PROJECT MANAGER GLADIS ARBOLEDA (703) 792-5276 (PWC-DOT)
SURVEYED BY, DATE KEVIN D. NELSON L.S. (WILLIAM H. GORDON ASSOCIATES, INC.), OCTOBER 2016
DESIGN SUPERVISED BY CHRISTI FRAGALE, P.E. (WSP USA INC.)
DESIGNED BY TUCKER BUCHANAN, P.E. (WSP USA INC.)
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING INC., OCTOBER 2016

FOR INDEX OF SHEETS SEE SHEET 1B

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (GEOPAK).
GEOPAK Computer Identification No. (107528)

FINAL SUBMITTAL
MAY 2020

COMMONWEALTH OF VIRGINIA

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY

PRINCE WILLIAM COUNTY
SMOKETOWN RD/OPITZ BLVD PEDESTRIAN IMPROVEMENTS
FROM: 0.036 MILES W. OF GIDEON DRIVE
TO: 0.031 MILES E. OF POTOMAC MILLS ROAD

PRINCE WILLIAM COUNTY PLAN NO. SPR2017-00354S03

FHWA-534-DATA 44028
UPC-107528

STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	TAP-5A01 (___) (SEE TABULATION BELOW FOR SECTION NUMBERS)	642	EN15-076-108 (SEE TABULATION BELOW FOR SECTION NUMBERS)	1

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
URBAN MINOR ARTERIAL - LEVEL - DIVIDED (GS-6)- 45 MPH MIN. DESIGN SPEED	
From: To:	0.036 MILES W. OF GIDEON DRIVE 0.031 MILES E. OF POTOMAC MILLS ROAD
ADT (2019)	30,000
ADT (N/A)	N/A
DHV	2,640
D (%) (design hour)	54/46
T (%) (design hour)	1
V (MPH)	45 MPH (POSTED)

APPLICANT SHALL PROVIDE A PROOF OF PURCHASE OF THE OFFSITE NUTRIENT CREDITS (FROM THE NONPOINT SOURCE CREDIT BANKS APPROVED BY THE DEQ) IN THE FORM OF A PURCHASE AND SALE AGREEMENT PRIOR TO APPLYING FOR THE LAND DISTURBANCE PERMIT OR THE CONSTRUCTION GENERAL PERMIT, WHICHEVER COMES FIRST.

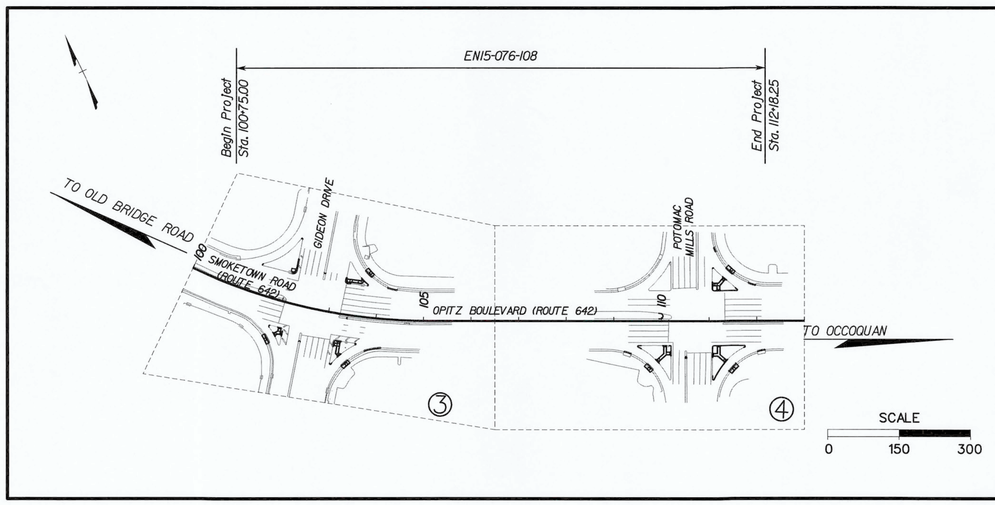
THE COMPLETE ELECTRONIC .TIF VERSION OF THE PLAN ASSEMBLY AS AWARDED, INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE GENERAL NOTES.

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2020 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS, 2009 MUTCD (REV. 1 & 2) , 2011 VIRGINIA SUPPLEMENT TO THE MUTCD (REV. 1), 2011 VIRGINIA WORK AREA PROTECTION MANUAL (REV. 1 & 2) AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD N/A EXCEPT WHERE OTHERWISE NOTED.

THE ORIGINAL APPROVED TITLE SHEET(S), INCLUDING ORIGINAL SIGNATURES, IS FILED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES, IS ILLEGAL AND ENFORCED TO THE FULL EXTENT OF THE LAW.



CONVENTIONAL SIGNS

STATE LINE		LEVEE OR EMBANKMENT	
COUNTY LINE		BRIDGES	
CITY,TOWN OR VILLAGE		CULVERTS	
RIGHT OF WAY LINE		DROP INLET	
FENCE LINE	x x	POWER POLES	
UNFENCED PROPERTY LINE	PL	TELEPHONE OR TELEGRAPH POLES	
FENCED PROPERTY LINE	PL x	TELEPHONE OR TELEGRAPH LINES	
WATER LINE	W	HEDGE	
SANITARY SEWER LINE	S	TREES	
GAS LINE	G	HEAVY WOODS	
ELECTRIC UNDERGROUND CABLE	E	GROUND ELEVATION	DATUM LINE
TRAVELED WAY		GRADE ELEVATION	DATUM LINE
GUARD RAIL			
RETAINING WALL			
RAILROADS			
BASE OR SURVEY LINE			

PRINCE WILLIAM COUNTY POPULATION - 455,210 (2016 CENSUS)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	LENGTH INCLUDING BRIDGE(S) FEET	LENGTH INCLUDING BRIDGE(S) MILES	LENGTH EXCLUDING BRIDGE(S) FEET	LENGTH EXCLUDING BRIDGE(S) MILES	TYPE PROJECT	DESCRIPTION
EN15-076-108	P-101	TAP-5A01 (721)	PENG	107528	1143.25	0.217	1143.25	0.217	PRELIM. ENGR.	CONSTRUCTION OF PEDESTRIAN IMPROVEMENT ALONG SMOKETOWN RD./OPITZ BLVD.
	R-201	TAP-5B01 (001)	ROWA	107528	1143.25	0.217	1143.25	0.217	RIGHT-OF-WAY	
	C-501	TAP-5A01 (921)	1000	107528	1143.25	0.217	1143.25	0.217	CONSTRUCTION	

NOTE: PROJECT LENGTH BASED ON SMOKETOWN ROAD/OPITZ BLVD. CONSTRUCTION BASELINE

COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Fragale, Christi (FragaleC) 2020.05.07 15:45:07 -04'00'

TIER 1 PROJECT

LOCALLY ADMINISTERED PROJECTS

PRINCE WILLIAM COUNTY
NAME OF LOCALITY

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

5/8/2020 DATE — DIVISION CHIEF, CAPITAL PROJECTS KHATTAB SHAMMOUT, P.E.

REVISED

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

DATE — DISTRICT PLANNING AND INVESTMENT MANAGER

DATE — DISTRICT PROJECT DEVELOPMENT ENGINEER

APPROVED FOR CONSTRUCTION

DATE — DISTRICT ENGINEER/ADMINISTRATOR

PWC FILE NUMBER: SPR2017-00354S03

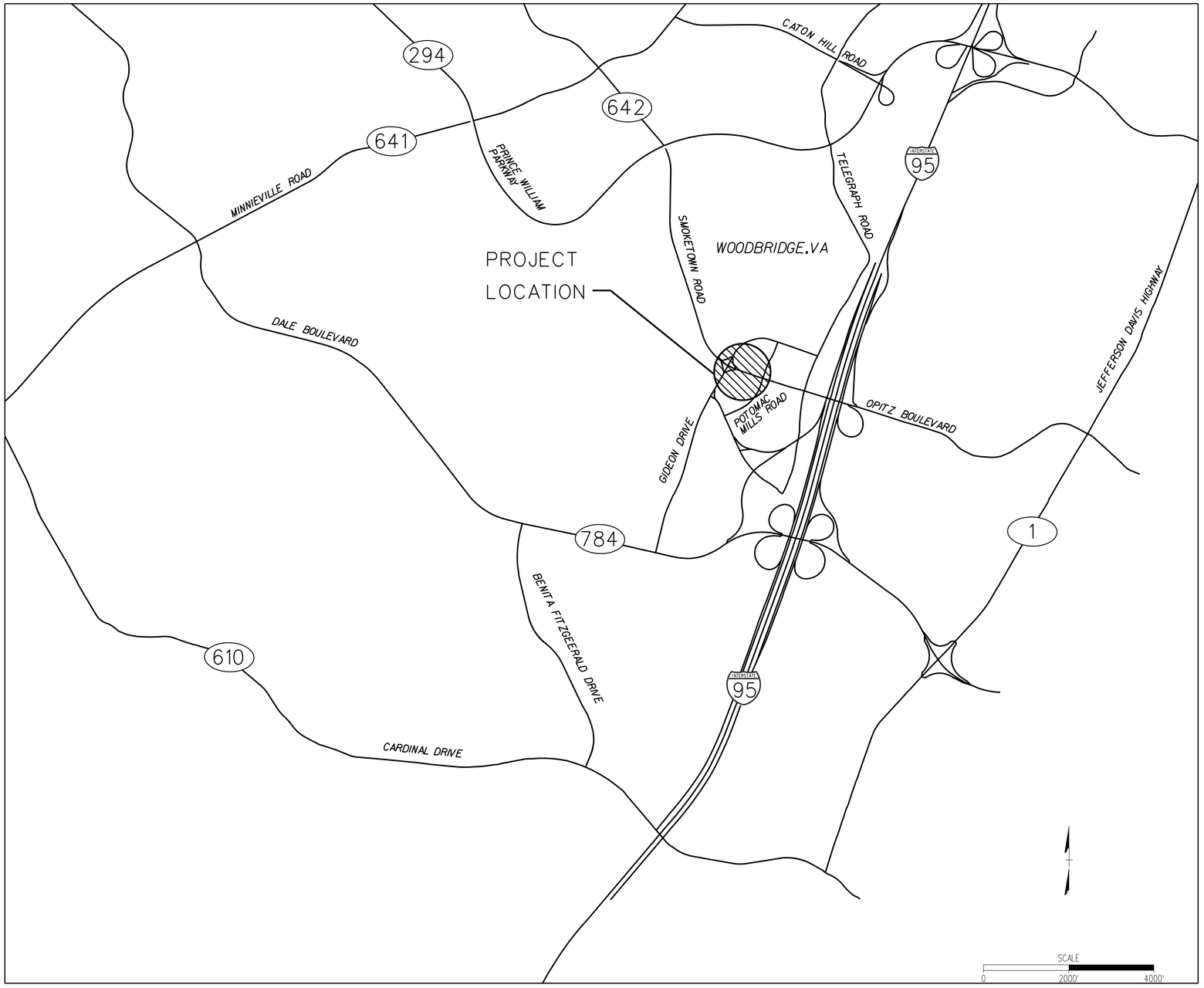
Copyright 2016 , Commonwealth of Virginia

PROJECT MANAGER_ GLADIS ARBOLEDA _ (PWC-DOT) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
SURVEYED BY, DATE _KEVIN D.NELSON,LS-(WILLIAM H.GORDON ASSOCIATES,INC.) OCTOBER 2016 _ _ _ _ _ _ _
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.) _ _ _ _ _ _ _ _ _ _ _
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC., OCTOBER 2016 .

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	642	EN15-076-108	IA

DESIGN FEATURES RELATING TO CONSTRUCTION
OR TO REGULATION AND CONTROL OF TRAFFIC
MAY BE SUBJECT TO CHANGE AS DEEMED
NECESSARY BY THE DEPARTMENT

LOCATION MAP



Location Map

	PROJECT	SHEET NO.
	EN15-076-108	IA

PROJECT MANAGER_ GLADIS ARBOLEDA _ (PWC-DOT) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
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SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC., OCTOBER 2016 .

INDEX OF SHEETS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	IB

DESIGN FEATURES RELATING TO CONSTRUCTION
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SHEET NO.	DESCRIPTION	STATIONS
1	TITLE SHEET	
1A	LOCATION MAP	
1B	INDEX OF SHEETS	
1C	RIGHT OF WAY DATA SHEET	
1C(1) thru 1C(2)	RIGHT OF WAY PLAN SHEETS	
1D	SURVEY ALIGNMENT DATA SHEET	
1E	CONSTRUCTION ALIGNMENT DATA SHEET	
1F	SHEET NOT USED	
1G	TRANSPORTATION MANAGEMENT PLAN	
1H(1) thru 1H(4)	TEMPORARY TRAFFIC CONTROL DETAIL SHEETS	
2	GENERAL NOTES	
2A	TYPICAL SECTIONS	
2B	ROADSIDE DEVELOPMENT SHEET	
2C(1) thru 2C(3)	SWPPP	
2D(1) thru 2D(2)	GEOMETRY PLANS	
2E(1) thru 2E(2)	CURB RAMP GRADING DETAILS	
3	SMOKETOWN ROAD/OPITZ BOULEVARD (ROUTE 642) PLAN SHEET	100+00 to 106+50
3A	SMOKETOWN ROAD/OPITZ BOULEVARD (ROUTE 642) PROFILE SHEET	100+00 to 106+50
3B	SMOKETOWN ROAD/OPITZ BOULEVARD (ROUTE 642) EROSION AND SEDIMENT CONTROL PLAN	100+00 to 106+50
4	SMOKETOWN ROAD/OPITZ BOULEVARD (ROUTE 642) PLAN SHEET	106+50 to 113+00
4A	SMOKETOWN ROAD/OPITZ BOULEVARD (ROUTE 642) PROFILE SHEET	106+50 to 113+00
4B thru 4B(2)	SMOKETOWN ROAD/OPITZ BOULEVARD (ROUTE 642) EROSION AND SEDIMENT CONTROL PLAN	
5	SHEET NOT USED	
5A	SHEET NOT USED	
5B	SHEET NOT USED	
6A thru 6B	SIGNING AND PAVEMENT MARKING PLANS	
7A	TRAFFIC SIGNAL MODIFICATION PLAN (SMOKETOWN ROAD/OPITZ BOULEVARD & GIDEON DRIVE)	
7B	TRAFFIC SIGNAL MODIFICATION PLAN (OPITZ BOULEVARD & POTOMAC MILLS ROAD)	
X-1 thru X-10	CROSS SECTIONS (SMOKETOWN ROAD/OPITZ BOULEVARD)	

Index of Sheets

	PROJECT	SHEET NO.
	EN15-076-108	IB

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON,L.S.(WILLIAM H.GORDON ASSOCIATES,INC.)_OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	IC

DESIGN FEATURES RELATING TO CONSTRUCTION
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NECESSARY BY THE DEPARTMENT

City/County: Prince William County

UPC No.: 107528

RIGHT OF WAY DATA SHEET

PARCEL NO. (GPIN)	LANDOWNER	SHEET NO.	AREA																PROFFERS
			TOTAL	FEE TAKING		PRESCRIPTIVE R/W		FEE REMAINDER		EASEMENTS									
										PERMANENT		UTILITY		TEMPORARY		TEMPORARY(ENTRANCES)			
			ACRES	SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	YES / NO
8291-68-2101	ONKAR, LLC	3	1.14 Acres	0				1.14 Acres						0				NO
8291-67-5692	FCPT RESTAURANT PROPERTIES, LLC	3	2.51 Acres	547				2.50 Acres						370				NO
8291-67-3553	JAY TALPALAR AND BERVERLY TALPALAR	3	0.87 Acres	0				0.87 Acres						249				NO
8291-78-3127	MALL AT POTOMAC MILLS, LLC	3	5.23 Acres	14,320				4.90 Acres						847				NO
8291-77-3982	KAISER FOUNDATION HEALTH PLAN OF THE MIDATLANTIC STATES, INC.	4	5.76 Acres	0				5.76 Acres						343				NO
8291-76-1385	POTOMAC FESTIVAL LIMITED PARTNERSHIP	4	21.96 Acres	0				21.96 Acres						214				NO
8291-67-6639	POTOMAC FESTIVAL II, LLV	4	2.88 Acres	0				2.88 Acres						235				NO

PROJECT	SHEET NO.
EN15-076-108	IC

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Plotted By: fragalec

PROJECT MANAGER GLADIS ARBOLEDA (PWC-DOT)
SURVEYED BY, DATE KEVIN D. NELSON, L.S. (WILLIAM H. GORDON ASSOCIATES, INC.) OCTOBER 2016
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DESIGNED BY TUCKER BUCHANAN, PE (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING, INC., OCTOBER 2016

FINAL PLANS

COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2018.11.02 16:53:03
-04'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	1C(1)

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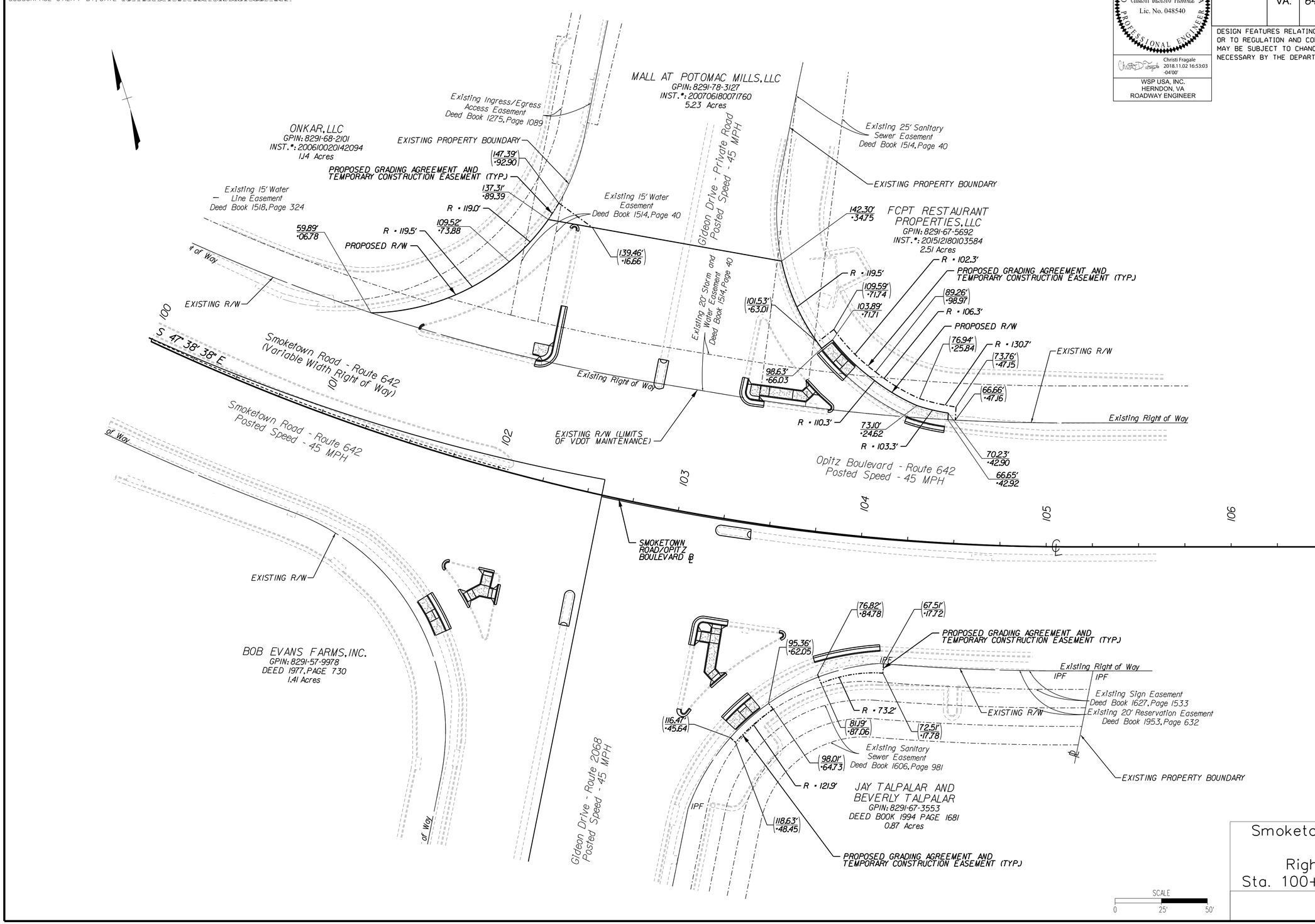

Smoketown Rd./Opitz Blvd.
Route 642
Right Of Way Plan
Sta. 100+00 to Sta. 106+50

PROJECT	SHEET NO.
EN15-076-108	1C(1)

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON, L.S.(WILLIAM H.GORDON ASSOCIATES,INC.), OCTOBER 2016_____
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FINAL PLANS

COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2018.11.02
16:54:09 -04'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	1C(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

MATCHLINE STATION 106+50 (SEE SHEET 1C(1))

WOODBRIDGE COMMONS, LLC
GPIN: 8291-67-7973
INST.#: 201604040023782
1.66 Acres

APPROXIMATE LOCATION OF IMPROVEMENTS AS PROPOSED BY DEVELOPER. SEE WOODBRIDGE COMMONS CORNER (PROJ. PP12013-00661) AND SIGNAL MODIFICATION PLAN (PWC FILE NO. 13-00162R00S07). IT IS ANTICIPATED THAT CONSTRUCTION WILL BE COMPLETE PRIOR TO THE START OF THIS PEDESTRIAN IMPROVEMENT PROJECT.

EXISTING R/W
Existing Right of Way
Existing Right of Way

Opitz Boulevard - Route 642
Posted Speed - 45 MPH

107 108 109 110 111 112 113

S 72° 43' 56" E

Potomac Mills Road - Route 1779
Posted Speed - 25 MPH

KAISER FOUNDATION HEALTH PLAN OF THE MID-ATLANTIC STATES, INC.
GPIN: 8291-77-3982
Deed Book 1659, Page 992
5.76 Acres

Existing
163.92' ∙20.37'
R ∙ 84.8'
162.46' ∙16.50'
PROPOSED GRADING AGREEMENT AND TEMPORARY CONSTRUCTION EASEMENT (TYP.)
146.21' ∙27.24'
123.65' ∙40.57'
R ∙ 114.8'
144.18' ∙23.06'
PROPOSED GRADING AGREEMENT AND TEMPORARY CONSTRUCTION EASEMENT (TYP.)
104.74' ∙61.38'
PROPOSED GRADING AGREEMENT AND TEMPORARY CONSTRUCTION EASEMENT (TYP.)
120.83' ∙37.51'
93.37' ∙82.39'
86.09' ∙04.97'
EXISTING R/W
100.84' ∙58.36'
88.26' ∙80.22'
Existing Right of Way
80.99' ∙03.80'
R ∙ 89.9'

Opitz Boulevard - Route 642
Posted Speed - 45 MPH
Opitz Boulevard - Route 642
(Variable Width Right of Way)

SMOKETOWN ROAD/OPITZ BOULEVARD

EXISTING R/W
Existing Right of Way
77.63' ∙38.14'
91.10' ∙59.91'
69.62' ∙14.61'
74.33' ∙13.48'
Existing 30' Reciprocal Easement Agreement Deed Book 1443, Page 78
R ∙ 73.5'
R ∙ 108.6'
PROPOSED GRADING AGREEMENT AND TEMPORARY CONSTRUCTION EASEMENT (TYP.)
82.00' ∙36.16'
94.48' ∙56.96'
110.56' ∙79.16'
PROPOSED GRADING AGREEMENT AND TEMPORARY CONSTRUCTION EASEMENT (TYP.)
113.41' ∙75.68'
POTOMAC FESTIVAL II, LLV
GPIN: 8291-67-6639
INST.#: 200503040034581
2.88 Acres
Existing 30' Storm Drainage Easement Deed Book 1878, Page 295
Existing Right of Way
Existing Storm Drainage Easement Deed Book 1590, Page 673

Potomac Mills Road - Route 1779
Posted Speed - 25 MPH

R ∙ 84.9'
67.77' ∙23.44'
73.68' ∙98.49'
91.77' ∙66.35'
Existing Right of Way
72.04' ∙23.87'
113.90' ∙45.47'
PROPOSED GRADING AGREEMENT TEMPORARY CONSTRUCTION EASE
94.76' ∙69.03'
77.12' ∙99.41'
R ∙ 113.3'
POTOMAC FESTIVAL LIMITED PARTNERSHIP
GPIN: 8291-76-1385
INST.#: 200112280139130
21.96 Acres
PROPOSED GRADING AGREEMENT AND TEMPORARY CONSTRUCTION EASEMENT (TYP.)
116.25' ∙48.39'
EXISTING R/W
Existing Right of Way

SCALE
0 25' 50'

Smoketown Rd./Opitz Blvd.
Route 642
Right Of Way Plan
Sta. 106+50 to Sta. 113+00

PROJECT	SHEET NO.
EN15-076-108	1C(2)

PROJECT MANAGER_ GLADIS ARBOLEDA _(PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON,LS-(WILLIAM H.GORDON ASSOCIATES,INC.)-OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016.

FINAL PLANS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	ID

DESIGN FEATURES RELATING TO CONSTRUCTION
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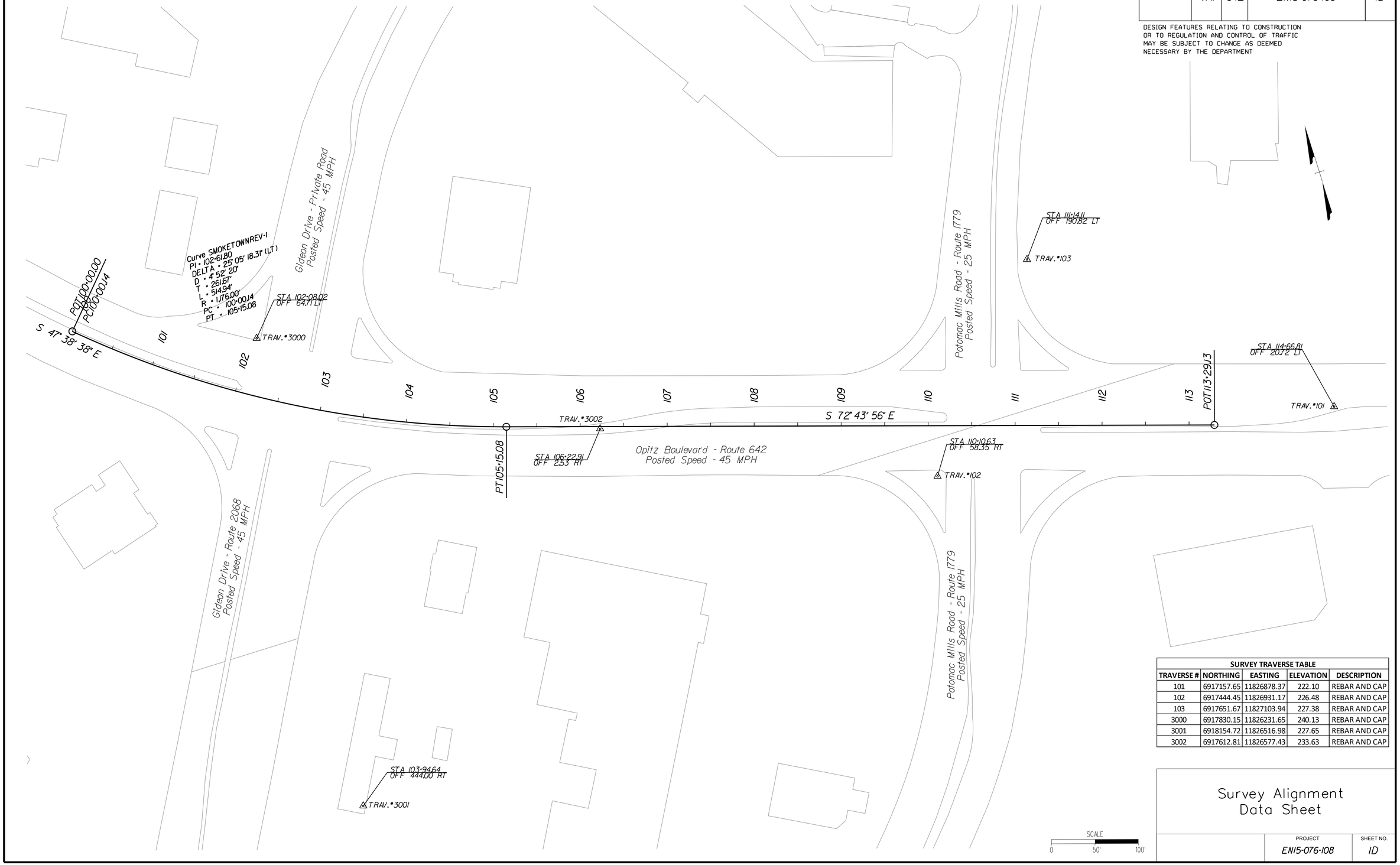

SURVEY TRAVERSE TABLE				
TRAVERSE #	NORTHING	EASTING	ELEVATION	DESCRIPTION
101	6917157.65	11826878.37	222.10	REBAR AND CAP
102	6917444.45	11826931.17	226.48	REBAR AND CAP
103	6917651.67	11827103.94	227.38	REBAR AND CAP
3000	6917830.15	11826231.65	240.13	REBAR AND CAP
3001	6918154.72	11826516.98	227.65	REBAR AND CAP
3002	6917612.81	11826577.43	233.63	REBAR AND CAP

SCALE
0 50' 100'

Survey Alignment Data Sheet

PROJECT	SHEET NO.
EN15-076-108	ID

PROJECT MANAGER_ GLADIS ARBOLEDA _(PNC-DOT)_ _____
SURVEYED BY, DATE _KEVIN D.NELSON,LS-(WILLIAM H.GORDON ASSOCIATES,INC.) OCTOBER 2016_____
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FINAL PLANS

COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2018.03.02
10:04:40 -05'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	1E

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Smoketown Road Construction Baseline

Chain SMOKETOWNREV contains:
STREV1 CUR SMOKETOWNREV-1 STREV2

Beginning chain SMOKETOWNREV description
==========

Point STREV1 N 6,917,901.27 E 11,826,031.87 Sta 100+00.00

Course from STREV1 to PC SMOKETOWNREV-1 S 47° 38' 38.4" E Dist 0.14

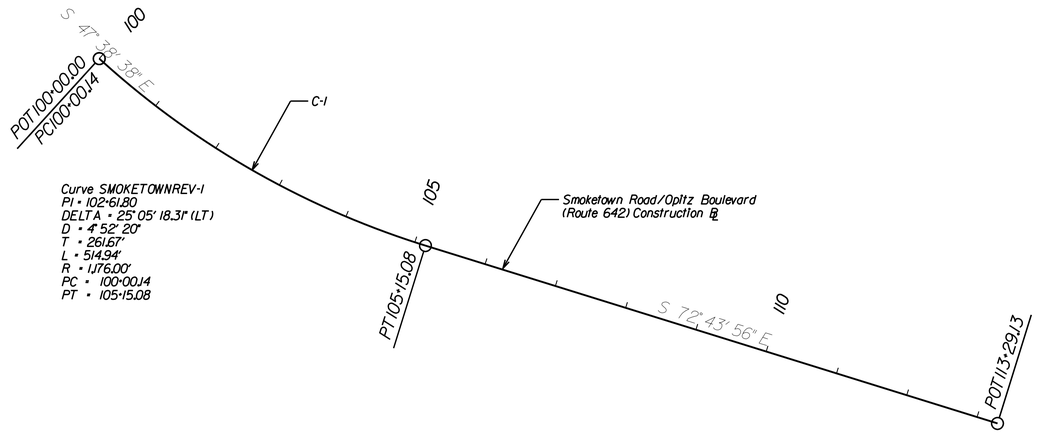
Curve Data

Curve SMOKETOWNREV-1
P.I. Station 102+61.80 N 6,917,724.89 E 11,826,225.34
Delta = 25° 05' 18.3" (LT)
Degree = 4° 52' 19.5"
Tangent = 261.67
Length = 514.94
Radius = 1,176.00
External = 28.76
Long Chord = 510.84
Mid. Ord. = 28.07
P.C. Station 100+00.14 N 6,917,901.18 E 11,826,031.97
P.T. Station 105+15.08 N 6,917,647.21 E 11,826,475.21
C.C. N 6,918,770.21 E 11,826,824.29
Back = S 47° 38' 37.7" E
Ahead = S 72° 43' 56.0" E
Chord Bear = S 60° 11' 16.9" E

Course from PT SMOKETOWNREV-1 to STREV2 S 72° 43' 56.0" E Dist 814.05

Point STREV2 N 6,917,405.57 E 11,827,252.57 Sta 113+29.13

==========



Construction Alignment
Data Sheet

	PROJECT	SHEET NO.
	EN15-076-108	1E

PROJECT MANAGER_ GLADIS ARBOLEDA _(PWC-DOT) _____
SURVEYED BY, DATE _KEVIN D.NELSON,LS-WILLIAM H.GORDON ASSOCIATES,INC.) OCTOBER 2016 _____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.) _____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.) _____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016 .

TRANSPORTATION MANAGEMENT PLAN

COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2020.05.11
15:23:53 -04'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	IG

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

PROJECT DESCRIPTION

SMOKETOWN ROAD/OPITZ BOULEVARD IS A SIX-LANE DIVIDED ROADWAY BETWEEN GIDEON DRIVE AND POTOMAC MILLS ROAD. THIS PROJECT CONSISTS OF PEDESTRIAN IMPROVEMENTS ALONG SMOKETOWN ROAD/OPITZ BOULEVARD AND ADJACENT MEDIAN ISLANDS.

SMOKETOWN ROAD/OPITZ BOULEVARD (ROUTE 642) IS AN URBAN MINOR ARTERIAL WITH A POSTED SPEED LIMIT OF 45 MPH. GIDEON DRIVE AND POTOMAC MILLS ROAD ARE CLASSIFIED AS LOCAL COLLECTORS AND HAVE POSTED SPEED LIMITS OF 45 MPH AND 25 MPH RESPECTIVELY. TRAVELERS INCLUDE COMMUTERS, TOURISTS, RESIDENTS, AND SCHOOL BUSES. THE WORK AREA IS ALONG SMOKETOWN ROAD/OPTIZ BOULEVARD BETWEEN GIDEON DRIVE AND POTOMAC MILLS ROAD.

GIDEON DRIVE NORTH OF OPITZ BOULEVARD IS PRIVATELY MAINTAINED. ALL PROPOSED WORK WILL BE WITHIN PROPOSED RIGHT OF WAY OR GRADING AGREEMENTS AND TEMPORARY CONSTRUCTION EASEMENTS.

SMOKETOWN ROAD/OPITZ BOULEVARD (ROUTE 642) HAS AN ADT (2019) OF 30,000. GIDEON DRIVE HAS AN ADT (2019) OF 26,000 AND POTOMAC MILLS ROAD (ROUTE 1779) HAS AN ADT (2019) OF 5900.

ALLOWABLE CLOSURE HOURS

THE CONTRACTOR SHOULD MAKE EVERY EFFORT TO MAINTAIN THE EXISTING TRAVEL LANES OPEN TO TRAFFIC AT ALL TIMES.

THE CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO LIMIT THE IMPACTS TO TRAFFIC AND THE NEED TO CLOSE LANES. ALL UNFINISHED WORK DURING EACH SHIFT OR NIGHT OF CONSTRUCTION SHALL BE SECURED PRIOR TO THE OPENING TO TRAFFIC. ANY WORK AREAS ADJACENT TO TRAFFIC SHOULD BE HANDLED IN ACCORDANCE WITH THE WORK AREA PROTECTION MANUAL AND PROTECTED AS NEEDED. THE CONTRACTOR MAY SUBMIT AN ALTERNATE METHOD OF PERFORMING THIS WORK FOR APPROVAL BY THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT. IF AN ALTERNATE METHOD OF CONSTRUCTION IS UTILIZED, THIS TMP SHALL BE MODIFIED BY THE CONTRACTOR ACCORDINGLY AND SUBMITTED FOR APPROVAL BY THE ENGINEER.

THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER FOR ANY PLANNED CLOSURE SCENARIO NOT ANTICIPATED BY THIS TRANSPORTATION MANAGEMENT PLAN.

TRAVEL LANES ON SMOKETOWN ROAD/OPITZ BOULEVARD, GIDEON DRIVE AND POTOMAC MILLS ROAD SHALL ONLY BE CLOSED AS DIRECTED BY THE ENGINEER. NO LANE CLOSURES WILL BE ALLOWED ON SMOKETOWN ROAD/OPITZ BOULEVARD, GIDEON DRIVE AND POTOMAC MILLS ROAD EXCEPT AS INDICATED BELOW:

Single-Lane Closures* or Shoulder

ARTERIAL	WEEKDAY		WEEKEND		
	Monday to Thursday	Friday	Friday to Saturday	Saturday to Sunday	Sunday to Monday
Smoketown Road Opitz Boulevard	9:30AM to 3:00PM	9:30AM to 2:00 PM	10:00PM to 9:00AM	10:00PM to 8:00AM	10:00PM to 5:00AM
	10:00PM to 5:00AM				
All Other Roadways	9:00AM to 3:30PM	9:00AM to 2:00 PM	10:00PM to 9:00AM	9:00PM to 9:00AM	10:00PM to 5:00AM
	9:00PM to 5:00AM				

Multiple-Lane Closures

ARTERIAL	WEEKDAY		WEEKEND		
	Monday to Thursday	Friday	Friday to Saturday	Saturday to Sunday	Sunday to Monday
Smoketown Road Opitz Boulevard	10:00PM to 5:00AM	Not before 11:00PM	11:00PM to 5:00AM	11:00PM to 6:00AM	11:00PM to 5:00AM
All Other Roadways	9:00PM to 5:00AM	Not before 10:00PM	10:00PM to 6:00AM	10:00PM to 6:00AM	10:00PM to 5:00AM

PUBLIC COMMUNICATIONS PLAN

THE CONTRACTOR SHALL PROVIDE ADVANCE NOTICE OF ALL CLOSURES TO THE ENGINEER WHO WILL COMMUNICATE WITH THE VDOT NORTHERN VIRGINIA PUBLIC AFFAIRS SECTION, PRINCE WILLIAM COUNTY SUPERVISORS, SCHOOLS, CHURCHES AND HOME OWNER ASSOCIATIONS IN CLOSE PROXIMITY, RADIO AND TELEVISION, EMERGENCY SERVICES, VIRGINIA STATE POLICE, PRINCE WILLIAM COUNTY POLICE, DEPARTMENT OF MOTOR VEHICLES, LOCAL TRUCKERS ASSOCIATIONS AND THE VDOT TRAFFIC OPERATIONS CENTER, AS DETERMINED APPROPRIATE. THIS COMMUNICATION SHALL INCLUDE, AT A MINIMUM, COORDINATION OF PROJECT SCHEDULES, STAGING AREAS, WORK ZONES, CONSTRUCTION ACCESS.

THE CONTACT LIST OF LOCAL EMERGENCY RESPONSE AND OTHER AGENCIES INCLUDES:

- POLICE / AMBULANCE / FIRE SAFETY / HAZMAT SPILLS - (911)
- VIRGINIA STATE POLICE (703) 791-3101
- PRINCE WILLIAM COUNTY POLICE, EASTERN DISTRICT (703) 792-7200
- PRINCE WILLIAM COUNTY FIRE DEPARTMENT (703) 792-6800
- TRAFFIC OPERATIONS CENTER (703) 877-3450
- VIRGINIA DEPARTMENT OF TRANSPORTATION, NORTHERN VIRGINIA DISTRICT OFFICE (703) 259-2319
- MISS UTILITY (811)

GENERAL NOTES

1. THE CONTRACTOR SHALL PLAN AND PROSECUTE THE WORK IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION APPROVED BY THE ENGINEER.

2. THE TRANSPORTATION MANAGEMENT PLAN AND TEMPORARY TRAFFIC CONTROL / SEQUENCE OF CONSTRUCTION (TMP/TTC) IS INTENDED AS A GUIDE. IT IS NOT TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE OR STAGE, BUT ONLY TO SHOW THE GENERAL HANDLING OF EXISTING TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PRESENT A FORMAL TMP/TTC TO THE ENGINEER FOR APPROVAL PRIOR TO ANY CONSTRUCTION THAT MAY AFFECT THE EXISTING TRAFFIC.

3. THE TMP/MOT, DURING CONSTRUCTION, SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS; THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD); THE VIRGINIA SUPPLEMENT TO THE MUTCD; AND THE VIRGINIA WORK AREA PROTECTION MANUAL.

4. THE CONTRACTOR WILL SUBMIT TRAFFIC CONTROL PLANS TO VDOT FOR APPROVAL. THE CONTRACTOR SHOULD REFER TO VIRGINIA'S WORK AREA PROTECTION MANUAL, SPECIFICALLY THE FOLLOWING STANDARDS:
TTC-1.1 - WORK BEYOND THE SHOULDER OPERATION
TTC-4.2 - STATIONARY OPERATION ON A SHOULDER
TTC-5.2 - SHOULDER OPERATION WITH MINOR ENCROACHMENT
TTC-16.2 - OUTSIDE LANE CLOSURE OPERATION ON A FOUR-LANE ROADWAY
TTC-26.2 - LANE CLOSURE OPERATION - NEAR SIDE OF AN INTERSECTION
TTC-27.21 - LANE CLOSURE OPERATION - FAR SIDE OF AN INTERSECTION
TTC-28.2 - LANE CLOSURE OPERATION IN AN INTERSECTION
TTC-29.2 - TURN LANE CLOSURE OPERATION
TTC-35.1 - SIDEWALK CLOSURE AND BYPASS SIDEWALK OPERATION
TTC-53.0 - SIGNING FOR PROJECT LIMITS

5. THE CONTRACTOR SHALL MAINTAIN ALL SIGNAGE WITH THE LIMITS OF CONSTRUCTION, SHOWN OR OTHERWISE, UNLESS DIRECTED BY THE ENGINEER. IF REMOVAL IS ALLOWED, CONTRACTOR SHALL STORE THE SIGNS PER VDOT STANDARDS, AND IF DIRECTED, REPLACE THEM AT THE COMPLETION OF THE PROJECT.

6. ALL VEHICLES SHALL BE EQUIPPED WITH AT LEAST ONE ROTATING OR TWO HIGH INTENSITY AMBER LIGHTS. THE LIGHT SHALL ONLY BE DISPLAYED WHEN THE VEHICLE IS ENTERING THE WORK AREA FROM THE TRAVEL LANE AND IT SHOULD BE CLEARLY VISIBLE TO VEHICLES FOLLOWING.

7. TEMPORARY LANE WIDTHS SHALL NOT BE LESS THAN 11'.

8. EXISTING SURFACE, AGGREGATE BASE AND SUBBASE MATERIAL, WHICH WILL BE DEMOLISHED OR OBLITERATED DURING CONSTRUCTION AND WHICH IS SUITABLE FOR MAINTENANCE OF TRAFFIC, AS DETERMINED BY THE ENGINEER, SHALL BE SALVAGED AND UTILIZED FOR MAINTENANCE OF TRAFFIC PRIOR TO THE USE OF COMMERCIAL MATERIALS. WHEN NOT SPECIFIED AS A SEPARATE PAY ITEM, THE REMOVAL AND SALVAGING OF EXISTING SURFACES AND AGGREGATE BASE AND SUBBASE MATERIAL WILL BE MEASURED AND PAID FOR AS REGULAR EXCAVATION IN ACCORDANCE WITH SECTION 303 OF THE SPECIFICATION.

9. THE CONTRACTOR SHALL STORE ALL EQUIPMENT AND/OR MATERIALS BEYOND THE ESTABLISHED CLEAR ZONE OF THE TRAVEL LANES, AND/OR THE DEFLECTION ZONE OF PHYSICAL BARRIERS.

10. ALL TRAFFIC CONTROL DEVICES AND SIGNS NECESSARY FOR THE MAINTENANCE OF TRAFFIC ARE TO BE INSTALLED, MAINTAINED AND REMOVED BY THE CONTRACTOR.

11. WHEN STATE POLICE PRESENCE IS REQUIRED FOR A LANE CLOSURE OPERATION, THE ENGINEER SHALL CONTACT THE VIRGINIA STATE POLICE AREA 11 OFFICE, 14420 INDEPENDENT HILL DRIVE, MANASSAS, VIRGINIA 20112 (TELEPHONE: 703-791-3101) TO REQUEST STATE POLICE SUPPORT AND GIVE THE STATE POLICE A MINIMUM OF 5 DAYS ADVANCE NOTICE. THE ENGINEER SHALL NOTIFY THE STATE POLICE OF ANY CANCELLATION AT LEAST 24 HOURS IN ADVANCE TO AVOID ADDITIONAL CHARGES.

12. THE CONTRACTOR SHALL SUBMIT A REQUEST FOR ALL LANE CLOSURES TO VDOT 10 DAYS IN ADVANCE OF THE CLOSURE.

13. THE CONTRACTOR SHALL SCHEDULE ALL PHASES OF CONSTRUCTION IN SUCH MANNER THAT WATER, SEWER, CABLE, POWER, ANY OVERHANGING UTILITY AND ANY UNDERGROUND UTILITY SERVICES WILL NOT BE INTERRUPTED. THE COST OF ANY TEMPORARY CONNECTION, IN PART OR WHOLE, SHALL BE INCIDENTAL TO THE UTILITY RELOCATION/CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE HIS UTILITY ADJUSTMENTS/RELOCATION ACTIVITIES WITH THE OWNER OF THE UTILITY.

14. THE CONTRACTOR IS TO ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. ADDITIONAL TEMPORARY MEASURES MAY BE NEEDED TO FACILITATE PROPER POSITIVE DRAINAGE. ADDITIONAL ITEMS REQUIRED TO ENSURE POSITIVE DRAINAGE SHALL NOT BE MEASURED FOR SEPARATE PAYMENT AND THE COST SHALL BE INCIDENTAL TO OTHER WORK ITEMS.

15. DISPOSAL SITE AND STAGING AREA LOCATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO WORK SHALL BE PERFORMED UNTIL SUCH SITES HAVE BEEN ACCEPTED BY THE ENGINEER. THE SITES CANNOT BE PLACED ON ANY WETLANDS, E&S SEDIMENT BASINS/TRAPS, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS.

16. NO OPEN CUTS ALONG EDGES OF PAVEMENT SHALL REMAIN AT THE END OF ANY WORK DAY, WHICH MAY BE NECESSARY FOR THE PURPOSE OF PAVEMENT WIDENING OR OTHER CONSTRUCTION ACTIVITIES.

GENERAL NOTES (cont.)

17. THE CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING ENTRANCES DURING CONSTRUCTION WITH DRUMS OR OTHER CHANNELIZING DEVICES AS DIRECTED BY THE ENGINEER.

18. PAVEMENT MARKINGS IN CONFLICT WITH THE LANE CONFIGURATIONS DURING CONSTRUCTION SHALL BE COVERED WITH NON-REFLECTIVE REMOVABLE BLACK TAPE.

19. THE CONTRACTOR SHALL MAINTAIN SAFE PASSAGE FOR PEDESTRIANS AND BICYCLISTS DURING CONSTRUCTION WHERE EXISTING FACILITIES ARE PRESENT.

20. FOR CLEAR ZONE AND DROP OFF REQUIREMENTS, REFER TO THE LATEST EDITI ON OF THE VIRGINIA WORK AREA PROTECTION MANUAL.

21. TTC/MOT ITEMS REQUIRED PER WAPM FOR THE REPLACEMENT OF THE EXISTING TRAFFIC SIGNAL LOOP DETECTORS AND MILL & OVERLAY OPERATIONS (SUCH AS CONSTRUCTION SIGNS, CHANNELIZING DEVICES, TMA, ETC) SHALL NOT BE MEASURED FOR SEPARATE PAYMENT AND THE COST SHALL BE INCIDENTAL TO OTHER WORK ITEMS.

22. THE LOCATION OF EXISTING FEATURES AND DIMENSIONS SHOWN ON THESE PLANS BEYOND LIMITS OF THE PROJECT SURVEY IS APPROXIMATE.

23. ALL CONSTRUCTION SIGNS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING FURNISHING, INSTALLING, ADJUSTING, MAINTAINING, AND REMOVING THE SIGNS AND POSTS PER THE SPECIFICATIONS AND STANDARD DETAILS. IF THE SIGNS ARE NOT SETUP AS A PAY ITEM, THEY SHALL BE CONSIDERED INCIDENTAL TO THE PRICE OF OTHER ITEMS.

24. ANY EXISTING REGULATORY SIGNS THAT CONFLICT WITH CONSTRUCTION SIGNS SHALL BE COVERED DURING TEMPORARY TRAFFIC CONTROL. THE COST OF COVERING THE EXISTING SIGNS SHALL BE INCIDENTAL AND INCLUDED IN THE PRICE BID FOR CONSTRUCTION SIGNS.

25. TEMPORARY ITEMS REQUIRED TO SAFELY REOPEN THE WORK AREA TO TRAFFIC WHEN WORK IS NOT YET COMPLETE, INCLUDING BUT NOT LIMITED TO CONSTRUCTION PAVEMENT MARKINGS, DELINEATORS, ASPHALT WEDGES, ADDITIONAL PLANING, CONSTRUCTION SIGNS (SUCH AS UNEVEN LANES, BUMP, ETC) SHALL NOT BE MEASURED FOR SEPARATE PAYMENT AND THE COST SHALL BE INCIDENTAL TO OTHER WORK ITEMS.

26. TRAFFIC CONTROL DEVICES SHALL NOT OBSTRUCT SIGHT DISTANCE.

27. EQUIPMENT AND VEHICLES PARKED ON THE CONSTRUCTION SITE SHALL NOT IMPEDE TRAFFIC FLOW OR OBSTRUCT SIGHT DISTANCE.

28. THE CONTRACTOR SHALL STORE ALL EQUIPMENT AND/OR MATERIALS OUTSIDE THE ESTABLISHED CLEAR ZONE OF THE TRAVEL LANES, AND/OR THE DEFLECTION ZONE OF PHYSICAL BARRIERS.

29. THE CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS DURING BOTH WORK AND NON-WORK HOURS TO ENSURE THE PROTECTION AND SAFETY OF THE ADJACENT PROPERTY OWNERS, PEDESTRIANS, VEHICULAR TRAFFIC, AND THE GENERAL PUBLIC FROM ANY CONSTRUCTION RELATED ACTIVITY, CONSTRUCTION EQUIPMENT, AND THE CONSTRUCTION SITE ITSELF.

SEQUENCE OF CONSTRUCTION NARRATIVE

THE PROJECT WORK REQUIRED INCLUDES BUILDING SIDEWALK BEHIND EXISTING CURB AND GUTTER, CONSTRUCTING CUT-THROUGHS AND RAMPS THROUGH EXISTING MEDIAN ISLANDS, DEMOLISHING AND PARTIALLY REBUILDING EXISTING MEDIAN ISLAND NOSES, INSTALLING TRAFFIC AND PEDESTRIAN SIGNAL POLES AND EQUIPMENT, AND REMOVING EXISTING SUBSTANDARD CURB RAMPS IN THE PROJECT AREA.

CONTRACTOR TO INSTALL E&S MEASURES PER THE E&S PLANS PRIOR TO COMMENCING WORK. ADDITIONALLY, CONTRACTOR TO UTILIZE THE TTC FIGURES INCLUDED ON THE FOLLOWING SHEETS TO IMPLEMENT THE LANE CLOSURES NEEDED TO CONSTRUCT THE IMPROVEMENTS. AFTER CONSTRUCTION OF THE IMPROVEMENTS, THE PROJECT AREA WILL BE MILLED AND OVERLAYED PER THE PLANS, AND PAVEMENT MARKINGS WILL BE INSTALLED PER THE SIGNING AND PAVEMENT MARKING PLANS, UPON APPROVAL FROM THE INSPECTOR, ALL TRAFFIC CONTROL AND E&S SHALL BE REMOVED.

Commonwealth of Virginia
Virginia Department of Transportation
VDOT

VERIFICATION OF COMPLETION OF
ADVANCE WORK ZONE TRAFFIC CONTROL TRAINING

This is to verify that **Christi Fragale** has successfully completed training and an examination by the Department on the proper practices and methods for the installation, maintenance and removal of temporary traffic control devices.

Date: 4/7/2017

R J Khoury
State Traffic Engineer

Verification No. : 040717757

Expiration Date: 4/30/2021

Transportation Management Plan

	PROJECT	SHEET NO.
	EN15-076-108	IG

PROJECT MANAGER_ GLADIS ARBOLEDA _(PNC-DOT)_ _____
SURVEYED BY, DATE _KEVIN D.NELSON,LS-(WILLIAM H.GORDON ASSOCIATES,INC.)OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016.

Typical Traffic Control
Work Beyond the Shoulder Operation
(Figure TTC-1.1)
NOTES

Guidance:

1. *The minimum distance between the sign and work vehicle should be 1300'-1500' on Limited Access highways, and on all other roadways 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limited is 45 mph or less.*

Option:

2. The ROAD WORK AHEAD (W20-1) sign may be replaced with other appropriate signs such as the SHOULDER WORK (W21-5) sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.
3. The ROAD WORK AHEAD sign may be omitted where the work space is behind a barrier, more than 4 feet behind vertical curb (Standard CG-2 and CG-6) on urban roadways, or outside of the clear zone for all other roadways. For clear zone values see Page A-4 of Appendix A.
4. For short-term, short duration or mobile operations[2], all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating, flashing, or[1] oscillating lights is used.

Standard:

5. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[1] oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating lights.**
6. **If the work space is in the median of a divided highway, an advance warning sign shall also be placed on the left side of the directional roadway.**

1: Revision 1 – 4/1/2015

Typical Traffic Control
Stationary Operation on a Shoulder
(Figure TTC-4.2)
NOTES

Standard

1. **For long-term stationary work (more than 3 days) on divided highways having a median wider than 8', sign assemblies on both sides of the roadway shall be required as shown (ROAD WORK AHEAD (W20-1), RIGHT SHOULDER CLOSED AHEAD (W21-5bR), RIGHT SHOULDER CLOSED (W21-5aR)[1]), even though only one shoulder is being closed. For operations less than 3 days in duration, sign assemblies will only be required on the side where the shoulder is being closed.**

Guidance

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*

Option:

3. The SHOULDER WORK (W21-5) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
4. For short duration operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating, flashing, or[1] oscillating lights is used.

Standard:

5. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[1] oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or[1] oscillating, lights.**
6. **Taper length (L) shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S²W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S²W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S²W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S²W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Limited Access highways shall use a 1000' merging taper regardless of the posted speed, for shifting taper see Table 6H-2[2]

Shoulder Taper = ⅓ L Minimum

7. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

8. **On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.**
9. **The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
10. **A truck-mounted attenuator (TMA) shall be used on the shadow vehicle on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph for operations with a duration greater than 60 minutes.**
11. **When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.**

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Typical Traffic Control
Shoulder Operation with Minor Encroachment
(Figure TTC-5.2)
NOTES

Standard

1. **For required sign assemblies for multi-lane roadways see Note 1, TTC-4.[1]**

Guidance

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When work takes up part of a lane on a high volume roadway; vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.*

Option:

4. The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.

Standard:

5. **A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, or[1] oscillating light shall be parked 80' - 120' in advance of the first work crew.**
6. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[1] oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or[1] oscillating lights.**
7. **Taper length (L) and channelizing device spacing shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S²W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S²W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S²W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S²W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Limited Access highways shall use a 1000' merging taper regardless of the posted speed, a 750' shifting taper for posted speeds < 65 mph and a 1000' shifting taper for posted speeds ≥ 65 mph.[2]

Shoulder Taper = ⅓ L Minimum

8. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

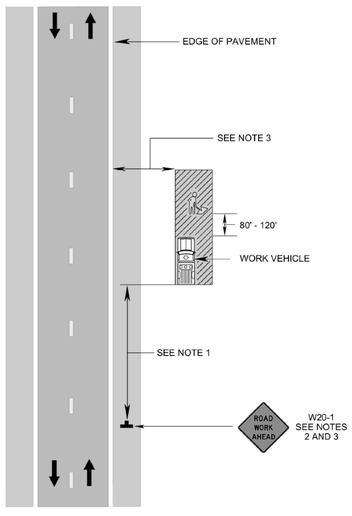
Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

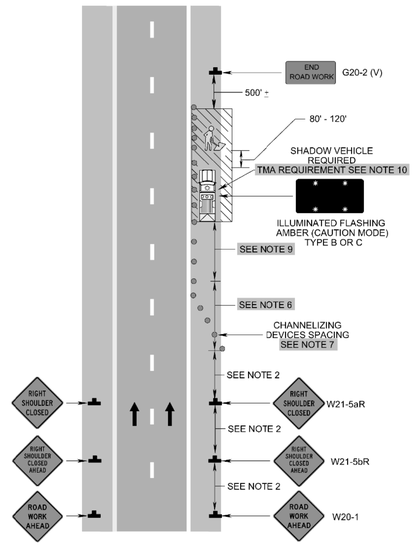
9. **On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.[2]**
10. **The buffer space length The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
11. **A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.**
12. **When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.**

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Work Beyond the Shoulder Operation
(Figure TTC-1.1)

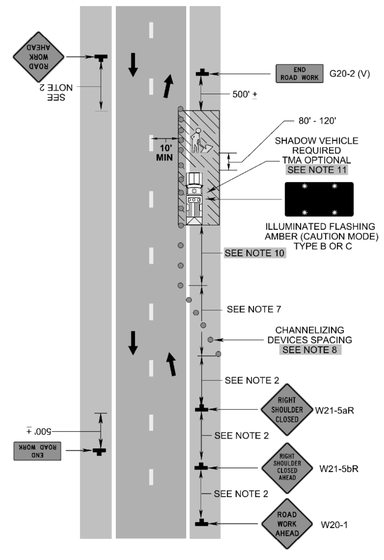


Stationary Operation on a Shoulder
(Figure TTC-4.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Shoulder Operation with Minor Encroachment
(Figure TTC-5.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	IH(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SMOKETOWN DRIVE/ OPITZ BOULEVARD (ROUTE 642)

SPEED LIMIT: 45 MPH

ADVANCE WARNING SIGNS:
- SPACING: 350' - 500'

TRANSITION AREA - LANE TAPER: 540'
CHANNELIZING DEVICE SPACING:
TRANSITION SPACING = 40'
TRAVELWAY SPACING = 80'

BUFFER AREA: 360' - 380'

TOTAL NUMBER OF LANES: 6

GIDEON DRIVE (PRIVATE ROAD)

SPEED LIMIT: 45 MPH

ADVANCE WARNING SIGNS:
- SPACING: 350' - 500'

TRANSITION AREA - LANE TAPER: 540'
CHANNELIZING DEVICE SPACING:
TRANSITION SPACING = 40'
TRAVELWAY SPACING = 80'

BUFFER AREA: 360' - 380'

TOTAL NUMBER OF LANES: 5

POTOMAC MILLS ROAD (ROUTE 1779)

SPEED LIMIT: 25 MPH

ADVANCE WARNING SIGNS:
- SPACING: 100' - 200'

TRANSITION AREA - LANE TAPER: 125'
CHANNELIZING DEVICE SPACING:
TRANSITION SPACING = 20'
TRAVELWAY SPACING = 40'

BUFFER AREA: 155' - 165'

TOTAL NUMBER OF LANES: 4

Temporary Traffic Control Detail Sheet

PROJECT	SHEET NO.
EN15-076-108	IH(1)

PROJECT MANAGER_ GLADIS ARBOLEDA _(PNC-DOT)_ _____
SURVEYED BY, DATE _KEVIN D.NELSON,LS-WILLIAM H.GORDON ASSOCIATES,INC.)OCTOBER, 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER, 2016 .

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	IH(2)

DESIGN FEATURES RELATING TO CONSTRUCTION
OR TO REGULATION AND CONTROL OF TRAFFIC
MAY BE SUBJECT TO CHANGE AS DEEMED
NECESSARY BY THE DEPARTMENT

Typical Traffic Control
Outside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-16.2)
NOTES

Standard:

1. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**

Guidance:

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When closing a lane, a PCMS should be used in advance of the first warning sign if all of the left side signs cannot be installed.*[2]
4. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.*
5. *All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.*

Standard:

6. **Taper length (L) and channelizing device spacing shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	85	105	115	125	L=S²W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S²W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S²W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S²W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Limited Access highways shall use a 1000' merging taper regardless of the posted speed.
Shifting Tapers see Table 6H-2[2] | Shoulder Taper = ⅓ L Minimum

7. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	* Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

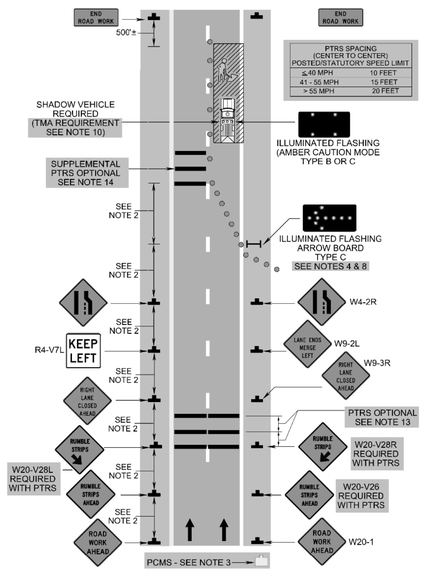
8. **An arrow board shall be used when a lane is closed. When more than one lane is closed, a separate arrow board shall be used for each closed lane (see Figure TTC-18).**
9. **The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
10. **A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, flashing, or[1] oscillating light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-mounted attenuator shall be used.**
11. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[2] oscillating lights but can be used to supplement the amber rotating, flashing, or[1] oscillating lights.**
12. **When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.**

Option:[2]

13. PTRS and their supporting signs may be used, see Sections 6F.99 and 6G.25. Long-term transverse rumble strips may be used in long-term situations, see Section 6F.99 and TTC-20.[2]
14. The supplemental PTRS may be eliminated.[2]

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Outside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-16.2)



2: Revision 2 – 9/1/2019

Typical Traffic Control
Lane Closure Operation – Near Side of an Intersection
(Figure TTC-26.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **Taper length (L) shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S²W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S²W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S²W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S²W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Shifting Tapers - full lane width shifts on Limited Access Highways shall use a 750' shifting taper for posted speeds less than 65 mph and a 1000' shifting taper for posted speeds equal to or greater than 65 mph. For all other roadways ⅔ L should be used.[2]
Shoulder Taper = ⅓ L Minimum

4. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

Guidance:

5. *If room permits, a shadow vehicle with at least one rotating, oscillating, or amber strobe light should be parked 80'-120' in advance of the first work crew.*

Standard:

6. **If the posted speed limit is 45 mph or greater, the shadow vehicle shall have a truck-mounted attenuator.**
7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or two high intensity amber flashing or oscillating[1] lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Standard:

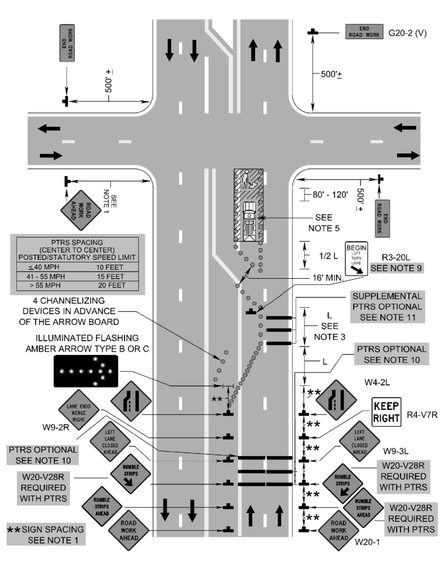
9. **If the left turn lane is closed a NO LEFT TURN (Symbol) (R3-2) shall be used.**

Option:[2]

10. PTRS may be used as shown in Figure TTC-17 and in accordances with Section 6F-99.[2]
11. The supplemental PTRS may be eliminated.[2]

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Lane Closure Operation - Near Side of an Intersection
(Figure TTC-26.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Typical Traffic Control
Lane Closure Operation – Far Side of an Intersection
(Figure TTC-27.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **Taper length (L) shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S²W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S²W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S²W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S²W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Shifting Tapers - full lane width shifts on Limited Access Highways shall use a 750' shifting taper for posted speeds less than 65 mph and a 1000' shifting taper for posted speeds equal to or greater than 65 mph. For all other roadways ⅔ L should be used.[2]
Shoulder Taper = ⅓ L Minimum

4. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

Guidance:

5. *If room permits, a shadow vehicle with at least one amber[2] rotating, oscillating, or high intensity flashing[1] light should be parked 80'-120' in advance of the first work crew.*

Standard:

6. **If the posted speed limit is 45 mph or greater, the shadow vehicle shall have a truck-mounted attenuator.**
7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or high intensity amber flashing or oscillating[1] lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Standard:

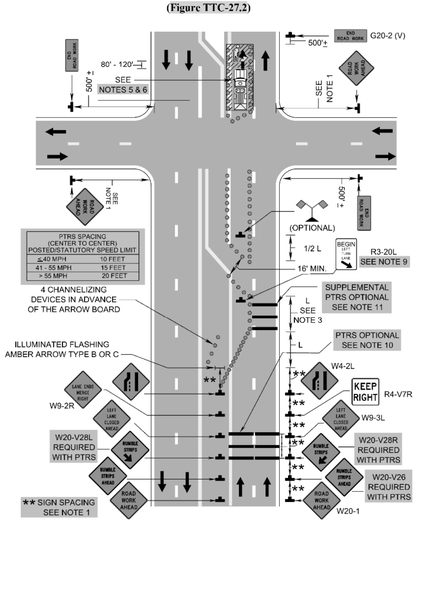
9. **If the left turn lane is closed a NO LEFT TURN (Symbol) (R3-2) shall be used.**[1]

Option:[2]

10. PTRS may be used as shown in Figure TTC-17 and in accordances with Section 6F-99.[2]
11. The supplemental PTRS may be eliminated.[2]

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Lane Closure Operation - Far Side of an Intersection
(Figure TTC-27.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Temporary Traffic Control Detail Sheet

PROJECT	SHEET NO.
EN15-076-108	IH(2)

PROJECT MANAGER_ GLADIS ARBOLEDA (PNC-DOT) _____
SURVEYED BY, DATE _KEVIN D.NELSON,LS-WILLIAM H.GORDON ASSOCIATES,INC.)OCTOBER 2016 _____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.) _____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.) _____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016 .

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	1H(3)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Typical Traffic Control
Lane Closure Operation in an Intersection
(Figure TTC-28.2)
NOTES

Guidance:

1. *The control of traffic through the intersection in order of preference should be:*
   a. *Obtain the services of law enforcement personnel.*
   b. *Detour the effective routes to other roads and streets as approved and directed by the District[1] Traffic Engineer.*
   c. *Place a state certified flagger on each leg of the intersection controlling a single lane of traffic.*

   Appropriate signing as shown should be used for law enforcement and flagging operations. For detour signs see Figure TTC-34.
2. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*
3. *To maintain efficient traffic flow in a flagging operation on a two-lane roadway the maximum time motorist should be stopped at a flagger station is 8 minutes for high volume roadways (average daily traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than 500 vehicles per day). For additional information see Section 6E.07.*[2]

Standard:

4. **Channelizing device spacing shall be on 20' centers or less.**
5. **PTRS shall be used as noted in Section 6F.99.**

Guidance:

6. *If room permits, a shadow vehicle with at least one rotating amber light or high intensity amber flashing or oscillating[1] light should be parked 80'-120' in advance of the first work crew.*

Standard:

7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or high intensity amber flashing or oscillating[1] lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

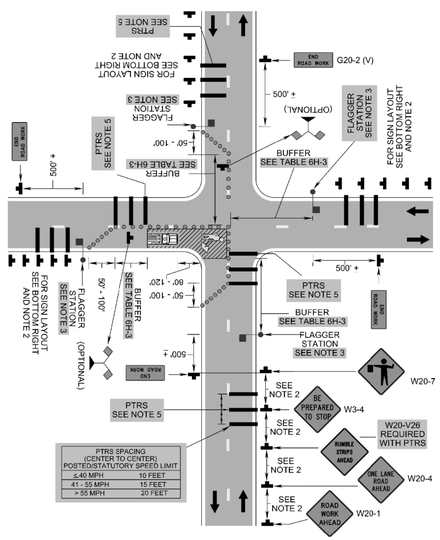
8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Support:

9. Turns can be prohibited as required by vehicular traffic conditions. Unless the streets are wide, it might be physically impossible to make certain turns, especially for large vehicles.

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Lane Closure Operation in an Intersection
(Figure TTC-28.2)



2: Revision 2 – 9/1/2019

Typical Traffic Control
Turn Lane Closure Operation
(Figure TTC-29.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **To prevent accidental intrusion into the work area, channelizing device spacing shall not exceed 10' on centers or as directed by the Engineer**[2]

Option:

4. This layout may be used for either right or left turn lane closures.
5. For a high volume of turning movements, additional traffic control devices, such as signs (graphic NO LEFT TURN (R3-2) or LEFT LANE MUST TURN LEFT (R3-7L)), channelizing devices and vehicles may be used.

Standard:

6. **Taper length (L) shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S*W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S*W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S*W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Shoulder Taper = ⅓ L Minimum

7. **Length of the Longitudinal Buffer spacing shall be at the following:**

Posted Speed Limit (mph)	Distance (Feet)	Posted Speed Limit (mph)	Distance (Feet)
≤ 20	115 – 120	50	425 – 445
25	155 – 165[1]	55	500 – 530[1]
30	200 – 210	60	570 – 600[1]
35	250 – 260	65	645 – 675
40	305 – 325[1]	70	730 – 760
45	360 – 380		

Guidance:

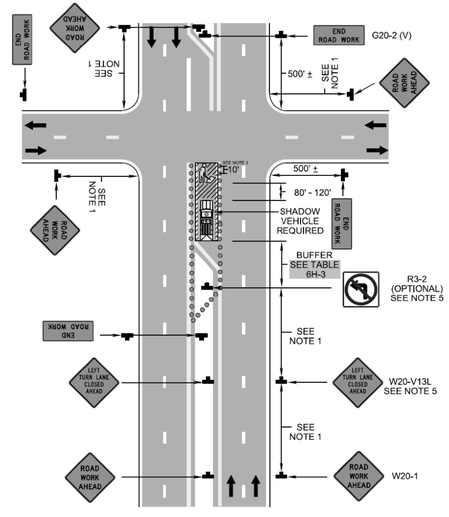
8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Support:

9. Turns can be prohibited as required by vehicular traffic conditions. Unless the streets are wide, it might be physically impossible to make certain turns, especially for large vehicles.

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Turn Lane Closure Operation
(Figure TTC-29.2)



2: Revision 2 – 9/1/2019

Typical Traffic Control
Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.1)
NOTES

Standard:

1. **When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.**

Guidance:

2. *Where high speeds are anticipated, a temporary traffic barrier and, if necessary, a crash cushion should be used to separate the temporary sidewalks from vehicular traffic.*
3. *Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.*
4. *Temporary markings should be considered for operations exceeding three days in duration.*

Option:

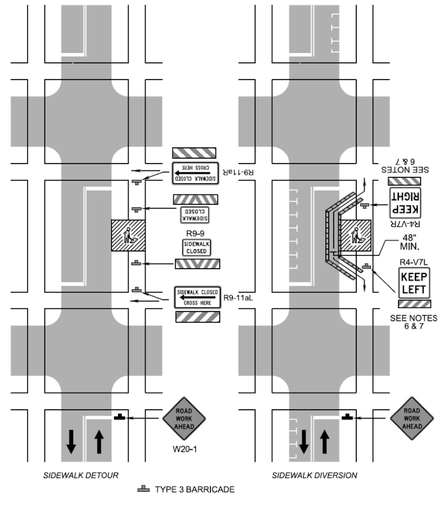
5. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
6. For nighttime closures, Type A Flashing warning lights may be used on barricades that support signs and close sidewalks.
7. Signs, such as KEEP RIGHT (R4-V7R) and KEEP LEFT (R4-V7L), may be placed along a temporary sidewalk to guide or direct pedestrians.

Standard:

8. **All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.**[2]

2: Revision 2 – 9/1/2019

Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.1)



2: Revision 2 – 9/1/2019

Temporary Traffic Control Detail Sheet

PROJECT	SHEET NO.
EN15-076-108	1H(3)

PROJECT MANAGER GLADIS ARBOLEDA (PWC-DOT)
SURVEYED BY, DATE KEVIN D.NELSON,L.S.(WILLIAM H.GORDON ASSOCIATES,INC.) OCTOBER 2016
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC., OCTOBER 2016

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	IH(4)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Typical Traffic Control
Signing for Project Limits
(Figure TTC-53.0)
NOTES

Support:

1. This layout depicts signing requirements for notifying motorist when they are entering and exiting a potential construction/maintenance area with a duration equal to or greater than 60 days.

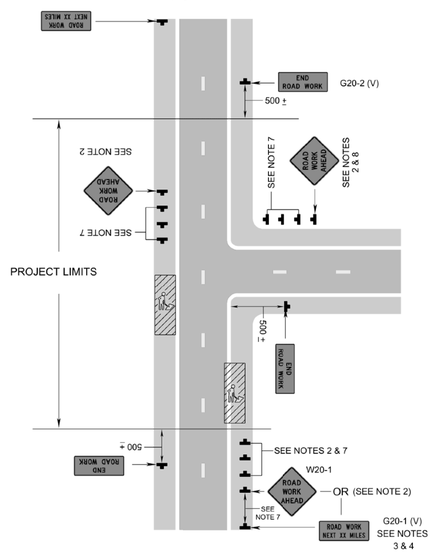
Standard:

2. **The ROAD WORK AHEAD (W20-1) sign or the ROAD WORK NEXT XX MILES (G20-1 (V)) sign shall be placed far enough in advance of the project limits so that other warning signs in a series may be adequately placed prior to the condition they are warning about.**
3. **The ROAD WORK NEXT XX MILES sign shall be used for projects with activity areas greater than 2 miles in length, or when multiple work activities (such as pavement patching, guardrail installations, shoulder restoration, etc.) occur along a highway.**
4. **The distance displayed on the ROAD WORK NEXT XX MILES sign shall be stated to the nearest whole mile from the point of installation to the END ROAD WORK (G20-2 (V)) sign.**
5. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**

Guidance:

6. *For projects with activity areas 2 miles or less in length, the ROAD WORK AHEAD sign should be the first sign motorist encounter.*
7. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
8. *All connections within the project limits should be identified with signs indicating to motorist they are entering or exiting a potential construction/maintenance area.*

Signing for Project Limits
(Figure TTC-53.0)



Temporary Traffic Control Detail Sheet

PROJECT	SHEET NO.
EN15-076-108	IH(4)

PROJECT MANAGER_ GLADIS ARBOLEDA _(PWC-DOT)_ _____
SURVEYED BY, DATE _KEVIN D.NELSON,LS-WILLIAM H.GORDON ASSOCIATES,INC.)OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016 .

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	2

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

GENERAL NOTES

GRADING

G-1 The grade line denotes top of finished pavement unless shown otherwise on typical sections or plans.

G-3 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction. Payment will be made only for quantities actually moved.

G-4 The cost of removal of all existing concrete items located in the area to be graded, including, but not limited to the following, shall be included in the price bid for regular excavation: curb, sidewalk, foundations

DRAINAGE

D-1 The horizontal location of all drainage structures shown on these plans is approximate only, with the exception of structures showing specific stations, special design bridges and storm sewer systems.

D-2 The horizontal location and invert elevations shown for proposed culverts and storm sewer outfall pipes are based on existing survey data and required design criteria. If during construction, it is found that the horizontal location or invert elevations shown on the plans differ significantly from the horizontal location or elevations of the stream or swale in which the culvert or storm sewer outfall pipe is to be placed, the Engineer shall confer with, and get approval from, the applicable District Drainage Engineer before installing the culvert or storm sewer outfall pipe.

D-3 The "H" dimensions shown on plans for drop inlets and junction boxes and the "L.F." dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F." dimensions are to be determined by the contractor from field conditions.

D-13 Existing drainage facilities being utilized as a part of the drainage system, and designated on the plans "To Be Cleaned Out" shall be cleaned as directed by the Engineer. The cost incidental to this shall be included in the contract price for other items.

D-14 Proposed drop inlets with a height (H) less than the standard minimum shown in the VDOT Road and Bridge Standards shall be considered and paid for as Standard Drop Inlets for the type specified. Pipes with less than standard minimum finished height of cover shall be noted as such in the drainage description for the pipe. Specific pipe bedding and cover requirements are provided in the applicable PB-1 and PC-1 standard drawings of the VDOT Road and Bridge Standards.

D-16 When CG-6 or CG-7 is specified on a radius (such as at a street intersection), the Engineer may approve a decrease in the cross slope of the gutter to facilitate proper drainage.

PAVEMENT

P-2 The pavement materials on this project will be paid for on a tonnage basis. The weight will vary in accordance with the specific gravity of the aggregates and the asphaltic content of the mix actually used to secure the design depth. The weight of the asphalt concrete is based on 95% of the theoretical maximum density.

INCIDENTALS

I-8A Clearing and grubbing shall be confined to those areas needed for construction. No trees or shrubs in ungraded areas shall be cut without the permission of the Engineer.

I-16 The "underground utilities" survey data on this project has been provided by consultant and copies are available from the Department.

I-18 All pavement markings and traffic flow arrows shown on the roadway construction plans are schematic only. The actual location and application of pavement markings shall be in accordance with Section 704 of the applicable VDOT Road and Bridge Specifications, MUTCD, sequence of construction/ traffic control plans, pavement marking plan sheets 6A thru 6B and as directed by the Engineer.

I-19 The following outside sources, under contract with Prince William County, have provided information on this project.

Hydraulic Design	-	WSP USA, Inc.
Roadway Design	-	WSP USA, Inc.
Utility Designation	-	William H. Gordon Associates, Inc.
Utility Location	-	William H. Gordon Associates, Inc.
Survey	-	William H. Gordon Associates, Inc.

If questions or problems arise during construction, please contact the Area Construction Engineer. DO NOT CONTACT THE OUTSIDE SOURCES.

I-20 The Official Electronic PDF Version of the plans will override the paper copies or prints of specific layers.

Portions of this plan assembly have been CADD generated. To assist in the preparation of the bid and construction of the project, Microstation format (.dgn) files will be made available to the prime contractor during bids and after award of the contract.

I-21 All electronic plan assemblies will include the construction plans in two formats: PDF files and MicroStation format (.dgn) files. Only the PDF files will be considered as part of the official plan assembly.

The MicroStation format (.dgn) files are furnished only as information for the contractor. These plans are developed in layers (levels) to aid in readability. (See the VDOT CADD Manual for CADD Level Structure). However, the construction items may or may not be in the proper layering scheme as described in the VDOT CADD Manual. The Microstation files will only match the scanned files if all required levels are turned on. A Microstation Software license is required to be able to read these files.

EROSION AND SEDIMENT CONTROL (ESC)

E-1 If the removal of Brush Silt Barrier is specified by the plans or required by the Engineer, the cost of removal and disposal of brush shall be in accordance with Section 109 of the applicable VDOT Road and Bridge Specifications.

E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.

E-3 The following symbols are used to depict Erosion Control items in the plan assembly:

EC-2, Ty. 1 / EC-2, Ty. 2 / EC-2, Ty. 3 / EC-2, Ty. 4	Denotes Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3, Ty. 1 / EC-3, Ty. 2 / EC-3, Ty. 3	Denotes Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
TSF-A / TSF-B	Denotes Temporary Silt Fence, St'd EC-5 Type A or B
TDC	Denotes Temporary Diversion Channel, St'd EC-12
DD	Denotes Temporary Diversion Dike, St'd EC-9
TC-I	Denotes Turbidity Curtain, Type - Impervious
TC-P	Denotes Turbidity Curtain, Type - Pervious
RCD-1	Denotes Rock Check Dam, Type I; St'd EC-4
RCD-2	Denotes Rock Check Dam, Type II; St'd EC-4
IP-A	Denotes Inlet Protection, Type A; St'd EC-6
IP-B	Denotes Inlet Protection, Type B; St'd EC-6
TSI	Denotes Slope Interrupter; St'd EC-15
TS	Denotes Temporary Seeding; VDOT Spec. 303.03 (b) and ESC Handbook Spec. 3.31
PS	Denotes Permanent Seeding; ESC Handbook Spec. 3.32
DC	Denotes Dust Control; ESC Handbook Spec. 3.39

General Notes

PROJECT	SHEET NO.
EN15-076-108	2

PROJECT MANAGER_ GLADIS ARBOLEDA _(PNC-DOT)_
SURVEYED BY, DATE _KEVIN D.NELSON,LS-WILLIAM H.GORDON ASSOCIATES,INC.)OCTOBER 2016_
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016.

TYPICAL SECTIONS

COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Fragale, Christi (FragaleC)
2020.05.07 16:56:01 -04'00'

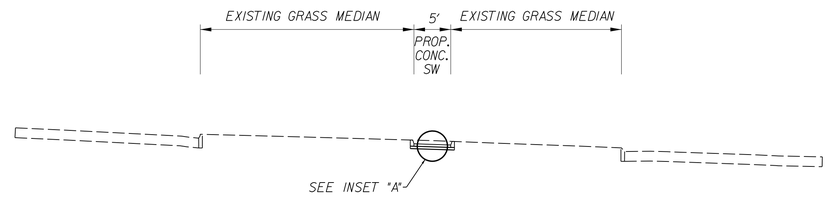
WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	2A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

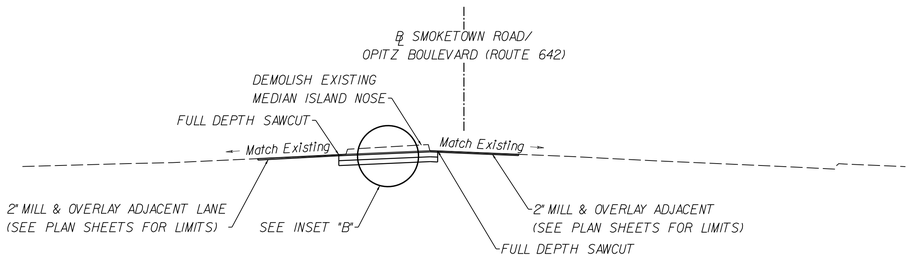
REFUGE ISLAND CUT-THROUGH

SEE PLAN SHEETS FOR LOCATIONS

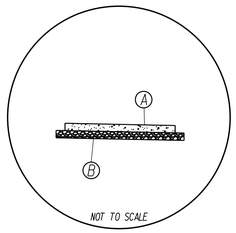


MEDIAN ISLAND NOSE REMOVAL

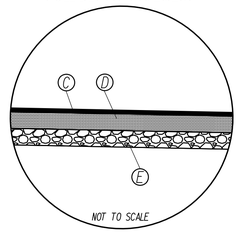
SEE PLAN SHEETS FOR LOCATIONS



INSET A
SIDEWALK



INSET B
FULL-DEPTH PAVEMENT



Pavement Legend:

Ⓐ 4" Hydraulic Cement Concrete Sidewalk (Class A3 Concrete)

Ⓑ 4" Aggr. Base Material, Type I, No. 21B
(Extend 4" Beyond the Edges of Concrete)

Ⓒ 2" Asphalt Concrete, Type SM-9.5D (Estimated at 224lbs/sy)

Ⓓ 8" Asphalt Concrete, Type BM-25.0A

Ⓔ 8" Aggregate Base Material, Type I, Size No. 21B
Connected to Standard UD-4 Edgedrain (When Applicable)

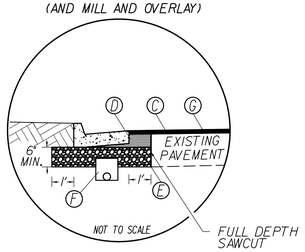
Ⓕ VDOT Standard UD-4, 4" Edgedrain. Proposed UD-4 to Tie to Existing UD-4.
Contractor to verify that existing UD-4 is present prior to construction.
If there is no existing UD-4, then proposed UD-4 to be omitted.

Ⓖ Mill Existing Pavement to a Depth of 2" and Overlay with
2" Asphalt Concrete, Type SM-9.5D (Estimated at 224lb/sy)

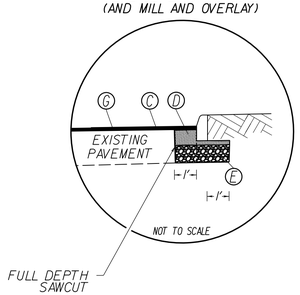
EXISTING CURB REPLACEMENT DETAILS

EXISTING CG-2 AND CG-6 TO BE REPLACED IN AREAS THAT HAVE BEEN DAMAGED, AS WELL AS IN AREAS WHERE EXISTING CG-12 RAMPS ARE BEING REMOVED.
SEE PLAN SHEETS FOR LOCATIONS

REPLACE EXISTING CG-6
(AND MILL AND OVERLAY)



REPLACE EXISTING CG-2
(AND MILL AND OVERLAY)



NOTES:

1. All pavement widening shall be performed in accordance with Standard WP-2.

Typical Sections

	PROJECT	SHEET NO.
	EN15-076-108	2A

PROJECT MANAGER_ GLADIS ARBOLEDA (PMC-DOT) _____
SURVEYED BY, DATE _KEVIN D.NELSON,LS-WILLIAM H.GORDON ASSOCIATES,INC.)OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.) _____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.) _____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016 .

ROADSIDE DEVELOPMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	2B

DESIGN FEATURES RELATING TO CONSTRUCTION
OR TO REGULATION AND CONTROL OF TRAFFIC
MAY BE SUBJECT TO CHANGE AS DEEMED
NECESSARY BY THE DEPARTMENT

CORE MIX

MIX	LBS./ ACRES	DESCRIPTION
1	▲	✳ 100% CERTIFIED FINE FESCUE
2	▲	100% CERTIFIED TALL FESCUE
3	▲ 200	50% CERTIFIED TALL FESCUE ✳ 50% CERTIFIED FINE FESCUE
4	▲	50% ORCHARDGRASS 50% CERTIFIED KENTUCKY BLUEGRASS
5	▲	100% BERMUDAGRASS
TEMPORARY		
3/1 - 5/16 and 8/16 - 3/1	50 50	50% CERTIFIED TALL FESCUE 50% BARLEY, WINTER RYE OR WINTER WHEAT
5/16 - 8/16	50 50	50% FOXTAIL MILLET 50% CERTIFIED TALL FESCUE

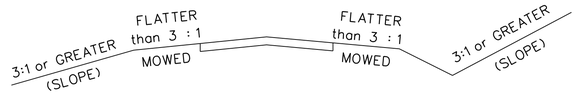
ADDITIVES

TYPE	LBS./ ACRES	DESCRIPTION
A	▲	100% LOVEGRASS
B	▲ 20	100% BARLEY, WINTER RYE OR WINTER WHEAT
C	▲ 20	100% FOXTAIL MILLET
D	▲ 20	100% ANNUAL RYEGRASS
E	▲	100% CROWNVETCH (LEGUME)
F	▲	100% SERICEA LESPEDEZA (LEGUME)
G	▲	100% BIRDSFOOT TREFOIL (LEGUME)
H	▲	
I	▲	
J	▲	
K	▲	

▲ ALL RATES TO BE SPECIFIED BY THE DISTRICT ROADSIDE MANAGER

✳ FINE FESCUES INCLUDE CHEWINGS, CREEPING RED, HARD, SHEEP

SECTION OF SEED LOCATIONS



ROADSIDE DEVELOPMENT SUMMARY

PROJECT NUMBERS	⊗ TOPSOIL 2" CLASS A | B	REGULAR SEED	OVER SEEDING	LIME	FERT. 15-30-15	LEGUME SEED	LEGUME OVER SEEDING	TEMPORARY SEEDING	
	ACRES	LBS.	LBS.	TONS	TONS	LBS.	LBS.	LBS.	
EN15-076-108	0.02	7	4	0.08	0.01	-	-	-	

⊗ DENOTES ITEM(S) TO BE PAID FOR ON THE BASIS OF PLAN QUANTITIES IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE CURRENT ROAD AND BRIDGE SPECIFICATIONS.

SEEDING SCHEDULE

	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE
	SPRING MONTH & DATE 4/1 - 6/1		SUMMER MONTH & DATE 6/1 - 9/15		FALL & WINTER MONTH & DATE 9/15 - 4/1	
PROJECT NUMBERS EN15-076-108	-	3D	-	3C	-	3B
✳ SPECIFY KIND OF FINE FESCUE		HARD		HARD		HARD

NOTES:

APPROXIMATELY 0.02 ACRES WITHIN THE LIMITS OF DISTURBANCE WILL REQUIRE THE ESTABLISHMENT OF GRASSES AND/OR LEGUMES.

✳ NOTES FOR FIELD USE ONLY

OVERSEEDING RATES SHALL BE 100 PERCENT OF THE SEED MIXTURE SUPPLIED WITHOUT FERTILIZER.

THE ENGINEER WILL REQUIRE THE CONTRACTOR TO PERFORM SUPPLEMENTAL SEEDING WHEN LESS THAN 75 PERCENT UNIFORM STAND OF THE PERMANENT GRASS SPECIFIED IN THE MIXTURES IS OBTAINED. (ANNUAL SPECIES SUCH AS, RYE AND MILLET ARE TEMPORARY VARIETIES AND REQUIRE SUPPLEMENTAL SEEDING.)

NOTES APPLY TO SCHEDULE

LEGUME SEED MIXES (BIRDSFOOT TREFOIL, CROWNVETCH, AND SERICEA LESPEDEZA) AND WEEPING LOVEGRASS SHALL NOT BE USED ON SHOULDERS AND OTHER LOCATIONS FLATTER THAN 3:1 SLOPE.

LEGUME SEED SHALL BE INOCULATED WITH THE APPROPRIATE STRAIN AND RATE OF BACTERIA. FOR HYDROSEEDING, USE FIVE TIMES THE DRY SEEDING RATE OF INOCULATE.

A TEMPORARY MIX OR EROSION CONTROL MULCH, AS DIRECTED BY THE ENGINEER, IS TO BE USED ONLY ON AREAS THAT ARE TO BE REGRADED OR LATER DISTURBED, IF LEFT DORMANT FOR MORE THAN 15 DAYS.

EROSION CONTROL MULCH, AS DIRECTED BY THE ENGINEER, IS TO BE USED ON AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN 15 DAYS BETWEEN DECEMBER 1 AND FEBRUARY 28.

EROSION CONTROL MULCH, AS LISTED ON THE VDOT APPROVED PRODUCTS LIST, SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMENDATIONS.

EROSION CONTROL MULCH SHALL PROVIDE 100 PERCENT COVERAGE OF ALL DENUDED AREAS .

SPRING & SUMMER AND FALL & WINTER DEFINED FOR THE PURPOSE OF DETERMINING WHETHER HULLED OR UNHULLED BERMUDAGRASS AND SERICEA LESPEDEZA SEED IS REQUIRED:

SPRING & SUMMER 4/1 - 9/15 - USE HULLED SEED
FALL & WINTER 9/15 - 4/1 - USE UNHULLED SEED

TYPE I MULCH (STRAW) TO BE USED ON NEWLY SEEDED AREAS ADJACENT TO ALL WATERWAYS, WETLANDS, SWAMPS, OR ANY AREA IN WHICH DRAINAGE FLOWS TOWARD AREAS UNDER THE JURISDICTION OF THE ENVIRONMENTAL REGULATORY AGENCIES.

TYPE I MULCH SHALL BE APPLIED TO PROVIDE A MINIMUM 90 PERCENT COVERAGE.

TYPE I MULCH SHALL BE TACKED WITH FIBER MULCH AT THE RATE OF 750 LBS. PER ACRE AND/OR MULCH TACKIFIER.

TYPE II MULCH (FIBER MULCH) MAY BE SUBSTITUTED FOR TYPE I MULCH AT THE RECOMMENDATION OF THE DISTRICT ROADSIDE MANAGER.

TYPE II MULCH SHALL BE APPLIED AT A RATE OF 1500 LBS. (NET DRY WEIGHT) PER ACRE TO PROVIDE A MINIMUM OF 90 PERCENT COVERAGE, AND SHALL BE APPLIED IN A SEPARATE APPLICATION.

ALL TOPSOIL IS TO BE FREE OF HARD LUMPS, CLODS, ROCKS AND FOREIGN DEBRIS AND IS TO BE HAND RAKED TO TIE INTO EXISTING LAWNS.

ALL SEED MUST BE IN CONFORMANCE WITH VDOT SEED SPECIFICATIONS FOR GRASSES & LEGUMES AND BE PROVIDED AT THE PROJECT SITE IN BAGS NOT OPENED AND LABELED FOR USE ON VDOT PROJECTS WITH A GREEN TAG CERTIFYING INSPECTION BY THE VIRGINIA CROP IMPROVEMENT ASSOCIATION.

MIX REQUIREMENTS THIS PROJECT

RECOMMENDATIONS FOR THE APPLICATION OF SEED MIXTURES (CORE MIX AND ADDITIVES), FERTILIZER, LIME, ETC. ARE TO BE OBTAINED FROM THE DISTRICT ROADSIDE MANAGER.

Roadside Development Sheet

	PROJECT	SHEET NO.
	EN15-076-108	2B

PROJECT MANAGER_ GLADIS ARBOLEDA (PNC-DOT) _____
SURVEYED BY, DATE _KEVIN D.NELSON,LS-WILLIAM H.GORDON ASSOCIATES,INC.) OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.) _____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.) _____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016 .

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
GENERAL INFORMATION SHEET

See Sheet 2 of 3 for Acronyms

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	2C(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2014 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance (construction) activities that disturb an area equal to or greater than 10,000 square feet, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents)for the land disturbance (construction) activity.

✳ Denotes information that is to be provided/completed by the VDOT RLD.
✳✳ Denotes information that is to be provided/completed by the contractor.

SECTION I GENERAL INFORMATION

1. Activity Description - Construction of sidewalk westbound Smoketown Road and installing curb ramps and refugee island cut throughs at the inetrsections of Smoketown Road/Opitz Boulevard with Gideon Drive and of Opitz Boulevard with Potomac Mills Road.

2. This land disturbance (construction) activity site is located in Prince William county and approximately 0.14 acres will be disturbed by excavation, grading or other construction activities.

3. This proposed activity disturbs one acre or greater (2,500 square feet within the Chesapeak Bay Preservation Area) and requires coverage under the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) as issued by the DEQ. A copy of the VPDES Construction Permit (VAR10), the registration information (LD-445 form) and the permit coverage letter received from DEQ shall be maintained with other SWPPP documents for this land disturbing (construction) activity.

✳✳ 4. The location of on-site support facilities that will be covered under the VPDES Construction Permit coverage for this land disturbance (construction) activity shall be provided by the contractor and identified on the record set of plans or in other appropriate contract documents. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storage areas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site.

✳✳ 5. Evidence of permit coverage shall be provided by the contractor for all support activities located outside of VDOT right of way or easement in the form of the Construction General Permit coverage letter: (List permit number when applicable)

6. List the surface waters that have been identified as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report for sediment, total suspended solids, turbidity, nitrogen or phosphorus. These pollutants are considered benthic impairments: NONE

7. Identify the TMDLs where stormwater from construction activities discharges into a watershed with a TMDL waste load allocation established and approved by the State Water Control Board prior to July 1, 2014 for sediment, total suspended solids, turbidity, nitrogen or phosphorus: NONE

8. This land disturbance (construction) activity discharges stormwater to the following surface waters that have been identified as exceptional in Section 9VAC25-260-30 A 3 c of the Virginia Administrative Code: NONE

9.Locations of surface waters and locations where concentrated stormwater is discharged from this land disturbance (construction) activity are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

10. The ESC and SWM plans (where applicable) for this land disturbance (construction) activity have been developed in accordance with VDOT's Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications as approved by the DEQ.

11. (a) List the RLD for the land disturbance activity: (required for erosion and sediment control)
(b) The following individual(s) has delegated authority to sign all reports required by the construction permit including the SWPPP (LD445E) and inspection reports. The individual(s) has overall responsibility for environmental matters for the project: (required only for permitted projects)

Name	Position

✳ 12. The name of the individual(s) responsible for the inspection of the erosion and sediment control and pollution prevention measures on this land disturbance (construction) activity is identified on the LD-445E form which will be maintained with the other SWPPP documents for this land disturbance (construction) activity (Note: Individual(s) shall be certified through the DEQ ESC Inspector Certification Program and shall be knowledgeable in the area of pollution prevention at construction sites and shall be a VDOT employee or an agent working for VDOT.)

✳ 13. The ESC and P2 inspections for this land disturbing (construction) activity shall follow either Schedule 1 or 2 as defined in Section 107.16(e) of the VDOT Road & Bridge Specifications Special Provision S107J31. Rain gage notes apply only to Inspection Schedule 1.

✳✳ 14. The location of the on-site rain gage that will be used to determine the occurrence of a measurable storm event for the purposes of ESC and Pollution Prevention inspections will be provided by the contractor and identified on the record set of plans or in other appropriate SWPPP documents for this land disturbance (construction) activity:
(List location of rain gage)

The rain gage shall be observed daily at (insert time) to determine the occurrence of a measurable storm event (i.e., 0.25 inches of rainfall or greater in a 24 hour period). A log book shall be maintained to record observation information which shall include (1) the date, (2) the time, (3) whether or not rainfall is occurring at the time of the observation, (4) the amount of accumulated rainfall in the gage, if any, and (5) whether or not an inspection is required based on the amount of accumulated rainfall in the gage.
If there is no rainfall occurring at the time of the observation, the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage.

If there is rainfall occurring at the time of the observation, the observation information is to be noted in the log book. The rain gage is not to be emptied but left to accumulate additional rainfall until the conclusion of the rainfall event. At the conclusion of the rainfall event, an observation of the rain gage shall be made and the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage.

15. The following VDOT documents serve the purpose of a) permitted projects b) non-permitted projects in Chesapeake Bay Preservation Areas (CBPA) with 2,500 S.F. to 1.0 acre of land disturbance c) non-permitted projects requiring a SWPPP and d) Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP:

VDOT LD-445: Permitted projects, CBPA projects and Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP.
VDOT LD-445A: Permitted projects only.
VDOT LD-445B: Permitted projects only.
VDOT LD-445C: Projects that require a permit or SWPPP.
VDOT LD-445D: Permitted projects, CBPA projects and Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP.
VDOT LD-445E: Permitted projects only.
VDOT LD-445F: Emergency work projects (when applicable).
VDOT LD-445G: Permitted and CBPA projects requesting a Water Quality. Requirement Exception (when applicable).
VDOT LD-445H: Permitted projects only.
VDOT C-107 Part I and Part II: All projects that require a permit or SWPPP.

SECTION II EROSION AND SEDIMENT CONTROL

1. The following variances to the Virginia ESC Regulations have been approved by the DEQ for this land disturbance (construction) activity: (list all approved variances; include a brief description of the variance, the date approved and the approving DEQ Office)

✳✳ 2. The intended sequence and timing of activities that disturb soils at the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation, etc.) shall be provided by the contractor in accordance with Section 108.03 of the VDOT R&B Specifications and shall be included with the other SWPPP documents for this land disturbance (construction) activity.

3. Directions of stormwater flow and approximate slopes anticipated after major grading activities are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

4. Areas of soil disturbance and areas of the site which will not be disturbed are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

5. Locations of major structural and nonstructural ESC measures intended to filter, settle or similarly remove sediment are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

6. Locations where stabilization practices are expected to occur are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

7. A description of interim and permanent stabilization practices for the site are identified in the applicable sections of the documents identified in the Note 1 of Section III.

✳✳ 8. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated will be provided by the contractor and maintained with the record set of plans or other SWPPP documents for this land disturbance (construction) activity:
(List how this will be tracked and the location)

9.A description and schedule of procedures to maintain vegetation, erosion and sediment control measures and other protective measures in good and effective operating conditions are identified in Sections 107.16 and 303.03 of the VDOT R&B Specifications.

10. Nutrients shall be applied in accordance with Sections 603 and 604 of the VDOT Road and Bridge Specifications. Nutrients shall not be applied during rainfall events.

11. All engineering calculations supporting the design of erosion and sediment control measures proposed for this land disturbance (construction) activity are contained in the project drainage file located in the (insert appropriate location, i.e., VDOT Central Office Hydraulics Section or the VDOT (specify) District Hydraulics Section or the VDOT (specify) Residency Office) and will be made available for review upon request during normal business hours.

12. The temporary erosion and siltation control items shown on the ESC Plan for this land disturbing (construction) activity are intended to provide a general plan for controlling erosion and sediment within the project limits. The ESC Plan is based on field conditions at the time of plan development and an assumed sequence of construction for the project. The contractor, in conjunction with the VDOT Project Engineer and/or ESC Inspector, shall adjust the location, quantity and type of erosion and sediment control items required based on the actual field conditions encountered at the time of construction and the actual scheduling and sequencing of the construction activities. Significant changes to the proposed ESC Plan (e.g., those that require an engineering analysis) shall be submitted to the applicable District Hydraulics Engineer for review and approval. Any changes to the proposed ESC Plan must be noted on the designated record set of plans which shall be retained on the project site and made available upon request during normal business hours.

13. The areas beyond the project's construction area are to be protected from siltation. Perimeter controls such as silt fence, diversion dikes, turbidity curtains, etc. shall be installed prior to any grubbing operations or other earth moving activities.

14. Temporary earthen structures such as dikes and berms are to be stabilized immediately upon installation. Stabilization may include temporary or permanent seeding, riprap, aggregate, sod, mulching, and/or soil stabilization blankets and matting in conjunction with seeding.

15. All channel relocations are to be constructed during the earliest stage of construction and shall be constructed in accordance with all applicable permit requirements and shall be constructed in the dry wherever possible. Stabilization or vegetation shall be established before flow is redirected through the constructed area as directed by the Engineer.

16. The contractor shall plan and implement his land disturbance operations in order to:
a. Control the volume and velocity of stormwater runoff within the site to minimize erosion.
b. Control the peak flow rates, volume and velocity of stormwater discharges to minimize erosion at outlets and in downstream channels.
c. Minimize the amount of soil exposed.
d. Minimize the disturbance of steep slopes.
e. Minimize sediment discharge from the site.
f. Provide and maintain natural buffers around surface waters, direct stormwater runoff to vegetated areas and maximize stormwater infiltration, unless infeasible.
g. Minimize soil compaction (except in those areas where compaction is required by the contract documents) and preserve topsoil where feasible.

✳✳ 17. The name of the individual(s) or contractor(s) responsible for the installation and maintenance of the erosion and sediment control measures shall be supplied by the contractor and maintained with the other SWPPP documents for this land disturbance (construction) activity.

18. Soil stockpiles temporarily placed within the project area or on VDOT right of way or easement shall be stabilized or protected with sediment trapping measures.

19. A construction entrance or other approved measure shall be installed at all locations where construction vehicular traffic access routes intersect a paved or a public road in order to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or a public road surface, the road shall be cleaned thoroughly at the end of each work day by shoveling or sweeping. Removed sediment shall be disposed of in accordance with Section 106.04 of the R&B Specifications.

SWPPP
Sheet 1 OF 3

Revised 09/29/16
Sheet 1 of 3

PROJECT	SHEET NO.
EN15-076-108	2C(1)

PROJECT MANAGER GLADIS ARBOLEDA (PWC-DOT)
SURVEYED BY, DATE KEVIN D.NELSON,L.S.(WILLIAM H.GORDON ASSOCIATES,INC.)OCTOBER 2016
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	642	EN15-076-108	2C(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2014 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance (construction) activities that disturb an area equal to or greater than 10,000 square feet, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents)for the land disturbance (construction) activity.

⁎ Denotes information that is to be provided/completed by the VDOT RLD.
⁎⁎ Denotes information that is to be provided/completed by the contractor.

ACRONYMS

BMP - Best Management Practice
DEQ - Department of Environmental Quality
EPA - U.S. Environmental Protection Agency
ESC - Erosion and Sediment Control
IIM - Instructional and Informational Memorandum
R&B - Road and Bridge
RLD - Responsible Land Disturber
SWM - Stormwater Management
SWPPP - Stormwater Pollution Prevention Plan
TMDL - Total Maximum Daily Load
VDOT - Virginia Department of Transportation
VPDES - Virginia Pollutant Discharge Elimination System
VSMP - Virginia Stormwater Management Program
VESCP - Virginia Erosion and Sediment Control Program

SECTION III SWPPP

1. All documents related to the SWPPP for this land disturbance (construction) activity shall be maintained at the activity site and shall be readily available for review upon request during normal business hours. Such documents include, but are not limited to, the construction plans (or other such documents), the ESC Plan, the Pollution Prevention Plan, the post construction SWM Plan (if applicable), the VDOT R&B Standards and Specifications, Supplemental Specifications, Special Provisions and Special Provision Copied Notes. Documents related to stormwater pollution prevention which are not a part of those documents referenced above, such as a copies of the VPDES Construction Permit coverage letter (when applicable) and the VPDES General Permit For Discharges Of Stormwater From Construction Activities (when applicable) and those required to be developed by the contractor for pollution prevention associated with any on-site support facilities being included in the VPDES Construction Permit coverage for this land disturbance (construction) activity are to be maintained at the activity site with the other SWPPP documents for this land disturbance (construction) activity. Where no facilities are available at the activity site to maintain the SWPPP documents, they are to be kept by or with the designated RLD at a location convenient to the activity site where they would be made available for review upon request during normal business hours.

2. The SWPPP and any subsequent amendments, modifications and updates shall be implemented from commencement of land disturbance until termination of VPDES Construction Permit coverage or completion of land disturbance (construction) activities where no VPDES Construction Permit coverage is required.

⁎⁎ 3. For all on-site support facilities that will be included in the VPDES Construction Permit coverage for this land disturbance (construction) activity, the contractor shall develop a SWPPP in accordance with, but not limited to, Section 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications. The SWPPP for the on-site support facilities shall be maintained with and become a component of the SWPPP for this land disturbance (construction) activity. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storageareas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site.

⁎ 4. By completing and submitting the SWPPP Certification form LD-445E, the RLD, or his authorized representative, certifies that all documents identified herein to be supplied by the contractor will be reviewed, approved (as applicable) and included with the other SWPPP documents for this land disturbance (construction) activity prior to start of work in those areas identified by such information.

5. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the SWPPP shall be made available for review upon the request of the DEQ, the EPA, the VSMP Authority, the VESCP Authority, local government officials or the operator of a municipal separate storm sewer system (MS4) receiving discharge from the construction site.

⁎ 6. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the VDOT RLD shall post, or have posted, a copy of the General Permit coverage letter and a copy of a completed LD-445A form, noting the name and contact information for the VDOT person responsible for the land disturbing (construction) activity and its SWPPP, outside the project's construction office along with other Federal and State mandated information. Where there is no construction office (e.g., a maintenance activity), the permit coverage letter and the LD-445A form are to be maintained with the other SWPPP documents for the land disturbing (construction) activity.

7. The SWPPP shall be made available for review by the public upon request. Such reviews shall be at a time and publicly accessible location convenient to the VDOT and shall be scheduled during normal business hours and no less than once per month.

SECTION IV POST CONSTRUCTION STORMWATER MANAGEMENT

2. This land disturbance (construction) activity utilizes the Part IIB technical criteria (i.e., Runoff Reduction Method, Energy Balance Equation, etc.) in Section 9VAC25-870-62 et seq. of the VSMP Regulations.

4. The following exceptions to the Water Quantity criteria of the VSMP Regulation have been approved by the DEQ for this land disturbance (construction) activity: NONE

5. The permanent onsite SWM facilities or offsite strategies proposed to meet the water quality/quantity requirements for this land disturbance (construction) activity are listed in Section VI.

6. A description of all post-construction stormwater management measures that will be installed during the construction process to control pollutants in stormwater discharges after construction operations have been completed is included in the construction plan set (or other such documents) for this land disturbance (construction) activity.

7. All engineering calculations supporting the design of the post-construction stormwater management measures for this land disturbance (construction) activity, including an explanation of the technical basis used to select the practices, are contained in the project drainage file located in the (insert appropriate location, i.e., VDOT Central Office Hydraulics Section or the VDOT (specify) District Hydraulics Section or the VDOT (specify) Residency Office) and will be made available for review upon request during normal working business hours.

⁎⁎ 3. The contractor shall develop a Pollution Prevention Plan to address any of his on-site operations that have a potential to generate a pollutant that may reasonably be expected to affect the quality of stormwater discharges from this land disturbance (construction) activity. The Pollution Prevention Plan shall be developed in accordance with, but not limited to, Sections 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications and shall include a narrative with appropriate plan detail and shall be provided on standard 8.5 x 11 inch paper or larger and shall:

a. Identify the potential pollutant-generating activities and the pollutant that is expected to be exposed to stormwater.
b. Describe the location where the potential pollutant-generating activities will occur, or if identified on the record set of plans, reference the record set of plans.
c. Identify all non-stormwater discharges, as described in note two of this section, that are or will be commingled with stormwater discharges from the construction activity, including any on-site support activities.
d. Identify the person(s) or contractor(s) responsible for implementing and maintaining the pollution prevention practice or practices for each pollutant-generating activity.
e. Describe the pollution prevention practices and procedures that will be implemented to:
   1) Prevent and respond to leaks, spills, and other releases, including procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases, and procedures for reporting leaks, spills, and other releases in accordance with Section 107.16 of the VDOT Road and Bridge Specifications and the requirements within the VPDES Construction Permit.
   2) Prevent the discharge of spilled and leaked fuels and chemicals from vehicle fueling and maintenance activities.
   3) Prevent the discharge of soaps, solvents, detergents, and wash water from construction materials, including procedures for the clean-up of stucco, paint, form release oils, and curing compounds.
   4) Minimize the discharge of pollutants from vehicle and equipment washing, wheel wash water, and other types of washing.
   5) Direct concrete wash water into a leak-proof container or leak-proof settling basin. The container or basin shall be designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes. Liquid concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wash waters and shall not be discharged to surface waters.
   6) Minimize the discharge of pollutants from storage, handling, and disposal of construction products, materials, and wastes including building products (such as asphalt sealants, copper flashing, roofing materials, adhesives, and concrete admixtures), pesticides, herbicides, insecticides, fertilizers, landscape materials, construction and domestic wastes (such as packaging materials), scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.
   7) Prevent the discharge of fuels, oils, and other petroleum products, hazardous or toxic wastes, and sanitary wastes.
   8) Address any other discharge from any potential pollutant-generating activity not listed herein.
   9) Describe and implement procedures for providing pollution prevention awareness (including but not limited to prevention practices, disposal practices and appropriate disposal locations) for all applicable wastes (including any wash water), to appropriate personnel.

SECTION V - POLLUTION PREVENTION PLAN

1. The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are prohibited:
   a. Wastewater from concrete washouts.
   b. Wastewater from the washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials.
   c. Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance.
   d. Oils, toxic substances or hazardous substances from spills or other releases.
   e. Soaps, solvents or detergents used in equipment and vehicle washing.
   f. There shall be no discharge of floating solids or visible foam in other than trace amounts

2. The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are allowed when discharged in compliance with the VPDES Construction Permit:
   a. Discharges from fire fighting activities.
   b. Fire hydrant flushings.
   c. Waters used to wash vehicles or equipment where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.
   d. Water used to control dust that has been filtered, settled or similarly treated prior to discharge.
   e. Potable water sources including uncontaminated waterline flushings.
   f. Routine external building wash down where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.
   g. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (or where all spilled or leaked material has been removed prior to washing), where soaps, solvents or detergents have not been used and where the wash water has been filtered, settled or similarly treated prior to discharge.
   h. Uncontaminated air conditioning or compressor condensate.
   i. Uncontaminated ground water or spring water.
   j. Foundation or footing drains where flows are not contaminated with process materials such as solvents.
   k. Uncontaminated excavation dewatering, including dewatering trenches and excavations that have been filtered, settled or similarly treated prior to discharge.
   l. Landscape irrigation.

Revised 09/29/16
Sheet 2 of 3

SWPPP
Sheet 2 OF 3

PROJECT	SHEET NO.
EN15-076-108	2C(2)

PROJECT MANAGER _ GLADIS ARBOLEDA _ (PWC-DOT) _____
SURVEYED BY, DATE _ KEVIN D.NELSON,LS-WILLIAM H.GORDON ASSOCIATES,INC.) OCTOBER 2016 _____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.) _____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.) _____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC., OCTOBER 2016 .

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
GENERAL INFORMATION SHEET

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	642	EN15-076-108	2C(3)

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2014 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance (construction) activities that disturb an area equal to or greater than 10,000 square feet, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents)for the land disturbance (construction) activity.

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

ACRONYMS

BMP - Best Management Practice
DEQ - Department of Environmental Quality
EPA - U.S. Environmental Protection Agency
ESC - Erosion and Sediment Control
IIM - Instructional and Informational Memorandum
R&B - Road and Bridge
RLD - Responsible Land Disturber
SWM - Stormwater Management
SWPPP - Stormwater Pollution Prevention Plan
TMDL - Total Maximum Daily Load
VDOT - Virginia Department of Transportation
VPDES - Virginia Pollutant Discharge Elimination System
VSMP - Virginia Stormwater Management Program
VESCP - Virginia Erosion and Sediment Control Program

SECTION VI - PERMANENT BMP INFORMATION △

✱ Denotes information that is to be completed by the VDOT RLD.
( ) See note referenced by number in parentheses.

INSTALLED BMP INFORMATION
Table A
(VDOT Owned/Operated)

Plan Sheet(s)	BMP Type (See Table 1 and 3)	County or City	Latitude/Longitude (1)		State Hydrologic Unit Code (7)	Receiving Stream Name (2)	Name of Impaired Water (9)	Acres Treated Per BMP (3)			✱ BMP Maintenance ID Number (10)	BMP Maintenance Manual (11)	BMP Inspection Manual (11)
			LAT	LONG				Impervious	Pervious	TOTAL		SECTION	SECTION

ALTERNATIVE BMP INFORMATION
Table B

BMP Type (See Table 2)	Name of Nutrient Credit Generating Entity (6)	County or City (5)	Latitude/Longitude (1) (5)		State Hydrologic Unit Code (5) (7)	Project Acres Treated Per BMP (3)			Nutrient Credits (lbs./acre/year) Acquired (6) (12)
			LAT	LONG		Impervious	Pervious	TOTAL	
Purchase of Nutrient Credits	Falling Springs, LLC	Prince William County	38.6379	-77.2967	PL49	0.12	0.02	0.14	0.11

Table 1: Permanent BMP Types (1999 Va. SWM Handbook)
Bio-Retention Basin
Bio-Retention Filter
Constructed Stormwater Wetlands
Extended Detention Basin
Extended Detention Basin Enhanced
Grassed Swale
Infiltration Basin
Infiltration Trench
Manufactured Treatment Device (MTD) (8)
Retention Basin I
Retention Basin II
Retention Basin III
Sand Filter
Vegetated Filter Strip
Other Approved Types (List Type)

Table 2: Alternative BMP Types
Comprehensive SWM Plan (Regional) Facility
Pollutant Loading Pro Rata Share Program
Purchase of Nutrients Credits
Other Approved Options (List Type) (4)

Table 3: Permanent BMP Types (BMP Clearing House)
Sheet Flow to Vegetated Filter Strip
Grass Channel
Soil Compost Amendment
Permeable Pavement
Infiltration Practice
Bioretention
Dry Swale
Wet Swale
Filtering Practice
Constructed Wetlands
Biorention Conservation
Extended Detention Pond
Wet Pond
Manufactured Treatment Device (MTD)(8)
Other Approved Types (List Type) (4)

NOTES:
(1) In decimal degrees to the nearest one ten-thousandth of a degree.

(2) For streams with no names, list "(Unnamed Tributary to closest stream name)".

(3) Show acres treated to the nearest one tenth acre.

(4) Include agreements with off-site BMP owners.

(5) Information pertains to the alternative BMP option location, where applicable. Exception - Not required for nutrient credit purchase option.

(6) Applies to the purchase of nutrient credits only.

(7) Virginia 6th Order HUC (VAHU6) Example - YO30.

(8) Final approved shop drawings of Manufactured Treatment Devices (MTDs) are to be included with the BMP information submitted with the LD-445D form.

(9) List the name of any impaired water to which the BMP discharges. The determination of impaired water shall be based on those streams listed as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report and shall be the first named waterbody to which the BMP discharges. The impaired waters are those impaired by sediment, total suspended solids, turbidity, nitrogen or phosphorus. These pollutants are considered benthic impairments.

(10) BMP Maintenance ID Number is to be assigned by the District Infrastructure Manager at permit termination or project completion.

(11) Provide the section of each Maintenance manual that pertains to the type of BMP. Both manuals can be found at www.vdot.virginia.gov/business/manuals in the Maintenance selections. Example: Section 4 would be noted for both the maintenance and inspection manuals for a Bioretention I infiltration BMP.

(12) Nutrient credits purchased to the nearest one hundredth pound.

△ Any changes to the proposed SWM Plan or BMPs necessitated during the construction phase of the project that affects the proposed construction details or potentially affects the information shown in the BMP Tables A and/or B shall be coordinated by the VDOT RLD with the appropriate VDOT District Hydraulics Engineer. The construction plans and the BMP Tables A and/or B are to be formally revised to reflect any authorized/approved changes to the proposed SWM Plan and/or the proposed BMP construction details. All plan revisions shall be completed in accordance with the Road Design Manual and the Construction Division IIM-CD-2013-12.01, signed and sealed in accordance with Department's sealing and signing policy IIM-LD-243 and filed with the record set of construction plans maintained in the VDOT Central Office Plan File Room (Falcon Web Suite). Prior to submitting for termination of coverage under the VPDES General Permit For The Discharge Of Stormwater From Construction Activities, the RLD shall have the District Maintenance Infrastructure Manager review the BMPs installed with the project (BMP Table A) for acceptance of maintenance responsibility and to obtain a Maintenance ID number for each BMP listed in BMP Table A. The RLD shall use the information in BMP Tables A and B along with the assigned Maintenance ID number and the date that the BMP became functional as a permanent control measure (for BMPs in Table A only) to complete the LD-445D form when certifying the construction of the BMPs and submitting for termination of coverage under the VPDES General Permit For The Discharge Of Stormwater From Construction Activities.

Revised 09/29/16

SWPPP
Sheet 3 OF 3

	PROJECT	SHEET NO.
	EN15-076-108	2C(3)

PROJECT MANAGER_ GLADIS ARBOLEDA (FWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON,L.S.(WILLIAM H.GORDON ASSOCIATES,INC.),OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016.

FINAL PLANS

COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2018.05.30
08:56:20 -04'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	2D(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

MALL AT POTOMAC MILLS, LLC
GPIN: 8291-78-3127
INST.#: 200706180071790
5.23 Acres

ONKAR, LLC
GPIN: 8291-68-2101
INST.#: 200610020142094
1.14 Acres

Gideon Drive - Private Road
Posted Speed - 45 MPH

FCPT RESTAURANT PROPERTIES, LLC
GPIN: 8291-67-5692
INST.#: 201512180103584
2.51 Acres

Smoketown Road - Route 642
Posted Speed - 45 MPH

Opitz Boulevard - Route 642
Posted Speed - 45 MPH

Gideon Drive - Route 2068
Posted Speed - 45 MPH

BOB EVANS FARMS, INC.
GPIN: 8291-57-9978
DEED 1977, PAGE 730
1.41 Acres

JAY TALPALAR AND BEVERLY TALPALAR
GPIN: 8291-67-3553
DEED BOOK 1994 PAGE 1681
0.87 Acres

S 41° 38' 38" E

Sta 102+04.42
Off 136.08 LT
1'R
Sta 102+08.07
Off 135.53 LT
Sta 102+10.99
Off 94.34 LT
Sta 102+01.19
Off 71.32 LT
Sta 101+37.52
Off 63.18 LT
Sta 101+36.48
Off 60.18 LT
Sta 102+01.72
Off 65.22 LT
Sta 11+50.94
Off 99.70 RT
Sta 102+12.18
Off 74.83 LT
7'R
2'R
Sta 102+04.48
Off 61.96 LT
Sta 103+58.16
Off 74.25 LT
Sta 103+52.83
Off 74.24 LT
Sta 103+39.14
Off 74.10 LT
Sta 11+51.98
Off 102.72 RT
Sta 103+33.81
Off 74.01 LT
Sta 103+26.00
Off 76.86 LT
4.5'R
Sta 103+33.92
Off 69.01 LT
Sta 103+71.67
Off 102.44 LT
128'R
Sta 103+78.13
Off 96.97 LT
Sta 103+82.33
Off 93.78 LT
Sta 103+86.69
Off 90.74 LT
Sta 103+59.43
Off 80.40 LT
Sta 103+68.43
Off 73.41 LT
2'R
Sta 103+74.19
Off 65.70 LT
105'R
Sta 104+41.27
Off 62.56 LT
Sta 103+37.17
Off 65.89 LT
Sta 103+60.68
Off 69.25 LT
Sta 104+19.07
Off 66.12 LT
Sta 102+04.13
Off 54.65 RT
Sta 101+88.44
Off 55.08 RT
Sta 102+11.79
Off 54.92 RT
Sta 102+12.01
Off 63.21 RT
Sta 101+87.58
Off 59.58 RT
Sta 102+07.24
Off 62.50 RT
Sta 102+03.46
Off 66.19 RT
3'R
Sta 101+97.48
Off 67.91 RT
Sta 101+78.73
Off 80.42 RT
120'R
Sta 101+84.30
Off 85.81 RT
Sta 101+87.50
Off 89.46 RT
Sta 101+92.06
Off 95.48 RT
140'R
Sta 102+16.15
Off 60.00 RT
Sta 102+16.61
Off 70.99 RT
2'R
Sta 102+51.56
Off 73.23 RT
Sta 102+55.24
Off 73.15 RT
Sta 102+12.23
Off 68.20 RT
Sta 102+08.14
Off 68.42 RT
Sta 102+04.77
Off 75.80 RT
Sta 103+25.27
Off 56.77 RT
Sta 103+28.12
Off 62.27 RT
3'R
Sta 103+20.82
Off 59.30 RT
Sta 103+20.51
Off 70.28 RT
Sta 103+28.12
Off 67.28 RT
Sta 103+28.10
Off 83.42 RT
Sta 103+31.70
Off 90.38 RT
118'R
Sta 103+19.27
Off 105.59 RT
2'R
Sta 103+23.62
Off 104.38 RT
Sta 103+40.67
Off 4.52 RT
2'R
Sta 103+40.92
Off 8.13 RT
Sta 103+35.77
Off 56.73 RT
Sta 103+38.37
Off 82.02 RT
135'R
Sta 103+32.78
Off 81.03 RT
Sta 103+62.84
Off 56.49 RT
Sta 103+63.86
Off 59.84 RT
171'R
Sta 104+15.36
Off 60.32 RT
Sta 103+82.53
Off 69.95 RT
Sta 103+57.98
Off 98.10 RT
Sta 103+54.89
Off 101.62 RT
Sta 103+51.86
Off 105.38 RT
Sta 103+47.33
Off 111.68 RT

100 101 102 103 104 105 106

MATCHLINE STATION 106+50 (SEE SHEET 2D(2)

IPF IPF

NOTE: GEOMETRY POINTS SHOWN ARE TO THE FACE OF CURB

SCALE
0 25' 50'

Smoketown Rd./Opitz Blvd.
Route 642
Geometry Plan
Sta. 100+00 to Sta. 106+50

	PROJECT	SHEET NO.
	EN15-076-108	2D(1)

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON, L.S.(WILLIAM H.GORDON ASSOCIATES,INC.)_OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE, PE (WSP USA, INC.)_____
DESIGNED BY TUCKER BUCHANAN, PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC., OCTOBER 2016 .

FINAL PLANS

COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2018.03.02
10:09:45 -05'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	2D(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

MATCHLINE STATION 106+50 (SEE SHEET 2D(1)

WOODBRIDGE COMMONS, LLC
GPIN: 8291-67-7973
INST.#: 201604040023782
1.66 Acres

APPROXIMATE LOCATION OF IMPROVEMENTS AS PROPOSED BY DEVELOPER. SEE WOODBRIDGE COMMONS CORNER (PROJ. PP12013-00661) AND SIGNAL MODIFICATION PLAN (PWC FILE NO. 13-00162R00S07). IT IS ANTICIPATED THAT CONSTRUCTION WILL BE COMPLETE PRIOR TO THE START OF THIS PEDESTRIAN IMPROVEMENT PROJECT. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.

Potomac Mills Road - Route 1779
Posted Speed - 25 MPH

Opitz Boulevard - Route 642
Posted Speed - 45 MPH

KAISER FOUNDATION HEALTH PLAN OF THE MID-ATLANTIC STATES, INC.
GPIN: 8291-77-3982
Deed Book 1659, Page 992
5.76 Acres

POTOMAC FESTIVAL II, LLV
GPIN: 8291-67-6639
INST.#: 200503040034581
2.88 Acres

POTOMAC FESTIVAL LIMITED PARTNERSHIP
GPIN: 8291-76-1385
INST.#: 200112280139130
21.96 Acres

S 72° 43' 56" E

Sta 109+94.13 Off 16.92 LT
Sta 109+94.37 Off 4.88 LT
6'R
Sta 110+02.09 Off 51.21 RT
Sta 109+57.50 Off 50.80 RT
Sta 109+57.44 Off 57.59 RT
Sta 109+87.10 Off 79.71 RT
Sta 109+21.24 Off 63.44 RT
2'R
Sta 110+05.06 Off 67.68 RT
85'R
149'R
105'R
Sta 109+36.81 Off 68.41 RT
Sta 109+64.10 Off 93.90 RT
Sta 109+69.73 Off 99.13 RT
Sta 109+73.20 Off 102.73 RT
Sta 109+76.41 Off 106.36 RT
Sta 110+10.09 Off 51.22 RT
Sta 110+18.42 Off 50.73 RT
2'R
Sta 110+10.07 Off 64.92 RT
Sta 110+20.22 Off 61.94 RT
Sta 110+19.73 Off 69.94 RT
Sta 110+18.42 Off 50.73 RT
Sta 110+10.06 Off 69.92 RT
Sta 109+96.70 Off 81.81 RT
Sta 109+94.57 Off 87.73 RT
Sta 111+06.74 Off 82.33 LT
Sta 111+06.74 Off 71.33 LT
4'R
Sta 111+16.93 Off 74.37 LT
Sta 111+13.97 Off 63.59 LT
Sta 111+10.31 Off 154.65 LT
Sta 111+14.08 Off 145.36 LT
Sta 111+09.40 Off 111.23 LT
97'R
Sta 111+40.24 Off 116.54 LT
Sta 111+46.65 Off 110.21 LT
Sta 111+50.40 Off 106.91 LT
Sta 111+54.30 Off 103.77 LT
Sta 111+06.78 Off 110.20 LT
1'R
Sta 111+26.56 Off 87.25 LT
123'R
Sta 111+19.68 Off 79.38 LT
Sta 111+82.23 Off 79.91 LT
Sta 111+97.47 Off 75.13 LT
92'R
Sta 111+27.93 Off 93.37 LT
2'R
Sta 111+36.21 Off 86.12 LT
Sta 111+55.03 Off 69.66 LT
Sta 111+21.93 Off 74.36 LT
Sta 111+24.97 Off 63.53 LT
Sta 110+20.21 Off 52.53 RT
Sta 111+14.58 Off 50.78 RT
Sta 111+17.65 Off 67.54 RT
4'R
Sta 111+06.89 Off 64.58 RT
Sta 111+06.90 Off 75.58 RT
2'R
Sta 110+18.42 Off 50.73 RT
Sta 111+18.00 Off 72.53 RT
Sta 111+29.29 Off 82.41 RT
Sta 111+31.53 Off 88.33 RT
Sta 111+07.04 Off 113.95 RT
2'R
Sta 111+25.58 Off 50.78 RT
Sta 111+22.66 Off 69.97 RT
Sta 111+38.71 Off 80.03 RT
2'R
Sta 111+72.96 Off 55.63 RT
114'R
Sta 112+17.40 Off 60.13 RT
Sta 112+01.19 Off 63.66 RT
170'R
140'R
Sta 111+61.86 Off 94.24 RT
Sta 111+56.01 Off 99.71 RT
Sta 111+52.85 Off 103.01 RT
Sta 111+47.54 Off 109.16 RT

CATV

NOTE: GEOMETRY POINTS SHOWN ARE TO THE FACE OF CURB

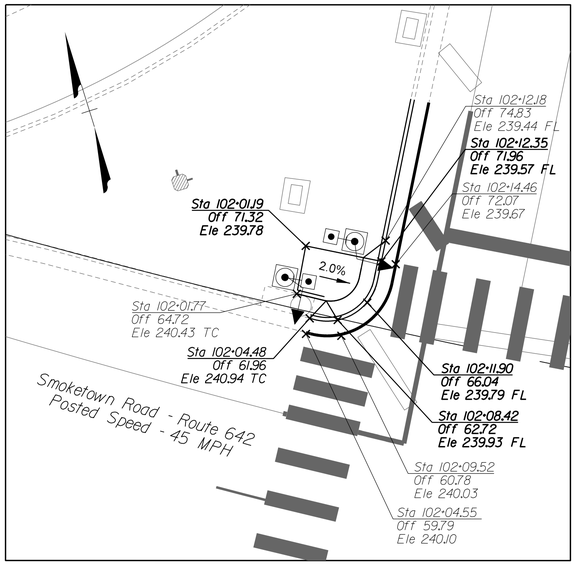
SCALE
0 25' 50'

Smoketown Rd./Opitz Blvd.
Route 642
Geometry Plan
Sta. 106+50 to Sta. 113+00

	PROJECT	SHEET NO.
	EN15-076-108	2D(2)

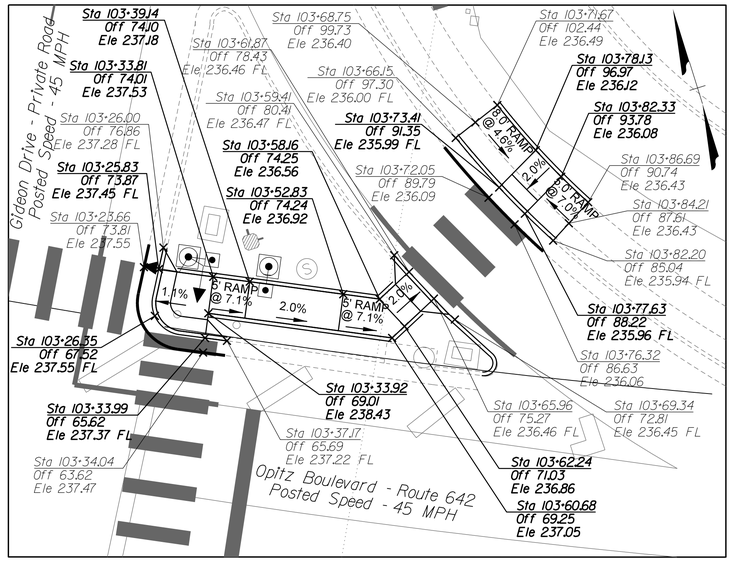
PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON,L.S.(WILLIAM H.GORDON ASSOCIATES,INC.) OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016_

SMOKETOWN ROAD/GIDEON DRIVE NW QUANDRANT

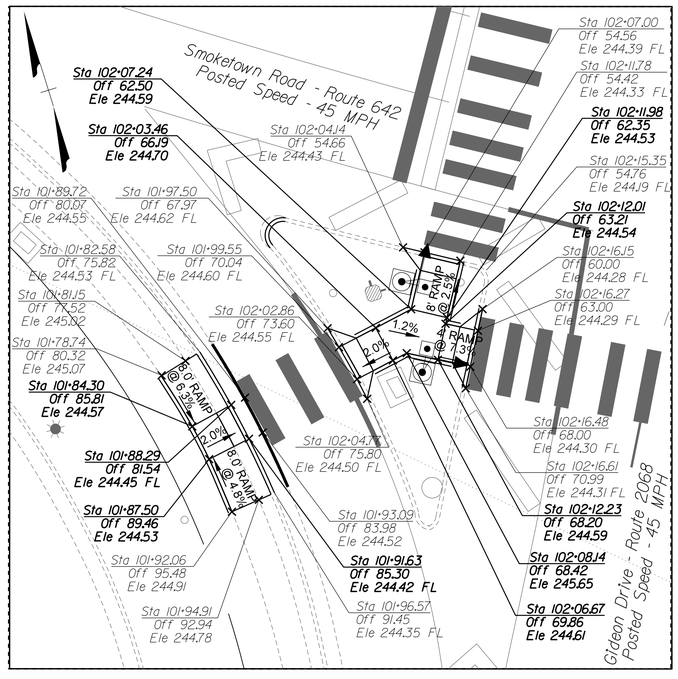


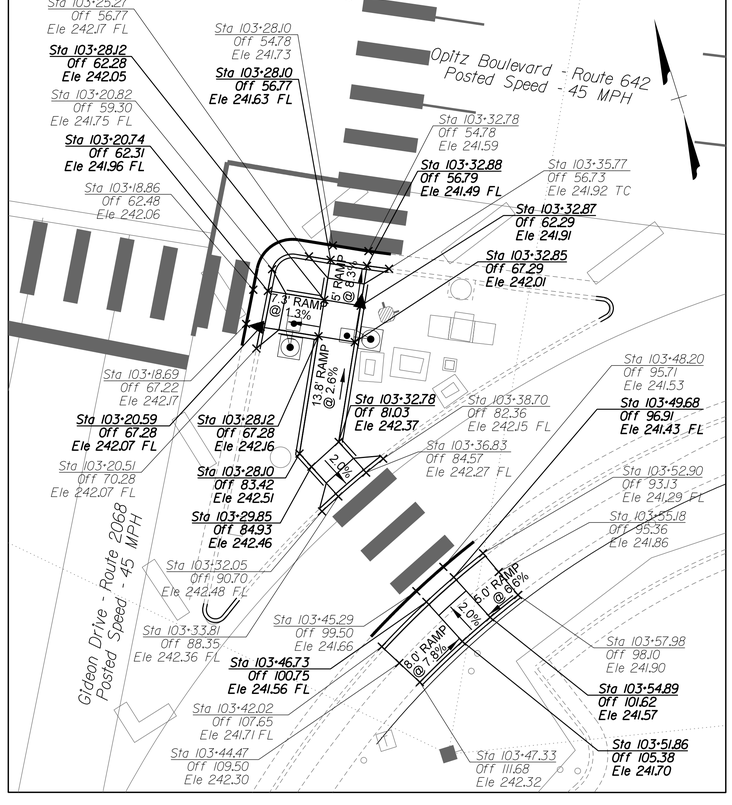
SMOKETOWN ROAD/GIDEON DRIVE NE QUANDRANT

FINAL PLANS



SMOKETOWN ROAD/ GIDEON DRIVE SE QUANDRANT





SMOKETOWN ROAD/GIDEON DRIVE SW QUANDRANT

LEGEND

PROPOSED	Sta XXX+XX.XX Off XX.XX Ele XXX.X
EXISTING	Sta XXX+XX.XX Off XX.XX Ele XXX.X
TC	Top of Curb
FL	Flow Line

CHRISTI DESISTO FRAGALE
Lic. No. 048540
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

Christi Fragale
2018.03.02
10:10:50 -05'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	2E(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SCALE
0 10' 20'

Smoketown Rd./Opitz Blvd. Route 642 Curb Ramp Grading Details Sheet 1 of 2

PROJECT	SHEET NO.
EN15-076-108	2E(1)

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON,L.S.(WILLIAM H.GORDON ASSOCIATES,INC.),OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016.

FINAL PLANS

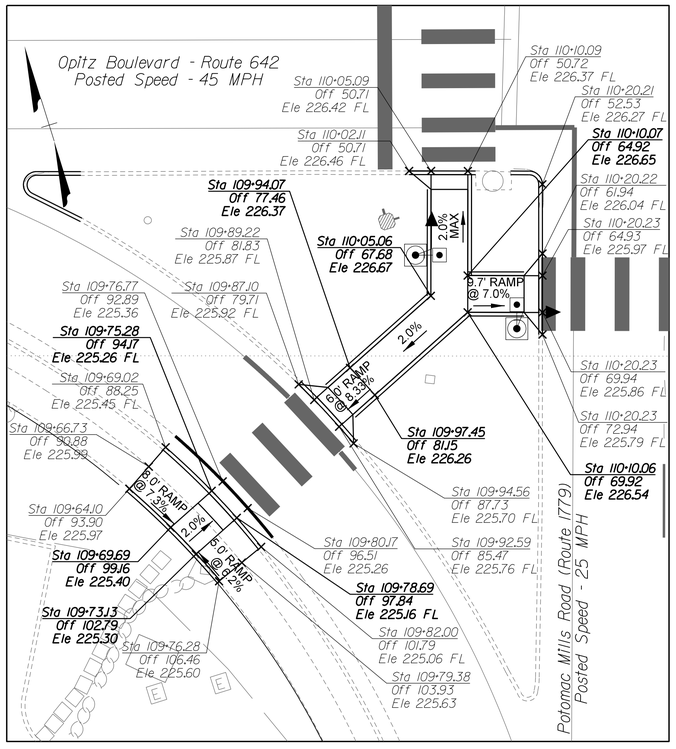
COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2018.03.02
10:11:37 -05'00'

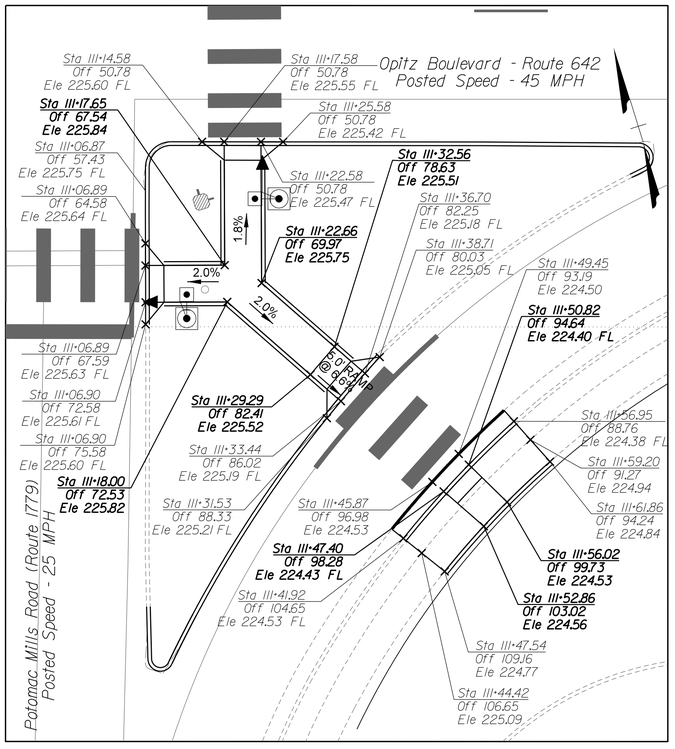
WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	2E(2)

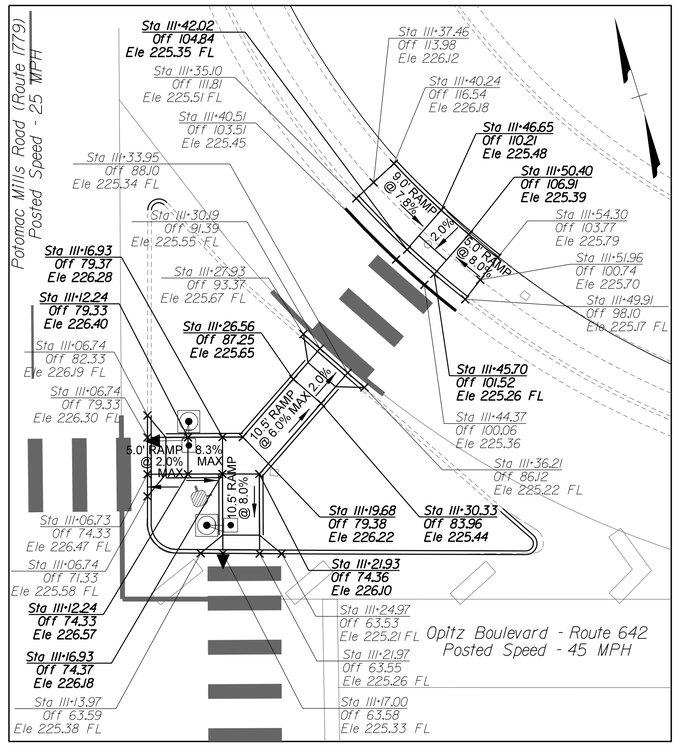
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



OPITZ BOULEVARD/POTOMAC MILLS RD
SW QUANDRANT

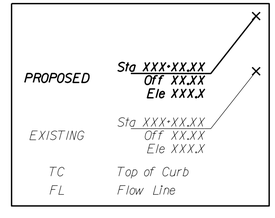


OPITZ BOULEVARD/POTOMAC MILLS RD
SE QUANDRANT



OPITZ BOULEVARD/POTOMAC MILLS RD
NE QUANDRANT

LEGEND



SCALE
0 10' 20'

Smoketown Rd./Opitz Blvd.
Route 642
Curb Ramp Grading Details
Sheet 2 of 2

	PROJECT	SHEET NO.
	EN15-076-108	2E(2)

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON, L.S.(WILLIAM H.GORDON ASSOCIATES,INC.), OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE, PE (WSP USA, INC.)_____
DESIGNED BY TUCKER BUCHANAN, PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC., OCTOBER 2016.

Utility Owner Contact Information		
Utility	**Owner**	**Phone**
Gas	Washington Gas	844-927-4427
Electric	Virginia Department of Transportation	703-259-2986
	Northern Virginia Electric Company	703-335-0500
Water	Prince William County Service Authority	703-335-7950
F.O.	AT&T	800-288-2020
	Verizon	800-837-4966
CATV	Comcast	888-266-2278
Sanitary Sewer	Prince William County Service Authority	703-335-7950
Storm Sewer	Prince William County Public Works	703-792-7070

FINAL PLANS

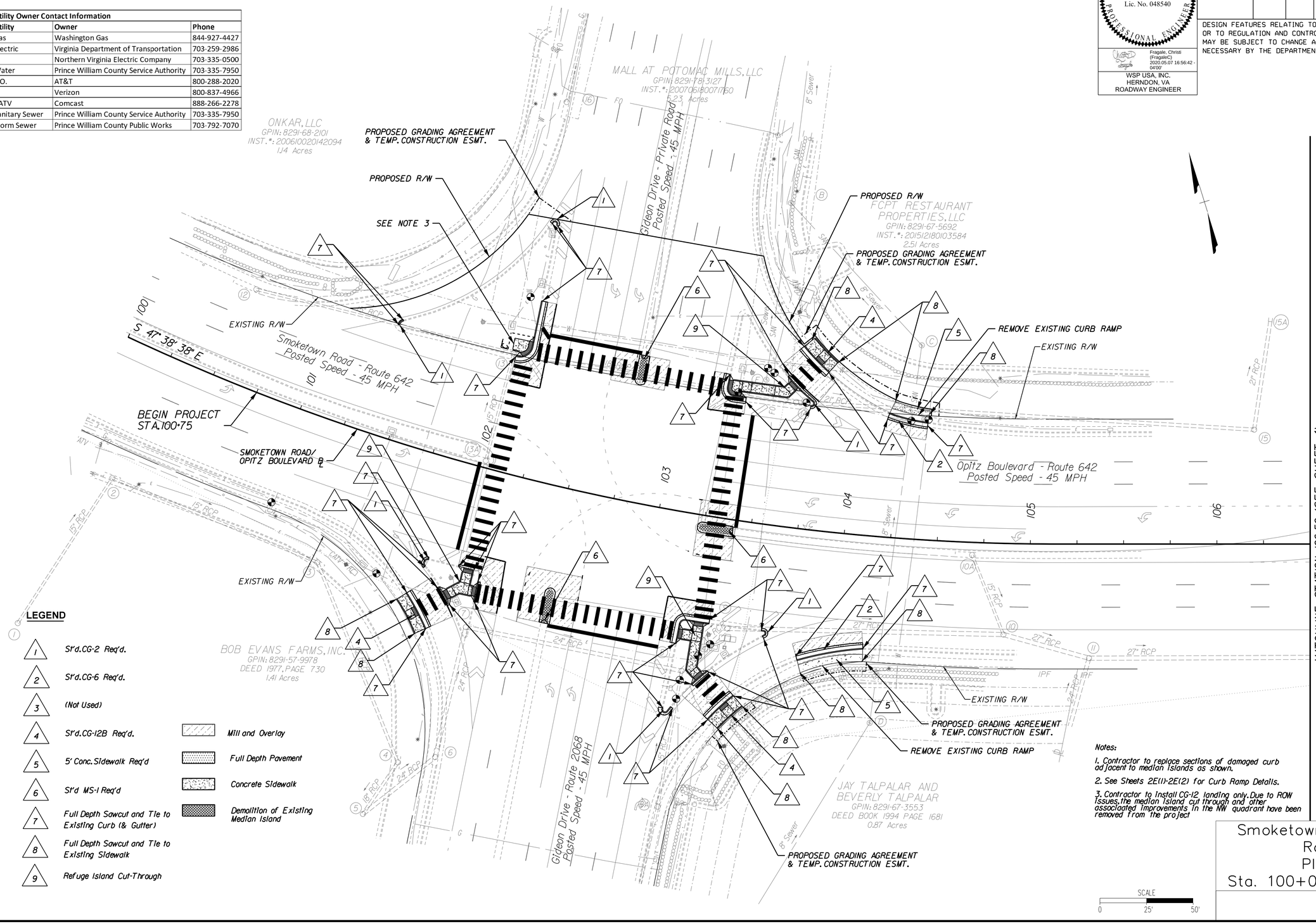
COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Fragale, Christi (FragaleC) 2020.05.07 16:56:42 -04'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	3

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



LEGEND

- 1 — St'd. CG-2 Req'd.
- 2 — St'd. CG-6 Req'd.
- 3 — (Not Used)
- 4 — St'd. CG-12B Req'd.
- 5 — 5' Conc. Sidewalk Req'd
- 6 — St'd MS-1 Req'd
- 7 — Full Depth Sawcut and Tie to Existing Curb (& Gutter)
- 8 — Full Depth Sawcut and Tie to Existing Sidewalk
- 9 — Refuge Island Cut-Through

- Mill and Overlay
- Full Depth Pavement
- Concrete Sidewalk
- Demolition of Existing Median Island

Notes:

1. Contractor to replace sections of damaged curb adjacent to median islands as shown.
2. See Sheets 2E(1)-2E(2) for Curb Ramp Details.
3. Contractor to install CG-12 landing only. Due to ROW issues, the median island cut through and other associated improvements in the NW quadrant have been removed from the project

Smoketown Rd./Opitz Blvd.
Route 642
Plan Sheet
Sta. 100+00 to Sta. 106+50

SCALE
0 25' 50'

	PROJECT	SHEET NO.
	EN15-076-108	3

PROJECT MANAGER _ _GLADIS_ARBOLEDA_(PWC-DOT.)
SURVEYED BY, DATE _ _WILLIAM_H_GORDON_ASSOCIATES_INC.
DESIGN SUPERVISED BY _ _CHRISTI_FRAGALE_PE_(WSP_USA_INC.)
DESIGNED BY _TUCKER_BUCHANAN_PE_(WSP_USA_INC.)

FINAL PLANS

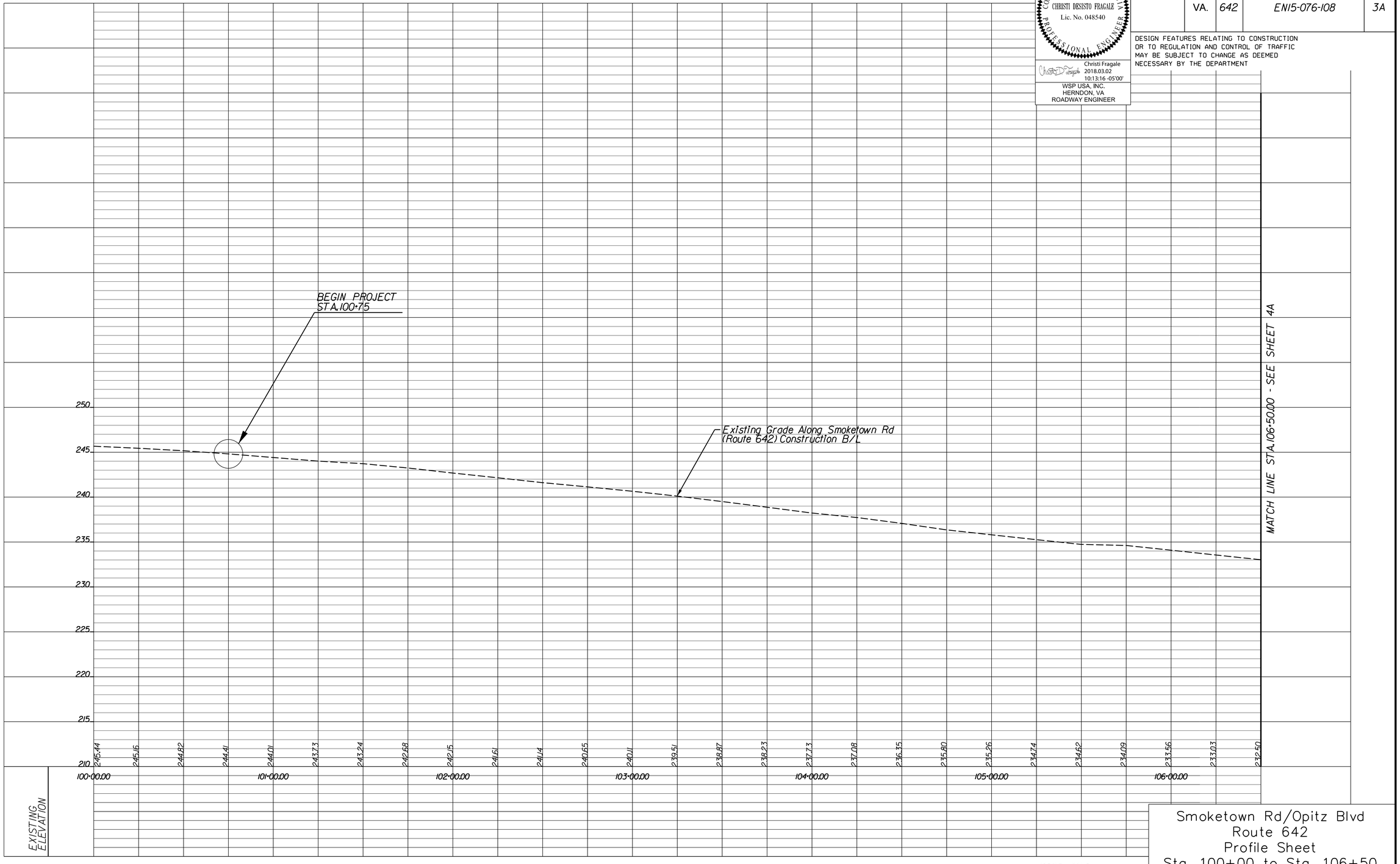
COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2018.03.02
10:13:16 -05'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	3A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Smoketown Rd/Opitz Blvd
Route 642
Profile Sheet
Sta. 100+00 to Sta. 106+50

PROJECT	SHEET NO.
EN15-076-108	3A

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON, L.S.(WILLIAM H.GORDON ASSOCIATES,INC.) OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC., OCTOBER 2016.

FINAL PLANS

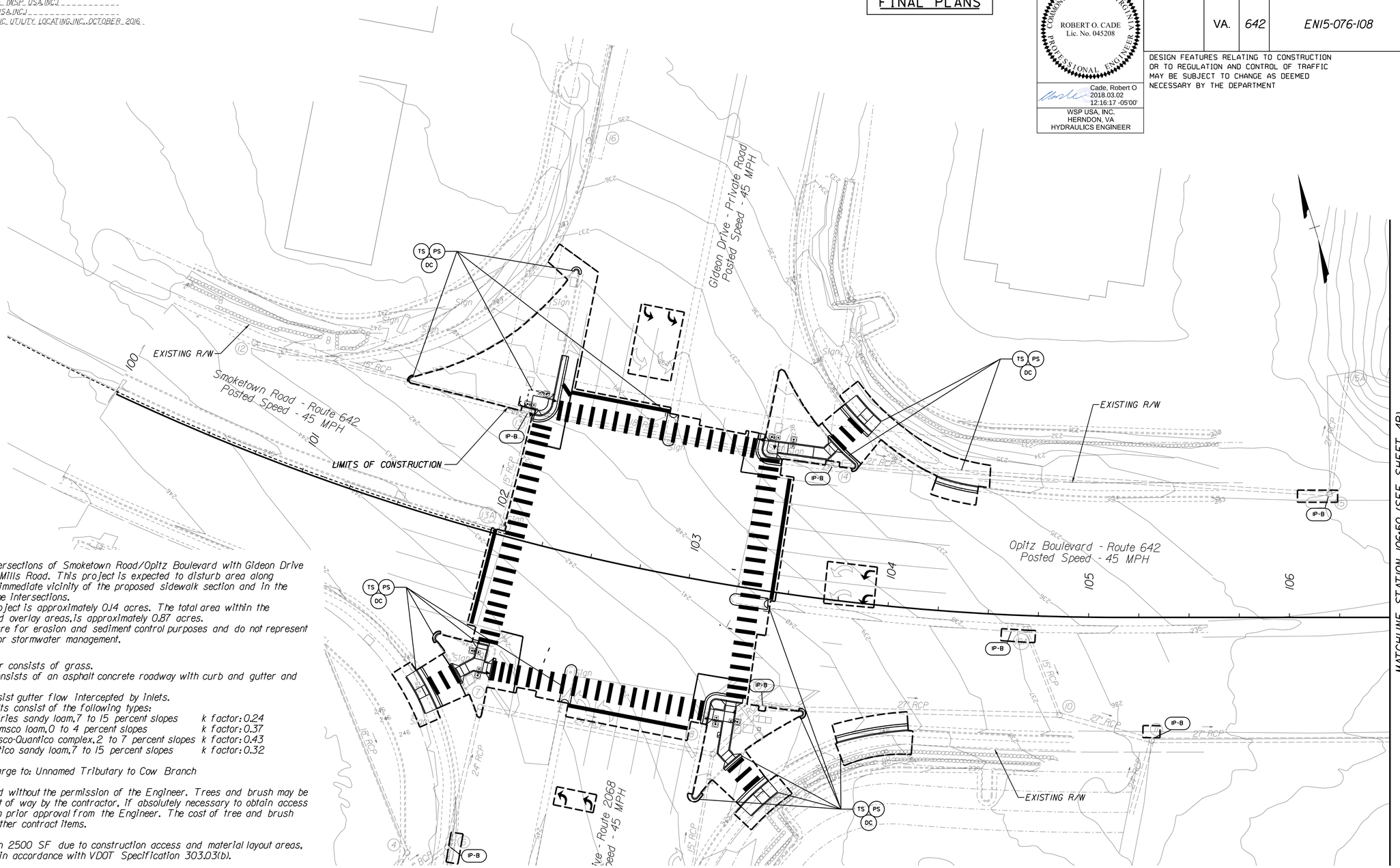
COMMONWEALTH OF VIRGINIA
ROBERT O. CADE
Lic. No. 045208
PROFESSIONAL ENGINEER

Cade, Robert O
2018.03.02
12:16:17 -05'00'

WSP USA, INC.
HERNDON, VA
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	3B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



PROJECT AREA
The work zone is located at the intersections of Smoketown Road/Opitz Boulevard with Gideon Drive and Opitz Boulevard with Potomac Mills Road. This project is expected to disturb area along westbound Smoketown Road in the immediate vicinity of the proposed sidewalk section and in the vicinity of the existing islands at the intersections.
The total disturbed area for the project is approximately 0.14 acres. The total area within the construction limits,including mill and overlay areas,is approximately 0.87 acres.
The Limits of Construction shown are for erosion and sediment control purposes and do not represent limits of disturbance as defined for stormwater management.

EXISTING SITE CONDITIONS
The existing project vegetative cover consists of grass.
The existing adjacent topography consists of an asphalt concrete roadway with curb and gutter and several intersection islands.
The existing drainage patterns consist gutter flow intercepted by inlets.
Soils located within the project limits consist of the following types:

Soil Number:18C	Soil Type:	Dumfries sandy loam,7 to 15 percent slopes	k factor:0.24
Soil Number:37A	Soil Type:	Marumsco loam,0 to 4 percent slopes	k factor:0.37
Soil Number:42B	Soil Type:	Neabsco-Quantico complex,2 to 7 percent slopes	k factor:0.43
Soil Number:47C	Soil Type:	Quantico sandy loam,7 to 15 percent slopes	k factor:0.32

County Reference: Prince William
Runoff from the project will discharge to: Unnamed Tributary to Cow Branch

Existing trees shall not be disturbed without the permission of the Engineer. Trees and brush may be removed or trimmed within the right of way by the contractor, if absolutely necessary to obtain access for performing bridge repairs, with prior approval from the Engineer. The cost of tree and brush removal is included in the cost of other contract items.

If the contractor disturbs more than 2500 SF due to construction access and material layout areas, site stabilization will be conducted in accordance with VDOT Specification 303.03(b).

The contractor is responsible for complying with both VDOT Specifications 106.03 and 106.04 for all off-site support facilities.

The contractor will ensure that all inlets receiving water from the project area are protected from sediment deposition.

All E&S controls shall be removed within 30 days after the project has been stabilized. The contractor shall be responsible for restoring all areas disturbed by project activities to their condition prior to the project, including but not limited to regrading, seeding, mulching, fertilizing.

For additional guidance on E&S controls, refer to IIM-LD-11.28.

CONTACT INFORMATION
VDOT (Northern Virginia District Office), Environmental Section
4975 Alliance Drive, Fairfax, VA 22030

SCALE
0 25' 50'

Smoketown Rd./Opitz Blvd.
Route 642
E&S Plan Sheet
Sta. 100+00 to Sta. 106+50

	PROJECT	SHEET NO.
	EN15-076-108	3B

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON, L.S.(WILLIAM H.GORDON ASSOCIATES,INC.), OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE, PE (WSP USA, INC.)_____
DESIGNED BY TUCKER BUCHANAN, PE (WSP USA, INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING, INC., OCTOBER 2016.

FINAL PLANS

COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Fragale, Christi (FragaleC) 2020.05.07 21:52:25 -04'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	4

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

MATCHLINE STATION 106+50 (SEE SHEET 3)

WOODBRIDGE COMMONS, LLC
GPIN: 8291-67-7973
INST.#: 201604040023782
1.66 Acres

APPROXIMATE LOCATION OF IMPROVEMENTS AS PROPOSED BY DEVELOPER. SEE WOODBRIDGE COMMONS CORNER (PROJ. PP12013-00661) AND SIGNAL MODIFICATION PLAN (PWC FILE NO. I3-00162R00S07). IT IS ANTICIPATED THAT CONSTRUCTION WILL BE COMPLETE PRIOR TO THE START OF THIS PEDESTRIAN IMPROVEMENT PROJECT. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.

EXISTING R/W

Potomac Mills Road - Route 1779
Posted Speed - 25 MPH

REMOVE EXISTING CURB RAMP

PROPOSED GRADING AGREEMENT & TEMP. CONSTRUCTION ESMT.

KAISER FOUNDATION HEALTH PLAN OF THE MID-ATLANTIC STATES, INC.
GPIN: 8291-77-3982
Deed Book 1659, Page 992
5.76 Acres

Opitz Boulevard - Route 642
Posted Speed - 45 MPH

107 108 109 110 111 112

S 72° 43' 56" E

END PROJECT STA. 112+18.25

SMOKETOWN ROAD/ OPITZ BOULEVARD ℄

27" RCP 15" RCP 48" RCP

POTOMAC FESTIVAL II, LLC
GPIN: 8291-67-6639
INST.#: 200503040034581
2.88 Acres

POTOMAC FESTIVAL, LLC
GPIN: 8291-76-1385
INST.#: 200112280139130
21.96 Acres

LEGEND

1	St'd.CG-2 Req'd.
2	St'd.CG-6 Req'd.
3	(Not Used)
4	St'd.CG-12B Req'd.
5	5' Conc. Sidewalk Req'd
6	St'd MS-1 Req'd
7	Full Depth Sawcut and Tie to Existing Curb (& Gutter)
8	Full Depth Sawcut and Tie to Existing Sidewalk
9	Refuge Island Cut-Through
10	St'd MS-2 Req'd

Mill and Overlay
Full Depth Pavement
Concrete Sidewalk
Demolition of Existing Median Island

Notes:

1. Contractor to replace sections of damaged curb adjacent to median islands as shown.
2. See Sheets 2E(1)-2E(2) for Curb Ramp Details.

SCALE
0 25' 50'

Smoketown Rd./Opitz Blvd.
Route 642
Plan Sheet
Sta. 106+50 to Sta. 113+00

	PROJECT	SHEET NO.
	EN15-076-108	4

PROJECT MANAGER _ _GLADIS_ARBOLEDA_(PWC-DOT.)
SURVEYED BY, DATE _ _WILLIAM_H.GORDON_ASSOCIATES,INC.
DESIGN SUPERVISED BY _ _CHRISTI_FRAGALE,PE_(WSP_USA,INC.)
DESIGNED BY _TUCKER_BUCHANAN,PE_(WSP_USA,INC.)

FINAL PLANS

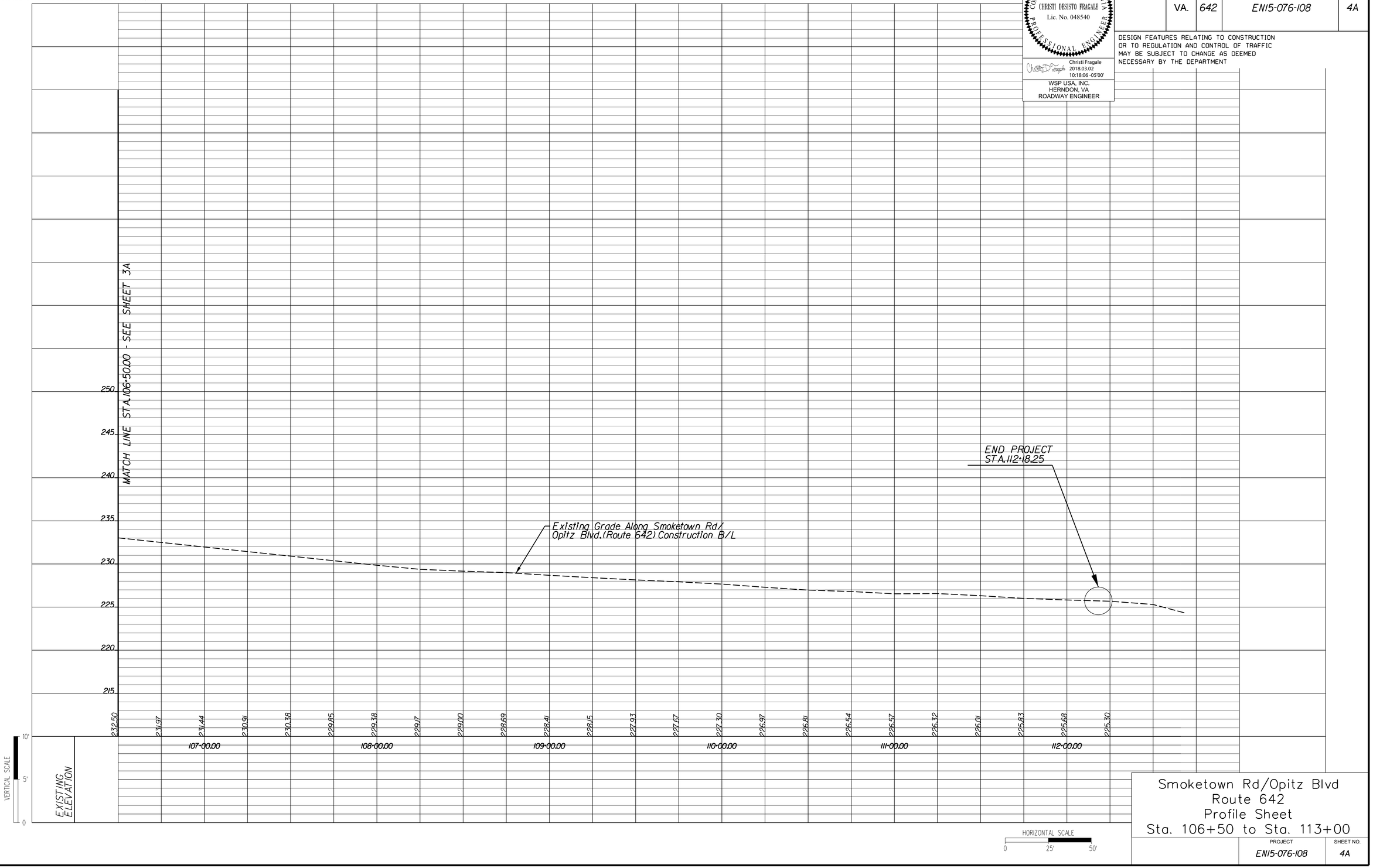
COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2018.03.02
10:18:06 -05'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	4A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Smoketown Rd/Opitz Blvd
Route 642
Profile Sheet
Sta. 106+50 to Sta. 113+00

PROJECT	SHEET NO.
EN15-076-108	4A

3/1/2018
3:32:27 PM

dl0752804B.dgn
Plotted By: buchanantm

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON,L.S.(WILLIAM H.GORDON ASSOCIATES,INC.),OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016.

FINAL PLANS

COMMONWEALTH OF VIRGINIA
ROBERT O. CADE
Lic. No. 045208
PROFESSIONAL ENGINEER

Cade, Robert O
2018.03.02
12:17:42 -05'00'

WSP USA, INC.
HERNDON, VA
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	4B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

MATCHLINE STATION 106+50 (SEE SHEET 3B)

Potomac Mills Road - Route 1779
Posted Speed - 25 MPH

Opitz Boulevard - Route 642
Posted Speed - 45 MPH

EXISTING R/W

LIMITS OF CONSTRUCTION

TS PS DC

MATCHLINE (SEE SHEET 4B(1))

MATCHLINE (SEE SHEET 4B(2))

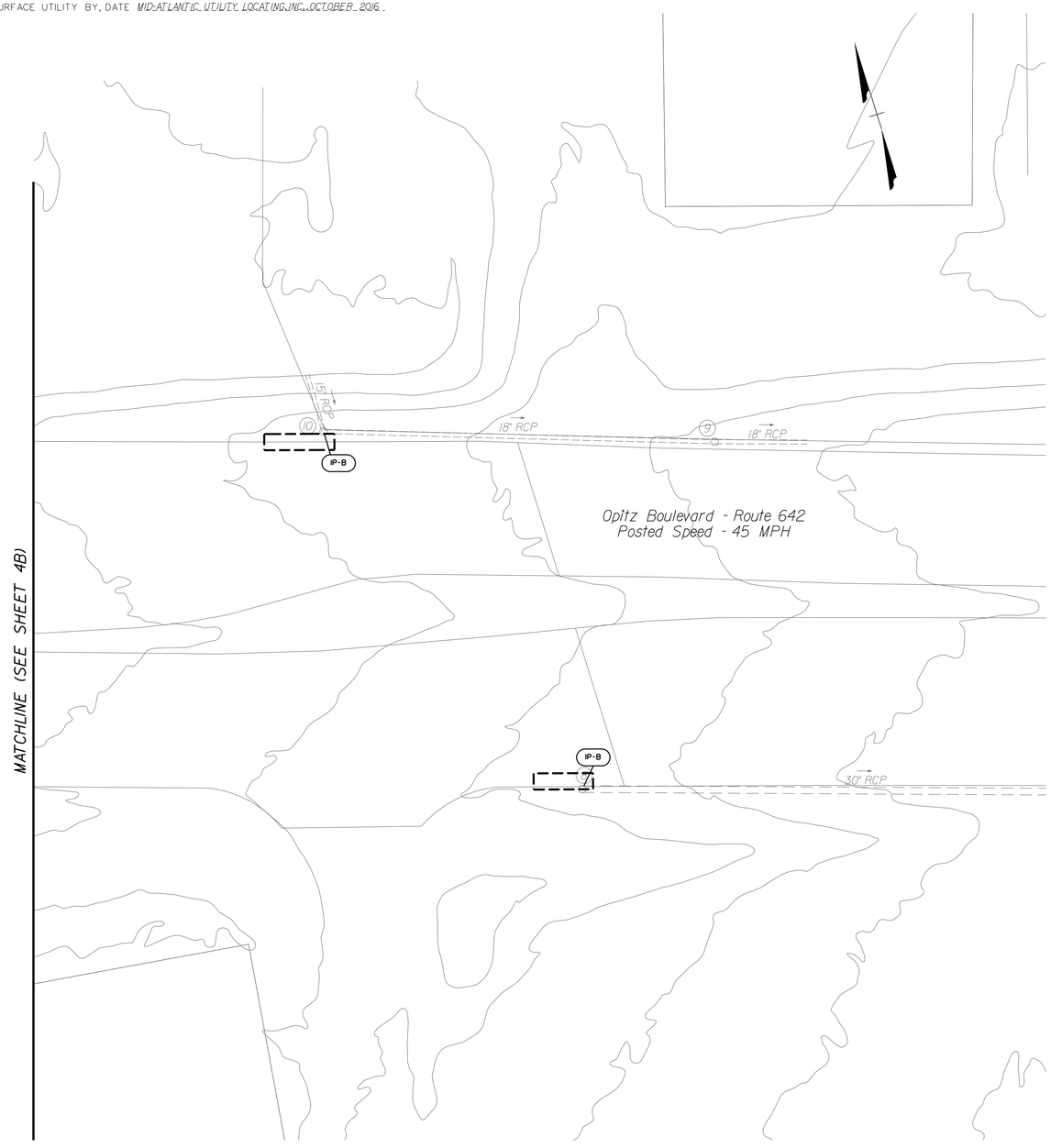
Smoketown Rd./Opitz Blvd.
Route 642
E&S Plan Sheet
Sta. 106+50 to Sta. 113+00

SCALE 0 25' 50'

	PROJECT	SHEET NO.
	EN15-076-108	4B

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON,L.S.(WILLIAM H.GORDON ASSOCIATES,INC.)_OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016_

FINAL PLANS



NOTE: THIS AREA IS BEYOND PROJECT LIMITS; PROVIDED FOR E&S PURPOSES ONLY

SCALE
0 25' 50'

OPITZ BOULEVARD AND GIDEON DRIVE STORM AS-BUILTS

STR. No.		ELEV.	DESCRIPTION	COMMENT
1	TOP	245.49	RIM (MANHOLE)	
	INVERT IN	241.44	15" RCP (FROM SOUTH)	
	INVERT OUT	241.24	15" RCP (TO #2)	
2	TOP	245.68	CURB INLET	
	INVERT IN	240.88	15" RCP (FROM #1)	
	INVERT OUT	240.83	15" RCP (TO #3)	
3	TOP	245.75	CURB INLET	
	INVERT IN	240.50	15" RCP (FROM #2)	
	INVERT OUT	240.40	18" RCP (TO #4)	
4	TOP	245.71	CURB INLET	
	INVERT IN	240.01	18" RCP (FROM #3)	
	INVERT OUT	239.81	18" RCP (TO #5)	
5	TOP	245.97	RIM (MANHOLE)	
	INVERT IN	UNKNOWN	18" RCP (FROM #4)	**PIPE NOT VISIBLE**
	INVERT OUT	239.62	24" RCP (TO #6)	
6	TOP	244.40	CURB INLET	
	INVERT IN	239.27	24" RCP (FROM #5)	
	INVERT OUT	239.12	24" RCP (TO #7)	
7	TOP	244.83	RIM (MANHOLE)	
	INVERT IN	238.83	24" RCP (FROM #6)	
	INVERT OUT	238.88	24" RCP (TO #8)	**CONFIRMED BACKFLOW**
8	TOP	242.46	RIM (MANHOLE)	
	INVERT IN	238.01	15" RCP (FROM #8A)	
	INVERT IN	237.86	24" RCP (FROM #7)	
	INVERT OUT	237.76	27" RCP (TO #9)	
8A	TOP	243.58	CURB INLET	
	INVERT IN	239.23	15" RCP (FROM #8B)	
	INVERT OUT	239.13	15" RCP (TO #8)	
8B	TOP	230.97	CURB INLET	
	INVERT OUT	227.12	15" RCP (TO #8A)	
9	TOP	241.72	CURB INLET	
	INVERT IN	235.62	27" RCP (FROM #8)	
	INVERT OUT	235.57	27" RCP (TO #10)	
10	TOP	236.84	RIM (MANHOLE)	
	INVERT IN	230.59	15" RCP (FROM #10A)	
	INVERT IN	230.79	27" RCP (FROM #9)	
	INVERT OUT	227.94	27" RCP (TO #10)	
10A	TOP	237.10	CURB INLET	
	INVERT OUT	233.40	15" RCP (TO #10)	
11	TOP	235.39	CURB INLET	
	INVERT IN	226.94	24" RCP (FROM #11A)	
	INVERT IN	226.89	27" RCP (FROM #10)	
	INVERT OUT	226.39	27" RCP (TO #4A)	
12	TOP	243.30	CURB INLET	
	INVERT OUT	237.30	15" RCP (TO #13)	
13	TOP	240.40	CURB INLET	
	INVERT IN	234.00	15" RCP (FROM #13A)	
	INVERT IN	234.00	15" RCP (FROM #12)	
	INVERT OUT	233.50	18" RCP (TO #14)	
13A	TOP	243.00	CURB INLET	
	INVERT OUT	236.35	15" RCP (TO #13)	
14	TOP	236.97	CURB INLET	
	INVERT IN	232.57	18" RCP (FROM #13)	
	INVERT OUT	232.32	21" RCP (TO #15)	
15	TOP	232.10	CURB INLET	
	INVERT IN	226.40	21" RCP (FROM #14)	
	INVERT OUT	226.00	21" RCP (TO NORTHEAST)	
15A	CULVERT	223.00	21" RCP (FROM #15)	
16	TOP	235.57	CURB INLET	
	INVERT OUT	230.32	15" RCP (TO #17)	
17	TOP	233.06	CURB INLET	
	INVERT IN	227.61	15" RCP (FROM #17A)	
	INVERT IN	227.46	15" RCP (FROM #16)	
	INVERT OUT	227.31	21" RCP (TO #18)	
17A	TOP	233.90	CURB INLET	
	INVERT IN	228.90	6" PVC (FROM TD)	
	INVERT IN	228.30	6" PVC (FROM UNKNOWN)	
	INVERT OUT	228.25	15" RCP (TO #17)	
18	TOP	228.72	CURB INLET	
	INVERT IN	222.27	21" RCP (FROM #18A)	
	INVERT IN	222.27	21" RCP (FROM #17)	
	INVERT OUT	222.02	21" RCP (TO #19)	

COMMONWEALTH OF VIRGINIA
ROBERT O. CADE
Lic. No. 045208
PROFESSIONAL ENGINEER

Cade, Robert O
2018.03.02
12:16:47 -05'00'

WSP USA, INC.
HERNDON, VA
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	4B(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

OPITZ BOULEVARD AND GIDEON DRIVE STORM AS-BUILTS (CONT.)

STR. No.		ELEV.	DESCRIPTION	COMMENT
18A	TOP	228.89	CURB INLET	
	INVERT IN	223.19	15" RCP (FROM NORTHWEST)	
	INVERT IN	222.64	21" RCP (FROM #18B)	
	INVERT OUT	222.64	21" RCP (TO #18)	
18B	TOP	230.97	CURB INLET	
	INVERT IN	223.62	21" RCP (FROM #18C)	
	INVERT OUT	223.52	21" RCP (TO #18A)	
18C	TOP	231.40	RIM (MANHOLE)	
	INVERT OUT	224.20	21" RCP (TO #18B)	**CANNOT ACCESS OTHER PIPES**
19	TOP	227.46	CURB INLET	
	INVERT IN	220.96	21" RCP (FROM #18)	
	INVERT OUT	220.71	24" RCP (TO #20)	
20	TOP	225.21	CURB INLET	
	INVERT IN	219.11	24" RCP (FROM #19)	
	INVERT OUT	219.01	24" RCP (TO NORTH)	

OPITZ BOULEVARD AND POTOMAC MILLS DRIVE STORM AS-BUILTS

STR. No.		ELEV.	DESCRIPTION	COMMENT
10	TOP	219.26	CURB INLET	
	INVERT IN	214.96	15" RCP (FROM NORTH)	
	INVERT OUT	213.91	18" RCP (TO #9)	
9	TOP	215.41	CURB INLET	
	INVERT IN	211.36	15" RCP (FROM #10)	
	INVERT OUT	211.26	18" RCP (TO EAST)	
8	TOP	217.22	CURB INLET	
	INVERT OUT	209.45	18" RCP (TO #7)	
7	TOP	211.97	CURB INLET	
	INVERT IN	208.08	15" RCP (FROM #8)	
	INVERT OUT	207.23	18" RCP (TO #6)	
6	TOP	210.56	CURB INLET	
	INVERT IN	206.66	15" RCP (FROM #7)	
	INVERT OUT	206.57	18" RCP (TO NORTH)	
5	TOP	226.74	CURB INLET	
	INVERT OUT	222.34	15" RCP (TO #4)	
4A	TOP	228.84	CURB INLET	
	INVERT IN	219.34	27" RCP (FROM #11)	
	INVERT IN	217.15	15" RCP (FROM SOUTHWEST)	
	INVERT IN	210.34	NORTHWEST, UNKNOWN LOCATION	
	INVERT OUT	210.09	48" RCP (TO #4)	
4	TOP	223.58	RIM (MANHOLE)	
	INVERT IN	218.03	15" RCP (FROM #5)	
	INVERT IN	208.23	48" RCP (FROM #4A)	
	INVERT OUT	207.98	48" RCP (TO SOUTH)	
4B	TOP	219.87	RIM (MANHOLE)	
	INVERT IN	213.30	15" RCP (FROM WEST)	
	INVERT IN	207.52	48" RCP (FROM #4)	
	INVERT OUT	207.44	48" RCP (TO #4C)	
4C	TOP	217.71	CURB INLET	
	INVERT IN	212.31	15" RCP (FROM EAST)	
	INVERT IN	206.43	48" RCP (FROM #4B)	
	INVERT OUT	206.11	48" RCP (TO SOUTH)	
3	TOP	227.19	CURB INLET	
	INVERT IN	UNKNOWN	UNKNOWN	**FULL OF DEBRIS**
	INVERT OUT	UNKNOWN	UNKNOWN	**FULL OF DEBRIS**
2	TOP	226.82	CURB INLET	
	INVERT IN	222.42	15" RCP (FROM #3)	
	INVERT OUT	222.32	15" RCP (TO #1)	
1	CULVERT	221.94	15" RCP (FROM #2)	

Smoketown Rd./Opitz Blvd.
Route 642
E&S Plan Sheet
East of Potomac Mills Road

	PROJECT	SHEET NO.
	EN15-076-108	4B(1)

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON, L.S.(WILLIAM H.GORDON ASSOCIATES,INC.)_OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE, PE (WSP USA, INC.)_____
DESIGNED BY TUCKER BUCHANAN, PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC., OCTOBER 2016.

FINAL PLANS

COMMONWEALTH OF VIRGINIA
ROBERT O. CADE
Lic. No. 045208
PROFESSIONAL ENGINEER

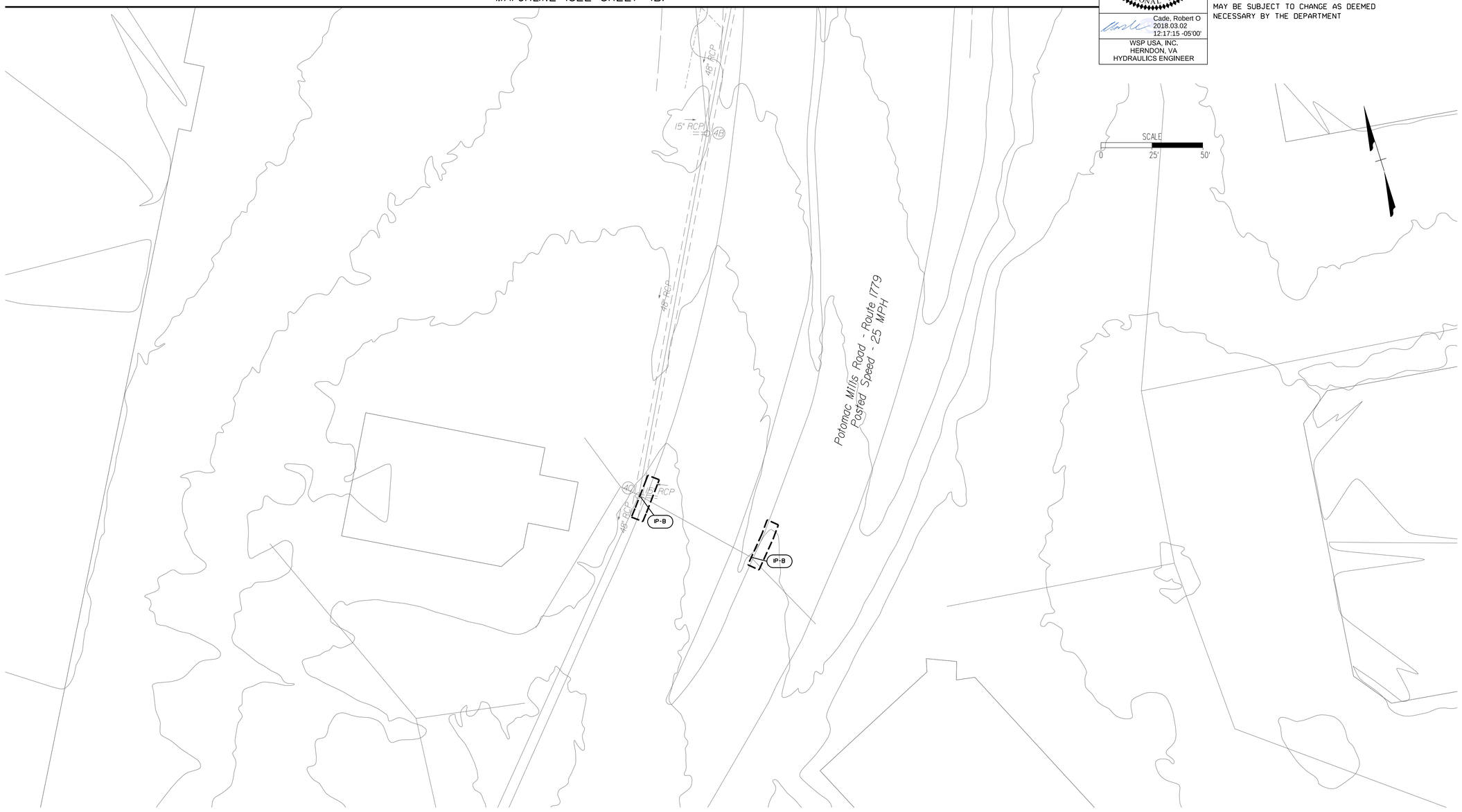
Cade, Robert O
2018.03.02
12:17:15 -05'00'

WSP USA, INC.
HERNDON, VA
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	4B(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

MATCHLINE (SEE SHEET 4B)



NOTE: THIS AREA IS BEYOND PROJECT LIMITS; PROVIDED FOR E&S PURPOSES ONLY

SCALE
0 25' 50'

Potomac Mills Road
E&S Plan Sheet
South of Opitz Boulevard

	PROJECT	SHEET NO.
	EN15-076-108	4B(2)

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON,L.S.(WILLIAM H.GORDON ASSOCIATES,INC.)_OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
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SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016.

FINAL PLANS

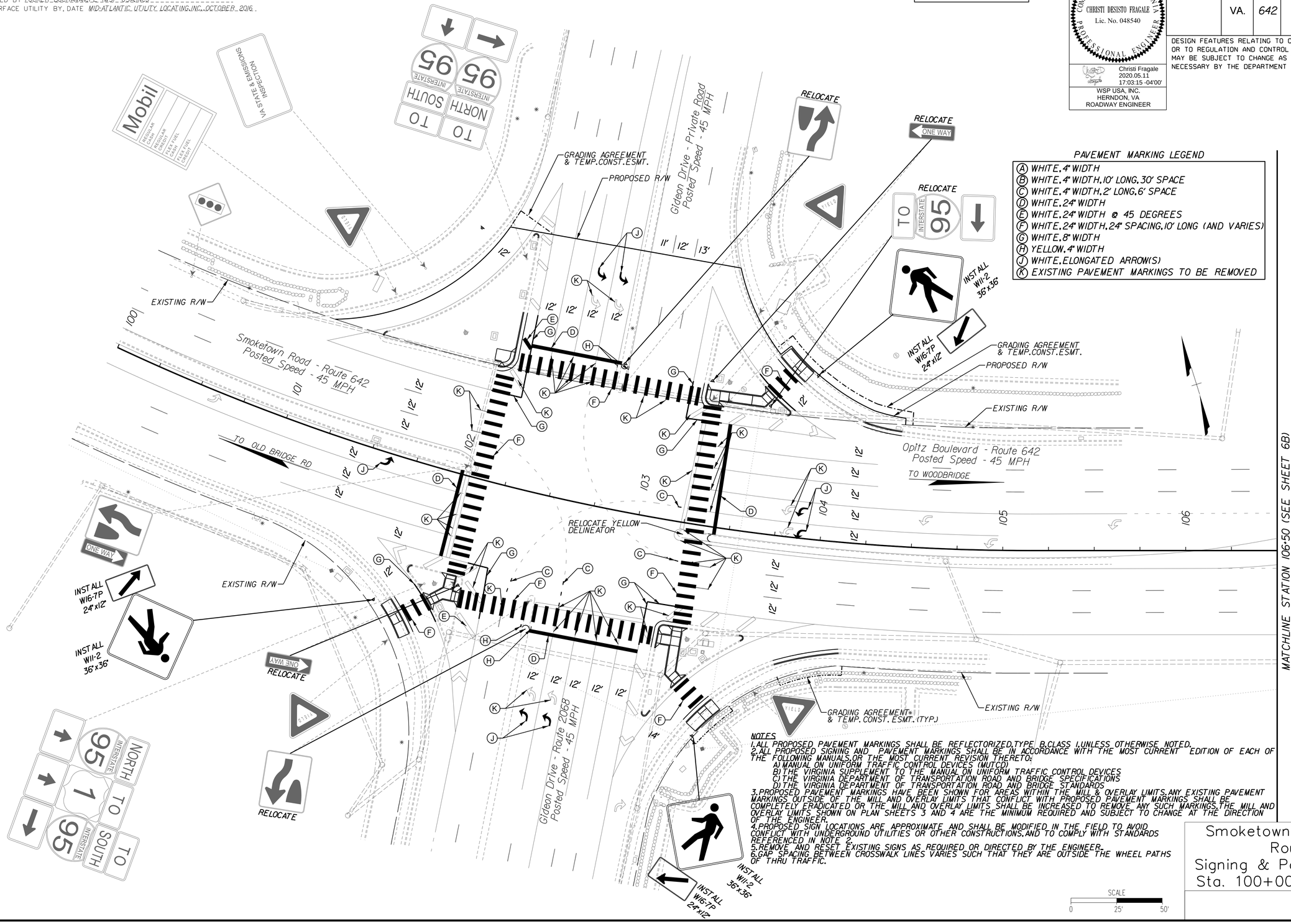
COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2020.05.11
17:03:15 -04'00'

WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	6A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



PAVEMENT MARKING LEGEND

- (A) WHITE, 4" WIDTH
- (B) WHITE, 4" WIDTH, 10' LONG, 30' SPACE
- (C) WHITE, 4" WIDTH, 2' LONG, 6' SPACE
- (D) WHITE, 24" WIDTH
- (E) WHITE, 24" WIDTH @ 45 DEGREES
- (F) WHITE, 24" WIDTH, 24" SPACING, 10' LONG (AND VARIES)
- (G) WHITE, 8" WIDTH
- (H) YELLOW, 4" WIDTH
- (J) WHITE, ELONGATED ARROW(S)
- (K) EXISTING PAVEMENT MARKINGS TO BE REMOVED

NOTES
1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE REFLECTORIZED, TYPE B, CLASS I, UNLESS OTHERWISE NOTED.
2. ALL PROPOSED SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF EACH OF THE FOLLOWING MANUALS, OR THE MOST CURRENT REVISION THERETO:
   A) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
   B) THE VIRGINIA SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
   C) THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS
   D) THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS
3. PROPOSED PAVEMENT MARKINGS HAVE BEEN SHOWN FOR AREAS WITHIN THE MILL & OVERLAY LIMITS. ANY EXISTING PAVEMENT MARKINGS OUTSIDE OF THE MILL AND OVERLAY LIMITS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE COMPLETELY ERADICATED OR THE MILL AND OVERLAY LIMITS SHALL BE INCREASED TO REMOVE ANY SUCH MARKINGS. THE MILL AND OVERLAY LIMITS SHOWN ON PLAN SHEETS 3 AND 4 ARE THE MINIMUM REQUIRED AND SUBJECT TO CHANGE AT THE DIRECTION OF THE ENGINEER.
4. PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE MODIFIED IN THE FIELD TO AVOID CONFLICT WITH UNDERGROUND UTILITIES OR OTHER CONSTRUCTIONS, AND TO COMPLY WITH STANDARDS REFERENCED IN NOTE 2.
5. REMOVE AND RESET EXISTING SIGNS AS REQUIRED OR DIRECTED BY THE ENGINEER.
6. GAP SPACING BETWEEN CROSSWALK LINES VARIES SUCH THAT THEY ARE OUTSIDE THE WHEEL PATHS OF THRU TRAFFIC.

SCALE
0 25' 50'

Smoketown Rd./Opitz Blvd.
Route 642
Signing & Pavement Markings
Sta. 100+00 to Sta. 106+50

	PROJECT	SHEET NO.
	EN15-076-108	6A

5/11/2020
2:50:46 PM

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Plotted By: buchanantm

PROJECT MANAGER GLADIS ARBOLEDA (PWC-DOT)
SURVEYED BY, DATE KEVIN D. NELSON, L.S. (WILLIAM H. GORDON ASSOCIATES, INC.) OCTOBER 2016
DESIGN SUPERVISED BY CHRISTI FRAGALE, PE (WSP USA, INC.)
DESIGNED BY TUCKER BUCHANAN, PE (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING, INC., OCTOBER 2016

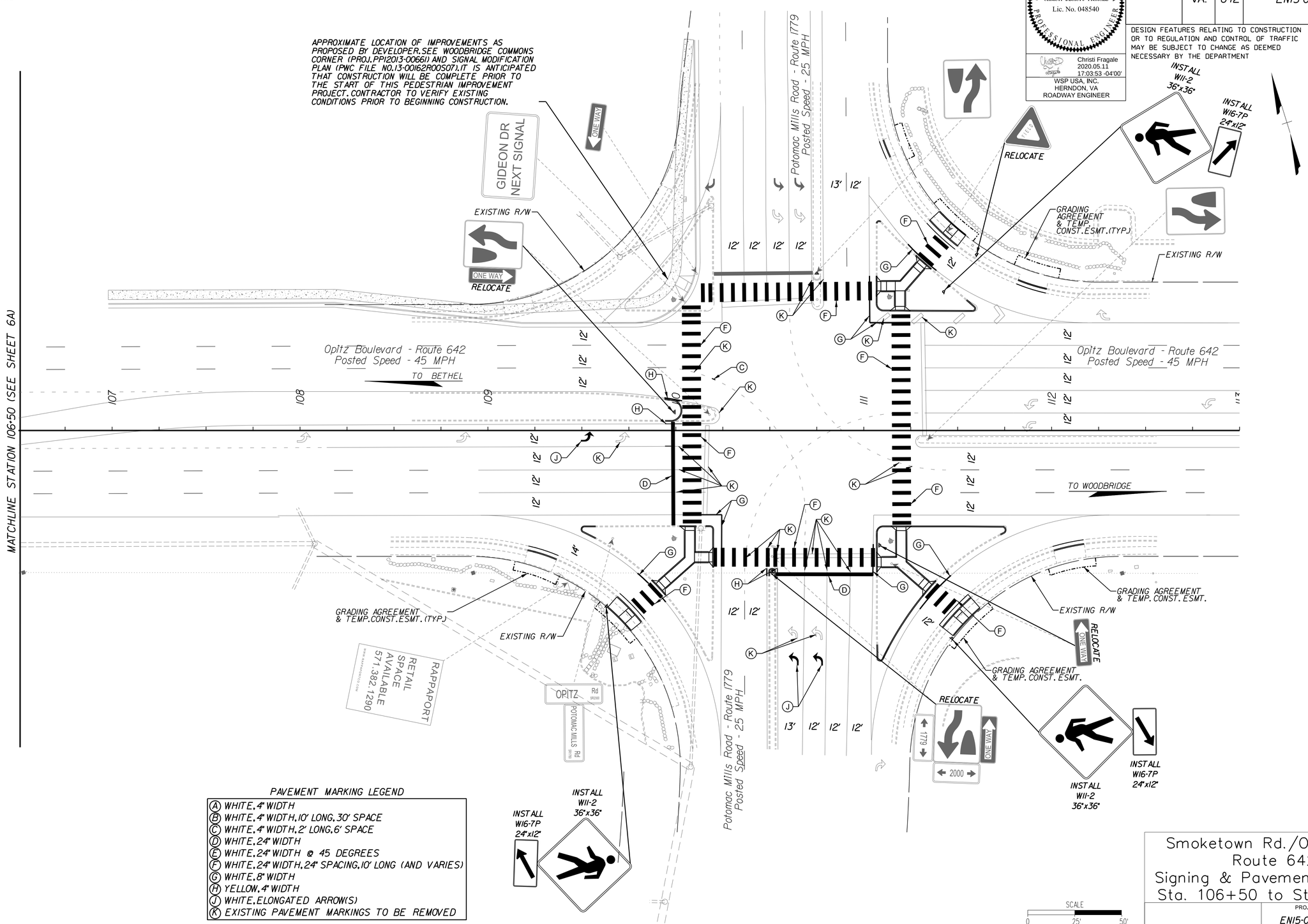
FINAL PLANS

COMMONWEALTH OF VIRGINIA
CHRISTI DESISTO FRAGALE
Lic. No. 048540
PROFESSIONAL ENGINEER

Christi Fragale
2020.05.11
17:03:53 -04'00'
WSP USA, INC.
HERNDON, VA
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	6B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



PAVEMENT MARKING LEGEND

- (A) WHITE, 4" WIDTH
- (B) WHITE, 4" WIDTH, 10' LONG, 30' SPACE
- (C) WHITE, 4" WIDTH, 2' LONG, 6' SPACE
- (D) WHITE, 24" WIDTH
- (E) WHITE, 24" WIDTH @ 45 DEGREES
- (F) WHITE, 24" WIDTH, 24" SPACING, 10' LONG (AND VARIES)
- (G) WHITE, 8" WIDTH
- (H) YELLOW, 4" WIDTH
- (J) WHITE, ELONGATED ARROW(S)
- (K) EXISTING PAVEMENT MARKINGS TO BE REMOVED

Smoketown Rd./Opitz Blvd.
Route 642
Signing & Pavement Markings
Sta. 106+50 to Sta. 113+00

PROJECT	SHEET NO.
EN15-076-108	6B

PROJECT MANAGER _ GLADIS ARBOLEDA (ENG; DOT) _
SURVEYED BY, DATE _ KEVIN D. NELSON, L.S. (WILLIAM H. GORDON ASSOCIATES, INC.), OCTOBER 2016 _
DESIGN SUPERVISED BY CHRISTI FRAGALE, PE (WSP USA, INC.) _
DESIGNED BY TUCKER BUCHANAN, PE (WSP USA, INC.) _
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING, INC., OCTOBER 2016 .

COLOR SEQUENCE CHART

PHASE	1	2	3	4	5	6	7	8	1-5	1-6	2-5	2-6	3-7	3-8	4-7	4-8	
SIGNAL	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	FLASH
1	~~G~~								~~G~~	~~G~~							~~R~~
2		G									G	G					Y
3			~~G~~										~~G~~	~~G~~			~~R~~
4				G											G	G	R
5					~~G~~				~~G~~		~~G~~						~~R~~
6						G				G		G					Y
7							~~G~~						~~G~~		~~G~~		~~R~~
8								G						G		G	R
P2		•WALK									•WALK	•WALK					BLANK
P4				•WALK											•WALK	•WALK	BLANK
P6						•WALK				•WALK		•WALK					BLANK
P8								•WALK						•WALK		•WALK	BLANK

NOTE: BLANK SPACES REPRESENT A RED DISPLAY. •WALK INDICATION DISPLAYED AFTER PEDESTRIAN CALL IS SERVICED; OTHERWISE "DON'T WALK" INDICATION IS DISPLAYED.

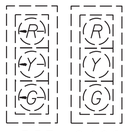
PROPOSED SIGNS

S-1 S-2

R10-3e(R) 9"X15" R10-3e(L) 9"X15"

EXISTING SIGNS

SIGNALS



1,3,5,7 2,4,6,8

SP-9

P2,P4,P6,P8

ALL VEHICULAR TRAFFIC SIGNALS ARE EXISTING TO REMAIN. ALL PEDESTRIAN SIGNALS ARE PROPOSED SP-9 AND SHALL BE COUNTDOWN LED.

INITIAL TIMING CHART

PHASE	1	2	3	4	5	6	7	8
MOVEMENT	WBL	EBT	NBL	SBT	EBL	WBT	SBL	NBT
PHASE ON	X	X	X	X	X	X	X	X
PHASE OFF								
INTERVAL	PHASE TIMINGS							
MIN GR	5.0	15.0	5.0	5.0	5.0	15.0	5.0	5.0
PASSAGE	3.0	4.0	3.0	3.0	3.0	4.0	3.0	3.0
AMBER	**3.8**	**5.1**	**4.1**	**4.5**	**4.1**	**4.6**	**3.7**	**5.1**
RED	**4.5**	**1.0**	**4.1**	**1.0**	**4.0**	**1.0**	**4.4**	**1.0**
MAX 1	20.0	45.0	25.0	27.0	20.0	45.0	25.0	25.0
MAX 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN GAP	3.0	4.0	3.0	3.0	3.0	4.0	3.0	3.0
TIME BEFORE REDUCTION	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TIME TO REDUCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADV/PED WALK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PED WALK	**0.0**	**7.0**	**0.0**	**8.0**	**0.0**	**7.0**	**0.0**	**8.0**
PED CLEARANCE	**0.0**	**27.0**	**0.0**	**29.0**	**0.0**	**26.0**	**0.0**	**31.0**
MODE	NON-LOCK	MIN RECALL	NON-LOCK	NON-LOCK	NON-LOCK	MIN RECALL	NON-LOCK	NON-LOCK

NOTE: TIMINGS BASED EXISTING SIGNAL PLAN RECEIVED BY NROIC.
BOLD = NEW

NOTES

1. POLE 9 IS A PROP. PA-4 WITH 10' CLEARANCE TO POLE 8.
2. VEHICLE DETECTORS FOR ALL PHASES SHALL OPERATE IN NON-LOCK MODE.
3. PEDESTRIAN PUSH BUTTONS AND PUSH BUTTON SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH ST'D. PA-2.
4. ALL PEDESTRIAN SIGNAL HEADS ARE TO BE MOUNTED IN ACCORDANCE WITH ST'D. SMB-3, ONE WAY. PEDESTAL POLES AND FOUNDATIONS SHALL BE INSTALLED IN ACCORDANCE WITH ST'D. PF-2, 12' HEIGHT.
5. EXISTING PRESENCE LOOPS FOR THIS APPROACH TO BE ABANDONED. REPLACE WITH NEW LOOPS IN THE LOCATIONS SHOWN. THE EXISTING CABLES FOR THE ABANDONED LOOPS SHALL BE REMOVED FROM ALL CONDUITS AND THE CONTROLLER CABINET. NEW LOOPS SHALL HAVE NEW CABLES TO THE CONTROLLER CABINET.
6. ALL EXISTING SIGNAL EQUIPMENT AT THIS INTERSECTION TO REMAIN IN PLACE EXCEPT THE LOOP DETECTORS CALLED OUT ON THE PLAN FOR REPLACEMENT, AND THE CABLES FROM THOSE LOOPS TO THE CABINET.
7. CONTROLLER SHALL REST IN PHASE 2-6 MINIMUM GREEN.
8. EXISTING CCTV SHALL REMAIN OPERATIONAL AND FULLY FUNCTIONAL WITHOUT INTERRUPTION FOR THE DURATION OF CONSTRUCTION.

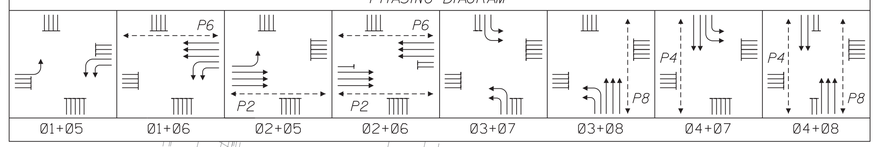
CLEARANCE CHART

R/W	CLEARANCE 1	CLEARANCE 2	NEXT PHASE
G	Y	R	R
G	G	G	G
~~G~~	~~Y~~	~~R~~	~~R~~
~~G~~	~~G~~	~~G~~	~~G~~
WALK	FDW	DW	DW
WALK	WALK	WALK	WALK

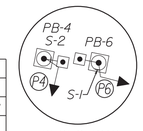
JUNCTION BOX LEGEND

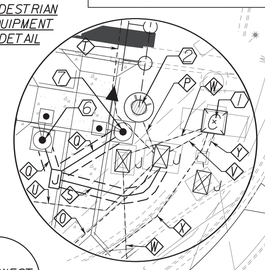
ALL JUNCTION BOXES SHALL CONFORM TO STANDARD JB-S2 UNLESS OTHERWISE NOTED ON THE PLANS

PHASING DIAGRAM

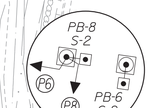


PEDESTRIAN EQUIPMENT DETAIL

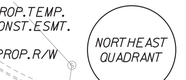




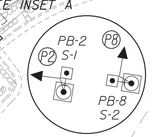
INSET A (SCALE: 1" = 10')



PEDESTRIAN EQUIPMENT DETAIL



PEDESTRIAN EQUIPMENT DETAIL



PEDESTRIAN EQUIPMENT DETAIL

SIGNAL POLE & CONTROLLER LEGEND

1. EXIST. CONTROLLER CABINET; 103+46.1' / 63.4' R
2. EXIST. SIGNAL POLE; STA. 103+36.2, 62.9' R
3. EXIST. SIGNAL POLE; STA. 103+38.3, 79.5' L
4. EXIST. SIGNAL POLE; STA. 101+81.0, 75.0' L
5. EXIST. SIGNAL POLE; STA. 102+01.9, 61.7' R
6. PROP. PEDESTAL POLE; STA. 103+24.6, 69.4' R
7. PROP. PEDESTAL POLE; STA. 103+34.7, 66.6' R
8. PROP. PEDESTAL POLE; STA. 103+29.7, 76.2' L
9. PROP. PED. POLE PA-4; STA. 103+41.4, 76.5' L
10. PROP. PEDESTAL POLE; STA. 102+07.7, 73.6' L
11. PROP. PEDESTAL POLE; STA. 101+99.4, 66.5' L
12. PROP. PEDESTAL POLE; STA. 102+05.0, 59.2' R
13. PROP. PEDESTAL POLE; STA. 102+10.6, 70.4' R

CABLE & CONDUIT RUNS

(A) EXIST. 3-1" CONDUIT (M) REMAIN
(B) EXIST. 1-3" CONDUIT REMAIN
EXIST. 3-14/2C (S) REMAIN
(C) EXIST. 1-3" CONDUIT REMAIN
EXIST. 4-14/2C (S) REMAIN
(D) EXIST. 1-3" CONDUIT REMAIN
EXIST. 1-14/2C (S) REMAIN
(E) EXIST. 2-1" CONDUIT (M) REMAIN
(F) EXIST. 1-4" CONDUIT REMAIN
EXIST. 7-14/2C (S);
REMOVE 2-14/2C (S)
REMAIN 5-14/2C (S)
PROP. 2-14/2C (S)
(G) EXIST. 4-1" CONDUIT (M) REMAIN
(H) EXIST. 1-3" PVC CONDUIT REMAIN
EXIST. 5-14/2C (S);
REMOVE 4-14/2C (S)
REMAIN 1-14/2C (S)
PROP. 4-14/2C (S)
(J) EXIST. 1-1" CONDUIT (M) REMAIN
(K) EXIST. 1-4" CONDUIT REMAIN
EXIST. 1-14/2C (S) REMOVE
PROP. 1-14/2C (S)
(L) EXIST. 1-4" CONDUIT REMAIN
EXIST. 5-14/2C (S);
REMOVE 1-14/2C (S)
REMAIN 4-14/2C (S)
PROP. 1-14/2C (S)
(M) EXIST. 5-1" CONDUIT (M) REMAIN
(N) EXIST. 1-4" CONDUIT REMAIN
EXIST. 1-14/2C (S) REMAIN
(O) EXIST. 1-3" CONDUIT REMAIN
EXIST. 6-14/2C (S);
REMOVE 5-14/2C (S)
REMAIN 1-14/2C (S)
PROP. 5-14/2C (S)
(P) EXIST. 1-3" CONDUIT REMAIN
EXIST. 2-14/7C REMAIN
EXIST. 1-PREEMPT CABLE REMAIN
EXIST. •6 AWG EGC REMAIN
(Q) **PROP. 1-3" PVC CONDUIT**
PROP. 1-14/2C
PROP. 1-14/7C
PROP. 1-•6 AWG EGC
(R) EXIST. 1-4" CONDUIT REMAIN
EXIST. 2-14/7C REMAIN
EXIST. 5-14/2C (S);
REMOVE 4-14/2C (S)
REMAIN 1-14/2C (S)
EXIST. 1-PREEMPT CABLE REMAIN
EXIST. •6 AWG EGC REMAIN
PROP. 4-14/2C (S)
PROP. 2-14/2C
PROP. 2-14/7C

(S) **PROP. 1-3" PVC CONDUIT**
PROP. 2-14/2C
PROP. 2-14/7C
PROP. 1-•6 AWG EGC
(T) EXIST. 1-4" CONDUIT REMAIN
EXIST. 4-14/7C REMAIN
EXIST. 12-14/2C (S);
REMOVE 6-14/2C (S)
REMAIN 6-14/2C (S)
EXIST. 2-PREEMPT CABLE REMAIN
EXIST. •6 AWG EGC REMAIN
PROP. 6-14/2C (S)
PROP. 4-14/2C
PROP. 4-14/7C
(U) EXIST. 1-4" CONDUIT REMAIN
EXIST. 2-14/7C REMAIN
EXIST. 6-14/2C (S);
REMOVE 1-14/2C (S)
REMAIN 5-14/2C (S)
EXIST. 1-PREEMPT CABLE REMAIN
EXIST. •6 AWG EGC REMAIN
PROP. 1-14/2C (S)
PROP. 2-14/2C
PROP. 2-14/7C
(V) EXIST. 2-4" CONDUIT REMAIN
EXIST. 8-14/7C REMAIN
EXIST. 24-14/2C (S);
REMOVE 12-14/2C (S)
REMAIN 12-14/2C (S)
EXIST. 4-PREEMPT CABLE REMAIN
EXIST. •6 AWG EGC REMAIN
PROP. 12-14/2C (S)
PROP. 8-14/2C
PROP. 8-14/7C
(W) EXIST. 1-2" CONDUIT REMAIN
EXIST. 1-COMMUNICATIONS CABLE REMAIN
(X) EXIST. 1-1 1/4" (M) CONDUIT REMAIN
EXIST. 3-•6 ELECT. SERVICE CABLE REMAIN
EXIST. 1-•6 AWG EGC
(Y) EXIST. 1-1" CONDUIT REMAIN
EXIST. 1-•6 AWG EGC REMAIN
(Z) **PROP. 1-3" PVC CONDUIT**
PROP. 1-14/2C
PROP. 1-•6 AWG EGC
(AA) **PROP. 1-3" PVC CONDUIT**
PROP. 1-14/2C
PROP. 2-14/7C
PROP. 1-•6 AWG EGC

ACRONYM/ABBREVIATION DEFINITION
S-Shielded Cable, M-Metal Conduit, EGC-Equipment Grounding Conductor

LEGEND

- EXIST. SIGNAL HEAD WITH PHASE
- EXIST. CONTROLLER CABINET
- EXIST. JUNCTION BOX
- EXIST. SIGNAL POLE
- EXIST. SIGNAL CONDUIT
- EXIST. PREEMPTION DETECTOR
- EXIST. 6' X 40' LOOP DETECTOR
- EXIST. 6' X 6' LOOP DETECTOR
- PROP. PEDESTRIAN SIGNAL HEAD WITH PHASE
- PROP. PEDESTAL POLE PF-2 WITH PUSH BUTTONS UNLESS OTHERWISE NOTED
- PROP. JUNCTION BOX
- PROP. SIGNAL CONDUIT
- PROP. 6' X 40' LOOP DETECTOR

SCALE 0 25' 50'

Susan J. Mathai
Lic. No. 035182
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

Susan Mathai
Digitally signed by Susan Mathai
DN: cn=Susan Mathai, o=US, ou=WSP USA Inc., 0.9.2342.19200300.100.1.1=susan.mathai@wsp.com
Date: 2020.05.01 16:58:30 -04'00'

WSP USA, INC.
VIRGINIA BEACH, VA
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	7A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

TRAFFIC SIGNAL MODIFICATION PLAN
SMOKETOWN ROAD (RTE. 642)
OPITZ BOULEVARD & GIDEON DRIVE
PRINCE WILLIAM COUNTY

PROJECT	SHEET NO.
EN15-076-108	7A

PROJECT MANAGER_ GLADIS ARBOLEDA (PWC-DOT)_____
SURVEYED BY, DATE _KEVIN D.NELSON,L.S.(WILLIAM H.GORDON ASSOCIATES,INC.),OCTOBER 2016_____
DESIGN SUPERVISED BY CHRISTI FRAGALE,PE (WSP USA,INC.)_____
DESIGNED BY TUCKER BUCHANAN,PE (WSP USA,INC.)_____
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016_

COLOR SEQUENCE CHART

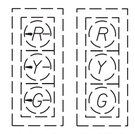
PHASE	1	2	3	4	5	6	7	8	1-5	1-6	2-5	2-6	3-7	3-8	4-7	4-8	
SIGNAL	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	FLASH
1	G								G	G							R
2		G									G	G					Y
3			G										G	G			R
4				G											G	G	R
5					G				G		G						R
6						G				G		G					Y
7							G						G		G		R
8								G						G		G	R
P2		*WALK									*WALK	*WALK					BLANK
P4				*WALK											*WALK	*WALK	BLANK
P6						*WALK				*WALK		*WALK					BLANK
P8								*WALK						*WALK		*WALK	BLANK

NOTE: BLANK SPACES REPRESENT A RED DISPLAY. *WALK INDICATION DISPLAYED AFTER PEDESTRIAN CALL IS SERVICED; OTHERWISE "DON'T WALK" INDICATION IS DISPLAYED.

PROPOSED SIGNS

S-1 — R10-3e(R) 9"X15"
S-2 — R10-3e(L) 9"X15"

SIGNALS



SP-9 — P2, P4, P6, P8

ALL VEHICULAR TRAFFIC SIGNALS ARE EXISTING TO REMAIN. ALL PEDESTRIAN SIGNALS ARE PROPOSED SP-9 AND SHALL BE COUNTDOWN LED.

INITIAL TIMING CHART

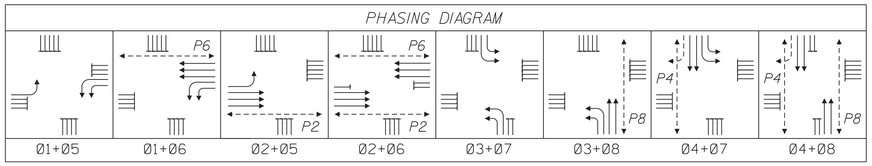
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	WBL	EBT	NBL	SBT	EBL	WBT	SBL	NBT
PHASE ON	X	X	X	X	X	X	X	X
PHASE OFF								
INTERVAL	PHASE TIMINGS							
MIN GR	7.0	20.0	7.0	7.0	10.0	20.0	7.0	7.0
PASSAGE	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
AMBER	3.8	5.1	3.0	3.4	4.1	4.7	3.0	3.3
RED	3.9	1.0	4.5	2.3	3.9	1.0	3.9	2.4
MAX 1	15.0	50.0	15.0	20.0	15.0	50.0	15.0	20.0
MAX 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN GAP	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
TIME BEFORE REDUCTION	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TIME TO REDUCE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADV/PED WALK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PED WALK	0.0	7.0	0.0	8.0	0.0	7.0	0.0	8.0
PED CLEARANCE	0.0	20.0	0.0	32.0	0.0	24.0	0.0	28.0
MODE	NON-LOCK	MAX RECALL	NON-LOCK	NON-LOCK	NON-LOCK	MAX RECALL	NON-LOCK	NON-LOCK

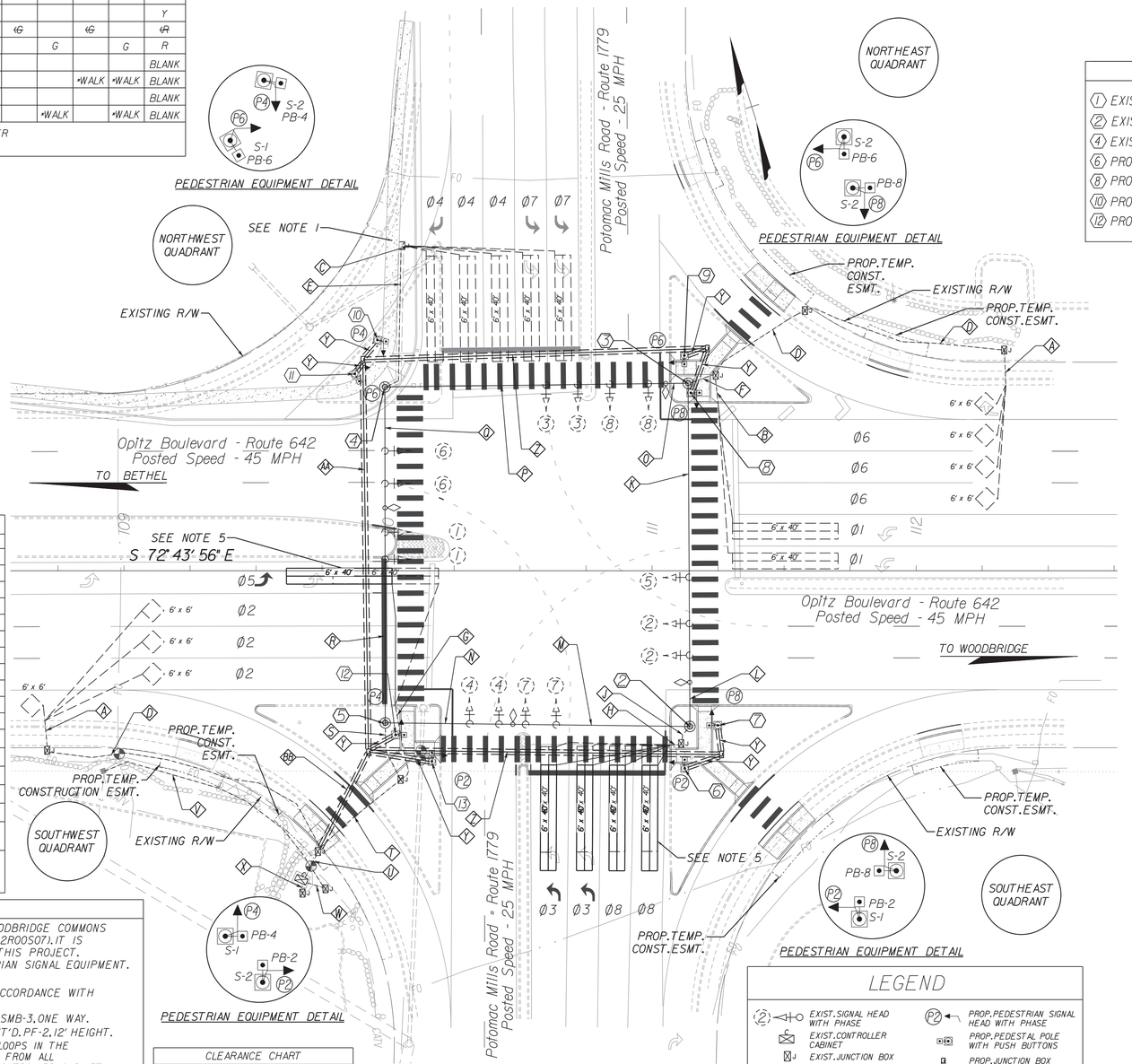
NOTE: EXISTING TIMINGS BASED ON TRAFFIC SIGNAL MODIFICATION PLAN, PREPARED BY GOROVE/SLADE, DATED 5/19/2016, PWC NO. 13-00162R00S07.
BOLD = NEW

NOTES

1. APPROXIMATE LOCATION OF IMPROVEMENTS AS PROPOSED BY DEVELOPER. SEE WOODBRIDGE COMMONS CORNER (PROJ. PP12013-00661) AND SIGNAL MODIFICATION PLAN (PWC FILE NO. 13-00162R00S07). IT IS ANTICIPATED THAT CONSTRUCTION WILL BE COMPLETE PRIOR TO THE START OF THIS PROJECT. LOCATION OF CG12 RAMP TO BE VERIFIED PRIOR TO PLACING PROPOSED PEDESTRIAN SIGNAL EQUIPMENT.
2. VEHICLE DETECTORS FOR ALL PHASES SHALL OPERATE IN NON-LOCK MODE.
3. PEDESTRIAN PUSH BUTTONS AND PUSH BUTTON SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH ST'D. PA-2.
4. ALL PEDESTRIAN SIGNAL HEADS ARE TO BE MOUNTED IN ACCORDANCE WITH ST'D. SMB-3, ONE WAY. PEDESTAL POLES AND FOUNDATIONS SHALL BE INSTALLED IN ACCORDANCE WITH ST'D. PF-2, 12' HEIGHT.
5. EXISTING PRESENCE LOOPS FOR THIS APPROACH TO BE ABANDONED. REPLACE WITH NEW LOOPS IN THE LOCATIONS SHOWN. THE EXISTING CABLES FOR THE ABANDONED LOOPS SHALL BE REMOVED FROM ALL CONDUITS AND THE CONTROLLER CABINET. NEW LOOPS SHALL HAVE NEW CABLES TO THE CONTROLLER CABINET.
6. ALL EXISTING SIGNAL EQUIPMENT AT THIS INTERSECTION TO REMAIN IN PLACE EXCEPT THE LOOP DETECTORS CALLED OUT ON THE PLAN FOR REPLACEMENT, AND THE CABLES FROM THOSE LOOPS TO THE CABINET.
7. CONTROLLER SHALL REST IN PHASE 2-6 MINIMUM GREEN.
8. EXISTING CCTV SHALL REMAIN OPERATIONAL AND FULLY FUNCTIONAL WITHOUT INTERRUPTION FOR THE DURATION OF CONSTRUCTION.
9. NOVA TRAFFIC ENGINEERING PERSONNEL HAS CONFIRMED THAT EXISTING CONDUITS TO THE CONTROLLER CABINET (CONDUIT U) CAN ACCOMMODATE PROPOSED WIRES.

PHASING DIAGRAM





JUNCTION BOX LEGEND

ALL JUNCTION BOXES SHALL CONFORM TO STANDARD JB-S2 UNLESS OTHERWISE NOTED ON THE PLANS

(S3) DENOTES STANDARD JB-S3

LEGEND

- (2) EXIST. SIGNAL HEAD WITH PHASE
- EXIST. CONTROLLER CABINET
- EXIST. JUNCTION BOX
- EXIST. SIGNAL POLE
- EXIST. SIGNAL CONDUIT
- EXIST. PREEMPTION DETECTOR
- EXIST. 6' x 40' LOOP DETECTOR
- EXIST. 6' x 6' LOOP DETECTOR
- (P2) PROP. PEDESTRIAN SIGNAL HEAD WITH PHASE
- PROP. PEDESTAL POLE WITH PUSH BUTTONS
- PROP. JUNCTION BOX
- PROP. SIGNAL CONDUIT
- PROP. 6' X 40' LOOP DETECTOR

CLEARANCE CHART

R/W	CLEARANCE 1	CLEARANCE 2	NEXT PHASE
G	Y	R	R
G	G	G	G
(G)	(K)	(R)	(R)
(G)	(G)	(G)	(G)
WALK	FDW	DW	DW
WALK	WALK	WALK	WALK

SIGNAL POLE & CONTROLLER LEGEND

(1) EXIST. CONTROLLER CABINET; 109-67.1'/116.9'R
(2) EXIST. SIGNAL POLE; STA. 111+14.3, 58.9'R
(3) EXIST. SIGNAL POLE; STA. 111+13.7, 71.0'L
(4) EXIST. SIGNAL POLE; STA. 109+98.8, 69.6'L
(5) EXIST. SIGNAL POLE; STA. 109+98.9, 57.6'R
(6) PROP. PEDESTAL POLE; STA. 111+12.4, 74.8'R
(7) PROP. PEDESTAL POLE; STA. 111+24.9, 58.5'R
(8) PROP. PEDESTAL POLE; STA. 111+13.7, 71.0'L
(9) PROP. PEDESTAL POLE; STA. 111+12.2, 81.5'L
(10) PROP. PEDESTAL POLE; STA. 109+96.0, 87.4'L
(11) PROP. PEDESTAL POLE; STA. 109+87.4, 74.6'L
(12) PROP. PEDESTAL POLE; STA. 110+02.8, 62.1'R
(13) PROP. PEDESTAL POLE; STA. 110+17.1, 72.1'R

CABLE & CONDUIT RUNS

(A) EXIST. 4-1" CONDUIT (M) REMAIN
(B) EXIST. 2-1" CONDUIT (M) REMAIN
(C) EXIST. 5-1" CONDUIT (M) REMAIN
(D) EXIST. 1-3" CONDUIT REMAIN
EXIST. 4-14/2C (S) REMAIN
(E) EXIST. 1-3" PVC CONDUIT REMAIN
EXIST. 5-14/2C (S) REMAIN
(F) EXIST. 3" PVC CONDUIT REMAIN
EXIST. 6-14/2C (S) REMAIN
(G) EXIST. 1-1" CONDUIT (M) REMAIN
(H) EXIST. 4-1" CONDUIT (M) REMAIN
(J) EXIST. 1-3" PVC CONDUIT REMAIN
EXIST. 4-14/2C (S) REMOVE
PROP. 4-14/2C (S)
(K) EXIST. O/H SPAN CABLE REMAIN
(L) EXIST. O/H SPAN CABLE REMAIN
EXIST. 2-14/7C REMAIN
EXIST. 1-PREEMPT CABLE REMAIN
EXIST. *6 AWG EGC REMAIN
(M) EXIST. O/H SPAN CABLE REMAIN
EXIST. 2-14/7C REMAIN
EXIST. 4-14/2C (S) REMOVE
PROP. 4-14/2C (S)
EXIST. 1-PREEMPT CABLE REMAIN
EXIST. *6 AWG EGC REMAIN
(N) EXIST. O/H SPAN CABLE REMAIN
EXIST. 4-14/7C REMAIN
EXIST. 4-14/2C (S) REMOVE
PROP. 4-14/2C (S)
EXIST. 2-PREEMPT CABLE REMAIN
EXIST. *6 AWG EGC REMAIN
(P) EXIST. O/H SPAN CABLE REMAIN
EXIST. 6-14/2C (S) REMAIN
EXIST. *6 AWG EGC REMAIN
(Q) EXIST. O/H SPAN CABLE REMAIN
EXIST. 2-14/7C REMAIN
EXIST. 2-14/2C (S) REMAIN
EXIST. 1-PREEMPT CABLE REMAIN
EXIST. *6 AWG EGC REMAIN
(R) EXIST. O/H SPAN CABLE REMAIN
EXIST. 4-14/7C REMAIN
EXIST. 11-14/2C (S) REMAIN
EXIST. 2-PREEMPT CABLE REMAIN
EXIST. *6 AWG EGC REMAIN

(S) EXIST. 2-3" CONDUIT REMAIN
EXIST. 8-14/7C REMAIN
EXIST. 15-14/2C (S);
REMOVE 4-14/2C (S)
REMAIN 11-14/2C (S)
PROP. 4-14/2C (S)
EXIST. 4-PREEMPT CABLE REMAIN
EXIST. *6 AWG EGC REMAIN
(T) EXIST. 2-3" CONDUIT REMAIN
EXIST. 8-14/7C REMAIN
EXIST. 16-14/2C (S);
REMOVE 5-14/2C (S)
REMAIN 11-14/2C (S)
PROP. 5-14/2C (S)
EXIST. 4-PREEMPT CABLE REMAIN
EXIST. *6 AWG EGC REMAIN
(U) EXIST. 2-3" PVC CONDUIT REMAIN
EXIST. 8-14/7C REMAIN
PROP. 8-14/7C
EXIST. 20-14/2C (S);
REMOVE 5-14/2C (S)
REMAIN 15-14/2C (S)
PROP. 5-14/2C (S)
PROP. 8-14/2C
EXIST. 4-PREEMPT CABLE REMAIN
EXIST. *6 AWG EGC REMAIN
(V) EXIST. 1-2" CONDUIT REMAIN
EXIST. 3-*6 ELECT. SERVICE CABLE REMAIN
(W) EXIST. 1-1 1/4" (M) CONDUIT REMAIN
EXIST. 3-*6 ELECT. SERVICE CABLE REMAIN
EXIST. 1-1" PVC CONDUIT REMAIN
EXIST. 1-*6 AWG EGC
(X) EXIST. 1-1" CONDUIT (M) REMAIN
EXIST. 1-COMMUNICATIONS CABLE REMAIN
(Y) **PROP. 1-3" PVC CONDUIT**
PROP. 1-14/2C
PROP. 1-14/7C
PROP. 1-*6 AWG EGC
(Z) **PROP. 1-3" BORED CONDUIT**
PROP. 2-14/2C
PROP. 2-14/7C
PROP. 1-*6 AWG EGC
(AA) **PROP. 1-3" BORED CONDUIT**
PROP. 4-14/2C
PROP. 4-14/7C
PROP. 1-*6 AWG EGC
(BB) **PROP. 2-3" BORED CONDUIT**
PROP. 8-14/2C
PROP. 8-14/7C
PROP. 1-*6 AWG EGC

ACRONYM/ABBREVIATION DEFINITION
S-Shielded Cable, M-Metal Conduit, EGC-Equipment Grounding Conductor

COMMONWEALTH OF VIRGINIA
SUSAN J. MATHAI
Lic. No. 035182
PROFESSIONAL ENGINEER
Susan Mathai
WSP USA, INC.
VIRGINIA BEACH, VA
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	7B

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SCALE 0 25' 50'

TRAFFIC SIGNAL MODIFICATION PLAN OPITZ BOULEVARD (RTE. 642) & POTOMAC MILLS ROAD (RTE. 1779) PRINCE WILLIAM COUNTY

PROJECT	SHEET NO.
EN15-076-108	7B

5/29/2018
5:05:12 PM

PROJECT MANAGER GLADIS ARBOLEDA (703)792-5276 PWC-DOT
SURVEYED BY, DATE KEVIN D.NELSON,LS.,WILLIAM H.GORDON ASSOCIATES,INC., OCTOBER 2016
DESIGN BY WSP USA,INC.
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016

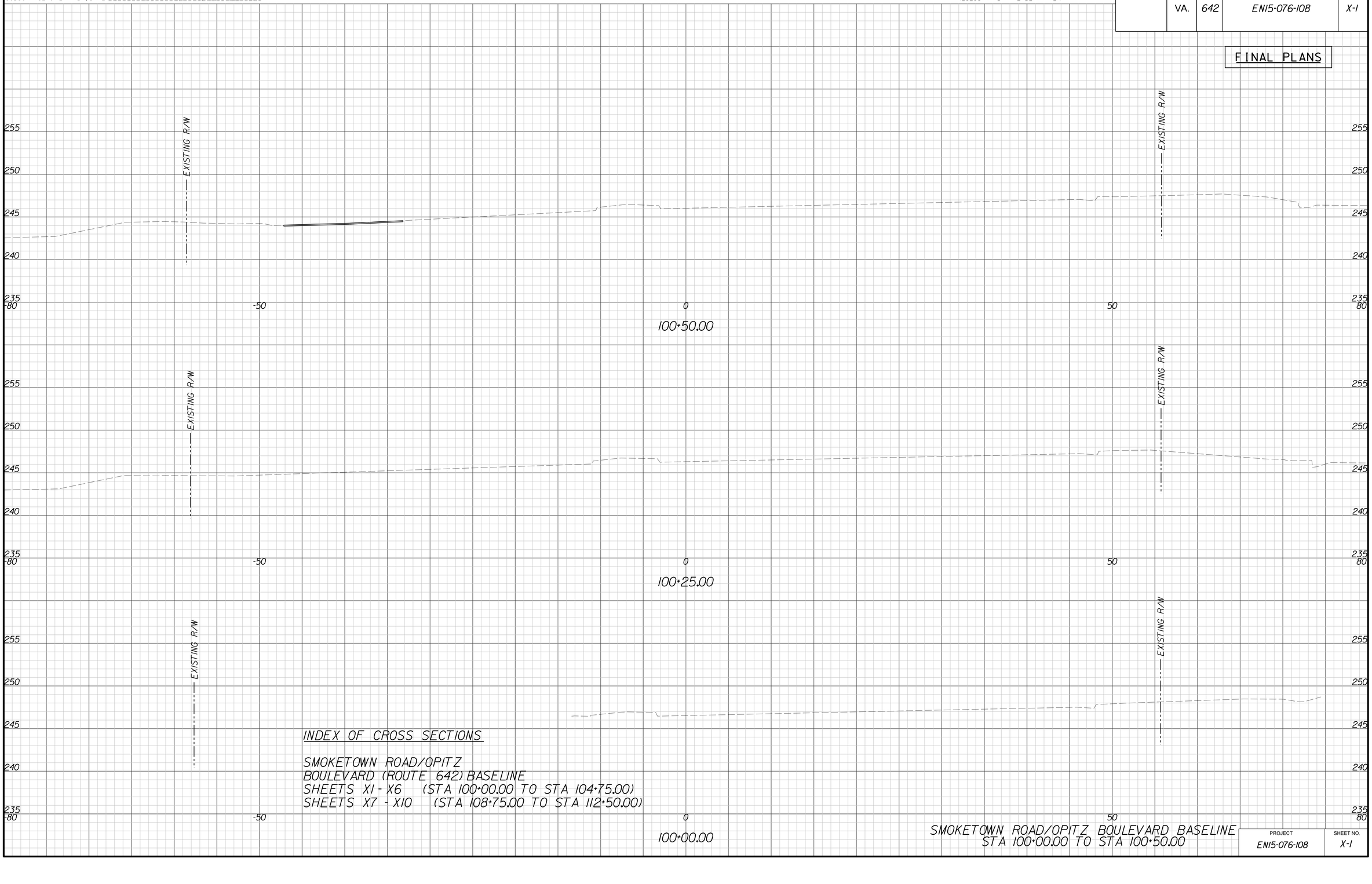
CROSS SECTIONS

SCALE 1 IN. = 5 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	X-1

FINAL PLANS



INDEX OF CROSS SECTIONS

SMOKETOWN ROAD/OPITZ
BOULEVARD (ROUTE 642) BASELINE
SHEETS X1 - X6 (STA 100+00.00 TO STA 104+75.00)
SHEETS X7 - X10 (STA 108+75.00 TO STA 112+50.00)

SMOKETOWN ROAD/OPITZ BOULEVARD BASELINE
STA 100+00.00 TO STA 100+50.00

PROJECT	SHEET NO.
EN15-076-108	X-1

5/29/2018
5:05:14 PM

PROJECT MANAGER GLADIS ARBOLEDA (703)792-5276 PWC-DOT
SURVEYED BY, DATE KEVIN D.NELSON,LS.,WILLIAM H.GORDON ASSOCIATES,INC., OCTOBER 2016
DESIGN BY WSP USA INC.
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING INC., OCTOBER 2016

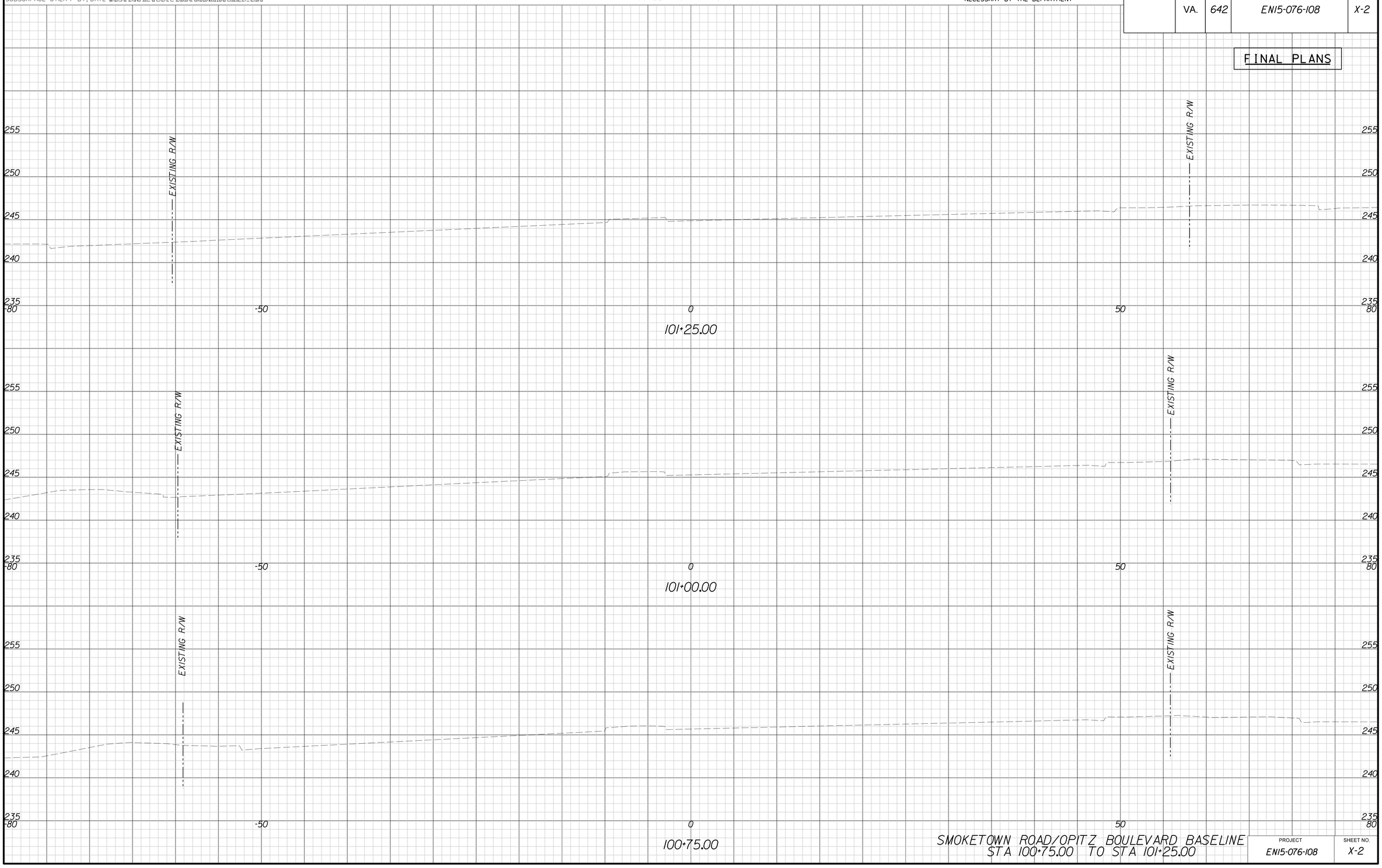
CROSS SECTIONS

SCALE 1 IN. = 5 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	X-2

FINAL PLANS



SMOKETOWN ROAD/OPITZ BOULEVARD BASELINE
STA 100+75.00 TO STA 101+25.00

PROJECT	SHEET NO.
EN15-076-108	X-2

5/29/2018
5:05:16 PM

PROJECT MANAGER GLADIS ARREOLEDA (703) 792-5276 PWC-DOT
SURVEYED BY, DATE KEVIN D NELSON, LS., WILLIAM H GORDON ASSOCIATES, INC., OCTOBER 2016
DESIGN BY WSP USA INC.
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING INC., OCTOBER 2016

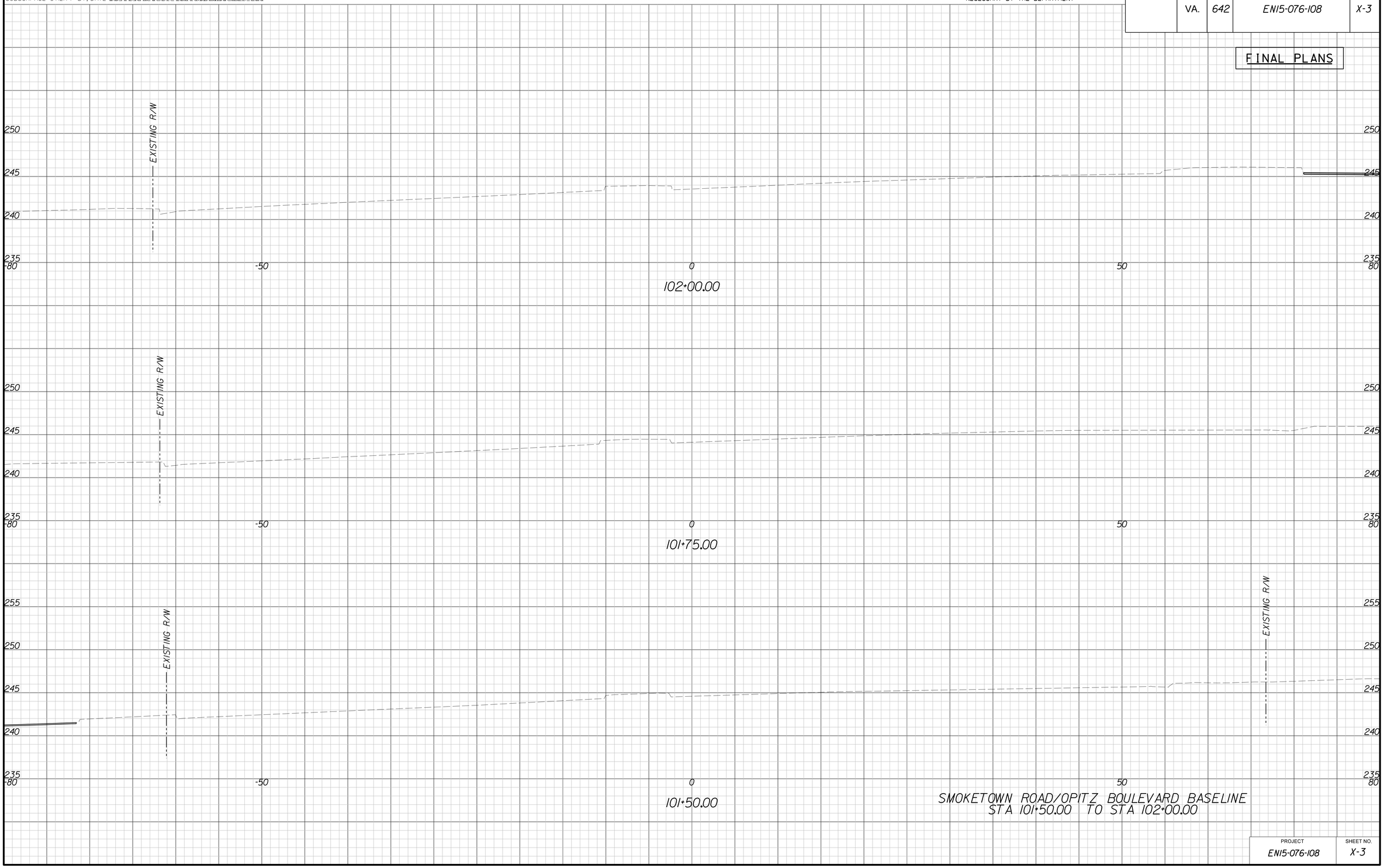
CROSS SECTIONS

SCALE 1 IN. = 5 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	X-3

FINAL PLANS



PROJECT EN15-076-108 | SHEET NO. X-3

5/29/2018
5:05:18 PM

PROJECT MANAGER GLADIS ARROLEDA (703)792-5276 PWC-DOT
SURVEYED BY, DATE KEVIN D.NELSON,LS.,WILLIAM H.GORDON ASSOCIATES,INC., OCTOBER 2016
DESIGN BY WSP USA,INC.
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016

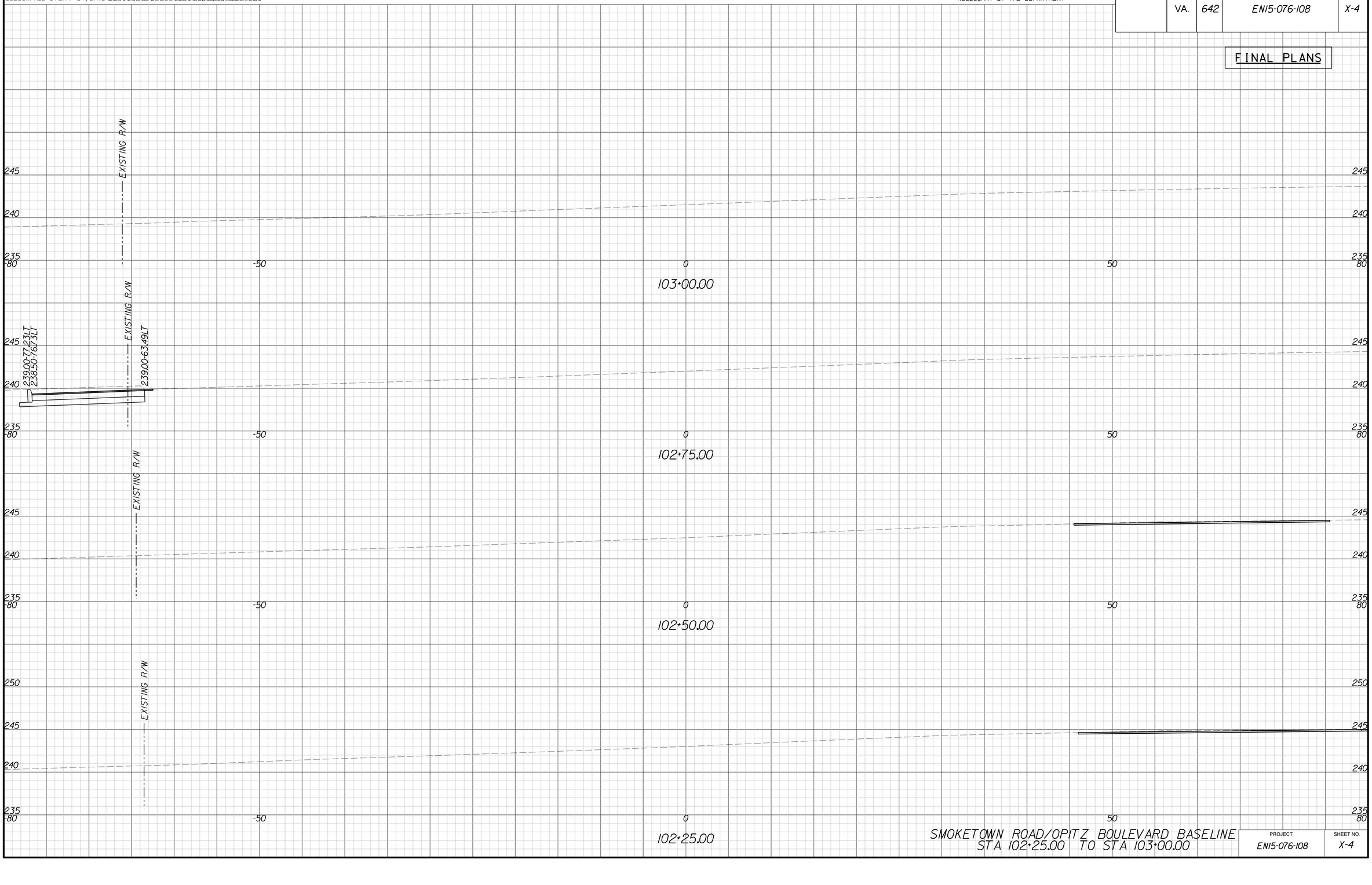
CROSS SECTIONS

SCALE 1 IN. = 5 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	X-4

FINAL PLANS



SMOKETOWN ROAD/OPITZ BOULEVARD BASELINE
STA 102+25.00 TO STA 103+00.00

PROJECT	SHEET NO.
EN15-076-108	X-4

5/29/2018
5:05:20 PM

PROJECT MANAGER GLADIS ARROLEDA (703)792-5276 PWC-DOT
SURVEYED BY, DATE KEVIN D.NELSON,LS.,WILLIAM H.GORDON ASSOCIATES,INC., OCTOBER 2016
DESIGN BY WSP USA,INC.
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016

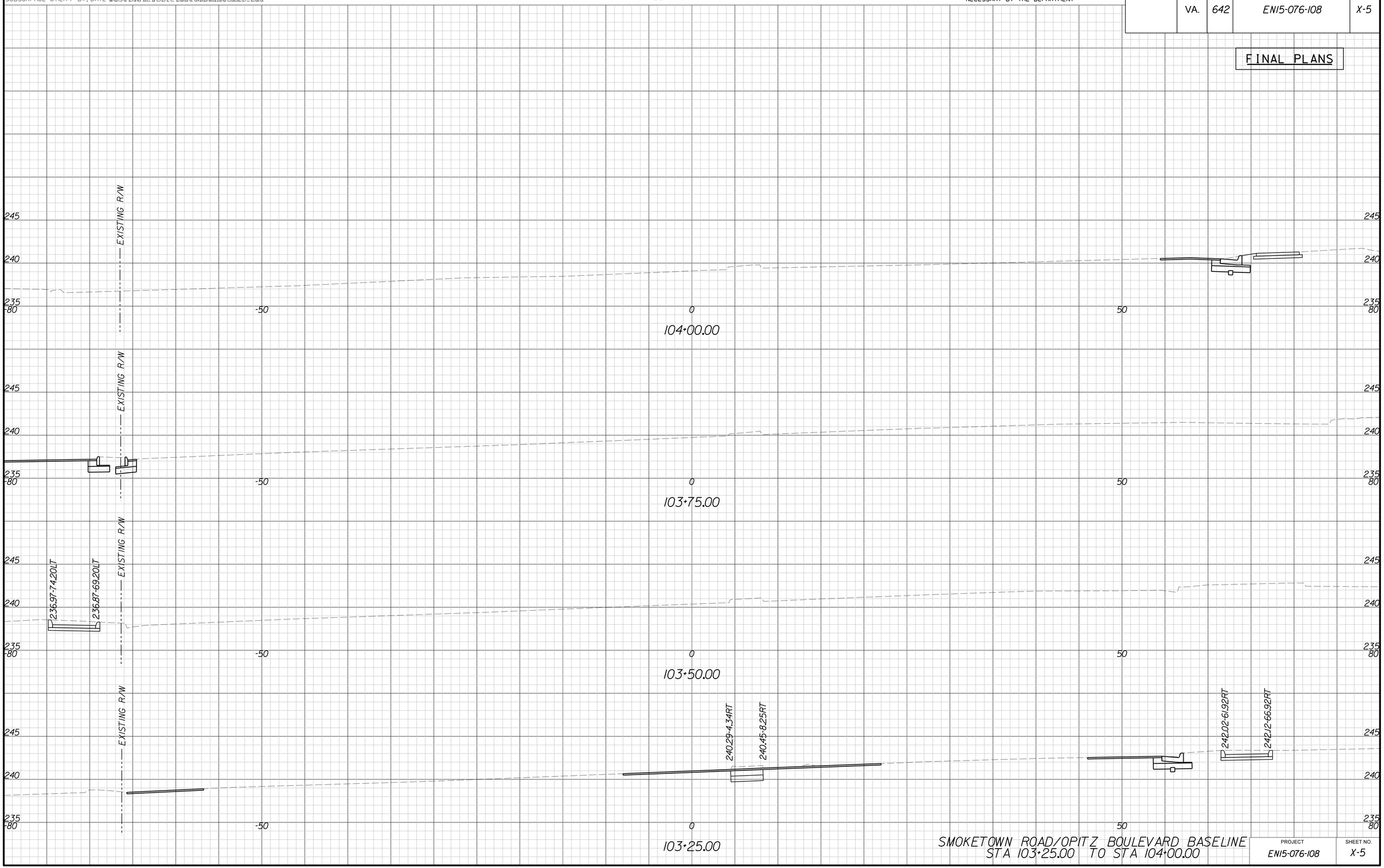
CROSS SECTIONS

SCALE 1 IN. = 5 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	X-5

FINAL PLANS



SMOKETOWN ROAD/OPITZ BOULEVARD BASELINE
STA 103+25.00 TO STA 104+00.00

PROJECT	SHEET NO.
EN15-076-108	X-5

5/29/2018
5:05:22 PM

PROJECT MANAGER GLADIS ARROLEDA (703)792-5276 PWC-DOT
SURVEYED BY, DATE KEVIN D.NELSON,LS.,WILLIAM H.GORDON ASSOCIATES,INC., OCTOBER 2016
DESIGN BY WSP USA,INC.
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016

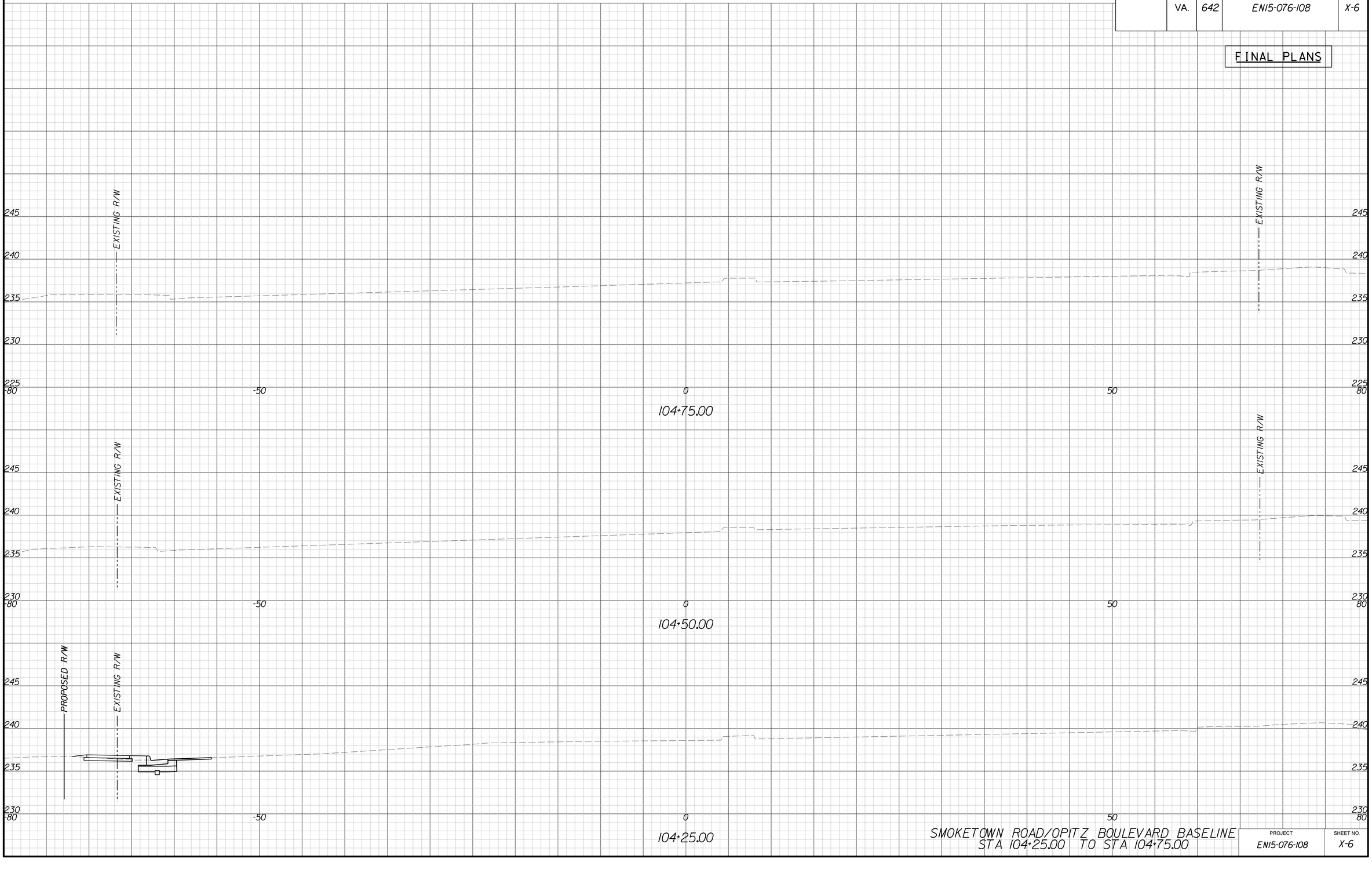
CROSS SECTIONS

SCALE 1 IN. = 5 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	X-6

FINAL PLANS



SMOKETOWN ROAD/OPITZ BOULEVARD BASELINE
STA 104+25.00 TO STA 104+75.00

PROJECT	SHEET NO.
EN15-076-108	X-6

5/29/2018
5:05:24 PM

PROJECT MANAGER GLADIS ARREOLEDA (703)792-5276 PWC-DOT
SURVEYED BY, DATE KEVIN D.NELSON,LS.,WILLIAM H.GORDON ASSOCIATES,INC., OCTOBER 2016
DESIGN BY WSP USA INC.
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING INC., OCTOBER 2016

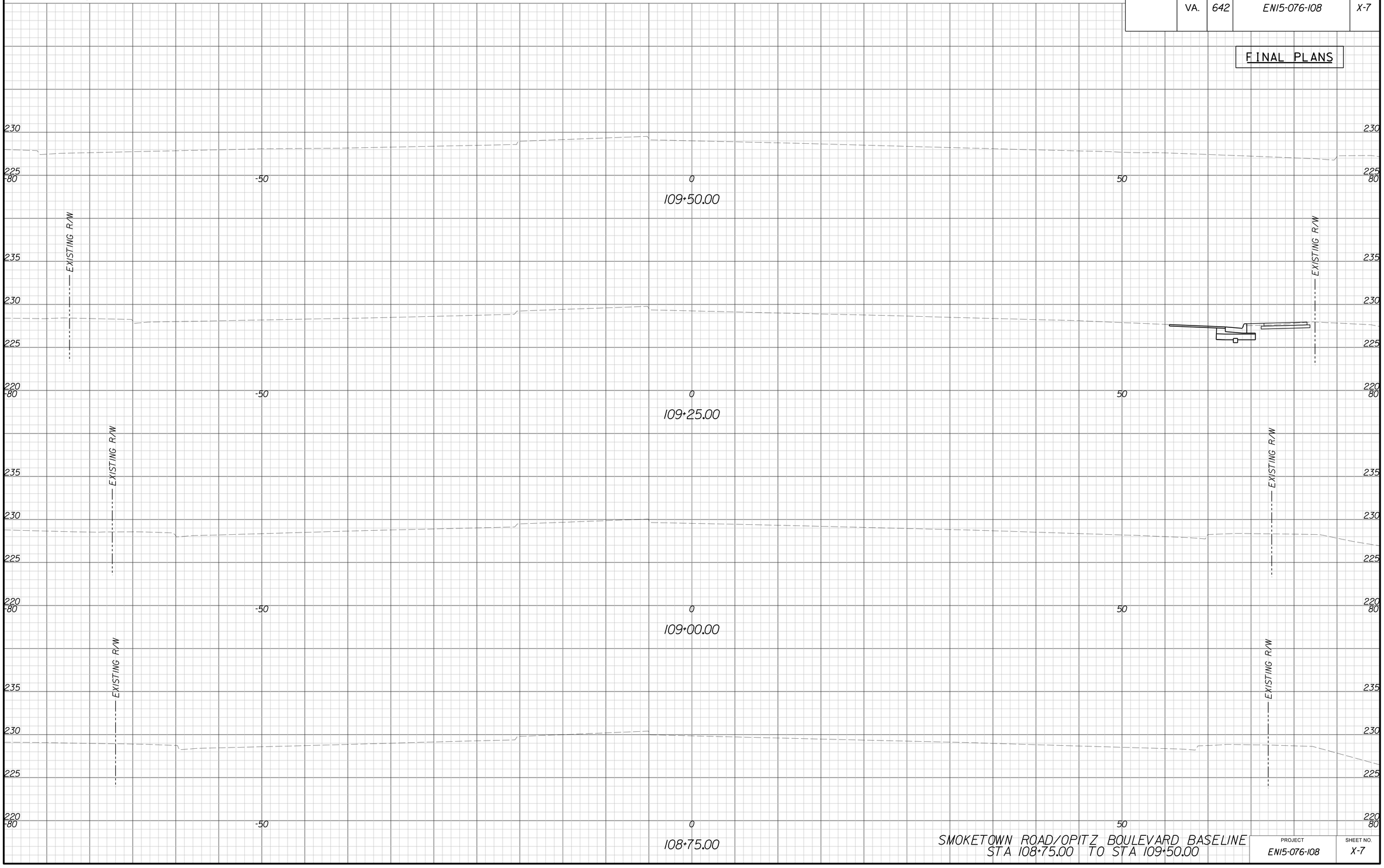
CROSS SECTIONS

SCALE 1 IN. = 5 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	X-7

FINAL PLANS



SMOKETOWN ROAD/OPITZ BOULEVARD BASELINE
STA 108+75.00 TO STA 109+50.00

PROJECT	SHEET NO.
EN15-076-108	X-7

5/29/2018
5:05:26 PM

PROJECT MANAGER GLADIS ARREOLEDA (703)792-5276 PWC-DOT
SURVEYED BY, DATE KEVIN D.NELSON,LS.,WILLIAM H.GORDON ASSOCIATES,INC., OCTOBER 2016
DESIGN BY WSP USA,INC.
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016

CROSS SECTIONS

SCALE 1 IN. = 5 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	X-8

FINAL PLANS

235
230
225
220
-80 -50 0 50 80

110+50.00

226.42-6.90RT
226.12-6.52RT

110+25.00

226.50-72.02RT
226.14-78.85RT

110+00.00

109+75.00

SMOKETOWN ROAD/OPITZ BOULEVARD BASELINE
STA 109+75.00 TO STA 110+50.00

PROJECT	SHEET NO.
EN15-076-108	X-8

5/29/2018
5:05:28 PM

PROJECT MANAGER GLADIS ARBOLEDA (703)792-5276 PWC-DOT
SURVEYED BY, DATE KEVIN D.NELSON,LS.,WILLIAM H.GORDON ASSOCIATES,INC., OCTOBER 2016
DESIGN BY WSP USA,INC.
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING,INC.,OCTOBER 2016

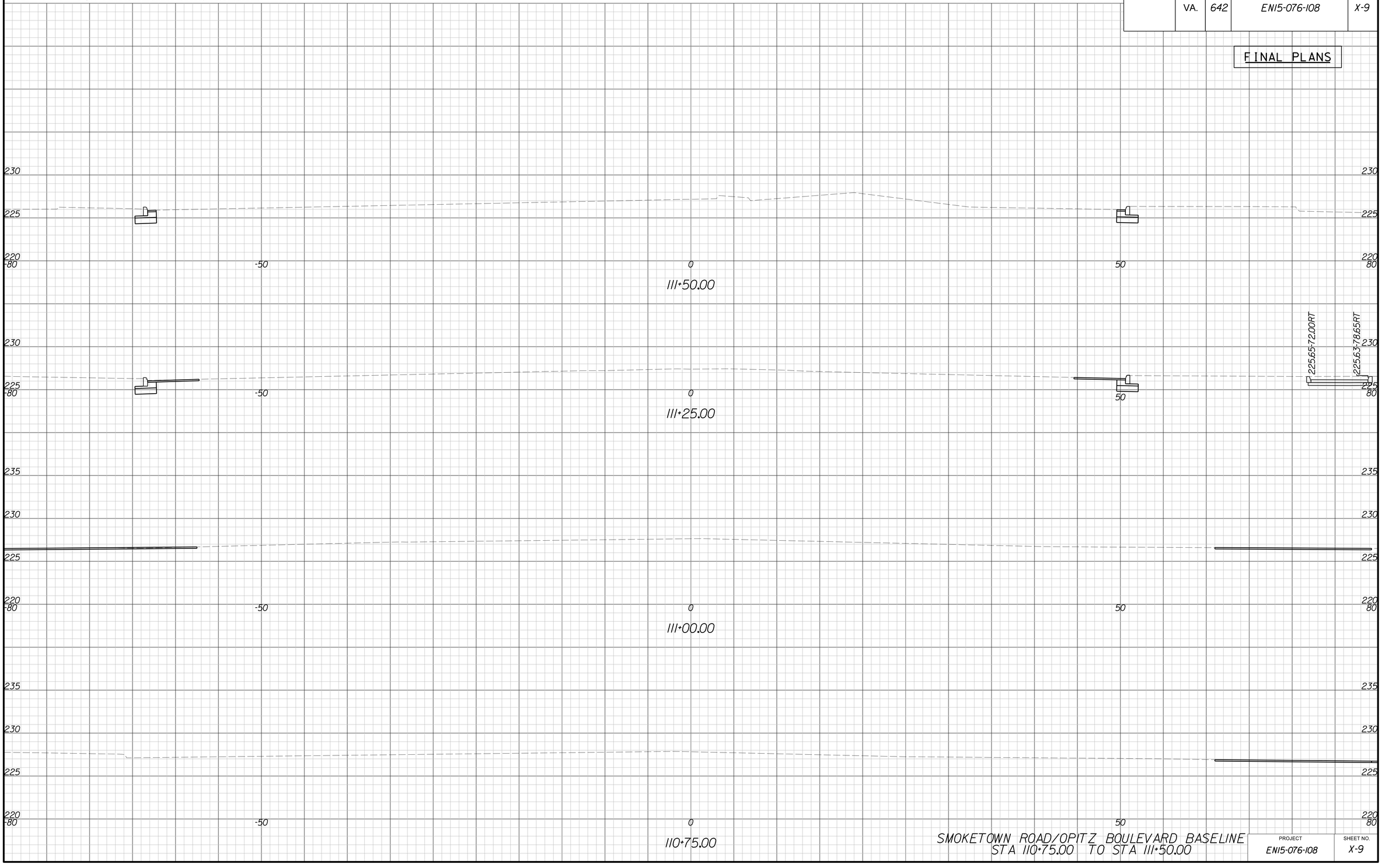
CROSS SECTIONS

SCALE 1 IN. = 5 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	X-9

FINAL PLANS



SMOKETOWN ROAD/OPITZ BOULEVARD BASELINE
STA 110+75.00 TO STA 111+50.00

PROJECT	SHEET NO.
EN15-076-108	X-9

5/29/2018
5:05:30 PM

PROJECT MANAGER GLADIS ARBOLEDA (703)792-5276 PWC-DOT
SURVEYED BY, DATE KEVIN D.NELSON,LS.,WILLIAM H.GORDON ASSOCIATES,INC., OCTOBER 2016
DESIGN BY WSP USA INC.
SUBSURFACE UTILITY BY, DATE MID-ATLANTIC UTILITY LOCATING INC., OCTOBER 2016

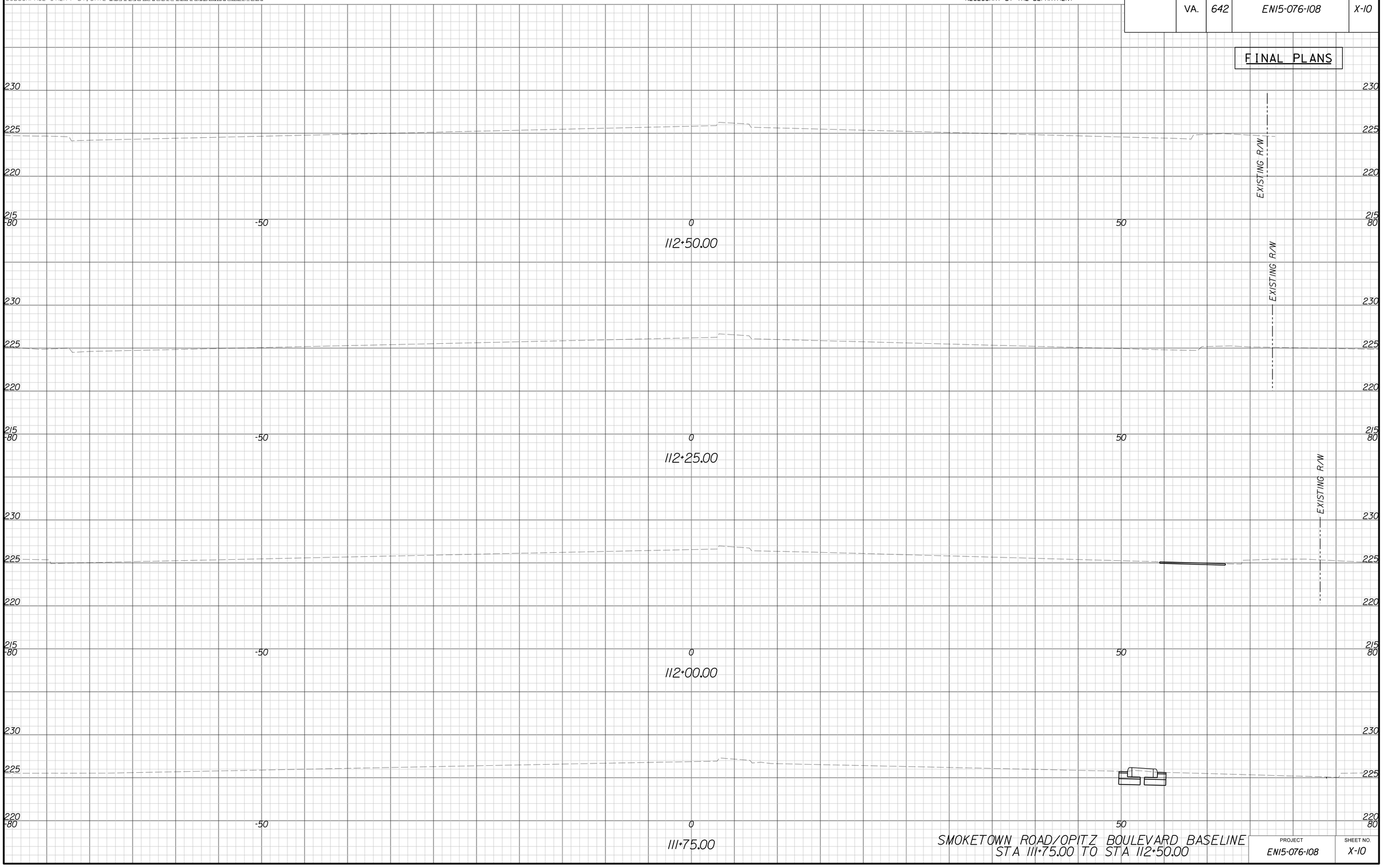
CROSS SECTIONS

SCALE 1 IN. = 5 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	642	EN15-076-108	X-10

FINAL PLANS



SMOKETOWN ROAD/OPITZ BOULEVARD BASELINE
STA 111+75.00 TO STA 112+50.00

PROJECT	SHEET NO.
EN15-076-108	X-10