

ATTENTION

REPLACEMENT OF
MONTOUR RUN BRIDGE NO. 6
COUNTY PROJECT NO. MT06-0608
STATE PROJECT NO.: P-0-96638-0-7-000-1110-221
MPMS NO.: 79896

***RETAIN
THE REMAINING
PORTION OF THIS
PROJECT MANUAL***

NOTICE TO BIDDER

Due to an opinion and order issued by James F. McClure, Jr., United States District Judge, of the U.S. District Court for the Middle District of PA, enjoining enforcement of 43 P.S § 154, Section 107.26(a), Publication 408, is deleted from 100% state funded construction contracts.

In addition to the bidders prequalification number and expiration date, all bidders are required to furnish their Federal Identification Number (FID) of Social Security Number (SSN), phone number, and Fax number on the cover sheet of the proposal/bid document.

The portion of the proposal preceding the blue sheet is the bid document to be submitted to the County of Allegheny at the time of the bid. The proposal portion following the blue sheet remains with the bidder unless otherwise instructed.

On the Schedule of Prices sheets the applicable Prequalification Work Classification Code is shown beneath the corresponding item number. This guides the prospective bidder in determining prequalification eligibility as specified in Section 102.6(c) of Publication 408 and in Section 457.8(a) of the Prequalification Regulations. The bidder's current Prequalification Certificate indicates approved Work Classifications and the corresponding Code designation. If a bid item has multiple work class codes, the bidder has to prequalify for only one of the codes. The Work Classification Code is shown for information only and is not considered binding.

Work Class "ZZ" identifies highly specialized abilities or equipment not normally available in the type of contracting organizations expected to bid on the project proposal. These "ZZ" items will be deducted from the total original contract price before computing the amount of work (50%) required to be performed by the prime contractor.

The special provision entitled "Contractor Responsibility Provisions for Commonwealth Contracts" provides for certification of suspension and debarment status.

Bidders may obtain the current list of suspended and debarred contractors by contacting:

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, PA 17125
Telephone: (717) 783-6472 – Fax: (717) 787-9138

END OF NOTICE TO BIDDER

PUBLICATION 408/2011, CHANGE NO. 2 NOTICE

Throughout these special provisions where the term “Section” is used, it means a portion of the project specifications covering that portion of the total work or requirements under the same name in Publication 408/2011, Change No. 2, the supplemental specifications or the special provisions – all as noted/referenced in the preceding table of contents.

Publication 408/2011, Change No. 2 is the governing Construction Specifications on all projects let after April 6, 2012. Pub. 408/2011, Change No. 2 is written in a dual dimension format (Metric and English). However, prior to the initiation of a project’s design a determination will be made as to the dimension to be used throughout. Thus, either all Metric or all English values will be used on a project’s plans.

Since all projects will be dimension specific either the Metric Construction Items Catalogue, Pub 7M, or the English equivalent, Pub 7, will apply.

The Special Provision to this Bid Proposal entitled: *Governing Specifications and Applicable Designated Special Provisions*, specifies the:

- Edition or Change to Pub 408/2011, Change No. 2 that applies.
- Dimension value to be used (Metric or English).
- Designated Special Provisions that apply (and any project specific percentages or levels of participation that are relaxant).

All entities responding to this bid proposal should acquaint themselves with PennDOT’s new Pub 408/2011 and its subsequent Changes. Changes will be in “new page” format, effective on a semi-annual basis (i.e., Change No. 2/April 6, 2012).

Pub 408/2011, Change No. 2 may be purchased from the PennDOT Sales Store in Hardcopy or CD-ROM format by calling (717) 787-6746. Users may also access free of charge Pub 408/2011, Change No. 2, its Changes, and related Standard Special Provisions on the PennDOT Website: www.dot.state.pa.us, select Forms & Publications, the "Forms & Publication List," "Pub 408" tab, the "Publication 408/2011."

A current listing of all Master Construction Items may be found on the PennDOT ECMS website at: www.dot14.state.pa.us/ECMS/. Click on "Construction Projects", “Resources” and select "Master Items."

END OF PUB 408/2011, CHANGE NO. 2 NOTICE

SPECIAL PROVISIONS

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

THROUGHOUT THESE SPECIAL PROVISIONS WHERE THE TERM “SECTION” IS USED, IT MEANS A PORTION OF THE PROJECT SPECIFICATIONS COVERING THAT PORTION OF THE TOTAL WORK OR REQUIREMENTS UNDER THE SAME NAME IN PUBLICATION 408, THE SUPPLEMENTAL SPECIFICATIONS OR THE SPECIAL PROVISIONS – ALL AS NOTED/REFERENCED IN THE PRECEDING TABLE OF CONTENTS.

END OF GOVERNING SPECIFICATIONS

GOVERNING SPECIFICATIONS AND APPLICABLE DESIGNATED SPECIAL PROVISIONS

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:

DSP1. Offset Provision for Commonwealth Contracts.

DSP2. Contractor Responsibility Provisions.

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
(13)% (2)%

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.

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

DSP9. Special Supplement - Anti-Pollution Measures - August 26, 1999.

DSP10. Nondiscrimination/Sexual Harassment Clause.

DSP11. Contractor Integrity Provisions.

DSP12. Executive Order 11246, with Appendix A and B.

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.

MANDATORY PRE-BID CONFERENCE

A **MANDATORY** pre-bid conference will be held with the Allegheny County Department of Public Works personnel and all prospective bidders and other interested parties to discuss this project. Failure to attend this meeting will preclude you from bidding on this project. Prospective bidders must sign-in at the mandatory pre-bid conference to validate conference attendance.

The meeting will take place on June 14, 2012, at 1:30 pm at the job site.

END OF PRE-BID CONFERENCE

ANTICIPATED NOTICE TO PROCEED

The anticipated Notice to Proceed date used by the County for the calculation of the contract time is August 28, 2012.

END OF ANTICIPATED NOTICE TO PROCEED

AIR POLLUTION CONTROL

Follow the Allegheny County Health Department's Rules and Regulations, Article XXI, adopted October 20, 1995 and its latest revisions concerning Air Pollution Control.

Header

EQUAL EMPLOYMENT OPPORTUNITY WITH PREQUALIFICATION.

Provision Body

I. The Contractor's Prequalification Statement together with any approved revisions or amendments will constitute an approved Affirmative Action Program and is hereby incorporated in this contract by reference.

II. Insert all advertisements for employees in connection with this contract in newspapers having a large circulation in the area of the construction work among minority groups. Include, but do not limit to, such newspapers as listed below:

- Philadelphia Afro-American, 427 S. Broad St., Philadelphia, PA 19147
- Philadelphia Tribune, 522 S. 16th St., Philadelphia, PA 19146
- Pittsburgh Courier, 315 E. Carson St., Pittsburgh, PA 15219

III. Conduct and direct systematic recruitment of employees in connection with this contract through public and private employee referral sources likely to yield qualified minority group applicants, including but not limited to the schools, colleges, and minority group organizations listed below:

- Cheyney University, Chester & Creek Roads, Cheyney, PA 19319
- Lincoln University, Oxford, PA 19352
- California University, California, PA 15419
- West Chester University, West Chester, PA
- NAACP, Labor and Industry Committees
- Community Action Centers
- O.I.C. Technical and Vocational Schools
- Black Community Centers
- Black Ministers
- CORE

LOCAL AUTHORITY CONTRACT: LOCAL LET

Throughout the Department's Specifications Publication 408 whenever references are made to the Commonwealth, the Department or its employees, for the purpose of this contract it will mean the contracting Local Authority and its corresponding employees, unless otherwise superseded by Law.

However, prequalification of bidders, as specified in Section 102.01, will be performed by the Department.

END OF LOCAL AUTHORITY CONTRACT

Header**CONSTRUCTION PROCEDURES - EROSION AND SEDIMENT POLLUTION CONTROL****Provision Body**

I. Observe the applicable following procedures during the entire period of construction as directed:

(a) Conduct all operations as specified in the erosion and sediment pollution control plan and in such a manner to minimize turbidity in streams. Do not discharge water containing sediments or pollutants into the streams.

(b) Direct flowing water away from project construction areas.

(c) Limit movement of equipment through the streambed in accordance with the approved plan so as to prevent unnecessary siltation or disturbance. Permit equipment to cross flowing channels only on rock roadways and/or bridges to prevent constant turbulency and siltation.

Construct rock crossings, causeways or cofferdams with rock having a minimum size of 75 mm (3 inches) or larger as directed; also, the surface may be choked with stone aggregate having a minimum size of 9.5 mm (3/8-inch). Do not use earth or other materials which may cause sedimentation, for any crossings, causeways or cofferdams.

(d) Seed and/or stabilize all stream banks immediately upon completion of grading.

(e) Seed all cut and fill slopes when they have reached a vertical height of 4.5 m (15 feet). On areas where permanent seeding will not be performed within a period of 20 days after the excavation or embankment operations have been completed place temporary seeding (annual Ryegrass) and mulching on all soil areas.

(f) Control the entire grading area at all times during construction by placing the erosion and sediment pollution control devices that can be installed prior to disturbing the earth and the stabilization devices as soon as the required earthwork has been performed.

(g) For any excavation material stockpiled more than 20 days, take interim stabilization measures to minimize erosion of the stockpile slopes.

(h) Clean the sedimentation structures during construction as specified in Section 861. Dispose of silt fencing and sediment removed from the project, as directed.

(i) Separate all water originating outside of the project from that originating within.

(j) During the life of the contract, be responsible for the maintenance of all erosion and sediment pollution control devices.

(k) Seed all borrow and waste areas in accordance with the approved plans and with item (e) above.

Header**ALTERNATE EROSION AND SEDIMENT POLLUTION CONTROL PLAN****Provision Body**

Comply with these requirements when submitting an alternate plan for accomplishing equal or better temporary and permanent erosion and sediment pollution control. Do not start work until the alternate erosion and sediment pollution control plan, schedules, and operation methods have been approved by the Department and the Department of Environmental Protection, or by the Department and the County Conservation District, as applicable.

Apply for any earth disturbance permits or permit amendments not included in the proposal documents that are required because of the nature of the contemplated construction procedures.

Prepare and furnish, with the applications, plans and documents that are required by the Department of Environmental Protection or the County Conservation District.

Provide simultaneously to the District Executive a copy of all plans and documents that affect the construction requirements.

Provide immediately to the District Executive any modifications that are made to the plans and documents that are required by the Department of Environmental Protection or the County Conservation District.

Obtain the approval of the Department and the permit from the Department of Environmental Protection prior to beginning any work when a permit is required, and the approval of the Department and the County Conservation District when a permit is not required.

Acquire areas outside of the right-of-way that are necessary for erosion and sediment pollution control. Proceed with the agreement procedure described in Section 105.14 (Borrow Areas and Waste Areas).

Header

PREVAILING WAGE ACT

Provision Body

Submit bids on this project in compliance with the Pennsylvania Prevailing Wage Act, as specified in Section 107.22. If that Act or any portion thereof is finally determined by a court to be invalid and unenforceable, any savings realized by the Contractor as a result of such invalidation accrue to the benefit of the Department or its designee. The prospective bidder agrees, by submitting this bid, to make payroll records available for audit by the Department. In the event that the bidder fails to afford the Department or its designee the benefit of any savings realized under this paragraph the Department will have the right to withhold payments from this or any other contract in an amount equal to the savings realized plus interest.

INDEX PRICE FOR DIESEL FUEL

The index price for diesel fuel (FB), as determined by the Department, is **\$3.28 per gallon**. Use this index price in accordance with Section 110.12 PRICE ADJUSTMENT FOR DIESEL FUEL COST FLUCTUATIONS.

PRICE ADJUSTMENT FOR STEEL COST FLUCTUATIONS

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.

$$\text{Steel Tonnage (ST)} = 9.17 (L) (Q) / 2000$$

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.

$$\text{Steel Tonnage (ST)} = 8.56 (Q) / 2000$$

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:

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

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.

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

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.

$$\text{Steel Tonnage (ST)} = 2.80 (D) (Q) / 2000$$

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.

$$\text{Steel Tonnage (ST)} = 6.70 (D) (Q) / 2000$$

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:

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

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:

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

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:

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

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.

BRIDGE SHOP DRAWINGS

Allegheny County Department of Public Works has designated HDR Engineering, Inc. to act as agent for the review and acceptance of bridge shop drawings. Submit print sets for review and acceptance, as specified in Section 105.02(d), to the following address:

HDR Engineering, Inc.
11 Stanwix Street
Suite 800
Pittsburgh, PA 15222-1357
Attn: Mark J. Pavlick

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.

CHANGES TO SPECIFICATIONS: SECTIONS 106, 108, 514, 515, 516, 676, AND 1107

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
$\leq 1 \frac{1}{2}$	1/2 deep by 1/2 wide
$> 1 \frac{1}{2}$	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 $6\% \pm 1.5\%$ for traditional mixes and $7\% \pm 2\%$ 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.

Changes to Section 108.07(b) – MILESTONE Date Liquidated Damages

Replace Section 108.07(b) with the following:

(b) Road Users Liquidated Damages. Road Users Liquidated Damages will be charged for each hour that the roadway is not opened to unrestricted traffic after the specified Milestone Date and time. The sum per hour will be deducted from money due or to become due. This deduction will not be as a penalty, but as Road Users Liquidated Damages. In the event the contractor is declared in default, as specified in Section 108.08, Road Users Liquidated Damages will be charged in the amount indicated. If the total amount chargeable as Road Users 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.

- 1. The MILESTONE date and time for this project is Monday, November 26, 2012 at 6:00 a.m. On the project MILESTONE date and time Scott Road is to be opened to unrestricted traffic across Montour Run. Failure to meet this MILESTONE date and time will result in liquidated damages in the amount of Ten Thousand Dollars per hour (\$10,000.00/hr) for each hour or part of an hour that the bridge is not open past the MILESTONE date and time.**

SECTION 100 - GENERAL PROVISIONS

In accordance with Section 100, except as follows:
Add the following:

Section 100 GENERAL -

Except as superseded by law or as specified otherwise in the Special Provisions, references in PDT Specifications Publication 408 are to be interpreted as follows: Commonwealth or State mean the County of Allegheny; the Department or its employees means the Allegheny County Department of Public Works (ACDPW) or its employees; Deputy Secretary for Highway Administration means the Director; Secretary means The County Manager; Central Office means ACDPW in Pittsburgh, PA; Chief Bridge Engineer means ACDPW Manager of the Bridge Division; Chief Engineer, Highway Administration means the Director; District Engineer means ACDPW Construction Engineering Manager; Board of Claims means American Arbitration Association; "MTD" means ACDPW Materials Testing Consultant (MTC); Chief Council, the General Council or the Attorney General means County Solicitor, Deputy County Solicitor or the District Attorney; Office of Inspector General means County Controller; State Treasurer means County Controller; Director, Bureau of Construction and Materials means ACDPW Deputy Director; Office of Administration, Bureau of Affirmative Action means Allegheny County Department of Minority Business Enterprise/Affirmative Action; Pennsylvania Department of Transportation means Allegheny County Department of Public Works; Good Faith Effort Review Committee means Allegheny County Department of MBE/Affirmative Action and PDT Good Faith Effort Review Committee; Room 1109 of the Transportation and Safety Building means Room 501 County Office Building; P. O. Box 2827, Harrisburg, PA 17105 means Room 501 County Office Building, Pittsburgh, PA 15219.

Prequalification of bidders by PDT applies per Section 102.01 i.e., only PDT prequalified bidders are eligible to bid this Project.

Preface the word "Form" e.g. Form CS-4171 where it appears in the Specifications by the abbreviation: "PDT" unless specified otherwise.

Where the Specifications indicate that you are to provide documentation to the Inspector-in-Charge it means that you shall also provide a copy to the Director to the attention of his designated representative.

END OF SPECIAL PROVISION

SECTION 101 – ABBREVIATIONS AND DEFINITIONS OF TERMS

In accordance with Section 101, except as follows:

SECTION 101.01 MEANING OF TERMS

Add the following to the first paragraph: The words "you" or "your" or "own" pertain to the Contractor.

SECTION 101.02 ABBREVIATIONS

Add the following:

ACDPW - Allegheny County Department of Public Works.

MTC - a testing agency or company that has been retained by the Allegheny County Department of Public Works

SECTION 101.03 DEFINITIONS

Replace the word "Department" under the definitions for "Bulletins" with the abbreviation: "PDT".

Replace the definition of "CENTRAL OFFICE" with the following: The central office of the Department.

Replace the definition of "CONTRACT" with the following:

Contract - Complete, integrated agreement between the parties embodied in the Contract Documents that supersedes all other negotiations, representations, and agreements. Also see Contract Documents.

Add the following after the definition of "CONTRACT ITEM (PAY ITEM)":

CONTRACT UNIT PRICE - any price bid in the Base Bid under the respective items of the Proposal, whether such price is per unit of measurement, per each, or per lump sum.

CONTRACT PRICE - the total price bid or Base Bid for the whole Work complete, or the total sum of the amounts obtained by multiplying the respective Contract Unit Prices by their quantities per the Proposal.

Replace the language in the definition of DEPARTMENT with the following: The Allegheny County Department of Public Works.

Replace the word "Department" in the definition for "Districts" with the abbreviation "PDT".

Delete the following definitions: District Engineer; Secretary.

Add the following to the definition of "PAYMENT BOND": "PAYMENT BOND" also means Labor and Materialmen's Bond.

Add the following to the definition of "PERFORMANCE BOND": "PERFORMANCE BOND" also means Contract Bond.

Add the following to the definition of "PROPOSAL GUARANTY":
"PROPOSAL GUARANTY" also means Bidder's Bond.

Replace the definition for "PROJECT" with the following: The total construction and Work to be performed under the Contract Documents.

Add the following to the definition for "WORK ORDER" under Section 101.03: "Work Order" also means Change Order (signed by the Director authorizing the performance of additional or extra work, or extra work on a force-account basis per Sections 110.02 and 110.03).

Add the following definitions:

Addendum - Written or graphic instructions that are issued prior to the opening of bids which clarify, revise, add to, or delete from the original Bidding Documents and/or previous Addenda.

Agreement - The document stating the essential terms of the construction contract which incorporates by reference the other Contract Documents; the document setting forth the terms of the contract between the County and the Contractor.

Base Bid - The Bidder's price for the Work per his Bidding Schedule in proposal.

Bidder's Bond – see Proposal Guaranty.

Bidding Documents - The Drawings and Project Manual and Addenda, if any, for use by the Bidder in preparation and submission of a Proposal.

Bidding Schedule - That portion of the Proposal Forms which provide the Schedule of Prices for the Work.

Chief Executive - The individual elected by the citizens of Allegheny County who is charged with exercising the execution and administrative duties and responsibilities set forth in Article V, Section 2 of the Allegheny County Home Rule Charter.

Contract Bond - see Performance Bond.

Contract Documents - Those documents which together comprise the Contract, including:

- (1) Public Advertisement
- (2) Instruction to Bidders
- (3) Proposal

- (4) Bidder's Bond
- (5) Agreement
- (6) Contract Bond
- (7) Labor and Materialmen's Bond
- (8) Addenda
- (9) Specifications
- (10) Drawings
- (11) Notice of Award
- (12) Insurance Certificates
- (13) Notice to Proceed
- (14) Minimum Wage Rates
- (15) Change Orders
- (16) Other documents designated as part of the Contract.

County - The County of Allegheny, a political subdivision of the Commonwealth of Pennsylvania.

County Council - The fifteen member body elected by the citizens of Allegheny County which is charged with the legislative power in Allegheny County Government and vested with the duties and responsibilities set forth in Article IV, Section 2 of the Allegheny County Home Rule Charter.

County Manager - The individual appointed by the Chief Executive with the consent of the County Council who shall serve as the chief administrative officer of the County and who is charged with the duties and responsibilities set forth in Article VI, Section 2 of the Allegheny County Home Rule Charter.

Director - The Director of the Department of Public Works designated by the County to supervise the administration of the Contract or the duly authorized representative of Director.

Final Acceptance - The County's acceptance of the Project from the Contractor upon certification by the Architect/Engineer and the Construction Manager that it is complete and in accordance with contract requirements. Such acceptance shall not be deemed a waiver and/or an acceptance by the County of any latent and/or undiscovered defects in the Contractor's work.

Instructions to Bidders - The requirements with which a Bidder must comply before and during submission of Bid and the description of certain conditions affecting the award of the Contract.

Labor and Materialman's Bond - see Payment Bond.

Lowest Responsible Bidder - Bidder who submits the lowest bona fide bid and is considered by the County to be fully responsible and qualified to perform the Work for which the bid is submitted.

Owner - The County of Allegheny with whom Contractor has entered into the Agreement and for whom the Work is to be provided.

Project Manual - The title of the bound manual which contains or references written/illustrative information eg. Introductory information; bidding requirements, forms, and conditions; miscellaneous and specifications for bidding and constructing the Project; also see "Proposal".

Record Drawings - The annotated set of the Drawings marked-up to show changes made during the construction process.

Substantial Completion - Construction that is sufficiently completed in accordance with the Contract Documents and certified by the Director, so that the Project can be used, occupied or operated for its intended use. In no event shall a Project be certified as substantially complete until at least ninety percent (90%) of the work on the Project is completed, and only the portion of the Project so completed shall be considered substantially complete. Also see Section 107.15.

Supplements to Proposal - Attachments or supplements to Proposal required to be submitted with the Proposal or prior to Award of Contract as specified in the Contract Documents.

Written Notice - Written information deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving the notice.

END OF SPECIAL PROVISION

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS

In accordance with Section 102, except as follows:

SECTION 102.01(b) Delete this Subsection

SECTION 102.03 ISSUANCE OF PROPOSAL

Revise to read:

Proposal Forms, Project Manual and Drawings are available to view or purchase in the office of the Contract Manager of the County Department of Public Works, Room 504, County Office Building. Pay the County the sum stated in the Advertisement for copies of the Proposal Form, Project Manual and the Drawings.

SECTION 102.05 EXAMINATION OF PROPOSAL, PLANS, SPECIFICATIONS, SPECIAL PROVISIONS AND SITE WORK

Add the following paragraphs:

If, during the interval between advertisement and the submission of bids, any discrepancy, omission, contradiction or ambiguity in the Bidding Documents, or a provision which is in conflict with a Federal or State Law or Regulation or with a law or ordinance of the municipality or other local authority is found, notify the Director at once. If the Bidding Documents are in error, or require clarification, the County will make correction or clarification in an Addendum to the Bidding Documents, copies of which will be sent simultaneously to prospective bidders.

The County will hold a Pre-bid Conference at the date and hour stated in the Advertisement for Bids for the Work in Room 505, County Office Building with County personnel and prospective bidders and other interested parties to discuss this Project.

SECTION 102.06 PREPARATION OF BIDS

Revise Subsections 102.06(a) through (d) to read:

- (a) Per Section 102.01 the County will accept proposals from only prequalified contractors within their eligible qualification rating in the maximum allowable amount of work or type of work classification.
- (b) State in ink, in Arabic figures the price of each item of work proposed and specified on the Proposal; on alternate bid items circle the item number and/or description of the bid item; indicate business address and form of business organization and the full names and addresses of participants in the Proposal; and indicate such other information as may be required.
- (c) 1. When the bidder is an individual, the signature of the bidder or some person whom the bidder has authorized, by a properly executed Power of Attorney to sign the Proposal for him is required;

2. When the bidder is a partnership, the signature of one of the partners or some person whom the partnership has authorized to sign the Proposal for it by a properly executed Power of Attorney is required;
 3. When the bidder is a corporation, the signature of an officer of the corporation, or some other person authorized by a proper Resolution of its Board of Directors, regularly adopted to sign the Proposal for it is required.
- (d) For a joint venture proposal, each party of the joint venture shall execute the Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a Partnership.

Any proposal which, in the proposal form itself or in any of the accompanying papers, is unintelligible, or which exhibits any erasure or other mutilation, or written memoranda qualifying the same, or is not properly signed or otherwise not properly made up, will be considered as informal and may be rejected for that reason alone.

Section 102.06(e) Anti-Collusion Requirements

Revise Bullet 1. to read:

The price(s) and amount of this bid have been arrived at independently and without consultation, communication or agreement for the purpose of restricting competition with any other contractor, bidder or potential bidder.

Revise the last paragraph to read:

The authorized signer of this bid hereby states that he or she understands and acknowledges that the above representations are material and important, and will be relied on by PENNDOT and the County of Allegheny, in awarding the contract(s) for which this bid is submitted. He or she understands and this firm understands that any misstatement in this statement is and shall be treated as fraudulent concealment from Allegheny County of the true facts relating to the submission of bids for this contract.

SECTION 102.08 BID GUARANTY FOR EXECUTION OF CONTRACT

Revise to read:

File with the Proposal a certified check in an amount not less than five percent of the Proposal, or a Bidder's Bond on the form provided in an amount not less than five percent of the Proposal. Furnish the Bidder's Bond with one or more surety companies listed thereon that are on either the Court of Common Pleas' List or the U.S. Treasury Annual List of Surety Companies, to indemnify the County against all loss, damage cost and expense if the contract is not executed as provided in Sections 103.04, 103.05 and 103.06. Ensure that the Power of Attorney attached to the bond is currently dated and sealed and executed by a proper live or facsimile signature.

SECTION 102.09 DELIVERY OF BIDS

Revise to read:

The office of the County Controller, County Court House, Pittsburgh, Pennsylvania, will receive separate and sealed proposals, together with attachments or supplements and a Bidder's Bond or certified check in the specified amount until the date and hour stated in the Advertisement for Bids for Work, and will publicly open and read the same on the date, in the place and at the hour designated in the Advertisement.

SECTION 102.12 OPENING OF BIDS

Revise the first sentence to read:

The County will open and read the Proposals in public at the time, on the date and at the place indicated in the Advertisement.

END OF SPECIAL PROVISION

SECTION 103 - AWARD AND EXECUTION OF CONTRACT

In accordance with Section 103, except as follows:

SECTION 103.02 AWARD OF CONTRACT

Add the following to the first sentence: unless the award is delayed by a required approval of another government agency, the sale of bonds, the award of a grant or grants, in which case the County will award the contract to the lowest responsible bidder within 120 days of the date of bid opening.

SECTION 103.04 SURETY BONDS

Revise to read:

If awarded the contract, enter into a written contract with the County for performance of the work, and deliver to the County: a Contract Bond with surety in the full amount of the contract price conditioned for the faithful performance of the contract in accordance with all the terms and provisions thereof; a separate Labor and Materialmen's Bond with surety in the full amount of the contract price conditioned as provided by the Act of Assembly of the Commonwealth of Pennsylvania, approved June 9, 1931 (P.L. 401) and containing the specific provisions therein prescribed; and such other bonds, each with surety, as may be considered all inclusive in the bond package in accordance with the "Rate Manual of Fidelity, Forgery and Surety Bonds" by the Surety Association of America, and as the Specifications may require.

Ensure that the Power of Attorney attached to each bond is dated currently, and sealed and executed by a proper live or facsimile signature.

When provided an Acceptance Certificate (see Section 110.09(b)) agree for self, heirs, executors, administrators, successors and assigns, to maintain all the work done under this contract in good condition for the period of one (1) year from the date of final acceptance of same, the Chief Executive being the judge of the condition of the work; and upon the acceptance of the completed work and before the Surety which has furnished the Performance Bond is released, to furnish a Maintenance Bond of an acceptable surety company in the full amount of the final cost to the County. Condition said bond so that if the work done shall pass from the jurisdiction of the County to the jurisdiction of the Commonwealth or to any Municipal Subdivision or local authority thereof, the rights and privileges of the County shall thereby pass to and be assigned to the Commonwealth or to such Municipality or Local Authority. Furnish the bond with a Power of Attorney attached to it that is dated currently, sealed and executed by a proper LIVE (not facsimile) signature. Furnish the Maintenance Bond in an amount equal to 100% of the total amount of the contract, as indicated in the Final Estimate.

SECTION 103.05 EXECUTION AND APPROVAL OF CONTRACT

Revise to read:

On notice of award, execute the Agreement, with sureties, and deliver it to the County with all specified bonds and insurance policies and certificates. Procure only occurrence-based insurance coverage and so note on the certificate or demonstrate exhaustive efforts to purchase such insurance where it is unavailable. If able to demonstrate factual impossibility of obtaining occurrence-based insurance, then purchase insurance in the form and amount that the County determines. Furnish executed contract, insurance and bonds within ten days (or such other reasonable time, not less than ten days, as may be stated on the notice) after the deposit in the mails, postage prepaid and properly addressed, of the County's notice of award.

SECTION 103.06 FAILURE TO EXECUTE CONTRACT

Revise to read:

In case of failure or neglect to execute the agreement as provided in Section 103.05, the County will consider that the awardee has abandoned the contract and is in default to the County. The County may then re-advertise or otherwise award such contract and collect the costs and losses to the County incident to such abandonment, re-advertisement or re-award, from the required Bid Bond.

Add the following Subsections:

SECTION 103.09 RETURN OF PROPOSAL GUARANTY

The County will return proposal guaranties within 10 days after bids are opened, excepting those which the County Controller elects to hold until the award is made. Thereafter, the County will return proposal guaranties, other than that of the qualified low bidder, at once. The County will hold the proposal guaranty of the bidder to whom the award is made until the contract is signed by both parties to the contract and approved by the Law Department of Allegheny County.

END OF SPECIAL PROVISION

SECTION 105 - CONTROL OF WORK

In accordance with Section 105, except as follows:

SECTION 105.06(a) Utility Infrastructure and Utility Adjustments Interfering with Contract Operations

Add the following:

Contact all utility representatives at least 15 calendar days prior to starting operations.

Cooperate with public utility companies and local authorities in the placement, replacement, relocation, adjustment or reconstruction of their structures and facilities during construction including but not limited to the following for the specified types of utility work.

- PRIOR:** Operations utility will complete before the County issues the Notice-to-Proceed.
- RESTRICTIVE:** Operations utility will complete before you can operate without restriction.
- CONCURRENT:** Operations utility will conduct simultaneous with but not restricting your operations.
- COORDINATED:** Operations utility will have to phase with specific operation.
- NOT AFFECTED:** No utility operations; identifies utility with facilities in area that the Work of Project should not affect; may provide specific information.
- INCORPORATED:** Utility relocation work to be incorporated into the prime construction contract.

The table below indicates the anticipated number of required utility working days AFTER DATE OF NOTICE TO PROCEED to complete each area of RESTRICTIVE AND CONCURRENT utility work. The table also shows required utility working days, AFTER COMPLETION OF SPECIFIED OPERATION to complete each area of COORDINATED utility work. The table is for informational purposes only and represents information provided by utility companies based on a design one-call placed by the Department of Public Works.

Utility	Station	Type of, and Time Required, for Utility Work @ Each Location (Calendar)
ALLEGHENY POWER Contact: Jake Dolence Phone: 724.942.5236	Sta 101+23 to Sta 101+64 Lt. & Sta 101+64 Lt. to Sta 101+66 Rt. to Sta 103+40 Rt.	NOT AFFECTED: Contractor to exercise caution while working around these lines.
DUQUESNE LIGHT Contact: Rusty Hughes Phone: 412.393.7812	Sta 101+23 to Sta 101+64 Lt. & to Sta 101+64 Lt. to Sta 101+66 Rt. to Sta 103+40 Rt.	NOT AFFECTED: Contractor to exercise caution while working around these lines.
MOON TOWNSHIP MUNICIPAL AUTHORITY Contact: Deborah Walker Phone: 412.264.4300	Sta 101+78 Lt. to 101+80 Rt. & Sta 101+80 Rt. to 103+40 Rt.	NOT AFFECTED: Contractor to exercise caution while working around these lines.
VERIZON PENNSYLVANIA, INC. Contact: Fred Fraer Phone: 412.237.2292	Sta 101+23 to Sta 101+64 Lt. & Sta 101+64 Lt. to Sta 101+66 Rt. to Sta 103+40 Rt.	NOT AFFECTED: Contractor to exercise caution while working around these lines.
WESTERN ALLEGHENY COUNTY MUNICIPAL AUTHORITY Contact: Ray Owens Phone: 412.788.4337	Sta 101+27 Lt.	NOT AFFECTED: Contractor to exercise caution while working around this line.

Section 105.14(a) Non-Designated Areas

Add the following paragraph:

Perform the clean fill determination for all borrow materials entering the construction right-of-way by completing and submitting the Environmental Due Diligence Form EDD-VI, and, if necessary, Form EDD-VII to the Department for acceptance.

END OF SPECIAL PROVISION

SECTION 106 - CONTROL OF MATERIAL

In accordance with Section 106, except as follows:

SECTION 106.01 GENERAL

Revise the first paragraph to read:

Use material complying with the requirements of these specifications. Use and cause to be used in Project by all subcontractors, only such products as have been manufactured by manufacturing processes that occur in the United States. The Director may determine that for specific items this requirement does not apply; then, make a written request and the Director may waive this provision by written authorization.

Revise the fourth paragraph to read: Within thirty (30) days after award of the contract, submit to the Director for approval a statement of the origin, composition, manufacture, and supplier of each material to be used on the Project, including materials to be used by subcontractors.

Add the following paragraph: In certain limited cases the contract documents may indicate a standard of quality by the use of a manufacturer's or a brand name. In such cases, the County will accept materials if they are approved by the Director as equivalent.

SECTION 106.03(b) Specifications, Other Than Restricted Performance

Revise Bullet 1 to read:

1. Responsibility. The Department will be responsible for determining the acceptability of the material and construction. Material will be reviewed for acceptance through the Department's specified acceptance procedures. Sample locations for acceptance testing will be determined by the Department.

The Specifications state responsibilities for testing, inspection, and certification of materials. By provisionally accepting a material by certification or visual inspection the County does not waive its right to test a material later.

Perform sampling and testing for acceptance in the presence of the Inspector, unless otherwise specified. Transport acceptance samples from sampling point to testing site or other designated location in the presence of the Inspector.

Use only AMRL/CCRL accredited sampling and testing laboratories and obtain approval for such use in advance from the Director. Furnish three (3) copies of commercial inspection and testing laboratories' inspection and testing reports to the Director.

The Contractor is responsible for the control and quality of the material and construction. Prepare a QC Plan as specified in Section 106.03 (a) 2.a and submit it to the Inspector-In-Charge for review at the start of the project. Include QC sampling and testing frequencies and action points to initiate corrective measures. Notify the Inspector before performing QC sampling and testing. Perform QC sampling and testing and report results to the Inspector.

Do not incorporate any material into the work that is determined to be outside the specification limits.

Obtain and test samples according to the Department's PTMs. If the required test method is not specified, use methods described in the AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing, and Supplements, Standards and/or Tentatives of ASTM, or other testing procedures adopted by the Department.

Verification sampling and testing will be performed by the County, unless otherwise specified. QA sampling and testing will be witnessed by the County. Independent Assurance sampling and testing will be administered by the County.

The following table identifies materials for the Project and the party(ies) responsible for sampling and testing, or certification.

Item/Section and Material	Quality Control Program Contractor	Acceptance Program County	Certification Manufacturer
212 – Geotextiles			X
309 – Superpave Asphalt Mixture Design, Standard Construction, HMA Base Course	X	X	
350 – Subbase	X	X	
409 – Superpave Mixture Design, Standard And RPS Construction or Plant-Mixed HMA Courses	X	X	
460 – Bituminous Tack Coat	X	X	
461 – Bituminous Prime Coat	X	X	
610 – Pavement Base Drain			X
615 – Subsurface Drain Outlets			X
620 – Guide Rail (Including Appurtenances and Hardware)			X
627 – Temporary Concrete Barrier			X
703 – Aggregates (Coarse and Fine)	X	X	
704 – Cement Concrete	X	X	
711 – Cement Curing Material and Admixtures			X
713 – Masonry Units			X
804 – Seed			X
805 – Mulching			X
850 - Rock Lining (Rock Class R-4, R-7)			X

Item/Section and Material	Quality Control Program Contractor	Acceptance Program County	Certification Manufacturer
865 – Silt Barrier Fence			X
931 – Post Mounted Signs, Type B			X
1001 – Cement Concrete Structures			X
1002 - Reinforcement Bars			X
1091 – Epoxy Injection Crack Seal			X

Include costs for tests and certifications in the bid price for the bid items on the Schedule of Prices.

Provide a copy of each certification for each item requiring certification to the Resident Project Representative, and one (1) copy of each certification for each item to both the Director and the Engineer.

Add the following Bullet:

4. **Acceptance.** The County will ultimately accept or reject the construction and material as per Section 106.07. County will review material for acceptance and conduct an independent acceptance program.
Per Section 609 furnish and maintain field test equipment for County's use to perform its independent sampling and field-testing in accordance with its "Independent Acceptance Sampling, Testing and Inspection Program". Include compensation for the use of equipment in the prices bid for the various related items.

SECTION 106.07 UNACCEPTABLE MATERIAL

Revise to read:

The decision of the Director as to acceptance or rejection of materials and workmanship will be binding upon you. Acceptance of defective material or workmanship does not waive any other remedies the County may have because of the failure of such material or workmanship to comply with the Contract Documents. Upon completion of inspection and testing, the Director will notify you that the materials are either rejected or provisionally accepted.

END OF SPECIAL PROVISION

SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

In accordance with Section 107, except as follows:

Section 107.02(a) PERMITS, LICENSES AND TAX RESPONSIBILITY

Add the following:

Abide by conditions stipulated in the Department of Environmental Protection Permit in the Attachments to this Project Manual. Notify the Pennsylvania Department of Environmental Protection's appropriate Regional Office in advance of the start of construction.

Section 107.14. Revise title and content to read:

107.14 Insurance

- Commercial/Comprehensive General Liability Insurance

Take out and maintain during the life of this Contract, or cause to be taken out and maintained, Commercial /Comprehensive General Liability Insurance, as shall provide protection during performance of the work covered by this contract from claims for damage or injury to persons, including wrongful death, and for damage to property which may arise from operations under this contract, whether such operations be by the Contractor or by subcontractor or by anyone directly or indirectly employed by either the Contractor or subcontractor.

Provide Commercial/Comprehensive General Liability insurance on a per occurrence basis at a combined single limit of \$2,000,000 per occurrence for bodily injury and property damage.

Coverage shall include but not be limited to the following:

- Contractual Liability
- Independent Contractors
- Products/Completed Operations
- Personal Injury
- Explosion, Collapse and Underground Hazards

Ensure that the Commercial/Comprehensive General Liability Policy names the County of Allegheny, the Chief Executive, the County Manager, the County Council, and the County Employees as additional insured with right of notice.

- Automobile Liability Insurance

Provide Automobile Liability insurance covering all owned, hired and non-owned vehicles at a combined single limit of \$1,000,000 per occurrence for bodily injury and damage to property.

Ensure that the Automobile Liability Policy names the County of Allegheny, the Chief Executive, the County Manager, the County Council, and the County Employees as additional insured with right of notice.

- Worker's Compensation Insurance

Carry Worker's Compensation Insurance as required by law or submit evidence of qualification with the Pennsylvania Department of Labor and Industry as a self-insurer.

Indemnify, and hold harmless the County, the Chief Executive, the County Manager, the County Council, and the County Employees from and against any and all claims or liability for compensation under any Worker's Compensation statute arising out of injuries sustained by any of your employees or agents or out of injuries sustained by any agent or employee of your subcontractors.

Indemnify and hold harmless the County, the Chief Executive, the County Manager, the County Council, and the County Employees from and against any and all loss, liability, suits, claims, and damages of whatever nature, for injuries and damages of every kind and nature, to persons and property, including but not limited to death of any person and loss of the use of any property, caused by your or your agents', employees' and subcontractors' willful or negligent act or omission in connection with this Contract.

Meet the requirements of these specifications for insurance specified and carry insurance until work required to be performed under the terms of the contract is satisfactorily completed and formally accepted unless otherwise specified.

Consider failure to carry or keep insurance in force until work is satisfactorily completed, a violation of the contract. In such event, the Director may avail himself of the remedies provided under Sections 108.08 and 108.09.

The Director may waive or modify any of the above listed insurance requirements.

Require subcontractors to carry adequate insurance to protect the subcontractor, the Contractor and the County of Allegheny, the Chief Executive, the County Manager, the County Council, and the County Employees.

Apply no program of self-insured retention to any of the foregoing coverages without prior approval of the County.

Ensure that the limits of liability for each of the required insurance coverages are as stated in the Special Provisions. Carry other insurance as specified in the Special Provisions with limits not less than those stated.

Ensure endorsement on each policy to provide for not less than sixty (60) days prior written

notice in the event of termination, cancellation or material change in terms of policy.

For coverage underwritten on a claim made basis include a provision that tail coverage shall be made available for purchase in the interest of the County in an amount not less than the full specified limits.

- Certificates of Insurance

Provide to the Director, prior to commencing work, Certificates of Insurance evidencing the required insurance. Each certificate shall in addition to the insurance coverage contain the following:

- Inception and expiration dates of insurance policy(ies);
- Limits of liability;
- Nature of Coverage(s) provided including special hazards, if required;
- Name(s) of insurance company(ies); Policy Number(s);
- Notation of deductible and self-insured retention applicable to any contract of insurance;
- Notation of policy endorsement that provides for 30 days prior written notice in event of change;
- Underlying insurance requirements for excess liability contracts.
- Notation of additional insureds; and
- Notation of tail coverage availability in an amount not less than specified limits for coverage on a claim made basis.

The County will accept no certificate which exculpates the issuer or reduces any right conferred on Allegheny County by the above certificates, nor will the County accept certificates unless the certificates bear the signature of a direct representative of an insurance company authorized to do business in Pennsylvania. If requested, furnish certified copies of the required insurance policies to the Director at the time that you deliver the executed contract to the Director or at any time during the life of the Contract. Furnish a certificate of renewal or extension of any policy that expires during the term of this contract at thirty (30) days prior to the expiration date of the policy.

SECTION 107.21 WORKERS COMPENSATION INSURANCE

Revise to read: See Section 107.14.

Section 107.30 Revise content and title to read:

107.30 EMPLOYMENT OPPORTUNITY

- (a) General. The Contractor's Prequalification Statement together with any approved revisions or amendments, shall constitute his approved Affirmative Action Program and is hereby incorporated in this contract by reference.
- (b) Recruitment. Insert advertisements for employees in connection with this contract in newspapers having a large circulation in the area of the construction work among minority groups. Include but do not limit newspapers to those listed below:
 - Philadelphia Afro-American, 427 S. Broad St.
Philadelphia, Pa. 19147
 - Philadelphia Tribune, 522 S. 16th St.
Philadelphia, Pa. 15946
 - Pittsburgh Courier, 315 E. Carson St.
Pittsburgh, Pa. 15219
 - N/A

Conduct and direct systematic recruitment of employees in connection with this contract through public and private employee referral sources likely to yield qualified minority group applicants, including but not limited to the schools, colleges and minority group organizations listed below:

- Cheyney University, Chester & Creek Roads, Cheyney, Pa.19319
- Lincoln University, Oxford, Pa. 19352
- California University, California, Pa. 15419
- West Chester University, West Chester, Pa.
- Urban League
- NAACP, Labor and Industry Committees
- Community Action Centers
- O.I.C. Technical and Vocational Schools
- Black Community Centers
- Black Ministers
- Core
- The Agency

Section 107. Add the following Subsections:

107.31 POLLUTION CONTROL

Comply with the Special Provisions and County of Allegheny, Pennsylvania, Ordinance No. 16782, and Allegheny County Health Department Rules and Regulations, Article XXI, effective February 1, 1994, as amended by the Board of Health effective October 20, 1995, and amended as noted, through November 17, 1998, that specifies your responsibility concerning pollution control.

Use no cement from any facility that burns hazardous waste as a fuel in its manufacturing process, nor allow the use of concrete made from this type of cement.

END OF SPECIAL PROVISION

SECTION 108 – PERFORMANCE AND PROGRESS

In accordance with Section 108, except as follows:

SECTION 108.03(b) Construction Project Scheduling.

Add the following paragraph after the 2nd paragraph: The Director at the Pre-Construction Meeting, may introduce a substitute Construction Working Plan and Schedule depicting thereon the established time periods for the major portions of the work on the project, the dependency relationships between these operations, and the total duration permitted for the 100% completion of all contract work which total duration will coincide with the total contract time in the Proposal. The Construction Working Plan and Schedule will then become the official project schedule. If the County accepts in writing the schedule you submit at the Pre-Construction Meeting without change, it will be considered the official schedule for all purposes, including but not limited to, the calculation of liquidated damages and the computation of time used in proving all claims filed with the American Arbitration Association. The decision by the County is final and binding. No claim of any kind relating to, arising out of, or concerning in any way the decision of the County can be filed with the American Arbitration Association.

Add the following Articles:

(c) Working Hours. Perform the work in accordance with the official construction schedule on a regular time basis within a sixty (60) hours work week or "window" from Monday through Saturday excluding County Holidays (except November 21, 2012 through November 24, 2012). All subcontractors are required to work the same regularly scheduled work week as the prime contractor. Provide the Director your work week schedule one (1) week in advance for his information. Indicate on the schedule the days of the week to be worked, number of hours to be worked and corresponding time of the day they are to be worked. The Contractor's schedule must be detailed in hours between November 21, 2012 and November 26, 2012.

Do not work beyond the "window", on Sundays, or County Holidays except with the approval of the Director in accordance with Subsection 108.03 (d) and November 22, 2012 and November 25, 2012. You may perform overtime work on an unanticipated basis for limited, extenuating and critical operations if and only if the Inspector-In-Charge grants prior approval of your request for overtime.

(d) Special Hours. The Director will entertain "special" working hours not per Subsection 108.03 (c) on your request no less than ten (10) days prior to the work. Indicate in your request the day(s) of the week to be worked; number of hours to be worked and the corresponding time of the day they are to be worked. The Director, if and as he approves such requests, will do so only with a Change Order for a corresponding time reduction or deduction of County's costs of the necessary inspection staff from the subsequent Current Estimate or the Final Estimate. The Director reserves the right to reject any and all such requests.

END OF SPECIAL PROVISION

SECTION 110 – PAYMENT

In accordance with Section 110, except as follows:

SECTION 110.01 GENERAL

Add the following paragraphs: As a condition prerequisite to payment on Current Estimates, supply an itemized statement or breakdown of any lump sum prices in the Proposal, giving the amounts of labor, materials, and other costs entering into said items, and subdivided in such detail as meets the Director's approval.

When approved, the County may use this breakdown as an aid in determining the amount due you on current estimates.

SECTION 110.05 CURRENT ESTIMATE PAYMENTS

Revise to read:

The County will make progress payment estimates covering a thirty (30) day period. The estimates will include completed and acceptable work and delivered and owned materials except aggregates, cements and other bulk materials per Section 110.06. If the value of the estimate exceeds \$2,000, expect payment for the work and materials within forty-five (45) days after the close of the estimate period.

Consider quantities on which a current estimate is based as approximate only and subject to revision including the deduction of any inadvertent overpayment. Consider allowance of such estimates not to imply acceptance by the County of any portion of the work.

The County will retain ten (10) percent of the amount of current estimates until you complete fifty (50) percent of the contract. When you complete 50% of the contract the County will return one-half of the amount retained by it to you provided that the County approves the work for payment and provided further, that you are making satisfactory progress and there is no specific cause for greater withholding. The sum or sums withheld by the County from you after the contract is 50% completed will not exceed five (5) percent of the value of completed work on progress payments.

Pay suppliers and subcontractors their earned share of the payment received from the County within 7 days of the receipt of payment, unless you have good and sufficient reasons not to pay them.

SECTION 110.08 FINAL INSPECTION, ACCEPTANCE AND FINAL PAYMENT

Revise Article 110.08(a) to read:

Within 30 days of receipt of your request for a final inspection the County or its designee will establish an inspection date. During this inspection the Director will note in detail all work or conditions that shall require correction or completion. If the County or its designee finds that the Work is substantially completed it will issue an Final Acceptance Certificate and make payment in full within 45 days thereafter, except as provided in Section 110.05, less only one and one-half times such amount necessary to complete any then remaining, uncompleted items, which amount shall be certified by the County to insure proper workmanship for a designated period of time. The Substantial Completion Certificate will list in detail each and every uncompleted item and a reasonable cost of completion. The County will make payment of any amount so withheld for the completion of these items forth-with upon their satisfactory completion and upon receipt of satisfactory Contractor's Certificate and Surety Statement per Section 110.09.

Section 110.08(c) Revise as follows:

Replace the words "Final Settlement Certificate" where they appear in with the words "Final Estimate and Executive Action".

Revise Bullet 1.b to Read:

If not acceptable, notify the Director, in writing, of all exceptions. The Director will give notification of the acceptance or rejection of the exceptions. Notification will then be sent, in writing, from the Director, stating that the claim has been approved or rejected. Where the claim does not involve any disputes specified in Section 105.01, the "date that the claim accrued," for purposes of filing claims before the Board of Claims, will be the date notification in writing is sent from the Director, of the rejection of the claim.

Revise to Bullet 2 Read:

During computations of Final Estimate, if the Department determines that the net total amount to be received is actually a negative amount, then prompt reimbursement to the Department for the total amount overpaid is required. In the event of failure to reimburse the Department, the Director will take legal measures to secure the amount due. Also, the Pennsylvania Department of Transportation may, in addition, remove the Contractor from its list of approved pre-qualified contractors, according to regulations.

SECTION 110.08(e) – Delete this Sub-Section

SECTION 110.09 RELEASE OF FINAL PAYMENTS

Replace the 1st paragraph with the following: The payment due you from the County after substantial completion of the contract will bear interest at a rate of 10% per annum, such interest to begin after the date that such payment shall become due and payable to you. Provided however, that where the County has issued bonds to finance the Project, interest shall be payable to you at the rate of interest of the bond issue or at the rate of 10% per annum whichever is less.

Add the following paragraph: Furnish as a condition precedent to payment of the final estimate a Contractor's Certificate, on County form stating that all bills for labor and material and all outstanding claims and indebtedness of whatsoever nature arising out of the performance of this contract have been paid and including a statement from the surety, on County form that, after making a careful examination of the books and records, surety is satisfied that payment of all such bills, claims and indebtedness has been made.

END OF SPECIAL PROVISION

Header

SECTION 105.14(a) NON-DESIGNATED AREAS

Provision Body

Revise by adding the following:

Use the attached PENNDOT Waste/Borrow Area package developed by District 11-0 for obtaining Conservation District approval on all areas less than one acre. Borrow/Waste areas larger than one acre will require a National Pollution Discharge Elimination System (NPDES) permit. Coordinate with the District Environmental Unit for all submissions.

Header

SECTION 205 - BORROW EXCAVATION

Provision Body

Section 205.1(c) Selected Borrow Excavation. Revise as follows:

(c) Selected Borrow Excavation. Excavation or obtaining material for use in specific items of work, in accordance with Section 703.2 or Section 850.2(a), from sources outside the limits of the project that cannot be measured before and after excavation.

SECTION 208 - SPECIAL ROLLING (SU)

208.1 DESCRIPTION - This work is the special rolling of embankments.

208.2 MATERIAL - Use acceptable pneumatic-tired equipment for special rolling, capable of varying the load from 267 kN (30 tons) to 445 kN (50 tons). Use a roller constructed to transmit the load through four wheels, equally spaced over the roller width, mounted on two (2) or four (4) axles in line, permitting oscillation of the individual wheels or pairs of wheels. Use a roller with tires capable of operating at inflation pressures ranging from 0.62 MPa (90 pounds per square inch) to 1.03 Mpa (150 pounds per square inch). Provide charts or tabulations showing the contact areas and contact pressures for the full range of tire inflation pressures and loadings for the particular tires furnished.

208.3 CONSTRUCTION - Adjust the roller load and tire pressures for contact pressures to approximately the maximum supporting value of the layer being rolled. When the special rolling of any layer shows an area to be unstable or nonuniform, satisfactorily stabilize the area by providing additional compaction on these areas or by removing the unsuitable material, replacing it with suitable material, and recompacting.

Operate the roller in a systematic manner so the number of passes can be readily determined and recorded. Normally, operate the roller at a speed of not less than 4.0 km/h (2-1/2 miles per hour).

Perform special rolling only in the presence of the Inspector-in-Charge who will approve or disapprove the stability of the embankment and recommend corrective measures.

208.4 MEASUREMENT AND PAYMENT - Hour

No measurement and payment will be made for idle equipment time because of repairs, servicing, loading or unloading ballast, increasing or decreasing tire pressure, bad weather, or for any other similar reason.

SECTION 703 - AGGREGATES

Revise Section 703 as follows:

Section 703.1(a)2. Delete.

Section 703.1(b). Revise the second sentence in the first paragraph: Provide the following equipment – one set as directed to job site for County’s acceptance testing under requirements of Section 609.2(b) and one set for (your) developing and maintaining a quality control program to assure compliance with specified requirements during production.

Section 703.1(b). Add to the equipment list in the first paragraph: Incidental equipment: shovel, scoop, trowel, bucket, rags, wheelbarrow, miscellaneous small tools, etc.

Section 703.1(b). Delete the words “whether shared or for exclusive Department use” in the fourth sentence of the third paragraph.

Section 703.1(b). Delete the fourth paragraph.

Section 703.2(a)3. Delete this section.

Section 703.2(a)4. Delete this section.

Section 703.2(a)5. Delete this section.

Section 703.2(b). Revise the second sentence in the first paragraph to read: Provide the following equipment – one set as directed to job site for County’s acceptance testing under requirements of

Section 609.2(b) and one set for (your) developing and maintaining a quality control program to assure compliance with specified requirements during production.

Section 703.2(b). Add to the equipment list in the first paragraph: Incidental equipment: shovel, scoop, trowel, bucket, rags, wheelbarrow, miscellaneous small tools, etc.

Section 703.2(b). Delete the words “whether shared or for exclusive Department use” in the fourth sentence of the third paragraph.

Section 703.2(b). Delete the words “or other inspection agency approved by the MTD” in the second sentence of the third paragraph.

Section 703.2(b). Delete the fourth paragraph.

Section 703.2(c)1. Delete the second sentence.

END OF SPECIAL PROVISION

CLASS H.E.S. CEMENT CONCRETE

DESCRIPTION –

This work is the placement of accelerated strength Class AAA Concrete.

MATERIAL – Section 1001.2 and as follows:

Accelerated Cement Concrete. Section 704, except delete Table A. Provide Class AAA Cement Concrete for acceptance having a 28-day minimum compressive strength of 4500 psi when tested in accordance with PTM No. 604. Submit mix design as specified in Section 704.1(c), having minimum target value for compressive strength of 3500 psi at 24 hours when tested in accordance with PTM No. 604. Deliver concrete to work site at temperatures between 65°F and 90°F.

Section 1001.2(b) Concrete Curing Materials and Admixtures. Revise to read:

- Curing and Protective Covers – Section 711.1(b)
- Concrete Admixtures – Section 711.3 and the following:

If accelerating admixtures are used, provide only accelerating admixtures which do not contain chlorides.

CONSTRUCTION – Section 1001.3 and as follows:

Section 1001.3(a)1. General. Revise by adding the following:

Provide a quality control plan as specified in Section 106 and submit it for review. Detail 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.

Before placing concrete, ensure adequate equipment and trained personnel are available, and sufficient hauling units scheduled, to maintain continuity in placement.

Section 1001.3(p) Curing and Protection of Concrete. Revise by adding the following:

Cure test cylinders under the same conditions as the concrete deck. Insulate or heat deck if the ambient temperature drops below 80°F during curing. Control the curing temperature and monitor at least hourly to ensure that the concrete deck does not experience a temperature change in excess of 40°F during any 1-hour period during the curing operation.

If a temperature change in excess of 40°F occurs in the concrete deck within any 1-hour period, the work will be considered defective.

Section 1001.3(q)2.c Live Loads. Revise second paragraph to read:

Obtain samples of plastic concrete, for compressive strength testing before opening to traffic, from each 100 cubic yards or fraction thereof the day's placement and, unless otherwise directed, from the last mixer load of the day, in accordance with the approved quality control plan. Sample locations will be selected in accordance with PTM No. 1. Test concrete for compressive strength, in accordance with PTM No. 604, at the time of opening to traffic. Concrete lots that have not attained a minimum compressive strength of 3000 psi at the time of opening to traffic will be considered defective work.

MEASUREMENT AND PAYMENT –

This work is incidental to Item 8130-0001 Bridge Structure, As Designed BPAA No. 02-2828.

BRIDGE PAINT INSPECTION KIT

DESCRIPTION –

This work is furnishing and maintaining a bridge painting inspection kit for Department use.

MATERIAL –

Provide the following to the Engineer for approval. Ensure all equipment is new, unused and meets SSPC specifications. Ensure all standards and documents provided are the latest edition. Provide one complete kit to the Department for this project.

Binoculars

Dry Film Thickness Gage (operates on magnetic principal, electronic, digital, computer compatible)

Calibration Shims (metallic plated NIST/NBS, traceable)

Wet Film Thickness Gage (stainless steel, notch type minimum 0 to 20 mil range)

Psychrometer (electronic, digital, hand-held)

Electronic Surface Temperature Thermometer (digital display, non-contract, hand held)

SSPC VIS 1 – Visual Standards

SSPC VIS 3 – Visual Standards

SSPC VIS 4 /NACE 7 – Visual Standards

SSPC Manual Volume 1, Good Painting Practice

SSPC Manual Volume 2, Systems and Specifications

Anchor Pattern / Profile Measurement Tape (four rolls)

Hand-held Spring Micrometer

Inspection Mirrors

Hypodermic Needle Pressure Gage (blast nozzle air pressure measurement type)

Psychrometric Tables

Paint Thermometer

Wind Meter

Tooke Gage

Paint Adhesion Tester Kit with Handbook

Inspection Flashlight (battery operated, adjustable beam, portable)

Padded tool box with lock and keys capable of safely carrying all the above equipment.

Obtain the above material from one of the following or an approved equal:

KTA – Tator, Inc.

115 Technology Drive

Pittsburgh, PA 15275

412-788-1300

ELCOMETER, Inc.

1893 Rochester Industrial Drive

Rochester Hills, MI 48309

248-650-0500

Paul N. Gardner Company, Inc.
316 NE 1st Street
Pompano Beach, FL 33060-6618
954-946-9454

CONSTRUCTION –

Present the kit to the Engineer prior to beginning work. The kit becomes the permanent property of the Department. Throughout the project, replace any inspection instrument that cannot be repaired within five calendar days.

MEASUREMENT AND PAYMENT –

This work is incidental to Item 8130-0001 Bridge Structure, As Designed BPAA No. 02-2828.

5" STEEL GRID DECKING

DESCRIPTION -

This work is furnishing, fabricating, transporting and installing galvanized steel grid decking in the locations shown on the plans in accordance with Section 1050, these specifications and as indicated. This work includes shop drilling of holes in trim bars and proper field installation of grid deck. Provide main rails, trim bars, supplemental bars, crossbars, form pans, haunch angles, temporary support steel, bottom round reinforcement, etc. as shown on the Plans.

MATERIAL –

Construct steel grid decking conforming to the requirements of the AASHTO M270 (ASTM A709) Grade 50 (galvanized). Provide galvanizing conforming to the requirements of the ASTM A123. Provide decking that is 5-3/16" deep. Manufacture grid deck in accordance with the Bridge Grid Flooring Manufacturer's Association Specifications for Fully and Partially Filled Grid Deck Systems dated May 18, 2007.

Leveling bolt: ASTM A325 Hot Dipped Galvanized as shown on the Plans.

Form Pans: Galvanized steel sheet metal forms conforming to ASTM A653 and Section 1001.2(h)2.

Supply decking from one of the following companies, or an approved equal:

L.B. Foster Company
1016 Greentree Road
Pittsburgh, PA 15220

Bailey Bridges, Inc.
119 40th Street N.E.
Fort Payne, AL 35967

Provide steel that conforms to the requirements of Section 1105.

Furnish Materials Certificates for the steel grid decking.

CONSTRUCTION –

Submittals: Provide manufacturer's product and complete installation data for the steel grid decking. Provide design calculations produced by a Professional Engineer licensed in the Commonwealth of Pennsylvania and certify structural adequacy of the grid. The deck shall be designed in accordance with AASHTO LRFD 1998. The grid deck weight with full-depth concrete and 1" overfill must be less than 94 lb/SF (this weight does not include the weight of the 1 1/4" Latex Modified Cement Concrete Overlay).

Shop Drawings: Submit to the Engineer for approval drawings and computations for the permanent and temporary construction required to complete this work in accordance with Section 1105. Include complete details of the methods, materials and equipment proposed for use on the drawings. Provide the seal of a Professional Engineer licensed in the Commonwealth of Pennsylvania. Do not start fabrication until approval from the Engineer has been obtained.

Installation: Install the steel grid decking in accordance with the project drawings, specifications, approved shop drawings and manufacturer's installation standards. Fabricate the steel grid deck panels to be square within manufacturer's tolerances and free from warping and any defect that may affect serviceability and reliability. Provide tolerances between sections for not more than 1/2" clearance between adjacent sections or between grid bridge decking and frames. Interconnect by splice bars as shown on the Plans.

Survey the tops of girders/stringers to verify the correct slope prior to grid installation. Set form pad and adjust decking to provide a concrete haunch. The final grid deck elevations shall be verified and confirmed prior to making final connections.

Have an experienced representative of the manufacturer be present during the initial installation of the grid decking and at such other times as the Engineer may request.

MEASUREMENT AND PAYMENT

This work is incidental to the Bridge Structure, As Designed, BPAA No. 02-2828.

SUBGRADE UNDERCUT

DESCRIPTION - This work is the improvement of roadbed subgrade conditions as a result of special rolling and as directed by undercutting and replacing the existing subgrade material with specified backfill.

MATERIAL –

- Geotextile, Class 4, Type A, Section 735
- AASHTO No. 2A Coarse Aggregate, Section 703.2 except as follows.
 - (a) Aggregate – Provide material with a maximum absorption rate of 3.5% as determined by AASHTO T-85 and as specified in Sections 703.2 and 703.5.

CONSTRUCTION - Type 2 Subgrade Undercut

- i) Perform Special rolling as directed by the engineer. See “Special Rolling” spec.
- ii) Excavate one (1) foot below the proposed subgrade elevation or to a depth as directed by the engineer.
- iii) Compact the base of the excavation in accordance with Publication 408, Section 210.
- iv) Place 2A course aggregate in accordance with Publication 408, Section 703.5.
- v) Place Class 4, Type A geotextile as-directed by the Engineer.

MEASUREMENT AND PAYMENT –

- a) Class 1 Excavation. Section 203.4. Cubic Yard.
- b) AASHTO No. 2A Coarse Aggregate. Section 703.2(c). Cubic Yard.
- c) Class 4 (Type A) Geotextile. Section 212.4(d). Square Yard.

CONSTRUCTION SPECIAL CONDITIONS

Precast abutment caps and the new bridge superstructure as indicated are to be prepared for installation on Thanksgiving holiday weekend 2012. All costs associated with the lay down area, prefabrication and installation are incidental to Item 8130-0001 Bridge Structure, As Designed BPAA No. 02-2828.

Coordinate the lay down area for the precast/prefabricated sections with the local businesses and property owners.

Coordinate the closure of the bridge with local businesses and property owners. The bridge can be closed from 5:00 PM on Wednesday, November 21, 2012 and must be reopened at 6:00 AM on Monday, November 26, 2012. The work that is to be performed in this time period is the demolition of the bridge superstructure, the necessary demolition of portions of the masonry stone abutments, installation of the precast abutment caps, installation of the superstructure, installation of the precast moment slabs and providing a suitable bridge approach ride surface. Perform paving of the bridge approaches at a later date to minimize disruptions to the local businesses and the Montour Run Trail.

Do not stage equipment, materials, vehicle, etc. on the Montour Trail. If the trail needs to be occupied during construction, trail stoppages are limited in duration (less than 15 minutes), are to be between dawn and dusk (estimated to be between 6:00 PM and 8:00 AM) and are to utilize flaggers on both sides of the trail to ensure the safety of trail users. In the event that damage to the trail is incurred during construction, restore any affected trail portions to the satisfaction of the Engineer. There are to be no trail stoppage restrictions between dusk to dawn.

Coordinate with the Montour Trail Council, so trail events will not be disrupted.

The Contractor is permitted to perform any ancillary work that will not disrupt Scott Road traffic or the Montour Run Trail traffic at his discretion.

SECTION 1070 - PAINTING

MATERIAL –

Obtain material from a paint system listed in Bulletin 15 or on the “NEPCOAT – Qualified Products-List B” for Organic Zinc Rich Primer/Epoxy or Urethane Intermediate/Aliphatic Urethane Finish. NEPCOAT is the NORTHEAST PROTECTIVE COATINGS COMMITTEE.

If a non Bulletin 15 approved NEPCOAT Listed material is chosen, obtain written acceptance of this material in accordance with Section 106.0(a)2 prior to shipment to the project.

Obtain the three-coat paint system from one manufacturer. Do not mix components from different systems of the same manufacturer or other manufacturers.

The finish coat color is to be blue (Federal Standard No. 15109 - paint name/nickname is N/A); submit paint chips to the representative for approval. Any changes to the paint color will require the approval of the Department and Allegheny County.

Section 1070.2(d) Certification – Add the following:

- If a non Bulletin 15 approved NEPCOAT Listed material is chosen and accepted, then certify the material in accordance with Section 106.03(b)3, Level 4.
- PENNDOT CAMMS Test Report shall accompany each shipment to the project. The lot numbers on the CAMMS Test Report shall match the lot numbers shipped to the project.

SECTION 1106 - PRECAST CONCRETE BRIDGE BEAMS (FOR CONCRETE ABUTMENT CAPS)

1106.01 GENERAL REQUIREMENTS -

(a) Description. This work is the fabrication, storage and transportation of precast concrete abutment caps as indicated, unless otherwise directed.

(b) Shop Drawings. Section 105.02(d) and as follows:

Show items such as chairs, inserts, lifting devices and all reinforcement incorporated into the beam, listed by source, type and supplier; incidental items such as plain neoprene bearing pads, and anchor bolts.

1106.02 MATERIAL -

(a) Class AAA Cement Concrete. Section 704.

(b) Protective Coating. Section 680.3(c) or Section 1001.2(f).

(c) Reinforcement Bars. Section 709.1.

(d) Steel Dowels. Section 1107.02(g)

(e) Neoprene Material. Section 1107.02(n)

(f) Fabricated Structural Steel. Section 1105 Galvanize in accordance with Publication 408, Section 1105.02(s)2.

1106.03 CAP CONSTRUCTION -

(a) Inspection. Make all materials, equipment, tests, processes of fabrication and the finished beam, including handling, storage and transportation subject to inspection and acceptance.

(b) Quality Control. Establish a level of quality control based on uniform production practices. Submit the plant's quality control procedure annually.

(c) Fabrication.

Precast concrete bridge beam fabrication must be performed at a PENNDOT approved precast plant.

1. Concrete Mixture. Make trial mixes, in accordance with Bulletin 5, except mold, cure and test cylinders, using the procedures specified for the beam concrete. Do not use calcium chloride or any admixture containing calcium chloride.

2. Placing Concrete. Place concrete without segregation. Deposit the concrete in its final position in each part of the form. Methods of placement are subject to acceptance. Do not work or flow the concrete along the forms from the point of deposit. Work the concrete under and around the reinforcement.

In case the concreting is stopped for an extended period of time, which may result in a cold joint, stop work and remove and discard the concrete from unfinished caps.

Consolidate the plastic concrete by the use of acceptable internal or external mechanical vibrators, or a combination of both. Do not operate manual vibrators in one place more than 5 seconds.

3. Test Cylinders. Mold a minimum of two (2) concrete test cylinders for each cap cast. Use the cylinders to verify either the shipping or twenty-eight (28)-day concrete strength.

Mold the cylinders, in accordance with PTM No. 631, from the concrete being placed into each cap. Handle and cure the cylinders in the same manner as the beam. Place cylinders close to the bottom pallet and test at the site of the work, in accordance with PTM No. 604, under the supervision of a Department representative.

4. Finishing. Finish the top of cap with the type of finish shown on the shop drawings.

5. Patching. Section 1107.03(d)5.f.

6. Curing of Concrete. Cure concrete using either steam, heat or saturated cover curing. Do not use membrane curing. Cure caps a sufficient length of time so that the concrete develops the specified shipping and compressive strength at twenty-eight (28) days or less.

Cover caps for curing. Insure that cover is sufficient to protect the curing cap from outside drafts and to maintain a moist atmosphere. Separate the curing cover from the cap to allow full circulation around the entire cap.

Do not allow curing temperature to exceed 71 C (160F).

7. Removal of Forms. Strip caps after the concrete has reached a compressive strength of 19 Mpa (2750 psi).

8. Tolerances. Fabricate to plan dimensions within the following tolerances. Tolerances are not to be considered cumulative. Members not meeting tolerances may be rejected. If the deviations from the tolerances can be acceptably corrected, the members may be used, if accepted in writing.

- Depth (overall)..... +13 mm (1/2-inch), - 6 mm (1/4-inch)
- Width (overall)..... ± 6 mm (1/4-inch)

- Length of cap..... + 13 mm (1/2-inch), - 25 mm (1 inch)
- Wall thickness (web)..... + 10 mm (3/8-inch), - 3 mm (1/8-inch)
- Depth (top slab)..... + 13 mm (1/2-inch), - 3 mm (1/8-inch)
- Horizontal alignment (deviation from a straight line parallel to the cap centerline).. + 6 mm (1/4-inch)
- Longitudinal reinforcing bars (measured from top or bottom, whichever is closer)..... + 6 mm (1/4-inch)
- Stirrup bars (longitudinal spacing).....± 25 mm (1inch)
- Longitudinal position of handling devices..... ± 150 mm (6-inch)

9. Handling and Storage. Insure that damage to the concrete or reinforcement of the cap does not occur in handling or storage.

Store caps on a level and stable surface. Support the caps at five foot intervals along its length.

10. Transportation. Do not ship caps until 80% of the minimum twenty-eight (28)-day compressive strength, as shown on the shop drawings, has been attained, but in no case before 72 hours of total storage time has elapsed following stripping from the forms. Provide adequate padding between tie chains or cable and the beam to preclude chipping of concrete.

Inspect caps again at the bridge site for damage and cracking during shipment. Check tolerances and dimensions required for satisfactory erection.

Replace caps damaged by improper storing, handling, transporting or erecting at no expense to the Department.

ADVANCE REQUIREMENTS

Provide two weeks advance notice to affected municipalities, respective Emergency Services, local school districts or PENNDOT Allegheny County Maintenance Manager (412-781-3260), prior to beginning any work or imposing any traffic restrictions. Additionally, provide notification to all affected businesses and property owners four days prior to the erection of the Advance Construction Advisory signs. Keep them informed at all times of changes to traffic restrictions as they occur.

Notify property owners ten days in advance of driveway restrictions affecting their properties.

Make a survey along with the Project Manager or his authorized representative by videotaping and voice recording onto a DVD format the location of all existing pavement markings, existing signs, road conditions and all potential driveway and/or private problems within the project limits prior to beginning construction. Use this information in placing all pavement markings and signs. Provide an additional copy of the DVD to the Inspector-In-Charge or his authorized representative before construction begins. Properly label the DVD with the Contract #, SPN, SR #(s), date video was taken and by whom. Contact the District Traffic Engineer before making any changes to the existing pavement marking patterns, or signs or other devices.

Section 901.1 DESCRIPTION –

Revise the first sentence to read: This work is the furnishing, installing, maintaining and protection of traffic adjacent to and within the Work Zone including the Active Work Zone, and relocating of traffic control devices.

Section 901.3(h) Existing Department Signs. Revise first sentence of first paragraph to read:

Remove all existing signs as required to accommodate construction operations.
Reinstall these signs at the completion of the project and/or as directed by the Inspector-In-Charge.

Arrange with local police to restrict parking on streets within the work area. Maintain the minimum number of lanes specified.

Ten days prior to construction, erect the Advance Construction Advisory signs on Type III barricades as depicted below.

(Fill in Name) ROAD WORK	Use 150 mm (6") Series C black letters on a reflective orange background with a 12 mm (1/2") black border and 150 mm (6") corner radius.
Begins (Date)	
DELAYS LIKELY	Cover the above "Begins (Date)" with "DELAYS LIKELY" when construction begins.

Erect signs at each limit of work and at the following locations:

Remove the signs when construction begins.

One week prior to a road closure, erect the Advance Advisory signs on Type III barricades as depicted below. Place signs in advance of the proposed road closure in both directions.

(Fill in Name) CLOSED NEXT WEEK (DATE) TOMORROW	Use 150 mm (6") Series C black letters on a reflective orange background with a 12 mm (1/2") black border and 150 mm (6") corner radius.
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Notify the District Traffic Engineer and authorized representative prior to implementing phase change.

TRAFFIC CONTROL/DEVICES REQUIREMENTS

Section 901.2 MATERIAL - Revise by adding the following sentence:

For all barricades, provide barricade rails constructed of non-metallic materials.

The signs and traffic control devices listed or indicated on the Traffic Control Plan or Publication 213 represent the minimum requirements for this item and as such, are for information only. The number and types of traffic control signs and devices for this project will be predicated on the number and location of work sites, the extent of repairs and the planned sequence of operations.

All vinyl roll up material used to overlay overhead and all type (A, B, C, D, E, and F) signs shall be reflectorized including the letters and shields.

Provide new traffic control signs and devices. Do not use reflective sheeting that is scratched, scarred, and dirty or shows evidence of loss of reflectivity. Do not use signs or devices that are cracked, bent, dented or broken.

Replace reflective sheeting should it become damaged where reflectivity becomes impaired. Immediately repair or replace damaged, defaced or dirty signs, devices or barrier.

Mount all construction warning signs (W series) for long-term operations on Type III barricades. Include a Type B light on each W series sign. If it is not possible to mount construction warning or other signing as indicated or specified, submit an alternate method for approval by the District Traffic Engineer or authorized representative.

Provide additional channelizing devices and barricades at intersections, major driveways and ramps to prevent vehicles from turning onto any lane closed for construction. Space channelizing devices at 1.5 m (5-foot) intervals or as directed by the District Traffic Engineer or authorized representative or the Inspector-In-Charge.

Use channelizing devices with Type C steady burn lights for all nighttime lane restrictions. Mount a light on each device used in transition areas and on every third device used in tangent sections.

Space channelizing devices in the tangent sections at one times the normal posted speed limit unless otherwise noted on the Traffic Control Plan or as directed by the District Traffic Engineer's authorized representative or the Inspector-In-Charge.

For overnight operations, if located within 152 m (500 feet) of any residence or business use arrow panels that are electrically, solar or battery operated.

Erect construction warning signs prior to the limit of work as shown in Publication 213, PATA 24. (Group Jobs)

Erect "ROAD WORK AHEAD" (W20-1, W30-1-6) signs with Type B lights attached on each intersecting road and major drive as shown in Publication 213, for the appropriate situation.

Post Act 229 signs in accordance with the requirements specified in Publication 213 – 'Act 229 Guidelines'.

Provide a Traffic Control Supervisor or Supervisors and phone numbers where they can be reached on a 24-hour - 7 days a week basis for the duration of the project. The Traffic Control Supervisor must be knowledgeable of work zone traffic control including incident management. The Traffic Control Supervisor must have a thorough understanding of the Manual on Uniform Traffic Control Devices (MUTCD) and Publications 212 and 213. The Traffic Control Supervisor shall attend the pre-job meeting. The Supervisor's responsibilities are as follows:

Notify District Public Relations Office, affected municipalities and property owners of all traffic restrictions. Prepare News Releases and submit to the Inspector-In-Charge for his concurrence prior to the final submission to the District Office.

Implement and maintain traffic control schemes. Place and maintain all traffic control signs and devices used on the project.

Conduct daily reviews and document the performance of traffic control signs, devices, off-duty uniformed police and temporary pavement markings during the day and night, adverse weather conditions and active and inactive construction operations, as directed. The Traffic Control Supervisor will present all MPT problems and discrepancies in writing to the Department's Inspector-In-Charge by noon of each day.

Prepare and submit the proposed corrective action to the Department's Inspector-In-Charge. Correct any deficiencies or damage discovered during the daily review immediately.

Maintain a daily written record of any crashes, work zone incidents, and maximum queue lengths for each traffic pattern for the life of the project. All feedback received from the

public through phone calls, in person, or in writing shall also be captured. This information shall be submitted daily to PENNDOT's Inspector-In-Charge and will be logged and forwarded to the District Traffic Unit when requested.

Maintain ongoing communication with the Inspector-In-Charge regarding operations that will impact transportation operations in the project area. The Contractor shall develop and maintain lists of phone, fax numbers and e-mail addresses for the affected stakeholders within the project area, including but not limited to: Townships, school districts, emergency services, major businesses, transit companies, nearby trucking firms, and other prominent traffic generators in the project vicinity. The Contractor is responsible for notifying these groups of changes in the traffic control phasing at least 48 hours in advance of the phase change or as directed by the Inspector-In-Charge in writing when this notification occurs.

When the work area encroaches on a crosswalk, sidewalk or other pedestrian walkway, submit a detailed plan for satisfactorily closing the walkway to pedestrian traffic to the Inspector-In-Charge. Include the number and type of devices to be used in accordance with the appropriate figure from Publication 213. Do not close any walkway without prior approval of the plan and at all times adheres to the submitted plan unless otherwise directed.

Use a post mounted "NO GUIDE RAIL" (W21-9A) sign with a Type B light attached when existing guide rail is removed. Erect the first sign at a distance upstream from the removed guide rail section of 2 times the speed limit, in feet. Erect additional signs at intervals not greater than 804 m (1/2 mile).

Provide sufficient number of properly attired flaggers (vest; leggings, hard hat) to adequately control traffic flow through the work zone, which includes any intersecting streets in the work zone, and as directed. At night, flagger stations shall be illuminated, except in emergencies.

Do not cause intermittent traffic stoppages for longer than 15 minutes. When traffic stoppages are necessary, position flaggers and signs as shown in Publication 213, PATA 10a. Do not stop traffic between A.M. to A.M. or P.M. to P.M. After any one 15 minute stoppage, all Queued Traffic shall be cleared and any succeeding 15 minute stoppage shall not occur until traffic has returned to "normal" pre-stoppage flow.

Do not change any part of the Traffic Control Plan and/or Section 901 without prior written approval of the District Traffic Engineer or authorized representative. This includes but is not limited to:

- Traffic Control Phasing
- Location and hours of operation for all off-duty uniformed police officers.
- Times and/or dates when traffic may not be restricted.

- Any short-term or long-term detours.
- Item 0901-0240 Additional Traffic Control Signs. All locations and messages must be approved by the District Traffic Engineer or authorized representative.

Completely remove all existing conflicting pavement markings prior to installing any temporary markings. Do not paint over existing pavement markings. During inclement weather, where it is not possible to install pavement markings, install "NO PAVEMENT MARKINGS" (W21-16) signs with Type B light attached at intervals of 400 m (1/4 mile) and/or as directed by the Project Manager. In addition, as a minimum, place cones at one times the posted speed limit along the centerline of the travel lanes.

Use Type B lights with red lenses on all required stop sign installations.

Limit any lane closure to the length necessary to safely perform the required work.

Do not allow employees to park their personal vehicles on any traveled roadway, shoulder, median or seeded area along the highway.

Be advised that most of the boroughs and townships have noise ordinances. Obtain the necessary permits prior to construction.

Open the specified roadway and/or ramps by the specified times, dates, and/or calendar day durations, or be assessed Liquidated Damages as specified in the Special Provisions entitled "Changes to Section 108.07 (b) – MILESTONE Date Liquidated Damages".

TRAFFIC/CONSTRUCTION RESTRICTIONS

- **Open Scott Road to unrestricted traffic by 6:00 AM, November 26, 2012.**

During nightly milling and resurfacing operations:

Place "BUMP" (W8-1) and "ROUGH ROAD" (W8-1) signs with Type B Lights. No vertical longitudinal grade deviations greater than 1.5-inches along the roadway are permitted at the end of the work day. In the areas within the intersections install a temporary wedge with a rate of 6-inches horizontal length for every 1-inch of vertical depth by either installing a temporary bituminous wedge or milling a wedge into the adjacent existing bituminous material.

Install temporary bituminous material around all manholes, inlets, valve boxes, and between different roadway elevations including transverse joint tie-ins, side roads, and driveways to provide a smooth transition. For manholes, inlets, valve boxes, and transverse joint tie-ins install wedges with a rate of 3-foot horizontal length for each 1-inch of vertical depth. For driveways and side roads, install wedges with a rate of 6-inches horizontal length for every 1-inch vertical depth.

During the installation of the finished wearing course:

Remove all wedges prior to the placement of the bituminous surface course.

Place "BUMP" (W8-1) and "ROUGH ROAD" (W8-1) signs with Type B Lights.

No vertical longitudinal grade deviations along the roadway are permitted. This does not apply to the Longitudinal Notched Wedge Joint.

During milling operations:

Place "BUMP" (W8-1) and "ROUGH ROAD" (W8-1) signs with Type B Lights. No longitudinal grade deviations along the roadway are permitted at the end of the work day.

Install temporary bituminous material around all manholes, inlets, valve boxes, and between different roadway elevations including transverse joint tie-ins, side roads, and driveways to provide a smooth transition. For manholes, inlets, valve boxes, and transverse joint tie-ins install wedges with a rate of 3-foot horizontal length for each 1-inch of vertical depth. For driveways and side roads, install wedges with a rate of 6-inches horizontal length for every 1-inch vertical depth.

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Place "BUMP" (W8-1) and "ROUGH ROAD" (W8-1) signs with Type B Lights.

No vertical grade deviations along the roadway are permitted at the end of the work day. This does not apply to the Longitudinal Notched Wedge Joint.

Install temporary bituminous material around all manholes, inlets, valve boxes, and between different roadway elevations including transverse joint tie-ins, side roads, and driveways to provide a smooth transition. For manholes, inlets, valve boxes, and transverse joint tie-ins install wedges with a rate of 3-foot horizontal length for each 1-inch of vertical depth. For driveways and side roads, install wedges with a rate of 6-inches horizontal length for every 1-inch vertical depth.

Reopen all intersecting streets and driveways to traffic after the completed paving operation has progressed beyond them and the material has cooled to 60°C (140°F) or less.

Backfill with Superpave Base Course any excavation that extends into the travel lane due to pavement forming procedures.

Protect blunt ends of existing barrier or bridge parapets that are exposed at any time during the project with a Shadow Vehicle equipped with a truck mounted attenuator. An alternate method of protection can be utilized upon approval of the District Traffic Engineer or authorized representative.

On roadways with speed limits of 35 MPH or greater, reduce the work zone speed limit to 10 MPH less than the normal posted speed limit. Erect R2-2-2 (WORK ZONE SPEED LIMIT) signs at the beginning of each work zone and at 0.5 mile intervals throughout the work zone. Utilize Speed Advisory Plaques (W13-1) on each approach to the work zone as specified in Publication 213, Table 4.

Covering Inappropriate or Conflicting Signs:

Remove, cover, or fold existing and work zone signs that are conflicting, inappropriate, or are not applicable to existing and temporary conditions so that they are not readable by oncoming traffic.

When covering signs, completely cover them with a material that will prevent the sign from being read during all conditions of light and weather. A single layer of burlap or non-opaque materials are not permitted to be used to cover a sign since those materials may let the underlying sign message be seen at night because headlights reflect the message through the material.

Remove or deactivate any warning lights during those periods when signs are covered or folded.

Section 901.4(b) Separate Pay Items. Revise by deleting the 6th bullet and 26th bullet.

Item 4208-0001 – Special Rolling Modified

Section 208.1 DESCRIPTION – Revise to read:

This work is the special rolling of subgrade material.

Section 208.3 CONSTRUCTION - Revise the second sentence of the first paragraph to read:

When the special rolling of any layer shows an area unstable or nonuniform, satisfactorily stabilize the area by providing additional compaction or by removing and replacing the unsuitable material with subbase material, and recompacting as specified in Section 350.3 and as directed. Payment for removal and replacement of unstable material will be paid for separately under Item 4203-0003.

MEASUREMENT AND PAYMENT – HOUR

Item 4350-0106 – Subbase 6 in. Depth (NO. 2A) Modified

DESCRIPTION - This work is the placement of 2A course aggregate for roadway subbase. In accordance with Section 350 and Section 516 as applicable, except as follows:

MATERIAL –

- Subbase No. 2A Course Aggregate – Section 350.2 Revise to read.
 - (a) Aggregate – Provide material with a maximum absorption rate of 3.5% as determined by AASHTO T-85 and as specified in Sections 703.2 and 703.5.

MEASUREMENT AND PAYMENT – Square Yard

Item 4350-0120 – Subbase (NO. 2A) Modified

DESCRIPTION - This work is the placement of 2A course aggregate for roadway undercut fill. In accordance with Section 350 and Section 516 as applicable, except as follows:

MATERIAL –

- Subbase No. 2A Course Aggregate – Section 350.2 and 703. Revise to read.
 - (a) Aggregate – Provide material with a maximum absorption rate of 3.5% as determined by AASHTO T-85 and as specified in Sections 703.2 and 703.5.

MEASUREMENT AND PAYMENT – Cubic Yard

Item 4409-0482 – 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-H

DESCRIPTION - This work is the sealing of longitudinal joints in the wearing course.

MATERIAL –

- Class AET, Class E-6 (AASHTO SS-1 or CSS-1) or E-8 (AASHTO SS-1h or CSS-1h) emulsified asphalt.

Section 409.3(k)1.a General. revise as follows:

Revise the second paragraph to read:

Before placing abutting lanes, paint the entire area of the joint with a uniform coating of Class AET, Class E-6 (AASHTO SS-1 or CSS-1) or E-8 (AASHTO SS-1h or CSS-1h) emulsified asphalt instead of hot bituminous material, using two applications of AET emulsified asphalt. Painting of the joint face is not required for scratch courses.

CONSTRUCTION – Section 409.3

Revise by adding the following:

For wearing courses, seal the surface at all longitudinal joints with hot PG 64-22 asphalt cement. Heat and maintain asphalt cement between 130°C (265°F) and 160°C (320°F). Do not place sealant when the air temperature is below 4°C (40°F), unless otherwise allowed by the representative. Apply sealant only to joints in pavement surfaces that are clean, dry, and free of any loose material and debris. Clean with a power broom and/or compressed air as required. Utilize a pressure applicator with a wand or nozzle capable of applying hot asphalt sealant in a straight and consistent width band of 75 mm ± 25mm (3" ±1") and thickness of 1.5 mm ± 0.75 mm (1/16" ± 1/32") at specified temperature range. Center the sealant band within 25 mm (1") of the joint. Immediately level the high spots with squeegee or wand. Remove and dispose of excess sealant at no expense to the Department. Re-seal areas of the joint that are inconsistently or not completely covered at no additional expense to the Department.

Complete any required rumble strip installation at joints before sealing operations. Coordinate sealing of the longitudinal joints with the application of pavement markings. Replace pavement markings that are marred by sealing operations at no additional cost to the Department.

Section 409.3(k)2. Transverse Joints. Revise the fifth sentence to read:

Paint the joint face with a thin coating of Class AET, Class E-6 (AASHTO SS-1 or CSS-1) or E-8 (AASHTO SS-1h or CSS-1h) emulsified asphalt instead of hot bituminous material before placing fresh mixture against the joint face, using two applications of AET emulsified asphalt.

Section 409.4 MEASUREMENT AND PAYMENT – Square Yard. Longitudinal joint sealing is incidental work and will not be paid for separately.

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)	4
Electronic Equipment	
Digital Camera	1
Laser Printer	1
Specialized Equipment	
Surveyor's Level & Measuring Rod	0
Electronic Digitizer	0
Digital Display Level	0
Infrared Thermometer	0
Laser Range Finder	0
Paper Shredder	0
Miscellaneous Items	
Internet Service Provider	1
Computer Media	Yes/No
Toners/Cartridges	Yes/No

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

Microcomputer Systems. A total of 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.

ITEM NUMBER 4689-0003 CPM SCHEDULE

In accordance with Section 689 except as follows:

In Section 689.3(c):

Revise with the following:

Any reference to submission of the CPM schedule after the anticipated Notice to Proceed Date or actual Notice to Proceed date will be no later 15 calendar days.

Add to the second to the last paragraph with the following:

Each activity must be resource loaded. Provide manpower and equipment requirements for each activity. Limit the fineness of detail, where possible, to a minimum, 5-day activity duration except for activities between 5:00 PM on November 21, 2012 and 6:00 AM on November 26, 2012. Between these time periods, provide a detailed schedule of activities on an hourly basis.

Item 4931-0001 – Post Mounted Signs, Type B

DESCRIPTION - This work is the placement of post mounted signs, type B. In accordance with Section 931 except as follows:

Section 931.2 MATERIAL – Revise the second bullet to read:

Breakaway Steel Posts – From a manufacturer listed in Bulletin 15, and as specified in Section 1103.08 except delete Section 1103.08(a).

MEASUREMENT AND PAYMENT – Square Foot

ITEM 1018-0050 – REMOVAL OF PORTION OF EXISTING BRIDGE

In accordance with Section 1018, as indicated and as follows:

Removal under this item of work includes:

Remove the superstructure and portions of the existing abutments as indicated on the Construction Drawings.

Remove debris caused by the removal operations to the satisfaction of the Project Manager.

Repair or replace any portion of the structure damaged beyond the limits designed for removal to the satisfaction of the Project Manager at no additional cost to the Department.

Disassembly of existing steel members with a cutting torch requires compliance with OSHA and DEP regulations regarding lead based paint removal.

The disassembled structural steel is superfluous and of no use to the Department. Hence, this item of work includes the conveyance of ownership of the steel to the contractor as scrap metal to be recycled. The contractor must handle, process and recycle this scrap metal in accordance with federal law (including 40 CFR 261) and state regulations (including Section 25 PA Code 260). Prior to removing the steel from the project, stabilize the existing coating by applying a paint, mastic, etc. to the areas of flaking/loose paint to bond them to the substrate.

Do not allow any material to fall in the stream from demolition operations.

ITEM 8130-0001 – BRIDGE STRUCTURE, AS DESIGNED, BPAA NO. 02-2828
ITEM 8000-0001 – PRESTRESSED CONCRETE BRIDGE STRUCTURE
ITEM 8100-0001 – STEEL BRIDGE STRUCTURE

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.

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 to 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 procedure 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 requirement 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.

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 specification as indicate 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 ASNI D size 83-6 mm x 558.8 mm (34 inches by 22 inches) 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, review 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.

- 1) **Deck Joints.** Provide the same type and number of expansion joints for an alternate bridge structure as specified for the “as-designed” design 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 use for transportation of these beams conform to the requirements of PENNDOT Design Manual Part 4, Appendix E, and the following:

- Requests for waiver of any provisions of Chapter 179 of Title 67 will not be approved, except as noted herein.
- 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 PENN 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.

- Deck Slab. If the effective slab span is less than 1100 mm (3 ½ feet), a minimum slab thickness of 190 mm (7 ½ inches) using all No. 13 (No. 4) reinforcement bars, is allowed.
- 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 closes 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. 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) but 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.

- 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.
- 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) but 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.
- 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.
- 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 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 cannot 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.

MATERIAL –

As indicated and as specified for the “as-designed” bridge structure; in accordance with applicable Sections of the Specifications, publication 48, and numbered changes thereto; and/or the Special Provisions for each respective item included in the bridge structure.

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.

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, 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.

PART B

SPECIAL DRAWINGS AND SPECIAL DESIGN REQUIREMENTS

For alternate designs, use the load and resistance factor design method and the design loads described in Design Manual Part 4.

Provide a complete set of computations for the alternate designs. Include the designs of all superstructure, all substructure, all substructure elements and their foundations. Provide full documentation for all loadings applicable to the alternate designs. Do not use references to the as-designed calculations. Reproduce any information contained in the computations for the as-designed structure if it is to be included with the alternate designs. Format all alternate design computations on 8 1/2" x 11" sheets printed on one side only. All computations are to be neat and legible.

Provide the following load ratings for alternate designs:

Bridge Loading Rating:

Beam or Girder

Span No.	H20	HS20	ML-80	PHL-93	P-82	TK-527
	X.XXX	X.XXX	X.XXX	X.XXX	X.XXX	X.XXX

IR (RATING FACTOR)

OR (OPERATING FACTOR)

MFR

- a) Moment (kip ft) -----Critical Member ----- Location -----
- b) Shear (kip) -----Critical Member ----- Location -----

Include with the chart on the bridge plans the following information:

- 1) The force effect controlling the rating.
- 2) The limit state used to obtain each of the ratings and critical moment and shear value.
- 3) Live load distribution factors for shear or moment for each load combination used to produce that rating.

- 4) MFR – Maximum Factored Resistance – (a) moment and (b) shear, IR = Inventory Rating, OR = Operating Rating, ML = Pennsylvania Maximum Legal Load (ML-80), P-82 = Pennsylvania Permit Load, TK527 = Pennsylvania Legal Load Configuration for 5-7 Axle Dump Truck.
- 5) Provide data for critical spans only.
- 6) Identify critical (in moment or shear) member(s) and location.
- 7) Show ratings with and without future wearing surface. Note that the TK572 and ML-80 loadings must provide a minimum inventory rating factor of 1.0.
- 8) Determine the critical moment and shear from the operating rating calculations.
- 9) Identify whether shear or moment controlled the rating for each rating value.
- 10) Identify beam properties used.

Modify the table in order to provide all the required information. Show all rating information on the first sheet of the bridge plans or index on the first sheet.

Design Alternate Structures as specified in accordance with the applicable Strike-Off Letters listed in the Attachment entitled “Bridge/Structures Related Effective Policy Letters for Contractor’s Alternate Designs”.

Reuse portions of the existing abutments.

Steel structures may consist of I-shaped girders; prestressed structures may consist of I-beam girders or box beam girders.

Provide minimum required clearances as shown on the “as-designed” drawings.

Use epoxy coated reinforcing bars where shown on the “as-designed” structure.

Unpainted weathering steel is permitted for alternate steel structures. If painted steel is selected, paint in accordance with Section 1060. Finish coat color to be determined by the Department. Do not use a water borne or water based system.

Use composite design for Superimposed Dead Loads and Live Loads only.

If utilities are required to be relocated to accommodate the proposed locations of substructure units in an alternate design, the cost of the utility relocations is at the expense of the contractor.

Maintain the “as-designed” skew angles.

Provide all fascia beams of same depth as interior beams.

Do not use lightweight cement concrete.

Use of tie rods for post tensioning adjacent box beams is not permitted.

Provide cast-in-place concrete parapets.

Revise Part A II(c)5 to require a minimum deck slab thickness of 8" if a concrete deck is a feasible option.

The alternate designed structure must be constructed in the period as the "as designed structure". This is described in the Construction Special Conditions.

Use overfilled steel grid decking, if required to conform to the schedule described in the Construction Special Conditions.

Do not use precast panel forms for placing the concrete deck slab.

Place longitudinal deck construction joints over beam flanges, but not less than 4" from the edge of the flange.

Maintain deck geometry, grade, width, and cross slopes.

Maintain existing hydraulic opening.

MSE abutments and walls are not permitted.

ITEM 9000-0001 REMOVAL OF RAILROAD RAILS AND TIES

DESCRIPTION – This work is the satisfactory excavation and removal of existing railroad rails and ties as indicated on the plan. This work must be performed during the night and the trail must remain open at all times.

MATERIAL – Embankment. Section 206.2.

CONSTRUCTION – Excavate and removal of two sets of rails and associated ties. These rails and ties are paved over where the Montour Trail crosses Scott Road. Re-grade the excavated area to the bottom of the proposed sub-base. The rails and ties will become the property of the contractor. Dispose of properly.

The contractor is required to comply with all applicable Federal, State, and local regulations.

MEASUREMENT AND PAYMENT – Cubic Yard. This item will be paid based on a cubic yard quantity for the excavation of the rail. Disposal of the existing rails and ties and the embankment material is incidental.

Item 9000-0002 – Winter Maintenance of Temporary Pavement

DESCRIPTION - This work is the patching of all potholes in the cartway and shoulders in order to maintain traffic during the life of the project with Bituminous Stockpile Patching Material.

MATERIAL –

(a) Bituminous Stockpile Patching Material

Meet the applicable requirements of Section 702, Section 703, Bulletin 25 and Bulletin 27.

1. Bituminous Material. Refer to Bulletin 27.
2. Fine Aggregate. Meet the quality requirements of Section 703.1 for Type A or B material.
3. Course Aggregate. Meet the quality requirements of Section 703.2 for Type A material.
4. Composition of Mixtures. Refer to Bulletin 27.
5. Bituminous Mixing Plant. Meet the requirements of Section 409.3
6. Preparation of Mixtures. Refer to Bulletin 27.
7. Inspection, Sampling and Approval. Refer to Bulletin 27.
8. Delivery of Mixture. Refer to Bulletin 27.

CONSTRUCTION – Patch potholes within 24 hours of notification, using cold patch or hot mix. This requirement will be in effect from Notice to Proceed to the completion of the project. I

Cut vertical edges of patches into the good pavement or shoulder around the faulty section. Do not cut out concrete when patching rigid pavements with bituminous material.

Dispose of waste material in an approved manner.

Clean area to be patched of all loose material and treat vertical faces and bottom of hole with a tack coat. Do not allow tack coat to puddle at the bottom of the hole.

Hand shovel and place material to a maximum of 3” lifts after compaction with a vibratory compactor or roller. Complete patch to be level with the existing roadway and seal edges of patch.

MEASUREMENT AND PAYMENT – Dollar. The proposal will indicate a predetermined unit price of \$1.00 for this item. The County will pay for all items of work, identified and not identified in the contract, performed as maintenance of project, under this item as follows:

(a) Contract Items. The County will pay for performance of work, identified as having similar items listed in the contract, at the contract unit price.

(b) Non-Contract Items. The County will pay for items of work not identified in the contract as Force Account Basis. Section 110.03(d).

Item 9000-0006 - Bituminous Drive Adjustment

DESCRIPTION – This work is the adjustment of existing bituminous driveways, using Superpave Asphalt Mixture Design, HMA Wearing Course (Standard), variable depth to the line, grade, and width as indicated and directed.

MATERIAL –

- Superpave Asphalt Mixture Design, HMA Wearing Course (Standard) - Section 409.2. Mix design as indicated.
- Bituminous Tack Coat - Section 460.2
- Milling of Bituminous Pavement Surface, 1½” Depth, Milled Material Retained By the Contractor – Section 491.
- 6” Seal Coat with PG 64-22 Joint Sealer – Section 469.
- 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-H (Same material as roadway wearing course) – Section 409.
- Bituminous Material For Bituminous Seal Coat – Section 470.

CONSTRUCTION – In accordance with Section 409.3, except revise by adding the following:

Adjust bituminous driveway elevations to conform to the resurfaced roadway elevation. Seal all joints with the existing pavement according to construction plan details.

MEASUREMENT AND PAYMENT – Square Yard.

Item 9000-0012 – Sawcut of Existing Pavement

DESCRIPTION - This work is the full depth sawcutting of existing pavement to neat lines for removal. This work is to be done at each tie-in excluding the driveway adjustment.

MEASUREMENT AND PAYMENT – Linear Foot.

Item 9000-0022 – Moment Slabs No. 1-3

DESCRIPTION - This work is the fabrication of three pre-cast moment slabs, curing, and placement of the moment slabs as indicated and as specified.

MATERIAL –

- Reinforcement Bars, Epoxy Coats – Section 709
- PA Type 10M Bridge Barrier - Section 1088
- Concrete – Class AA Cement Concrete – Section 704
- Subbase Material (No. 2A) – Section 350
- Membrane Waterproofing – Section 680
- Asphalt Joint Sealant (AC-20) – Section 469

CONSTRUCTION -

For the reinforcement installation and concrete placement refer to the applicable portions of Section 1001.3 and 1002.3 and Precast Moment Slab detail.

For the PA Type 10M Bridge Barrier, construct as shown on the Standard Drawings, and as indicated.

Place moment slabs as indicated.

MEASUREMENT AND PAYMENT – Linear Foot

Item 9000-0023 – Moment Slab No. 4

DESCRIPTION - This work is the fabrication of a pre-cast moment slab, curing, and placement of the moment slab as defined as indicated and as specified.

MATERIAL –

- Reinforcement Bars, Epoxy Coated – Section 709
- Thrie Beam Guide Rail - Section 1119
- Concrete – Class AA Cement Concrete – Section 704
- Subbase Material (No. 2A) – Section 350
- Waterproofing Membrane – Section 680
- Asphalt Joint Sealant (AC-20) – Section 469

CONSTRUCTION –

Refer to RC 50M for guiderail details.

For the reinforcement installation and concrete placement refer to the applicable portions of Section 1001.3 and 1002.3 and Precast Moment Slab detail.

For the PA Type 10M Bridge Barrier, construct as shown on the Standard Drawings, and Contract Drawings except replace Type 10M railing with Thrie Beam guiderail to bridge barrier transition section. See “Detail 4”.

Section 1119.03 Posts- Modify Steel I-Beam Posts to mount to the top of the Type 10M barrier on the moment slab.

Place moment slabs as indicated.

MEASUREMENT AND PAYMENT – Linear Foot

ITEM NUMBER 9036-0001 BRIDGE IDENTIFICATION PLAQUES

DESCRIPTION – This work is the furnishing and installation of two (2) bridge identification plaques.

MATERIALS –

- Identification plaque. Cast aluminum – See attachment, Bridge Identification Plaques – Layout. Standard Size – 8 ½” x 10”; 5/16” thickness – field depressed 18” and oxidized (background) to metallic grey.
Border Style – Standard Single Line Letter Style – News Gothic (Bold).
Mounts – Bosses on back, drilled, and tapped for 3/8” diameter x 3” long stainless steel stud threaded full length for concealed mounting to concrete. See attachment, Bridge Identification Plaques – Mounting.
- Caulking Compound. Section 705.8(b).
- Non-Shrink Grout, Section 1080.2(c).

Submit catalog cuts, drawings, and manufacturer’s specifications of components to the Engineer for his acceptance, prior to purchase.

Provide inscription on plate for Montour Run Bridge No. 06 as follows:

COUNTY OF ALLEGHENY

MT06

2012

CONSTRUCTION – Cast 1” diameter hole in concrete for stud; anchor stud using non-shrink grout. Attach to vertical concrete surfaces as directed. Caulk around perimeter, two sides, and top.

MEASUREMENT AND PAYMENT – Lump Sum

ITEM 9100-9001 – REPAIR DETERIORATED CONCRETE/MASONRY STONE

DESCRIPTION –

This work is repairing deteriorated areas of concrete or masonry stone as indicated and directed.

MATERIAL –

- Class AA Cement Concrete – Section 704 except use Number 8 coarse aggregate
- Forms – Section 1001.2(h)
- Reinforcement Bars (Epoxy Coated) – Section 709.1
- Dowel Holes – Section 1003
- Epoxy Anchoring System – Bulletin 15 and manufacturer's recommendations
- Welded Wire Fabric (Epoxy Coated or Galvanized) – From a manufacturer listed in Bulletin 15 with the following requirements: ASTM A-185, 3x3-11x11 (11 Gauge Wire) or equivalent steel area (in²) per square foot with a maximum grid spacing of 3"
- Annealed Iron Wire – ASTM-A684
- Epoxy Bonding Compound – ASTM C881 Type II, Grade 2 from a manufacturer listed in Bulletin 15. Certify as specified in Section 106.03(b)3.

CONSTRUCTION –

Provide satisfactory protective shielding below all repair areas.

The Engineer will determine the extent of the repair areas.

Outline the edge of the designated repair areas with a 1" maximum depth sawcut.

Within the outlined repair areas, remove the deteriorated concrete to a depth of ¾" behind the first mat of reinforcement bars to sound concrete. Remove masonry stone to sound stone. Allow uncovered or exposed reinforcement bars to have a ¾" clearance all around. If concrete is unsound at a depth of ¾" behind the reinforcement bars, do not remove any additional concrete without the approval of the Engineer. Square-out/bevel the edge of the repair areas to key in construction. Use hand tools for removing deteriorated concrete or masonry stone. Use pneumatic hammers, if required, not exceeding an impact rating of 25 foot pounds. If deteriorated concrete or masonry stone extends beyond the initially outlined repair area, enlarge area as directed by Engineer.

After the removal operations are complete, clean all remaining debris and loose materials from the repair areas by sandblasting. Sandblast exposed reinforcement bars to clean white metal. Epoxy coat the exposed reinforcement bars. Splice any damaged or heavily corroded reinforcement bars in accordance with Standard Drawing BC-736M. If enough splice length is not available, drill new dowel holes and place dowel bars as directed.

Place epoxy coated #4 bent "L" reinforcement bars in a 1'-0" center-to-center maximum spaced grid. Anchor into sound concrete with epoxy anchoring system. Attach welded wire fabric to

the bent “L” reinforcement bars with annealed iron wire at a maximum spacing of 1’-0” in each direction.

Set forms to provide minimum concrete cover as required. Maintain all chamfers. Air-blast all repair areas with oil-free compressed air to protect against any contaminant detrimental to the bond of the new concrete. Apply epoxy bonding compound to the repair area. While the epoxy bonding compound is still tacky, place Class AA Cement Concrete with Number 8 coarse aggregate. Do not place concrete if the compound is no longer tacky or if the compound has hardened. Recoat any compound that is no longer tacky. Wire brush or sandblast any compound that has hardened and recoat repair area.

Provide a minimum cover of 2” on reinforcement bars. If enough concrete cover on the existing reinforcement bars is not available, haunch the repair outward.

Repair any concrete damaged during the operations to the satisfaction of the Engineer at no additional cost to the Department.

MEASUREMENT AND PAYMENT –

Cubic Foot. Measured prior to placing forms. Additional reinforcement bars and protective shielding are incidental to this item.