

AMERICAN SOCIETY OF HIGHWAY ENGINEERS

National Project of the Year Award

OFFICIAL ENTRY FORM

AWARD CATEGORY (C	Check One):	□ Unde	er \$20 M	illion 🛮 🗘 (Over \$2	0 Million
SPONSORING REGION	(Check One):					
Northeast		Great Lal	zes		□ Nor	thwest
☐ Mid-Atlantic		North Ce				ky Mountain
☐ Southeast	H	South Ce				thwest
□ Southeast		South Ce	IIII a I		□ 30u	illwest
CONTACT INFORMAT	ION FOR	SUBMI	TTING	REGION:		
Contact Name: Scott R. Eshenaur				ASHE Region Po	sition: NP	Y Chairperson
Phone (Office): 717-790-9565	Phor	ne (Mobile):	717-580-8	426		E-Mail Address:
					sresh	enaur@modjeski.cor
PROJECT INFORMATI	ON:					
ENTERING AGENCY/COMPANY'		antec Cons	ulting Serv	rices Inc.	High	vay Reconstruction
PROJECT NAME: US Route 119	Youngwood F	Reconstruc	tion	TYP	E: & Tra	ffic Calming
PROJECT LOCATION: US Route	e 119 through \	Youngwood	Borough	n Pennsylvania		
CITY: Youngwood Borough		_COUNTY	: Westmo	reland STA	TE: Peni	nsylvania
FINAL CONSTRUCTION COST:			BUDGETEI	O CONSTRUCTION	ON COST:	\$21,906,000
PROJECT COMPLETION DATE:	August 30, 202	3				
PROJECT ASHE SECTION: South	west Penn	ASHE SEC	CTION CO	NTACT NAME:	Amie S.	Clawson, PE
PHONE (OFFICE): (412) 392-8730						
		() · <u> </u>			
DDO IFCT TEAM.						
PROJECT OWNER Popper	ulvania Danartı	mont of Tro	nonortotio	. Engineering Di	otriot 12 C	
-	orth Gallatin Av			n, Engineering Di	SUICU 12-0	<u>'</u>
STREET ADDRESS: 825 No. CITY: Uniont					ZID.	15401
	Duda, PE	STATE: PHONE:		(724) 439-7259	ZIP:	13401
CONTACT FERSON. Racher D.	Duda, FL			rduda@pa.gov	,	
		L-MAIL	ADDKESS.	ruuua @ pa.gov		
PROJECT DESIGN FIRM: Stant	ec Consulting	Services In	C.			
	loliday Drive, S					
	burgh		PA		ZIP:	15220
CONTACT PERSON: Steve Moor			(412) 219	-5535		
				Steve.Moore2	@stantec.	com
PRIME CONTRACTOR: Golden	Triangle Const	ruction Cor	mpany			
STREET ADDRESS: 8555 Old	l Steubenville F	Pike				
CITY: Imperial		STATE:	PA		ZIP:	15126
CONTACT PERSON: Tim Rya	II	_PHONE:_	(724) 82	3-2800		
		E-MAIL	ADDRESS:	tryall@gtcpgh	.com	
Entry Form Completed By:	Steve Moo	re, PE			Date	: January 25, 2024

STATEMENT OF COMMITMENT:

Stantec Consulting Services Inc. commits to having at least one representative from the project team in attendance at the awards luncheon.

VERIFICATION OF SUBSTANTIAL COMPLETION (1)



October 23, 2023

Golden Triangle Construction Company, Inc. 8555 Old Steubenville Pike Imperial, PA 15126

Re: Westmoreland County

SR 0119 Section J20 US 119 Youngwood Recon

ECMS No.: 89191

Federal No.: T125-371-Z001

Colleagues:

The Department has scheduled a Semi-Final / After Action Review on the referenced project on Monday, November 13, 2023 at 9:30 AM.

The inspection party will meet at the project field office.

The Construction Project – Quality Survey for Design Items form must be completed in ECMS by the Contractor and IIC prior to the Semi Final / After Action Review. This form is now located in ECMS under the Closeout section of the Project Information screen.

Should you have any questions concerning this matter, you may contact me at 724-439-7286.

Sincerely,

Dominec A. Caruso, P.E. Assistant Construction Engineer

Drawie A. Careso

Engineering District 12-0

120:DAC:jmk

Richard Kercher, Federal Highway Administration CC:

William L. Beaumariage, P.E., Assistant District Executive – Construction Dominec A. Caruso, P.E., Assistant Construction Engineer

Huytu Nguyen, Inspector in Charge

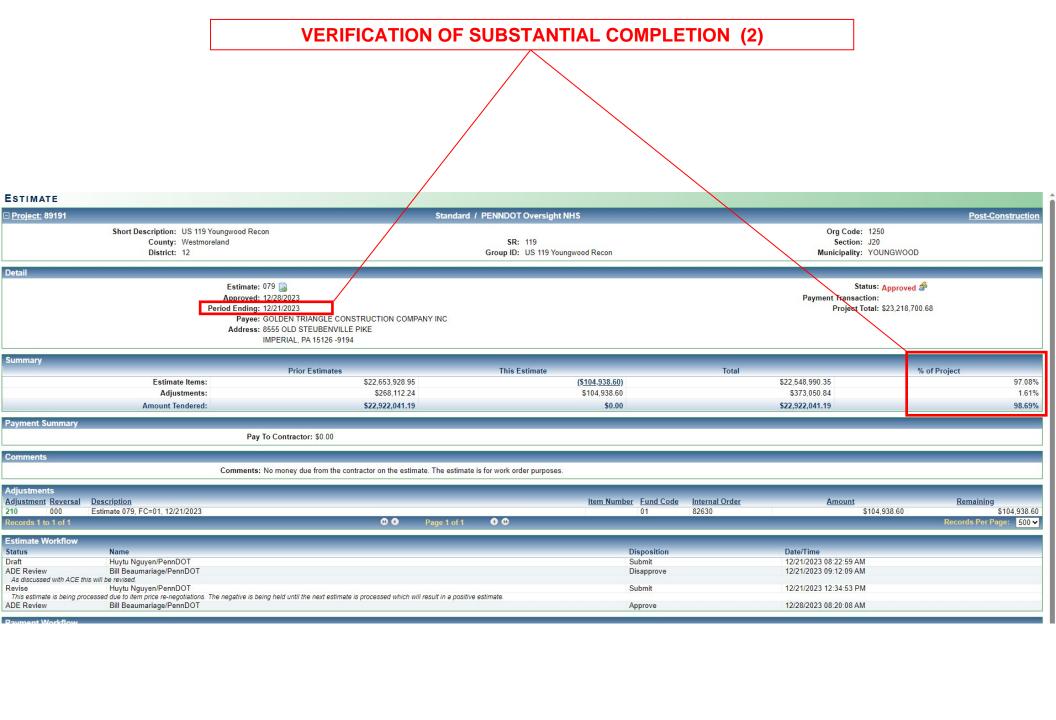
James Sisul, Project Manager

David Forkey, Westmoreland County Maintenance Manager

Rachel D. Duda, P.E. Kenneth A. Shimko, P.E.

Jeremy Hughes, P.E.

Roy A. Painter, P.E.



Project Narrative US Route 119 Youngwood Reconstruction SR 0119, Section J20

The State Route 0119, Section J20 (US Route 119 Youngwood Reconstruction) Project spans approximately 1.7 miles in length in Hempfield Township, New Stanton Borough, and Youngwood Borough in Westmoreland County, PA. The roadway serves as a major north/south connection between Interstates 70 and 76 to the south, and SR 30 and the City of Greensburg, the county seat, to the north. SR 119 is a 4-lane divided highway at the northern and southern extents of the project, transforming to a one-way pair with parking lanes as it traverses the heart of Youngwood Borough.

The corridor is an urbanized area that includes a mix of residential and commercial land use. A variety of transportation modes are present, including public transit, bicycle (Five Star Trail), and pedestrian. Originally constructed in the late 1930s and early 1940s, the roadway has suffered significant deterioration, fails to provide acceptable levels of service, and lacks attributes to maintain community and regional connectivity.

The purpose of the US Route 119 Youngwood Reconstruction Project was to address deficiencies, provide a reliable and efficient roadway that caters to the current and projected traffic, including pedestrians, and improve congestion to an acceptable level of service, while ensuring the traveling public has adequate safe access points throughout the corridor.

To achieve these goals, the project scope included total reconstruction of the roadway, including roadway drainage, sidewalks, ADA curb ramps, traffic signals, and removal of the existing box beam median barrier south of the Burton Avenue intersection and replacing it with a concrete median barrier. Numerous traffic calming and safety measures were implemented, including chicanes, curb extensions, narrowing lanes (road diet), placing optical speed bars, and installing radar speed display signing. Additionally, installation or reconstruction of sidewalks on two locally owned roadways provide cohesive pedestrian access routes from the residential land uses of Youngwood Borough to the parallel Five Star regional rail-trail located several blocks east of the project corridor.

SCORING CRITERIA RESPONSES:

1. Complexity

➤ Reconstructing the roadway and sidewalks while maintaining all modes of transportation was a particularly challenging aspect of the project. ADA accessible driveway transitions and ramps needed to be constructed while maintaining access, requiring dozens of pedestrian detours and complex staging of the work. Over five miles of sidewalk were constructed, as well as 32 intersections, eight traffic signals, 68 driveways and 200 ADA ramps. Also, close coordination with R. W. Sidley, Inc. concrete products was necessary as oversized loads (precast concrete culverts) are generated from their facility several times per week and traversed the project area.

- ➤ Utility involvement was a design element requiring intense focus. All gas, water and sanitary sewer lines were relocated or replaced throughout the project area. Over 350 new drainage inlets were installed and over 90 maintenance holes were relocated out of the wheel paths. PennDOT's share of the utility relocation costs exceeded \$12 million.
- The complexity of the project is evident by the construction duration spanning nearly four complete construction seasons.

2. New Application of Existing Techniques / Originality / Innovation

- ➤ Traffic calming measures were implemented to reduce speeding and improve safety, including:
 - narrowing lanes from 12 feet to 11 feet (road diet),
 - installing multiple chicanes (lateral lane shifts) that passively reduce speed,
 - providing curb extensions at intersections to reduce pedestrian crossing times and improve safety by limiting the time a pedestrian is in a travel lane,
 - utilizing bulb-outs to define parking areas, passively reduce speeding, and eliminate the need for utility pole relocations,
 - installing optical speed bars and edge lines along curbs where not typically used, and
 - installing overhead radar speed display signing to notify motorists of their speed.
- ➤ High friction surface treatments were used to help reduce rear end collisions on approaches to an isolated signalized intersection.
- Thermoplastic pavement markings were used exclusively on the project (even for long lines) to improve visibility and reduce future maintenance.
- Despite adding lanes to improve capacity and adding sidewalks in areas where they were missing, the traffic calming features provided the opportunity to offset the additional impervious area with pervious areas, resulting in the elimination of the need for stormwater management facilities.
- ➤ Bulb-outs were used to limit temporary construction easements needed for driveway modifications at sensitive locations such as the Youngwood Post Office where driveway closure and property owner negotiations would be challenging.

3. Social / Economic Considerations

- The project addressed capacity issues by adding auxiliary turn lanes in select areas. This reduced congestion and made Youngwood Borough more attractive to both existing business patrons and future development as well. Even before construction ended, a national restaurant franchise began construction of a new facility on a parcel formerly used for truck parking.
- New sidewalks and traffic calming measures make Youngwood Borough a more walkable community and the Central Business District more attractive for businesses and patrons.
- Two locally owned roadways were resurfaced. Additionally, new sidewalks were installed and reconstructed in order to enhance and create pedestrian and bicycle routes from the residential areas of Youngwood Borough to the Five Star recreational trail that runs parallel to, and just east of, the US 119 project corridor.

The project improvements help to create a sense of place for Youngwood Borough, which is bracketed by high-speed limited access divided highways.

4. Safety

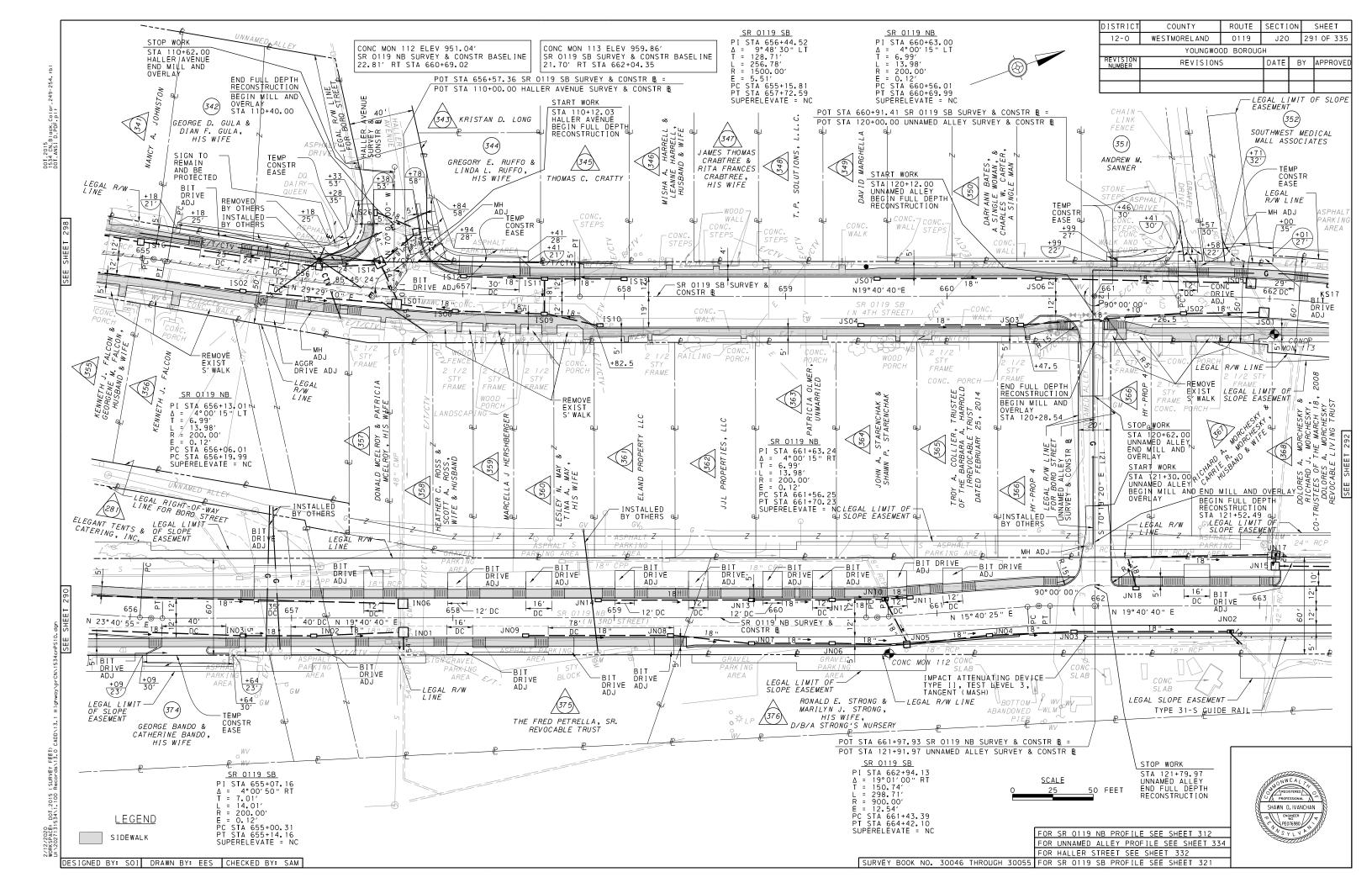
- > Safety for all modes of transportation was a primary project goal. Traffic calming measures were implemented to reduce speeding and improve safety, including:
 - narrowing lanes from 12 feet to 11 feet (road diet),
 - reducing the speed limit of the northbound lanes from 35 MPH to 25 MPH,
 - installing multiple chicanes (lateral lane shifts) that passively reduce speed,
 - providing curb extensions at intersections to reduce pedestrian crossing times and improve safety by limiting the time a pedestrian is in a travel lane,
 - utilizing bulb-outs to define parking areas, passively reduce speeding, and provide shelter for parked vehicles.
 - installing optical speed bars and edge lines along curbs where not typically used, and
 - installing overhead radar speed display signing to notify motorists of their speed.
- ➤ High friction surface treatments were used to help reduce rear end collisions on approaches to an isolated signalized intersection.
- Antiquated steel box beam median barrier was replaced with concrete glare screen at the southern end of the project for increased safety.
- Thermoplastic pavement markings were used exclusively on the project (even for long lines) to improve visibility.
- > A private retail driveway was relocated to prevent wrong-way traffic maneuvers.

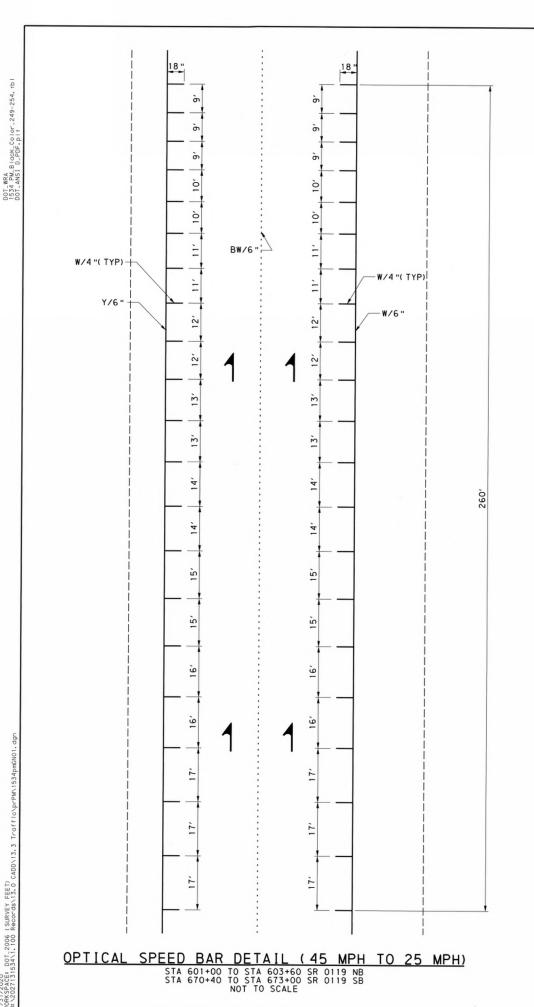
5. Aesthetics and Sustainable Features

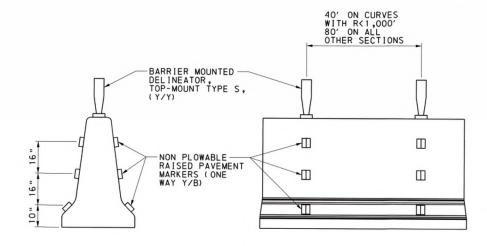
- Youngwood Borough agreed to maintain the tree lawn (grass areas between curb sidewalk). Despite adding lanes to improve capacity and adding sidewalks in areas where they were missing, the traffic calming features provided the opportunity to offset the additional impervious area with pervious areas.
- These enhancements prevented the need for stormwater control measures as there was not a net increase in impervious area.
- The project improvements help to create a sense of place for the Borough, which is bracketed by high-speed limited access divided highways.
- ➤ New sidewalks were installed or reconstructed along Depot and Hillis Streets in order to enhance and create pedestrian and bicycle routes from the residential areas of Youngwood Borough to the Five Star recreational trail that runs parallel to and just east of the US 119 project corridor.
- Thermoplastic pavement markings were used exclusively on the project (even for long lines) to reduce future maintenance.

6. Meeting or Exceeding Owner's / Client's Needs

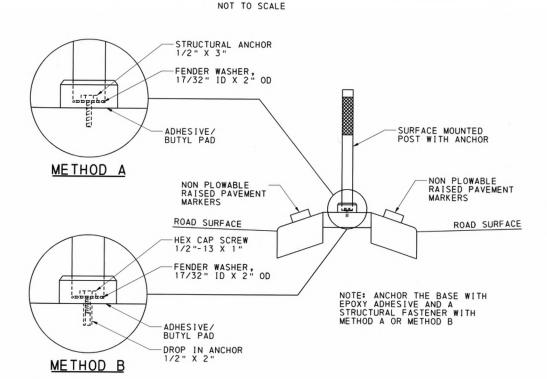
- Throughout design a list of "hot items" was provided to PennDOT to highlight issues that required their decision or input in order to maintain the aggressive schedule.
- Despite adding lanes to improve capacity and adding sidewalks in areas where they were missing, the traffic calming features provided the opportunity to offset the additional impervious area with pervious areas, resulting in the elimination of the need for stormwater management facilities.
- ➤ The final construction cost (\$23,871,000) was within 9% of the pre-bid estimate (\$21,906,000) despite being bid during the first month of the pandemic and unprecedented construction inflation.
- Perhaps the best measure of how well the solution met the owner's goals are the three "Consistently Exceeds Expectations" evaluations received for the Preliminary Engineering, Final Design and Right of Way acquisition stages of the project. The evaluation for services during construction is not yet available.
- ➤ The design and construction schedules were both met. Preliminary Engineering was completed one week in advance of the 10 months required. Right of Way Acquisition (73 claims) was completed in 11 months and Final Design was accelerated by one week within the last month of Final Design to accommodate a revised client letting schedule.



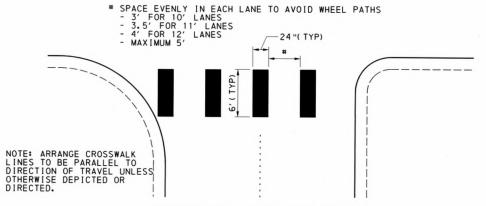




CONCRETE GLARE SCREEN MEDIAN BARRIER DELINEATION DETAIL



ISLAND DELINEATION DETAIL NOT TO SCALE



CROSSWALK MARKING DETAIL

NOT TO SCALE

DISTRICT COUNTY ROUTE SECTION SHEET 12-0 WESTMORELAND 0119 J20 1 OF 36 YOUNGWOOD & NEW STANTON BOROS, HEMPFIELD TOWNSHIP REVISION NUMBER REVISIONS DATE BY

GENERAL NOTES

- 1. INSTALL PAVEMENT MARKINGS AND DELINEATION IN ACCORDANCE WITH THE DETAILS IN THESE DRAWINGS AND THE FOLLOWING, OR AS DIRECTED BY PENNDOT DISTRICT 12-0 TRAFFIC ENGINEERING REPORTS OF THE PROPERTY OF THE PROPERTY OF TRAFFIC ENGINEERING REPORTS OF T
- DIRECTED BY PENNDOT DISTRICT 12-0 TRAFFIC ENGINÉERING
 REPRESENTATIVE.

 A. PUBLICATION 408, "SPECIFICATIONS", 2016, CHANGE 7.

 B. FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2009 AND CURRENT REVISIONS.

 C. PENNDOT PUBLICATION 212, "OFFICIAL TRAFFIC CONTROL DEVICES", MARCH 2006.

 D. PENNDOT PUBLICATION 111, "TRAFFIC CONTROL-PAVEMENT MARKINGS AND SIGNING STANDARDS", JUNE 2013.

 E. PENNDOT PUBLICATION 46, "TRAFFIC ENGINEERING MANUAL", FEBRUARY 2012, CHANGE 1 (MARCH 2014).
- 2. DETAILS OTHER THAN THOSE INDICATED ARE ON THE FOLLOWING STANDARD DRAWINGS:

TC-8600	13 SHEETS	JUNE 13, 2013
TC-8602	4 SHEETS	JUNE 13, 2013
TC-8604	4 SHEETS	JUNE 13, 2013

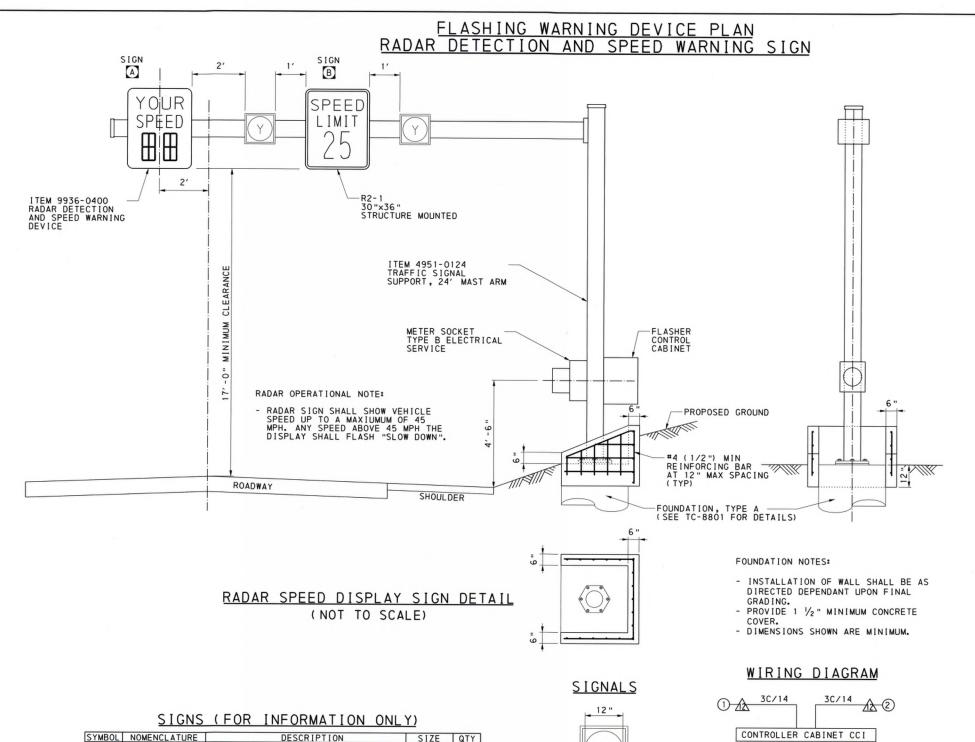
- 3. APPLY ALL PAVEMENT MARKINGS AT THE WIDTH INDICATED.
- 4. ALL PAVEMENT MARKING LINES AND LEGENDS SHALL BE DURABLE LONG-LIFE MATERIAL. ON ASPHALT SURFACES, USE HOT THERMOPLASTIC AND ON CONCRETE SURFACES, USE EPOXY.
- 5. THE CONTRACTOR SHALL REAPPLY ANY EXISTING PAVEMENT MARKING THAT IS DAMAGED WITHIN OR BEYOND THE START/STOP OF WORK DUE TO CONSTRUCTION ACTIVITY AT NO ADDITIONAL COST TO THE DEPARTMENT.
- 6. INSTALL RAISED PAVEMENT MARKERS IN ACCORDANCE WITH PENNDOT PUBLICATION 111 TRAFFIC CONTROL.
- 7. INSTALL TYPE B AND D DELINEATOR TO ALL GUIDE RAIL WITHIN PLAN LIMITS AT INTERVALS SPECIFIED PER PUB 111, TC- 8604, OR AS DIRECTED BY PENNDOT DISTRICT 12-0 TRAFFIC ENGINEERING
- 8. INSTALL NON PLOWABLE RAISED PAVEMENT MARKERS TO ALL NEWLY INSTALLED/EXISTING CONCRETE MOUNTABLE CURB AND CONCRETE BARRIER WITHIN PLAN LIMITS AT INTERVALS SPECIFIED PER PUB 111, TC-8604, OR AS DIRECTED BY PENNDOT DISTRICT 12-0 TRAFFIC ENGINEERING REPRESENTATIVE.
- 9. REFER TO THE TRAFFIC SIGNAL PLANS FOR ADDITIONAL SIGNS AND PAVEMENT MARKINGS ASSOCIATED WITH A TRAFFIC SIGNAL.
- 10. APPLY ALL PAVEMENT MARKINGS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS
- 11. THE CONTRACTOR SHALL REAPPLY ANY EXISTING PAVEMENT MARKING THAT IS DAMAGED WITHIN OR BEYOND THE START/STOP OR WORK DUE TO CONSTRUCTION ACTIVITY AT NO ADDITIONAL COST TO THE DEPARTMENT
- 12. INSTALL TYPE B AND D DELINEATORS TO ALL GUIDE RAIL WITHIN PLAN LIMITS AT INTERVALS SPECIFIED PER PUBLICATION 111, TC-8604, OR AS DIRECTED BY PA. DEPARTMENT OF TRANSPORTATION
- 13. INSTALL FLEXIBLE DELINEATOR POSTS ON NEWLY INSTALLED ISLANDS, WITHIN PLAN LIMITS, IN ACCORDANCE WITH THE PLAN DETAIL AND DRAWING

SHEET INDEX BLOCK

DESCRIPTION	SHEET				
TITLE SHEET, GENERAL NOTES AND DETAILS	1				
INDEX SHEETS	2 TO 4				
TABULATION SHEETS 5 TO					
PLAN SHEETS	12 TO 36				

PAVEMENT MARKING PLAN





SYMBOL	NOMENCLATURE	DESCRIPTION	SIZE	QTY
A	S-1	RADAR DETECTION AND SPEED WARNING DEVICE	30 "X36 "	1
В	R2-1	SPEED LIMIT (25) (INTERNALLY ILLUMINATED)	30 "X36 "	1



3C/14 CABLE (NO. OF CONDUCTORS)/SIZE (AWG)

SIGNAL SUPPORT

(1) SIGNAL HEAD

CCI FLASHER CONTROLLER CABINET

TRAFFIC SIGNAL SUPPORTS*

STRUCTURE ITEM				H MAST ARM																
STRUCTURE NUMBER	NUMBER	DESCRIPTION	QUAN.	ROUTE	STA.	IDE	FSE	н	_		CI	CALAL I	OCAT		ARM "		1.004	TION		
	UNIT					S	I-P	н	K	L	210	SNAL L	0	ION	- P	SIGN	LOCA	TION	V	w
\triangle	4951 0124	TRAFFIC SIGNAL SUPPORT, 24' MAST ARM, WITH SPECIAL FOUNDATION	1	SR 0119	664+75	LT		17	10	24	17.0	11.0		P	20.5	14.0		U	1	

* REFER TO TRAFFIC STANDARDS - SIGNALS, TC-8801, FOR LETTER DESIGNATIONS.
*** RADAR DETECTION AND SPEED DISPLAY SIGN
*** INTERNALLY ILLUMINATED SIGN

DOT_2015 1534 TS_Block_Color_249-254. DOT_ANSI D_PDF.plt

ROUTE SECTION SHEET ISTRICT COUNTY 12-0 WESTMORELAND 0119 J20 30 0F 31 YOUNGWOOD BOROUGH REVISIONS DATE BY

SR 0119 SOUTHBOUND LEGAL R/W LINE 50 FEET

LEGEND

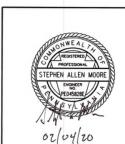
TT A STRUCTURE MOUNTED SIGN

■ ⚠ TRAFFIC SIGNAL SUPPORT, 24' MAST ARM

TRAFFIC FLOW ARROW

MISCELLANEOUS

ITEM NUMBER UNIT	DESC	RIPTION	QUAN.	LOCATION	REMARKS
OIII I			_		
0936 0300	INTERNALLY ILLUM	NATED SIGN	1	ΛB	*
EA					
9000 0029	RADAR DETECTION A	ND SPEED	1	ΛA	
EA	WARNING DEVICE				
0952 2052	CONTROLLER ASSEME FLASHER, DUAL CIF		1	CCI	
EA	TYPE II MOUNTING			,	
0954 0201	SIGNAL CABLE, 14	AWG, 3 CONDUCTOR	91	CCI TO (1)(2)	
LF					
4954 0402	ELECTRICAL SERVIC	E, TYPE B, WITH	1	\wedge	
EA	UPGRADED SURGE PR	UTECTION			
0955 3206	VEHICULAR SIGNAL ONE 12" SECTION	HEAD,	2	①②	
EA	ONE 12 SECTION			00	
			_		



COUNTY: WESTMORELAND MUNICIPALITY: YOUNGWOOD BOROUGH
INTERSECTION OF: S.R. Oli9 SB (4TH ST). SEGMENT 02II OFFSET 1397
RECOMMENDED:

DISTRICT TRAFFIC ENGINEER DATE

