, 2 without sealer. Apply penetrating sealer to all sides of specimens as per manufacturer's recommendations. Repeat using Class AA cement concrete without air entrainment. | No visible cracking, powdering, hairline cracking, or spalling. |
| Chlorine Ion Penetration | Chloride Ion Penetration AASHTO T 259, Section 3.6, modified as follows: Use Class AA cement concrete with water/ cement ratio of 0.55 for the test specimens. Apply | Maximum Chloride Content Absorbed: 1.6 mm (0.0625 inch) to 13 mm (0.5 inch) -0.31% >13 mm (0.5 inch) to 25 mm (1.0 inch) -0.06% |

| Property | Test Method | Requirements |
|---|---|---|
| | penetrating sealer to top surface of specimens as per manufacturer's recommendations. Sandblast treated surface, removing approximately 2 mm (1/16 inch) before ponding with NaCl. | |
| Skid Resistance | ASTM E 274 and ASTM E 524 (Smooth Tire) | Acceptable to MTD. |
| Concrete Discoloration | Visual | Provide a penetrating sealer that does not discolor cement concrete. |

CONSTRUCTION - Section 1019.3 with revisions and additions as follows:
(c) Penetrating Sealers (for Reinforced Concrete Surfaces Not Exposed to Vehicular Traffic).
1. Surface Preparation. Thoroughly dry and clean the surfaces of any dirt, debris, oil, grease and foreign matter that would prevent protective coating penetration, adhesion, or drying.
2.Application.Apply penetrating sealer, which does not discolor the concrete, to areas indicated in accordance with the manufacturer’s specifications.
(d) Penetrating Sealers (for Reinforced Concrete Surfaces Exposed to Vehicular Traffic).
1.Storage. Keep the product under cover and at temperatures above freezing.
2.Surface Preparation. Thoroughly dry and clean the surfaces of any dirt, debris, oil, grease and foreign matter that would prevent protective coating penetration, adhesion, or drying.For bridge decks, seal cracks greater than 2 mm (1/16 inch) as specified in Section 1091, as indicated, or as directed by the Department Representative.For pavements and other areas, seal cracks greater than 2 mm (1/16 inch) as specified in Section 590.Repair surfaces as indicated or directed by the Department Representative.Do not apply penetrating sealer until cement concrete is cured as specified in Section 1019.3(a)1.b, and crack sealers have completely cured.
3. Application. Follow manufacturer's recommendations for air and/or surface temperatures and, if applicable, other climatic conditions, to properly apply the penetrating sealer. Each day before and during application, mix, stir, or otherwise prepare the penetrating sealer, if required, in accordance with the manufacturer's recommendations. Use rollers, brushes, sprayers, or other applicators in accordance with the manufacturer's recommendations to apply the penetrating sealer. Apply the penetrating sealer in two or more coats and at application rates as recommended by the manufacturer. Cure each coat in accordance with the manufacturer's recommendations. If for any reason and in the opinion of the Representative the penetrating sealer does not penetrate the surface, remove the penetrating sealer by sand blasting and reapply at no cost to the Department.
On new reinforced concrete surfaces, do not apply pavement markings until 7 days after the application of penetrating sealer.
MEASUREMENT AND PAYMENT - Square Yard. Payment is included with the Lump Sum Bridge bid price.

## 00 - bSAXIMETER

**Addendum:**

**Associated Item(s):**

**Header:**
SAXIMETER

**Provision Body:**

Supply a Saximeter that is manufactured by Pile Dynamics (Cleveland, OH), Pileco (Houston, TX), Pile Equipment (Green Cove Springs, FL), or equivalent. The Saximeter will be provided for the Representative's use to monitor pile driving impact energy. Provide a Saximeter that will perform the following functions:

• Detect hammer blows automatically, using a sound recognition circuit, or manually via a keypad,

• Automatically count blows and determine blows per minute for all impact hammers,

• Calculate the stroke for open end diesel hammers, in English units,

• Store the following in memory: blow count, penetration and average stroke or BPM,

• Permit viewing of results on a built-in screen, and

• Permit data transfer to an IBM-compatible personal computer or printer.

Attach to the pile log all data that was collected with the Saximeter.

Saximeter cost is incidental to the price per linear foot for bearing piles and will not be paid for separately. Upon completion of the project, the Saximeter will be the property of the Contractor.

## 00 - bSCUPPER, TYPE C

**Addendum:**

**Associated Item(s):**

**Header:**
SCUPPER, TYPE C

**Provision Body:**

In accordance with Section 1051 and 1056, and as follows:

Section 1056.4 MEASUREMENT AND PAYMENT. Add the following:

Scupper, Type C. Each.

Includes downspouts, connection bolts, bars, angles and field drilling of holes in girder web.

## 00 - bSECTION 704 – CEMENT CONCRETE

**Addendum:**

**Associated Item(s):**

**Header:**
SECTION 704 – CEMENT CONCRETE

**Provision Body:**

Section 704.1(b) MATERIAL. Revise as follows:

Cement – Section 701, except use Type II Portland Cement for Class C, Class A and Class AA in pier, abutments and wingwalls below beam seat and sleeper slabs.

Table A Cement Concrete Criteria – Class C, A and AA Concrete; maximum Water Cement Ratio of 0.45 in pier, abutments and wingwalls below beam seat and sleeper slabs.

## 00 - bSTEEL BEAM TEST PILES, HP14X89 MODIFIED

**Addendum:**

**Associated Item(s):**

**Header:**
STEEL BEAM TEST PILES, HP14X89 MODIFIED

**Provision Body:**

In accordance with Section 1005 and as follows:

Section 1005.2(c) Steel H-Piles. Revise by adding the following:

Provide heavy duty cast tip reinforcement with angulated cutting teeth and a minimum thickness of 1" where indicated.

## 00 - bTEXTURIZING CONCRETE BRIDGE DECK SURFACE WITH TRANSVERSE SAWED GROOVES

**Addendum:**

**Associated Item(s):**

**Header:**
TEXTURIZING CONCRETE BRIDGE DECK SURFACE WITH TRANSVERSE SAWED GROOVES

**Provision Body:**

DESCRIPTION - This work is sawing transverse grooves in new concrete bridge deck surfaces, including new Class AAAP cement concrete bridge deck and approach slabs, to provide a textured surface as directed.

CONSTRUCTION - For class AAAP cement concrete, do not begin grooving operations until directed by the Representative and the concrete has reached a compressive strength of 4000 psi as per PTM No. 604, and the grooving equipment live loads can be applied in accordance with Section 1001.3(q)2.2c.

Texture the bridge deck surface with uniformly pronounced grooves sawed perpendicular to centerline. Saw the grooves approximately 0.125” wide with a tolerance of +0.015”, 0.188” deep with a tolerance of +0.062”. Use a uniform groove pattern of 1.5” center to center spacing with a tolerance of +0.125”.

Terminate grooves 18”+ from the curb line.

Do not saw grooves any closer than 2” or further than 3” from the edge of any joint.

In the event that a single pass of the grooving machine cannot be made across the width of the bridge then the mating ends of the subsequent passes must not overlap previous grooves nor leave more than 1” of surface un-grooved.

Remove all debris (slurry, etc.) resulting from grooving operations in a continuous manner. Surfaces are to be immediately left in a washed and clean condition, free of all slipperiness from the slurry, etc. Deposit all debris and surplus material removed from the grooving operations in a truck, or other conveyance, and remove them from the project.

Submit a plan to the Representative for review and approval that describes the method and equipment proposed for placing grooves in all acute corners of the bridge deck and approach slabs.

MEASUREMENT AND PAYMENT - Square Yard. Measured as the finished grooved area.

Payment is included with the Lump Sum Bridge Bid Price.

## I3111B - c03111 ITEM 9311-0422 WARM MIX ASPHALT (WMA), PLANT-MIXED BITUMINOUS CONCRETE, BASE COURSE, PG 64-22

**Addendum:**

**Associated Item(s):** 9311-0422

**Header:**

ITEM 9311-0422 WARM MIX ASPHALT (WMA), PLANT MIXED BITUMINOUS CONCRETE, BASE COURSE, PG 64-22, 0.3 TO < 3 MILLION ESALS, 25.0 MM MIX, 4" DEPTH

**Provision Body:**

**I. DESCRIPTION -** This work is the Standard construction of a plant-mixed, dense-graded Warm Mix Asphalt (WMA) pavement base course on a prepared surface using a volumetric asphalt mixture design developed with the Superpave Gyratory Compactor (SGC) and using prescribed manufactured additives, modifiers and/ or plant process modifications in accordance to these specifications and standard drawings. Use of reclaimed asphalt pavement (RAP) materials is permitted using current requirements and policy as specified for Hot-Mix Asphalt (HMA) pavement courses in Section 409 and Bulletin 27.

**II. MATERIAL -** Section 409.2 with additions and modifications as follows:

**(a) Bituminous Material.** Section 409.2(a) with additional subsections as follows:

**3. WMA Technology Additives or Modifiers Blended at the Bituminous Material Supplier Refinery or Terminal.** Provide refinery or terminally blended bituminous material modified with a WMA Technology additive or modifier from an approved manufacturer and source listed in Bulletin 15. Include in the bituminous material producer QC plan, the WMA Technology additive or modifier manufacturer name and source, dosage rates, blending method, QC testing, corrective action points, disposition of failed material, storage, handling shipping, and bill of lading information following the applicable requirements in Section 702. Include the WMA Technology Additive or Modifier and dosage rate on the bill of lading. Provide certification that the refinery or terminally blended bituminous material modified with the WMA Technology additive or modifier meets the requirements of Section 409.2(a)1 or Section 409.2(a)2 for the specified grade.

**4. WMA Technology Additives or Modifiers Blended at the Bituminous Mixture Producer Plant.** For WMA Technology additives or modifiers blended with the bituminous material at the bituminous mixture production plant, prepare a Producer QC Plan as specified in Section 106 and conforming to the additional Producer QC Plan requirements in Section 409.2(e)1.a and the additional Producer QC Plan requirements within this specification. Provide certification that the bituminous material blended with the WMA Technology additive or modifier at the bituminous mixture production plant meets the requirements of Section 409.2(a)1 or Section 409.2(a)2 for the specified grade.

**(e) Composition of Mixtures.** Section 409.2(e) with additions and modifications as follows:

**1. Virgin Material Mixtures.** Replace the first paragraph in Section 409.2(e)1 with the following:

Size, uniformly grade, and combine aggregate fractions, bituminous material, and either WMA technology additive(s), modifier(s) or no special additives or modifier(s), if mixture temperature, workability, and compactability is achieved solely through plant mechanical modification to produce foamed asphalt, in proportions to produce a JMF that conforms to the material, gradation, and volumetric Superpave Asphalt Mixture Design requirements as specified in Bulletin 27, Chapter 2A, for the specified nominal maximum aggregate size and design ESALs except as procedurally modified by the WMA Technology Technical Representative or manufacturer to address laboratory procedures when preparing, compacting and testing WMA mixtures and to achieve a uniform blend. Develop a hot mix asphalt (HMA) JMF according to Section 409.2 and incorporate the WMA technology additive, modifier, or process into that JMF during production. Do not develop a volumetric WMA JMF based on incorporating the WMA technology additive, modifier or process during the volumetric asphalt mixture design process. For all WMA mixture JMFs, perform moisture sensitivity analysis on laboratory mixed and laboratory compacted specimens that include the WMA Technology additive, modifier, or process as required in Bulletin 27, Chapter 2A for HMA using the same mixing, compaction and conditioning criteria used during the development of the volumetric asphalt mixture design for the HMA JMF and ensure the WMA Technology additive modifier, or process is not detrimental to the moisture resistance of the mixture.

**1.a.2 Testing Plan with Action Points.** Section 409.2(e)1.a.2 and add the following additional bullets:

- Blended bituminous material lot size/quantity and lot designation method.
- List of all tests to be performed on the blended bituminous material.
- Testing and certification of the blended bituminous material and WMA Technology additive or modifier for conformance to Section 409.4(a)1 or Section 409.2(a)2.
- Frequency of testing of the blended bituminous material.
- List action points to initiate corrective procedures for the blended bituminous material.
- Recording method to document corrective procedures for the blended bituminous material.
- Handling and disposition of blended bituminous material failing to meet the bituminous material specification requirements.

**1.a.3 Materials Storage and Handling**. Section 409.2(e)1.a.3 and add the following additional bullets:

- WMA Technology Additive or Modifier manufacturer name and source as listed in Bulletin 15.
- WMA Technology additive or modifier storage and handling prior to blending.
- All measuring, conveying and blending devices for the WMA Technology and anti-strip additive (if required), including calibration procedures.
- WMA Technology additive or modifier and anti-strip additive (if required) method of introduction, dosage rates, blending with the bituminous material and method of automation, recordation and print outs.
- Storage and handling of the blended bituminous material with the WMA Technology additive or modifier.
- WMA Production and Laboratory Mixture Temperature Range and Target
- WMA Laboratory Compaction Temperature Range and Target

**1.c. Annual JMF Verification.** Section 409.2(e)1.c and add the following to the end of the subsection:

Perform the annual JMF Verification for the WMA mixture JMF even if the equivalent HMA mixture JMF was previously annually verified.

**1.d. Production.** Section 409.2(e)1.d and add the following:

Prepare and test WMA mixtures, including SGC specimens for quality control using the same test methods, procedures and frequencies as specified for HMA, except as modified by the WMA Technology Technical Representative and the Producer QC Plan. Maintain records of the testing of WMA and make available for review by the Representative when directed.

**1.d.6 Degree of Particle Coating.** Add new subsection to Section 409.2(e)1.d as follows:

For all WMA mixtures, sample the mixture according to PTM No. 1 and at the frequency in the producer QC Plan. Determine the degree of particle coating of the completed WMA mixture according to AASHTO T 195. Produce a WMA mixture with percent coated particles ≥ 95.0%, except ≥ 85.0% for WMA mixtures containing slag aggregate. Increase the plant mixing time or make other plant adjustments if the required percent of coated particles is not met. Produce a WMA mixture capable of being handled, placed and compacted without stripping the bituminous material from the aggregate.

**Table A**

**Job-Mix Formula**

**Composition Tolerance Requirements of the Completed Mix**

Section 409, Table A, Except revise the Temperature of Mixture (F) as follows:

| Class of Material | Type of Material | Minimum* | Maximum* |
|---|---|---|---|
| PG 58-28 | Asphalt Cement | 215 | 285 |
| PG 64-22 | Asphalt Cement | 220 | 295 |
| PG 76-22 | Asphalt Cement | 240 | 305 |
| All other PG Binders | Asphalt Cement | 215 | (Max Temperature as specified in Bulletin 25 minus 25 ºF) |

* The minimum and maximum temperatures shown in Table A for each Class of Material are a master temperature range for a completed WMA mixture.The Producer must include a smaller completed mixture temperature range and compaction temperature range that does not exceed 50F and that does not fall outside the master temperature range in the Producer QC Plan.The Producer is required to produce the completed mixture within the smaller temperature range in the Producer QC Plan.The Producer is required to compact the completed mixture in the SGC for QC volumetric analysis at the midpoint of the compaction temperature range in the Producer QC Plan.The Producer QC Plan mixture temperature range and compaction temperature range are to follow the guidelines provided by the WMA Technology Technical Representative or Manufacturer.

**(g) WMA Technologies (Additive(s), Modifiers, or Processes) and WMA Manufacturers.** Add new subsection to Section 409.2 as follows:

Produce the WMA mixture using approved or provisionally approved WMA technologies including additives, modifiers or processes from manufacturers listed in Bulletin 15. If blending WMA additives or modifiers with bituminous material, provide bituminous material modified with the WMA additive or modifier according to Section II. (a) 3 or Section II. (a) 4 within this specification.For WMA technology additives or modifiers blended with the bituminous mixture at the bituminous mixture production plant, prepare a QC Plan as specified in Section 106 and also conforming to the additional Producer QC Plan requirements within this specification.Submit the QC plan to the District Materials Engineer/District Materials Manager (DME/DMM) annually at least 3 weeks before the planned start of blending WMA Technologies with bituminous material and do not start blending until the DME/DMM reviews the QC plan.

For more information on the approved WMA technologies listed in Bulletin 15, refer to the Internet website http://www.warmmixasphalt.com/WmaTechnologies.aspx

**(h) Anti-Strip Additives.**Add new subsection to Section 409.2 as follows:

Add a compatible liquid anti-strip additive at a minimum dosage rate of 0.25% by mass (weight) of the total bituminous material or, higher as needed, to WMA mixtures using WMA Technology that is categorized as a mechanical foaming process.

**(i) WMA Technology Technical Representative.** Add new subsection to Section 409.2 as follows:

If directed by the Department at the preconstruction conference, ensure that a Technical Representative, from the manufacturer of the approved WMA Technology used to produce the WMA mixture, is present during initial production and placement of the specified WMA pavement course. If the Department directs that a Technical Representative is not required to be present during initial production, provide the name and telephone number of a Technical Representative who can be on-call and in direct verbal contact with the Producer, Contractor and a Department Representative within a maximum 2 hour period after initial contact. Ensure that the Technical Representative is knowledgeable in the storage, handling, blending, mixture production, mixture QC testing, placement and compaction using the WMA Technology.The Department will expect a WMA Technology Technical

Representative to be present during initial production, placement and compaction when the Producer is using a WMA Technology for the very first time.Submit any proposed deviations to this requirement in writing to the Representative for approval either before or at the preconstruction conference.After initial production of the specified WMA pavement course in a sufficient quantity to place 1 mile without any technical issues affecting the production, placement and compaction of the WMA pavement course, as determined by the Department Representative upon review of the plant and field QC testing, the Department Representative will release the Technical Representative from being present.Upon release of the Technical Representative from being present, provide the name and telephone number of a Technical Representative who can be on-call and in direct verbal contact with the Producer, Contractor and a Department Representative within a maximum 2 hour period after initial contact.

**III. CONSTRUCTION -** Section 409.3 with additions and modifications as follows:

**(a) Paving Operation QC Plan:** Section 409.3(a) and add the following:

Prepare and submit additional information specifically related to all aspects of the field control of WMA concrete paving operations to the Representative as part of the paving operation QC Plan that addresses all recommendations and direction from the WMA Technology Technical Representative. Describe the construction equipment and methods necessary to control the WMA paving operations including the testing, delivery, placement, compaction, and protection of the WMA concrete courses for all placement applications including handwork as specified in Section 409.3.

**(b) Weather Limitations.** Section 409.3(b). Replace with the following:

Do not place base course on prepared surfaces that are wet or when the temperature of the air or the prepared surface is 35F or lower. If work is halted because of weather conditions, the Representative may allow the Contractor to place limited quantities of base course that are en route to the project.

**(c) Bituminous Mixing Plant.** Section 409.3(c) and add the following:

Make any plant modifications needed to introduce WMA Technology additives, modifiers, or processes according to specific recommendations and direction from the WMA Technology Technical Representative or process manufacturer to achieve a uniform blend of the WMA Technology additive, modifier or foaming process and produce a WMA mixture meeting these specifications.

**1. Batch Plant.** Section 409.3(c)1 and add the following:

Dry the aggregate (s) according to the specific recommendations and direction from the WMA Technology Technical Representative and heat to a suitable temperature so that the resulting completed mixture temperature is within the mixture temperature range established in the Producer QC Plan and recommended or directed by the WMA Technology Technical Representative or manufacturer and that is within the master minimum and maximum temperature range in Table A within this specification. Ensure that the aggregate is free of unburned fuel oil when delivered to the pug mill.

**2. Drum mixer Plant.** Section 409.3(c)2 and add the following:

Produce a completed mixture that is within the mixture temperature range established in the Producer QC Plan and recommended or directed by the WMA Technology Technical Representative or manufacturer and that is within the master minimum and maximum temperature range in Table A within this specification. Ensure that the aggregate and completed mixture is free of unburned fuel oil.

**(h) Spreading and Finishing.** Section 409.3(h) with additions and modifications as follows:

**1.a Placing.**Section 409.3(h)1.a and add the following to the end of the subsection.

At the beginning of each day's paving, up to 3 hauling equipment loads of WMA mixture are permitted to exceed the maximum temperature of mixture in Table A within this specification. This is to assist with warming the paver screed and other equipment in order to prevent dragging and sticking of WMA mixture to the equipment. For these loads, do not exceed the maximum temperature of mixture specified for HMA in Section 409, Table A

**1.b Spreading and Finishing.** Section 409.3(h)1.b and add the following:

If the indicated compacted depth of a WMA 25.0 mm base course is more than 6 inches, place the WMA base course in two or more layers of approximately equal compacted depth, with no layer less than 3 inches or more than 6 inches. If the indicated compacted depth of a WMA 37.5 mm base course is more than 8 inches, place the WMA base course in two or more layers of approximately equal compacted depth, with no layer less than 4 inches or more than 8 inches.

**(l) Surface Tolerance.** Section 409.3(l) but replace the requirement for defective pavement with the following:

The pavement is defective if irregularities are more than 1/4-inch.

**(m) Tests for Depth.** Replace Section 409.3(m) with the following:

Control the loose depth of each layer to construct the base course to the compacted depth indicated and within the specified tolerance. On the top lift and in the presence of the Inspector, drill full- depth cores at one random location selected by the Inspector according to PTM No. 1 in each 3,000 square yards of completed base course and at other locations the Inspector suspects are deficient.

The Inspector will measure the depth of the full-depth cores according to PTM No. 737. Pavement deficient in depth by 1/2 inch or more and that cannot be satisfactorily corrected is defective. After the Inspector completes depth measurements, backfill, compact, and seal core holes with the mixture used to construct the course. Immediately start correcting courses or pavement that are deficient in depth at the core location and proceed longitudinally and transversely until the depth is within 1/2 inch of the design depth.

**IV. MEASUREMENT AND PAYMENT-**Section 409.4(a), with modifications as follows:

**(a) Standard WMA Construction.** Replace HMA with WMA as follows:

**1. WMA Courses.** Section 409.(a)1 and add the following:

**1.f Warm Mix Asphalt (WMA), Base Course.** Square Yard or Ton

**(b) WMA RPS Construction.** Section 409.4(b), except replace HMA with WMA. Square Yard or Ton

## I4111B - c04111 ITEM 9411-0484/6450 WARM MIX ASPHALT (WMA), PLANT-MIXED BITUMINOUS CONC, WRG COURSE, PG 64-22

**Addendum:**

**Associated Item(s):** 9411-0484, 9411-6450

**Header:**

ITEM 9411-0484 WARM MIX ASPHALT (WMA), PLANT MIXED BITUMINOUS CONCRETE, WEARING COURSE, PG 64-22, 0.3 TO < 3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-M
ITEM 9411-6450 WARM MIX ASPHALT (WMA), PLANT MIXED BITUMINOUS CONCRETE, BINDER COURSE, PG 64-22, 0.3 TO < 3 MILLION ESALS, 19.0 MM MIX, 2 1/2" DEPTH

**Provision Body:**

**I. DESCRIPTION -** This work is the Standard and RPS construction of plant- mixed, dense- graded Warm Mix Asphalt (WMA) pavement course on a prepared surface using a volumetric asphalt mixture design developed with the Superpave Gyratory Compactor (SGC) using prescribed manufactured additives modifiers and/ or plant process modifications according to these specifications and standard drawings. Use of reclaimed asphalt pavement (RAP) materials, is permitted using current requirements and policy as specified for Hot-Mix Asphalt (MA) pavement courses in Section 409 and Bulletin 27.

**II. MATERIAL -** Section 409.2 with additions and modifications as follows:

**(a) Bituminous Material.**Section 409.2(a) with additional subsections as follows:

**3. WMA Technology Additives or Modifiers Blended at the Bituminous Material Supplier Refinery or Terminal.** Provide refinery or terminally blended bituminous material modified with a WMA Technology additive or modifier from an approved manufacturer and source listed in Bulletin 15.Include in the bituminous material producer QC plan, the WMA Technology additive or modifier manufacturer name and source, dosage rates, blending method, QC testing, corrective action points, disposition of

failed material, storage, handling shipping, and bill of lading information following the applicable requirements in Section 702. Include the WMA Technology Additive or Modifier and dosage rate on the bill of lading. Provide certification that the refinery or terminally blended bituminous material modified with the WMA Technology additive or modifier meets the requirements of Section 409.2(a)1 or Section 409.2(a)2 for the specified grade.

**4. WMA Technology Additives or Modifiers Blended at the Bituminous Mixture Producer Plant.** For WMA Technology additives or modifiers blended with the bituminous material at the bituminous mixture production plant, prepare a Producer QC Plan as specified in Section 106 and conforming to the additional Producer QC Plan requirements in Section 409.2(e)1.a and the additional Producer QC Plan requirements within this specification. Provide certification that the bituminous material blended with the WMA Technology additive or modifier at the bituminous mixture production plant meets the requirements of Section 409.2(a)1 or Section 409.2(a)2 for the specified grade.

**(e) Composition of Mixtures.** Section 409.2(e) with additions and modifications as follows:

**1. Virgin Material Mixtures.** Replace the first paragraph in Section 409.2(e)1 with the following:

Size, uniformily grade, and combine aggregate fractions, bituminous material, and either WMA technology additive(s), modifiers or no special additive (s) or modifier (s), if mixture temperature, workability, and compactability is achieved solely through plant mechanical modification to produce foamed asphalt, in proportions to produce a JMF that conforms to the material, gradation, and volumetric Superpave Asphalt Mixture Design requirements as specified in Bulletin 27, Chapter 2A, for the specified nominal maximum aggregate size and design ESALs except as procedurally modified by the WMA Technology Technical Representative or manufacturer to address laboratory procedures when preparing, compacting and testing WMA mixtures and to achieve a uniform blend. Develop a hot mix asphalt (HMA) JMF according to Section 409.2 and incorporate the WMA technology additive, modifier, or process into that JMF during production. Do not develop a volumetric WMA JMF based on incorporating the WMA technology additive, modifier or process during the volumetric asphalt mixture design process. For all WMA mixture JMFs, perform moisture sensitivity analysis on laboratory mixed and laboratory compacted specimens that include the WMA Technology additive, modifier, or process as required in Bulletin 27, Chapter 2A for HMA using the same mixing, compaction and conditioning criteria used during the development of the volumetric asphalt mixture design for the HMA JMF and ensure the WMA Technology additive modifier, or process is not detrimental to the moisture resistance of the mixture.

**1.a.2. Testing Plan with Action Points.** Section 409.2(e)1.a.2 and add the following additional bullets:

- Blended bituminous material lot size/quantity and lot designation method.
- List of all tests to be performed on the blended bituminous material.
- Testing and certification of the blended bituminous material and WMA Technology additive or modifier for conformance to Section 409.4(a)1 or Section 409.2(a)2.
- Frequency of testing of the blended bituminous material.
- List action points to initiate corrective procedures for the blended bituminous material.
- Recording method to document corrective procedures for the blended bituminous material.
- Handling and disposition of blended bituminous material failing to meet the bituminous material specification requirements.

**1.a.3. Materials Storage and Handling.** Section 409.2(e)1.a.3 and add the following additional bullets:

- WMA Technology additive or modifier manufacturer name and source as listed in Bulletin 15.
- WMA Technology additive or modifier storage and handling prior to blending.
- All measuring, conveying and blending devices for the WMA Technology and anti-strip additive (if required), including calibration procedures.
- WMA Technology additive or modifier and anti-strip additive (if required) method of introduction, dosage rates, blending with the bituminous material and method of automation, recordation and print outs.
- Storage and handling of the blended bituminous material with the WMA Technology additive or modifier.
- WMA Production and Laboratory Mixture Temperature Range and Target
- WMA Laboratory Compaction Temperature Range and Target

**1.c. Annual JMF Verification.** Section 409.2(e)1.c and add the following to the end of the subsection:

Perform the annual JMF Verification for the WMA mixture JMF even if the equivalent HMA mixture JMF was previously annually verified.

**1.d. Production.** Section 409.2(e)1.d and add the following:

Prepare and test WMA mixtures, including SGC specimens for quality control using the same test methods, procedures and frequencies as specified for HMA, except as modified by the WMA Technology Technical Representative and the Producer QC Plan. Maintain records of the testing of WMA and make available for review by the Representative when directed.

**1.d.6 Degree of Particle Coating.**Add new subsection to Section 409.2(e)1.d as follows:

For all WMA mixtures, sample the mixture according to PTM No. 1 and at the frequency in the producer QC Plan. Determine the degree of particle coating of the completed WMA mixture according to AASHTO T 195. Produce a WMA mixture with percent coated particles ≥ 95.0%, except ≥ 85.0% for WMA mixtures containing slag aggregate. Increase the plant mixing time or make other plant adjustments if the required percent of coated particles is not met. Produce a WMA mixture capable of being handled, placed and compacted without stripping the bituminous material from the aggregate.

**Table A**

**Job-Mix Formula**

**Composition Tolerance Requirements of the Completed Mix**

Section 409, Table A, Except revise the Temperature of Mixture (F) as follows:

| Class of Material | Type of Material | Minimum* | Maximum* |
|---|---|---|---|
| PG 58-28 | Asphalt Cement | 215 | 285 |
| PG 64-22 | Asphalt Cement | 220 | 295 |
| PG 76-22 | Asphalt Cement | 240 | 305 |
| All other PG Binders | Asphalt Cement | 514 | (Max Temperature as specified in Bulletin 25 minus25 F) |

* The minimum and maximum temperatures shown in Table A for each Class of Material are a master temperature range for a completed WMA mixture.The Producer must include a smaller completed mixture temperature range and compaction temperature range that does not exceed 50F and that does not fall outside the master temperature range in the Producer QC Plan.The Producer is required to produce the completed mixture within the smaller temperature range in the Producer QC Plan.The Producer is required to compact the completed mixture in the SGC for QC volumetric analysis at the midpoint of the compaction temperature range in the Producer QC Plan.The Producer QC Plan mixture temperature range and compaction temperature range are to follow the guidelines provided by the WMA Technology Technical Representative or Manufacturer.

**(g) WMA Technologies (Additive(s), Modifier(s), or Processes) and WMA Manufacturers.** Add new subsection to Section 409.2 as follows:

Produce the WMA mixture using approved or provisionally approved WMA technologies including additives, modifiers or processes from manufacturers listed in Bulletin 15. If blending WMA additives or modifiers with bituminous material, provide bituminous material modified with the WMA additive or modifier according to Section II. (a) 3 or Section II. (a) 4 within this specification.For WMA technology additives or modifiers blended with the bituminous mixture at the bituminous mixture production plant, prepare a QC Plan as specified in Section 106 and also conforming to the additional Producer QC Plan requirements within this specification.Submit the QC plan to the District Materials Engineer/District Materials Manager (DME/DMM) annually at least 3 weeks before the planned start of blending WMA Technologies with bituminous material and do not start blending until the DME/DMM reviews the QC plan.

For more information on the approved WMA technologies listed in Bulletin 15, refer to the Internet website http://www.warmmixasphalt.com/WmaTechnologies.aspx

**(h) Anti-Strip Additives.**Add new subsection to Section 409.2 as follows:

Add a compatible liquid anti-strip additive at a minimum dosage rate of 0.25% by mass (weight) of the total bituminous material or, higher as needed, to WMA mixtures using WMA Technology that is categorized as a mechanical foaming process.

(**i) WMA Technology Technical Representative.**Add new subsection to Section 409.2 as follows:

If directed by the Department at the preconstruction conference, ensure that a Technical Representative, from the manufacturer of the approved WMA Technology used to produce the WMA mixture, is present during initial production and placement of the specified WMA pavement course. If the Department directs that a Technical Representative is not required to be present during initial production, provide the name and telephone number of a Technical Representative who can be on-call and in direct verbal contact with the Producer, Contractor and a Department Representative within a maximum 2 hour period after initial contact. Ensure that the Technical Representative is knowledgeable in the storage, handling, blending, mixture production, mixture QC testing, placement and compaction using the WMA Technology. The Department will expect a WMA Technology Technical Representative to be present during initial production, placement and compaction when the Producer is using a WMA Technology for the very first time.Submit any proposed deviations to this requirement in writing to the Representative for approval either before or at the preconstruction conference.After initial production of the specified WMA pavement course in a sufficient quantity to place 1 mile without any technical issues affecting the production, placement and compaction of the WMA pavement course, as determined by the Department Representative upon review of the plant and field QC testing, the Department Representative will release the Technical Representative from being present. Upon release of the Technical Representative from being present, provide the name and telephone number of a Technical Representative who can be on-call and in direct verbal contact with the Producer, Contractor and a Department Representative within a maximum 2 hour period after initial contact.

**III. CONSTRUCTION -** Section 409.3 with additions and modifications as follows:

**(a) Paving Operation QC Plan:** Section 409.3(a) and add the following:

Prepare and submit additional information specifically related to all aspects of the field control of WMA concrete paving operations to the Representative as part of the paving operation QC Plan that addresses all recommendations and direction from the WMA Technology Technical Representative. Describe the construction equipment and methods necessary to control the WMA paving operations including the testing, delivery, placement, compaction, and protection of the WMA concrete courses for all placement applications including handwork as specified in Section 409.3.

**(c) Bituminous Mixing Plant.** Section 409.3(c) and add the following:

Make any plant modifications needed to introduce WMA Technology additives, modifiers, or processes according to specific recommendations and direction from the WMA Technology Technical Representative or process manufacturer to achieve a uniform blend of the WMA Technology additive, modifier or foaming process and produce a WMA mixture meeting these specifications.

**1. Batch Plant.** Section 409.3(c)1 and add the following:

Dry the aggregate (s) according to the specific recommendations and direction from the WMA Technology Technical Representative and heat to a suitable temperature so that the resulting completed mixture temperature is within the mixture temperature range established in the Producer QC Plan and recommended or directed by the WMA Technology Technical Representative or manufacturer and that is within the master minimum and maximum temperature range in Table A within this specification. Ensure that the aggregate is free of unburned fuel oil when delivered to the pug mill.

**2. Drum mixer Plant.** Section 409.3(c)2 and add the following:

Produce a completed mixture that is within the mixture temperature range established in the Producer QC Plan and recommended or directed by the WMA Technology Technical Representative or manufacturer and that is within the master minimum and maximum temperature range in Table A within this specification. Ensure that the aggregate and completed mixture is free unburned fuel oil.

**(h) Spreading and Finishing.**Section 409.3(h) with additions as follows:

**1.a Placing**.Section 409.3(h)1.a and add the following to the end of the subsection.

At the beginning of each day's paving, up to 3 hauling equipment loads of WMA mixture are permitted to exceed the maximum temperature of mixture in Table A within this specification. This is to assist with warming the paver screed and other equipment in order to prevent dragging and sticking of WMA mixture to the equipment. For these loads, do not exceed the maximum temperature of mixture specified for HMA in Section 409, Table A.

**IV. MEASUREMENT AND PAYMENT -** Section 409.4 except replace HMA with WMA as follows:

**(a) Standard WMA Construction**

**1. WMA Courses.**

**1.a Warm Mix Asphalt (WMA), Wearing Course.** Square Yard or Ton

**1.b Warm Mix Asphalt (WMA), Wearing Course (Scratch).** Ton

**1.c Warm Mix Asphalt (WMA), Wearing Course (Leveling).** Ton

**1.d Warm Mix Asphalt (WMA), Binder Course.** Square Yard or Ton

**1.e Warm Mix Asphalt (WMA), Binder Course (Leveling).** Ton

**(b) RPS WMA Construction.** Section 409.4(b), except replace HMA with WMA. Square Yard or Ton

## I6091F - c06091 ITEM 0609-0009 EQUIPMENT PACKAGE

**Addendum:**

**Associated Item(s):** 0609-0009

**Header:**
ITEM 0609-0009 EQUIPMENT PACKAGE

**Provision Body:**

**Appendix**

**Table A**

| **EQUIPMENT PACKAGE** | |
|---|---|
| **Equipment** | **Quantity** |
| **Communications Equipment** | |
| Copier (1) | 1 |
| Fax Machine (1) | 1 |
| Cellular Phone(s) | 3 |
| **Electronic Equipment** | |
| Digital Camera | 1 |

| | |
|---|---|
| Document Scanner (2) | |
| Laser Printer (2) | |
| Color Printer (2) | |
| **Specialized Equipment** | |
| Surveyor's Level & Measuring Rod | |
| Electronic Digitizer | |
| Digital Display Level | |
| Infrared Thermometer | |
| Laser Range Finder | |
| Paper Shredder | 1 |
| **Miscellaneous Items** | |
| Internet Service Provider | Yes |
| Computer Media | Yes |
| Toners/Cartridges | Yes |

(1) Unless otherwise approved, a multifunction machine may not be furnished in lieu of a separate copier and fax.

(2) Unless otherwise approved, a multifunction machine may not be furnished in lieu of a separate scanner, laser printer and color printer.

(3) Copier capable of printing and scanning 11" x 17" in color.

**Microcomputer Systems.** A total of one (1) microcomputer systems will be used on the project.

This information is being provided to assist Bidders in meeting the requirements of Section 609.2(f), Internet Service, and Section 609.2(g), Miscellaneous Materials.

Microcomputer systems may be furnished by the Department. If microcomputer systems are to be furnished by the Contractor, as part of the construction Contract, the bid will include applicable, 0688-XXXX bid items. When indicated, furnish microcomputer systems meeting the requirements of Section 688.

## 00 - c4205-0367 – SELECTED BORROW EXCAVATION ROCK, CLASS R-7 MODIFIED

**Addendum:**

**Associated Item(s):** 4205-0367

**Header:**

**Provision Body:**

In accordance with Section 205, and as follows:

Section 205.3 CONSTRUCTION. Add the following:

Protect the new pier during placement of the Class R-7 rock inside cofferdam. Submit a procedure for review and approval that details how the new pier will be protected during rock placement. Do not proceed with installation until approval is granted. Include material and equipment with the procedure.

## 00 - c4461-0001 BITUMINOUS PRIME COAT MODIFIED

**Addendum:**

**Associated Item(s):** 4461-0001

**Header:**
ITEM 4461-0001 BITUMINOUS PRIME COAT MODIFIED

**Provision Body:**

In accordance with Section 461, except as follows:

Section 461.2(a) BITUMINOUS MATERIAL – delete

AE-P

Revise by adding the following:

E-3M Prime

As determined by the Engineer, repair the shoulder backup and E3M oil damaged by any construction activity at no additional cost to the Department.

## 00 - c4620-1075 - TYPE 2-S GUIDERAIL MODIFIED

**Addendum:**

**Associated Item(s):** 4620-1075

**Header:**
ITEM 4620-1075 - TYPE 2-S GUIDERAIL MODIFIED

**Provision Body:**

In accordance with Section 620 and as follows:

Section 620.2(a) GUIDERAIL – Revise by adding the following:

Provide strong post guide posts (1') longer than shown on the Standard Drawings, see construction plan for locations.

## 00 - c5005-1156 – STEEL BEAM PILE TIP REINFORCEMENT, HP14X89 MODIFIED

**Addendum:**

**Associated Item(s):** 5005-1156

**Header:**
ITEM 5005-1156 – STEEL BEAM PILE TIP REINFORCEMENT, HP14X89 MODIFIED

**Provision Body:**

In accordance with Section 1005 and as follows:

Section 1005.2(c) Steel H-Piles. Revise by adding the following:

Provide heavy duty cast tip reinforcement with angulated cutting teeth and a minimum thickness of 1".

Section 1005.4 MEASUREMENT AND PAYMENT. Add the following:

(e) Steel Beam Pile Tip Reinforcement Modified – Each

## 00 - c5018-0001 - REMOVAL OF EXISTING BRIDGE MODIFIED

**Addendum:**

**Associated Item(s):** 5018-0001

**Header:**
ITEM 5018-0001 - REMOVAL OF EXISTING BRIDGE MODIFIED

**Provision Body:**

In accordance with Section 1018 and as follows:

Section 1018.3(a) General. Add the paragraphs:

1. Removal.

Bridge plans of the existing S.R. 3025 bridge over Little Connoquenessing Creek are not available. Any reference or representations of the existing foundations in the plans are shown to indicate their general proximity. Exact limits of existing foundations are unknown.

Remove the existing superstructure and pier in their entirety. Remove the existing abutment and wingwall stems to a minimum of 2 feet below the finished ground line at the front face of the existing substructures as indicated for required construction of new work. Remove any portion of the structure that interferes with the construction of the new structure. Remove pier prior to cofferdam construction. Pier removal may be performed by open excavation in the creek.

Submit for approval a removal plan including calculations, drawings, proposed equipment and a written narrative prepared and sealed by a Professional Engineer registered in the Commonwealth of Pennsylvania. Allow 15 working days for review of the first submission and 10 working days for review of subsequent submissions.

Detail the precautionary measures to be taken during removal operations to prevent debris from falling into the stream. Remove any debris that falls into the stream at the end of each working day.

Blasting is not permitted.

Do not proceed with removal operations until written approval of the removal plan has been received from the Representative. Approval does not relieve the Contractor of responsibility for damages caused by removal operations.

2. Disposal.

Unless otherwise specified, properly dispose of all materials removed from the structure.

MEASUREMENT AND PAYMENT –

Includes excavation limits in accordance with Section 1018.4(a).

## I30041D - c80041 ITEM 8000-0001/8100-0001/8120-0001- ALTERNATE BRIDGE STRUCTURE

**Addendum:**

**Associated Item(s):** 8000-0001, 8100-0001, 8120-0001

**Header:**

ITEM 8120-0001 - BRIDGE STRUCTURE, AS DESIGNED, S-31582
ITEM 8100-0001 - STEEL BRIDGE STRUCTURE
ITEM 8000-0001 – PRESTRESSED CONCRETE BRIDGE STRUCTURE

Construct one of the above at S.R.3025, Section 251, Segment 0060, Offset 0055, Station 109+10.00:

**Provision Body:**

**PART A**

**I. DESCRIPTION** - This work is either construction of the bridge structure as designed or designing and constructing an equivalent bridge structure of an alternate design in place of the "as-designed" bridge structure.

**II. DESIGN** -

**(a) General**. If an alternate design bridge structure is bid, furnish, to the Department, preliminary conceptual design calculations and drawings for the alternate bridge structure, on reproducible tracing cloth or drafting film. Provide an alternate design equivalent to the original design and meeting applicable design criteria for strength and serviceability. Submit the alternate design to the District Bridge Engineer for acceptance. Refer to PENNDOT Design Manual Part 4, PP 1.10, Bridge Submissions-Construction Phase, for details on procedures for contractor submissions. If the equivalency of an alternate design cannot be clearly established, the Chief Bridge Engineer will arbitrate and the Chief Bridge Engineer's decision will be final. Furnish, with the preliminary conceptual design submission, a tabulation identifying the differences between the "as-designed" bridge structure and the alternate design bridge structure.

Any delay in submission and acceptance of a proposed alternate design or a revision, and/or approval of required permits, will not extend the contract time.

If an alternate design bridge structure is bid, and an acceptable preliminary conceptual design is not approved within 30 calendar days from the award date (6 days for the submission and 24 days for Department review), construct the "as-designed" bridge structure at no additional cost to the Department.

Alternate designs which take advantage of any errors and/or omissions in the plans for the "as-designed" bridge structure, or discrepancies between the "as-designed" bridge structure plans and the special provisions covering alternate designs, will not be accepted. In the event any such error, omission, or discrepancy is discovered, immediately notify the Department. Failure to notify the Department will constitute a waiver of all claims for misunderstandings, ambiguities, or other situations resulting from the error, omission, or discrepancy.

Experimental or demonstration-type design concepts; or products, structures, or elements not preapproved by the Department for general usage, will not be allowed in the alternate design.

Only eligible types of bridge structures, as shown in the Project Items and Quantities, bid documents, or special provisions, are allowed as contractor-designed alternates.

Value Engineering will not be allowed for elements changed by an approved alternate design.

Use the same type foundation for an alternate design as that indicated for the "as-designed" bridge structure. Contractor-designed alternate foundation types will not be allowed, but Value Engineering of the as-designed foundation will be allowed.

Do not use Integral or Semi-Integral Abutment design as an alternate or as Value Engineering.

Have the alternate design completed by a Professional Engineer (P.E.) registered in the Commonwealth of Pennsylvania.

Submit an affidavit, before or along with the preliminary conceptual design submission, stating that the designer is familiar with AASHTO, PENNDOT, and other applicable design criteria, standards, and construction specifications. Also, submit a list of bridges designed for the Department within the past 5 years.

In identifying alternate design bridge structures, retain the "as-designed" bridge structure number, but suffix the numbers with the letters A, B, etc.

Show, on all sheets of the alternate design, the seal of a P.E. registered in the Commonwealth of Pennsylvania, a valid signature in ink, the date signed, a business name, a business address, and the note "These drawings (S-XXXXXA) supersede drawings (S-XXXXX) approved (insert appropriate date)".

The Department will furnish tracings and design computations for the "as-designed" bridge structure to the successful bidder upon request.

Complete original plans for an alternate design entirely in either ink or pencil. Make changes in the same medium. Prepare alternate design plans using Department drafting standards.

Ink reproductions on tracing cloth may be furnished, if made by the "contact negative process".

**(b) Design Computations and Design Specifications**. On the first sheet of the computations for the alternate design show the seal of a P.E. registered in the Commonwealth of Pennsylvania, a valid signature in ink, and the date signed.

Provide a complete set of computations for the alternate design of the superstructure and/or substructure, including foundation. Reproduce and insert computations from the "as- designed" bridge structure, as needed. Provide additional calculations, as needed by the District Bridge Engineer to evaluate any details, throughout the life of the contract.

Designs copied directly from approved Department Standards need not be documented through independent computations. List such designs on the submission by referencing the drawing number of the applicable standard, and the sheet number, table, or graph.

Use PENNDOT Design Manual Part 4 for design policy procedures and criteria. All design related Strike-off Letters listed in PART B, "SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS", are applicable to the alternate design.

In the event that certain design parameters, stresses, or specifications are in conflict, the following order of predominance governs:

- Design requirements listed herein and in PART B, "SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS."
- Design related Strike-off Letters in effect on the date of project advertisement. Refer to the list in PART B.
- PENNDOT Design Manual Part 4, "Structures"
- PENNDOT Bridge Design and Bridge Construction Standards
- AASHTO Standard Specifications for Highway Bridges, and interim specifications, as indicated for the "as-designed" bridge structure.

In the event that a clear order of predominance cannot be established, or a difference in the interpretation of the design criteria, standards, specifications, or methodology cannot be resolved, the Chief Bridge Engineer will arbitrate and the Chief Bridge Engineer's decision will be final.

Do not use BLC standards unless HS-20 design load is specifically allowed by the "as-designed" plans or in PART B.

Submit shop drawings on standard ANSI D size 863.6 mm × 558.8 mm (34 inch by 22 inch) to the District Bridge Engineer for review and acceptance. The Department is not responsible for work done without approved shop drawings.

If any provisions in PART B conflict with those in PART A, the provisions in PART B are to govern.

Within 60 calendar days after completion of the bridge structure, revise the structure drawings to show "as-built" conditions and submit them to the Representative. If caissons or piles are utilized, show, on the bridge elevation view, the maximum and minimum tip elevation and the average length for each substructure unit.

**(c) Design Requirements.** In the design of an alternate bridge structure, comply with PENNDOT Design Manual Part 4, "Structures", and other design criteria as specified for the "as-designed" bridge structure, subject to the exceptions and/or additions in PART B, "SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS".

Provide clear span distances between faces of substructure units and underclearances of not less than the minimum values indicated for the "as-designed" bridge structure, except as noted in PART B.

The minimum underclearance for stream or river crossings is defined as the high water elevation for the design flood plus the specified debris clearance or as indicated for the "as-designed" bridge structure, whichever is less.

The minimum clearance for overpass structures is defined as the minimum required underclearance plus 75 mm (3 inches) or the minimum underclearance indicated for the "as-designed" bridge structure, whichever is less. Provide additional underclearance to compensate for foundation settlement if applicable to the alternate design.

Provide equivalent inspection and maintenance accessibility for the alternate bridge structure as for the "as-designed" bridge structure. In case of a disagreement on accessibility, the Chief Bridge Engineer's decision will be binding.

Do not change the indicated horizontal and vertical alignments, except as noted in PART B.

For an alternate bridge structure, design the substructure to be within the limits of allowable foundation pressures and allowable pile loads, as indicated for the "as-designed" bridge structure.

Provide structure and end structure drainage as indicated for the "as-designed" bridge structure.

**1. Deck Joints**. Provide the same type and number of expansion joints for an alternate bridge structure as specified for the "as-designed" bridge structure.

**2. Bearings.** Provide the same type bearings for an alternate bridge structure as specified for the "as-designed" bridge structure.

Provide an expansion dam support system as indicated for the "as-designed" bridge structure unless otherwise specified in PART B, "SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS".

**3. Superstructure.** If the as-designed bridge superstructure consists of curved girders, as shown on the structure drawings, the alternate design bridge superstructure is also to consist of curved girders.

Provide slab designs conforming to the requirements of Standard Drawing BD-601M. Use composite design only, unless the "as-designed" bridge structure utilized noncomposite design.

**4. Super Load Bridge Beams.** Do not use super load bridge beams (beams over 48 800 mm (160 feet) in length or total load over 894 kN (201,000 pounds) gross weight) unless included in the "as-designed" bridge structure or permitted in PART B, "SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS". Verify that an oversize and/or overweight permit can be issued for superloads, before incorporating them into the alternate design.

If super load bridge beams are used, for transportation of these beams conform to the requirements of PENNDOT Design Manual Part 4, Appendix E, and the following:

- o Requests for waiver of any provisions of Chapter 179 of Title 67 will not be approved, except as noted herein.
- o Transportation equipment axles will not be permitted in excess of 120 kN (27,000 pounds), regardless of gross weight.

**5. Alternate Prestressed Concrete Bridge Structure.** Use the Department's prestressed concrete girder computer program to design precast prestressed concrete beams.

Prestressed Concrete Beams. Prestressed concrete beam sections, differing significantly from the standards specified herein, will be considered special sections and subject to the requirements of Section 1107.03(a)4. Do not deviate from the minimum flange and web thicknesses or section properties shown in the Bridge Design Standards.

The redesign of precast diaphragms as specified in PENNDOT DWG. #95-604-BQAD dated 11/20/96 from as designed cast-in-place diaphragms will be considered an alternate bridge structure also.

Use of low mass (lightweight) concrete for prestressed beams is not allowed.

o Deck Slab. If the effective slab span is less than 1100 mm (3 1/2 feet), a minimum slab thickness of 190 mm (7 1/2 inches), using all No. 13 (No. 4) reinforcement bars, is allowed.

o Prestressed Concrete Segmental Box Girders. Use either single or multiple cell box girders, trapezoidal in shape (inclined webs) or rectangular in shape (vertical webs). Provide for future deck removal and replacement in the design and details. Conform to design criteria specified for the "as-designed" bridge structure; and as follows:

Cast-in-place joints may be used to join precast segments, in place of match cast joints sealed with epoxy. If cast-in-place joints are used, shear keys may be omitted. However, if shear keys are omitted, striate and/or heavy score the surfaces to be joined to a minimum depth of 6 mm (1/4 inch). Use the same concrete mix for cast-in-place joints as for the precast segments, and ensure that strength development is the same.

Maintain a joint width as needed for coupling conduits, welding or lapping reinforcement, and placement of concrete, but in no case allow a joint width of less than 100 mm (4 inches) at the closest point. Keep adjacent concrete surfaces thoroughly wet or apply an approved bonding agent before placing concrete in the joint.

Identify anchor piers. Provide box girder diaphragms having sufficient openings to allow for continuous inspection of the inside of the box girder. Provide steel access doors with master locks, at each abutment, for each box. Provide diaphragms that are substantially solid at piers and abutments, except for access and utility holes.

Design adjacent prestressed box beam as a composite beam unless otherwise specified in PART B, "SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS".

**6. Alternate Steel Bridge Structure.** Do not use unpainted weathering steel unless permitted in PART B, "SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS".

Do not include longitudinal stiffeners in computing steel section properties.

**7. Nonstandard Designs.** Do not submit an alternate design bridge structure, either prestressed concrete or steel, which is not covered by the aforementioned Standards, or under PART B, "SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS".

**8. Pile- Supported Foundation.** Base pile design for the alternate bridge structure on the same type, size, length, tip reinforcement, maximum design load, and driving criteria specified for piles for the "as-designed" bridge structure. Piles will be measured and paid for as specified herein.

Include test piles in the lump sum price bid for the bridge structure. Provide the same number of test piles per substructure unit for alternate designs as specified per substructure unit for the "as-designed" bridge structure.

Load test piles, when specified for the "as-designed" bridge structure, will be measured and paid for separately, as specified. Provide the same number of load test piles per bridge structure for an alternate design as specified for the "as-designed" bridge structure, located at a substructure unit as close as possible to the "as-designed" location.

Bearing piles, additional test piles, test pile extensions, load test pile extensions, and pile tip reinforcement will be measured and paid for separately as specified in Section 1005.4. Determine test pile extensions and load test pile extensions relative to the pile lengths indicated in the estimated quantities for the "as-designed" bridge structure or approved alternate bridge structure.

Record the bid quantities for bearing piles and pile tip reinforcement in the spaces provided in the Project Items and Quantities for the alternate design.

Base the estimated quantity for bearing piles used in an alternate design on maximum utilization of the allowable design load indicated for piles used in the "as-designed" bridge structure.

Calculate the lengths of bearing piles used in an alternate design as follows:

o Determine the bearing pile length for each as-designed substructure unit, to the next longer 100 mm (foot), by dividing the quantity of bearing piles by the number of bearing piles for that unit, using the estimated quantities indicated for the "as-designed" bridge structure.

o For alternate designs involving the relocation of substructure units, determine bearing pile lengths by straight line interpolation, to the next 100 mm (foot), using as-designed pile lengths and the average distance between as-designed substructure units in back and ahead of the relocated unit. Base the average distance between as-designed substructure units on measurements between the centerlines of piers (or centerline of bearing at abutments) along the centerlines of exterior girders or beams. If the alternate design bridge structure is longer than the "as-designed" bridge structure, provide bearing piles for the relocated abutment of the same length as the bearing piles for the as-designed abutment.

o If one of the as-designed substructure units in back or ahead of a relocated unit is wholly supported on a spread foundation, determine the bearing pile length for the relocated unit, to the next 100 mm (foot), by a straight line interpolation, using the bearing pile length of the as-designed, pile supported unit and zero length at the spread foundation supported unit. However, do not use lengths of less than 3000 mm (10 feet) for determining the bid quantity.

o For relocated substructure units, test pile lengths, which are included in the lump sum price for the alternate design bridge structure, are to be the average lengths determined using the procedures specified above. The load test pile length at a relocated substructure unit is to be the same as the bearing pile length at that unit.

o For the purpose of determining pile lengths at relocated substructure units, consider a unit relocated if the average distance from the closest, as-designed unit is 6000 mm (20 feet) or more. Determine the average distance as specified above.

Show the estimated quantities of as-designed load test piles, test piles, bearing piles, and pile tip reinforcement used in an alternate design on the alternate design plans when submitted for approval. Show test pile lengths, included in the lump sum price bid for the alternate bridge structure, and load test pile length, included in the lump sum price bid for load test piles, in the estimated quantities. Tabulate piling quantities using a format similar to that used for the "as-designed" bridge structure. Show alternate design bid quantities for load test piles, bearing piles, and pile tip reinforcement for comparison with approved, as-designed, estimated quantities.

Value Engineering of as-designed piles used in an approved alternate design bridge structure is allowed.

If as-designed piles for a relocated substructure unit in an alternate design cannot be driven, thereby necessitating a redesign of the substructure unit, furnish the revised design and complete construction drawings as part of the lump sum price bid for the alternate bridge structure.

If the as-designed pile layout can not be used in an alternate design involving a relocated substructure unit, alternate design piles will be measured and paid for as part of the lump sum price bid for the alternate bridge structure. Exclude from the bid all pile load tests specified for as-designed piles which are replaced by alternate design piles.

Compute the pay quantity for as-designed bearing piles incorporated into an alternate design as follows:

Case 1: If D and E are less than or equal to B, the Pay Quantity = D

Case 2: If D and E are greater than B, the Pay Quantity = D - (E-B)

Case 3: If E is greater than B but D is equal to or less than B, the Pay

Quantity = D

For all other cases, use D as the Pay Quantity.

where:

D = Actual acceptable driven quantity per structure

B = Bid quantity per structure entered in the Project Items and Quantities.

E = Estimated quantity per structure shown on the approved

alternate drawings.

**III. MATERIAL** - As indicated and as specified for the "as-designed" bridge structure; in accordance with applicable Sections of the Specifications, Publication 408, and numbered changes thereto; and/or the Special Provisions for each respective item included in the bridge structure.

**IV. CONSTRUCTION** - In accordance with applicable Sections of the Specifications, Publication 408, and numbered changes thereto in effect before the letting date; the Special Provisions for each respective item; and any additional requirements contained herein. Submit construction procedures for an alternate design, for acceptance, if other than those contained herein.

Erection methods are open, but submit the proposed method to the Chief Bridge Engineer for approval.

If utility relocations are required to accommodate the proposed locations of substructure units in an alternate design, be responsible for the cost of the utility relocations and any related delay claim costs.

**V. MEASUREMENT AND PAYMENT** - Lump Sum

For the type of alternate design bridge structure selected, subject to a reduction equal to the amount of the Contractor's share of the Department's engineering costs to be determined as follows:

- For each alternate bridge structure with lump sum bid item amount less than $2,000,000 = 2% of the lump sum bid amount for structure

- For each alternate bridge structure with lump sum bid item amount over $2,000,000 = $40,000 plus 0.25% of the lump sum bid amount over $2,000,000, total amount not to exceed $85,000

Each alternate bridge structure involving a redesign from cast-in-place diaphragms to precast diaphragms will be subject to a reduction of $300 per structure if contractor's bid lump for lump sum item is less than $2,000,000 and a reduction of $750 per lump sum item if structure is over $2,000,000, for the amount of the Contractor's share of the Department's engineering cost.

The Contractor's share of the Department's engineering costs will be recovered by processing a contract adjustment (Alternate Design Review) to reduce the contract lump sum price by an amount equal to the Contractor's share.

A utility company's share of fabricated structural steel and/or installation of sleeves, inserts, casings, hanger assemblies, ducts, etc. for utilities is to be a separate item. Do not include the utility company's share in the bid price for the alternate design bridge structure unless otherwise specified.

For an alternate design bridge structure, all items of work are to be included in and will be paid for as part of the contract lump sum price; except, bearing piles; pile tip reinforcement; pile load tests; dynamic pile testing; Class C cement concrete under footings; Class 3 excavation, reinforcement bars, and Class A cement concrete for pedestals; and caissons.

Placing deck concrete in excess of the indicated quantity will not be considered a change from the design. The contract lump sum price for each alternate bridge structure includes full compensation for all deck concrete.

**(a) Bridge Structure As Designed**. If the "as-designed" bridge structure is bid, submit the "Component Item Schedule", included with the Proposal, as specified in Section 103.01(a).

Make the "Total" at the end of the "Component Item Schedule" equal the amount of the lump sum bid for Bridge Structure as Designed.

**(b) Alternate Bridge Structure**. If an alternate design bridge structure is bid, the apparent low bidder is required to submit a "Component Item Schedule for Alternate Design" as specified in Section 103.01(a). No adjustments will be made to the contract lump sum price bid for alternate design bridge structure for any field adjustments necessary to complete the structure.

Make the "Total" at the end of the "Component Item Schedule for Alternate Design" equal the amount of the lump sum bid for Alternate Bridge Structure.

**(c) Alternate Structure Design Costs**. The apparent low bidder is to include a component item for Alternate Design Costs in the Component Item Schedule when an alternate design is bid. Include the cost of this item in the total of the lump sum bid price. Payment of 25% of the total design costs will be made upon approval of the preliminary conceptual design. The remaining amount will be paid for in a proportionate manner, designated by the Department, on the basis of approval of the final design.

## 00 - c80041 PART B SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS, S-31582

**Addendum:**

**Associated Item(s):**

**Header:**
PART B SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS, S-31582

**Provision Body:**

A. General

1. Use LRFD, Load and Resistance Factor Design Method, PennDOT Design Manual 4, September 2007, and AASHTO LRFD Bridge Design Specifications, 3rd Edition, 2004, for design.

2. Maintain the “as-designed” roadway width and geometry.

3. Maintain all required horizontal and vertical clearances shown on the plans.

4. Do not change the bridge width.

5. Do not change the location of the substructure units.

6. For future redecking, use two stages during construction; maintain one alternating lane of traffic; maintain a minimum 12’-6” lane width; maintain a minimum of three beams in each stage with the construction joint over the center of a beam.

7. Provide a minimum waterway area of the bridge opening equal to or greater than the “as-designed” structure.

8. Do not use a structure which has a low chord elevation less than the “as-designed”.

9. Lightweight concrete is not permitted.

10. Provide epoxy coating on all reinforcement bars.

11. The new structure and all construction activity must remain within the existing right-of-way.

12. Provide Class AAAP cement concrete for the bridge deck slab, end diaphragms, wingwalls above the abutment construction joint and approach slabs.

13. Provide polypropylene fibers in Class AA cement concrete for barriers.

14. Use Coarse Aggregate, Type A, No. 8 for concrete in barriers.

15. Use Type II Portland Cement for Class A and Class AA cement concrete in pier, abutments and wingwalls below the beam seat and sleeper slabs.

16. Use a maximum water cement ratio of 0.45 for Class A and Class AA cement concrete in pier, abutments and wingwalls below the beam seat and sleeper slabs.

17. Use air entrained concrete for Class A and Class AA concrete.

18. Maintenance of pedestrian traffic is not required during construction.

B. Geometry

Design the structure according to the geometrics shown on the "as-designed" bridge structure. No geometry changes will be permitted.

C. Superstructure

1. Do not use less than five (5) beams/girders in the superstructure.

2. Do not use precast panel forms for placing the concrete deck slab in lieu of metal stay-in-place form.

3. No deck joints are permitted on structure. Do not use longitudinal construction joints in the deck slab.

4. Do not change the configuration, dimensions, or reinforcement of the barrier.

5. Do not use segmental concrete construction.

6. Only weathering steel, galvanized steel and prestressed concrete I-beams are permitted. No prestressed concrete voided box beams are permitted.

7. Provide beams at equal spacing.

8. Precast concrete barriers are not permitted.

9. Do not use slip form barriers.

D. Substructure

1. Use the “as-designed” substructure.

2. Use a solid wall pier.

3. Do not change the bottom of tremie or footing elevations for the pier.

## 00 - c9000-0004 – COFFERDAM FOR PIER

**Addendum:**

**Associated Item(s):** 9000-0004

**Header:**
ITEM 9000-0004 – COFFERDAM FOR PIER

**Provision Body:**

DESCRIPTION - This work is the design, installation, dewatering, and removal of cofferdam for Pier.

MATERIAL – Provide certification or laboratory test results verifying material properties. For used steel, the salvage design values from AASHTO Guide Design Specification for Bridge Temporary Works (AASHTO Guide Specification) may be used as an alternate to testing for determining grade of steel. Materials must be in serviceable condition as determined by the Representative. Any temporary material used does not have to be from a Bulletin 15 source.

o Structural Steel – AASHTO M270 (ASTM A709), Grade 36, Grade 50, or Grade 50W.

o Steel Sheet Piling – ASTM A328, ASTM A572.

o Tremie Cement Concrete – Section 1001.2 .

o Other Material – In accordance with applicable sections of Publication 408.

DESIGN –

(a) Design the cofferdams in accordance with AASHTO LRFD Bridge Design Specifications Pennsylvania Department of Transportation Design Manual, Part 4, and AASHTO Guide Design Specification for Temporary Works. Design cofferdam for the final condition and all construction conditions. Where appropriate, include surcharge loads due to causeways and construction equipment in the design. Do not allow any portion of the cofferdam to be permanently embedded in the new pier.

(b) Submit four [4] sets of design calculations and four [4] sets of completed detailed drawings, sign and sealed by a Professional Engineer registered in the Commonwealth of Pennsylvania, to the Representative for review. Allow 14 days for review by the Department.

1. Include in the design calculations all material properties, design loads, and design assumptions.

2. Include on the detailed drawings all dimensions, limits of work, elevations, material, member sizes, and construction sequence.

3. Specify installation procedures and testing requirements.

(c) The cofferdam type and arrangement will be selected by the Contractor. Examples include braced sheet piling with diagonal braces in cofferdam corners. Do not design or allow any bracing members or struts to be permanently embedded in the proposed pier or supported off the form work. Set top of cofferdam at elevation of 936.00 feet. Provide appropriate precautions for high flow in the creek.

(d) Design cofferdams based on the following soil parameters:

o Effective Angle of Friction: 32 degrees

o Moist Unit Weight of Soil: 125 pcf

o Saturated Unit Weight of Soil: 130 pcf

o Effective Cohesion: 0 pcf

o Shear Strength of Rock Mass: 3.0 tsf

o Provide other soil and rock properties with test data as required for design.

CONSTRUCTION –

(a) Installation. Install cofferdam in accordance with applicable sections of Publication 408 and in accordance with the accepted design and drawings. Place all concrete except tremie concrete in the dry.

(b) Dewatering. Determine suitable methods and equipment for dewatering of cofferdam. Dewater cofferdam to provide for construction of pier in a reasonably dry condition.

(c) Tremie Seal. Use properly designed tremie seal to prevent water from infiltrating from the bottom of the cofferdam. Excavate below bottom-of-footing elevation to the required depth of tremie seal. Place tremie seal in accordance with Section 1001.3(k)3. Use tremie anchors as indicated on contract plans and as specified in Item 9000-0005 Tremie Anchors. Properly seal seams of cofferdam to minimize infiltration of water. Place pier footing on top of the tremie seal and dowel to the tremie seal as indicated on contract plans. If dry conditions can be maintained inside cofferdam without the tremie seal, place the pier footing at elevation indicated for bottom of tremie seal. Adjust height of pier stem as required to maintain proper bearing seat elevations as indicated on contract plans.

(d) Removal. Remove the cofferdam in its entirety or cut and remove elements of cofferdam one foot below streambed. Remove wales, bracing members, and struts in a safe sequence of operations.

(e) Flooding of the cofferdam will be permitted in case of high water or other emergency endangering the safety of the cofferdam. Perform work resulting from emergency action at no cost to the Department.

QUALIFICATIONS – The work must be supervised by a superintendent or foreman who is experienced in the construction of the selected type of cofferdam. Provide the following with the design submission:

o For the superintendent or foreman who will supervise the work, submit a list containing at least five projects which demonstrate a minimum of three years experience in the construction of the selected type of cofferdam. Include a brief description of each project and the name and the telephone number of the owner's representative knowledgeable in each project listed.

o The name of the Professional Engineer, registered in the Commonwealth of Pennsylvania and having at least three years' experience in the design and construction of cofferdams, who will design and specify the sequence of construction of the cofferdams.

MEASUREMENT AND PAYMENT – Lump Sum.

Payments will be measured and paid for in a proportionate manner as designated by the Representative.

Includes design and construction of cofferdam, tremie seal, dewatering, and partial removal of cofferdam.

## 00 - c9000-0005 – TREMIE ANCHORS

**Addendum:**

**Associated Item(s):** 9000-0005

**Header:**

ITEM 9000-0005 – TREMIE ANCHORS

**Provision Body:**

DESCRIPTION -

This work is the construction of rock anchors for the tremie seals as indicated or designed by the Contractor.

MATERIALS -

a. Grout - Approved non-shrink grout. Use Type I, II or III cement conforming to ASTM C-150 for grout. Use fresh cement that does not contain any lumps or other indications of hydration. Use a grout capable of reaching cube strength (AASHTO T106) of 3500 psi in seven days. Submit the grout mix design and test results for acceptance 30 days prior to construction. Do not use grout additives.

b. Casing - Section 1006.2(a). Provide casing from the work platform to the top of rock of a size sufficient to permit tremie grouting with the anchor bar and anchor head in place.

c. Reinforcement Bar Steel - Section 1002.

d. Submit mill test reports for each heat or sampling lot of material used to fabricate anchors to the Engineer.

e. Fabricate centralizers from material which is no detrimental to the anchors. Do not use wood. Position the centralizer at 2 equal intervals in the bond length to provide a minimum of 0.5-inch of grout cover. Pressure-injected anchors (effective grout pressure in excess of 150 psi) do not require centralizers.

CONSTRUCTION -

GENERAL - Provide rock anchors, or tie-downs, for the tremie seal to resist uplift forces in the dewatered cofferdam. Use a unit weight of concrete in the tremie of 145 pounds per cubic foot (pcf) and a water unit weight of 62.4 pcf. Design the cofferdams to flood water level when the creek rises to an elevation of 936.00. Use an allowable load transfer of 12.2 kips per lineal foot of 6-inch diameter anchor bonded zone. Design the allowable tie-down load per anchor to be 45 kips. Provide anchor bonding length in sandstone rock. Use no resistance in coal if penetrated by anchors.

DESIGN – For Contractor designed anchors, submit complete design calculations and detail drawings, stamped by a Professional Engineer registered in the Commonwealth of Pennsylvania, for all tremie anchors to the Engineer for approval. Approval by the Engineer does not relieve the Contractor from his responsibility for the adequacy and safety of all tremie anchors.

a. Submit the following in the drawings and calculations:

1. A description of the anchor installation (including drilling and grouting information).

2. Estimated anchor capacity; anchor bar type; anchorage type; minimum unbonded lengths; total anchor lengths; and anchor locations and spacings.

3. Provide an embedment length of not less than 2'-0" in the tremie seal above the rock line at the bottom of the cofferdam.

4. Determine the anchor bond length necessary to develop the design load selected for the anchor. Start the anchor bond length at one foot below the rock line at the bottom of the cofferdam.

5. Extend the drilled hole at least 6 inches deeper than the bond length to allow for possibility of cuttings from drilling not being completely flushed out of the hole prior to placing the bars and grouting.

b. Design Requirements. Use a unit weight of concrete in the tremie of 145 pounds per cubic foot (pcf) and a water unit weight of 62.4 pcf. Design for flood water level when the creek rises to an elevation of 936.00. Use a factored resistance for load transfer of 12.2 kips per lineal foot of 6-inch diameter anchor bonded zone. Provide anchor bonding length in sandstone rock but not to exceed 6 feet. Use no resistance in coal if penetrated by anchors.

QUALIFICATIONS - Be experienced or choose a subcontractor who is experienced in the design and construction of tie-down anchors. Have on staff a Supervising Engineer with at least five years of experience in the design and construction of tie-down anchors. Provide proof of experience to the satisfaction of the Department three weeks prior to any construction.

PROCEDURE -

a. General - Locate the anchors at the positions indicated or as indicated in the approved design.

b. Submit samples of the anchor hardware to the Engineer for acceptance.

c. Insure cleanliness of all anchors for their entire length prior to installation.

d. Drilling.

1. Size and Depth. Provide a hole diameter not less than 6 inches if pressure grouting is used in the bond length (pressure greater than 60 psi) and 8 inches if non-pressure grouted (less than 60 psi). Provide casing to maintain an open hole until grouting begins. Drill into bedrock to the minimum lengths accepted. Start calculating the bonded length one foot below the top of rock as determined by the seating depth of the bottom of the casing. Over-drill each hole at least 6 inches below the calculated bonded length.

2. Alignment. Drill straight holes. Do not exceed a deviation of 1/2 inch for depth of the hole. In any one hole deviations greater than the above tolerances may be allowed at the discretion of the Engineer.

3. Align the holes in the rock foundation such that, in the opinion of the Engineer, the anchor assembly can be adequately centered in the hole.

4. Fill holes rejected because of improper alignment with grout and drill another hole at no cost to the Department. Obtain approval of the location of the replacement hole from the Engineer.

e. Preparation of Anchor Hole. Immediately prior to placing each anchor assembly in an anchor hole, thoroughly roughen hole and clean the hole of all drill cuttings and any other debris by methods accepted by the Engineer. Verify the length to the end of the hole to ensure that the anchor assembly will seat properly on the bearing plate.

f. Within 24 hours after the hole is drilled to final depth, insert the anchor and grout. Above the anchor head, provide a temporary coupling and a rod extension that extends above the water level for testing purposes. Extension coupling and rod to be the same size and composition as the anchor rod itself. Always inject the grout at the lowest point of the anchor. Place the grout around the anchor until the returns at the top of the casing indicate that the casing is filled with grout. After grouting, wait for at least one hour after shutting down the flow of grout. Maintaining pressure on the anchor rod to keep it in place, pull up on the casing to permit the grout above the rock surface to flow out of the casing. Record the following data during the grouting operation:

1. Type of mixer

2. Water / cement ratio

3. Grout pressure

4. Type Cement

5. Test Sample Strengths

6. Volume of grout placed in bond and free lengths

7. Total lengths of the anchor, head, coupling and extension rod.

g. Remove casing.

TESTING -

Test the first anchor installed in the cofferdam by loading in accordance with the following schedule. Test at least two additional anchors in the cofferdam. The two additional anchors to be tested will be determined by the Engineer. Submit design calculations and drawings for the reaction assembly for the tests to the Engineer 30 days prior to the start of anchor placement. Test after the compressive strength of the grout is at or above 3500 psi. At each increment, record the movement of the anchor to the nearest 0.001 inches with respect to an independent fixed reference point. Include any actual deflections of the reaction frame in the recorded movement and account for these movements in determining the elongation of the anchor rods. Measure the anchor load with a pressure gauge calibrated with the jack and accurate enough to directly read 100 psi changes in pressure. Provide a pump capable of applying each load increment in less than 60 seconds. Have a calibrated master gauge available on the site to periodically check the test gauge. The increments of load follow:

Alignment load

0.25 Design load

0.50 Design load

0.75 Design load

1.00 Design load

1.20 Design load

1.33 Design load

Remove load from anchor

Hold the load at each increment long enough to obtain the movement reading, but not more than one minute. Hold the 1.33 design load for ten minutes and record the total movements with respect to a fixed reference point at 1 minute, 2, 3, 4, 5, 6, and 10 minutes. If the movement between the 1 minute and 10 minute readings exceeds 0.04 inches, hold the 1.33 design test load for 50 more minutes. Record additional movements at 15 minutes, 20, 25, 30, 45 and 60 minutes.

For acceptance of an anchor, the total movement, measured between 50 percent of the design load and test load (1.33 design load) must be greater than 80 percent of the theoretical elastic elongation of the free stressing length (distance from the top of the bond length to the stressing place on the jacking device) and less than the theoretical elastic elongation of the free stressing length plus 50 percent of the bond length for this load range.

After testing, remove the extension rod from the anchor prior to tremie concrete installation.

Anchors as indicated in the contract plans have a factored design load of 45 kips.

MEASUREMENT AND PAYMENT - Each

Drilling, grouting and testing of tremie anchors as well as all associated materials to satisfactorily install and test the tremie anchors is incidental to this item.

## 00 - c9000-0051 – REPAIR OF DETOUR ROADS

**Addendum:**

**Associated Item(s):** 9000-0051

**Header:**

ITEM 9000-0051 – REPAIR OF DETOUR ROADS

**Provision Body:**

DESCRIPTION - This work is the repair of damage to the roads utilized as detour routes. Perform repair work in accordance with the applicable sections of Publication 408 and as directed. Township Road 348 (East Lancaster Road) has been designated by the Department as a detour routes for the project. The Department will document the condition of the above mentioned routes prior to beginning construction.

MATERIAL - Furnish material for repair work that is compatible with the existing roadway, as determined by the Engineer.

CONSTRUCTION - Repair or reconstruct damaged roadway to the satisfaction of the Engineer.

Due to the contingent or unpredictable nature of the work being performed, the provisions of Section 110.02(d) are not applicable to this item.

All work performed as repair of detour roads will be paid under this item as follows:

(a) Contract Items.

Manual Bituminous Patching - Method A

DESCRIPTION - This work is preparing and patching holes and abrupt depressions 3 inches and less in depth, and deteriorated edges of pavement, and repatching temporarily patched holes using hot bituminous plant mix material placed manually.

MATERIAL -

o Superpave Asphalt Mixture Design Section 409.2

o Tack Coat Material AET Section 702

o Sealing Material E-1, E-6, E-8 or AC-20 Section 702

CONSTRUCTION - Section 409.3 (a), 409.3 (b) and 409.3 (c). The remainder of Section 409.3 is deleted and the following is substituted:

(d) Maintenance and Protection of Traffic. As specified in Section 901 and in accordance with Publication 213, maintain and protect traffic in the temporary area.

(e) Preparation. The outlines of the areas to be cut out and patched will be marked by Department representatives. Each patch will have a minimum area of 4 square feet. Excavate outlined area to sound, stable material. The use of an approved milling or planning machine will be permitted. Cut all edges vertical.

After removal of the debris, thoroughly clean the area to be patched and the surrounding pavement of all loose and foreign material. Dry by approved means, if necessary.

Tack coat the bottom and vertical surfaces of the area to be patched as specified in Section 460.3(b).

(f) Patching. After the tack coat is cured, place hot bituminous plant mix material. Compact with a steel wheeled roller or other approved compaction equipment. Ensure that, after compaction, the surface of the patch conforms to the grade of the surrounding pavement. Fill all excavated areas prior to the close of each work day.

MEASUREMENT AND PAYMENT - Dollar. Payment includes excavation and the removal of existing bituminous pavement, tack and sealing material, bituminous patching and maintenance and protection of traffic.

Manual Bituminous Patching - Method B

DESCRIPTION - This work is preparing, patching, and sealing of holes and abrupt depressions over 3 inches in depth, and deteriorated edges of pavement, and repatching temporarily patched holes using hot bituminous plant mix material placed manually.

MATERIAL -

o Superpave Asphalt Mixture Design Section 409.2

o Tack Coat Material AET Section 702

o Sealing Material E-1, E-6, E-8 or AC-20 Section 702

CONSTRUCTION - Section 409.3 (a), 409.3 (b) and 409.3 (c). The remainder of Section 409.3 is deleted and the following is substituted:

(d) Maintenance and Protection of Traffic. As specified in Section 901 and in accordance with Publication 213, maintain and protect traffic in the temporary area.

(e) Preparation. The outlines of the areas to be cut out and patched will be marked by Department representatives. Each patch will have a minimum area of 4 square feet. Excavate outlined area to sound, stable material. The use of an approved milling or planing machine will be permitted. Cut all edges vertical.

After removal of the debris, thoroughly clean the area to be patched and the surrounding pavement of all loose and foreign material. Dry by approved means, if necessary.

Tack coat the bottom and vertical surfaces of the area to be patched as specified in Section 460.3(b).

(f) Patching. After the tack coat is cured, place binder material in lifts not to exceed three inches in uncompacted depth. After leveling each lift, compact with an approved mechanical tamper. Place wearing course material in the topmost 1-1/2 inches of the patch. Ensure that, after compaction, the surface of the patch conforms to the grade of the surrounding pavement. Compact the last lift with steel wheeled roller or other approved compaction equipment. Fill all excavated areas prior to the close of each work day, except that the 1-1/2 inch wearing course may be placed on the following day.

Measurement and Payment - Ton. Determined from the actual batch weights as recorded by representatives of the Department. Payment includes excavation and the removal of existing bituminous pavement, tack and sealing material and maintenance and protection of traffic.

## 00 - c9000-0053 – UNFORESEEN DESIGN AND REPAIR OF SEPTIC TANK SYSTEM

**Addendum:**

**Associated Item(s):** 9000-0053

**Header:**

ITEM 9000-0053 – UNFORESEEN DESIGN AND REPAIR OF SEPTIC TANK SYSTEM

**Provision Body:**

DESCRIPTION – This work is furnishing all material, labor, and equipment necessary for the unforeseen design and repair to damage of existing septic tank system and appurtenances caused as a result of construction-related activities. The Contractor shall keep the homeowner informed of all on-going activities and decisions regarding the septic tank system.

MATERIAL – The Contractor shall furnish all necessary material and other appurtenances for repair work to make a complete working system. Furnish materials for repair work that is compatible with the existing septic tank system, as determined by the Inspector-in-Charge and generally approved by the homeowner.

CONSTRUCTION – Repair or reconstruct damaged septic tank system to the satisfaction of the Inspector-in-Charge and the homeowner. Contractor shall regrade and seed area if necessary.

Due to the contingent or unpredictable nature of the work being performed, this work shall be paid for on an as-needed basis as directed by the Inspector-in-Charge.

MEASUREMENT AND PAYMENT – Dollar. Payment includes the design and repair of on-property septic tank system and excavation and the removal of material and equipment that is no longer operable or needed for septic tank system operation.

## 00 - c9000-0100 – PRE-DRILLING AND BACKFILLING FOR INTEGRAL ABUTMENT PILES

**Addendum:**

**Associated Item(s):** 9000-0100

**Header:**

ITEM 9000-0100 – PRE-DRILLING AND BACKFILLING FOR INTEGRAL ABUTMENT PILES

**Provision Body:**

DESCRIPTION - This work is the mandatory pre-drilling, or boring holes for bearing piles and test piles at integral abutments to the bottom of pre-drilled hole elevations and backfilling hole with aggregate as indicated or as directed by the Representative.

MATERIAL -

(a) Aggregate - Section 703.1 Type C Fine Aggregate or Section 703.2 AASHTO No. 10 Coarse Aggregate, Table C.

(b) Casing Pipe - Section 1006.2(a).

CONSTRUCTION -

(a) Pre-drill holes at indicated pile locations to the depth indicated on the plans. Deviations of pre-drilled hole from plan location and verticality are permitted provided the driven pile is as specified in Section 1005.3(b)3.

(b) Pre-drill a hole through soil and rock with a minimum diameter of 10 inches larger than the diagonal dimension of the pile but not less than indicated on the plans. Install temporary casing to prevent the hole from collapsing.

(c) Place pile in the center of the pre-drilled hole. Ensure the pile achieves the minimum pre-drilled length.

(d) Backfill pre-drilled hole with dry aggregate. Remove casing and place additional aggregate to fill hole prior to driving pile to refusal.

MEASUREMENT AND PAYMENT - Linear Foot.

(a) Measured from the bottom of the pre- drilled hole elevation to the bottom of the abutment pile cap elevation. Includes mobilization, access to the foundations, drilling through soil and rock, maintaining an open hole, temporary casing, and backfilling with aggregate.

## 00 - c9000-0150 – BACKFILLING WITH CLASS C CEMENT CONCRETE

**Addendum:**

**Associated Item(s):** 9000-0150

**Header:**

ITEM 9000-0150 – BACKFILLING WITH CLASS C CEMENT CONCRETE

**Provision Body:**

DESCRIPTION - This work is backfilling with Class C Cement Concrete voids created by the removal of the existing pier below the proposed footing elevation if dewatering of the cofferdam can be achieved without the use of a tremie seal.

MATERIAL –

(a) Class C Cement Concrete. Section 704.

CONSTRUCTION –

(a) See special provision for Item 9000-0004 Cofferdam for Pier for tremie seal and dewatering requirements.

(b) Preparation. Clean excavation of loose debris and materials. Provide a level bottom for areas to be backfilled by stepping or benching.

(c) Backfilling. Place Class C Cement Concrete in voids to bottom of footing elevation in accordance with Section 1001.3.

MEASUREMENT AND PAYMENT – Cubic Yard

Preparation of the area is incidental to this work.

This item is not used in conjunction with the use of tremie concrete to seal the cofferdam.

## 00 - c9000-0500 – TEMPORARY CAUSEWAY

**Addendum:**

**Associated Item(s):** 9000-0500

**Header:**

ITEM 9000-0500 – TEMPORARY CAUSEWAY

**Provision Body:**

DESCRIPTION – This work is the design, construction, maintenance, and removal of a temporary causeway required to demolish the old bridge structure, and construct the new bridge structure, as indicated and directed.

MATERIALS –

o Selected Borrow Excavation, Class R-3 – Section 205

o Selected Borrow Excavation, Class R-6 – Section 205

o Geotextile, Class 4, Type A – Section 212

o Class 1 Excavation – Section 203

o 48" Pipe – Section 601

CONSTRUCTION – Submit plans for the proposed causeway to the Department for review and approval prior to construction. If the causeway is constructed at an elevation greater than indicated, provide hydraulic calculations for approval and obtain a revised waterway permit.

Install the causeway as indicated or otherwise approved using clean materials free of silt and debris.

Coordinate causeway construction with Item 5018-0001 Removal of Existing Bridge Modified.

Maintain the crossing to the satisfaction of the Engineer.

Remove or breach the causeway during any flood stage that would cause damage in the vicinity. Reconstruct causeway after such an event at no additional cost to the Department.

Replace the causeway as directed in the event of a washout at no additional cost to the Department.

Use the causeway for demolition and construction purposes only.

Remove and dispose of materials when causeway is no longer needed. Restore the streambed and banks to original contours or as directed after removal of the causeway.

Coordinate construction of the causeway to minimize disturbance to Little Connoquenessing Creek.

MEASUREMENT AND PAYMENT – Lump Sum.

## 00 - c9601-0001 – TEMPORARY PIPE

**Addendum:**

**Associated Item(s):** 9601-0001

**Header:**

ITEM 9601-0001 – TEMPORARY PIPE

**Provision Body:**

DESCRIPTION – This work is the installation and removal of temporary 18-inch diameter storm pipes required to convey highway drainage beneath temporary rock construction entrances constructed for erosion and sedimentation control.

MATERIAL – In accordance with Section 601.3.

CONSTRUCTION – Install temporary pipe as indicated. Remove pipe after removal of rock construction entrance.

MEASUREMENT AND PAYMENT – Linear Foot. Includes excavation, AASHTO No. 8 aggregate for bedding, compacted No. 2A coarse aggregate, embankment, rock outlet protection (if required), removal, and disposal of temporary pipe and materials.

# Performance Bonds

| | | | |
|---|---|---|---|
| **Surety Company:** | Travelers Casualty and Surety Company of America | **Status:** | Accepted |
| **Bonding Agency:** | Willis of Pennsylvania, Inc. | **Bond Number:** | 105818196 |
| **Producer:** | Susan C Caputy/PennDOT BP-002066 | **Bond Amount:** | $1,510,178.48 |
| **Co-Insurer:** | No | **NAIC:** | 31194 |

KNOW ALL MEN BY THESE PRESENTS, That we, *MEKIS Construction Corporation* of *1595 ROUTE 422 EAST , FENELTON, PA 16034-9739* as PRINCIPAL,and Travelers Casualty and Surety Company of America a corporation,as SURETY, are held and firmly bound unto the *Commonwealth of Pennsylvania* in the full and just sum of *$1,510,178.48*, lawful moneyof the United States of America, to be paid to the said Commonwealth of Pennsylvania, or it assigns, to which payment well and truly tobe made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

Sealed with our respective seals and dated this 14 day of September A.D. 2012.

Whereas, the above bounden PRINCIPAL has undertaken to contract with the said Commonwealth of Pennsylvania, by and through the Secretary of Transportation covering the workidentified below for approximately the sum of the bond amount defined above.

The description and location of the project is as follows: For the replacement of the existing structure carrying SR 3025 over the Little Connoquenessing Creek with a two lane, two span Continuous Steel Girder Bridge with minimal approach work and other miscellaneous construction, as indicated on the approved drawings included in the bid package for STATE ROUTE 3025, SECTION 251, in Butler COUNTY Lancaster TOWNSHIP from approximately one mile east of the SR 3025/SR 3027 intersection at segment 0050 offset 3530 to approximately the SR 3025/Little Creek Road (TWP) intersection at segment 0060 offset 0420.

and

WHEREAS, it was one of the conditions of the award of the Secretary of Transportation, acting for and on behalf ofthe Commonwealth of Pennsylvania, pursuant to which said contract was undertaken by the PRINCIPAL that these presentsshould be executed, to become binding upon the date the said contract is approved for the office of Budget, by the Comptroller.

NOW, THEREFORE, The conditions of this obligation is such that if the above bounden PRINCIPAL, as Contractor, shall in allrespects comply with and faithfully perform the terms and conditions of said contract, and his, their, or its obligationsthereunder, including the plans, specifications, and conditions therein referred to and made a partthereof, and such alterations as may be made in said specifications as therein provided for, and shall well and truly, and in a manner satisfactory to the Commonwealth of Pennsylvania, complete the work contracted for, and shall save harmless the Commonwealth of Pennsylvania fromany expense incurred through the failure of said contractor to complete the work as specified, or for any damages growing outof the carelessness and/or negligence of said contractor or his, their, or its servants.

And shall save and keep harmless the said Commonwealth of Pennsylvania against and from all losses to it from any causewhatsoever, including patent, trademark, and copyright infringements, in the manner of constructing said section of roadway;then this obligation to be void or otherwise to be and remain in full force and virtue.

It is further provided that any alteration which may be made in the terms of the contract or in the work to be done under itor the giving by the Commonwealth of any extension of time for the performance of the contract or any other forbearance on thepart of either the Commonwealth or the PRINCIPAL to the other shall not in any way release the PRINCIPAL and the SURETY orSURETIES or either or any of them, their heirs, executors, administrators, successors or assigns, from their liability hereunder,notice to the SURETY or SURETIES of any such alteration, extension, or forbearance being hereby waived.

IN WITNESS WHEREOF, the said PRINCIPAL and SURETY have duly executed this Bond under seal the day and year firstabove written.

**Attorney-in-Fact Certification**

*The undersigned attorney-in-fact by executing this Performance Bond certifies that he/she is licensed with the company namedas surety for this bond and that to the best of his/ her knowledge the said surety islicensed with the Pennsylvania Insurance Department.

**Bond Workflow Status**

| Status | Name | Disposition | Date/Time |
|---|---|---|---|
| Draft | Anthony J Bertolino MR/ PennDOT BP-000566 | Submit | 09/14/2012 08:33:02 AM |
| Producer Review | Susan C Caputy/PennDOT BP-002066 | Sign | 09/14/2012 08:53:13 AM |
| Contractor Review | Anthony J Bertolino MR/ PennDOT BP-000566 | Sign | 09/14/2012 09:29:02 AM |
| BOD CMD Review | Roland L Rode/PennDOT | Accept | 09/14/2012 01:19:40 PM |

# Payment Bonds

| | | | |
|---|---|---|---|
| **Surety Company:** | Travelers Casualty and Surety Company of America | **Status:** | Accepted |
| **Bonding Agency:** | Willis of Pennsylvania, Inc. | **Bond Number:** | 105818196 |
| **Producer:** | Susan C Caputy/PennDOT BP-002066 | **Bond Amount:** | $1,510,178.48 |
| **Co-Insurer:** | No | **NAIC:** | 31194 |

KNOW ALL MEN BY THESE PRESENTS, That we, *MEKIS Construction Corporation* of *1595 ROUTE 422 EAST , FENELTON, PA 16034-9739* as PRINCIPAL,and Travelers Casualty and Surety Company of America a corporation,as SURETY, are held and firmly bound unto the *Commonwealth of Pennsylvania* in the full and just sum of *$1,510,178.48*, lawful moneyof the United States of America, to be paid to the said Commonwealth of Pennsylvania, or it assigns, to which payment well and truly tobe made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

Sealed with our respective seals and dated this 14 day of September A.D. 2012.

Whereas, the above bounden PRINCIPAL has undertaken to contract with the said Commonwealth of Pennsylvania, by and through the Secretary of Transportation covering the workidentified below for approximately the sum of the bond amount defined above.

The description and location of the project is as follows: For the replacement of the existing structure carrying SR 3025 over the Little Connoquenessing Creek with a two lane, two span Continuous Steel Girder Bridge with minimal approach work and other miscellaneous construction, as indicated on the approved drawings included in the bid package for STATE ROUTE 3025, SECTION 251, in Butler COUNTY Lancaster TOWNSHIP from approximately one mile east of the SR 3025/SR 3027 intersection at segment 0050 offset 3530 to approximately the SR 3025/Little Creek Road (TWP) intersection at segment 0060 offset 0420.

and

WHEREAS, it was one of the conditions of the award of the Secretary of Transportation, acting for and on behalf ofthe Commonwealth of Pennsylvania, pursuant to which said contract was undertaken by the PRINCIPAL that these presentsshould be executed, to become binding upon the date the said contract is approved for the office of Budget, by the Comptroller.

NOW, THEREFORE, The conditions of this obligation is such that if the above bounden PRINCIPAL shall and willpromptly or cause to be paid in full all sums of money which may be due by contractor or corporation, for all materials furnishedor labor supplied or performed in the prosecution of the work, whether or not the said material or labor entered into and becamecomponent parts of the work or improvement contemplated, and for rental of the equipment used and services rendered by public utilitiesin, or in connection with, the prosecution of such work, then this obligation to be void, otherwise to remain in full force andeffect.

The PRINCIPAL and SURETY hereby, jointly and severally, agree with the obligee herein that any individual, firm,partnership, association or corporation, which has performed labor or furnished material in the prosecution of the work as provided,and any public utility which has rendered services in, or in connection with, the prosecution of such work, and which has not been paidin full therefor, may sue assumpsit on this Payment Bond in his, their, or its own name and may prosecute the same to final judgementfor such sum or sums as may be justly due to him, them, or it, and have execution thereon. Provided, however, that theCommonwealth shall not be liable for the payment of any costs or expenses of such suit.

Recovery by any individual, firm, partnership, association or corporation hereunder shall be subject to theprovisions of the "Public Works Contractors' Bond Law of 1967", Act No. 385, approved December 20, 1967, P.L. 869, which Act shallbe incorporated herein and made a part hereof, as fully and completely as though its provisions were fully and at length herein recited.

It is further provided that any alteration which may be made in the terms of the contract or in the work to be done or materialsto be furnished or labor to be supplied or performed under it or the giving by the Commonwealth of any extension of time for theperformance of the contract or any other forbearance on the part of either the Commonwealth or the Principal to the other shallnot in any way release the PRINCIPAL and the SURETY or SURETIES or either or any of them, their heirs, executors, administrators,successors or assigns, from their liability hereunder, notice to the SURETY or SURETIES of any such alteration, extension, orforbearance being hereby waived.

IN WITNESS WHEREOF, the said PRINCIPAL and SURETY have duly executed this Bond under seal the day and year firstabove written.

**Attorney-in-Fact Certification**

*The undersigned attorney-in-fact by executing this Payment Bond certifies that he/she is licensed with the company namedas surety for this bond and that to the best of his/her knowledge the said surety islicensed with the Pennsylvania Insurance Department.

**Bond Workflow Status**

| Status | Name | Disposition | Date/Time |
|---|---|---|---|
| Draft | Anthony J Bertolino MR/ PennDOT BP-000566 | Submit | 09/14/2012 08:32:35 AM |
| Producer Review | Susan C Caputy/PennDOT BP-002066 | Sign | 09/14/2012 08:53:49 AM |
| Contractor Review | Anthony J Bertolino MR/ PennDOT BP-000566 | Sign | 09/14/2012 09:28:44 AM |
| BOD CMD Review | Roland L Rode/PennDOT | Accept | 09/14/2012 01:19:24 PM |

# Insurance

**Willis of Pennsylvania, Inc.**

c/o 26 Century Blvd.
PO Box 305191
Nashville, TN 37230-5191

**Company:** Bituminous Fire & Marine Insurance Co
**Policy:** CLP3566393
**Expiration:** 02/28/2013

## DBE Commitments

**DBE:** 6%
**Approved:** 6.00%

**Perform Less Than 50% of Work Items:** No
**Good Faith Effort Evaluation:** No

| Status | Business Partner | Business | % of Bid | Submitted | Acknowledged |
|---|---|---|---|---|---|
| Approved | Madura Steel Sales, Inc. | Regular Dealer | 6.00% | 09/18/2012 | 09/18/2012 |

**Madura Steel Sales, Inc.**

**Prime**

**Contact:** Rhonda Snyder
**Phone:** 724-283-6200
**DBE:** 6%
**Status:** Approved
**Revision Number:**

**DBE**

**Business Partner:** Madura Steel Sales, Inc.
**Type:** DBE
**Contact:** Deb Madura
**Phone:** 724-962-8114
**DBE JVT%:**
**Certification:** 2177
**Cert. Expiration:** 04/30/2014

**Agreement Amount:** $90,610.71
**% of Bid:** 6.00
**Mobilization:** $0.00
**Starting:** 10/29/2012
**Completion:** 08/26/2013
**Business Type:** Regular Dealer

**Items**

| Item | Description | Unit of Measure | Quantity |
|---|---|---|---|
| 8120-0001 | BRIDGE STRUCTURE, AS DESIGNED, S-31582 | LS | 1.000 |

**Partial Items**

None

**Comment**

None

**Workflow**

| Status | Name | Disposition | Date/Time |
|---|---|---|---|
| Draft | Rhonda J Snyder MRS/ PennDOT BP-000566 | Submit | 09/18/2012 09:19:55 AM |
| Awaiting Acknowledgement | Debora X Madura/PennDOT BP-001632 | Acknowledge | 09/18/2012 09:28:01 AM |
| Acknowledged | Rhonda J Snyder MRS/ PennDOT BP-000566 | Submit | 09/18/2012 09:31:15 AM |
| PennDOT Review | Delores A Ritzman/PennDOT | Approve | 09/19/2012 08:13:30 AM |

# Plans

| Plans | Addendum |
|---|---|
| Roadway Plan | |
| **Supplemental Plans** | |
| Cross Section | |
| Erosion and Sediment Pollution Control Plan | 1 |
| Signing and Pavement Marking Plan | 1 |
| Structure Plan | |
| Traffic Control Plan | |

# Attachments

**Project-Specific Checklist Items** **Addendum**

Project Specific - Steel Escalation Option Form

**Reviews**

None

**Contract Award Items**

Disclosure of Lobbying Activities

F.A.R. REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

Federal Wage Rate

**Local Agreements and Coordination**

None

**Environmental Clearances**

None

**Permits**

DEP Section 401 Water Quality Certification

DEP Water Obstruction and Encroachment Permit 105/404

Environmental Due Diligence (EDD) - Contractor

Environmental Due Diligence (EDD) - PennDOT

US Army Corps of Engineers Section 404 Permit

**Right of Way**

None

**Survey**

None

**Utilities Clearance**

None

**Utility Engineering**

None

**Construction Items**

Pre-Bid Construction Schedule

**Structures and Geotechnical**

None

**Railroad Coordination**

None

**Traffic**

None

**Construction Coordination**

None

**Maintenance Items**

None

**Estimates**

None

**Comments:**