

PROPOSAL REPORT

Project: 112268

Bid Package: 1

Current Let: 12/16/2021 11:00:00 AM

Version: Current

Addendum Count: 0

District: 08

County: Cumberland

SR/SEC/Group ID: 81/087/---

Description

I-81 Resurfacing Exit 59 to Wade Bridge

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BID PACKAGE SUMMARY

Project: 112268
Bid Package: 1

Project Type: Standard
Federal Project Status: PENNDOT Oversight NHS
State Type of Work: RESURFACING/OVERLAYS
Prequalification Required: Yes
Pre-Bid Meeting: None
408 Version: 2020-3

Posted:

Scheduled Let: 12/16/2021 11:00:00 AM

Project Cost Range: \$20,000,000.00 - \$24,999,999.99

Anticipated NTP: 01/31/2022

Structure Work: 0.00%

Required Completion: 11/21/2023

DBE: 4%

Wage Rates: Yes

Description:

This project consists of milling, base replacement, concrete pavement patching, minor drainage, ADA ramps, paving, CAVC site repair and other miscellaneous construction, all as indicated on the approved drawings included in the Bid Package for Interstate 81, Section 087, in CUMBERLAND COUNTY, SILVER SPRING TOWNSHIP, from Rich Valley Road (SR 1009) at Segment 0550 Offset 0550 (NB) to the Conodoguinet Creek at Segment 0554 Offset 0784 (NB), 1,680.00 linear feet (0.318 mile) and Rich Valley Road (SR 1009) at Segment 0551 Offset 0550 (SB) to the Conodoguinet Creek at Segment 0555 Offset 0723 (SB), 1,174.00 linear feet (0.222 mile) and in Cumberland County, Hampden Township from Lambs Gap Road at Segment 0584 Offset 1471 (NB) to Cumberland County, East Pennsboro Township at SR 11 & 15 at Segment 0650 Offset 0015 (NB), 32,435 linear feet (6.14 miles) and in Cumberland County, Hampden Township from Lambs Gap Road at Segment 0585 Offset 1439 (SB) to Cumberland County, East Pennsboro Township at SR 11 & 15 at Segment 0651 Offset 0015 (SB), 32,556 linear feet (6.17 miles), for an overall project length of 67,845 linear feet (12.85 miles). Also in Dauphin County, Susquehanna Township from SR 11 & 15 at Segment 0650 Offset 0016 (NB) to George Wade Bridge at Segment 0650 Offset 0878 (NB) and in Dauphin County, Susquehanna Township from SR 11 & 15 at Segment 0651 Offset 0016 (SB) to George Wade Bridge at Segment 0651 Offset 0874 (NB).

Additional Information:

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

PROJECT ITEMS AND QUANTITIES

Alt Item	Work Class Code	Unit Of Measure	Quantity	Unit Price	PDP	Spec Prov	Add	Action
0201-0001	A	Lump Sum	1.0000		N			
CLEARING AND GRUBBING								
0204-0001	C1, H	Cubic Yard	12.0000		N			
CLASS 2 EXCAVATION								
4205-0300	C1	Ton	100.0000		N	Std		
SELECTED BORROW EXCAVATION MODIFIED								
0205-0364	C1	Ton	20.0000		N			
SELECTED BORROW EXCAVATION ROCK, CLASS R-4								
0206-0010	C1	Ton	8,181.0000		N			
SELECT GRANULAR MATERIAL (2RC)								
0212-0001	C3, H, M2	Linear Foot	9,576.0000		N			
GEOTEXTILE, CLASS 1								
0212-0014	C3, H, M2	Square Yard	12.0000		N			
GEOTEXTILE, CLASS 4, TYPE A								
0316-0637	E, F1	Ton	19,972.0000		N			
SUPERPAVE ASPHALT MIXTURE DESIGN, FLEXIBLE BASE REPLACEMENT, PG 64S-22, 10 TO < 30 MILLION ESALS, 25.0 MM MIX								
0404-0012	X	Dollar	246,000.0000	\$1.00	Y			
ASPHALT PAVEMENT RIDE QUALITY INCENTIVE, SCHEDULE B								
0405-0001	X	Dollar	154,500.0000	\$1.00	Y			
ASPHALT PAVEMENT LONGITUDINAL JOINT DENSITY INCENTIVE/DISINCENTIVE								
0413-0336	F	Square Yard	126,196.0000		N			
SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, 10 TO < 30 MILLION ESALS, 12.5 MM MIX, 2" DEPTH, SRL-L								
0413-3419	F	Square Yard	350,033.0000		N			
SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, RPS, PG 64E-22, >= 30 MILLION ESALS, 12.5 MM MIX, 2" DEPTH, SRL-E								
0413-7013	F	Ton	28,493.0000		N			
SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE (LEVELING), PG 64S-22, 10 TO < 30 MILLION ESALS, 19.0 MM MIX								
0413-7017	F	Ton	50,086.0000		N			
SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE (LEVELING), PG 64E-22, >= 30 MILLION ESALS, 19.0 MM MIX								
0413-9999	X	Dollar	147,014.0000	\$1.00	Y			
PERCENT WITHIN LIMITS (PWL) LOT INCENTIVE/DISINCENTIVE								
0460-0001	F4	Square Yard	952,458.0000		N			
ASPHALT TACK COAT								

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0461-0002	F4	Gallon	18,172.0000	N		
ASPHALT PRIME COAT						
0491-0019	F3	Square Yard	160,818.0000	N		
MILLING OF ASPHALT PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR						
0504-0001	G1, G4	Linear Foot	114.0000	N		
PAVEMENT RELIEF JOINT						
0515-0001	G1, G4	Linear Foot	1,695.0000	N		
SAWING AND SEALING OF ASPHALT OVERLAYS						
0516-1009	G1	Square Yard	40.0000	N		
ACCELERATED CONCRETE PAVEMENT PATCHING, PERPENDICULAR JOINTS, TYPE A, 9" DEPTH						
0516-1010	G1	Square Yard	154.0000	N		
ACCELERATED CONCRETE PAVEMENT PATCHING, PERPENDICULAR JOINTS, TYPE A, 10" DEPTH						
0516-1210	G1	Square Yard	1,995.0000	N		
ACCELERATED CONCRETE PAVEMENT PATCHING, PERPENDICULAR JOINTS, TYPE C, 10" DEPTH						
0516-2007	G1, G4	Linear Foot	1,220.0000	N		
PATCHING JOINT						
0516-2008	G1, G4	Linear Foot	396.0000	N		
NEW PAVEMENT JOINT						
0516-2021	C1, E, G1	Cubic Yard	14.0000	N		
SUBBASE MATERIAL FOR CONCRETE PAVEMENT PATCHING						
0518-0002	C, E, G1	Cubic Yard	353.0000	N		
SUBBASE MATERIAL FOR CONTINUOUSLY REINFORCED CONCRETE PAVEMENT PATCHING						
4601-0004	C1, H	Linear Foot	15.0000	N	Proj	
REMOVE EXISTING PIPE CUSTOM MODIFIED						
0601-0315	H	Linear Foot	43.0000	N		
24" THERMOPLASTIC PIPE, GROUP I, 15'-1.5' FILL						
0601-5901	H1	Linear Foot	550.0000	N		
CLEANING EXISTING PIPE CULVERTS, DIAMETERS UP TO AND INCLUDING 36"						
0605-2620	K	Each	2.0000	N		
TYPE D-W ENDWALL						
0605-2730	K	Set	1.0000	N		
TYPE M CONCRETE TOP UNIT AND GRATE						
4605-2850	K	Each	1.0000	N	Proj	
STANDARD INLET BOX, HEIGHT < / = 10' MODIFIED						
0608-0001	X	Lump Sum	1.0000	N		
MOBILIZATION						
0609-0006	X	Lump Sum	1.0000	N		
INSPECTOR'S FIELD OFFICE AND INSPECTION FACILITIES, TYPE A						

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	0609-0009	X	Lump Sum	1.0000	N	Std		
	EQUIPMENT PACKAGE							
	0610-7102	H2	Linear Foot	9,576.0000	N			
	6" PAVEMENT BASE DRAIN, INCLUDING SHOULDER RESTORATION							
	0615-0022	H2	Linear Foot	329.0000	N			
	6" SUBSURFACE DRAIN OUTLETS							
	0615-0040	H2	Each	7.0000	N			
	SUBSURFACE DRAIN OUTLET ENDWALL							
	0615-0050	H2	Each	1.0000	N			
	SUBSURFACE DRAIN OUTLET ENDWALL (SLOPED)							
	0615-0066	C1, H2, R	Each	8.0000	N			
	66" RED SUBSURFACE DRAIN OUTLET MARKER							
	0618-0024	H	Each	1.0000	N			
	CONCRETE COLLAR FOR 24" PIPE EXTENSION							
	0620-0500	J	Linear Foot	20,700.0000	N			
	RESET GUIDE RAIL							
	0627-3020	J1	Linear Foot	15,700.0000	N			
	TEMPORARY BARRIER, TEST LEVEL 3, BARRIER DEFLECTION DISTANCE < /=2'							
	0628-3020	J1	Linear Foot	8,400.0000	N			
	RESET TEMPORARY BARRIER, TEST LEVEL 3, BARRIER DEFLECTION DISTANCE < /=2'							
	0630-0010	K	Linear Foot	15.0000	N			
	PLAIN CEMENT CONCRETE CURB, INCLUDING REMOVAL OF EXISTING CURB							
	0660-0005	F3	Linear Foot	166,415.0000	N			
	MILLED ASPHALT PAVEMENT SHOULDER/GORE RUMBLE STRIPS FOR INTERSTATES, EXPRESSWAYS AND FREEWAYS							
	0686-0040	X	Lump Sum	1.0000	N			
	CONSTRUCTION SURVEYING, TYPE C							
	0689-0005	X	Lump Sum	1.0000	N			
	CPM SCHEDULE, WITH UPDATES							
	0690-0002	X	Dollar	6,000.0000	\$1.00	Y		
	SEMI-FORMAL FACILITATION							
E	0695-0004	K	Square Foot	60.0000	N			
	DETECTABLE WARNING SURFACE, POLYMER COMPOSITE							
O	0695-0003	K	Square Foot	60.0000	N			
	DETECTABLE WARNING SURFACE, POLYMER CONCRETE							
O	0695-0002	K	Square Foot	60.0000	N			
	DETECTABLE WARNING SURFACE, CAST IRON							

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0696-0610	J1	Each	2.0000		N
TEMPORARY IMPACT ATTENUATING DEVICE, TYPE V (STANDARD), TEST LEVEL 3					
0696-0639	J1	Each	2.0000		N
TEMPORARY IMPACT ATTENUATING DEVICE, TYPE V (STANDARD) TEST LEVEL 3					
0697-0610	J1	Each	4.0000		N
RESET TEMPORARY IMPACT ATTENUATING DEVICE, TYPE V (STANDARD), TEST LEVEL 3					
0810-0052	A, M1	Each	100.0000		N
SELECTIVE TREE REMOVAL					
0845-0001	M2	Dollar	1,000.0000	\$1.00	Y
UNFORESEEN WATER POLLUTION CONTROL					
0901-0001	Q	Lump Sum	1.0000		N
MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION					
0901-0120	Q	Each	3.0000		N
SPEED DISPLAY SIGN					
0901-0320	O	Linear Foot	270,000.0000		N
4" STANDARD PAVEMENT MARKINGS, PAINT & BEADS, YELLOW					
0901-0330	O	Linear Foot	270,000.0000		N
4" STANDARD PAVEMENT MARKINGS, PAINT & BEADS, WHITE					
0901-0331	O	Linear Foot	189,500.0000		N
6" STANDARD PAVEMENT MARKINGS, PAINT & BEADS, WHITE					
0901-0332	O	Linear Foot	47,000.0000		N
8" STANDARD PAVEMENT MARKINGS, PAINT & BEADS, WHITE					
0901-0460	Q	Each	6.0000		N
FULL-MATRIX CHANGEABLE MESSAGE SIGN WITH TELECOMMUNICATIONS					
0931-0001	R	Square Foot	50.0000		N
POST MOUNTED SIGNS, TYPE B					
0934-0002	R	Square Foot	25.0000		N
POST MOUNTED SIGNS, TYPE E					
0935-0001	R	Square Foot	1,027.0000		N
POST MOUNTED SIGNS, TYPE F					
0936-0001	R	Square Foot	3,038.0000		N
STRUCTURE MOUNTED EXTRUDED ALUMINUM CHANNEL SIGNS					
0937-0330	R	Each	276.0000		N
FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-2, WHITE POST WITH WHITE/BLANK SHEETING					
0937-0331	R	Each	10.0000		N
FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-2, WHITE POST WITH WHITE/RED SHEETING					
0937-0333	R	Each	294.0000		N
FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-2, YELLOW POST WITH YELLOW/BLANK SHEETING					

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0937-0335	R	Each	10.0000	N		
FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-2, YELLOW POST WITH YELLOW/RED SHEETING						
0937-0339	R	Each	71.0000	N		
FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-2, RED POST WITH WHITE/BLANK SHEETING						
0937-0340	R	Each	41.0000	N		
FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-2, RED POST WITH YELLOW/BLANK SHEETING						
0956-0101	P8	Linear Foot	500.0000	N		
LOOP SENSOR						
0960-0005	O2	Linear Foot	475.0000	N		
6" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS						
0960-0021	O2	Linear Foot	2,760.0000	N		
24" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS						
0963-0001	O2, O3	Square Foot	1,000.0000	N		
PAVEMENT MARKING REMOVAL						
0964-0001	O	Linear Foot	90,000.0000	N		
4" WHITE EPOXY PAVEMENT MARKINGS						
0964-0002	O	Linear Foot	90,000.0000	N		
4" YELLOW EPOXY PAVEMENT MARKINGS						
0964-0005	O	Linear Foot	44,500.0000	N		
6" WHITE EPOXY PAVEMENT MARKINGS						
0964-0008	O	Linear Foot	16,000.0000	N		
8" WHITE EPOXY PAVEMENT MARKINGS						
0965-0222	O2	Each	5.0000	N		
WHITE PREFORMED THERMOPLASTIC LEGEND, "RIGHT ARROW", 12' - 0" X 3' - 0"						
0965-0224	O2	Each	7.0000	N		
WHITE PREFORMED THERMOPLASTIC LEGEND, "LEFT ARROW", 12' - 0" X 3' - 0"						
0965-0230	O2	Each	2.0000	N		
WHITE PREFORMED THERMOPLASTIC LEGEND, "WRONG WAY ARROW", 23' - 0"						
0965-0232	O2	Each	3.0000	N		
WHITE PREFORMED THERMOPLASTIC LEGEND, "LANE REDUCTION TRANSITION ARROW - RIGHT LANE", 18' - 0" X 5' - 6"						
0966-0014	O1	Each	61.0000	N		
SNOWPLOWABLE RAISED PAVEMENT MARKER TWO WAY HOLDER WITH REFLECTOR (Y/R)						
0966-0015	O1	Each	215.0000	N		
SNOWPLOWABLE RAISED PAVEMENT MARKER TWO WAY HOLDER WITH REFLECTOR (W/R)						
0966-0017	O1	Each	91.0000	N		
SNOWPLOWABLE RAISED PAVEMENT MARKER TWO WAY HOLDER WITH REFLECTOR (Y/B)						

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0966-0018	O1	Each	230.0000	N		
SNOWPLOWABLE RAISED PAVEMENT MARKER TWO WAY HOLDER WITH REFLECTOR (W/B)						
0971-0001	R	Each	40.0000	N		
REMOVE POST MOUNTED SIGNS, TYPE B						
1001-1140	K	Cubic Yard	100.0000	N		
CLASS C CEMENT CONCRETE						
5210-0100	P1	Each	2.0000	N	Proj	
ITS CLOSED CIRCUIT TELEVISION, CAMERA SUBSYSTEM, STRUCTURE MOUNT						
1999-9999	Z	Hour	2,000.0000	N	Std	
TRAINEES						
9000-0001	P	Lump Sum	1.0000	N	Proj	
TRAFFIC COUNT MONITORING SITE REPAIR - CAVC SITE 831 SILVER SPRING						
9000-0002	P	Lump Sum	1.0000	N	Proj	
TRAFFIC COUNT MONITORING SITE REPAIR - CAVC SITE 833 ENOLA						
9000-0003	F3	Dollar	1,000.0000	\$1.00	Y	Proj
MILLED BLEEDER CHANNELS MILLED MATERIAL RETAINED BY CONTRACTOR						
9000-0004	C1	Cubic Yard	50.0000	N	Proj	
SOLUTION CAVITY EXCAVATION						
9000-0404	P4	Each	2.0000	N	Proj	
FIELD ETHERNET SWITCH						
9000-0405	P4	Each	2.0000	N	Proj	
REMOTE POWER SWITCH						
9000-0412	P4	Linear Foot	695.0000	N	Proj	
ETHERNET CABLE						
9000-0413	P	Each	2.0000	N	Proj	
MPLS EQUIPMENT						
9490-0001	F3	Square Yard	315,410.0000	N	Proj	
REMOVAL OF EXISTING ASPHALT SURFACE COURSE AND MILLING OLD CONCRETE PATCHES						
9518-0033	G, G1	Square Yard	159.0000	N	Proj	
ACCELERATED CONTINUOUSLY REINFORCED CONCRETE PAVEMENT PATCHING, TYPE A, 9" DEPTH						
9518-0053	G, G1	Square Yard	4,058.0000	N	Proj	
ACCELERATED CONTINUOUSLY REINFORCED CONCRETE PAVEMENT PATCHING, TYPE C, 9" DEPTH						
9676-0001	K	Square Yard	100.0000	N	Proj	
CEMENT CONCRETE SIDEWALK MODIFIED						
9965-0581	O	Each	1.0000	N	Proj	
PREFORMED THERMOPLASTIC LEGEND PA-581 SHIELD 8'-0" X 20'-0"						
9965-0812	O	Each	2.0000	N	Proj	
PREFORMED THERMOPLASTIC LEGEND I-81 SHIELD 8'-0" X 20'-0"						

SPECIAL PROVISIONS

Special Provision: 00 - a00001 CONSTRUCTION RESTRICTIONS - LATE START

Addendum:

Action:

Item(s) Associated:

Header:

CONSTRUCTION RESTRICTIONS - LATE START

Provision Body:

The start work date for this project is April 4, 2022, unless approved in writing by the Project Manager.

Project Specific Details:

Special Provision: 00 - a00003 COOPERATION AND COORDINATION BETWEEN ADJACENT CONTRACTORS'

Addendum:

Action:

Item(s) Associated:

Header:

COOPERATION AND COORDINATION BETWEEN ADJACENT CONTRACTORS'

Provision Body:

Cooperate and coordinate in accordance with Section 105.07 with any adjacent contractor in the maintenance and protection of traffic during construction. Coordinate the placement and/or removal of signs, pavement markings, and traffic control devices throughout the duration of this contract that may conflict with adjacent work zones. This includes any work that may be adjacent to or within the limits of this project. If adjacent construction operations require modifications in maintenance and protection of traffic, submit a revised Traffic Control Plan for review and approval by the Representative.

Project Specific Details:

Special Provision: G101H - a00101 GOVERNING SPECIFICATIONS AND APPLICABLE DESIGNATED SPECIAL PROVISIONS

Addendum:

Action:

Item(s) Associated:

Header:

GOVERNING SPECIFICATIONS AND APPLICABLE DESIGNATED SPECIAL PROVISIONS

Provision Body:

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

Specifications 408/2020, **Change No. 3, effective October 8, 2021**, 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 State Contracts.

DSP2. Contractor Responsibility Provisions.

DSP3. Provisions for State Contracts Concerning the Americans with Disabilities Act.

DSP4. Diverse Business (DB) Requirements for Non-Federally Funded Construction Projects.

DSP7. Disadvantaged Business Enterprise (DBE) Requirements for Federally-Funded Construction Projects. In conjunction with this contract a goal of **4%** of the original contract amount has been established.

DSP8. F.A.R. - Required Contract Provisions Federal-Aid Construction Contracts FHWA-1273 (Revised May 1, 2012). Also attached to the Proposal/Contract.

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.

DSP13. Buy America.

DSP14. Enhanced Minimum Wage Provisions.

Project Specific Details:

Special Provision: G113B - a00113 CONTRACT PROVISIONS - RIGHT-TO-KNOW LAW

Addendum:

Action:

Item(s) Associated:

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.

Project Specific Details:

Special Provision: C117A - a00117 CHANGES TO SPECIFICATIONS: SECTION 314

Addendum:

Action:

Item(s) Associated:

Header:

CHANGES TO SPECIFICATIONS: SECTION 314

Provision Body:

SECTION 314—SUPERPAVE ASPHALT MIXTURE DESIGN, STANDARD CONSTRUCTION, ASPHALT RICH BASE COURSE

314.1 DESCRIPTION—This work is the standard construction of a plant-mixed asphalt rich base course (ARBC) on a prepared surface using a volumetric mixture design developed with the Superpave Gyratory Compactor (SGC) using prescribed manufactured additives, or plant process modifications or both.

314.2 MATERIAL—Section 413.2 with the following modifications:

(c) Recycled Asphalt Material. Section 413.2(c) with the following modifications and additions:

1. **RAP.** Add the following: Do not exceed 20 percent by weight RAP content in ARBC mixtures.
2. **Manufacturer Waste Recycled Asphalt Shingles (RAS).** Add the following: Do not use RAS material in ARBC mixtures.

(e) Mixture Composition for Standard and RPS Construction. Section 413.2(e) with the following modifications and additions:

1. Virgin Material Mixtures. Size, uniformly grade, and combine aggregate fractions, asphalt binder, and either WMA Technology additive(s) or modifier(s) in proportions to produce a JMF that conforms to the material, gradation, and volumetric Superpave Asphalt Mixture Design requirements according to Bulletin 27, except as modified in Table A1. Produce an asphalt mixture for the indicated nominal maximum aggregate size (NMAS) and design ESALs except as procedurally modified by the WMA Technology Manufacturer Technical Representative to address laboratory procedures when preparing, compacting and testing asphalt mixtures to achieve a uniform blend. Special additive(s) or modifier(s) need not be used if mixture temperature, workability, and compaction can be achieved solely through plant mechanical modification to produce foamed asphalt. Do not incorporate the WMA Technology additive, modifier or process during the volumetric asphalt mixture design process, so that the JMF volumetrics and material percentages are based on a mixture with no WMA Technology. Only use the WMA Technology additive, modifier or process to evaluate results from moisture susceptibility testing during the mix design process. Develop an asphalt mixture JMF, then incorporate the WMA Technology additive, modifier, or process into that JMF during production. Create an asphalt JMF cover sheet (Form TR-448A) for approval containing the WMA Technology used, additive dosage rate or percent water added for foaming, material code, and the TSR data from the moisture susceptibility testing.

Submit a copy of each completed JMF, signed by a certified Asphalt Level 2 plant technician, to the DME/DMM at least 3 weeks before the planned start of mixture production. Include a list of all material sources and the asphalt mixture producer in the JMF. Provide the calibration factors (C_1 and $200 C_1$) according to PTM No. 757 with the JMF. Do not start mixture production until after the DME/DMM reviews the JMF.

**TABLE 1
Mix Design Requirements for Asphalt Rich Base Courses**

Volumetric Mix Design Property	25 mm NMAS
Design Gyration (N_{design}) for All Ranges of Design ESALs	50
Design Air Voids (V_a) for All Specified Ranges of Design ESALs (Percent)	2.5
Voids in Mineral Aggregate (VMA) Minimum for All Specified Design ESALs and Production QC Samples (Percent)	13.0
Voids Filled with Asphalt (VFA) for All Ranges of Design ESALs (Percent)	80 - 85

314.3 CONSTRUCTION—Section 413.3 as specified for standard construction and with additions and modifications as follows:

(b) Weather Limitations. Section 413.3(b). Replace with the following:

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

(h) Spreading and Finishing. Revise as follows:

1.b Spreading and Finishing. Add the following:

Place the indicated compacted depth of ARBC in one layer not less than 3 inches or more than 6 inches.

(j) Mat Density acceptance. Add the following:

Accept ARBC by Optimum-Rolling Pattern as specified in Section 413.3(j)3.

(l) Surface Tolerance. Replace the requirement for defective pavement with the following:

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

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

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

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

314.4 MEASUREMENT AND PAYMENT—Section 413.4(a), with modifications as follows:

(a) Asphalt Mixtures (Standard). Revise as follows:

1. Asphalt Courses. Add the following:

1.f Superpave Asphalt Mixture Design, Asphalt Rich Base Course. Square Yard or Ton

Project Specific Details:

Special Provision: G311A - a00311 ROAD USER LIQUIDATED DAMAGES (RULD)

Addendum:

Action:

Item(s) Associated:

Header:

ROAD USER LIQUIDATED DAMAGES (RULD)

Provision Body:

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

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

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

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

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

Lane Closures - 4 Lane - 1 lane in each direction closed

- RULDs in the amount of **\$12,500.00 per hour, per direction of travel**, will be assessed for each hour or portion of an hour that **SR 0081** is not open to unrestricted traffic on all lanes as specified within the special provision for Item 0901-0001.

Lane Closures - 6 Lane - 1 lane in each direction closed

- RULDs in the amount of **\$2,875.00 per hour, per direction of travel**, will be assessed for each hour or portion of an hour that **SR 0081** is not open to unrestricted traffic on all lanes as specified within the special provision for Item 0901-0001.

Lane Closures - 6 Lane - 2 lanes in each direction closed

- RULDs in the amount of **\$12,500.00 per hour, per direction of travel**, will be assessed for each hour or portion of an hour that **SR 0081** is not open to unrestricted traffic on all lanes as specified within the special provision for Item 0901-0001.

Project Specific Details:

Special Provision: G401A - a00401 ADVANCE NOTICE OF TRAFFIC RESTRICTIONS

Addendum:

Action:

Item(s) Associated:

Header:

ADVANCE NOTICE OF TRAFFIC RESTRICTIONS

Provision Body:

Notify the Engineer at least 4 calendar days in advance of the start of any operation which will affect the flow of traffic and provide the Engineer with details of the work to be done. After notification, the District Office will advise the public of these traffic restrictions and possible delays.

Project Specific Details:

Special Provision: G501A - a00501 AIR POLLUTION CONTROL IN AIR BASINS

Addendum:

Action:

Item(s) Associated:

Header:

AIR POLLUTION CONTROL IN AIR BASINS

Provision Body:

No burning will be permitted on this project except that the Department of Environmental Protection will permit the operation of an air curtain destructor, (open pit incinerator) as defined in Title 25, Section 129.14, of the Rules and Regulations of the Department of Environmental Protection, for the destruction of wood waste generated by clearing and grubbing operations, provided that the incinerators are properly designed, located, and operated. Permission may be granted for units both within and outside the air basin areas defined in Title 25, Section 121.1 of Chapter 121 of the Rules and Regulations of the Department of Environmental Protection, but each proposal is required to be reviewed on an individual basis by the appropriate Regional Air Pollution Control Engineer.

If an air pollution problem is subsequently created by the operation of such a unit the Department of Environmental Protection will notify the Contractor and will take appropriate enforcement action if necessary.

Project Specific Details:

Special Provision: G1601A - a01601 E.E.O. COVERED AREA

Addendum:

Action:

Item(s) Associated:

Header:

E.E.O. COVERED AREA

Provision Body:

For the purpose set forth in the Executive Order 11246
the covered area for this contract is Cumberland County,
which is within the Economic Area of Harrisburg-Lancaster-York, Pennsylvania,
as listed in Appendix B of Designated Special Provision 12 (DSP12) entitled "Executive Order 11246 (with Appendix A and B)" in
Appendix C of Pub 408.

Project Specific Details:

Special Provision: G60B - a01701 NIGHT SHIFT

Addendum:

Action:

Item(s) Associated:

Header:

NIGHT SHIFT

Provision Body:

If starting normal workday before 6:00 a.m. or at or after 12:00 noon, give the Assistant Construction Engineer written notice
sixteen (16) days before starting.
Do not work on Sundays unless approved by the District Engineer sixteen (16) days in advance.

Project Specific Details:

**Special Provision: G4501C - a04501 UTILITIES--FOR USE ON GUIDE RAIL REPLACEMENT
PROJECTS**

Addendum:

Action:

Item(s) Associated:

Header:

UTILITIES--FOR USE ON GUIDE RAIL REPLACEMENT PROJECTS

Provision Body:

Identify and contact all utilities having existing aerial and/or underground facilities located within the work area for marking of the field locations of existing underground facilities before any excavation, drilling, and/or post driving. In addition to the requirements of Standard Drawing RC-54M, maintain required minimum clearance between existing utility poles and proposed guide rail so as to establish a satisfactory mean alignment as determined by the Representative. Do not install any portion of the guide rail end treatment in front of a fixed object.

Project Specific Details:

Special Provision: G110B - a05101 START OF WORK

Addendum:

Action:

Item(s) Associated:

Header:

START OF WORK

Provision Body:

Notify the Assistant District Engineer for Construction three days prior to the actual start of work.

Keep constant liaison with the Assistant District Engineer for Construction as to any changes to the date of starting work.

Project Specific Details:

Special Provision: G100B - a05201 STATE POLICE FOR CONSTRUCTION ASSISTANCE

Addendum:

Action:

Item(s) Associated:

Header:

STATE POLICE FOR CONSTRUCTION ASSISTANCE

Provision Body:

This construction project has been authorized to use the Pennsylvania State Police for assistance with work zone traffic control. All requests for such services will be the sole responsibility of the Department. The State Police require that requests be made at least two weeks in advance, and confirmed within the last 48 hours. To assist the Department in providing sufficient notice, submit a work schedule at the preconstruction conference. Include dates and approximate times lane closures will be in effect, as well as other pertinent information which may influence scheduling. The Department will directly reimburse the State Police for all costs associated with their services. It is not necessary to include costs for these services in the bid proposal. Full cooperation of all involved parties is necessary to ensure success of this venture. Failure to provide the necessary scheduling information may result in loss of State Police services and possible suspension of work.

Project Specific Details:

Special Provision: N10650C - a10650 MINIMUM EFFECTIVE ASPHALT FOR 9.5 MM OR 12.5 MM SUPERPAVE MIXTURES

Addendum:

Action:

Item(s) Associated:

Header:

MINIMUM EFFECTIVE ASPHALT FOR 9.5 MM OR 12.5 MM SUPERPAVE MIXTURES

Provision Body:

Submit a 9.5 mm or 12.5 mm Superpave mix design prepared as specified in Section 413.2, in accordance with Bulletin 27, and as follows:

- Submit a design with minimum effective asphalt (Pbe) based on the combined aggregate bulk specific gravity (Gsb) in accordance with the Minimum Pbe Table below.
- New designs need to meet the minimum Pbe requirements in the Table below along with existing volumetric requirements as listed in Bulletin 27 Chapter 2A.

Minimum Pbe		
Gsb	9.5 mm Superpave Mixes	12.5 mm Superpave Mixes
2.250 to 2.274	6.2	5.8
2.275 to 2.324	6.1	5.7
2.325 to 2.374	6.0	5.6
2.375 to 2.424	5.9	5.5

2.425 to 2.474	5.8	5.4
2.475 to 2.524	5.7	5.3
2.525 to 2.574	5.6	5.2
2.575 to 2.624	5.5	5.1
2.625 to 2.674	5.4	5.0
2.675 to 2.724	5.3	4.9
2.725 to 2.774	5.2	4.8
2.775 to 2.824	5.1	4.7
2.825 to 2.874	5.0	4.6
2.875 to 2.924	4.9	4.5
2.925 to 2.974	4.8	4.4
2.975 to 3.024	4.7	4.3
3.025 to 3.074	4.6	4.2

Changes to Previously Approved Mix Designs*:

- Changes to a previously approved 9.5 mm or 12.5 mm mix design that meet or exceed the requirements in the “Minimum Pbe” Table will not be allowed.
- Additional virgin asphalt binder will be allowed provided the minimum Pbe is met or exceeded and all other mix properties are met.
- Ndesign air voids may range from 3.5% to 4.0% for mixture design.
- The maximum Design voids filled with asphalt (VFA) is revised to 80.
- Follow the steps below to achieve the minimum Pbe:
 - Step 1

- Verify the additional virgin asphalt binder content according to Bulletin 27, Appendix J, Section C. If the laboratory mixed, laboratory compacted specimens meet Bulletin 27, Condition B of Appendix J, Table J -2, then no other adjustments to proportions or gradation will be required.
- Step 2
 - If the addition of virgin asphalt cannot meet Bulletin 27, Condition B of Appendix J, Table J-2, gradation changes are permissible as long as changes are within multiple sample tolerances as specified in Section 413.2(e) Table A.
- Step 3
 - If Bulletin 27, Condition B of Appendix J, Table J-2 cannot be achieved with Step 1 or Step 2, a complete re-design of the JMF will be required.

(Previously Approved Mix Designs- JMF's approved in previous year or new designs submitted with the only change being either PG grade or HMA to WMA, with no changes to target asphalt content or gradation)*

Project Specific Details:

Special Provision: G50E - a10751 GUIDE RAIL MOUNTED DELINEATORS

Addendum:

Action:

Item(s) Associated:

Header:

GUIDE RAIL MOUNTED DELINEATORS

Provision Body:

In accordance with Section 937 and as follows:

Section 937.2 MATERIAL - Revise by adding the following:

Guide rail mounted delineators from a manufacturer listed in Publication 35 (Bulletin 15).

Section 937.3 CONSTRUCTION - Revise by adding the following:

On strong post guide rail, install both a Type D web mounted delineator and a Type B offset bracket mounted delineator at 37.5-foot spacing on curves and at 75-foot spacing on tangents.

On weak post guide rail, install both a Type D web mounted delineator and a Type C guide rail post mounted delineator at 37.5-foot spacing on curves and at 75-foot spacing on tangents.

Install Type D Delineators on the guide rail web at the mid-span splice through the slotted hole with a bolt and nut. Do not install Type D Delineators underneath the bolt attaching the rail to the posts. Do not create new holes in the guide rail web to install the Type D Delineators. The bolt and nut are incidental to the Type D Delineator.

On two, three, or four-lane undivided roadways, use two-sided white/white on right side of roadway.

On ramps, use two-sided white/red on right side of ramp.

On ramps, use two-sided yellow/red on left side of ramp.

On divided highways, use one-sided white on right side of roadway.

On divided highways, use one-sided yellow on median guide rail.

In addition to the above, place both a one-sided yellow Type D web mounted delineator and a one sided yellow Type B offset bracket mounted delineator (for strong post) or a one sided yellow Type C guide rail post mounted delineator (for weak post) at the following locations:

1. At the post closest to the end of a flared or radius section of guide rail where the guide rail becomes parallel to the roadway centerline.
2. At the post closest to where guide rail transitions to a barrier or bridge parapet.

Section 937.4 MEASUREMENT AND PAYMENT - Revise completely as follows:

This will be incidental to the work specified in Section 620.

Project Specific Details:

Special Provision: 00 - a12001 MEASUREMENT OF VERTICAL CLEARANCES

Addendum:

Action:

Item(s) Associated:

Header:

MEASUREMENT OF VERTICAL CLEARANCES

Provision Body:

DESCRIPTION - This work is the measurement and documentation of the bridge or sign structure vertical clearances before construction begins, prior to opening the paved overlay or reconstructed pavement to traffic, and during any lane shifts required to perform construction work. Masts containing traffic signals and/or signs sized 36 inches in height or less are specifically excluded from this provision. Reference Publication 148 (current and previous) for excluded types. If additional guidance is required, contact the District Bridge Inspection Unit at RA-PDD08BRIDGEINSP@pa.gov.

CONSTRUCTION - Measure and document the bridge or sign structure vertical clearances before construction begins, prior to opening the paved overlay or reconstructed pavement to traffic, and during any lane shifts required to perform construction work.

All measurements are to be provided in feet to two (2) decimal places, rounded down (i.e. 14'-5.5" = 14.4583', rounded down = 14.45').

Measure the vertical clearances utilizing a survey rod with bullseye level or with the services of a qualified surveyor. Laser measurements may only be used to confirm the survey rod measurements.

Measure the vertical clearances and document findings at all major transverse locations along the bottom of the bridge fascia beams or sign structure and its appurtenances. These include, but are not limited to:

Yellow lines

White lines

Dashed lines

Front face of guiderail or barrier

Edge of Shoulder

Any low points throughout the underside of the bridge or sign structure (i.e. a hanging utility, beam repairs, plates, signs, luminaires, etc.).

The horizontal distances perpendicular to the roadway between measurements are also to be included. A sample sketch is provided. Please note, the sample sketch is not to be used. Create a new sketch similar to the example, but unique to the location, utilizing the attached Excel template.

A legible sketch with vertical clearances is required for each site.

All clearance measurements are to be witnessed by a Department Representative. The Department has the right to reject and request revisions to any sketch that does not meet the minimum requirements as set forth in this provision.

New versus Existing clearances:

A. If any vertical clearance measurement is less than the existing without prior approval for the reduction, follow these steps:

- 1. Department’s inspector-in-charge or its designee is to notify the District Bridge Inspection Unit of the change via email (RA-PDD08BRIDGEINSP@pa.gov) as soon as possible, but no later than the next business day.
- 2. District Bridge Inspection Unit may approve the change or require corrective action, such as milling and repaving.
- 3. Once the proper course of action is completed, step 1 of section B below is to be followed.
- 4. If an unanticipated change in vertical clearance is made, it will be the contractor’s responsibility to pay for and install new vertical clearance signs, if required by the Department.

B. If the vertical clearance measurements are equal to or greater than the existing vertical clearance measurements, or if a reduction to the vertical clearance had prior approval, follow these steps:

- 1. Contractor is to provide the vertical clearance sketches to the Department via PPCC. The sketch is to be uploaded to the submittal type “Bridge Vertical Clearance Sketch” within ten (10) business days.

MEASUREMENT AND PAYMENT – Incidental to Item 0608-0001 – Mobilization.

Project Specific Details:

Special Provision: 00 - a12201 POST MOUNTED & STRUCTURE MOUNTED SIGNS

Addendum:

Action:

Item(s) Associated:

Header:

POST MOUNTED & STRUCTURE MOUNTED SIGNS

Provision Body:

Revise Sections 930.2, 931.2, 932.2, 933.2, 934.2, 935.2, and 936.2 – MATERIAL by adding the following:

On non-standard signs, provide a legend consisting of the sign size (W”x H”), date of manufacture (month/year), and sign retro-reflectivity type at a location 1” above and to the right of the border on the bottom left of sign panel. Numerals and letters are to be direct applied cutout 1” high series D font. On standard size signs, provide a legend consisting of the date of manufacture (month/

year) and sign retro-reflectivity type. Numerals and letters are to be direct applied cutout 5/8" high series C font located 1/2" above the bottom border offset towards the right of centerline but no more than 1" from the border of the sign panel.

Color of legend is to be the same color as the sign border.

Revise Sections 930.3, 931.3, 932.3, 933.3, 934.3, 935.3, and 936.3 – CONSTRUCTION by adding the following:

When installing new signs or sign structures attach parking signs, bus stop signs, segment markers, paint pattern paddles, and any other signs from the existing post or sign structure that are not being replaced to the new post or sign structure at no additional cost unless otherwise indicated on the Signing and Pavement Marking Plan.

Project Specific Details:

Special Provision: G115C - a12701 TEMPORARY BARRIER/GLARE SCREEN MOUNTED DELINEATORS

Addendum:

Action:

Item(s) Associated:

Header:

TEMPORARY BARRIER/GLARE SCREEN MOUNTED DELINEATORS

Provision Body:

In accordance with Section 937 and as follows:

Section 937.2 MATERIAL - Revise by adding the following:

Use Type WZ, temporary barrier/glare screen mounted delineators as indicated on the Standard Drawings. Use fluorescent orange Type IX sheeting. Use sheeting on both sides of the delineator when used between traffic traveling in opposing directions. Type WZ delineators may be made of any lightweight materials that maintain a vertical orientation (+/- 10 degrees) and do not need to be of an approved type listed in Publication 35 (Bulletin 15).

Section 937.3 CONSTRUCTION - Revise by adding the following:

Install on the top of all temporary barriers/glare screen that are adjacent to the travel lanes at maximum 40-foot spacing.

Section 937.4 MEASUREMENT AND PAYMENT - Revise completely as follows:

This will be incidental to the work specified in Sections 627 and 643.

Project Specific Details:

Special Provision: N13101B - a13101 CONSTRUCTION PROJECT TRAFFIC BARRIER PRE-INSTALLATION REVIEW

Addendum:

Action:

Item(s) Associated:

Header:

CONSTRUCTION PROJECT TRAFFIC BARRIER PRE-INSTALLATION REVIEW

Provision Body:

Notify the Inspector-in-Charge of the proposed schedule for Traffic Barrier installation, a minimum of two weeks before beginning installation. The Inspector-in-Charge will contact the District Guide Rail Mentor to schedule the pre-installation review. Contractor attendance at the pre-installation review is required.

Before the review, place temporary markings (paint, stakes, or flags) indicating planned locations of all permanent traffic barrier to be installed as part of the project. The term Traffic Barrier includes all types of permanent barrier including, but not limited to, W-beam guide rail, concrete median barrier, cable barrier, end treatments, and impact attenuating devices.

Do not install any Traffic Barrier on the project before receiving written authorization from the Inspector-in-Charge.

Costs associated with placement of the temporary markings, and attendance at the Pre-Installation Review are considered incidental to other items of work, and no separate payment will be made. Revisions to contract quantities of Traffic Barrier will be paid in accordance with Section 110.

Project Specific Details:

Special Provision: S2011C - b02011 SECTION 201.3

Addendum:

Action:

Item(s) Associated:

Header:

SECTION 201.3

Provision Body:

Revise the fifth paragraph of Section 201.3 CONSTRUCTION to read as follows:

Trees and shrubs along a highway previously opened to traffic belong to the property owner. Surrender all material from the removal of trees and shrubs to the owner of the abutting property. Deliver accepted wood to a nearby location as directed. Dispose of the trees and shrubs if the owner refuses to accept the wood.

Project Specific Details:

Special Provision: 00 - b04131 SECTION 413.3

Addendum:

Action:

Item(s) Associated:

Header:

SECTION 413.3

Provision Body:

Section 413.3(k)3 Other Joints.

Revise to read as follows:

When placing a wearing course abutting existing pavement at locations such as paving notches, lane additions, or utility openings, seal the joint with hot, asphalt material, PG 64S-22. Evenly apply the sealant a minimum of 150 mm (6 inches) on both sides of the joint. Before sealing, clean and remove harmful material from the area to be sealed. Control the application rate so residual asphalt completely fills surface voids and provides a water-tight joint. Remove excess asphalt material and immediately cover the sealed area with a light application of dry sand that is acceptable to the Representative.

Project Specific Details:

Special Provision: 00 - b04131a SECTION 413.3(g) PREPARATION OF THE EXISTING SURFACE

Addendum:

Action:

Item(s) Associated:

Header:

SECTION 413.3(g) PREPARATION OF THE EXISTING SURFACE

Provision Body:

Add the following to Section 413.3(g) Preparation of the Existing Surface:

Before placing asphalt material on the existing asphalt shoulder, remove all soil, dirt, stones, debris or other foreign material accumulated on the shoulder. Remove all this material and find the existing edge of the asphalt shoulder by acceptable means that does not damage the shoulder. Clean and tack coat the shoulder as directed by the Engineer.

This work WILL NOT be paid for separately but is considered incidental to the asphalt material being placed on the existing asphalt shoulder.

Project Specific Details:

Special Provision: 00 - b04132 SECTION 413.3(h)1.a - PLACING

Addendum:

Action:

Item(s) Associated:

Header:

SECTION 413.3(h)1.a - PLACING

Provision Body:

Section 413.3(h)1.a Placing. Revise the second paragraph to read as follows:

Use a Material Transfer Vehicle (MTV) as specified in Section 108.05(c)5 on all mainline, shoulders, and ramps for all leveling, binder, and wearing courses except scratch courses. Any pavement section that is less than 150 m (500 feet) may be performed without the use of the MTV.

Project Specific Details:

Special Provision: 00 - b04133 SECTION 413.3(i) COMPACTION

Addendum:

Action:

Item(s) Associated:

Header:

SECTION 413.3(i) COMPACTION

Provision Body:

Revise the third paragraph of Section 413.3(i) to read as follows:

Use pneumatic-tire rollers for compacting scratch, binder leveling, and wearing leveling courses.

Project Specific Details:

Special Provision: S6092B - b06092 SECTION 609.2(f) MISCELLANEOUS MATERIALS

Addendum:

Action:

Item(s) Associated:

Header:

SECTION 609.2(f) MISCELLANEOUS MATERIALS

Provision Body:

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

- The Multifunctional Device(s) needed for this project will be provided by the Department for Department use and not as part of the Equipment Package contract item.

- A total of (See "a" in Project Specific Details) Low Capacity Multifunctional Devices and a total of (See "b" in Project Specific Details) High Capacity Multifunctional Devices will be provided for the project.
- Provide manufacturer recommended high-yield inkjet cartridges for each multifunctional device indicated above, as required. The exact make and model of the multifunctional device will not be known until the start of work. For cost estimating purposes, inkjet cartridges furnished must be usable with the multifunctional devices specified in Section 609.2(c), as applicable.

Project Specific Details:

- a. two (2)
- b. zero (0)

Special Provision: 00 - b06301 SECTION 630 - PLAIN CEMENT CONCRETE CURB

Addendum:

Action:

Item(s) Associated:

Header:

SECTION 630 - PLAIN CEMENT CONCRETE CURB

Provision Body:

For Item 0630-0010 only:

Revise Section 630.3 CONSTRUCTION by adding the following:

Construct curb to match existing curb height.

Project Specific Details:

Special Provision: 00 - b07042 SECTION 704 AND SECTION 1001

Addendum:

Action:

Item(s) Associated:

Header:

SECTION 704 AND SECTION 1001

Provision Body:

Revise Section 704 as follows:

Section 704 Table A. Cement Concrete Criteria. Add the following note:

(10) Do not utilize high range water reducing admixtures (superplasticizers) in the AAA-P concrete mix design.

Revise Section 1001 as follows:

Section 1001.3(a)2.a Metal Bridge Deck Forms (Permanent). Add the following information to the fourth paragraph after the first sentence:

Beam Elevations must be provided for both sides of the beams with deck thickness and stay in place form height.

Section 1001.3(k)6.a Preplacement Meeting. Add the following:

The Contractor, concrete producer, and the Department Engineer will be in attendance.

Section 1001.3(k)6.c. Finishing Equipment. Add the following:

Conduct the dry run not less than 24 hours prior to the placement of concrete, unless otherwise approved by the Structural Control Engineer.

For structures with a skew angle of 75 degrees or greater, place and finish the concrete perpendicular to the center line of roadway. For structures with a skew angle less than 75 degrees and down to 40 degrees, place and finish the concrete at the skew angle. For structures with a skew angle less than 40 degrees, place the concrete at the skew angle and finish the concrete at 40 degrees. Provide two work bridges for all deck placements that are set up at the same skew angle as the finishing machine. The finishing machine rollers are to be kept parallel to center line of roadway for all finishing operations.

Section 1001.3(t). Bridge Deck, Barrier, and Approach Slab Sealing. Add the following to the paragraph:

Apply the boiled linseed oil or penetrating sealer prior to the opening of traffic and prior to any contact with deicing salts. Protect the deck surface and parapets from any salt sprays as a result of vehicular traffic and any salts from construction traffic until the boiled linseed oil has been applied.

Section 1001.3(p)3.d Accelerated Structure Concrete (ASC) Curing: Revise by adding the following:

Cure test cylinders under the same conditions as the concrete placement area. Control the curing temperature and monitor at least hourly to ensure that the concrete placement area does not experience a temperature change more than 40°F during any 1-hour period during the curing operation. If a temperature changes more than 40°F occurs in the closure pour within any 1-hour period, the work will be considered defective.

Project Specific Details:

Special Provision: 00 - b08101 SECTION 810 - TREE TRIMMING AND SELECTIVE TREE REMOVAL

Addendum:

Action:

Item(s) Associated:

Header:

SECTION 810 - TREE TRIMMING AND SELECTIVE TREE REMOVAL

Provision Body:

Revise the first paragraph of Section 810.3(d) Surrender Material by adding the following:

Deliver accepted wood to a nearby location as directed.

Project Specific Details:

Special Provision: 00 - b09601 SECTIONS 960 and 964

Addendum:

Action:

Item(s) Associated:

Header:

SECTIONS 960 and 964

Provision Body:

In accordance with Section 960 or 964 and as follows:

Revise Section 960.3 CONSTRUCTION or 964.3 CONSTRUCTION by adding the following:

At the end of each work period, install temporary pavement markings, paint and beads, in lieu of the final markings in accordance with the provisions of Section 901.3(k).

Two methods of installing temporary pavement markings in lieu of final markings at the end of each work period are:

1.

- a. Apply standard pavement markings in accordance with Section 962.
- b. Remove standard pavement markings in accordance with Section 963.3 before applying final markings.

2.

- a. Apply temporary pavement markings with a wet-film thickness of 7 to 8 mils. Provide proof of 7 to 8 mil application rate to the Representative at time of application.
- b. Provide minimum retroreflectivity readings of 125 mcd/m²/lux.
- c. Under direction and supervision of the Representative, measure and document the retroreflectivity of the temporary 7 to 8 mil pavement markings with a 30-meter geometry retroreflectometer conforming to ASTM E-1710 in accordance with PTM No. 431 immediately after applying the temporary 7 to 8 mil pavement markings and every week thereafter. Removal of temporary 7 to 8 mil pavement markings prior to applying the final markings is not necessary. However, guarantee the final markings as specified in Sections 960.3(e) or Section 964.3(d) should the final markings fail to adhere to the temporary markings and/or not meet the required retroreflectivity.
- d. If the initial or weekly retroreflectivity readings fall below the required minimum, immediately restripe the longitudinal line(s) within the checkpoint area or zone of measurement as required by the acceptance criteria in PTM No. 431 with standard pavement markings in accordance with Section 962 at no additional cost to the department. The zone of measurement is the roadway length containing all of the temporary 7 to 8 mil pavement markings applied after each work period. Remove standard pavement markings in accordance with Section 963.3 before applying the final markings.

Revise Section 960.4 MEASUREMENT AND PAYMENT or Section 964.4 MEASUREMENT AND PAYMENT by adding the following:

Placement of temporary pavement markings and/or their removal is incidental to the cost of the final pavement markings used in Sections 960 or 964.

Project Specific Details:

Special Provision: 00 - b10851 SECTION 1085.3(h)4 Backfill

Addendum:

Action:

Item(s) Associated:

Header:

SECTION 1085.3(h)4 Backfill

Provision Body:

Section 1085.3(h)4 Backfill. Revise to read as follows:

Backfill reinforced concrete box culverts to limits shown on Standard Drawing RC-12M. Backfill trench as specified in Section 601.3(f), except do not use excavator-mounted hydraulic equipment for compaction.

Project Specific Details:

Special Provision: I2051B - c02051 ITEM 4205-0300 - SELECTED BORROW EXCAVATION (MODIFIED)

Addendum:

Action:

Item(s) Associated:

4205-0300 - SELECTED BORROW EXCAVATION MODIFIED

Header:

ITEM 4205-0300 - SELECTED BORROW EXCAVATION (MODIFIED)

Provision Body:

DESCRIPTION - This work is the sealing of solution cavities as specified in the special provision "Solution Cavity Excavation" in this proposal.

MATERIAL - Rock--AASHTO No. 1 or a larger gradation with sufficient fines, as directed, to satisfactorily seal the solution cavities.

MEASUREMENT AND PAYMENT - Ton.

Project Specific Details:

Special Provision: 00 - c06011 ITEM 4601-0004 - REMOVE OUTLET PORTION OF 24" DIAMETER METAL PIPE CULVERT

Addendum:

Action:

Item(s) Associated:

4601-0004 - REMOVE EXISTING PIPE CUSTOM MODIFIED

Header:

ITEM 4601-0004 - REMOVE OUTLET PORTION OF 24" DIAMETER METAL PIPE CULVERT

Provision Body:

In accordance with Section 601 and as follows:

601.1 DESCRIPTION - Revise to read:

This work is the removal of a portion of an existing 24" diameter metal pipe and the removal of the concrete placed on top of the existing metal pipe. Once the pipe has been removed, install a cast-in-place standard inlet box with type M top and grate, new 24" diameter concrete pipe, and a precast Type D-W endwall.

601.4 MEASUREMENT AND PAYMENT - Add the following:

Remove Outlet Portion of 24" Diameter Metal Pipe Culvert - Linear Foot(LF). Includes disposal. The new concrete pipe, cast in place standard inlet box, the type M inlet top with grate, and precast Type D-W endwall will be paid for separately.

Project Specific Details:

Special Provision: 00 - c06051 ITEM 4605-2850 - STANDARD INLET BOX, HEIGHT \leq 10' (CAST-IN-PLACE)

Addendum:

Action:

Item(s) Associated:

4605-2850 - STANDARD INLET BOX, HEIGHT \leq 10' MODIFIED

Header:

ITEM 4605-2850 - STANDARD INLET BOX, HEIGHT \leq 10' (CAST-IN-PLACE)

Provision Body:

In accordance with Section 605 and as follows:

Revise Section 605.3 CONSTRUCTION by adding the following:

Remove existing inlet box, and cast the new inlet box in place to match existing field conditions using both indicated concrete top unit and grate. Precast inlet is not permitted.

MEASUREMENT AND PAYMENT - Each.

Project Specific Details:

Special Provision: I6091I - c06091 ITEM 0609-0009 - EQUIPMENT PACKAGE

Addendum:

Action:

Item(s) Associated:

0609-0009 - EQUIPMENT PACKAGE

Header:

ITEM 0609-0009 - EQUIPMENT PACKAGE

Provision Body:

Appendix

Table A

EQUIPMENT PACKAGE	
Equipment	Quantity
Communications Equipment	
High Capacity Multifunctional Device (MFD) ⁽¹⁾	1
Low Capacity Multifunctional Device (MFD) ⁽¹⁾	0
Specialized Equipment	
Surveyor's Level & Measuring Rod	0
Electronic Digitizer	0
Digital Display Level	1
Infrared Thermometer	1
Laser Range Finder	0
Paper Shredder	1
Internet Service	
Internet Service Provider	Yes
Wireless Internet Broadband Router ⁽²⁾	Yes
Miscellaneous Items	
Computer Media	Yes
High yield MFD Ink/Toners Cartridges	Yes
Laboratory Equipment	

Concrete Cylinder Testing Machine

No

1. Unless otherwise approved, a MFD must be furnished in lieu of a separate copier, laser printer, color printer, scanner, and fax.
2. Provide compatible, powered internet hardware with firewall protection capable of wireless WPA2 security internet service and eight hardwired network ports, and pre-shared key. All cabling needed to interconnect network hardware and all microcomputer systems are required.

Microcomputer Systems. A total of two (2) microcomputer systems are estimated to be used on the project.

This information is being provided to assist Bidders in meeting the requirements of Section 609.2(c), Communications Equipment, Section 609.2(e), Internet Service, and Section 609.2(f), 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.

Project Specific Details:

Special Provision: 00 - c09011 ITEM 0901-0001 - MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION

Addendum:

Action:

Item(s) Associated:

Header:

ITEM 0901-0001 - MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION

Provision Body:

In accordance with Section 901 and as follows:

No short-term lane closures are permitted on SR 0081, 0581, 0944, 8031, 8033, 8035 or 8037 between the hours of 6:00 am to 9:00 pm. Maintain a minimum of one lane of traffic when work zone is active.

Long-term shoulder closures are not to exceed 60 consecutive calendar days.

No short-term lane closures or detours are permitted on SR 0081, 0581, 0944, 8031, 8033, 8035 or 8037 during the following holiday periods:

Easter:

- April 14, 2022 at 6 am until April 19, 2022 at 9 pm
- April 6, 2023 at 6 am until April 11, 2023 at 9 pm

Memorial Day:

- May 27, 2022 at 6 am until May 31, 2022 at 9 pm
- May 26, 2023 at 6 am until May 30, 2023 at 9 pm

Independence Day:

- July 1, 2022 at 6 am until July 5, 2022 at 9 pm
- July 1, 2023 at 6 am until July 5, 2023 at 9 pm

Labor Day:

- Sept. 2, 2022 at 6 am until Sept. 6, 2022 at 9 pm
- Sept. 1, 2023 at 6 am until Sept. 5, 2023 at 9 pm

Thanksgiving:

- Nov. 23, 2022 at 6 am until Nov. 28, 2022 at 9 pm
- Nov. 22, 2023 at 6 am until Nov. 27, 2023 at 9 pm

Christmas/New Year's:

- Dec. 23, 2020 at 6 am until Jan. 4, 2021 at 9 pm
- Dec. 23, 2021 at 6 am until Jan. 3, 2022 at 9 pm
- Dec. 23, 2022 at 6 am until Jan. 3, 2023 at 9 pm

Two weekend lane closures will be permitted to perform the reconstruction of the bridge approaches at the bridge over the Conodoguinet Creek. Northbound and Southbound work shall be performed on separate weekends. Provide a PCMS two (2) weeks prior to implementing weekend lane closure for each direction to warn traffic of impending work. Contractor will coordinate with the district TMC two weeks in advance of implementing any weekend lane closures. A single lane must always be maintained for traffic. Lane closures may begin Friday at 9 pm for approved weekend work and all lanes must be reopened by 6 am Monday. Weekend Closure PCMS Warning messages:

Phase 1	Phase 2
PLANNED	EXPECT
RD WORK	DELAYS
XX/XX – XX/XX	

Short-term detour will be permitted for interchange exit ramps and conventional roadways from 9:00PM to 6:00AM using PennDOT Pub. 213; PATA: 215. Only one ramp at each interchange may be closed at any given time. No ramps may be closed at the adjacent interchange that will cause a conflict in the approved detours below. Contractor is to monitor ramp signals on detour routes for queueing. When queueing extends onto highway, flaggers must maintain intersection. Flaggers will be paid as part of the M&P lump sum. The ramp detours routes are as follows:

- SR 8033 RAMP A (81S to 581E) – No detour permitted for this ramp and maintain one lane of traffic at all times.
- SR 8033 RAMP B (581W to 81N) – No detour permitted for this ramp and maintain one lane of traffic at all times.
- SR 8033 RAMP C (581W to 81S) – Use SR 8033 Ramp B to I-81N to SR 8035 Ramp D to SR0944W (Wertzville Road) to SR 8035 Ramp C, I-81S, end of detour.
- SR 8033 RAMP D (81N to 581E) – Use I-81N to SR 8035 Ramp D to SR0944W (Wertzville Road) to SR 8035 Ramp C to I-81S to SR8033 Ramp A, end of detour.
- SR 8035 RAMP C (PA944 to 81S) – Use SR 8035 Ramp E to I-81N to SR 8037 Ramp F to SR0011N to SR 8037 Ramp G to I-81S, End of Detour.
- SR 8035 RAMP D (81N to PA944) - Use I-81N to SR 8037 Ramp F to SR0011N to SR 8037 Ramp G to I-81S, SR 8035 Ramp F, End of Detour.

SR 8035 RAMP E (PA944 to 81N) – Use SR 8035 Ramp C to I-81S to SR 8031 Ramp B to SR0114E (Conodoguinet Pkwy) to SR 8031 Ramp D to I-81N, end of detour.

SR 8035 RAMP F (81S to PA 944) – Use I-81S to SR 8031 Ramp B to SR0114E (Conodoguinet Pkwy) to SR 8031 Ramp D to I-81 N to SR 8035 Ramp D, end of detour.

SR 8037 RAMP A (81N to 11S) – Use SR 8037 Ramp F to SR 8037 Ramp G to SR0011N to SR 8037 Ramp H, end of detour route.

SR 8037 RAMP B (11N to 81N) – Use SR 8037 Ramp G to SR 8037 Ramp H to SR0011S SR 8037 Ramp E, end of detour route.

SR 8037 RAMP C (81S to 11N) –Use SR 8037 Ramp H to SR0011S to SR 8037 Ramp E to SR 8037 Ramp F, end of detour route.

SR 8037 RAMP D (11S to 81S) – Use SR 8037 Ramp E to SR 8037 Ramp F to SR0011N to SR 8037 Ramp G, end of detour route.

SR 8037 RAMP E (11S to 81N) – Use SR 8037 Ramp D to I-81S to SR 8035 F to SR0944E (Wertzville Road) to SR 8035 E to I-81N, end of detour route.

SR 8037 RAMP F (81N to 11N) – Use I-81N to SR 8003 Ramp B to US 0022W to SR 8008 Ramp J, PA 0039W (Linglestown Road) to SR 3009S (N Front Street) to SR 8001 Ramp AA to I-81S to SR 8037 Ramp C, end of detour route.

SR 8037 RAMP G (11N to 81S) – Use SR 8037 Ramp B to I-81N to SR 8003 Ramp B to US 0022W to SR 8008 Ramp J, PA 0039W (Linglestown Road) to SR 3009S (N Front Street) to SR 8001 Ramp AA to I-81S, end of detour route.

SR 8037 RAMP H (81S to 11S) – Use I-81S to SR 8035 F to SR0944E (Wertzville Road) SR 8035 Ramp E to I-81N, end of detour route.

At a minimum utilize two (2) PCMS to advise traffic of the detour routes / new traffic patterns. Utilize one (1) PCMS ½ mile in front of advanced signing of closed ramp and one (1) PCMS at the ramp being used for the exit ramp for the detour. Have locations approved by the IIC.

No lane closures are permitted on interstates or interstate emergency routes (colored detours) that make up the Harrisburg Beltway System during any incidents/ accidents that will close the Harrisburg Beltway unless otherwise directed by the Inspector-In-Charge or PA State Police.

Install Act 229 signing as per PennDOT Pub. 213, GA 03.

PATA 407 or 408 for Rolling Slow Down or Stoppages on interstates and expressways will be permitted from 12 midnight until 5:00AM.

Road User Liquidated Damages, as specified in the special provisions, will be charged for any roadway or portion thereof that is not open to traffic during any time periods specified herein.

Setup of temporary barrier must not exceed 2640' without adding emergency pull offs every ½ mile. This includes the impact attenuator and 19:1 flare.

Install thermoplastic pavement markings for legend cross walks, stop lines, etc. within seven (7) days of final wearing application.

Provide ingress and egress for businesses and dwellings within the project limits, unless otherwise prearranged with the property owner a minimum of two (2) business days in advance and the Inspector-In-Charge is informed of the arrangement. Also, maintain access to all side roads, alleys and fire hydrants.

The Contractor shall also notify public entities a minimum of two (2) weeks (excluding holidays) prior to any traffic control pattern change, to include any detour being implemented.

Municipalities:

Susquehanna Township – (717) 545-4751

Hampden Township – (717) 761-0119

East Pennsboro Township – (717) 732-0711

Silver Spring Township – (717) 766-0178

Fire Departments:

Marysville Fire Department: (717) 957-2323

Northeast Fire & Rescue (717) 732-0047

East Pennsboro Fire (717) 732-0711 x1214

Enola Fire Company (717) 732-1919

Hampden Township Volunteer (717) 737-3565

Silver Spring community Fire (717) 766-6096

Emergency Medical Providers:

East Pennsboro Emergency Med services – (717) 732-5552

Silver Spring Ambulance – (717) 697-3131

Hampden Township Ambulance – (717) 761-5343

Emergency Management:

Cumberland County – (717) 240-6100

Local Police:

Marysville Police – (717) 957-2616

East Pennsboro – (717) 732-3633

Silver Spring Township – (717) 697-0607

Hampden Township – (717) 761-2609

State police:

Troop H - 717-671-7500

Penn State Health Hampden – (717) 981-9000

UPMC West Shore – (717) 791-2600

PennDOT County Maintenance

Cumberland County – (717) 243-5414

Dauphin County – (717) 787-5391

Public Transportation Provider:

Capital Area Transit – (717) 238-8304

Planning Organizations:

Tri-County Planning Commission – (717) 234-2639

Business Organizations:

West Shore Chamber of Commerce – (717) 761-0702

Pennsylvania Motor Truck Association – (717) 761-7122

Provide written documentation of all contacts and notifications that were made to the Inspector-In-Charge (IIC).

Notify the IIC a minimum of two (2) weeks (excluding holidays) prior to any significant traffic control, traffic pattern changes, and/or for Route/Bridge Restrictions. When required, the IIC is to notify the District Community Relations Coordinator at (717) 787-1446 prior to any significant traffic control and/or traffic pattern change. The IIC is also to notify the District Special Hauling Permits Unit using form M-937R and the following e-mail address "RA-pdDist8HaulingPer@pa.gov" a minimum of twelve (12) working days (excluding holidays). Confirm your intentions with the IIC two (2) days in advance. Keep the IIC informed of any ongoing changes.

Notify the IIC three (3) days in advance of any proposed roadway restriction/closure. Also, notify the IIC thirty (30) minutes prior to placement of traffic control devices. The IIC, in turn, is to notify the District 8-0 Traffic Management Center (TMC) two (2) days in advance of any roadway restriction/closure and fifteen (15) minutes prior to the start of work. The ICC is to notify the TMC when the roadway is restored to normal operation. The TMC phone number is 717-265-7600.

Full Matrix Changeable Message Signs with Telecommunications will be used at various locations on the project and outside the project limits as indicated in the Traffic Control Plan and/or as directed. Provide compatible software as necessary so the District 8-0 Traffic Management Center (TMC) can remotely access the Full Matrix Changeable Message Signs on the project by using telecommunications. Contact the TMC at 717-265-7600. The program will be as foll

<u>Screen 1</u>	<u>Screen 2</u>
ROAD	RIGHT
WORK	LANE
X X/X MILES	CLOSED

Maintain traffic during hours of construction and at all other times in accordance with the methods indicated on this document and the following:

Special provisions of the contract.

FHWA - Manual on Uniform Traffic Control Devices.

PennDOT Pubs.: 35 - Approved Construction Materials (Bulletin 15).

46 – Traffic Engineering Manual.

111 - Traffic Control Pavement Markings & Signing Standards.

212 § E - Official Traffic Control Devices.

213 - Temporary Traffic Control Guidelines.

236 - Handbook of Approved Signs.

408 – Specifications, 2020 (Let Date Version).

The following constitutes the Work Zone Traffic Control, Publication 213, and suggested PATA's: 100 & 400 series.

Project Specific Details:

Special Provision: 00 - c12102 ITEM 5210-0100 - ITS CLOSED CIRCUIT TELEVISION, CAMERA SUBSYSTEM, STR MOUNT POSITIONAL CCTV

Addendum:

Action:

Item(s) Associated:

5210-0100 - ITS CLOSED CIRCUIT TELEVISION, CAMERA SUBSYSTEM, STRUCTURE MOUNT

Header:

ITEM 5210-0100 - ITS CLOSED CIRCUIT TELEVISION, CAMERA SUBSYSTEM, STRUCTURE MOUNT POSITIONAL CCTV

Provision Body:

In accordance with Section 1210 and as follows:

MATERIAL –

Section 1210 and as follows:

Revise Section 1210.2 (c) by adding additional CCTV requirements as follows:

Provide CCTV with flat lens and integral wiper.

Provide CCTV with minimum 360-degrees pan and 250-degree tilt capability.

Revise Section 1210.2 by adding the following:

Provide all necessary material to mount CCTV to DMS Sign Structure in accordance with PUB 647 ITS-1210 sheet 6 of 6, or using material as recommended by the CCTV manufacturer.

CONSTRUCTION – Section 1210.3 and as follows:

Mount CCTV to the structure above the guild rail on the right shoulder in accordance with PUB 647 ITS-1210 sheet 6 of 6 or as recommended by CCTV manufacturer. Final placement of the CCTV shall be verified by the RTMC prior to installation.

MEASUREMENT AND PAYMENT - Each. In accordance with Section 1210.4 and as follows:

Item includes all necessary equipment and material for CCTV mounting as indicated. Ethernet injector and seal tight conduit is incidental to this item.

Project Specific Details:

Special Provision: I19992A - c19992 ITEM 1999-9999 - TRAINEES

Addendum:

Action:

Item(s) Associated:

1999-9999 - TRAINEES

Header:

ITEM 3999-9999(ITEM 1999-9999) - TRAINEES

Provision Body:

This Special Provision is an implementation of 23 U.S.C. 140 (a).

I. DESCRIPTION - As part of the project equal employment opportunity affirmative action program, provide on the job training aimed at developing candidates toward full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under this contract is (***as found in the Project Specific Details, Detail 1.***)

II. CONSTRUCTION -

(a) In the event a subcontract is given for a portion of the contract work, determine how many, if any, of the trainees are to be trained by the subcontractor. However, retain the primary responsibility for meeting the training requirements imposed by this special provision. Insure that this Special Provision is physically included and is made applicable to any such subcontract. Where feasible, provide 25% of apprentices or trainees in each occupation, in their first year of apprenticeship or training.

(b) Distribute the number of trainees among the work classifications on the basis of the project needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Within 10 calendar days following the Notice to Proceed, submit to the Department for approval the number of trainees to be trained in each selected classification and training program to be used, specifying the starting time for training in each of the classifications. The Department will give credit for each trainee employed on the contract who is currently enrolled or becomes enrolled in an approved program and payment will be made for such trainees as provided herein.

(c) Training and upgrading of minorities and women toward journeyman status is a primary objective of this Special Provision. Accordingly, make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. Accept responsibility for demonstrating that steps are taken in pursuance thereof, prior to a determination as to whether compliance is made with this Special Provision. This training commitment is not intended, and do not use it, to discriminate against any applicant for training, whether a member of a minority group or not.

(d) Do not employ a person as a trainee in any classification in which he/she has successfully completed a training program leading toward journeyman status or in which he/she has been employed as a journeyman. Candidates may be trained a maximum of 3 times as long as the training is not repetitious in the scope of work and is not on the same project. Those candidates having attained journeyman status would be acceptable as trainee candidates only in classifications where they have not attained journeyman status. Satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, provide records documenting the findings in each case.

(e) The minimum length and type of training for each classification will be as established in the training program selected and submitted to and approved by the Department. The Department will approve a program if it is reasonably calculated to meet the project equal employment opportunity obligations and gives meaningful training to move candidates toward journeyman status. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training will also be considered acceptable provided they are being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Obtain approval or acceptance of a training program and training candidate from the Department prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Department. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

(f) Furnish the trainee a copy of the program he/she will follow in providing the training.

(g) Provide each trainee with a certification showing the type and length of training satisfactorily completed.

(h) Provide for the maintenance of records and furnish required reports documenting his/her performance under this Special Provision.

(i) Pay no less than the common laborer rate for this project to any trainee performing in a construction craft (percentage payments are no longer in effect). Pay non-construction crafts, such as timekeeper, office manager, and surveyor, the fair market rate for those services or classifications. Trainees in construction crafts may remain at the common laborer rate throughout the training program. Upon completion, pay trainees in accordance with wage rates scale for this contract for work performed. In the case of apprentices, the appropriate rates approved by the Federal Departments of Labor or Transportation in connection with the existing program apply to all trainees being trained for the same classification who are covered by this Special Provision.

III. MEASUREMENT AND PAYMENT - Hour

Will be paid as follows:

(a) Except as otherwise noted below, payment will be made per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, payment will be made for training persons in excess of the number specified herein. Payment for offsite training indicated above may only be made where one or more of the following is done and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

(b) No payment will be made due to failure to provide the training required as stated in the approved training program. Make every good faith effort to retain the trainee upon completion of the training program, if work continues to be available in that classification. It is normally expected that a trainee will begin his/her training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in the work classification or until he/she has completed the training program. It is not required that all trainees be on board for the entire length of the contract. Responsibilities will have been fulfilled under this Special Provision if acceptable training has been provided to the number of trainees specified. Determine the number trained on the basis of the total number enrolled on the contract for a significant period.

Project Specific Details:

1. The number of trainees to be trained under this contract as referred to in para I. is: two (2).

Special Provision: 00 - c90001 ITEM 9000-0001 - TRAFFIC COUNT MONITORING SITE REPAIR - CAVC SITE 831 SILVER SPRING

Addendum:

Action:

Item(s) Associated:

9000-0001 - TRAFFIC COUNT MONITORING SITE REPAIR - CAVC SITE 831 SILVER SPRING

Header:

ITEM 9000-0001 - TRAFFIC COUNT MONITORING SITE REPAIR - CAVC SITE 831 SILVER SPRING

Provision Body:

DESCRIPTION – This work is installing a CONTINUOUS AUTOMATIC VEHICLE CLASSIFICATION (CAVC) site at the location indicated:

Install Northbound and Southbound Sensor Arrays at CAVC 831 Site Location:

Before material is ordered, a visit to the site must be scheduled with a representative from the District, the Contractor and BPR Representative to determine the exact field location of the cabinet foundation, junction boxes and the loop and piezo arrays. Any other field clarifications must be addressed at this time to ensure the installation will not be delayed and the site will collect accurate data.

State Route I-81, Station 203+50 Northbound and Station 203+00 Southbound Site located in Silver Spring Township, approximately 1.4 mi. S of PA 114 Interchange Lat/Long: 40.25784, -77.06526

Reference:

- a. CAVC Reference Drawings – 4 Lane Center Config- High Volume - see Construction Plan Detail Sheets.
- c. General Loop Installation Guidelines
- d. BL Piezoelectric Traffic Sensor Installation Instructions
- e. Electrical Readings form f. Directional Loop and Piezo Numbering Diagram

MATERIAL – In accordance with Sections 951.2, 954.2, and 956.2, as indicated and as follows:

- Class II Piezo Electric Sensor -
 - o Measurement Specialties, RoadTrax BL sensor; or
 - o Philips Vibracoax-Thermocoax sensor, or o Approved Equal.
- Transient Voltage Surge Suppression –
 - o Edco SRA16C-1, or o Leviton 55240-ASA, or
 - o Approved Equal

CONSTRUCTION – In accordance with Sections 951.3, 954.3, and 956.3, as indicated and as follows:

Construct the CAVC Site in accordance with any installation procedures as referenced above and provided by PennDOT Bureau of Planning and Research (BPR) as follows:

It is required that the loops and piezos are installed twenty-eight days or more after final paving to allow the road surface to cure. It is further required that the loops and piezos shall be installed after all line painting and any rumble strip installations have been completed. Sensor installation shall be in the wearing (top) course. To prevent a safety issue from freezing water on roadways, it is required that loop and piezo saw cuts shall be installed when the air and road surface temperatures are above 32 degrees Fahrenheit.

A BPR Representative must be onsite during the loop and piezo installations which may only occur on a Monday morning through Friday afternoon of any given week during the project. The BPR contact is Field Operations Supervisor (Joe Keller). Joe can be reached at (717)-579-9330. Alternative contact can be reached at (717)-787-0186.

After the NTP is given and before material is ordered, a visit to the site must be scheduled with a representative from the District, the Contractor and BPR Representative to determine the exact field location of the cabinet foundation, junction boxes and the loop and piezo arrays. Any other field clarifications must be addressed at this time to ensure the installation will not be delayed and the site will collect accurate data.

Verification of the conditions and usability of any existing pole and conduits must be completed during the site visit noted above. Damage to any existing operable loop and piezo leads that are not to be replaced must be prevented. If damage occurs during the construction, replacement cost is the responsibility of the contractor.

Install junction boxes based on the following criteria:

- JB-12 is to be used when located in shoulders or other locations subject to vehicular loads. Reference drawing RC-82M.
- JB-27 is to be used when located in areas not subject to vehicular traffic such as behind existing guide rails. Reference drawing TC-8804.

All lead in wires and loop wires are to be pulled through conduit as a complete bundle. No splices are permitted to piezo lead in wires.

The ends of the loop and piezo lead cables cannot be exposed to moisture or water. All lead cables shall be pulled back to the controller cabinet. If the ends of the loop and piezo lead cables must be stored temporarily in a pull box, then the ends must be placed in a direct burial splice kit. No other means, i.e. electrical tape, wire nuts, etc., are acceptable.

PA One Call confirmation at the location is the responsibility of the contractor. Whenever excavation occurs at the site location, the backfilled ground must be compacted using a tamping rammer device. This includes, but is not limited to, excavation around foundations, junction boxes and conduit installations.

Underground warning tape must be placed above all underground conduits before being backfilled.

Reuse existing concrete base, pole, cabinet, and solar panel.

Furnish and install new junction boxes at locations shown on the CAVC Reference Drawing. Any junction boxes installed must be placed a minimum of two (2) feet from foundation.

Furnish and install one (1) – 1 inch PVC schedule 40 conduit from the road to the junction box for each loop or piezo sensor. No flexible PVC pipe permitted.

Directional boring under the southbound lanes will be required to install 3" high density polyethylene pipe (HDPE) underneath the roadway from the new junction box in the southbound and northbound drive shoulders to the existing junction box in the median. See CAVC Reference Drawing for details. Conduit Markers – Install concrete monuments as per CAVC Reference Drawing to indicate buried conduits and which direction.

A Bureau of Planning and Research (BPR) Representative must be on site during loop and piezo installations.

Furnish and install eight (8) loops total. Two loops per lane NB and SB in the in accordance with Section 956 and as follows:

The dimensions of the traffic detector loops to be cut in the pavement must be 6' W X 6' L with four turns of loop sensor wire (IMSA type 51-5 or 51-7, 14 AWG) per loop and a distance of 16' from the leading edge of the first loop to the leading edge of the trailing loop. Sensors must be placed in area clear of road cracks and expansion joints. Each loop shall be centered within the lane of travel. Corners are to be chamfered. Loops should be installed three inches below road surface. Install one pair of loops in each NB and SB lane.

The loop wires must not be installed across adjacent lanes. Loop wires must be run in either the drive or the pass lane shoulders/median as specified in the CAVC Reference Drawing.

All loops should be homeruns unless more than 100 feet. If more than 100 feet, it is recommended that the loop cable be spliced onto shielded, pre-twisted, lead-in wire (IMSA specification 50-2) at a convenient pull box location close to the loop using a direct burial splice kit. No other means, i.e. electrical tape, wire nuts, etc., are acceptable.

Whenever the two loop lead in wires are combined with any other lead in wires, the start and end of each loop turn shall be twisted together to form a symmetrically twisted pair. The twisting reduces crosstalk and noise pick up in the lead in wires. Twist at least five turns per foot.

Duct seal or equivalent must be placed in the 1" PVC pipes before sealer is applied.

Two-part loop detector sealant, as approved in current version of PA Bulletin 15, to be used on loops and all loop leads in the road surface. Date on container must not be expired at the time of installation.

Label each loop lead with a waterproof tag to indicate the loop number. Place label at end of leads in cabinet {North Bound Drive Lead - loop 1, North Bound Drive Trail – loop 2, North Bound Pass Lead - loop 3, North Bound Pass Trail – loop 4, South Bound Pass Lead - loop 5, South Bound Pass Trail – loop 6, South Bound Drive Lead - loop 7, and South Bound Drive Trail – loop 8}. (Refer to Directional Loop and Piezo Numbering Diagram)

Test all loops to assure the loops are operational and within a range of 110 to 220 microhenries.

Furnish and install a Class II Piezo Electric Sensor in each lane of a length that will provide at least one (1) foot less than full lane coverage in each of the lanes. Lane measurement should be taken in between painted lines. Lead-in lengths should be determined when purchasing piezos so that the wires are pulled in as a homerun with no splices.

Piezo installation shall follow current manufacturer installation instructions and shall be installed by a manufacturer trained installer. A Bureau of Planning and Research (BPR) Representative must be on site during loop and piezo installations.

The piezo lead-in wires must not be installed across adjacent lanes. Piezo lead-in wires must be run in either the drive or the pass lane shoulders/median as specified in the CAVC Reference Drawing.

Piezo slots to be cut completely straight and perpendicular to the lines painted on the road.

Piezo slots must be dried completely and cleaned with alcohol before installing piezo sensors.

Before pouring grout in slot, duct tape shall be used on both sides of the piezo slot and must have a minimum thickness of 14 mils or 0.36 mm.

Piezos should be placed between loops and centered in the width (between the painted lines) of each lane. Do not place over the center line. Piezo sensor to be installed at least six inches away from the edge of the painted center line. Follow current manufacturer installation instructions unless specifically instructed differently.

Manufactures' acceptable grout is to be used with Piezo sensors. Grout must be installed when air temperature range is 14 to 95 degrees Fahrenheit. Air temp should be at least 14 deg F. for a 24-hour period prior to application. If air temp is above 95 deg F, then grout should be kept cool before mixing and application. Date on container must not be expired at the time of installation.

Grout should be poured into the slot in a back-and-forth method covering approximately a three-foot area to make sure the grout reaches the bottom of the slot, then fills completely around the piezo sensor and covers the top the piezo sensor mounding very slightly above the surface of the duct tape. Avoid creating or leaving any air pockets in the grout when pouring.

Duct tape should be removed within five to ten minutes after the pour or when grout begins to set up.

Full cure time of grout should be a minimum of 30 to 40 minutes before traffic can flow over the sensor.

After the grout is fully cured, grind both edges of the grout to create a smooth transition from the road service to the grout. A very slight mound in the middle of the grout is preferred.

Before two-part loop detector sealant is applied, make sure the duct seal or equivalent is removed from the beginning of the piezo lead at the end of the sensor in the road and make sure duct seal or equivalent is placed in the 1" PVC pipes along the shoulders.

Two-part loop detector sealant, as approved in current version of PA Bulletin 15, to be used on all piezo leads in the road surface. Date on container must not be expired at the time of installation.

Land all piezo sensor leads to a terminal strip (marked as Piezos) in cabinet.

Label each sensor lead in cable with a waterproof tag to indicate lane. Example: North Bound Drive Piezo: NBD Piezo 1, North Bound Pass Piezo: NBP Piezo 2, South Bound Pass Piezo: SBP Piezo 3, and South Bound Drive Piezo: SBD Piezo 4. (Refer to Directional Loop and Piezo Numbering Diagram)

All sensors are to be tested prior to and after installation by the contractor. (Follow manufacturer's instructions). Capacitance of each piezo (nF) – after installation should be +/- 20 percent of the reading supplied with the sensor.

Completed copies of the original piezo manufacture's test sheets need to be completed by the contractor and supplied to PennDOT BPR at time of installation.

The following readings are to be supplied to PennDOT BPR by completing and submitting the Electrical Readings form:

- a. Test ground system - (ohms to ground)
- b. Take initial loops readings:
 - i. Resistance of each loop (R) – should be less than 1 ohm
 - ii. Inductance of each loop (microhenries) – should be in the range of 110 to 220 microhenries
 - iii. Leakage
 - iv. Shield

- c. Take initial piezo readings:
 - i. For the record: Note manufacturer initial tested capacitance (from sheet included with piezo)
 - ii. Capacitance of each piezo (nF) – after installation should be +/- 20 percent of the reading supplied with the sensor
 - iii. Resistance – greater than 20 Megaohms
 - iv. Dissipation – less than 0.04

The following images are to be supplied to PennDOT of Oscilloscope readings taken for each piezo to show:

- a. Image of wave form as a class 2 vehicle passes.
- b. Image of wave form as a class 9 vehicle passes.
- c. Ensure signal is clear without noise.
- d. Ensure waveform scale is visible on images.

All materials supplied, and site components shall be warranted for the OEM warranty period. The warranty period shall begin upon acceptance by the Department of the site installation and/or repairs by the Department.

The department shall only accept a new site installation or repair work to an existing site after data has been collected for four weeks and the vehicle classifications are within the expected range. A manual classification comparison count will be completed within the stated four weeks. The total number of class 15 (unclassified) vehicles must be less than 5% for construction work to be accepted. Furthermore, the piezo manufacturer sheets, electrical readings form, and scope reading images must be submitted on or before 4 weeks after physical construction is completed, and all required post-installation electrical readings must fall within the ranges specified above before the site construction is accepted as complete.

Saw cutting, sealing, excavation and other items of work required to complete the CAVC will be considered incidental to this item. Loop and Piezo harnesses, CAVC Counter, Modem, and Antenna will be supplied by the Bureau of Planning and Research Field Operations.

MEASUREMENT AND PAYMENT – Lump Sum

Project Specific Details:

Special Provision: 00 - c90002 ITEM 9000-0002 - TRAFFIC COUNT MONITORING SITE REPAIR - CAVC SITE 833 ENOLA

Addendum:

Action:

Item(s) Associated:

9000-0002 - TRAFFIC COUNT MONITORING SITE REPAIR - CAVC SITE 833 ENOLA

Header:

ITEM 9000-0002 - TRAFFIC COUNT MONITORING SITE REPAIR - CAVC SITE 833 ENOLA

Provision Body:

DESCRIPTION – This work is installing CONTINUOUS AUTOMATIC VEHICLE CLASSIFICATION (CAVC) site components at the location indicated:

Before material is ordered, a visit to the site must be scheduled with a representative from the District, the Contractor and BPR Representative to determine the exact field location of the cabinet foundation, junction boxes and the loop and piezo arrays. Any other field clarifications must be addressed at this time to ensure the installation will not be delayed and the site will collect accurate data.

Install Northbound and Southbound Sensor Arrays and Piezo Sensors at CAVC 833 Site Location:
State Route 0081, Station 626+91 Northbound and Station 622+87 Southbound
Site located near Enola, approximately 1.3 mi. S of US 11/US 15/I-81 Interchange
Lat/Long: 40.30955, -76.94393

Reference:

- a. CAVC Reference Drawings for the 6-Lane Configuration - refer to the detail sheets in the Construction Plans.
- b. Applicable PENNDOT Specifications and Notes Pertaining to All Site Installations
- c. General Loop Installation Guidelines
- d. BL Piezoelectric Traffic Sensor Installation Instructions
- e. Electrical Readings form
- f. Directional Loop and Piezo Numbering Diagram

MATERIAL – In accordance with Sections 951.2, 954.2, and 956.2, as indicated and as follows:

- Class II Piezo Electric Sensor -
 - o Measurement Specialties, RoadTrax BL sensor; or
 - o Philips Vibracoax-Thermocoax sensor, or
 - o Approved Equal.
- Transient Voltage Surge Suppression –
 - o Edco SRA16C-1, or
 - o Leviton 55240-ASA, or
 - o Approved Equal

CONSTRUCTION – In accordance with Sections 951.3, 954.3, and 956.3, as indicated and as follows:

Construct the CAVC Site in accordance with any installation procedures as referenced above and provided by PennDOT Bureau of Planning and Research (BPR) as follows:

It is required that the loops and piezos are installed twenty-eight days or more after final paving to allow the road surface to cure. It is further required that the loops and piezos shall be installed after all line painting and any rumble strip installations have been completed. Sensor installation shall be in the wearing (top) course.

To prevent a safety issue from freezing water on roadways, it is required that loop and piezo saw cuts shall be installed when the air and road surface temperatures are above 32 degrees Fahrenheit.

A BPR Representative must be onsite during the loop and piezo installations which may only occur on a Monday morning through Friday afternoon of any given week during the project. The BPR contact is Field Operations Supervisor (Joe Keller). Joe can be reached at (717)-579-9330. Alternative contact can be reached at (717)-787-0186.

Verification of the conditions and usability of any existing pole and conduits must be completed during the site visit noted above. Damage to any existing operable loop and piezo leads that are not to be replaced must be prevented. If damage occurs during the construction, replacement cost is the responsibility of the contractor.

Install junction boxes based on the following criteria:

- JB-12 is to be used when located in shoulders or other locations subject to vehicular loads. Reference drawing RC-82M.
- JB-27 is to be used when located in areas not subject to vehicular traffic such as behind existing guide rails. Reference drawing TC-8804.

All lead in wires and loop wires are to be pulled through conduit as a complete bundle. No splices are permitted to piezo lead in wires.

The ends of the loop and piezo lead cables cannot be exposed to moisture or water. All lead cables shall be pulled back to the controller cabinet. If the ends of the loop and piezo lead cables must be stored temporarily in a pull box, then the ends must be placed in a direct burial splice kit. No other means, i.e. electrical tape, wire nuts, etc., are acceptable.

PA One Call confirmation at the location is the responsibility of the contractor. Whenever excavation occurs at the site location, the backfilled ground must be compacted using a tamping rammer device. This includes, but is not limited to, excavation around foundations, junction boxes and conduit installations.

Underground warning tape must be placed above all underground conduits before being backfilled.

Reuse existing concrete base, pole, cabinet, and solar panel.

Furnish and install new junction boxes at the locations shown on the CAVC Reference Drawing. Any junction boxes installed must be placed a minimum of two (2) feet from foundation.

Furnish and install one (1) – 1 inch PVC schedule 40 conduit from the road to the junction box for each loop or piezo sensor. No flexible PVC pipe permitted.

Directional boring under the northbound and southbound lanes will be required to install 3" high density polyethylene pipe (HDPE) underneath the roadway from the new junction boxes to the new junction box in the median. See CAVC Reference Drawing for details.

Conduit Markers – Install concrete monuments as per CAVC Reference Drawing to indicate buried conduits and which direction. A Bureau of Planning and Research (BPR) Representative must be on site during loop and piezo installations.

Furnish and install eight (12) loops total or two loops per lane NB and SB in the in accordance with Section 956 and as follows:

The dimensions of the traffic detector loops to be cut in the pavement must be 6' W X 6' L with four turns of loop sensor wire (IMSA type 51-5 or 51-7, 14 AWG) per loop and a distance of 16' from the leading edge of the first loop to the leading edge of the trailing loop. Sensors must be placed in area clear of road cracks and expansion joints. Each loop shall be centered within the lane of travel. Corners are to be chamfered. Loops should be installed three inches below road surface.

All loops should be homeruns unless more than 100 feet. If more than 100 feet, it is recommended that the loop cable be spliced onto shielded, pre-twisted, lead-in wire (IMSA specification 50-2) at a convenient pull box location close to the loop using a direct burial splice kit. No other means, i.e. electrical tape, wire nuts, etc., are acceptable.

Whenever the two loop lead in wires are combined with any other lead in wires, the start and end of each loop turn shall be twisted together to form a symmetrically twisted pair. The twisting reduces crosstalk and noise pick up in the lead in wires. Twist at least five turns per foot.

Duct seal or equivalent must be placed in the 1" PVC pipes before sealer is applied.

Two-part loop detector sealant, as approved in current version of PA Bulletin 15, to be used on loops and all loop leads in the road surface. Date on container must not be expired at the time of installation.

Label each loop lead with a waterproof tag to indicate the loop number. Place label at end of leads in cabinet {North Bound Drive Lead - loop 1, North Bound Drive Trail – loop 2, North Bound Middle Lead – loop 3, North Bound Middle Trail – loop 4, North Bound Pass Lead - loop 5, North Bound Pass Trail – loop 6, South Bound Pass Lead - loop 7, South Bound Pass Trail – loop 8, South Bound Middle Lead – loop 9, South Bound Middle Trail – loop 10, South Bound Drive Lead - loop 11, and South Bound Drive Trail – loop 12}. (Refer to Directional Loop and Piezo Numbering Diagram)

Land all loop leads to terminal strip marked as either NB or SB Loops mounted on the back panel in the cabinet.

Test all loops to assure the loops are operational and within a range of 110 to 220 microhenries.

Furnish and install a Class II Piezo Electric Sensor in each lane of a length that will provide at least one (1) foot less than full lane coverage in each of the lanes. Lane measurement should be taken in between painted lines. Lead-in lengths should be determined when purchasing piezos so that the wires are pulled in as a homerun with no splices.

Piezo installation shall follow current manufacturer installation instructions and shall be installed by a manufacturer trained installer.

A Bureau of Planning and Research (BPR) Representative must be on site during loop and piezo installations.

Piezo slots to be cut completely straight and perpendicular to the lines painted on the road.

Piezo slots must be dried completely and cleaned with alcohol before installing piezo sensors.

Before pouring grout in slot, duct tape shall be used on both sides of the piezo slot and must have a minimum thickness of 14 mils or 0.36 mm.

Piezos should be placed between loops and centered in the width (between the painted lines) of each lane. Do not place over the center line. Piezo sensor to be installed at least six inches away from the edge of the painted center line. Follow current manufacturer installation instructions unless specifically instructed differently.

Manufactures' acceptable grout is to be used with Piezo sensors. Grout must be installed when air temperature range is 14 to 95 degrees Fahrenheit. Air temp should be at least 14 deg F. for a 24-hour period prior to application. If air temp is above 95 deg F, then grout should be kept cool before mixing and application. Date on container must not be expired at the time of installation.

Grout should be poured into the slot in a back-and-forth method covering approximately a three-foot area to make sure the grout reaches the bottom of the slot, then fills completely around the piezo sensor and covers the top the piezo sensor mounding very slightly above the surface of the duct tape. Avoid creating or leaving any air pockets in the grout when pouring.

Duct tape should be removed within five to ten minutes after the pour or when grout begins to set up.

Full cure time of grout should be a minimum of 30 to 40 minutes before traffic can flow over the sensor.

After the grout is fully cured, grind both edges of the grout to create a smooth transition from the road service to the grout. A very slight mound in the middle of the grout is preferred.

Before two-part loop detector sealant is applied, make sure the duct seal or equivalent is removed from the beginning of the piezo lead at the end of the sensor in the road and make sure duct seal or equivalent is placed in the 1" PVC pipes along the shoulders.

Two-part loop detector sealant, as approved in current version of PA Bulletin 15, to be used on all piezo leads in the road surface. Date on container must not be expired at the time of installation.

Land all piezo sensor leads to a terminal strip (marked as Piezos) in cabinet.

Label each sensor lead in cable with a waterproof tag to indicate lane. Example: North Bound Drive Piezo: NBD Piezo 1, North Bound Middle Piezo 2: NBM Piezo 2, North Bound Pass Piezo: NBP Piezo 3, South Bound Pass Piezo: SBP Piezo 4, South

Bound Middle Piezo: SBM Piezo 5, and South Bound Drive Piezo: SBD Piezo 6. (Refer to Directional Loop and Piezo Numbering Diagram)

All sensors are to be tested prior to and after installation by the contractor. (Follow manufacturer's instructions). Capacitance of each piezo (nF) – after installation should be +/- 20 percent of the reading supplied with the sensor.

Completed copies of the original piezo manufacture's test sheets need to be completed by the contractor and supplied to PennDOT BPR at time of installation.

The following readings are to be supplied to PennDOT BPR by completing and submitting the Electrical Readings form:

a. Test ground system - (ohms to ground)

b. Take initial loops readings:

i. Resistance of each loop (R) – should be less than 1 ohm

ii. Inductance of each loop (microhenries) – should be in the range of 110 to 220 microhenries

iii. Leakage

iv. Shield

c. Take initial piezo readings:

i. For the record: Note manufacturer initial tested capacitance (from sheet included with piezo)

ii. Capacitance of each piezo (nF) – after installation should be +/- 20 percent of the reading supplied with the sensor

iii. Resistance – greater than 20 Megaohms

iv. Dissipation – less than 0.04

The following images are to be supplied to PennDOT of Oscilloscope readings taken for each piezo to show:

a. Image of wave form as a class 2 vehicle passes.

b. Image of wave form as a class 9 vehicle passes.

c. Ensure signal is clear without noise.

d. Ensure waveform scale is visible on images.

All materials supplied, and site components shall be warranted for the OEM warranty period. The warranty period shall begin upon acceptance by the Department of the site installation and/or repairs by the Department.

The department shall only accept a new site installation or repair work to an existing site after data has been collected for four weeks and the vehicle classifications are within the expected range.

A manual classification comparison count will be completed within the stated four weeks.

The total number of class 15 (unclassified) vehicles must be less than 5% for construction work to be accepted. Furthermore, the piezo manufacturer sheets, electrical readings form, and scope reading images must be submitted on or before 4 weeks after physical construction is completed, and all required post-installation electrical readings must fall within the ranges specified above before the site construction is accepted as complete.

Saw cutting, sealing, excavation and other items of work required to complete the CAVC will be considered incidental to this item. Loop and Piezo harnesses, CAVC Counter, Modem, and Antenna will be supplied by the Bureau of Planning and Research Field Operations.

MEASUREMENT AND PAYMENT – Lump Sum.

Project Specific Details:

Special Provision: 00 - c90003 ITEM 9000-0003 - MILLED BLEEDER CHANNELS MILLED MATERIAL RETAINED BY CONTRACTOR

Addendum:

Action:

Item(s) Associated:

9000-0003 - MILLED BLEEDER CHANNELS MILLED MATERIAL RETAINED BY CONTRACTOR

Header:

ITEM 9000-0003 - MILLED BLEEDER CHANNELS MILLED MATERIAL RETAINED BY CONTRACTOR

Provision Body:

DESCRIPTION - This work is the variable depth milling and resurfacing of bleeder channels from the white line to edge of shoulder. The purpose of this item is to allow water to drain off the roadway. Do not use this item unless directed by the Engineer.

MATERIAL -

- Superpave Asphalt Mixture Design, Wearing Course, PG 64S-22, 3 to < 10 Million ESALS, 9.5 mm Mix, SRL-L – Publication 408, Section 413.2.
- Asphalt Tack Coat – Publication 408, Section 460.

CONSTRUCTION -

- a) Preparation. In accordance with Section 0491, mill channel with slope that will allow water to drain from mainline to edge of shoulder. Remove excess edge of roadway debris as necessary to allow water to properly drain from milled channel.
- b) Resurfacing. In accordance with Section 0413, place bituminous wearing surface. Ensure that, after compaction, the surface of the patch conforms to the grade of the surrounding pavement.

MEASUREMENT AND PAYMENT – Dollar. The proposal will include a predetermined amount of money for this item. The contract item will have a unit of measure of DOLLAR, a unit price of \$1.00, and a quantity equal to the predetermined amount.

Due to the contingent or unpredictable nature of the work being performed and/or the incentive or bonus status of the payment being made, the provisions of Section 110.02(d) are not applicable to this item.

Measured and paid for, under this item as follows:

- (a) Contract Price.
- (b) Negotiated Price. At price agreed upon with the Department before performing the work. If applicable, agreement is also required with FHWA.
- (c) Force Account Basis. Section 110.03(d).

Project Specific Details:

Special Provision: 00 - c90004 ITEM 9000-0004 - SOLUTION CAVITY EXCAVATION

Addendum:

Action:

Item(s) Associated:

9000-0004 - SOLUTION CAVITY EXCAVATION

Header:

ITEM 9000-0004 - SOLUTION CAVITY EXCAVATION

Provision Body:

DESCRIPTION - This work is excavation and backfilling of solution cavities as indicated and directed.

CONSTRUCTION - Attention is directed to the existence of solution cavities within this project.

Excavate and flush the solution cavities and backfill with Class C cement concrete and/or selected borrow excavation (modified) as directed. Place geotextile, Class 4, Type A as indicated or directed.

MEASUREMENT AND PAYMENT - Cubic Yard.

- Class C Cement Concrete - Cubic Yard, Item 1001-1140.
- Selected Borrow Excavation (Modified) - Ton, Item 4205-0300.

- Geotextile, Class 4, Type A - Square Yard, Item 0212-0014.

Project Specific Details:

Special Provision: 00 - c90008 ITEM 9000-0404 - FIELD ETHERNET SWITCH

Addendum:

Action:

Item(s) Associated:

9000-0404 - FIELD ETHERNET SWITCH

Header:

ITEM 9000-0404 - FIELD ETHERNET SWITCH

Provision Body:

DESCRIPTION- This work is furnishing, installing, configuration and testing of Field Ethernet Switches.

MATERIAL-

Section 1201.2 (b) (6) and as follows:

Provide Industrial Grade Layer 2 Ethernet Switches supporting G.8032v2 protocol with a minimum of four (4) 10/100 Base-TX ports with RJ-45 connector ports.

Provide a minimum of two (2) configurable 100/1000 Base-TX ports with two (2) Small Form-Factor Pluggable (SFP) Modules.

Select SFP modules as required for specific fiber loss and field configuration that provide the necessary optical budget and provide up to 20 kilometers or as required (SMFO at 1310nm) depending on the distance between ITS node cabinets and Hub cabinet and as approved by the Representative. Include performance margin in the calculations of SFP modules.

Provide proposed SFP modules included as part of the materials submittal along with calculations of optical budget to the Representative for review and approval. Do not exceed the optical receiver maximum power level. Provide appropriate optical attenuators as required and/or needed.

General Characteristics and Capabilities:

- Meet the IEEE 802.3 (Ethernet, 10Base-T, 10Mbps) standard
- Meet the IEEE 802.3u (Fast Ethernet, 100Base-TX, 100 Mbps) standard Meet the IEEE 802.3ab (Gigabit Ethernet, 1000Base-T, 1000 Mbps) standard Meet the IEEE 802.3z (Gigabit Fiber) standard
- Operate non-blocking, at full wire speed
- Minimum MTBF of 100,000 hrs. using Bellcore TS-332 standard Utilize the same make, model, and software revision.
- Provide printed and ASCII file documentation, including the manufacturer's custom/enterprise SNMP MIB with the materials submittal.

Network Capabilities and Features:

- Support IP unicast and multicast (IGMP v1/2) and IGMP snooping (v1/2) Meet the IEEE 802.3x (Half-Full Duplex with Flow Control) standard Meet the IEEE 802.1p (Priority Queuing, Class of Service) standard
- Meet the IEEE 802.1Q (VLAN) tag standard per port for up to four VLAN's
- Meet the IEEE 802.1d (Spanning Tree Protocol) standard
- Meet the IEEE 802.1w (Rapid Spanning Tree Protocol) standard
- Meet IEEE 802.1X, Port-based access control / user authentication (Radius)

- Capable of port mirroring any port to any other port within the switch

Network Management Functions and Configuration Features:

- Support remote reset and remote management
- Password manageable through: 1) SNMP (v1/2/3), 2) Telnet/CLI, 3) HTTP (Embedded Web Server) with Secure Sockets Layer (SSL) and 4) Console/terminal port
- Full implementation of SNMP v1/v2/v3
- Provide rate control capabilities including ingress and egress filtering
- Provide a Field Ethernet Switch that allows complete and unconstrained read/write access to every configurable parameter and read status object in the unit for each of the above configuration methods including HTTP and SNMP.
- Support remote firmware upgrades
- Provide Port and IP security capabilities to prevent unauthorized access
- Provide a Field Ethernet Switch that provides status indicators as follows: Power on and off Network status per port (transmit, receive, link, and speed)
- Furnish a Field Ethernet Switch that provides its operational status via LED indicators

Electrical, Mounting and Environmental:

- Operate at 12VDC (typical) as shown on the Plans. Provide power supplies for power conversion, as required or needed by the equipment.
- Operate between -29 to +158 degree F, without fans, including power supply Operate up to 95 percent, non-condensing humidity
- Provide all components (including power supplies as required or needed) meeting the environmental requirements as specified. Case is to be minimum IP-30 rated
- Minimum MTBF: $\geq 100,000$ hours
- ITS Cabinet: DIN-rail or wall/panel within the ITS Cabinet as approved by the Representative.
- Do not use shelf mounting unless reviewed and approved by Representative. Provide all necessary hardware and adaptors for mounting.
- Provide UL-listed Switch

Category 6 Network Patch Cables:

- Provide and install Cat-6 cabling for IP CCTV camera network operations (video and data) meeting the following technical specifications as recommended by the proposed IP CCTV Camera manufacturer:
- Provide factory-assembled and connectorized patch cords with mechanical cable strain relief and protective boots and that are fully tested to Category-6 requirements. Do not use contractor or vendor assembled network patch cables.
- 10 Base-T/TX to 1000 Base-T/TX Ethernet ready Weather and abrasion resistant PVC jacket
- Modular RJ-45 male connectors equipped with eight (8) gold anodized pins
- Use water-tight connectors and cables in all outdoor environment applications. Certified and compliant with Cat-6 operations Cable is to be UL-listed

Network Surge Protection Device / System:

- Provide a surge protection device for IP CCTV Camera locations meeting the following requirements: Performance Rating: Cat-6, 4-pairs protected
- Data Rate: 100Mbps (100Base-T/TX)
- Connectors: RJ-45 in/out, 8 pins; Screw terminals (power). Clamping voltage: 16V, typical Response Time: $< 1\text{nSec}$, typical
- Environmental: -29 to 165 degrees F, temperature, typical; up to 95% non-condensing, humidity Single point ground
- UL-listed, meeting UL 96A, UL 497A/B, NEC 2011, and applicable ANSI/IEEE standards
- Include surge protection device cut-sheets and details in the shop drawings for review and approval by Representative prior to procurement and installation of devices.

CONSTRUCTION- Section 1201.3 and as follows:

Install Ethernet switches at locations shown on the plans and in accordance with manufacturer's specifications and inclusive of all necessary wiring and connectors. Include two Small Form Factor Modules in each switch. Provide all necessary Ethernet cables for connection of Ethernet devices to be installed within the cabinet.

Use only trained personnel with hands-on experience using similar network devices to set-up, configure and install the switches. Coordinate all network integration and configuration work with PennDOT.

Integrate the field Ethernet Switches and other network devices with the existing PennDOT Ethernet network management system at the RTMC allowing for the monitoring and managing of the field network devices. Install and configure field network devices in accordance with manufacturer's guidelines and requirements and as directed by the Representative.

Neatly route and dress all patch cords to the connected devices and within cable management facilities. Coordinate all work with the Representative and PennDOT Bureau of Information Technology (BIO) Resources. Follow all PennDOT network configuration standards, including, all security implementations.

MEASUREMENT AND PAYMENT - Each. Includes all cable, communication equipment, and protective devices to make a complete and functional telecommunication system between the ITS device location and the RTMC.

Project Specific Details:

Special Provision: 00 - c90010 ITEM 9000-0405 - REMOTE POWER SWITCH

Addendum:

Action:

Item(s) Associated:

9000-0405 - REMOTE POWER SWITCH

Header:

ITEM 9000-0405 - REMOTE POWER SWITCH

Provision Body:

DESCRIPTION - This work is the furnishing and installation of a remote controlled power switch at a field cabinet that will enable rebooting of connected equipment over web-based communications.

MATERIAL - Provide a minimum 8-outlet power switch manufactured by one of the following manufactures or approved equal.

- Digital Loggers, Inc. - Web Power Switch 7 (Model No. LPC7)
- Southern Manufacturing – ITS Commander (Model No. 1RU8126MS)

WARRANTY

- One year full replacement warranty

CONSTRUCTION - Install remote power switch at location shown on the plans and in accordance with manufacturer's specifications and inclusive of all necessary wiring and connectors. Provide all necessary Ethernet and power cables for connection of devices to be installed within the cabinet.

Coordinate with District 8-0 Traffic Management Center personnel for installation of switch in existing or new field cabinet and commence programming of start, stop and reboot schedules for all connected devices in the field cabinet. Set up alert notifications and logging features as directed.

MEASUREMENT AND PAYMENT – Each.

Project Specific Details:

Special Provision: 00 - c90012 ITEM 9000-0412 - ETHERNET CABLE

Addendum:

Action:

Item(s) Associated:

9000-0412 - ETHERNET CABLE

Header:

ITEM 9000-0412 - ETHERNET CABLE

Provision Body:

DESCRIPTION - This work is furnishing and installing of Cat-6 Ethernet Cable.

MATERIAL -

Provide and install Cat-6 cabling for IP CCTV camera network operations (video and data) and T1 communications meeting the following technical specifications as recommended by the proposed IP CCTV Camera manufacturer:

Provide factory-assembled and connectorized patch cords with mechanical cable strain relief and protective boots and that are fully tested to Category-6 requirements. Do not use contractor or vendor assembled network patch cables.

10 Base-T/TX to 1000 Base-T/TX Ethernet ready Weather and abrasion resistant PVC jacket

Modular RJ-45 male connectors equipped with eight (8) gold anodized pins

Use water-tight connectors and cables in all outdoor environment applications. Certified and compliant with Cat-6 operations Cable is to be UL-listed

Provide surge protection as per the manufactures recommendations.

MEASUREMENT AND PAYMENT - Linear Foot. Includes all cable, connectors and surge protection.

Project Specific Details:

Special Provision: 00 - c90013 ITEM 9000-0413 - MPLS EQUIPMENT

Addendum:

Action:

Item(s) Associated:

9000-0413 - MPLS EQUIPMENT

Header:

ITEM 9000-0413 - MPLS EQUIPMENT

Provision Body:

DESCRIPTION – This work is the furnishing, installing, configuring, integrating and testing of MPLS equipment and two-way communications in the field to transport CCTV video and PTZ data as shown on the plans.

MATERIAL – Provide the following materials in support of the MPLS connection from the Commonwealth of Pennsylvania Statewide Communications agreement. The following equipment is required to support the contracted MPLS service at the CCTV locations.

ISR4221/SEC K9	2GE, 2NIM, 8G FLASH, 4G DRAM, IPB) W / SECURITY BUNDLE & IP BASE
CON-SNT-ISR4221K	SMARTNET 8X5XNBD-INCLUDE BUNDLE FOR T1 MODULE & ETHERNET MODULE
PI-MSE-PRMO-INSRT	INSERT, PACKOUT - PI-MSE (For 4221)
CAB-AC	AC PWR CORD NORTH AMERICA-C13 NEMA 5-15P 2.1M
ISR-CCP-EXP	CONFIG PRO EXPRESS ON ROUTER FLASH
NIM-ES2-4	FOUR PORT 10/100/1000 ETHERNET SWITCH INTERFACE MODULE
NIM-1MFT-T1/E1	T1 MODULE

Provide necessary ancillary equipment, hardware and cabling to integrate new gateways into the District’s communications network.

CONSTRUCTION – Install, connect and configure equipment in node cabinets and the TMC as shown in the Drawings and as required. Install MPLS equipment in accordance with manufacturer’s recommendations.

Coordinate with PennDOT IT Department and follow the Department’s policies concerning but not limited to; IP addressing schemes, management and security policies, etc.

MEASUREMENT AND PAYMENT – Each.

Project Specific Details:

Special Provision: 00 - c94901 ITEM 9490-0001 - REMOVAL OF EXISTING ASPHALT SURFACE COURSE AND MILLING OLD CONCRETE PATCHES

Addendum:

Action:

Item(s) Associated:

9490-0001 - REMOVAL OF EXISTING ASPHALT SURFACE COURSE AND MILLING OLD CONCRETE PATCHES

Header:

ITEM 9490-0001 - REMOVAL OF EXISTING ASPHALT SURFACE COURSE AND MILLING OLD CONCRETE PATCHES

Provision Body:

In accordance with Section 490 modified as follows:

490.3 CONSTRUCTION - Add the following:

No more than two and a half miles (2.5) at a time can have wearing and/or binder course removed, without paving binder leveling course on all travel lanes and shoulders within those limits. Once binder leveling course is placed on travel lanes and shoulders within the limits, contractor may proceed to the next section of roadway. All removed asphalt material remains the property of the Contractor.

This work includes the milling of existing concrete pavement patches that extend up to approximately 2" below the surface of the existing overlay or approximately 2 1/2" above the surrounding concrete surface. These patches must be ground flush with the surrounding top of concrete pavement grade before opening lanes to traffic.

Project Specific Details:

Special Provision: 00 - c95181 ITEMS 9518-0033/0053 - ACCELERATED CONTINUOUSLY REINFORCED CONCRETE PAVEMENT PATCHING

Addendum:

Action:

Item(s) Associated:

9518-0033 - ACCELERATED CONTINUOUSLY REINFORCED CONCRETE PAVEMENT PATCHING, TYPE A, 9" DEPTH
9518-0053 - ACCELERATED CONTINUOUSLY REINFORCED CONCRETE PAVEMENT PATCHING, TYPE C, 9" DEPTH

Header:

ITEM 9518-0033 - ACCELERATED CONTINUOUSLY REINFORCED CONCRETE PAVEMENT PATCHING, TYPE A, 9" DEPTH
ITEM 9518-0053 - ACCELERATED CONTINUOUSLY REINFORCED CONCRETE PAVEMENT PATCHING, TYPE C, 9" DEPTH

Provision Body:

In accordance with Section 518 and Section 501 for accelerated strength reinforced cement concrete pavement.

Project Specific Details:

Special Provision: 00 - c96761 ITEM 9676-0001 - CEMENT CONCRETE SIDEWALK MODIFIED

Addendum:

Action:

Item(s) Associated:

9676-0001 - CEMENT CONCRETE SIDEWALK MODIFIED

Header:

ITEM 9676-0001 - CEMENT CONCRETE SIDEWALK MODIFIED

Provision Body:

In accordance with Section 676 as indicated and as follows:

Revise Section 676.3 Construction by adding the following:

Construct only half of the curb ramps in an intersection at one time unless otherwise approved by the Inspector-In-Charge.

Construct plain cement concrete curb ramps at the locations identified in the approved Drawings and as shown on the Standard Drawings RC – 67M. On Standard Drawings RC – 67M, the details depicted are most appropriate for New Construction. Alterations to existing facilities must meet the requirements to the maximum extent feasible. For alterations where it is technically

infeasible to meet these requirements, the contractor will prepare and submit a Technically Infeasible Form to the District Office for approval to authorize the construction of the ramp and to document that access has been provided to the maximum extent feasible. If an alternate curb ramp type is beneficial to the specific site, notify the Department of this proposed change.

A "Technically Infeasible Form" (TIF) must be fully completed (sheets 1 and 2) for each curb ramp when a design value(s) is not compliant with the Department's regulations. The TIF must include sufficient justification to clarify why the proposed design is the best alternative (color photos are also required). The TIF should evaluate at least three alternatives and a summary must be provided. TIFs will not be approved after the construction of a curb ramp.

For ramps requiring a TIF, drawings for each ramps/intersection must be included. The drawings must include the following:

- A sheet showing the overall intersection geometry information such as intersection layout, curb ramp alignment, pedestrian crosswalks, utilities, right-of-way lines, pavement edge and type, existing features (buildings, entryways, steps, walls, trees, shrubs/hedges) and traffic control devices (traffic signal poles, equipment, stop signs).
- A sheet showing all pertinent spot elevations and all the Curb Ramp Details.

The design drawing must conform to the following requirements:

- a. Draw details at a minimum scale of 1.0 inch per 10.0 feet on 11" x 17" sheets of paper. If possible, each detail sheet should depict an entire intersection with all applicable ramps and enough detail to illustrate any impediments to providing ramps fully compliant with RC-67M. The design and drawings must be prepared using English units. All drawing details must be legible.
- b. Provide a NORTH arrow on the drawings.
- c. Include a title block in the lower right hand corner containing the County, SR-Section, ECMS Number, date of submittal, a block for date of resubmittal(s), the name of the designer and firm along with the appropriate sheet number(s).
- d. Identify the type of curb ramp proposed and ramp location number per sheet 1 of the TIF.
- e. The right-of-way lines and construction easements must be clearly identified in the drawings.
- f. Depict the existing/proposed vertical elevations of the finished grade of roadway directly at the corners of the proposed ramp and transition ends (designated to the nearest 0.01 foot).
- g. Depict the existing and proposed longitudinal and cross slopes of the roadway directly in front of and at the center of the proposed curb ramp (designated to the nearest 0.010 %).
- h. Depict proposed running and cross slope percent of the ramp (designated to the nearest 0.010 %).
- i. Depict existing and proposed running slopes of the sidewalk transitions to the ramp and/or landing area (designated to the nearest 0.010 %).
- j. Depict running and cross-slopes of the existing sidewalk adjacent to the sidewalk transitions.
- k. Depict the longitudinal slope along the Detectable Warning Surface (DWS) or transition strip.
- l. Depict limits of removal of existing sidewalk (designated to the nearest 0.010 foot).
- m. Depict proposed length and width of the ramp.
- n. Depict proposed horizontal location of the landing area.
- o. Depict proposed slopes of the landing area (designated to the nearest 0.010 %)
- p. Depict proposed slopes of flares (designated to the nearest 0.010 %)
- q. If large triangular areas are proposed, depict the lateral slope of the flare between the sidewalk and the bottom of the DWS.
- r. Depict proposed horizontal measurement(s) of flares along the curblines (designated to the nearest 0.010 foot)
- s. Depict the proposed placement of DWS.
- t. Depict horizontal and vertical relationships to the pedestrian push buttons (designated to the nearest 0.010 foot)
- u. Depict the proposed/existing crosswalk line striping on the plans and label the distance between the crosswalk and stop bar (4 foot minimum).
- v. Depict any utility features within the curb ramp construction area. Clearly show and call out the adjustment treatment for all utilities within the limits of work.
- w. Depict all pertinent slopes on the plans, including existing and proposed conditions.
- x. Depict all longitudinal slopes and cross slopes for the adjacent street in front of the curb ramps (gutter), the proposed curb ramps and landings.
- y. Provide positive drainage and avoid potential ponding issues.
- z. Depict all proposed cheek walls (including the max. reveal) or proposed grading.
- aa. Depict/identify all off-roadway drainage that could flow across the sidewalk/ADA Ramp.

Submit Drawings and TIF's electronically through the PennDOT Project Collaboration Center (PPCC). Each Intersection should be its own submission in PPCC and include all Ramps at the Intersection.

Once the design and the forms are deemed acceptable construction of the ramps may begin. TIFs will not be approved after the construction of a curb ramp.

Coordinate with all necessary utility companies for adjustments or relocation of their facilities for construction of the curb ramp.

For locations that require additional right-of-way in order to construct a compliant curb ramp, an "Authorization to Enter – Waiver of claim" from must be presented to the property owner for consideration.

All minimum and maximum dimensions contained on the Standard Drawings RC – 67M are absolute. Construction tolerances do not apply when a dimension is shown as minimum or maximum.

Check all slopes with a four foot Smart Level for compliance. An acceptance certificate will not be issued if any newly constructed curb ramp does not fully comply with the Standard Drawings RC – 67M requirements unless the curb ramp detail in question had been authorized to be constructed through the use of an approved Technically Infeasible Form.

Following construction of each curb ramp, complete and submit to the Department an "as-built" Curb Ramp Inspection Form (CS-4401). Curb ramps that are found to be non-compliant as a result of completing the inspection form will be reconstructed at the sole cost of the contractor unless the curb ramp detail in question had been authorized to be constructed through the use of an approved Technically Infeasible Form.

Revise Section 676.4 (a) Cement Concrete Sidewalks by adding the following:

All design efforts, submission of Technically Infeasible Forms, coordination of utilities, adjustment to off-roadway drainage, necessary excavation/removal of existing curb/curb ramp/sidewalk and Curb Ramp Inspection Forms required for each curb ramp will not be paid for separately, but will be considered incidental.

Project Specific Details:

Special Provision: 00 - c99651 ITEMS 9965-0581/0812 - PREFORMED THERMOPLASTIC LEGEND PA-581 / I-81 SHIELD 8'-0" X 20'-0"

Addendum:

Action:

Item(s) Associated:

9965-0581 - PREFORMED THERMOPLASTIC LEGEND PA-581 SHIELD 8'-0" X 20'-0"

9965-0812 - PREFORMED THERMOPLASTIC LEGEND I-81 SHIELD 8'-0" X 20'-0"

Header:

ITEM 9965-0581- PREFORMED THERMOPLASTIC LEGEND PA-581 SHIELD 8'-0" X 20'-0"

ITEM 9965-0812 - PREFORMED THERMOPLASTIC LEGEND I-81 SHIELD 8'-0" X 20'-0"

Provision Body:

In accordance with Section 965 for the types and sizes indicated.

Project Specific Details: