FOR INDEX OF SHEETS SEE SHEET 1B

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (OPENROADS DESIGNER).
OPENROADS DESIGNER Computer Identification No. 122979

COMMONWEALTH OF VIRGINIA

Prince William County Dept. of Transportation

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

PRINCE WILLIAM COUNTY
NORTH WOODBRIDGE PEDESTRIAN BRIDGE

FROM: ROUTE 1
TO: NORTH WOODBRIDGE VRE STATION

FHWA-534.DATA 43128

STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.			0001-076-634 SEE TABULATIONS BELOW FOR SECTION NUMBERS	1

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NHS - URBAN PRINCIPAL ARTERIAL (GS-5) - ROLLING - 35 MPH DESIGN SPEED	
	Fr: ROUTE 1 To: NORTH WOODBRIDGE VRE STATION
ADT	39,603
ADT	-
DHV	3,422
D (%) (design hour)	96%
T (%) (design hour)	4.3%
V (MPH)	35 (POSTED SPEED)

MAINTENANCE NOTE:
PEDESTRIAN FACILITIES (SHARED-USE PATH, SIDEWALK, AND BRIDGE) WILL BE OWNED AND MAINTAINED BY VDOT.

TIER 1 PROJECT

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703) 792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Loraine Barksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

THE COMPLETE ELECTRONIC PDF 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 REVISED SEPT 2025, 2026 VIRGINIA MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL REV 11.0 AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

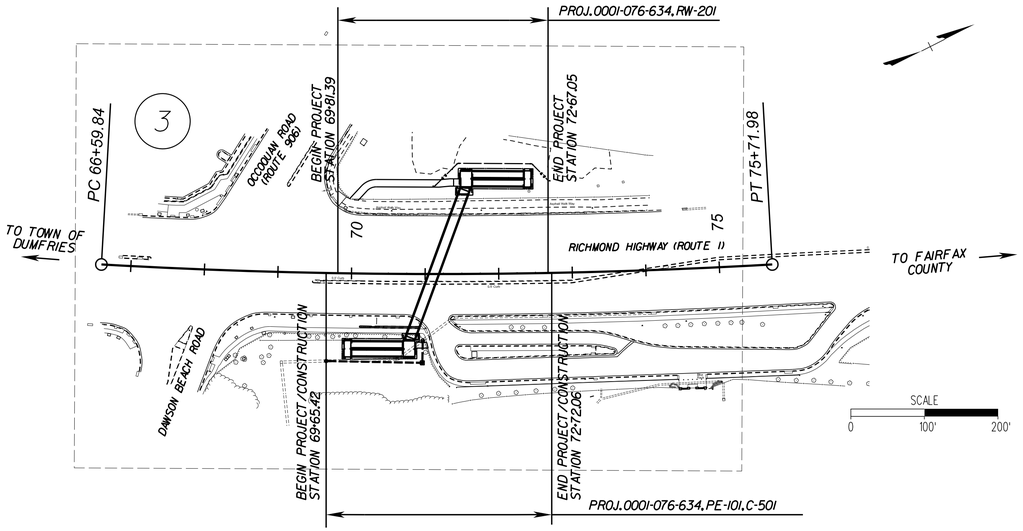
ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD TC-5.11, EXCEPT WHERE OTHERWISE NOTED.

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
COUNTY LINE
CITY,TOWN OR VILLAGE
RIGHT OF WAY LINE
FENCE LINE
UNFENCED PROPERTY LINE
FENCED PROPERTY LINE
WATER LINE
SANITARY SEWER LINE
GAS LINE
ELECTRIC UNDERGROUND CABLE
TRAVELED WAY
GUARD RAIL
RETAINING WALL
RAILROADS
BASE OR SURVEY LINE

LEVEE OR EMBANKMENT
BRIDGES
CULVERTS
DROP INLET
POWER POLES
TELEPHONE OR TELEGRAPH POLES
TELEPHONE OR TELEGRAPH LINES
HEDGE
TREES
HEAVY WOODS
GROUND ELEVATION
GRADE ELEVATION



POPULATION 482,204 (2020 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
0001-076-634	PE-101		PENG	122979	282.63	0.05	24.36	0.005	PREL. ENGR.	FROM: ROUTE 1 TO: NORTH WOODBRIDGE VRE STATION
	RW-201		ROWA	122979	272.77	0.05	14.50	0.003	RIGHT OF WAY	FROM: ROUTE 1 TO: NORTH WOODBRIDGE VRE STATION
	C-501		Y051	122979	282.63	0.05	24.36	0.005	CONSTRUCTION	FROM: ROUTE 1 TO: NORTH WOODBRIDGE VRE STATION
	B-50X		N/A	122979					BRIDGE	FROM: ROUTE 1 TO: NORTH WOODBRIDGE VRE STATION

NOTE: PROJECT LENGTH BASED ON ROUTE 1 BASELINE

LOCALLY ADMINISTERED PROJECTS	
PRINCE WILLIAM COUNTY	
NAME OF LOCALITY	
MARY ANKERS, PE	
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	
	ASSISTANT DIRECTOR CAPITAL PROJECTS IN TRANSPORTATION
DATE	TITLE OF POSITION
MARY ANKERS, PE	
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
	ASSISTANT DIRECTOR CAPITAL PROJECTS IN TRANSPORTATION
DATE	TITLE OF POSITION

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION
DISTRICT PLANNING AND INVESTMENT MANAGER
DISTRICT PROJECT DEVELOPMENT ENGINEER
APPROVED FOR RIGHT OF WAY ACQUISITION
DISTRICT ENGINEER/ADMINISTRATOR

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
DISTRICT PLANNING AND INVESTMENT MANAGER
DISTRICT PROJECT DEVELOPMENT ENGINEER
APPROVED FOR CONSTRUCTION
DISTRICT ENGINEER/ADMINISTRATOR

100% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated April 18th, 2012

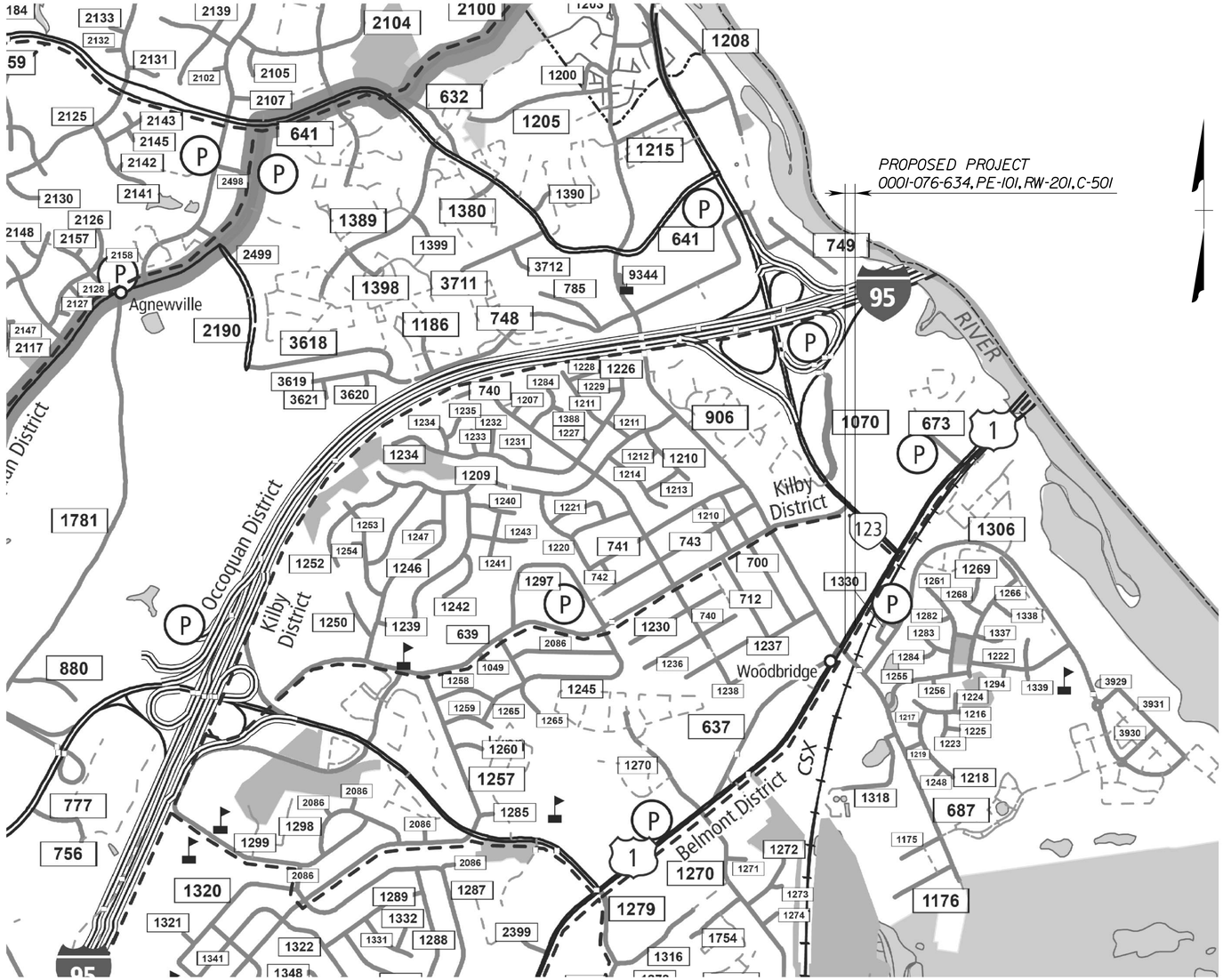
PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorraine Barksdale P.E. CFM, Johnson,Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	1A

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

PRINCE WILLIAM COUNTY



NTS	PROJECT 0001-076-634	SHEET NO. 1A

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LIMITED ACCESS HIGHWAY

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PROJECT MANAGER Gladis Arboleda, PMC, Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorainne Barksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

INDEX OF SHEETS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	1B

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

SHEET NO.	DESCRIPTION	STATION
1	TITLE SHEET	
1A	LOCATION MAP	
1B	INDEX OF SHEETS	
1C	RIGHT OF WAY DATA SHEET	
1D	REVISION DATA SHEET	
1E(1)-1E(2)	DRAINAGE AND EROSION AND SEDIMENT CONTROL SUMMARY	
1F	SURVEY CONTROL DATA SHEET	
1G(1)-1G(2)	CONSTRUCTION ALIGNMENT DATA SHEET	
1H	UNDERGROUND UTILITY TEST HOLE INFORMATION	
1J(1)-1J(5)	MAINTENANCE OF TRAFFIC (MOT) & SEQUENCE OF CONSTRUCTION	
2	GENERAL NOTES	
2A	TYPICAL SECTIONS	
2B	DRAINAGE DESCRIPTIONS & STORM SEWER PROFILES	
2C	EXISTING DRAINAGE DESCRIPTIONS	
2D(1) - 2D(4)	STORMWATER POLLUTION PREVENTION PLAN (SWPPP)	
2E	ROADSIDE DEVELOPMENT	
3	PLAN SHEET - RICHMOND HIGHWAY (ROUTE 1) - SHARED-USE PATH	STA. 68+00.00 TO STA. 74+00.00 STA. 100+00.00 TO STA. 101+57.22
3A	PROFILE SHEET - RICHMOND HIGHWAY (ROUTE 1)	STA. 68+00.00 TO STA. 74+00.00
3B	PROFILE SHEET - SHARED-USE PATH	STA. 100+00.00 TO STA. 101+57.22
3C	EROSION AND SEDIMENT CONTROL PLAN	
4(1)-4(3)	UTILITY PLAN	
5(1)-5(5)	LIGHTING PLAN	
XS(1)-XS(3)	CROSS SECTIONS	

N/A	PROJECT 0001-076-634	SHEET NO. 1B

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	IC

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City/County: Prince William County
UPC No.: 122979

RIGHT OF WAY DATA SHEET

PARCEL NO.	LANDOWNER	SHEET NO.	AREA (Areas greater than or equal to 1 acre will be shown in acres to 3 decimal places (x.xxx). Areas less than 1 acre will be shown to square feet (x,xxx).)																PROFFERS
			TOTAL	FEE TAKING		PRESCRIPTIVE R/W		FEE REMAINDER		EASEMENTS									
										PERMANENT		UTILITY (WATER)		TEMPORARY		TEMPORARY(ENTRANCES)		
			ACRES OR SQUARE FEET	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	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	YES / NO
001	RIVERSIDE CROSSING PHASE I LLC	3	2.8065 Ac.	4,041 Sq.Ft.				2.714 Ac.				231 Sq. Ft.		3,402 Sq.Ft.				YES
002	COMMONWEALTH OF VIRGINIA VIRGINIA DEPARTMENT OF TRANSPORTATION	3	0.156 Ac.	6,795 Sq.Ft.				0 Ac.										

N/A	PROJECT 0001-076-634	SHEET NO. IC

100% PLANS

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3/28/2026
1:12:53 AM

d1229790ID.dgn
Plotted By: DLitchfield

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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REVISION DATA SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	ID

State Project: 0001-076-634, PE-101, RW-201, C-501
From: ROUTE 1
To: WOODBRIDGE VRE STATION
UPC Number: 122979

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

N/A	PROJECT 0001-076-634	SHEET NO. ID

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REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	001	0001-076-634, C-501 RW-201	IE(1)

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

DRAINAGE SUMMARY

		Storm Sewer Pipes			Concrete Pipe							PVC Pipes			End Sections										Manholes		Drop Inlets																			Erosion Control Stone St'd EC-1						
	Cover	18" Storm Sewer Pipe	24" Storm Sewer Pipe	30" Storm Sewer Pipe	15" Conc. Pipe (Class III)	18" Conc. Pipe (Class III)	24" Conc. Pipe (Class III)	30" Conc. Pipe (Class III)	36" Conc. Pipe (Class III)	42" Conc. Pipe (Class III)	60" Conc. Pipe (Class III)	2" Pipe	4" Pipe	6" Pipe	18" End Section ES-1	18" End Section ES-1 or 2	24" End Section ES-1	24" End Section ES-1 or 2	30" End Section ES-1 or 2	30" End Section ES-1	Concrete Class A3 Misc.	Paved Flume PG-4	Paved Ditch PG-5	Dry Riprap Cl. A1 20"	Manhole MH-1 or 2	Frame & Cover MH-1	Drop Inlet DI-1	Drop Inlet DI-7	Drop Inlet DI-2A	Drop Inlet DI-2B, L=8'	Drop Inlet DI-2B, L=10'	Drop Inlet DI-2C, L=8'	Drop Inlet DI-2EE, L=8'	Drop Inlet DI-2E, L=8'	Drop Inlet DI-2FF, L=6'	Drop Inlet DI-3A, L=3'	Drop Inlet DI-3B, L=4'	Drop Inlet DI-3B, L=6'	Drop Inlet DI-3B, L=8'	Drop Inlet DI-3B, L=12'	Drop Inlet DI-3B, L=16'	Drop Inlet DI-3C, L=6'	Drop Inlet DI-5	Adjust Exist. Drop Inlet	Sructure Height	Erosion Ctrl. Stone Cl. A1, EC-1	Erosion Ctrl. Stone Cl. I, EC-1	Erosion Ctrl. Stone Cl. II, EC-1	Flowable Backfill	Minor Str. Excav. Pipe Culvert	*Post Installation Pipe Inspection	Remarks
Structure	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	CY	SY	SY	TON	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	LF	TON	TON	TON	CY	CY	LF	
3-1														176											1																				6.4							Connect 6" PVC Pipe to Structure; Inlet Shaping Required
3-1 TO 3-2									26																																											
3-2																												1																	7.3							Grate A Type III Required; Inlet Shaping Required
3-2 TO 3-3									126																																											
3-3														23											1																				13.6							Connect 6" PVC Pipe to Structure; Safety Slab and Inlet Shaping Required
EX 26														236																																						Connect 6" PVC Pipe to Structure
SUBTOTAL 1		0	0	0	0	0	0	0	152	0	0	0	0	435	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27.2	0	0	0	0	0	0	

*Not a Pay Item

100% PLANS

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
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DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

EROSION AND SEDIMENT CONTROL SUMMARY

		Rolled Erosion Control Product (RECP), Temporary Std. EC-2				Rolled Erosion Control Product (RECP), Permanent Std. EC-3			Rock Check Dams Std. EC-4		Temporary Silt Fence Std. EC-5		Inlet Protection Std. EC-6											Temporary Diversion Channel Std. EC-12										
	Sheet Number	RECP, Std. EC-2, Ty. I	RECP, Std. EC-2, Ty. 2	RECP, Std. EC-2, Ty. 3	RECP, Std. EC-2, Ty. 4	RECP, Std. EC-3 Ty. I	RECP, Std. EC-3 Ty. 2	RECP, Std. EC-3 Ty. 3	Check Dam, Rock Ty. I	Check Dam (Rock) Ty. II	Temp. Silt Fence, Ty. A	Temp. Silt Fence, Ty. B	Inlet Protection, Type A	Inlet Protection, Type B	Sediment Basin Excavation (For use with Typical Sediment Trap Std. EC-7)	Temporary Sediment Basin Excavation (For use with sediment basins)	Dewatering Basin (Std. EC-8)	Temporary Diversion Dike (Std. EC-9)	Slope Drain (Temporary Berm & Slope Drain Std. EC-10)	Eros. Control Stone Cl. I, EC-1 (For use with Std. EC-10)	Stabilized Construction Entrance (Std. EC-11) *	Temp. Dive. Channel Excavation	Temp. Dive. Channel Lining Class A	Temp. Dive. Channel Lining Class B	Temporary Vehicular Watercourse Crossing (Std. EC-14)	Slope Interrupter (Std. EC-15)	Erosion Control Mulch	Temporary Sediment Riser Pipe (size)	Geotextile Fabric	Turbidity Curtain, Pervious	Turbidity Curtain, Impervious	Siltation Control Excavation		
		SY	SY	SY	SY	SY	SY	SY	EA	EA	LF	LF	EA	EA	CY	CY	EA	Foot	EA	Ton	EA	CY	SY	SY	EA	LF	SY	LF	SY	LF	LF	CY		
Phase I	3C										607		2	15																		189		
	Subtotal										607		2	15																		189		

* Not a pay item.

N/A	PROJECT 0001-076-634	SHEET NO. IE(2)

100% PLANS

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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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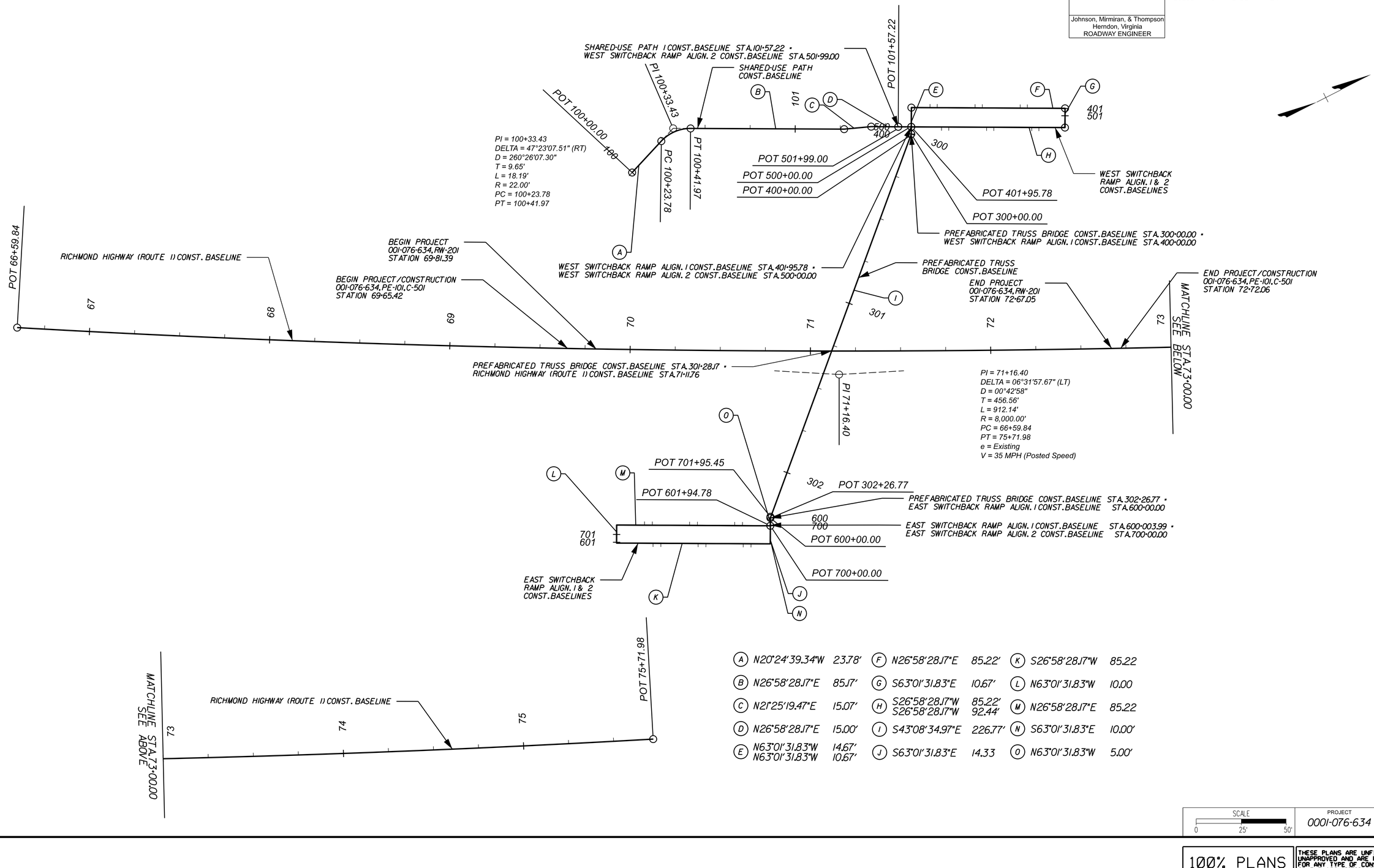
CONSTRUCTION ALIGNMENT DATA SHEET

COMMONWEALTH OF VIRGINIA
LORAINNE R. BARKSDALE
Lic. No. 047412
PROFESSIONAL ENGINEER

Johnson, Mirmiran, & Thompson
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	1G(1)

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



(A)	N20°24'39.34"W	23.78'	(F)	N26°58'28.17"E	85.22'	(K)	S26°58'28.17"W	85.22
(B)	N26°58'28.17"E	85.17'	(G)	S63°01'31.83"E	10.67'	(L)	N63°01'31.83"W	10.00
(C)	N21°25'19.47"E	15.07'	(H)	S26°58'28.17"W S26°58'28.17"W	85.22' 92.44'	(M)	N26°58'28.17"E	85.22
(D)	N26°58'28.17"E	15.00'	(I)	S43°08'34.97"E	226.77'	(N)	S63°01'31.83"E	10.00'
(E)	N63°01'31.83"W N63°01'31.83"W	14.67' 10.67'	(J)	S63°01'31.83"E	14.33	(O)	N63°01'31.83"W	5.00'

SCALE	PROJECT	SHEET NO.
0 25' 50'	0001-076-634	1G(1)

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	1G(2)

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

RICHMOND HIGHWAY (ROUTE 1)

Element: Circular
PC = 6659.840 N 6925068.624 E 11839866.865
HPI = 7116.402 N 6925464.141 E 11840094.935
CC = 6929064.916 11832936.523
PT = 7571.975 N 6925883.037 E 11840276.526
Radius: 8000.000
Delta: 6.533 Left
Degree of Curvature (Arc): 0.716
Length: 912.135
Tangent: 456.562
Chord:911.641
Middle Ordinate: 12.996
External: 13.017
Back Tangent Direction: N29.969'E
Back Radial Direction: S60.031'E
Chord Direction: N26.703'E
Ahead Radial Direction: S66.563'E
Ahead Tangent Direction: N23.437'E

PREFABRICATED TRUSS BRIDGE

Element: Linear
START = 30000.000 N 6925559.800 E 11839993.796
END = 30226.768 N 6925394.339 E 11840148.865
Tangential Direction: S43.143'E
Tangential Length: 226.768

SHARED-USE PATH

Element: Linear
START = 10000.000 N 6925411.935 E 11839943.292
PC = 10023.778 N 6925434.220 E 11839935.000
Tangential Direction: N20.410'W
Tangential Length: 23.778

Element: Circular
PC = 10023.778 N 6925434.220 E 11839935.000
HPI = 10033.432 N 6925443.268 E 11839931.633
CC = N 6925441.892 E 11839955.619
PT = 10041.972 N 6925451.871 E 11839936.012
RADIUS: 22.000
DELTA: 47.385°Right
Degree of Curvature (Arc): 260°26'07"
LENGTH: 18.195
TANGENT: 9.654
CHORD: 17.681
MIDDLE ORDINATE: 1.854
EXTERNAL: 2.025
BACK TANGENT DIRECTION: N20.410'W
BACK RADIAL DIRECTION: N69.589'E
CHORD DIRECTION: N03.282'E
AHEAD RADIAL DIRECTION: S63.025'E
AHEAD TANGENT DIRECTION: N26.974'E

Element: Linear
PT = 10041.972 N 6925451.871 E 11839936.012
HPI = 10127.146 N 6925527.779 E 11839974.646
Tangential Direction: N26.974'E
Tangential Length: 85.174

Element: Linear
HPI = 10127.146 N 6925527.779 E 11839974.646
HP = 10142.217 N 6925541.808 E 11839980.150
Tangential Direction: N21.422'E
Tangential Length: 15.071

Element: Linear
HPI: 10142.217 N 6925541.808 E 11839980.150
END: 10157.217 N 6925555.177 E 11839986.954
Tangential Direction: N26.974'E
Tangential Length: 15.000

WEST SWITCHBACK RAMP ALIGNMENT 1

Element: Linear
START = 40000.000 N 6925559.800 E 11839993.796
HPI = 40014.667 N 6925566.452 E 11839980.725
Tangential Direction: N63.026'W
Tangential Length: 14.667

Element: Linear
HPI = 40014.667 N 6925566.452 E 11839980.725
HPI = 40099.890 N 6925642.404 E 11840019.381
Tangential Direction: N26.974'E
Tangential Length: 85.223

Element: Linear
HPI = 40099.890 N 6925642.404 E 11840019.381
HPI = 40110.557 N 6925637.566 E 11840028.888
Tangential Direction: S63.026'E
Tangential Length: 10.667

Element: Linear
HPI = 40110.557 N 6925637.566 E 11840028.888
END = 40195.780 N 6925561.614 E 11839990.231
Tangential Direction: S26.974'W
Tangential Length: 85.223

WEST SWITCHBACK RAMP ALIGNMENT 2

Element: Linear
START = 50000.000 N 6925561.614 E 11839990.231
HPI = 50010.667 N 6925566.452 E11839980.725
Tangential Direction: N63.026'W
Tangential Length: 10.667

Element: Linear
HPI = 50010.667 N 6925566.452 E 11839980.725
HPI = 50095.890 N 6925642.404 E 11840019.381
Tangential Direction: N26.974'E
Tangential Length: 85.223

Element: Linear
HPI = 50095.890 N 6925642.404 E 11840019.381
HPI = 50106.557 N 6925637.566 E 11840028.888
Tangential Direction: S63.026'E
Tangential Length: 10.667

Element: Linear
HPI = 50106.557 N 6925637.566 E 11840028.888
HPI = 50191.780 N 6925561.614 E 11839990.231
Tangential Direction: S26.974'W
Tangential Length: 85.223

Element: Linear
HPI = 50191.780 N 6925561.614 E 11839990.231
END = 50199.004 N 6925555.177 E 11839986.954
Tangential Direction: S26.974'W
Tangential Length: 7.223

EAST SWITCHBACK RAMP ALIGNMENT 1

Element: Linear
START = 60000.000 N 6925394.339 E 11840148.865
HPI = 60014.333 N 6925387.837 E 11840161.639
Tangential Direction: S63.026'E
Tangential Length: 14.333

Element: Linear
HPI = 60014.333 N 6925387.837 E 11840161.639
HPI = 60099.557 N 6925311.885 E 11840122.982
Tangential Direction: S26.974'W
Tangential Length: 85.223

Element: Linear
HPI = 60099.557 N 6925311.885 E 11840122.982
HPI = 60109.557 N 6925316.421 E 11840114.070
Tangential Direction: N63.026'W
Tangential Length: 10.000

Element: Linear
HPI = 60109.557 N 6925316.421 E 11840114.070
END = 60004.333 N 6925392.373 E 11840152.727
Tangential Direction: N26.974'E
Tangential Length: 85.223

EAST SWITCHBACK RAMP ALIGNMENT 2

Element: Linear
START = 70000.000 N 6925392.373 E 11840152.727
HPI = 70010.000 N 6925387.837 E 11840161.639
Tangential Direction: S63.026'E
Tangential Length: 10.000

Element: Linear
HPI = 70010.000 N 6925387.837 E 11840161.639
HPI = 70095.223 N 6925311.885 E 11840122.982
Tangential Direction: S26.974'W
Tangential Length: 85.223

Element: Linear
HPI = 70095.223 N 6925311.885 E 11840122.982
HPI = 70105.223 N 6925316.421 E 11840114.070
Tangential Direction: N63.026'W
Tangential Length: 10.000

Element: Linear
HPI = 70105.223 N 6925316.421 E 11840114.070
HPI = 70000.000 N 6925392.373 E 11840152.727
Tangential Direction: N26.974'E
Tangential Length: 85.223

Element: Linear
HPI = 70000.000 N 6925392.373 E 11840152.727
END = 70195.447 N 6925394.641 E 11840148.271
Tangential Direction: N63.026'W
Tangential Length: 5.000

N/A	PROJECT 0001-076-634	SHEET NO. 1G(2)

100% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorainne Barksdale P.E. CFM, Johnson,Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	IH

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

UNDERGROUND UTILITY TEST HOLE INFORMATION SHEET

PLAN SHEET	TEST HOLE	DISTANCE (FEET)	(1) STATION & ROADWAY	OWNER	TYPE OF FACILITY	(2) ELEV. (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	UTILITY (5) ADJUSTMENT REQUIRED
3	1	125.96 LT	71+10.21	E	UNKNOWN	72.44'	NO	UTILITY NOT FOUND	NO
3	1A	118.35 LT	71+11.76	E	16" DI WATERLINE	71.24'	NO		NO
3	1B	68.14 RT	70+58.49	C	2" PVC (POLYVINYL CHLORIDE); ELECTRICAL	71.79'	NO		NO
3	2	124.81 LT	72+73.84	E	16" DI WATERLINE	69.82'	NO		NO
3	2A	84.81 RT	70+68.51	C	4" PVC (POLYVINYL CHLORIDE); ELECTRICAL	71.76	YES		YES
3	3	105.39 LT	71+50.32	B	FIBER OPTIC CABLE	67.51'	NO	INACTIVE	NO
3	3A	90.98 RT	70+79.12	C	4" PVC (POLYVINYL CHLORIDE); ELECTRICAL	71.35'	YES		YES
3	4	112+42 LT	70+25.54	B	4" PVC (POLYVINYL CHLORIDE); FIBER OPTIC CABLE	72.37'	NO	INACTIVE	NO
3	4A	104.75 RT	70+93.20	C	4" PVC (POLYVINYL CHLORIDE); ELECTRICAL	71.67'	YES		YES
3	5	104.13 RT	70+95.69	A/B/D	2" PVC (POLYVINYL CHLORIDE); FIBER OPTIC CABLE	71.78'	NO		NO
3	5A	110.18 RT	70+99.29	C	4" PVC (POLYVINYL CHLORIDE); ELECTRICAL	70.84	YES		YES
3	6	122.33 LT	70+02.84	C	ELECTRICAL	71.11'	NO	LARGE ROCKS IN LOCATION	NO
3	7	104.24 LT	70+16.99	C	CONCRETE DUCT BANK; ELECTRICAL	60.94'	NO	UNABLE TO VISUALLY VERIFY UTILITY	NO
3	8	104.88 LT	70+25.98	C	CONCRETE DUCT BANK; ELECTRICAL	67.97'	NO	UNABLE TO VISUALLY VERIFY UTILITY	NO
3	9	105.34 LT	71+48.08	C	CONCRETE DUCT BANK; ELECTRICAL	68.38'	NO	UNABLE TO VISUALLY VERIFY UTILITY	NO

NOTES:

(1) ALL TEST HOLES ARE REFERENCED FROM THE ROUTE 1 BASELINE UNLESS OTHERWISE NOTED.

(2) ELEVATIONS SHOWN HEREON ARE TO THE TOP OF THE FACILITY UNLESS OTHERWISE NOTED.

(3) YES OR NO: NO INDICATES NO DIRECT CONFLICT, HOWEVER, CLEARANCE MAY BE LESS THAN ACCEPTABLE TO UTILITY OWNER.

(4) REMARKS TO INCLUDE CLEARANCE DIMENSION (REGARDLESS OF DISTANCE).

(5) YES OR NO: INFORMATION PROVIDED BY JMT UTILITY COORDINATOR.

UTILITY OWNERS

A AT&T
10 N. JEFFERSON ST. SUITE 308
FREDERICK, MD 21701
KEN CAUDILL
(301) 228-2502 EXT. 8106
KENCAUDILL@KCI.COM

B COMCAST
4391 DALE BLVD
DALE CITY, VA 22191
MARK SLEBRCH
(571) 553-1415
MARK_SLEBRCH@COMCAST.COM

C DOMINION ENERGY
3072 CENTERVILLE ROAD
HERNDON, VA 20171
WILLIAM SEITTER
(571) 203-5229
WILLIAM.C.SEITTER@DOMINIONENERGY.COM

D VERIZON
400 C SOUTHRIDGE PARKWAY
CULPEPER, VA 22701
JOSEPH ZYCH
(540) 903-4188
JZYCH@TECLLC.CO

E PRINCE WILLIAM COUNTY WATER & SEWER
4 COUNTY COMPLEX CT
WOODBRIDGE, VA 22192
ED KOVALCHUK
(703) 335-7944
EKOVALCHUK@PWCSA.ORG

F WASHINGTON GAS
6801 INDUSTRIAL RD.
SPRINGFIELD, VA 22151
MARK TAJNAI
(703)750-7575
MTAJNAI@WASHGAS.COM

Utility notes:

1. Utilities shown herein are accordance with American Society Of Civil Engineer's document ASCE 38-02, "Standard Guideline For The Collection And Depiction Of Existing Subsurface Utility Data."

2. All utilities depicted in this file are Quality Level "B" unless otherwise noted.

3. Utilities depicted according to utility records (DATUR) are Quality Level "D" and labeled "QL-D".

4. Utility size and type for Quality Level "B" depictions are determined through available utility owner information. Utilities labeled as unknown have no correlated records or visible appurtenances to determine function or type.

5. There may exist utilities that are unable to be electromagnetically toned or detected by subsurface utility equipment or geophysical methods. Utilities may have been changed or added after 08/27/2025.

6. Reliance upon this data for risk management purposes during bidding does not relieve the excavator or utility owner from following all applicable utility damage prevention statutes, policies, and/or procedures during excavation.

7. Utilities shown here in were performed under the direct supervision of Timothy Edward Payne, LS. VA0403003090. This CAD file/Metadata is based on a current field investigation of underground utilities. The designation marks were field located using RTK GPS based on existing ground control. Field designation and survey were completed on 08/27/2025

UTILITY LEGEND

EB Electric Box	TB Telephone Booth
Electric Guy Pole	Telephone Guy Pole
Electric Ground Light	Telephone Guy Wire
Electric Guy Wire	Test Holes (All Utilities)
E Electric Hand Hole	Telephone Cell Tower
Electric Meter	T Telephone Hand Hole
E Electric Manhole	T Telephone Manhole
Electric Marker Post	Telephone Marker Post
E Electric Pedestal	Telephone Pole
Electric Stub	T Telephone Pedestal
Electric Power Pole	Telephone Riser Pole
Electric Power Riser Pole	Television Satellite Dish
Electric Light Pole	Tower Anchor
Electric Luminaire	Traffic Camera Pole
End of Information (All Utilities)	TC Traffic Control Hand Hole
Fire Hydrant	TC Traffic Control Manhole
F Fiber Optic Hand Hole	Traffic Control Guy Wire
Fiber Optic Marker	TC Traffic Control Pedestal
FO Fiber Optic Manhole	Traffic Signal Guy Pole
FO Fiber Optic Pedestal	Traffic Signal Pole
Gas Meter	Traffic Signal Pole w/Luminaire
G Gas Manhole	Telephone Stub
Gas Marker Post	TH Television Hand Hole
MW Gas Monitoring Well	TV Television Manhole
Gas Stub	Television Marker Post
Gas Test Station	TV Television Pedestal
Gas Valve	Television Stub
Gas Vent	Water Blow Off
Gas Well	W Water Well
Sanitary Air Release Valve	Water Meter
Sanitary Flow Arrow	WM Water Manhole
Sanitary Stub	Water Marker Post
Sewer Clean Out	Water Spigot
S Sanitary Force Main Valve	Water Siamese Connection
Sanitary Marker Post	Water Stub
S Sanitary Manhole	Water Valve
Sewer Vent Pipe	Water Post Inspection Valve
Unknown Clean Out	Water Irrigation Valve
U Unknown Hand Hole	ST Water Steam Manhole
UK Unknown Manhole	Water Steam Vent Pipe

CAFO — Fiber Optic Cable Television
CHEM — Chemical Line (above or below ground)
FO Duct — Underground Fiber Optic Duct
FUEL — Fuel Line (above or below ground)
G — Gas Line *
G Duct — Gas Line Duct
SAN — Gravity Sewer *
SFM — Sanitary Force Main *
TCFO — Traffic Control Fiber Optic
T/FO — Telephone Fiber Optic
FO — Underground Fiber Optic
Unk — Unknown Utility Line
E — Underground Power Cable
E Duct — Underground Power Cable Duct
T/Tg — Underground Telephone Cable
T/Tg Duct — Underground Telephone Cable Duct
TC — Underground Traffic Control
TC Duct — Underground Traffic Control Duct
CATV — Underground Television Cable
CATV Duct — Underground Television Cable Duct
VS — Vacuum Sewer
W — Water Line *
W Duct — Water Line Duct
Unk — Depicted According To Utility Records **
Unk — Abandoned According To Utility Records **
Unk — According To Miss Utility Information **

* Designate size (Variable from 0.75" to 54")
** Designate type (Unknown line is shown)

	PROJECT	SHEET NO.
N/A	0001-076-634	IH

100% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorainne Barksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

MOT & SOC PLANS GENERAL NOTES

GENERAL NOTES

1. IT IS NOT THE INTENT OF THIS PLAN TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH STAGE, BUT ONLY TO SHOW THE GENERAL FEATURES NECESSARY TO PROVIDE THE PROPER HANDLING OF TRAFFIC.
2. THE CONTRACTOR SHALL SUBMIT REVISED TRAFFIC CONTROL PLANS TO THE ENGINEER FOR APPROVAL PRIOR TO THE BEGINNING OF ANY REVISED PHASE. THE TRAFFIC CONTROL PLAN SHALL SHOW ALL NECESSARY TRAFFIC CONTROL DEVICES INCLUDING SIGNS, PAVEMENT MARKINGS, AND CHANNELIZING DEVICES.
3. THE CLEAR ZONE AS DEFINED IN THE VA WAPM SHALL BE FREE OF STORED MATERIALS AND PARKED EQUIPMENT. HORIZONTAL AND VERTICAL SIGHT DISTANCES SHALL NOT BE IMPACTED BY PARKED CONSTRUCTION EQUIPMENT.
4. ALL AREAS EXCAVATED MORE THAN 2" BELOW PAVEMENT SURFACE SERVING PUBLIC TRAFFIC WITHIN THE CLEAR ZONE AND NOT PROTECTED BY A POSITIVE BARRIER AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED TO FORM AN APPROXIMATE 6d SAFETY WEDGE DESIRABLE (4:1 MINIMUM), AGAINST THE PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF PUBLIC TRAFFIC. ALL COSTS FOR PLACING, MAINTAINING AND REMOVING THE 6d DESIRABLE (4:1 MINIMUM), SAFETY WEDGE SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS IN THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
5. ALL TRAFFIC CONTROL DEVICES SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE PROPERTY OWNER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL TRAFFIC CONTROL DEVICES, GRADING, AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR, AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ANY EXISTING SIGNS, UNLESS OTHERWISE ADVISED BY THE ENGINEER TO REMOVE OR RELOCATE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE CONSTRUCTION, SIGNING, AND TRAFFIC MANAGEMENT PLAN WITH OTHER ADJACENT PROJECTS UNDER CONSTRUCTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE CONSTRUCTION MANAGER AND RESIDENCY ADMINISTRATOR OF ANY SCHEDULED WORK PLANS AND TRAFFIC DELAYS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE CONSTRUCTION MANAGER, RESIDENCY ADMINISTRATOR, REGIONAL OPERATIONS MANAGER, AND THE PUBLIC AFFAIRS STAFF OF ANY UNSCHEDULED TRAFFIC DELAYS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PUBLIC SAFETY, EMERGENCY MANAGEMENT, AND MASS TRANSIT ORGANIZATIONS OF DETOUR ROUTE(S) AND AVAILABLE ALTERNATE ROUTES DURING CONSTRUCTION.
11. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ADD ANY ADDITIONAL TEMPORARY MEASURES NECESSARY TO FACILITATE PROPER, POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION.
12. THE LUMP SUM QUANITITY FOR TEMPORARY TRAFFIC CONTROL SIGNAL INCLUDES THE FOLLOWING:
    - A) ALL LABOR AND MATERIALS REQUIRED FOR ALL EQUIPMENT/INFRASTRUCTURE CHANGES TO SIGNALIZATIONS FOR ALL PHASES (AND CHANGES IN LANE CONFIGURATIONS AT INTERSECTION) OF CONSTRUCTION, FOR THE DURATION OF THE ENTIRE PROJECT.
    - B) MAINTAINING POWER SERVICE AND PHONE CONNECTIONS) TO ALL TEMPORARY TRAFFIC SIGNALIZATION FOR THE DURATION OF CONSTRUCTION.
    - C) PROVIDING TEMPORARY SIGNAL PLANS TO VDOT (FOR APPROVAL) PRIOR TO THE START OF CONSTRUCTION ACTIVITY FOR EACH TEMPORARY SIGNAL CONFIGURATION TO BE UTILITIZED FOR EACH SIGNAL FOR THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SIGNAL TIMINGS TO MAINTAIN ORDERLY FLOW OF TRAFFIC FOR THE LIFE OF CONSTRCUTION, THROUGH ALL TEMPORARY SIGNAL CONFIGURATIONS DURING THE PROJECT'S CONSTRUCTION/TMP-SOC.
    - D) MAINTAINING VEHICLE DETECTION ON ALL APPROACHESS AT ALL TIMES BY MEANS APPROVED BY VDOT.
    - E) SUBMITTING TEMPORARY SIGNAL TIMINGS FOR VDOT APPROVAL TO BE IMPLEMENTED.
    - F) MAINTAINING QUALIFIED CREW ON-CALL 24 HOURS A DAY, TO MAINTAIN ALL SIGNALS FOR THE LIFE OF CONSTRUCTION.
13. UNLESS SPECIFIED ON THE PLANS, ALL EXISTING TURN LANES SHALL BE MAINTAINED AT ALL TIMES FOR THE DURATION OF CONSTRUCTION.
14. WHERE GROUP 2 CHANNELIZING DEVICES ARE USED TO SEPARATE THE CONSTRUCTION AREA AND TRAFFIC, A MINIMUM CLEAR ZONE AREA AS DEFINED IN THE VA WAPM IS TO BE MAINTAINED.
15. CONTRACTOR SHALL EXPEDITE WORK BEHIND BARRIER IN THE INFLUENCE OF INTERSECTIONS TO RESTORE SIGHT DISTANCE AS SOON AS POSSIBLE.
16. THE CONTRACTOR SHALL ENSURE THAT PERSONNEL ASSIGNED TO THE PROJECT ARE TRAINED IN TRAFFIC CONTROL TO A LEVEL COMMENSURATE WITH THEIR RESPONSIBILITIES IN ACCORDANCE WITH VDOT'S WORK ZONE TRAFFIC CONTROL TRAINING GUIDELINES.
17. THE CONTRACTOR SHALL INFORM THE ENGINEER OF ANY WORK REQUIRING LANE SHIFTS, LANE CLOSURES, AND/OR PHASE CHANGES A MINIMUM OF ONE WEEK PRIOR TO IMPLEMENTING THIS ACTIVITY.
18. THE CONTRACTOR SHALL PERFORM REVIEWS OF THE CONSTRUCTION AREA TO ENSURE COMPLIANCE WITH CONTRACT DOCUMENTS TO RESULT IN REGULARLY SCHEDULED INTERVALS AND AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE TEMPORARY TRAFFIC CONTROL PLAN AT THE WORK SITE AT ALL TIMES.
19. UNDER NO CIRCUMSTANCES WILL CONCURRENT CONSTRUCTION LEFT AND RIGHT OF ANY LANE BE ALLOWED UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR SHOWN ON THESE PLANS.
20. 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 AND REUSE OF MATERIALS WILL BE MEASURED AND PAID FOR AS REGULAR EXCAVATION IN ACCORDANCE WITH SECTION 303 OF THE ROAD AND BRIDGE SPECIFICATIONS.
21. ACCESS TO ADJACENT RESIDENTIAL AND COMMERCIAL PROPERTIES SHALL BE MAINTAINED AT ALL TIMES OR AS DIRECTED BY THE ENGINEER.
22. THE CONTRACTOR SHALL NOTIFY EACH AFFECTED PROPERTY OWNER AT LEAST 48 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS.
23. IF REQUIRED, THE CONTRACTOR SHALL PLACE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) ONE WEEK IN ADVANCE OF THE PROPOSED OPERATION AT LOCATIONS APPROVED BY VDOT AND SHALL BE IN ACCORDANCE WITH THE 2026 VIRGINIA WORK AREA PROTECTION MANUAL (VWAPM) VERSION 11.0.
24. ALL EXISTING SIGNS, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE MAINTAINED AND RELOCATED AS NECESSARY THROUGHOUT THE LIFE OF THE PROJECT OR AS DIRECTED BY THE ENGINEER.
25. SIGN SPACING SHALL BE ADJUSTED TO FIT FIELD CONDITIONS WITH APPROVAL OF THE ENGINEER.
26. ALL EXISTING SIGNS, WHETHER SHOWN ON THE PLANS OR NOT, THAT ARE TO REMAIN AND CONVEY A CONFLICTING MESSAGE TO THE TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED AT ALL TIMES FOR THE DURATION OF TEMPORARY TRAFFIC CONTROL SETUP.
27. ALL SIGNING FOR THE PROJECT LIMITS SHALL BE DONE IN ACCORDANCE WITH THE LATEST REVISION OF THE VA WAPM. THESE SIGNS SHALL BE INSTALLED ON ALL STATE MAINTAINED ROADWAYS AND REMAIN IN PLACE FOR THE DURATION OF THE PROJECT.
28. ALL CONSTRUCTION SIGNING SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE FOLLOWING DOCUMENTS:
    - 2026 VIRGINIA WORK AREA PROTECTION MANUAL (VWAPM) VERSION 11.0
    - 2026 VIRGINIA MANUAL ON MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (VAMUTCD) VERSION 11.0
    - 2020 VIRGINIA ROAD AND BRIDGE SPECIFICATIONS
    - 2016 VIRGINIA ROAD AND BRIDGE STANDARDS, AS REVISED
    - VDOT IIM-LD-241 / IIM-TE-351.5
    - VDOT IIM-TE-392 (IF APPLICABLE)
29. UNLESS PREAPPROVED AND DOCUMENTED, ALL LANE AND/OR SHOULDER CLOSURES ALONG VDOT MAINTAINED ROADWAYS SHALL BE IN ACCORDANCE WITH THE APPLICABLE ALLOWABLE HOURS AS STATED IN THE NOVA DISTRICT LANE CLOSURE GUIDELINES, DATED FEBRUARY 29TH, 2024.
30. ALL LANE AND/OR SHOULDER CLOSURES ALONG VDOT MAINTAINED ROADWAYS SHALL BE COMPLETELY REMOVED ON A DAILY/NIGHTLY BASIS WITH LANES BEING FULLY OPEN TO TRAFFIC AT ALL TIMES BEYOND THE ALLOWABLE AND/OR APPROVED LANE CLOSURE HOURS.
31. THE APPLICANT/CONTRACTOR SHALL BE PROPERLY TRAINED AND RESPONSIBLE FOR MAINTAINING ALL PROJECT LANE CLOSURE INFORMATION OR ANY WORK WITHIN VDOT RIGHT-OF-WAY ON LCAMS AND VA TRAFFIC/511 THROUGHOUT THE DURATION OF THE PROJECT IN ACCORDANCE WITH IIM-OD-16-03, DATED DECEMBER 16, 2016.
32. ALL LANE AND/OR SHOULDER CLOSURES SHALL BE ACCURATELY ENTERED AND ACCEPTED INTO LCAMS AT LEAST TEN (10) DAYS IN ADVANCE OF THE PROPOSED LANE AND/OR SHOULDER CLOSURE(S) AND NO LATER THAN CLOSE OF BUSINESS WEDNESDAY THE WEEK PRIOR TO THE CLOSURE STATING THE LOCATION, PURPOSE, SPECIFIC LANE(S) TO BE CLOSED, TIME AND DURATION OF CLOSURE. 1/64 ANY CONFLICTS GENERATED FROM LCAMS SHALL BE RESOLVED NO LATER THAN CLOSE OF BUSINESS THURSDAY THE WEEK PRIOR TO THE CLOSURE.
33. REGARDLESS OF PRIOR APPROVALS, ANY/ALL REQUESTS FOR DEVIATION FROM THE ALLOWABLE LANE CLOSURE HOURS ALONG VDOT MAINTAINED ROADWAYS SHALL BE SUBMITTED TO VDOT NOVA TRAFFIC OPERATIONS FOR REVIEW A MINIMUM OF 1/64 FOURTEEN (14) DAYS IN ADVANCE OF WORK.
34. THE APPLICANT/CONTRACTOR MUST CONTACT THE VDOT NORTHERN DISTRICT TRANSPORTATION OPERATIONS CENTER/TOC (703-539-0100) DAILY/NIGHTLY 15-45 MINUTES PRIOR TO EXECUTING EVERY LANE AND/OR SHOULDER CLOSURES AND CONTACT TOC AGAIN ONCE DAILY/NIGHTLY WORK HAS BEEN COMPLETED AND LANE AND/OR SHOULDER CLOSURES HAVE BEEN REMOVED.
35. THE APPLICANT/CONTRACTOR SHALL VERIFY THERE ARE NO ACTIVITIES OR EVENTS IN THE AREA WHICH MAY CAUSE CONFLICT WITH THIS WORK AND SHALL COORDINATE WITH ANY OTHER CURRENT/ONGOING PROJECTS ADMINISTERED BY VDOT, THE LOCAL JURISDICTION(S) OR ANY PRIVATE ENTITIES WITHIN THE AREA THAT MIGHT BE AFFECTED BY THESE LANE CLOSURES.
36. LANE CLOSURES ALONG VDOT MAINTAINED ROADWAYS WILL NOT BE PERMITTED DURING INCLEMENT WEATHER OR EMERGENCY SITUATIONS.
37. LANE AND/OR SHOULDER CLOSURES 1/64 ALONG VDOT MAINTAINED ROADWAYS SHALL NOT BEGIN IF HEAVY TRAFFIC OR SIGNIFICANT QUEUING AND BACKUPS ARE ALREADY PRESENT ALONG THE ROADWAY(S).
38. ACCESS TO/FROM ALL RAMPS, ROADWAYS, SIDE STREETS, DRIVEWAYS AND PROPERTIES, AS APPLICABLE, WITHIN AND ADJACENT TO THE WORK AREA SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE DURATION OF THE WORK.
39. THE APPLICANT/CONTRACTOR SHALL CONTINUOUSLY MONITOR ALL LANE CLOSURE(S) AND DETOUR ROUTES, IF APPLICABLE, AND MAKE SPOT ADJUSTMENTS AS NEEDED/AVAILABLE TO EASE UNDUE BACKUPS, DELAYS, OR QUEUING AND REOPEN LANES IMMEDIATELY, IF NECESSARY.
40. LANE AND SHOULDER CLOSURE HOURS OF OPERATION ALONG VDOT MAINTAINED ROADWAYS MAY BE ADJUSTED BY VDOT AT ANY TIME IF SIGNIFICANT TRAFFIC IMPACTS ROUTINELY DEVELOP AS A RESULT OF THE PROJECT OR CITIZEN COMPLAINTS ARE RECEIVED.
41. THE APPLICANT/CONTRACTOR SHALL NOTIFY THE VIRGINIA STATE POLICE (VSP), AS NECESSARY, AND THE VARIOUS LOCAL AREA LAW ENFORCEMENT AND EMERGENCY SERVICES OF ALL CLOSURES AND TIMES FOR SITUATIONAL AWARENESS.
42. IF IMPACTS TO ANY VDOT MAINTAINED TRAFFIC SIGNALS ARE ANTICIPATED OR OCCUR AT ANY TIME DURING THE PROJECT, VDOT TRAFFIC OPERATIONS SHALL BE NOTIFIED AND COORDINATED WITH A MINIMUM OF 14 DAYS IN ADVANCE OF WORK.
43. WHEN WORKING IN AND AROUND ANY CROSSWALKS, SIDEWALKS OR TRAILS, CONTINUOUSLY MONITOR AND MAINTAIN SAFE PEDESTRIAN AND BICYCLE ACCESS AT ALL TIMES.
44. DEPENDING ON THE TIME OF YEAR AND DAY, THE APPLICANT/CONTRACTOR MUST NOTIFY AND/OR COORDINATE WITH THE LOCAL AREA SCHOOLS OF ALL CLOSURES AND TIMES TO AVOID ISSUES WITH SCHOOL BUILDING ACCESS AND/OR BUS SCHEDULES AND ROUTES.
45. DURING LANE CLOSURES, THE WORK ZONE SHALL REMAIN CONTINUOUSLY ACTIVE WITH CONSTRUCTION OPERATIONS.
46. CONTRACTOR SHALL COORDINATE ADVANCE AND SUCCEEDING WARNING SIGNS WITH ADJACENT PROJECT 0095-076-341 ALONG GORDON BOULEVARD BETWEEN MARINA WAY AND ANNAPOLIS WAY WHILE BOTH PROJECTS ARE UNDER CONSTRCUTION. WHEN PROJECT 0095-076-341 IS COMPLETE, CONTRACTOR SHALL INSTALL WARNING SIGNS TO ALERT PUBLIC THE LIMITS OF CONSTRUCTION.
47. DETERMINING DATE AND TIMES FOR IMPLEMENTING THE FULL CLOSURE WITH DETOUR SHALL BE IN ACCORDANCE WITH SECTION 4.2 AND 5 IN THE NOVA DISTRICT LANE CLOSURE GUIDELINES (DATED 2/29/24)

PUBLIC COMMUNICATIONS

1. THE PUBLIC SHALL BE NOTIFIED OF THE EXPECTED SCHEDULE ON VDOT'S WEBSITE FOR THIS PROJECT. INFORMATION OF THE POTENTIAL FOR BACK-UPS DURING THE PEAK HOURS OF OPERATION IS PROVIDED BY THE REGIONAL TRAFFIC OPERATIONS CENTER.
2. THE CONTRACTOR SHALL PROVIDE ADVANCE NOTICE OF ALL CLOSURES TO THE ENGINEER WHO WILL COMMUNICATE WITH THE VDOT DISTRICT PUBLIC AFFAIRS SECTION, LOCAL AGENCY, FEDERAL AGENCIES AND SCHOOLS IN CLOSE PROXIMITY, RADIO AND TELEVISION, EMERGENCY SERVICES, AND VDOT TRAFFIC OPERATION CENTER AS DEEMED NECESSARY.
3. THE CONTRACTOR SHALL NOTIFY TRANSPORTATION OPERATIONS CENTER OF ANY LANE CLOSURES BY 8:00 AM OF THE WEDNESDAY PRIOR TO THE WEEK OF CLOSURE IN ORDER TO PLACE LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-TRAFFIC, IT IS SUGGESTED TO HAVE AN INDIVIDUAL RESPONSIBLE TO ENTER LANE REQUEST INFORMATION INTO THE LCAMS SYSTEM.

TYPICAL TRAFFIC CONTROL FIGURES

THE FOLLOWING TYPICAL TRAFFIC CONTROL (TTC) FIGURES FROM THE VA WAPM HAVE BEEN PROPOSED FOR THE USE, GUIDANCE, AND APPLICATION ON THIS PROJECT:

FIGURE TTC-1.0	WORK BEYOND THE SHOULDER
FIGURE TTC-4.0	STATIONARY WORK ON A SHOULDER
FIGURE TTC-34.0	STREET CLOSURE WITH DETOUR
FIGURE TTC-35.0	SIDEWALK DETOUR

COMMONWEALTH OF VIRGINIA
LORAINNE R. BARKSDALE
Lic. No. 047412
PROFESSIONAL ENGINEER

Johnson, Mirmiran, & Thompson
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634, C-501 RW-201	IJ(1)

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

Commonwealth of Virginia VDOT
Virginia Department of Transportation
VERIFICATION OF COMPLETION OF ATSSA TCDS WORK ZONE TRAFFIC CONTROL TRAINING

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

Expiration Date: 5/31/2027
Verification Number: 051923118

State Traffic Ops Eng

TRANSPORTATION OPERATIONS

1. THE PUBLIC AFFAIRS SECTION AND THE TRAFFIC OPERATIONS CENTER SHALL BE NOTIFIED BY THE CONSTRUCTION PROJECT MANAGER OF LANE CLOSURE INFORMATION FOR DISTRIBUTION ON THE 511 SYSTEM AND VOIS.
2. THE CONSTRUCTION PROJECT MANAGER SHALL BE NOTIFIED ONE WEEK IN ADVANCE OF LANE CLOSURES.
3. EMERGENCY RESPONSE PROFESSIONALS SHALL RESPOND TO TRAFFIC INCIDENTS IN THE WORK ZONE AS SOON AS POSSIBLE.
4. BY NOON ON EACH WEDNESDAY, THE CONTRACTOR WILL SUBMIT TO THE CONSTRUCTION PROJECT MANAGER IN WRITING, A REQUEST FOR LANE CLOSURES FOR THE FOLLOWING WEEK.
5. THE FOLLOWING IS THE CONTACT LIST OF EMERGENCY RESPONSE AGENCIES IN CASE AN INCIDENT OCCURS IN THE WORK ZONE:

   POLICE/AMBULANCE/FIRE SAFETY /HAZMAT SPILLS - 911
   TRAFFIC OPERATIONS CENTER - (703) 877-3449
   VIRGINIA STATE POLICE - (703) 791-3101
   LOCAL AGENCY - (703) 792-6825

6. FOLLOWING ANY TRAFFIC INCIDENTS, THE SITE SHALL BE CLEARED AND RESTORED FOR NORMAL TRAFFIC OPERATIONS AS SOON AS POSSIBLE.
7. TRAFFIC INCIDENTS SHALL BE INVESTIGATED AND MEASURES INTRODUCED TO REDUCE OCCURRENCES. IF NECESSARY, THE TRANSPORTATION MANAGEMENT PLAN MAY BE REVISED IN CONSULTATION WITH THE ENGINEER.
8. CONTRACTOR SHALL CONTACT THE TRANSPROTATION OPERATIONS CENTER/TOC 15 TO 45 MINUTES BEFORE AND AFTER ANY OPEARATION THAT IMPACTS THE ROADWAY.

TEMPORARY TRAFFIC CONTROL

1. THIS TRANSPORTATION MANAGEMENT PLAN HAS BEEN DESIGNED IN CONFORMANCE WITH A TYPE B, CATEGORY III PROJECT.
2. LANE CLOSURES OR WORK THAT RESTRICTS TRAFFIC FLOW WILL NOT BE PERMITTED FROM NOON THE DAY BEFORE A HOLIDAY UNTIL NOON THE DAY AFTER A HOLIDAY UNLESS APPROVED BY THE ENGINEER.
3. WHEN A HOLIDAY FALLS ON A FRIDAY, LANE CLOSURES ARE NOT PERMITTED FROM NOON ON THURSDAY TO NOON ON MONDAY. WHEN A HOLIDAY FALLS ON MONDAY, LANE CLOSURES ARE NOT PERMITTED FROM NOON ON FRIDAY TO NOON ON TUESDAY. FURTHER, AS THE THANKSGIVING DAY HOLIDAY OCCURS ON A THURSDAY, THE LANE CLOSURE WILL NOT BE PERMITTED FROM NOON ON WEDNESDAY UNTIL NOON ON THE FOLLOWING MONDAY.
4. THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER FOR ANY PLANNED CLOSURE NOT ANTICIPATED BY THIS TRANSPORTATION MANAGEMENT PLAN.
5. THE CONTRACTOR SHALL SUBMIT REQUESTS FOR LANE CLOSURE TO VDOT A MINIMUM OF ONE WEEK IN ADVANCE OF THE LANE CLOSURE.
6. PRIOR TO CLOSING LANES OF A ROADWAY OR DETOURING TRAFFIC, LOCAL FIRE, RESCUE, AND LAW ENFORCEMENT SHALL BE NOTIFIED BY THE ENGINEER. IN THE EVENT AN ACCEPTABLE ALTERNATE ROUTING FOR EMERGENCY SERVICES CANNOT BE OBTAINED, THE CONTRACTOR SHALL MAKE ACCOMMODATIONS TO ROUTE EMERGENCY VEHICLES SAFELY THROUGH THE WORK ZONE UNDER APPROVAL AND DIRECTION OF THE ENGINEER.
7. THE CONTRACTOR SHALL START LANE CLOSURE ACTIVITIES WITHIN THE SPECIFIED OFF PEAK HOURS. NO ROAD PREPARATION ACTIVITY ALLOWED DURING THE PEAK HOURS. THE CONTRACTOR SHALL CLEAR THE TEMPORARY LANE CLOSURE SET-UP WITHIN THE OFF PEAK HOURS.
8. LANE CLOSURES WILL NOT BE PERMITTED DURING THE PEAK HOURS UNLESS DIRECTED BY THE ENGINEER.

PEAK HOURS:	MONDAY-THURSDAY	5:00 AM TO 9:30 AM AND 3:00 PM TO 7:00 PM
	FRIDAY	5:00 AM TO 9:30 AM AND 2:00 PM TO 7:00 PM
NON-PEAK HOURS:	MONDAY -THURSDAY	9:30 AM TO 3:00 PM AND 7:00 PM TO 5:00 AM
	FRIDAY	9:30 AM TO 2:00 PM AND 7:00 PM TO 5:00 AM

WEEKDAY			WEEKEND		
ALLOWABLE LANE CLOSURE HOURS (SINGLE LANE)					
MONDAY - THURSDAY		FRIDAY	FRIDAY - SATURDAY	SATURDAY - SUNDAY	SUNDAY - MONDAY
AM PEAK/PM OFF-PEAK DIRECTION	10:00 AM TO 3:30 PM 9:00 PM TO 4:00 AM	9:00 AM TO 2:00 PM	10:00 PM TO 8:00 AM	10:00 PM TO 9:00 AM	9:00 PM TO 5:00 AM
PM PEAK/AM OFF-PEAK DIRECTION	9:30 AM TO 3:00 PM 10:00 PM TO 5:00 AM				
ALLOWABLE LANE CLOSURE HOURS (MULTIPLE LANES)					
11:00 PM TO 4:00 AM		11:00 PM TO 4:00 AM	11:00 PM TO 6:00 AM	11:00 PM TO 6:00 AM	10:00 PM TO 4:00 AM
COMPLETE ROAD CLOSURE					
12:00 AM TO 4:00 AM			12:00 AM TO 5:00 AM	12:00 AM TO 5:00 AM	12:00 AM TO 4:00 AM

PROJECT	SHEET NO.
0001-076-634	IJ(1)

100% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorainne Borksdale P.E. CFM, Johnson,Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	1J(2)

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

MOT & SOC PLANS
SEQUENCE OF CONSTRUCTION AND SIGN SCHEDULE

SEQUENCE OF CONSTRUCTION

1. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, SIGNING FOR PROJECT LIMITS SHALL BE INSTALLED AS SHOWN IN FIGURE TTC-53.0 OF THE VA WAPM FOR PROJECT DURATIONS EQUAL TO OR GREATER THAN 60 DAYS.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES AND TEMPORARY DRAINAGE SHALL BE IN PLACE PRIOR TO THE START OF CONSTRUCTION.
3. DO NOT START ON NORTHBOUND SIDE OF ROUTE 1 UNTIL ALL WORK IS CONSTRUCTED ON SOUTHBOUND SIDE, AND PEDESTRIAN ACCESS CAN BE OPEN FOR PEDESTRIAN USE.
3. THE CONTRACTOR SHALL SCHEDULE ALL STAGES OF CONSTRUCTION IN SUCH A MANNER THAT WATER, SANITARY SEWER, CABLE, FIBER CABLE/OPTIC CABLE, AND ANY OVERHEAD OR UNDERGROUND UTILITY SERVICES WILL NOT BE INTERRUPTED.

UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PLAN AND EXECUTE THE WORK IN ACCORDANCE WITH THE FOLLOWING SUGGESTED SEQUENCE OF CONSTRUCTION:

STAGE 1:

1. INSTALL ADVANCE WARNING SIGNS ON THE SOUTHBOUND LANES OF ROUTE 1 AS SHOWN ON PLANS, PER TTC 1.0, 4.0, AND 35.0.
2. CONSTRUCT WATERLINE, SWITCHBACK RAMP, ABUTMENT TOWERS, AND SHARED-USE PATH ON SOUTHBOUND SIDE OF ROUTE 1.
3. INSTALL ADVANCE WARNING SIGNS ON THE NORTHBOUND LANES OF ROUTE 1 AS SHOWN ON PLANS, PER TTC 1.0 AND 35.0.
4. CONSTRUCT STREET LIGHT, SWITCHBACK RAMP, ABUTMENT TOWER, DRAINAGE, PIER PROTECTION, AND SIDEWALK ON NORTHBOUND SIDE OF ROUTE 1.

STAGE 2:

1. INSTALL ADVANCE WARNING SIGNS AND ESTABLISH DETOUR AS SHOWN IN FIGURE TTC-34.0 OF THE VA WAPM, PER TTC 1.0 AND 35.0.
2. PEDESTRIAN TRUSS STRUCTURE SHALL BE INSTALLED IN ONE OVERNIGHT ROAD CLOSURE WITH DETOUR PER TTC-34.0.

SIGN SCHEDULE

SIGN	STD.NO.	PANEL SIZE	QUANTITY
END ROAD WORK	G20-2(V)	48"x30"	2
SIDEWALK CLOSED	R9-9	30"x18"	5
ROAD WORK AHEAD	W20-1	48"x48"	2
	TYPE 3 BARRICADE		5

	PROJECT	SHEET NO.
	0001-076-634	1J(2)

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PROJECT MANAGER Gladis Arboleda, PMC, Dept. of Transportation (703)792-5276
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MOT & SOC PLANS STAGE 1A & 1B

COMMONWEALTH OF VIRGINIA
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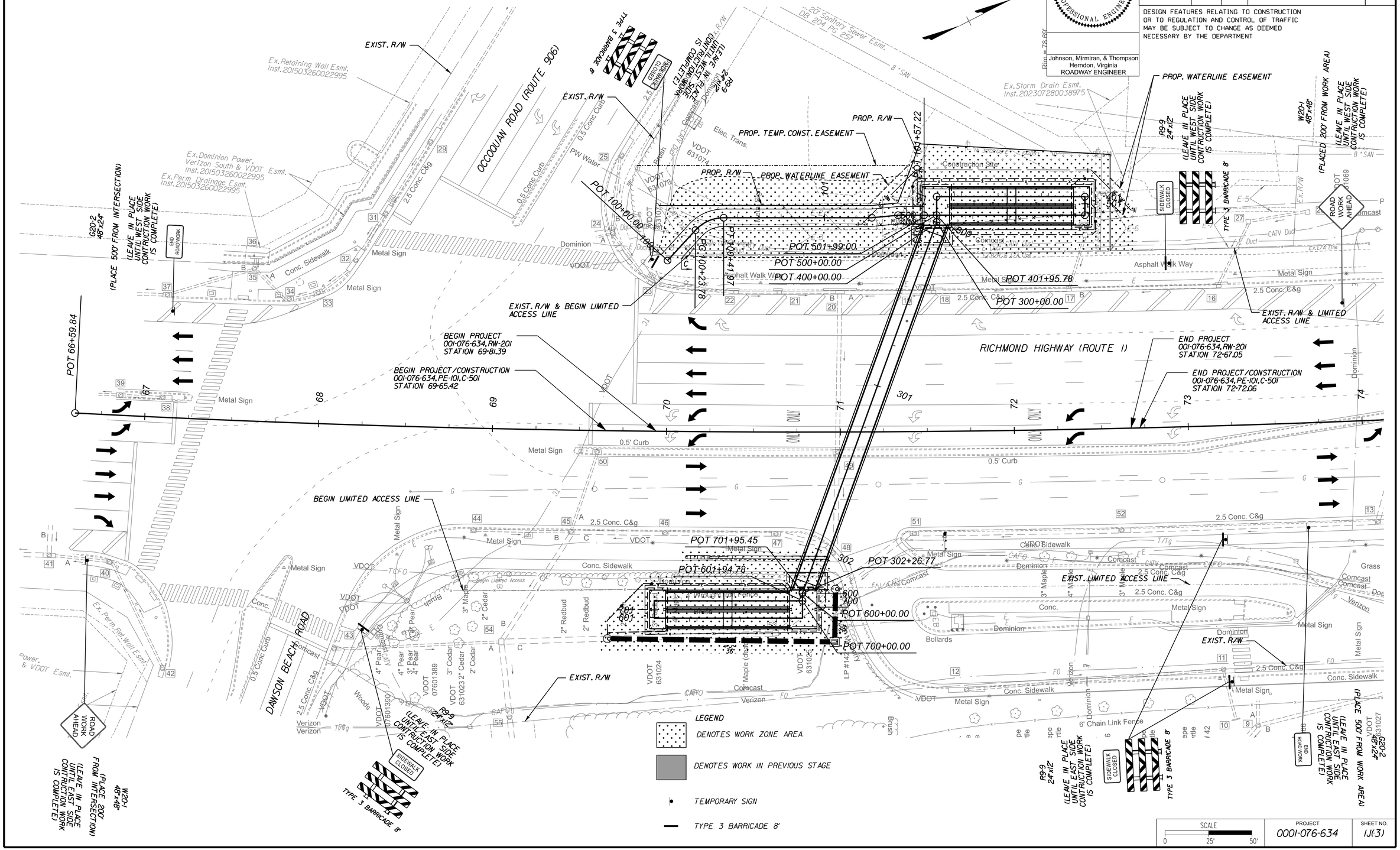
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	1J(3)

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

Elev. 78.65'



SCALE	PROJECT	SHEET NO.
0 25' 50'	0001-076-634	1J(3)

100% PLANS

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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	IJ(4)

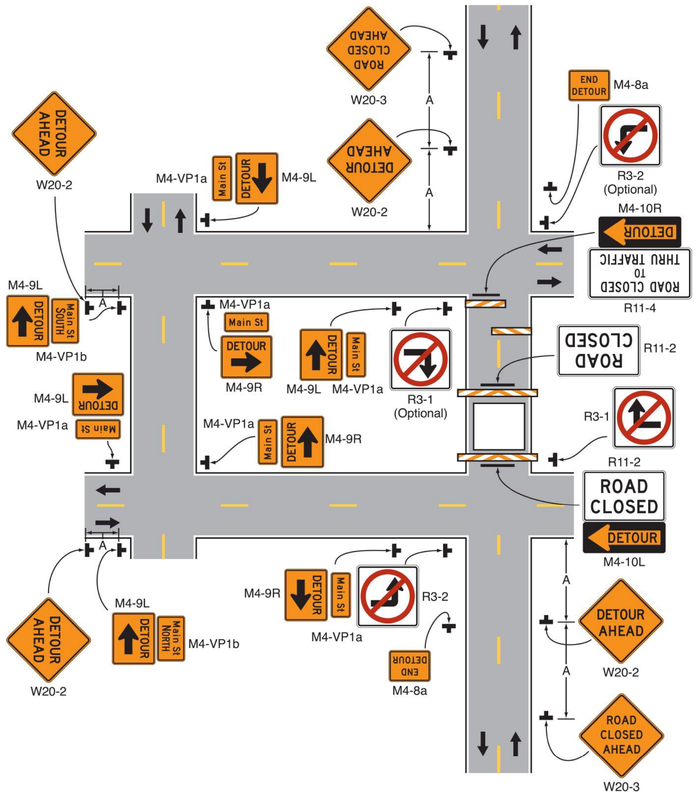
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

STAGE 2 DETOUR ROUTE

DETOUR ROUTE - LOCAL ROAD NETWORK

DETOUR ROUTES WITH WORK ZONE

Street Closure with Detour
Figure TTC-34.0 *(MUTCD TA-20)*



Note: See Table 6P-2 for the meanings of the symbols used in this figure.
See Table 6P-V3 for sign spacing requirements ("A").
See Tables 6P-V5 through 6P-V7 for taper length requirements.
See Table 6P-V8 for channelizing device spacing requirements.

AS SHOWN	PROJECT 0001-076-634	SHEET NO. IJ(4)

100% PLANS

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3/28/2026
1:32:14 AM

dl229790IJ(05).dgn
Plotted By: DLitchfield

LIMITED ACCESS HIGHWAY — By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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MOT & SOC PLANS STAGE 2

COMMONWEALTH OF VIRGINIA
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	IJ(5)

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

Elev. 78.65'

OCCOQUAN ROAD (ROUTE 906)
RICHMOND HIGHWAY (ROUTE 1)
DAWSON BEACH ROAD

EXIST. R/W
PROP. R/W
PROP. TEMP. CONST. EASEMENT
PROP. WATERLINE EASEMENT
EXIST. R/W & BEGIN LIMITED ACCESS LINE
BEGIN LIMITED ACCESS LINE
EXIST. R/W & LIMITED ACCESS LINE
EXIST. LIMITED ACCESS LINE
EXIST. R/W

BEGIN PROJECT 0001-076-634,RW-201 STATION 69+81.39
BEGIN PROJECT / CONSTRUCTION 0001-076-634,PE-101,C-501 STATION 69+65.42
END PROJECT 0001-076-634,PE-101,C-501 STATION 72+72.06
END PROJECT / CONSTRUCTION 0001-076-634,RW-201 STATION 72+67.05

POT 66+59.84
POT 100+00.00
POT 100+23.78
POT 100+41.97
POT 101+57.22
POT 501+99.00
POT 500+00.00
POT 400+00.00
POT 401+95.78
POT 300+00.00
POT 701+95.45
POT 601+94.78
POT 302+26.77
POT 600+00.00
POT 700+00.00

Construction Site
Asphalt Walk Way
Conc. Sidewalk
Bollards
6' Chain Link Fence
Ex. Perm. Ret. Wall Esmt.
Ex. Retaining Wall Esmt. Inst. 201503260022995
Ex. Dominion Power, Verizon South & VDOT Esmt. Inst. 201503260022995
Ex. Perm Drainage Esmt. Inst. 201503260022995
Ex. Storm Drain Esmt. Inst. 20230728003897S
20' Sanitary Sewer Esmt. DB 204 PG 251

TYPE 3 BARRICADE 8'
SIDEWALK CLOSED
R9-9 24"x12" (LEAVE IN PLACE UNTIL EAST SIDE CONTRUCTION WORK IS COMPLETE)
R9-9 24"x12" (LEAVE IN PLACE UNTIL WEST SIDE CONTRUCTION WORK IS COMPLETE)
W20-1 48"x48" (PLACED 200' FROM INTERSECTION)
G20-2 48"x24" (PLACE 500' FROM INTERSECTION)
G20-2 48"x24" (PLACE 500' FROM WORK AREA)
END ROAD WORK
ROAD WORK AHEAD

LEGEND
DENOTES WORK ZONE AREA
DENOTES WORK IN PREVIOUS STAGE
TEMPORARY SIGN
TYPE 3 BARRICADE 8'
TEMPORARY BARRIER

SCALE 0 25' 50'

PROJECT	SHEET NO.
0001-076-634	IJ(5)

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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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GENERAL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	2

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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: sidewalk and shared-use path.

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-6 Pipes shall conform to any of the allowable types shown on sheet number 2B, within the applicable height of cover limitations.
For strength, sheet thickness, or class designation; available sizes; height of cover limitations;and other restrictions for a particular pipe type or height of cover, see the VDOT Road and Bridge Standard PC-1. Structural plate pipe may be substituted for corrugated pipe of the same size, provided the substitution complies with the applicable sections of the VDOT Road and Bridge Standards PC-1.

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-17 St'd. SL-1 Safety Slab locations are based on the assumed use of precast structures. If cast-in-place structures are utilized, and the interior chamber dimensions (length and width, or diameter) are less than 4 feet, the safety slabs shall not be installed.

INCIDENTALS

I-10 St'd. RM-1 Right of Way monuments shall be set by the Contractor.

I-12 St'd. RM-2 right of way monuments shall be set by the Contractor.

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

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

Hydraulic Design	-	(Show Name of Source)
Roadway Design	-	" " " "
Utility Design	-	" " " "
Utility Designation	-	" " " "
Utility Location	-	" " " "
Survey	-	" " " "
Bridge Design	-	" " " "
Traffic Design	-	" " " "
Landscape Design	-	" " " "

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 and Sediment Control (ESC) items in the plan assembly. The ESC symbols and descriptions listed below have been adjusted to include all ESC items used for this project.

Denotes Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4 Ditch Installation (include width and depth of ditch)

Denotes Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4 Cut or Fill Slope Installation

Denotes Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3 Ditch Installation (include width and depth of ditch)

Denotes Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 3 Cut or Fill Slope Installation or Culvert Outlet Protection Installation

Denotes Rock Check Dam, Type I: St'd EC-4

Denotes Rock Check Dam, Type II: St'd EC-4

Denotes Temporary Silt Fence, St'd EC-5 Type A or B

Denotes Inlet Protection, St'd EC-6 Type A or B

Denotes Sediment Trap, St'd EC-7

Denotes Dewatering Basin, St'd EC-8

Denotes Temporary Diversion Dike, St'd EC-9

Denotes Temporary Berm & Slope Drain, St'd EC-10

Denotes Temporary Diversion Channel, St'd EC-12 Class A or B Lining

Denotes Temporary Vehicular Watercourse Crossing, St'd EC-14

Denotes Sediment Retention Roll Slope Interrupter, St'd EC-15

Denotes Temporary Check Dam, St'd EC-16

Denotes Turbidity Curtain, Impervious or Pervious

Denotes Limits of Disturbance

Denotes High Visibility Fence

NA	PROJECT 0001-076-634	SHEET NO. 2

100% PLANS

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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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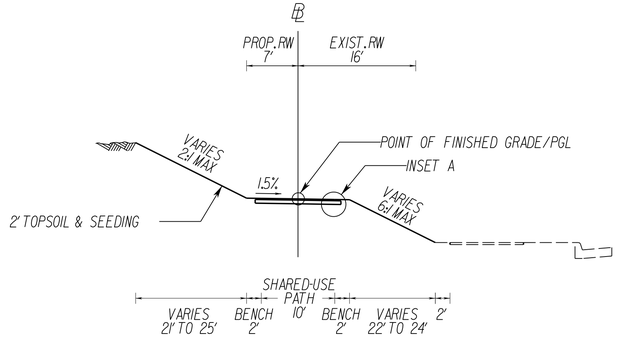
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	2A

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

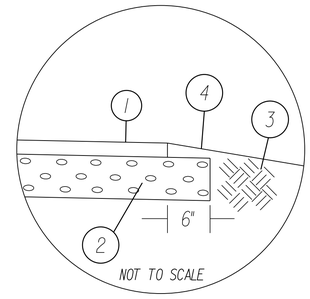
TYPICAL SECTIONS

SHARED-USE PATH



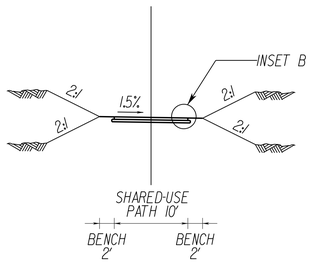
STA.100+00.00 TO STA.101+47.22

INSET A



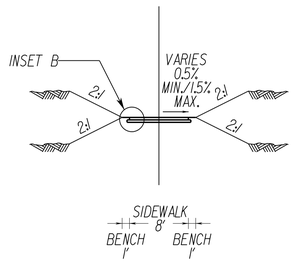
1. 2" ASPHALT CONCRETE SM-9.5A/SM-9.5AL @ APPROXIMATELY 220 LB/SY
2. 6" AGGREGATE BASE MATERIAL TYPE I,OR II,NO. 21A OR 21B
3. REGULAR FILL MATERIAL OR NATIVE SOIL
4. 2" TOPSOIL & SEEDING

CONCRETE SHARED-USE PATH PAD (AT SWITCHBACK ENTRANCE)

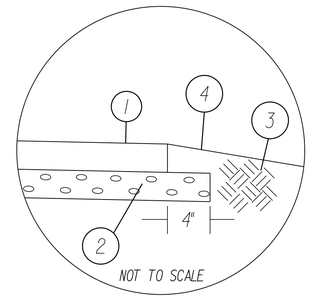


STA.101+47.22 TO STA.101+57.22

CONCRETE SIDEWALK PAD (AT SWITCHBACK ENTRANCE)



INSET B



1. SURFACE - 4" HYDRAULIC CEMENT CONCRETE SIDEWALK (CLASS A-3)
2. BASE - 4" AGGREGATE BASE MATERIAL,TYPE I,SIZE NO.21B,EXTENDED 4" ON EITHER SIDE OF THE SURFACE
3. REGULAR FILL MATERIAL OR NATIVE SOIL
4. 2" TOPSOIL & SEEDING

NTS	PROJECT 0001-076-634	SHEET NO. 2A

100% PLANS

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PROJECT MANAGER Gladis Arboleda, PMC, Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorraine Barksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

DRAINAGE DESCRIPTIONS & STORM SEWER PROFILES

COMMONWEALTH OF VIRGINIA
STEPHEN P. CATHCART
Lic. No. 069551
PROFESSIONAL ENGINEER

Johnson, Mirmiran, & Thompson
Herndon, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	2B

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

3-1 — 6.4 LF Std.MH-1 or 2 Req.
1 Std.MH-1 Frame & Cover Req.
Std.IS-1 Req.
Accept existing 36" Conc.Pipe,Inv.(IN) = 66.77'
Connect 6" PVC Pipe to MH

3-1 — 3-2 — 26'-36" Conc.Pipe Class III Req. (6' Cover)
INV(IN) = 66.67', INV(OUT) = 66.06'

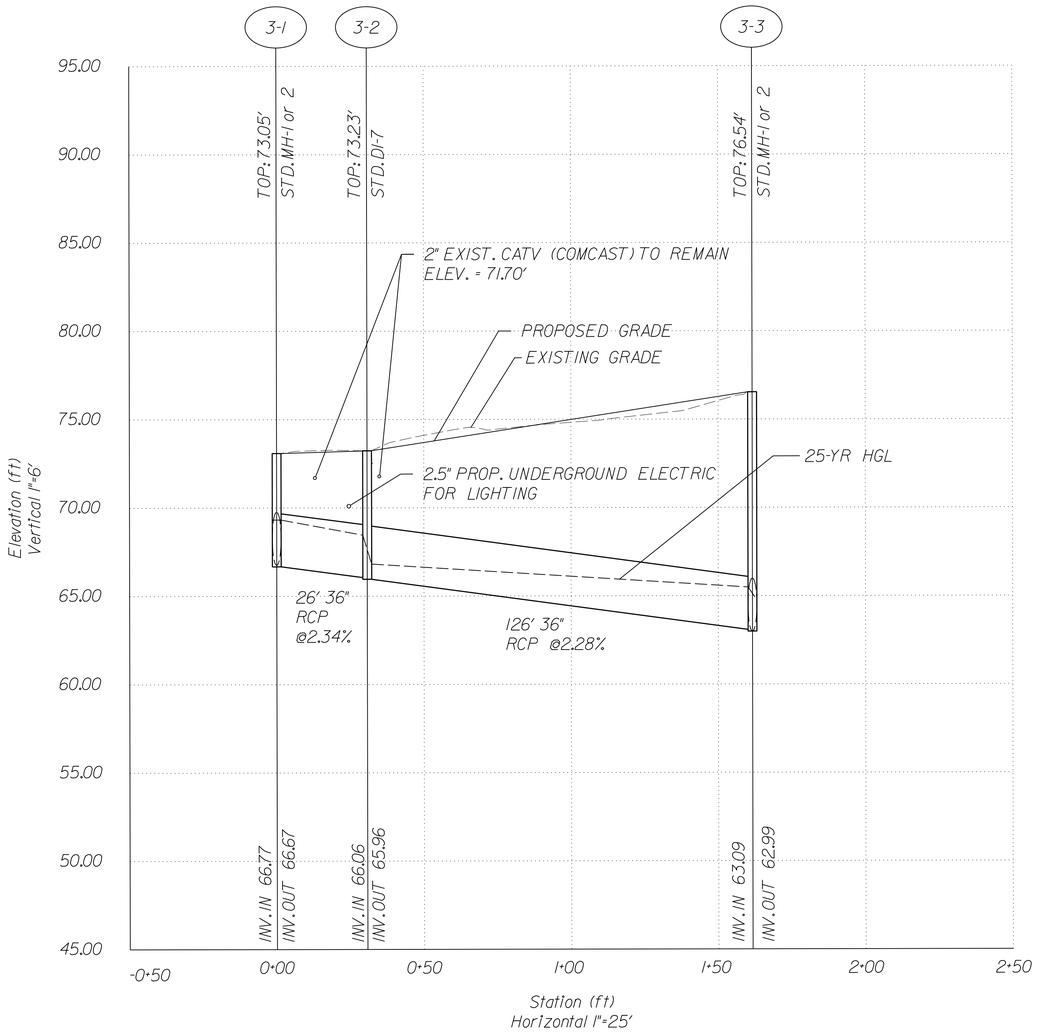
3-2 — 1 Std.DI-7 Req. Grate A Type III Req.
H = 7.27', INV = 65.96'
Std.IS-1 Req.

3-2 — 3-3 — 126'-36" Conc.Pipe Class III Req.(7' Cover)
INV(IN) = 65.96', INV(OUT) = 63.09'

3-3 — 13.6 LF Std.MH-1 or 2 Req.
1 Std.MH-1 Frame & Cover Req.
1 Std.SL-1 Req.
Std.IS-1 Req.
Accept existing 36" Conc.Pipe,Inv.(OUT) 62.99'
Connect 6" PVC Pipe to MH

EX 26 — Modify Existing Drop Inlet
Connect 6" PVC Pipe to DI(2)

TABLE A1 - ALLOWABLE TYPE OF STORM SEWER PIPE FOR ROADWAYS THAT ARE CONSTRUCTED, FUNDED OR WILL ULTIMATELY BE MAINTAINED BY VDOT			
FUNCTIONAL CLASSIFICATION OF ROADS SYSTEM UNDER WHICH PIPE IS TO BE INSTALLED			
HIGHER FUNCTIONAL CLASS - HFC 75 - YEAR DESIGN LIFE RURAL PRINCIPAL ARTERIAL, URBAN PRINCIPAL ARTERIAL, RURAL MINOR ARTERIAL; URBAN MINOR ARTERIAL, RURAL COLLECTOR ROADS, URBAN COLLECTOR STREETS, SUBDIVISION STREETS WITH AN ADT GREATER THAN 4000		LOWER FUNCTIONAL CLASS - LFC 50 - YEAR DESIGN LIFE RURAL LOCAL ROADS, URBAN LOCAL STREETS, SUBDIVISION STREETS WITH AN ADT LESS THAN OR EQUAL TO 4000	
ALLOWABLE PIPE CULVERTS NOTES 1 & 2	STATEWIDE	STATEWIDE EXCEPT LOCATIONS SHOWN IN TABLE B	LOCATION SHOWN IN TABLE B
CONCRETE	✓	✓	✓
ALUMINUM COATED TYPE 2 STEEL SPIRAL RIB NOTE 3		✓	
POLYMER COATED (10/10) CORRUGATED STEEL SPIRAL RIB NOTE 3		✓	✓
POLYMER COATED (10/10) CORRUGATED STEEL DOUBLE WALL (SMOOTH INTERIOR) NOTE 3	✓	✓	✓
ALUMINUM SPIRAL RIB NOTE 3		✓	✓
POLYVINYLCHLORIDE (PVC) PROFILE WALL PIPE (SMOOTH INTERIOR)	✓	✓	✓
POLYETHYLENE (PE) CORRUGATED TYPE S	✓	✓	✓
POLYPROPYLENE (PP) TYPE D OR S	✓	✓	✓



Notes:
1. In addition to the visual inspection performed by the Department during the initial installation of storm sewer pipes and pipe culverts, a post installation visual/video camera inspection shall be conducted by the Contractor in accordance with the requirements of this specification and VTM 123 on all storm sewer pipe and a selected number of pipe culverts.
2. Where soft or very loose soils, unsuitable CH, MH, OH and OL soils, or groundwater is encountered at the structure invert, undercut 24 inches along the entire length of the pipe and replace with 18 inches of No. 57 aggregate completely wrapped in a woven geotextile stabilization fabric, topped with 6 inches of bedding material.

AS SHOWN	PROJECT 0001-076-634	SHEET NO. 2B

100% PLANS

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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PMC, Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorraine Borksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	2C

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

EXISTING DRAINAGE DESCRIPTIONS

1 In Pl. Curb Inlet
Rim = 76.17'
Inv. In = 72.00'
In Pl. 24" Concrete Pipe
Inv. Out = 71.02'

2 In Pl. Curb Inlet
Rim = 77.21'
Inv. Out = 73.28'
In Pl. 15" Concrete Pipe

3 In Pl. Curb Inlet
Rim = 77.88'
Inv. Out = 73.88'
In Pl. 15" Concrete Pipe

4 In Pl. Curb Inlet
Rim = 76.07'
Inv. In = 72.24'
In Pl. 15" Concrete Pipe
Inv. Out = 72.19'

5 In Pl. Curb Inlet
Rim = 73.17'
Inv. Out = 68.94'
In Pl. 15" Concrete Pipe

6 In Pl. Storm Manhole
Rim = 72.77'
Inv. In A = 67.15'
Inv. In B = 55.52'
In Pl. 24" Concrete Pipe
In. Out = 55.44'

7 In Pl. Grate Inlet
Top Of Grate = 61.14'
Inv. Out = 55.71"
In Pl. 24" Concrete Pipe

8 In Pl. Storm Manhole
Rim = 73.19'
Inv. In = 54.54'
In Pl. 24" Concrete Pipe
Inv. Out = 54.49'

9 In Pl. Storm Manhole
Rim = 64.78'
Inv. In A = 58.98' Aban.
Inv. In B = 54.17'
In Pl. 24" Concrete Pipe
Inv. Out = 54.10'

10 In Pl. Concrete Endwall
Inv. Out = 65.47'
In Pl. 15" Concrete Pipe

11 In Pl. Storm Manhole
Rim = 72.66'
Inv. In = 66.10'
In Pl. 15" Concrete Pipe
Inv. Out = 66.00'

12 In Pl. Curb Inlet
Rim = 71.52'
Inv. Out = 67.50'
In Pl. 15" Concrete Pipe

13 In Pl. Curb Inlet
Rim = 74.47'
Inv. In A = 70.36'
Inv In B = 68.46'
In Pl. 36" Concrete Pipe
Inv. Out = 68.29'

14 In Pl. Curb Inlet
Rim = 75.67'
Inv. In = 68.64'
In Pl. 30" Concrete Pipe
Inv. Out = 68.54'

15 In Pl. Curb Inlet
Top Of Grate = 74.01'
Inv. In A = 70.26'
Inv In B = 69.56'
In Pl. 30" Concrete Pipe
Inv. Out = 69.45'

16 In Pl. Curb Inlet
Top Of Grate = 73.14'
Inv. In = 69.49'
In Pl. 24" Concrete Pipe
Inv. Out = 69.04'

17 In Pl. Curb Inlet
Top Of Grate = 72.69'
Inv. In A = 68.61'
Inv. In B = 68.26
In Pl. 24" Concrete Pipe
Inv. Out = 68.11'

18 In Pl. Curb Inlet
Top Of Grate = 72.28'
Inv. In = 67.43'
In Pl. 24" Concrete Pipe
Inv. Out = 67.37'

19 In Pl. Curb Inlet
Top Of Grate = 72.33'
Inv. In = 67.13'
In Pl. 24" Concrete Pipe
Inv. Out = 67.11'

20 In Pl. Curb Inlet
Top Of Grate = 72.42'
Inv. In A = 66.79'
Inv. In B = 67.37'
In Pl. 27" Concrete Pipe
Inv. Out = 66.67'

21 In Pl. Curb Inlet
Top Of Grate = 72.46'
Inv. In = 66.86'
In Pl. 18" Concrete Pipe
Inv. Out = 66.86'

22 In Pl. Curb Inlet
Top Of Grate = 72.54'
Inv. In = 68.19'
In Pl. 18" Concrete Pipe
Inv. Out = 68.24'

23 In Pl. Curb Inlet
Top Of Grate = 72.94'
Inv. In = 68.89'
In Pl. 18" Concrete Pipe
Inv. Out = 68.84'

24 In Pl. Curb Inlet
Rim = 75.02'
Inv. In A = 69.85' Aban.
Inv. In B = 69.28'
In Pl. 15" Concrete Pipe
Inv. Out = 68.75'

25 In Pl. Curb Inlet
Rim = 77.27'
Inv. Out = 72.62'
In Pl. 15" Concrete Pipe

26 In Pl. Grate Inlet
Top Of Grate = 72.92'
Inv. Out = 68.32'
In Pl. 15" Concrete Pipe

27 In Pl. Grate Inlet
Top Of Grate = 74.75'
Inv. In = 72.20'
In Pl. 15" Concrete Pipe
Inv. Out = 72.15'

28 In Pl. Grate Inlet
Top Of Grate = 75.68'
Inv. Out = 73.48'
In Pl. 15" Concrete Pipe

29 In Pl. Curb Inlet
Rim = 75.71'
Inv. In = 70.81'
In Pl. 15" Concrete Pipe
Inv. Out = 70.76'

30 In Pl. Curb Inlet
Rim = 80.62'
Inv. Out = 76.34'
In Pl. 15" Concrete Pipe

31 In Pl. Curb Inlet
Rim = 74.48'
Inv. In = 69.54'
In Pl. 15" Concrete Pipe
Inv. Out = 69.48'

32 In Pl. Curb Inlet
Rim = 74.02'
Inv. In = 69.12'
In Pl. 15" Concrete Pipe
Inv. Out = 69.10'

33 In Pl. Curb Inlet
Rim = 74.19'
Inv. In = 68.71'
In Pl. 15" Concrete Pipe
Inv. Out = 68.61'

34 In Pl. Curb Inlet
Rim = 74.45'
Inv. In = 68.39'
In Pl. 15" Concrete Pipe
Inv. Out = 68.29'

35 In Pl. Storm Manhole
Rim = 74.47'
Inv. In A = 69.37'
Inv. In B = 68.07
In Pl. 15" Concrete Pipe
Inv. Out = 68.02'

36 In Pl. Curb Inlet
Top Of Grate = 76.48'
Inv. Out = 69.35'
In Pl. 15" Concrete Pipe

37 In Pl. Curb Inlet
Rim = 74.28'
Inv. In = 67.43'
In Pl. 18" Concrete Pipe
Inv. Out = 67.38'

38 In Pl. Curb Inlet
Rim = 75.57'
Inv. Out = 71.67'
In Pl. 15" Concrete Pipe

39 In Pl. Curb Inlet
Rim = 75.44'
Inv. In = 71.14'
In Pl. 15" Concrete Pipe
Inv. Out = 71.09'

40 In Pl. Curb Inlet
Rim = 77.36'
Inv. In = 73.30'
In Pl. 15" Concrete Pipe
Inv. Out = 73.28'

41 In Pl. Curb Inlet
Rim = 77.17'
Inv. In A = 72.48'
Inv. In B = 65.08
In Pl. 30" Concrete Pipe
Inv. Out = 65.02'

42 In Pl. Curb Inlet
Rim = 80.10'
Inv. Out = 76.26'
In Pl. 15" Concrete Pipe

43 In Pl. Curb Inlet
Rim = 77.93'
Inv. Out = 72.98'
In Pl. 15" Concrete Pipe

44 In Pl. Curb Inlet
Rim = 76.06'
Inv. Out = 71.94'
In Pl. 15" Concrete Pipe

45 In Pl. Curb Inlet
Rim = 75.20'
Inv. In A = 69.54'
Inv. In B = 70.30'
Inv. In C = 63.80'
In Pl. 30" Concrete Pipe
Inv. Out = 63.55'

46 In Pl. Curb Inlet
Rim = 74.49'
Inv. In = 64.34'
In Pl. 30" Concrete Pipe
Inv. Out = 64.24

47 In Pl. Curb Inlet
Rim = 73.63'
Inv. In = 65.08'
In Pl. 30" Concrete Pipe
Inv. Out = 64.98'

48 In Pl. Curb Inlet
Rim = 72.94'
Inv. In = 65.43'
In Pl. 30" Concrete Pipe
Inv. Out = 65.28'

49 In Pl. Curb Inlet
Rim = 74.38'
Inv. In = 65.65'
In Pl. 30" Concrete Pipe
Inv. Out = 65.63'

50 In Pl. Curb Inlet
Rim = 74.88'
Inv. Out = 71.08'
In Pl. 15" Concrete Pipe

51 In Pl. Curb Inlet
Rim = 73.30'
Inv. In = 67.44'
In Pl. 36" Concrete Pipe
Inv. Out = 67.36

52 In Pl. Curb Inlet
Rim = 73.81'
Inv. In = 67.88'
In Pl. 36" Concrete Pipe
Inv. Out = 67.86'

53 In Pl. Grate Inlet
Top Of Grate = 74.45'
Inv. In = 66.28'
In Pl. 36" Concrete Pipe
Inv. Out = 66.25'

54 In Pl. Grate Inlet
Top Of Grate = 77.32'
Inv. In A = 71.87'
Inv. In B = 61.07'
Inv. In C = 61.07'
In Pl. 36" Concrete Pipe
Inv. Out = 61.02'

55 In Pl. Storm Manhole
Top Of Grate = 77.29'
Inv. Bottom of Structure = 34.70'
In Pl. 36" Concrete Pipe
Terminus Unknown

NA	PROJECT 0001-076-634	SHEET NO. 2C

100% PLANS

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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorraine Borksdale P.E. CFM, Johnson,Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET (1)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	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

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the General VPDES Permit For Discharges Of Stormwater From Construction Activities (VAR10) (the CGP) issued July 1, 2024 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 activities that disturb an area equal to or greater than 10,000 square feet outside the Chesapeake Bay Preservation Area, 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 (as defined in the latest IIM-LD-242) 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.

I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that this document and all other documents related to the SWPPP, as identified on the SWPPP General Information Sheets, are maintained at the activity site, or at a location convenient to the activity site where no on-site facilities are available, and such documents will be made available for review upon request in accordance with the provisions of the General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10) when applicable. Where the SWPPP documents are not stored on-site, a copy of such documents shall be in the possession of those with day to day operational control over the implementation of the SWPPP whenever they are on site.

* or ** Duly Authorized Representative Signature"

Signature: _____
Printed Name: _____
Date:_____

(1) See Section 1, Item 12 relating to delegation of authority, and form LD-445H (Delegation of Authority).

ACRONYMS

ACE - Area Construction Engineer
AS&S - Annual Standards and Specifications
BMP - Best Management Practice
CBPA - Chesapeake Bay Preservation Act
CGP - General VPDES Permit For Discharges of Stormwater from Construction Activities (VAR10)
DEQ - Department of Environmental Quality
DHE - District Hydraulic Engineer
EPA - U.S. Environmental Protection Agency
ESC - Erosion and Sediment Control
IIM - Instructional and Informational Memorandum
NPDES - National Pollutant Discharge Elimination System
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
VESMP - Virginia Erosion and Stormwater Management Program
VPDES - Virginia Pollutant Discharge Elimination System
WLA - Waste Load Allocation

SECTION I GENERAL INFORMATION

1. Activity Description - To provide a connection from the future Riverside Station (by others) and the existing Virginia Railway Express (VRE) Woodbridge Station with a pedestrian bridge crossing Route 1.

2. This land disturbance (construction) activity site is located in the City of Woodbridge, VA. and approximately 0.46 acres will be disturbed by excavation, grading or other construction activities.

3. This proposed activity disturbs less than one acre and is exempt from coverage under the VPDES General Permit for Discharges of Stormwater from Construction Activities (the VPDES Construction Permit) as issued by the DEQ.

** 4. The location of support facilities that will be covered under the CGP coverage for this land disturbance (construction) activity shall be provided by the contractor and identified on a legible map. 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 involve land disturbance or pollutant-generating activities of its own. Must also include areas where polymers, flocculants, or other stormwater treatment chemicals will be used or stored. Only support facilities within the VDOT ROW and easements are covered under this CGP.

** 5. Written 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 CGP coverage letter.

Impaired waters, TMDLs, Exceptional waters, and Turbidity Monitoring

6. Does stormwater from this land disturbing activity discharge into surface waters that have been identified as impaired in the 2022 305(b)/303(d) Water Quality Assessment Integrated Report for Benthic Macroinvertebrates Bioassessments? (See latest DEQ Environmental Mapper)

☐ No
☒ Yes
List impaired water(s) here: Occoquan River

7. Does stormwater from this land disturbing activity discharge into a watershed with a TMDL waste load allocation established prior to July 1, 2024 for sediment, total suspended solids, turbidity, nitrogen or phosphorus, including all surface waters within the Chesapeake Bay Watershed?

☐ No
☒ Yes
List TMDL(s) and pollutant(s) here: Chesapeake Bay

8. Does stormwater from this land-disturbing activity discharge stormwater to surface waters that have been identified as Exceptional in 9VAC25-260-30.A.3.c of the Water Quality Standards regulation?

☒ No
☐ Yes
List name of surface waters:

9. If "NO" was answered in note 6, 7, and 8, then items a, b, c and d (below) shall be implemented and adhered to for this land-disturbing activity.
If "Yes" was answered in note 6, 7, or 8, then the requirements of Part I B.4.a or Part I.B.5, as applicable, of the Construction General Permit shall be implemented and the operator shall ensure the following SWPPP requirements are adhered to for this land-disturbing activity:
a. Permanent or temporary soil stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the construction site.
b. Temporary and permanent stabilization will be applied as noted and in accordance with ESC Minimum Standards 1 and 3.
c. Nutrients (e.g., fertilizers) shall be applied in accordance with manufacturers recommendations or an approved nutrient management plan and shall not be applied during rainfall events; Nutrients are being applied per the projects Roadside Development sheet.
d. Inspections shall be conducted at a frequency of (i) at least once every four (4) business days or (ii) at least once every (5) business days and no later than 24 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 24 hours between business days, the inspection shall be conducted on the next business day; and Inspections are being completed at least every four (4) business days (C-107s are completed on Mondays and Thursdays) Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls.
e. Turbidity Monitoring Requirement - Undertake one of the methods identified In Part II.B.8. of the CGP for controlling and documenting construction dewatering discharges.

10. 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 site maps) for this land disturbance(construction) activity. All immediate discahrges are shown on the plans. Ultimate receiving waters include unnamed tributaries of Occoquan River.

11. 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.

12. List the RLD and other responsible parties for the land disturbance activity: (required for erosion and sediment control). The following individual(s) are "duly authorized" to sign all reports required by the CGP including the SWPPP General Information Sheets and Inspection Reports (C-107). Reference form LD-445H for Duly Authorized Representatives (form LD-445H for the project is hereby incorporated by reference into this SWPPP). These individual(s) has/have overall responsibility or the environmental matters for the project: (required only for permitted projects):

Name	Position	Qualifications (if required)	Responsibility
Keith Harrop, ACE	RLD		Certify the SWPPP (with date & sig.)
	Certified Contractor		Sign (C-107) Inspection Form Part 1
	Certified Inspector		Sign (C-107) Inspection Form Part 1
	Certified Inspector		Sign (C-107) Inspection Form Part 2

* 13. The name of the VDOT individual(s) responsible for the oversight inspection in accordance with IIM-LD-256 on these land disturbance construction activities as identified on these SWPPP General Information Sheets. The following individual(s) are "duly authorized' to sign all reports required by the CGP including the SWPPP General Information Sheets and Inspection Reports (C-107). Reference for LD-445H for Duly Authorized Representatives (form LD-445H for the project is hereby incorporated by reference into this SWPPP). The names will be updated and maintained with the other SWPPP documents for this land disturbance activity.

VDOT Individuals	Position	Qualifications (if required)	Responsibility
	NPDES		NPDES coordinator or designee(s) responsible for the oversight inspection in accordance with IIM-LD-256
Bill Cuttler, P.E.	Dist. Hyd. Engineer		District Hydraulic Engineer or designee(s)responsible for the review & the coordination approval of ESC SWM plan modification(s).

* 14. The ESC and P2 inspections for this land disturbing (construction) activity shall follow (Select Schedule 1 or 2, if schedule *2 is used, void note *15) as defined in R&B Specifications identified on the title sheet except for Section 107 an Inspection Requirements Rain gauge notes apply only to Inspection Schedule 1.

If the operator must make the same repairs more than two times to the same control at the same location, even if the fix can be completed by the close of the next business day, the operator shall either:

- Complete work to fix any subsequent repeat occurrences of this same problem under the corrective action procedures in Part II H, including keeping any records of the condition and how it was corrected under Part II C: or

- Document in the inspection report under Part II G why the specific reoccurrence of this same problem should still be addressed as a routine maintenance fix.

** 15. 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 activity: (List location of rain gage).

The rain gage shall be observed daily at "_____" 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.

A discharge caused by snow melt (from a snow event producing 3.25 inches or more of snow within a 24-hour period). The operator is required to conduct one inspection once the discharge of snow melt occurs. Additional inspections are only required if, following the discharge from the first snow melt, there is a discharge from a separate storm event.

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.

16. The following VDOT documents are applicable to 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 and ESC projects > 10,000 s.f. but <1 acre.
VDOT LD-445A: Permitted projects only.
VDOT LD-445C: Projects that require a permit, ESC Plan, SWM, 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-445F: Emergency work projects (when applicable)
VDOT LD-445H: Permitted projects only.
VDOT C-107 Part I (All projects that require a SWPPP).
VDOT C-107 Part II (Only for Permitted Projects).
VDOT LD-445I: AS&S Approval Form (when applicable)
VDOT LD-445J: Off-site Support/ Material Disposal Area Activities Tracking Form

* Denotes information that is to be provided/completed by the RLD.

** Denotes information that is to be provided/completed by the contractor.

Revised 7/25/24
SWPPP Sheet 1 of 4

	PROJECT	SHEET NO.
N/A	0001-076-634	2D(1)

100% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION, OR THE ACQUISITION OF RIGHT OF WAY.

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorraine Barksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET (2)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	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

SECTION II EROSION AND SEDIMENT CONTROL

✻✻ 1. 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 the current edition of Section 108 of the VDOT R&B Specifications identified on the title sheet and shall be included with the other SWPPP documents for this land disturbance (construction) activity.

2. Existing and proposed drainage patterns on the construction site and approximate slopes anticipated before and after major grading activities are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

3. 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.

4. 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.

5. 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.

6. 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 IV.

✻✻ 7. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the construction 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)

8. 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 the current edition of Sections 107 and 303 of the VDOT R&B Specifications identified on the title sheet.

9. Nutrients shall be applied in accordance with the current edition of Sections 603, 604 and 605 of the VDOT Road and Bridge Specifications identified on the title sheet. Nutrients shall not be applied during rainfall events. Top soil shall be applied in accordance with the current edition of section 602 of the Road and Bridge Specifications identified on the title sheet.

10. 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 VDOT Richmond District Hydraulics Section and will be made available for review upon request during normal business hours.

11. 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, elimination of a perimeter control, change to ESC concept that would affect the quantity or direction of flow of water) 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. Changes noted on the designated record set of plans must address certification language with initial and date by duly authorized personnel.

12. The areas beyond the project's construction limits 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.

13. 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.

14. 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.

15. 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 ~~e~~ topsoil where feasible.

✻✻ 16. 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.

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

18. 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 identified on the title sheet. Construction entrances shall be maintained as necessary, including the addition of additional rock, as part of routine maintenance.

19. Any variance, exception or deviation approved by DEQ must be listed below and supporting documentation (exception/variance/deviation request and DEQ approval) must be maintained with the SWPPP.

The following exceptions to the Water Quantity criteria of the VESMP Regulation have been approved by the DEQ for this land disturbance (construction) activity: (list all approved variances, exceptions, deviations and include a brief description of the variance, the date approved and the approving DEQ Office).

Type(1)	Regulation Modified(2)	Approval Date(3)	Description
N/A	N/A	N/A	N/A

(1) Type of modification (Variance from ESC regulations, or Deviation from published guidance)
(2) Section of Regulation or Guidance Document Modified (e.g. ESC Min. Std. 15)
(3) Date that variance/exception/deviation was approved by DEQ.
(4) Description and request

SECTION III POST CONSTRUCTION STORMWATER MANAGEMENT

Choose the appropriate note 1A or 1B that is applicable to the proposed post construction SWM Plan for this land disturbance (construction) activity. (Delete, strike through or mark as NA those notes not applicable.)

✻ 1. This land disturbance activity utilizes the Part IIB technical criteria (i.e., Runoff Reduction Method, Energy Balance Equation, etc.) in Section 9VAC25-870-65 et seq. of the VSMP Regulations.

~~2. An exception for (number) pounds of phosphorus removal has been granted for this land disturbance activity by the DEQ in its letter dated (date).~~

3. Any variance, exception or deviation approved by DEQ must be listed below and supporting documentation (exception/variance/deviation request and DEQ approval) must be maintained with the SWPPP.

The following exceptions to the Water Quantity criteria of the VESMP Regulation have been approved by the DEQ for this land disturbance activity: (list all approved variances, exceptions/deviations and include a brief description, the date approved and the approving DEQ Office)

Type(1)	Regulation Modified(2)	Approval Date(3)	Description
N/A			

(1) Type of modification (Variance, or Exception from SWM Regulations or Deviation from published guidance)
(2) Section of Regulation or Guidance Document Modified (e.g. ESC Min. Std. 15)
(3) Date that variance/exception/deviation was approved by DEQ.
(4) Description of request

4. The permanent on-site SWM facilities or off-site strategies proposed to meet the water quality/quantity requirements for this land disturbance (construction) activity are listed in Section VI.

5. 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.

6. 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 VDOT Richmond District Hydraulics Section and will be made available for review upon request during normal working business hours.

✻ Denotes information that is to be provided/ completed by the RLD.

✻✻ Denotes information that is to be provided/completed by the contractor.

Revised 7/25/24
SWPPP Sheet 2 of 4

	PROJECT	SHEET NO.
N/A	0001-076-634	2D(2)

100% PLANS

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PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
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SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET (3)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	2D(3)

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 General VPDES Permit For Discharges Of Stormwater From Construction Activities (the CGP) issued July 1, 2024 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 outside the Chesapeake Bay Preservation Area, 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.

SECTION IV 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 copies of the CGP coverage letter (when applicable) and the CGP (when applicable) and those required to be developed by the contractor for pollution prevention associated with any support facilities being included in the CGP 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 signed and certified as necessary to comply with the CGP, and shall be implemented from commencement of land disturbance until termination of CGP coverage or completion of land disturbance (construction) activities where no CGP coverage is required.

** 3. For all support facilities that will be included in the CGP coverage for this land disturbance (construction) activity, the contractor shall develop a SWPPP in accordance with, but not limited to, Section 106 and 107 of the VDOT Road and Bridge Specifications identified on the title sheet. The SWPPP for the 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, 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.

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

* 5. For those land disturbing (construction) activities requiring coverage under the CGP, the VDOT RLD shall post, or have posted, a copy of the CGP 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. The copy of the notice of coverage letter shall be visible such that it can be readily viewed from a public right-of-way. 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.

6. 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 public and shall be scheduled during normal business hours and no less than once per month.

SECTION V - POLLUTION PREVENTION PLAN

1. The following non-stormwater discharges from this land disturbing (construction) activity and any support facilities covered by this permit are prohibited:
   a. Wastewater from concrete washouts.
   b. Wastewater from the washout or clean out of stucco, paint, from 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 support facilities are allowed when discharged in compliance with this CGP:
   a. Discharges from emergency fire fighting activities.
   b. Fire hydrant flushings managed to avoid an instream impact.
   c. Waters used to wash vehicles or equipment, provided no soaps, solvents or detergents are used and the wash water is filtered, settled or similarly treated prior to discharge.
   d. Water used to control dust that is filtered, settled or similarly treated prior to discharge.
   e. Potable water including uncontaminated waterline flushings managed in a manner to avoid stream impacts.
   f. Routine external building wash down, provided no soaps, solvents or detergents are used, external building surfaces do not contain hazardous substances, and the wash water is filtered, settled or similarly treated prior to discharge.
   g. Pavement wash waters, provided spills or leaks of toxic or hazardous materials have not occurred (unless all spilled or leaked material is removed prior to washing), soaps, solvents or detergents are not used and the wash water is 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, provided flows are not contaminated with process materials such as solvents or contaminated groundwater.
   k. Uncontaminated excavation dewatering, including dewatering trenches and excavations that are filtered, settled or similarly treated prior to discharge.
   l. Landscape irrigation.

** 3. The contractor shall develop a Pollution Prevention Plan to address any 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 and 107 of the VDOT Road and Bridge Specifications identified on the title sheet and shall include a narrative with appropriate plan detail 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 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 of the VDOT Road and Bridge Specifications identified on the title sheet and the requirements within the CGP.
      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 leakproof container or leakproof settling basin 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, disposed of through infiltration, or otherwise disposed of on the ground.
      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, waste concrete and sanitary wastes.
      8) Address any other discharge from any potential pollutant-generating activity not listed herein.
      9) Minimize the exposure of waste materials to precipitation by closing or covering waste containers during precipitation events and at the end of the business day, or implementing other similarly effective practices. Minimization of exposure is not required in case where the exposure to precipitation will not result in a discharge of pollutants.
      10) 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.

* Denotes information that is to be provided/completed by the RLD.

** Denotes information that is to be provided/completed by the contractor.

Revised 7/25/24
SWPPP Sheet 3 of 4

	PROJECT	SHEET NO.
N/A	0001-076-634	2D(3)

100% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
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SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET (4)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	2D(4)

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

SECTION VI - PERMANENT BMP INFORMATION △

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

INSTALLED BMP INFORMATION
(VDOT Owned/Operated)

Plan Sheet(s)	✱ Date BMP Made Functional	Type of BMP Installed (See Table A, C, or D)	Geographic Location (County or City)	Latitude/Longitude (1) LAT	Latitude/Longitude (1) LONG	VA 6th Order HUC (7)	Receiving Water (2)	Name of Impaired Water (9)	Acres Treated Per BMP (3) Impervious	Acres Treated Per BMP (3) Pervious	Acres Treated Per BMP (3) TOTAL	✱ BMP Maintenance ID Number (10)	BMP Maintenance and Inspection Manual (11) SECTION
N/A	N/A	N/A											

ALTERNATIVE BMP INFORMATION

Plan Sheet(s)	Date	Type of BMP Installed (See Table B)	Geographic Location (County or City) (5)	Latitude/Longitude (1) (5) LAT	Latitude/Longitude (1) (5) LONG	VA 6th Order HUC (5) (7)	Receiving Water (2)	Name of Impaired Water (9)

Perpetual Nutrient Credits Acquired for Project

Name of Nutrient Credit Generating Entity (6)	Nutrient Credits (lbs./TP./year) Acquired (6) (12)
TBD	0.08

△ 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 construction record drawings maintained in the VDOT Central Office Plan File Room (ProjectWise). Prior to submitting for termination of coverage under the CGP, the RLD shall have the District Maintenance Division (Infrastructure Manager or Designee) along with the ACE, DHE, and the NPDES coordinator review the BMPs installed with the project 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 CGP.

Table A: 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)
Detention Basin

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

Table C: Permanent BMP Types
(BMP Clearing House)
Sheet Flow to Vegetated Filter Strip (Level Spreader)
Grass Channel
Soil Compost Amendment
Permeable Pavement (Level 1)
Permeable Pavement (Level 2)
Infiltration Practice (Level 1)
Infiltration Practice (Level 2)
Bioretention (Level 1)
Bioretention (Level 2)
Dry Swale (Level 1)
Dry Swale (Level 2)
Wet Swale (Level 1)
Wet Swale (Level 2)
Filtering Practice (Level 1)
Filtering Practice (Level 2)
Constructed Wetlands (Level 1)
Constructed Wetlands (Level 2)
Extended Detention Pond (Level 1)
Extended Detention Pond (Level 2)
Wet Pond (Level 1)
Wet Pond (Level 2)
Manufactured Treatment Device (MTD)(8)
Other Approved Types (List Type)

✱Table D: Permanent Post-Construction BMP Types
(Virginia Stormwater Management Handbook, Ver. 1.0)
Constructed Wetland
Wet Pond
Extended Detention Pond
Rainwater Harvesting
Grass Channel
Dry Swale
Wet Swale
Regenerative Stormwater Conveyance
Rooftop/Impervious Surface Disconnection
Vegetated Roof
Permeable Pavement
Infiltration Practices
Bioretention
Filtering Practices
Sheet Flow to Vegetated Filter Strip/ Conserved Open Space
Soil Compost Amendment
Tree Planting
Earthen Embankment
Principal Spillway
Vegetated Emergency Spillway
Pretreatment
Quantity-Only Approach to BMPs
MTD-H Hydrodynamic Devices
MTD-F Filtering Devices
MTD-B Biofilter Devices

✱Designer may not mix methods from Tables A, B and C with methods from Table D.

NOTES:
(1) In decimal degrees to the nearest one ten-thousandth of a degree.
(2) For streams with no names, list "(Unnamed Tributary to downstream name)".
(3) Show acres treated to the nearest one hundredths 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 surface waters identified as impaired in the 2022 305(b)/303(d) Water Quality Assessment Integrated Report for Benthic Macroinvertebrates Bioassessments and shall be the first named waterbody to which the BMP discharges.
(10) BMP Maintenance ID Number is to be assigned by the District Maintenance Division at permit termination or project completion. This ID number shall be assigned prior to the permit close out process and entered by the area construction engineer under this column, per IIM-LD-195.
(11) Provide the section of the manual that pertains to the type of BMP. The manual can be found at https://www.vdot.virginia.gov/media/vdotvirginiagov/doing-business/technical-guidance-and-support/technical-guidance-documents/maintenance/VDOT_-BMP_-Manual_acc.pdf in the Maintenance selections. Example: Section 4 would be noted for the maintenance and inspection manual for a Bioretention I infiltration BMP.
(12) Nutrient credits purchased to the nearest one hundredth pound.
(13) If level spreader is utilized as part of sheet flow to vegetative filter strip, report under that BMP type Table C.
(14) If several level spreaders are in close proximity, they may be combined for recording purposes; however each level spreader shall have individual lat/longs reported.

Revised 7/12/24
SWPPP Sheet 4 of 4

	PROJECT	SHEET NO.
N/A	0001-076-634	2D(4)

100% PLANS

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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PMC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorraine Barksdale P.E. CFM, Johnson,Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	2E

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

ROADSIDE DEVELOPMENT

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
C 1, 2 & 3	▲	CUSTOM MIX
T1	▲ 100	50% CERTIFIED TALL FESCUE 50% BARLEY, WINTER RYE OR WINTER WHEAT
T2	▲ 100	50% FOXTAIL MILLET 50% CERTIFIED TALL FESCUE

ADDITIVES

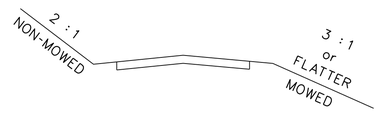
TYPE	LBS./ ACRES	DESCRIPTION
A	▲	100% LOVEGRASS
B	▲ 40	100% BARLEY, WINTER RYE OR WINTER WHEAT
C	▲ 20	100% FOXTAIL MILLET
D	▲ 40	100% ANNUAL RYEGRASS
E	▲	100% BLUE GRAMA
F	▲	100% ALFALFA
G	▲ 10	100% WHITE CLOVER
H	▲	✳✳ 100% CROWN VETCH (LEGUME)
I	▲	✳✳ 100% SEPICEA LESPEDEZA (LEGUME)
J	▲	✳✳ 100% BIRDSFOOT TREFOIL (LEGUME)
K	▲	POLLINATOR SEED MIX

✳ FINE FESCUES INCLUDE CHEWINGS, CREEPING RED, HARD, SHEEP. SEE SEEDING SCHEDULE FOR TYPE(S) SPECIFIED FOR THIS PROJECT.

▲ ALL RATES TO BE SPECIFIED BY THE DISTRICT ROADSIDE MANAGER

✳ ✳ THESE ADDITIVES ARE NOT TO BE USED IN AREAS THAT WILL BE MOWED. (SLOPES 3:1 OR FLATTER)

SECTION OF SEED LOCATIONS



SEEDING SCHEDULE

CODES LISTED IN TABLE REFER TO THE LISTS OF CORE MIXES & ADDITIVES, WHICH SHOW SEED NAMES & APPLICATION RATES FOR THIS PROJECT.	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	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE
	SPRING MONTH & DATE		SUMMER MONTH & DATE		FALL MONTH & DATE		WINTER/DORMANT MONTH & DATE	
	3/16 TO 5/31		6/1 TO 9/15		9/16 TO 10/31		11/1 TO 3/15	
PROJECT NUMBERS AND/OR LOCATION								
0001-076-634	(3 *)GD	(3 *)GD	(3 *)GC	(3 *)GC	(3 *)GD	(3 *)GD	(3 *)GB	(3 *)GB
TEMPORARY SEED	(3 *)GD	(3 *)GD	(3 *)GC	(3 *)GC	(3 *)GD	(3 *)GD	(3 *)GB	(3 *)GB
✳ SPECIFIED TYPE(S) OF FINE FESCUE								
0001-076-634	CREEPING RED	CREEPING RED	CREEPING RED	CREEPING RED	CREEPING RED	CREEPING RED	CREEPING RED	CREEPING RED

NOTES:

1. RECOMMENDATIONS FOR THE APPLICATION OF SEED MIXTURES (CORE MIX AND ADDITIVES), FERTILIZER, LIME, ETC. SHALL BE OBTAINED FROM THE DISTRICT ROADSIDE MANAGER.
2. ALL SEED, FERTILIZER, LIME, MULCH, ETC. MUST BE IN CONFORMANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS AND ANY APPLICABLE INFORMATIONAL & INSTRUCTIONAL MEMORANDA.
3. APPROXIMATELY 0.114990817263545 ACRES WILL BE DISTURBED ON THIS PROJECT AND WILL REQUIRE THE ESTABLISHMENT OF GRASSES AND/OR LEGUMES.
4. REGULAR SEED SHALL BE APPLIED AT THE RATES SHOWN IN THE CORE MIX, ADDITIVES, AND WHERE APPLICABLE, CUSTOM SEED MIX TABLES.
   SEEDING QUANTITIES SHOWN IN THE ROADSIDE DEVELOPMENT SUMMARY TABLE ARE BASED ON THE HIGHEST "NORMAL" SEEDING RATE FOR EACH CORE MIX (BY SEASON FOR BOTH MOWED AREAS AND NON-MOWED SLOPES), WITH A 25% INCREMENTAL ADJUSTMENT TO ACCOUNT FOR SEEDING PROGRESSION, SEEDING AFTER SIGN OR GUARDRAIL INSTALLATION, AND OTHER MINOR UNPLANNED DISTURBANCES.
5. REGULAR SEED SHALL BE FERTILIZED AT THE RATES SHOWN IN THE FERTILIZER SUMMARY TABLE.
   THE TOTAL FERTILIZER QUANTITIES SHOWN IN THE TABLES INCLUDES THE 25% INCREMENTAL ADJUSTMENT DESCRIBED ABOVE.
6. OVERSEEDING RATES SHALL BE 100% OF THE REGULAR SEED RATE WITHOUT THE INCREMENTAL ADJUSTMENT.
7. OVERSEEDING SHALL ONLY INCLUDE FERTILIZER ONCE, AT THE RATE SHOWN IN THE FERTILIZER SUMMARY TABLE. ADDITIONAL OVERSEEDING MAY BE DONE WITH NO FERTILIZER APPLIED, OR A SOIL TEST MAY BE PERFORMED TO DETERMINE THE SPECIFIC NUTRIENTS NECESSARY TO ESTABLISH THE GRASSES AND/OR LEGUMES.
8. THE ENGINEER WILL REQUIRE THE CONTRACTOR TO PERFORM SUPPLEMENTAL SEEDING WHEN LESS THAN 75% UNIFORM STAND OF THE PERMANENT GRASS (AND LEGUMES) SPECIFIED IN THE MIXTURES IS OBTAINED. (ANNUAL SPECIES SUCH AS RYE AND MILLET ARE TEMPORARY VARIETIES AND REQUIRE SUPPLEMENTAL SEEDING.)
9. LEGUME SEED SHALL BE INOCULATED WITH THE APPROPRIATE STRAIN AND RATE OF BACTERIA. FOR HYDROSEEDING, USE FIVE TIMES (5X) THE AMOUNT OF INOCULANT RECOMMENDED BY THE MANUFACTURER.
10. THE DATE SEED IS APPLIED SHALL BE USED TO DETERMINE WHETHER TO USE HULLED OR UNHULLED SEED FOR BERMUDAGRASS.
    SPRING & SUMMER (3/16 TO 9/15): USE HULLED SEED
    FALL & WINTER (9/16 TO 3/15): USE UNHULLED SEED.
11. EROSION CONTROL MULCH, AS DIRECTED BY THE ENGINEER, IS TO BE USED ON AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN 14 DAYS DURING THE DORMANT PERIOD (11/1 TO 3/15).
12. WHEN EROSION CONTROL MULCH IS USED, IT SHALL PROVIDE 100% COVERAGE OF ALL DENUDED AREAS.
13. HECP SHALL BE APPLIED ACCORDING TO THE MANUFACTERUER'S SPECIFICATIONS (OR RECOMMENDATIONS).

ROADSIDE DEVELOPMENT SUMMARY

PROJECT NUMBERS AND/OR LOCATION DESC.	REGULAR SEED	OVER SEEDING	LEGUME SEED	LEGUME OVER SEEDING	TEMPORARY SEED	⊗ 2" TOPSOIL CLASS B	LIME	FERTILIZER N NITROGEN	FERTILIZER P PHOSPHORUS	FERTILIZER K POTASSIUM	HECP (TYPE 1)	HECP (TYPE 2)	HECP (TYPE 3)	HECP (TYPE 4)
	LBS.	LBS.	LBS.	LBS.	LBS.	C.Y./ACRES	TONS	LBS.	LBS.	LBS.	S. Y.	S. Y.	S. Y.	S. Y.
0001-076-634	35	28	1	1	28	30/0.11	1	17	8	8	0	315	914	0
TOTAL	35	28	1	1	28	30/0.11	1	17	8	8	0	315	914	0

⊗ 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.

NA	PROJECT 0001-076-634	SHEET NO. 2E

100% PLANS

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3/28/2026
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LIMITED ACCESS HIGHWAY — By Resolution of Commonwealth Transportation Board dated April 18th, 2012

dl2297903.dgn
Plotted By: DLitchfield

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorainne Barksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

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William Seltter
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Mtajnal@washgas.com

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Woodbridge, VA 22192
Ed Kovalchuk
(703) 335-7944
Ekovalchuk@pwcsa.org

COMMONWEALTH OF VIRGINIA — LORAINNE R. BARKSDALE — PROFESSIONAL ENGINEER — Lic. No. 047412
COMMONWEALTH OF VIRGINIA — STEPHEN P. CATHCART — PROFESSIONAL ENGINEER — Lic. No. 069551

Johnson, Mirmiran, & Thompson, Herndon, Virginia — ROADWAY ENGINEER
Johnson, Mirmiran, & Thompson, Herndon, Virginia — HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634, C-501 RW-201	3

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

RIVERSIDE CROSSING PHASE I LLC
Inst.# 202307210037609
2.8065 AC.
GPIN# 8392-95-7766
001

COMMONWEALTH OF VIRGINIA
VIRGINIA DEPARTMENT OF TRANSPORTATION
Inst.# 201506010042420
0.056 AC.
GPIN# 8392-95-9960
002

OCCOQUAN ROAD (ROUTE 906)
RICHMOND HIGHWAY (ROUTE 1)
DAWSON BEACH ROAD

PI = 100+33.43
DELTA = 47°23'07.51" (RT)
D = 260°26'07.30"
T = 9.65'
L = 18.19'
R = 22.00'
PC = 100+23.78
PT = 100+41.97

PI = 71+16.40
DELTA = 06°31'57.67" (LT)
D = 00°42'58"
T = 456.56'
L = 912.14'
R = 8,000.00'
PC = 66+59.84
PT = 75+71.98
e = Existing
V = 35 MPH (Posted Speed)

BEGIN PROJECT 0001-076-634, RW-201 STATION 69+81.39
BEGIN PROJECT / CONSTRUCTION 0001-076-634, PE-101, C-501 STATION 69+65.42
END PROJECT 0001-076-634, RW-201 STATION 72+67.05
END PROJECT / CONSTRUCTION 0001-076-634, PE-101, C-501 STATION 72+72.06
RICHMOND HIGHWAY (ROUTE 1) CONST. BASELINE
BEGIN LIMITED ACCESS LINE
EXIST. R/W & BEGIN LIMITED ACCESS LINE
EXIST. R/W & LIMITED ACCESS LINE
EXIST. LIMITED ACCESS LINE
PREFABRICATED TRUSS BRIDGE CONST. BASELINE
SHARED-USE PATH CONST. BASELINE
WEST SWITCHBACK RAMP ALIGN.1 & 2 CONST. BASELINES
EAST SWITCHBACK RAMP ALIGN.1 & 2 CONST. BASELINES
CONNECT BRIDGE DOWNSPOUT TO PVC PIPE USING A 90-DEGREE ELBOW. SEE BRIDGE PLANS FOR DOWNSPOUT DETAILS. (TYP.)
VRE WOODBRIDGE STATION KISS & RIDE LOT

LEGEND

1. 8-10' CONCRETE PAD REQ'D.
2. 10' SHARED-USE PATH REQ'D
3. TIE TO EXISTING
4. REMOVE EXISTING STRUCTURE/PIPE
5. CLEANOUT EXISTING STRUCTURE/PIPE
6. VDOT ST'D. 1A-2 REQ'D.
7. VDOT ST'D. BPPS-1A (54" HIGH) REQ'D.
8. 6" PVC PIPE, SMOOTH WALL / NON-PERF. REQ'D.
9. 6" PVC WYE CONNECTION REQ'D.
10. 6" PVC 45-DEGREE BEND REQ'D.
11. 6" PVC CLEANOUT REQ'D.
12. SECURITY FENCE REQ'D.
13. VDOT ST'D. HR-1, TYPE 1 REQ'D.

A N23°24'39.34"W 23.78'	F N26°58'28.17"E 85.22'	K S26°58'28.17"W 85.22
B N26°58'28.17"E 85.17'	G S63°01'31.83"E 10.67'	L N63°01'31.83"W 10.00
C N21°25'19.47"E 15.07'	H S26°58'28.17"W 85.22' S26°58'28.17"W 92.44'	M N26°58'28.17"E 85.22
D N26°58'28.17"E 15.00'	I S43°08'34.97"E 226.77'	N S63°01'31.83"E 10.00'
E N63°01'31.83"W 14.67' N63°01'31.83"W 10.67'	J S63°01'31.83"E 14.33	O N63°01'31.83"W 5.00'

C — Denotes Construction Limits In Cuts
F — Denotes Construction Limits In Fills
Denotes Proposed R/W
Denotes Temporary Construction
Denotes Permanent Easement

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

TYPICAL SECTIONS	2A
DD & SSP	2B
PROFILES	3A-3B
ESC PLAN	3C
UTILITY PLAN	4(1)-4(3)
LIGHTING PLAN	5(1)-5(5)

SCALE 0 25' 50' | PROJECT 0001-076-634 | SHEET NO. 3

100% PLANS

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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

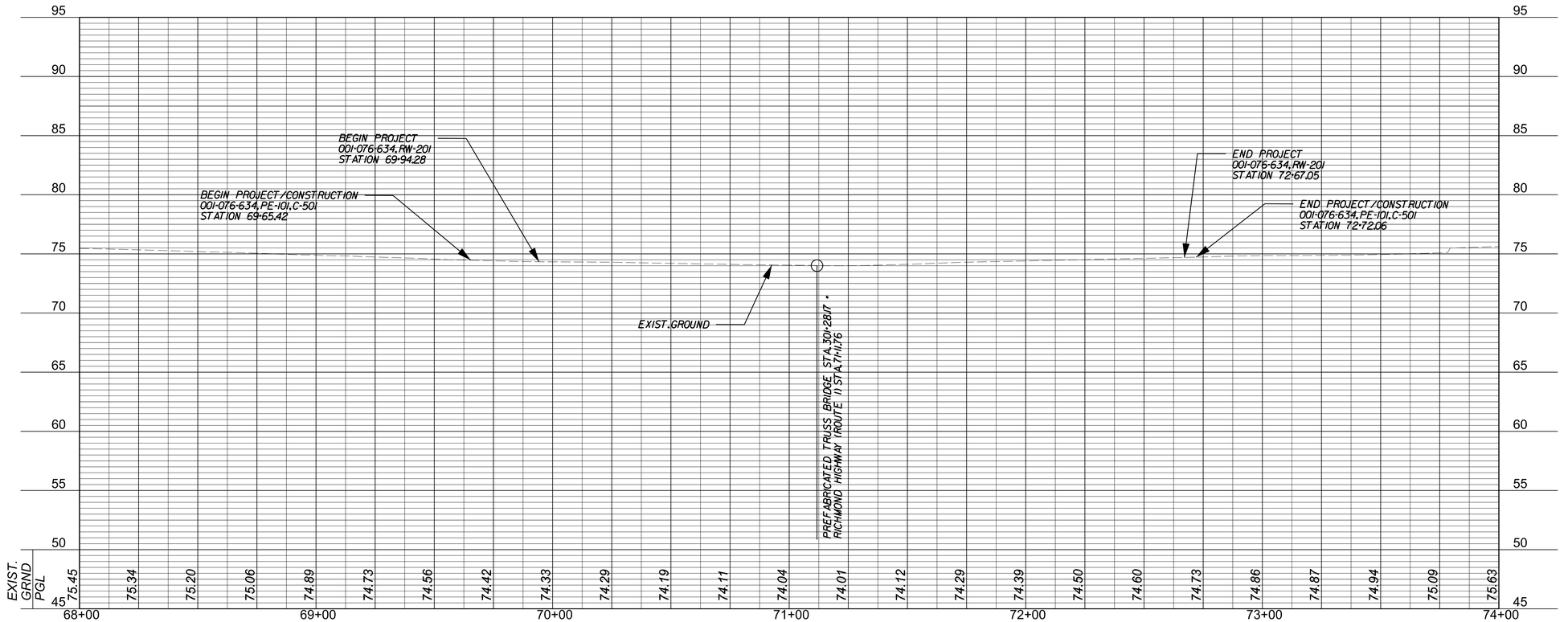
PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorainne Barksdale P.E. CFM, Johnson,Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

COMMONWEALTH OF VIRGINIA
LORAINNE R. BARKSDALE
Lic. No. 047412
PROFESSIONAL ENGINEER

Johnson, Mirmiran, & Thompson
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	3A

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



RICHMOND HIGHWAY (ROUTE 1) PROFILE

H: 1" = 25' / V: 1" = 5'	PROJECT 0001-076-634	SHEET NO. 3A

100% PLANS

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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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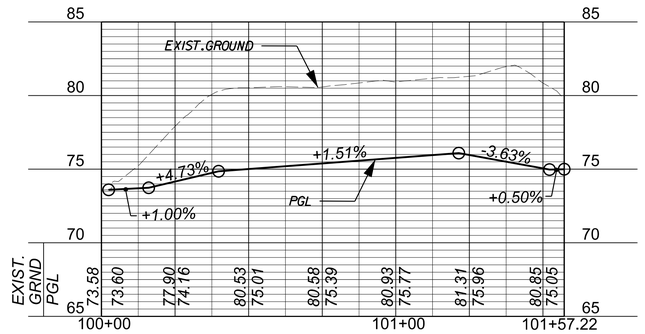
COMMONWEALTH OF VIRGINIA
LORAINNE R. BARKSDALE
Lic. No. 047412
PROFESSIONAL ENGINEER

Johnson, Mirmiran, & Thompson
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	3B

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



SHARED-USE PATH PROFILE

H: 1" = 25' / V: 1" = 5'	PROJECT 0001-076-634	SHEET NO. 3B

100% PLANS

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Plotted By: DLitchfield

LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorraine Borksdale P.E. CFM, Johnson,Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

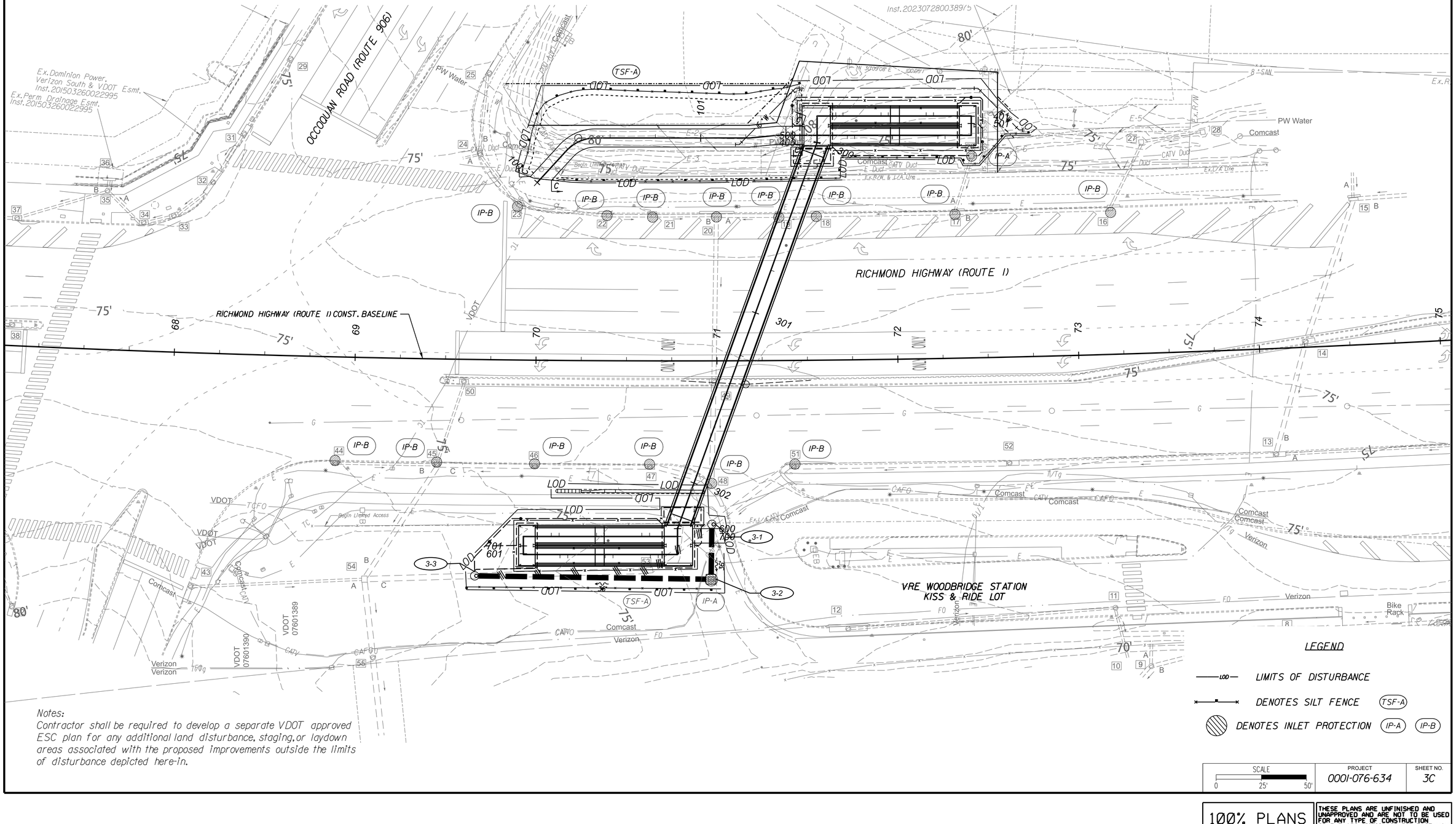
EROSION AND SEDIMENT CONTROL PLAN

COMMONWEALTH OF VIRGINIA
STEPHEN P. CATHCART
Lic. No. 069551
PROFESSIONAL ENGINEER

Johnson, Mirmiran, & Thompson
Herndon, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	3C

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



Notes:
Contractor shall be required to develop a separate VDOT approved ESC plan for any additional land disturbance, staging, or laydown areas associated with the proposed improvements outside the limits of disturbance depicted here-in.

SCALE	PROJECT	SHEET NO.
0 25' 50'	0001-076-634	3C

100% PLANS

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LIMITED ACCESS HIGHWAY — By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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DESIGN BY Lorraine Borksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

UTILITY PLAN

COMMONWEALTH OF VIRGINIA — TYLER E. HAYS — LIC. NO. 0402050981 — PROFESSIONAL ENGINEER

Johnson, Mirmiran, & Thompson
Richmond, Virginia
UTILITY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	4(1)

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

1. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PROPERTIES ALONG THE PROJECT CORRIDOR FOR EMERGENCY SERVICES. PEDESTRIAN AND OTHER NORMAL DAY-TO-DAY TRAFFIC AT ALL TIMES DURING CONSTRUCTION.

2. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THE VDOT LAND USE PERMIT. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL. THE FEDERAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD, LATEST EDITION). VDOT AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS FOR THE ROADWAY IMPROVEMENTS.

3. THE CONTRACTOR SHALL MAINTAIN POTABLE WATER SERVICES TO ALL EXISTING CUSTOMERS THROUGHOUT THE DURATION OF THE PROJECT. ANY DEGRADATION OF FIRE PROTECTION SHALL BE COMMUNICATED TO THE FIRE MARSHAL'S OFFICE AND LOCAL FIRE CHIEF BY THE CONTRACTOR PRIOR TO INTERRUPTION OF WATER FACILITIES.

4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MISS UTILITY AND HAVE ALL EXISTING UTILITIES LOCATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION (VERTICAL AND HORIZONTAL), SIZE, AND TYPE OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES WHICH OCCUR BY THEIR FAILURE TO LOCATE OR PROTECT THE EXISTING UNDERGROUND UTILITIES.

5. THE CONTRACTOR SHALL CONTACT THE FOLLOWING 7 DAYS PRIOR TO START OF CONSTRUCTION:

A)	MISS UTILITY	811
B)	PRINCE WILLIAM WATER	(703) 335-7900
C)	VERIZON COMMUNICATORS	(800) 888-8448
D)	DOMINION VIRGINIA POWER	(800) 562-8419 OR (540) 220-4423
E)	WASHINGTON GAS	(703) 750-4896
F)	NORTHERN VIRGINIA ELECTRIC COOPERATIVE	(703) 754-6724 OR (703) 392-1519
G)	COMCAST	(703) 675-9273
H)	COLONIAL PIPELINE COMPANY	(800) 926-2728

FOR EMERGENCIES, DIAL 911
POLICE-FIRE-RESCUE
(703) 777-1021 (703) 777-2222

6. THE EXISTING UTILITIES SHOWN ARE FROM AVAILABLE RECORDS AND FIELD SURVEYS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO THEIR OWN SATISFACTION. ACCEPTANCE OF THESE PLANS BY THE PW WATER WILL IN NO WAY RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE METHODS, POLICIES OR REQUIREMENTS STATED IN THE PRINCE WILLIAM WATER UTILITY STANDARDS MANUAL PW WATER USM).

7. IF DURING CONSTRUCTION THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY PW WATER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE UTILITY OWNER AND AT NO EXPENSE TO PW WATER. ANY DAMAGES OR INTERRUPTION OF SERVICE SHALL BE REPORTED IMMEDIATELY TO PW WATER DISPATCHER AT 703-335-7982 AND THE PW WATER INSPECTION MANAGER AT 703-898-3433 (703-898-0889 AFTER BUSINESS HOURS)

8. ALL STATIONING AND DISTANCES SHOWN ON THE DRAWINGS ARE BASED ON HORIZONTAL MEASUREMENTS.

9. PLAN LOCATION AND DIMENSIONS SHALL BE ADHERED TO.

10. ALL PIPE ELEVATIONS SHOWN ARE INVERT UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS. THE CONTRACTOR SHALL TEST PIT ALL UTILITIES WITHIN 2' OF THE PROPOSED WATER MAIN CROSSINGS TO VERIFY THE ELEVATIONS MATCH THE PLANS.

11. ALL DISTURBED PRIVATE AND PUBLIC ROADWAYS, DRIVEWAYS, PATHWAYS, CURB AND GUTTER, AND SIDEWALKS SHALL BE RESOTRED TO PRE-CONSTRUCTION CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CURB & GUTTER AND SIDEWALKS TO THE NEAREST FULL JOINT AT NO ADDITIONAL COST TO PW WATER. ALL CURB & GUTTER AND SIDEWALKS SHALL BE REPLACED TO MATCH EXISTING MATERIALS.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL LINES AND GRADES NECESSARY FOR INSTALLATION OF THE PROPOSED WATER MAIN.

13. THE CONTRACTOR SHALL REMOVE AND REPLACE MISCELLANEOUS EXISTING ITEMS, WHICH ARE TO BE DISTURBED DURING CONSTRUCTION, SUCH AS FENCING, MAILBOXES, LANDSCAPING, LANDSCAPE RETAINING WALLS, CULVERTS, STORM DRAINS, GUARDRAILS, RIP RAP, ETC. TO THEIR PRE-CONSTRUCTION CONDITION OR BETTER UNLESS OTHERWISE SPECIFIED.

14. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REGRADE ALL SURFACES TO MATCH PRE-CONSTRUCTION CONDITIONS. THE AREA WITHIN THE WATER LINE EASEMENT SHALL REMAIN CLEARED OF ALL TREES AND STRUCTURES.

15. RESTORATION LIMITED TO SEEDING SHALL BE COMPLETED WITHIN THE TIME REQUIREMENTS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (CURRENT EDITION). ANY NECESSARY SUBSEQUENT CONSTRUCTION ACTIVITIES REQUIRING RESTORATION SHALL BE AT THE CONTRACTORS COST (SUCH AS TO ADDRESS A FAILED PRESSURE TEST).

16. SURVEY INFORMATION IS BASED ON THE 1983 NAD VIRGINIA STANDARD GRID NORTH ZONE FOR HORIZONTAL DATUM AND NAVD88 FOR VERTICAL CONTROL. THE ELEVATIONS SHOWN ARE FEET ABOVE SEA LEVEL.

17. NO BLASTING IS PERMITTED WITHIN 25 FEET OF EXISTING PW WATER FACULTIES.

18. THE CONTRACTOR SHALL CONTACT THE VIRGINIA DEPARTMENT OF TRANSPORTATION (703-737-2000) TO HAVE ALL LOOP DETECTORS AND ASSOCIATED WIRING FIELDS MARKED PRIOR TO CONSTRUCTION. ANY LOOP DETECTORS WHICH ARE DAMAGED AS A RESULT OF THE CONTRACTORS CONSTRUCTION ACTIVITIES SHALL BE REPAIRED TO THE SATISFACTION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION AT NO ADDITIONAL COST TO PW WATER.

19. ALL EXISTING VALVES, HYDRANTS, METERS AND MANHOLE TOPS SHALL BE ADJUSTED TO MATCH FINAL GRADE AND SHALL BE CONSIDERED INCIDENTAL WORK AT NO CHARGE.

20. ALL VALVES BETWEEN 6 INCHES AND 12 INCHES SHALL BE RESILIENT WEDGE VALVES AS MANUFACTURED BY MUELLER (A-2360), KENNEDY, OR U.S. PIPE AND CONFORM TO AWWA SPEC. C-500. THEY SHALL BE IRON BODY, NON RISING STEM AND CAPABLE OF WITHSTANDING 250 PSI WORKING PRESSURE. VALVES LARGER THAN 12 INCHES SHALL BE BUTTERFLY VALVES AS MANUFACTURED BY MUELLER OF M&H AND CONFORM TO AWWA SPEC. C-504. ALL VALVES SHALL BE OPERATED COUNTER CLOCKWISE TO OPEN AND SHALL HAVE 250 PSI RATING.

21. VALVE OPERATORS FOR VALVES BETWEEN 6 INCHES AND 12 INCHES ARE TO BE HOUSED IN VALVE BOXES AND SHALL HAVE TWO INCH SQUARE OPERATING NUTS. VALVE BOXES SHALL BE IN ACCORDANCE WITH VDOT STANDARD VB-1 OR APPROVED EQUAL.

22. THE CONTRACTOR SHALL CONTACT THE PW WATER FIELD INSPECTION MANAGER AT (703)-335 3433 AT LEAST TWO (2) BUSINESS DAYS, BUT NO MORE THAN TEN (10) BUSINESS DAYS, PRIOR TO COMMENCEMENT OF DEMOLITION, EXCAVATION, OR BLASTING IN AREAS WITH UNDERGROUND WATER AND SANITARY SEWER UTILITIES.

23. ALL EXISTING HYDRANTS AND VALVES TO REMOVED SHALL BE TURNED OVER TO PW WATER, IF REQUESTED.

24. AT MINIMUM BACK FILL SHALL BE PER PW WATER USM. IN AREAS OF RIGHT-OF-WAY, BACK FILL AND COMPACTION SHALL BE IN ACCORDANCE WITH VDOT'S STANDARD DETAIL PB-1. CONTROLLED FILLED IS DEFINED AS SOIL PLACED IN LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS, MOISTURE CONDITIONED TO WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT, & COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY OBTAINED IN ACCORDANCE WITH STANDARD PROCTOR METHOD, UNLESS OTHERWISE SPECIFIED IN THE SOILS REPORT OF WHICH THE SOIL'S ENGINEERS RECOMMENDATIONS TAKE PRECEDENCE.

25. THE CONTRACTOR SHALL CONTACT THE PW WATER INSPECTION MANAGER AT (703) 898-3433 AT LEAST FIVE (5) WORKING DAYS PRIOR TO COMMENCING UTILITY RELOCATION WORK.

26. ALL PIPE TO BE ABANDONED SHALL BE FLUSHED UNTIL CLEAR WATER IS DISCHARGED AND THEN PLUGGED/CAPPED AT THE CUT ENDS. ALL PIPE AND PIPE SYSTEMS TO BE REMOVED SHALL BE REMOVED TO A MINIMUM OF TWO PIPE LENGTHS OR 36' FROM THE CLOSEST REMAINING LIVE MAIN. THE COST FOR THE ABANDONMENT OR REMOVAL OF EXISTING WATER MAIN, EXISTING FIRE HYDRANT ASSEMBLIES OR SANITARY SEWER FORCE MAIN SHALL BE INCLUDED IN THE UNIT PRICE BID FOR DJ. WATER MAIN OR SANITARY SEWER FORCE MAIN.

27. THE CONTRACTOR SHALL NOTIFY MISS UTILITY OF NORTHERN VIRGINIA AT 1-800-552-7001 FOR UTILITY LOCATION AT LEAST 72 HOURS BEFORE BEGINNING CONSTRUCTION.

28. ALL CONSTRUCTION SHOULD COMPLY WITH THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK.

29. THE CONTRACTOR SHALL PROVIDE NECESSARY MEASURES TO DIVERT AND MAINTAIN ADEQUATE STORM DRAINAGE DURING COSNTRUCTION.

30. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER OR THE TENANT 30 DAYS IN ADVANCE PRIOR TO PERFORMING ANY UTILITY RELOCATION WORK OR ROADWAY CONSTRUCTION SO THEY CAN CAP THEIR PRIVATE WATER SERVICE LINE AT THE TEMPORARY CONSTRUCTION LINE. PWCSA RECOMMENDS THAT THE CONTRACTOR BE REQUIRED TO TEST PIT ALL PROPOSED UNDERGROUND UTILITY CROSSINGS.

31. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION. AT A MINIMUM, 30 DAYS PRIOR TO THE START OF WATER & SANITARY SEWER CONSTRUCTION, THE CONTRACTOR SHALL DIG TEST PITS AT ALL EXISTING WATER AND SANITARY SEWER CONNECTION POINTS TO CONFIRM THE EXISTING PIPE SIZE, MATERIALS, INVERTS, PIPE CONFIGURATION, CONDITION, VERTICALLY (ELEVATIONAL) AND HORIZONTAL LOCATIONS. THE CONTRACTOR SHALL REPORT ALL DISCREPENCIES, CONDITION, OR CONFIGURATION TO THE DESIGN ENGINEER THAT WOULD PREVENT CONSTRUCTION OF THE PROPOSED UTILITIES AND THEIR CONNECTION TO EXISTING UTILITIES AS SHOWN IN THE PLAN AND IN ACCORDANCE WITH THE GOVERNING STANDARDS. THE CONTRACTOR SHALL COMPLETE ALL TEST PITS AND ASSESSMENTS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO ORDERING SPECIFIC MATERIALS THE FIRST TIME IN ORDER TO CONNECT THE PROPOSED WATER AND SANITARY SEWER UTILITY. NO RESTOCKING FEE OR ADDITIONAL COSTS SHALL BE ACCEPTED FROM THE CONTRACTOR FOR MATERIALS THAT CANNOT BE USED FOR THE UTILITY CONNECTION. ALTERNATE OR ADDITIONAL MATERIALS NEEDED FOR THE CONNECTION SHALL BE DISCLOSED BY THE CONTRACTOR AT A MINIMUM OF 30 DAYS PRIOR TO THE START OF PROPOSED WATER AND/OR SANITARY SEWER LINE THAT WILL BE THE CONNECTING. NO ADDITIONAL COSTS FOR ANY ALTERNATE OR ADDITIONAL MATERIALS WILL BE RENDERED TO THE CONTRACTOR FOR CONNECTIONS THAT BID AS A LUMP SUM.

32. IF THE CONSTRUCTION IS TO OCCUR IN AREA WITH IRRIGATION LINES, TEST HOLES ARE TO BE COMPLETED TO VERIFY CLEARANCES.

33. IN AREAS WHERE THE GRADING FOR THE ROADWAY OR OTHER IMPROVEMENTS HAS NOT BEEN COMPLETED OR THE FINAL GRADE HAS NOT BEEN ESTABLISHED PRIOR TO THE WATER MAIN INSTALLATION BACKFILL ABOVE THE WATER MAIN WILL BE INSTALLED TO PROVIDE THE MINIMUM REQUIRED.

34. PIPE BEDDING AND BACKFILL SHALL BE IN ACCRODANCE WITH PW WATER USM 4J2F EXCEPT WHERE NOTED OTHERWISE.

35. THE COSTS FOR THE REMOVAL OR ABANDONMENT OF PIPE OR MANHOLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PIPE CAUSING THE REMOVAL/ABANDONMENT.

36. THE COST FOR THE TEST HOLES REQUIRED SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PIPE.

Water Construction Notes

1. METHODS AND MATERIALS USED IN THE CONSTRUCTION OF WATER UTILITIES SHALL BE IN CONFORMANCE WITH THE CURRENT PW WATER USM. APPROVED USM WAVERS, AND THE VIRGINIA DEPARTMENT OF HEALTH REGULATIONS.

2. WATER LINE SHALL BE CLASS 52 DJ.P ENCASED WITH 4-MIL HIGH-DENSITY, CROSS-LAMINATED POLYETHYLENE TUBE WRAP.

3. THE CONTRACTOR SHALL MAINTAIN A SET OF RECORDS ON DRAWINGS ON SITE TO BE SUBMITTED TO THE VDOT PROJECT INSPECTOR PRIOR TO COMPLETION.

4. ALL NEW WATER MAINS SHALL BE TESTED FOR LEAKAGE, PRESSURE TESTING WATER MAINS AND DISINFECTING SHALL BE IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS, (CURRENT EDITION), SECTIONS 520.04 AND 520.05 RESPECTNELY, OR IN ACCORDANCE WITH THE PW WATER USM. WHICHEVER IS MORE STRINGENT. BACTERIOLOGICAL TESTING SHALL BE DONE IN ACCORDANCE WITH THE VIRGINIA STATE DEPARTMENT OF HEALTH (VDH) REQUIREMENTS. WHICH STIPULATE THAT:
   - TWO WATER SAMPLES WILL BE COLLECTED AT LEAST 24 HOURS APART AND ANALYZED BY A CERTIFIED LABORATORY; THE RESULTS OF THESE SAMPLES MUST INDICATE NO COLIFORM CONTAMINATION OTHERWISE THE DISINFECTION PROCEDURE MUST BE REPEATED.

5. AFTER TESTING AND BEFORE FINAL INSPECTION OF THE COMPLETED SYSTEMS. WATER MAINS SHALL BE FLUSHED AT A FLOW VELOCITY OF NOT LESS THAN 3.0 FEET PER SECOND THEN DISINFECTED IN ACCORDANCE WITH AWWA C651.

6. ALL WATER MAINS SHALL HAVE A TYPICAL COVER OF 3.5 FEET. A MINIMUM 2 FEET BELOW THE BOTTOM OF THE CREEK BED AT STREAM CROSSINGS.

7. ALL PIPE FITTINGS, SLEEVES, RESTRAINED JOINT MECHANISMS, VALVES, BRANCHES, BENDS, PLUGS, AIR RELEASE VALVES, TEST STATIONS, TEST BORE ETC. FOR WATER MAINS. WHEN NOT IDENTIFIED AS SEPARATE PAY ITEM, ARE TO BE INCLUDED IN THE WATER MAIN PRICE PER FOOT.

8. FIRE HYDRANTS SHALL BE THE MUELLER SUPER CENTURION 250. THE KENNEDY MODEL K 81-DM OR CLOW VALVE MEDALLION. THEY SHALL BE INSTALLED IN ACCORDANCE WITH PW WATER USM 4J2 H.

9. CONTRACTOR SHALL CONFIRM ALL EXISTING PIPE MATERIALS, SIZES, AND CONFIGURATION PRIOR TO ORDERING MATERIALS FOR CONNECTIONS TO EXISTING UTILITIES. ANY NECESSARY MODIFICATIONS SHALL BE APPROVED BY PW WATER AND MADE NO ADDITIONAL COST TO PW WATER.

10. ALL DUCTILE IRON PIPE, TEES, BENDS, REDUCERS, PLUGS, CAPS, VALVES, AND FIRE HYDRANTS SHALL BE RESTRAINED AGAINST MOVEMENT WITH MECHANICAL GLANDS OR PROPRIETARY JOINT RESTRAINT SYSTEM. PROPRIETARY JOINT RESTRAINT SYSTEM IS PREFERRED BY PW WATER ON PIPE SIZES 24-INCH AND GREATER.

11. SHUTDOWN OF EXISTING WATER LINES/MAINS SHALL BE COORDINATED IN ADVANCE WITH PW WATER SHUTDOWN OF WATER MAINS SHALL BE PERFORMED BY PW WATER ONLY. NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR DELAYS ASSOCIATED WITH COORDINATION OF EXISTING WATER MAINS.

12. TEST PRESSURE FOR THE WATER MAIN SHALL BE 250PSI THE NORMAL WORKING PRESSURE FOR THE WATER MAIN WILL BE IN EXCESS OF 100 PSI.

13. FOR FLUSHING AND PURGING DURING TESTING THE LOCATION OF TEMPORARY BLOW-OFFS HAVE BEEN IDENTIFIED ON THE PLANS. ANY PIPE, TEES, HYDRANTS, OR OTHER FITTINGS NEED TO PERFORM THE FLUSHING AND GENERATE THE REQUIRED FLOW AND VELOCITY ARE TO BE PROVIDED AS PART OF THE COST OF TIE INS.

14. CONTRACTOR TO FULLY RESTRAIN DEAD ENDS DURING TESTING. WATER SUPPLY NEEDED FOR TESTING SHALL BE INCLUDED IN THE UNIT PRICE OF THE WATER MAIN INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF WATER USED DURING TESTING

15. THE CONTRACTOR SHALL MAINTAIN SERVICE TO ALL CUSTOMERS DURING SYSTEM SCHEDULED OUTAGES BY INSTALLING TEMPORARY BYPASS/PUMP AROUND PIPING AND APPURTENANCES. THE COSTS FOR INSTALLING, OPERATING AND REMOVING TEMPORARY PIPING REQUIRED TO MAINTAIN CONTINUOUS WATER SERVICE DURING WATER MAIN TIE-INS SHALL BE INCLUDED IN THE UNIT PRICE BID.

16. THE CONTRACTOR SHALL PROVIDE PW WATER SCHEDULE OF WORK AND MATERIALS FOR ANY PLANNED WATER SYSTEM SHUT DOWN FOR REVIEW. PW WATER MUST APPROVE THE CONTRACTORS PLAN PRIOR TO SCHEDULING OF WORK REQUIRING A SHUT DOWN. WATER SHUT DOWNS APPROVED BY PW WATER ARE TO BE SCHEDULED TWO (2) WEEKS IN ADVANCE. PW WATER RESERVES THE RIGHT TO DICTATE TIME AND DAY OF WHEN THE WATER SYSTEMS CAN BE SHUTDOWN. THE CONTRACTOR SHALL COORDINATE WITH THE PW WATER FIELD INSPECTOR TO PROVIDE WRITTEN NOTICE TO CUSTOMERS AFFECTED BY A SHUT DOWN WITH FORTY-EIGHT (48) HOURS OF ADVANCE NOTICE PRIOR TO THE ACTUAL SHUT OFF OF ANY LINE.

N/A	PROJECT 0001-076-634	SHEET NO. 4(1)

100% PLANS

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LIMITED ACCESS HIGHWAY By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorraine Barksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

COMMONWEALTH OF VIRGINIA
TYLER E. HAYS
LIC. NO. 0402050981
PROFESSIONAL ENGINEER

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Richmond, Virginia
UTILITY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	4(2)

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

Water Construction Notes (cont'd)

17. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE PRE-CONSTRCUTION MEETING FOR CONSTRUCTION ACTIVITIES WITH THE PW WATER FIELD INSPECTOR. PW WATER WILL PROVIDE COURTESY INSPECTION SERVICE DURING THE HOURS OF 8 AM TO 3 PM MONDAY THROUGH FRIDAY WITH THE EXCLUSION OF HOLIDAYS. COURTESY INSPECTION SERVICE IS SUBJECT TO THE AVAILABILITY OF THE PW WATER FIELD INSPECTOR AND IS NOT A COMMITMENT TO PROVIDE UNLIMITED OR ON CALL INSPECTION SERVICE. SUPPORT FROM OTHER PW WATER STAFF. OUTSIDE THE PW WATER INSPECTION DEPARTMENT IS ALLOCATED BASED ON AVAILABILITY AND IS NOT SUBJECT TO THE SCHEDULING DEMANDS OF THE PROJECT. THE CONTRACTOR SHALL PAY PW WATER OVER TIMES RATES FOR CREWS AND SERVICES THAT ARE REQUIRED OUTSIDE NORMAL BUSINESS HOURS OF 8 AM TO 3 PM OR SERVICES RENDERED DURING A HOLIDAY.

18. DETAIL W-20 FOR BUTTRESSES FOR 90° HORIZONTAL BEND IS APPLICABLE TO ALL 6" BENDS FOR HYDRANT LEADS IN ADDITION TO THE LINE BEING RESTRAINED.

19. BEDDING AND BACKFILL WHERE THE WATER MAIN IS INSTALLED INSIDE THE ROW SHALL BE PER VDOT REQUIREMENTS.

20. IN AREAS OUTSIDE THE ROW THE UTILITY BEDDING AND BACKFILL SHALL BE PER USM 4.1.F AND INSTALLED IN LIFTS NO GREATER THAN 8 INCHES. COMPACT EACH LIFT TO 95% OF MAXIMUM DRY DENSITY PER ASTM-D698, AASHTO-T99 OR VT M-1.

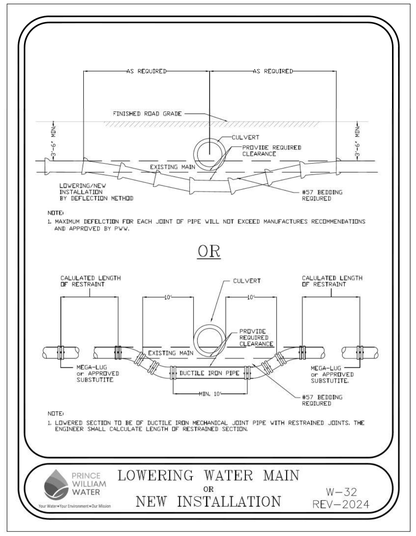
21. THE CONTRACTOR SHALL PROVIDE A SINGLE VALVE STEM EXTENSION FOR ALL VALVES IN WHICH THE OPERATING NUT IS GREATER THAN 5-FEET BELOW THE NORMAL GROUND OR ROAD SURFACE TO BRING THE OPERATING NUT TO WITHIN 5-FEET OF FINISHED GRADE.

22. ALLOWABLE MATERIALS FOR USE IN WATER DISTRIBUTION NETWORKS INCLUDE THE FOLLOWING:
    A. PIPE *
    (1) PIPE AND FITTINGS SHALL BE CENTRIFUGALLY CAST CONFORMING TO ANSI/AWWA C-150/A21.5 AND ANSI/AWWA C-151/A21.51. ALL PIPE, INCLUDING SINGLE 4 MIL POLYETHYLENE ENCASEMENT, SHALL BE DOUBLE-LINED WITH CEMENT MORTAR, IN ACCORDANCE WITH AWWA C104 (ANSI A21.4) AND HAVE A PROTECTIVE EXTERIOR COATING WITH NO DEFECTS, GOUGES, OR DAMAGE.
    (2) A MINIMUM OF CLASS 52 SHALL BE USED FOR ALL PIPE.
    B. JOINTS -
    ALL JOINTS FOR DUCTILE IRON PIPE SHALL BE STANDARD "PUSH ON" OR "MECHANICAL" JOINT AND BE IN ACCORDANCE WITH AWWA C151 (ANSI A21.51). JOINTS AND GASKETS OF STANDARD MECHANICAL JOINT PIPE ARE TO BE IN ACCORDANCE WITH ANSI 21.11.
    C. FITTINGS -
    ALL FITTINGS FOR DUCTILE IRON PIPE SHALL BE IN ACCORDANCE WITH AWWA C110 (ANSI A21.10) OR AWWA C153 (ANSI A21.53), WITH A MINIMUM PRESSURE RATING OF 250 PSI.
    D. RESTRAINTS:
    ALL DUCTILE IRON PIPE SHALL BE RESTRAINED AT TEES, BENDS, REDUCERS, PLUGS, CAPS, VALVES, AND FIRE HYDRANTS AS SHOWN ON THE PROFILES. RESTRAINTS ARE TO BE PROVIDED IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS AND SHALL USE PRODUCTS FROM THE PW WATER APPROVED PRODUCTS LIST FOUND IN APPENDIX C OF THE PRINCE WILLIAM WATER UTILITY STANDARDS MANUAL (USM).

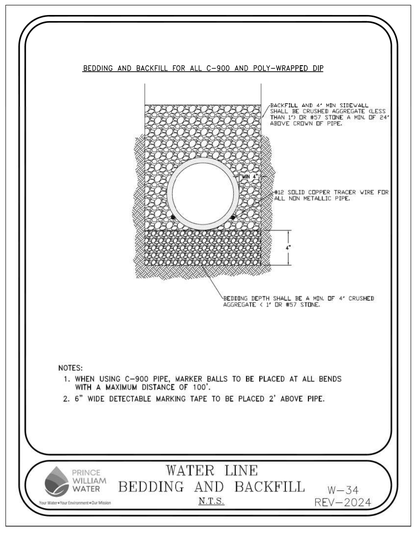
23. WATER MAIN BRANCH CONNECTIONS SHALL BE CONNECTED TO THE MAIN WITH A GATE VALVE & BOX IN A MANNER SIMILAR TO THE TYPICAL FIRE HYDRANT CONNECTION.

24. PIPE PLUG/CAP FITTINGS SHALL BE PROVIDED WITH A 2" THREADED TAP WHEN USED IN CONNECTION WITH A 2" BLOW-OFF ASSEMBLY.

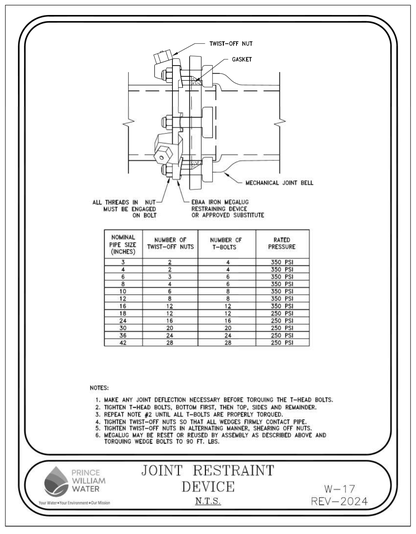
25. METERS AND VALVES TO BE PLACED OR RELOCATED IN ACCORDANCE TO PW WATER USM 4.5.F AND 4.10.D.



PRINCE WILLIAM WATER — LOWERING WATER MAIN OR NEW INSTALLATION — W-32 REV-2024



PRINCE WILLIAM WATER — WATER LINE BEDDING AND BACKFILL N.T.S. — W-34 REV-2024



NOMINAL PIPE SIZE (INCHES)	NUMBER OF TWIST-OFF NUTS	NUMBER OF T-BOLTS	RATED PRESSURE
3	2	4	350 PSI
4	2	4	350 PSI
6	3	6	350 PSI
8	4	6	350 PSI
10	6	8	350 PSI
12	8	8	350 PSI
16	12	12	350 PSI
18	12	12	250 PSI
24	16	16	250 PSI
30	20	20	250 PSI
36	24	24	250 PSI
42	28	28	250 PSI

NOTES:
1. MAKE ANY JOINT DEFLECTION NECESSARY BEFORE TORQUING THE T-HEAD BOLTS.
2. TIGHTEN T-HEAD BOLTS, BOTTOM FIRST, THEN TOP, SIDES AND REMAINDER.
3. REPEAT NOTE #2 UNTIL ALL T-BOLTS ARE PROPERLY TORQUED.
4. TIGHTEN TWIST-OFF NUTS SO THAT ALL WEDGES FIRMLY CONTACT PIPE.
5. TIGHTEN TWIST-OFF NUTS IN ALTERNATING MANNER, SHEARING OFF NUTS.
6. MEGALUG MAY BE RESET OR REVISED BY ASSEMBLY AS DESCRIBED ABOVE AND TORQUING WEDGE BOLTS TO 90 FT. LBS.

PRINCE WILLIAM WATER — JOINT RESTRAINT DEVICE N.T.S. — W-17 REV-2024

N/A	PROJECT 0001-076-634	SHEET NO. 4(2)

100% PLANS

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LIMITED ACCESS HIGHWAY — By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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Plotted By: DLitchfield

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorraine Borksdale P.E. CFM, Johnson Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

COMMONWEALTH OF VIRGINIA
TYLER E. HAYS
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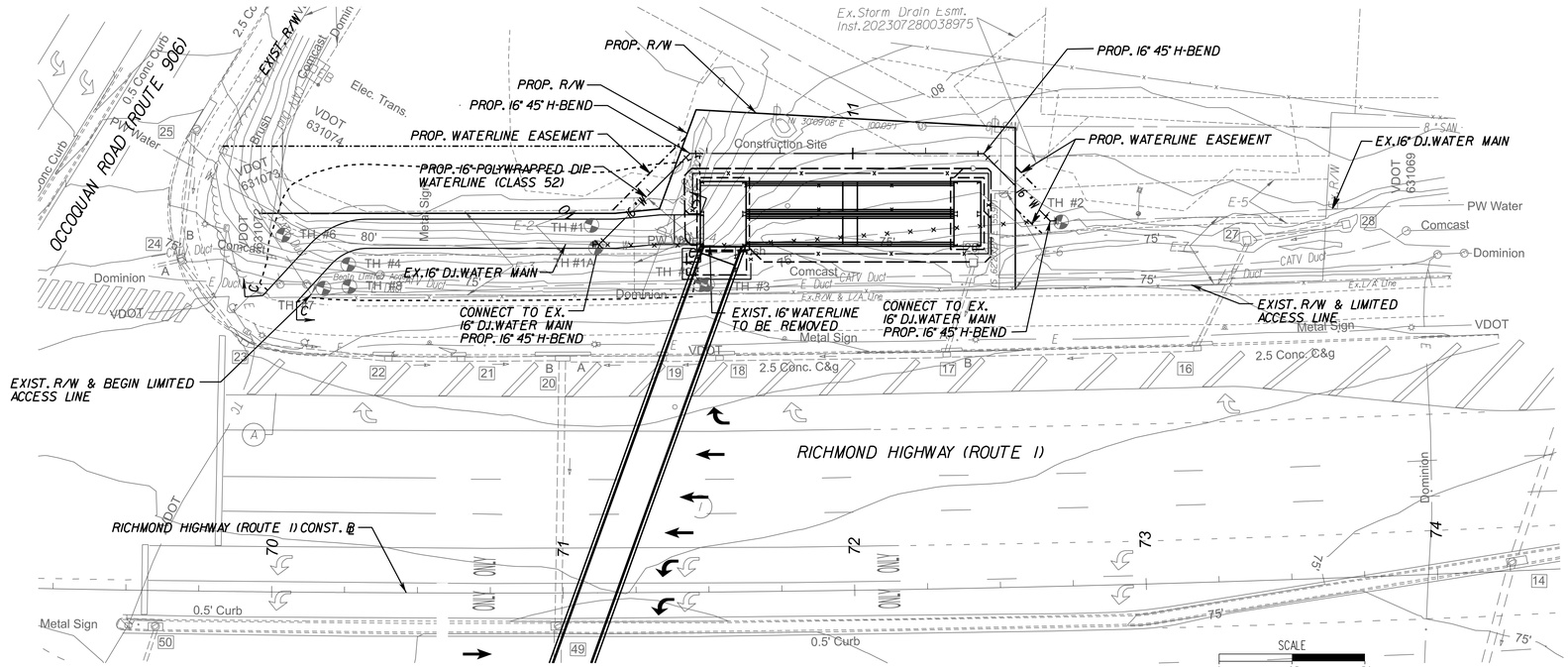
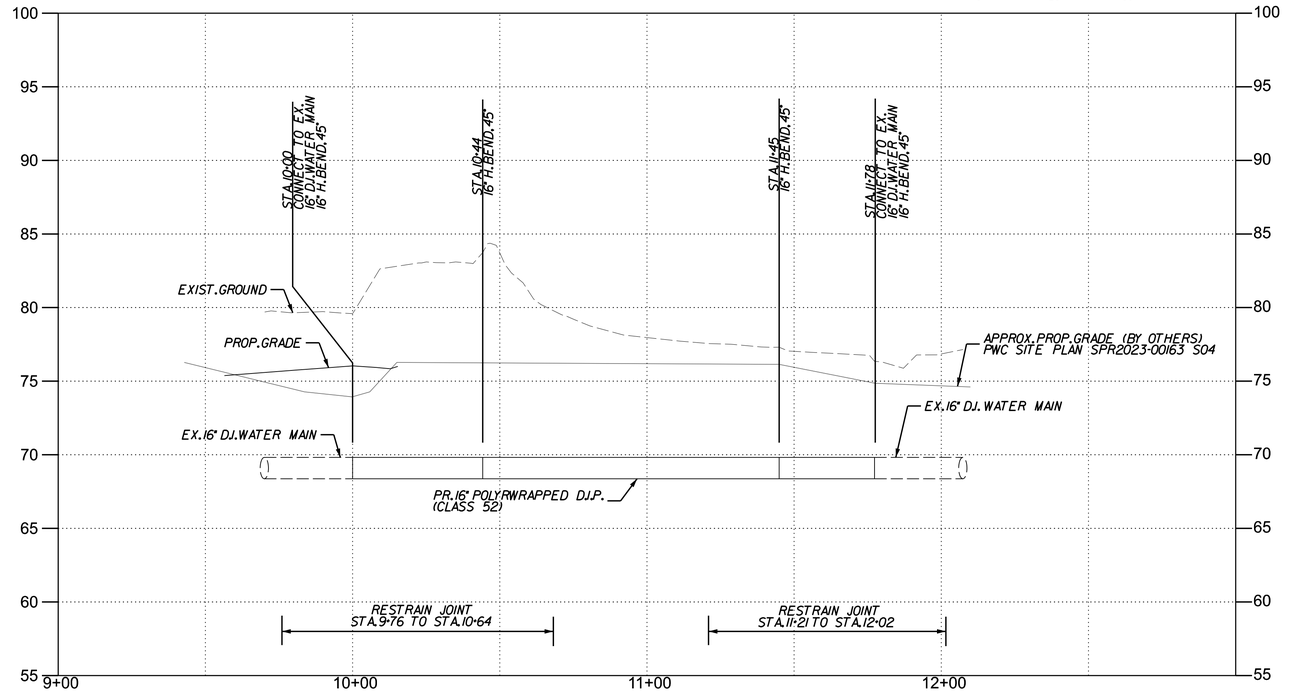
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	4(3)

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





H: 1" = 25' / V: 1" = 5'	PROJECT 0001-076-634	SHEET NO. 4(3)

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LIGHTING PLANS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634, C-501 RW-201	5(1)

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LEGEND NOTES

1. ALL THE SYMBOLS IN THE LEGEND MAY NOT HAVE BEEN USED ON THE PLANS. SYMBOLS NOT LISTED IN THE LEGEND ARE IDENTIFIED WHERE THEY OCCUR.
2. CAPITAL LETTER BESIDE FIXTURE SYMBOL DENOTES THE FIXTURE TYPE WITH REFERENCE TO FIXTURE SCHEDULE, SEE DRAWING EXXX.
3. SUBSCRIPT LOWER CASE LETTER BESIDE SYMBOL IS SWITCH-FIXTURE RELATIONSHIP.
4. SUBSCRIPT LETTER BESIDE SWITCH OR RECEPTACLE SYMBOL INDICATES TYPE AS FOLLOWS:

WP	WEATHERPROOF	K	KEY OPERATED
P	PILOT LIGHT	*	6" ABOVE COUNTERTOP
GF	GROUND FAULT		

5. MOUNTING HEIGHTS GIVEN IN THE LEGEND SHALL BE FOLLOWED UNLESS NOTED OTHERWISE ON THE FLOOR PLANS, SCHEDULES OR SHOWN DIFFERENTLY IN THE ELEVATIONS.
6. THE NUMBER BESIDE THE FIXTURE AND RECEPTACLE SYMBOLS INDICATES THE CIRCUIT THE DEVICE IS CONNECTED TO.

GENERAL NOTES

DEMOLITION NOTES

A. DEMOLITION WORK SHALL INCLUDE REMOVAL OF ALL WORK WHICH HAS BEEN ABANDONED IN PLACE TO THE EXTENT POSSIBLE WITHOUT CAUSING DAMAGE TO THE STRUCTURE.

B. DEMOLITION WORK FOR EACH PHASE OF CONSTRUCTION SHALL INCLUDE ALL WORK NECESSARY TO PROVIDE TEMPORARY CIRCUITS TO SERVE AREAS ADJACENT TO THE WORK AREA WHICH WOULD OTHERWISE BE WITHOUT LIGHTS OR POWER.

C. REMOVE, REROUTE AND RECONNECT CIRCUITS THAT WILL REMAIN IN USE BUT INTERFERE WITH DEMOLITION WORK. MAINTAIN CONTINUITY OF ALL EXISTING CIRCUITS TO REMAIN.

NEW WORK - ALL SYSTEMS

A. ALL PENETRATIONS SHALL BE SEALED WITH AN APPROVED SEALANT OR UL LISTED PENETRATION DEVICE THAT WILL MAINTAIN THE FIRE, SMOKE AND WATERPROOF RATINGS OF THE TYPE OF CONSTRUCTION BEING PENETRATED.

B. PROVIDE A NYLON PULL CORD IN ALL EMPTY CONDUITS.

C. THE DESIGN SHOWN ON THE DRAWINGS IS BASED ON THE LATEST PUBLISHED DATA FOR THE EQUIPMENT SPECIFIED. THE CONTRACTOR SHALL PROVIDE ALL WORK REQUIRED FOR THE ACTUAL EQUIPMENT BEING PROVIDED, ESPECIALLY WHERE ADDITIONAL WORK IS NECESSARY TO INCORPORATE SUBSTITUTIONS.

D. ALL EXTERIOR ELECTRICAL DEVICES, EQUIPMENT, BOXES AND ENCLOSURES SHALL BE WEATHERPROOF AND RATED FOR INSTALLATION IN THE ENVIRONMENT THEY ARE LOCATED.

E. ALL LIGHTING SHALL BE GROUNDED TO THE ELECTRICAL SOURCE AND TO THE STRUCTURE.

F. ALL CONDUITS ENTERING A STRUCTURE FROM BELOW GRADE SHALL BE INTERNALLY SEALED AT BOTH ENDS OF THE RUN TO PREVENT MOISTURE AND WATER INFILTRATION INTO THE EQUIPMENT.

G. UNDERGROUND ELECTRICAL PATHS AND UTILITIES ARE SHOWN DIAGRAMMATICALLY. ALL UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL COORDINATE ACTUAL ROUTING AND DEPTH. WHERE ELECTRICAL SERVICE UTILITIES ARE INDICATED CONTRACTOR SHALL COORDINATE INSTALLATION REQUIREMENTS WITH UTILITY COMPANY PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE, AND BE THE PRIMARY CONTACT, WITH DOMINION POWER FOR NEW SERVICE.

H. CONTRACTOR TO EXERCISE PRECAUTIONARY MEASURES INCLUDING HAND DIGGING TO PROTECT THE EXISTING UTILITIES AND STRUCTURES. WHERE EXACT LOCATIONS OF UTILITIES AND STRUCTURES CAN NOT BE ACCURATELY DETERMINED, HAND OR VACUUM EXCAVATION SHALL BE REQUIRED.

I. MINIMUM COVER ON ALL UNDERGROUND CONDUITS SHALL BE 30" BELOW FINAL GRADE. PROVIDE DETECTABLE WARNING TAPE OVER NEW SERVICE CONDUIT.

NEW WORK - POWER

A. BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER, #12 AWG MINIMUM UNLESS NOTED OTHERWISE. THE ENTIRE LENGTH OF CIRCUITS SHALL HAVE THE SAME CONDUCTOR SIZE AS INDICATED FOR THE HOME RUN U.N.O.

B. ALL CONDUIT SHALL BE 3/4" MINIMUM EXCEPT UNDERGROUND CONDUITS SHALL BE A MINIMUM OF 1".

C. CONTRACTOR SHALL VERIFY LOCATION, SIZE & ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT BEING FURNISHED BEFORE ROUGHING-IN OF ANY CONDUIT FOR EQUIPMENT.

NEW WORK - POWER

A. EXACT LOCATION AND MOUNTING HEIGHTS OF ALL CEILING AND WALL MOUNTED LIGHTING FIXTURES SHALL BE COORDINATED WITH STRUCTURE DETAILS, AND ELEVATIONS.

B. ALL LIGHTING SHALL BE CIRCUITED THROUGH A LIGHTING CONTACTOR AND CONTROLLED BY PHOTOCELL.

C. LIGHTING FIXTURES HAVE BEEN CHOSEN AND HAVE BEEN MODELED TO LIMIT THE GLARE TO DRIVERS ON THE ROAD BELOW. CONTACTOR SHALL TAKE CARE TO INSTALL FIXTURES LEVEL AND ALIGNED AND TO AVOID UNNECESSARY HORIZONTAL LIGHT.

D. COORDINATE LIGHTING FIXTURE LAYOUT WITH STRUCTURE AND THE WORK OF OTHER TRADES SO THAT LIGHTING OUTPUT IS NOT BLOCKED BY WORK OF OTHER TRADES.

E. E. ALL LIGHTING CIRCUITS SHALL BE 120V AND INCLUDE AN EQUIPMENT GROUND. ALL HANDRAIL LIGHTING SHALL BE GFCI PROTECTED.

LIGHTING LEGEND

- DOWNLIGHTING FIXTURE
- STRIP FIXTURE
- POLE MOUNTED LED FIXTURE - SINGLE HEAD
- POLE MOUNTED LED FIXTURE - SINGLE HEAD
- PHOTOCELL CEILING MOUNTED
- DC — DAYLIGHTING CONTROLLER WITH PHOTOCELL
- TC — TIME CLOCK EMERGENCY POWER SHUT-OFF PUSHBUTTON, NORMALLY OPEN, 2 POLE, RED RECESSED HEAD WITH FLIP-UP COVER.

POWER LEGEND

- WATERPROOF GROUND FAULT INTERRUPT RATED DUPLEX RECEPTACLE, FLUSH MTD. +18"AFF U.N.O. 20 AMP, 125 VOLT, NEMA 5-20R.
- PANELBOARD 277/480 [240/415][230/400][220/380] VOLTS
- J — JUNCTION BOX, CEILING MOUNTED

ELECTRICAL CONVENTIONS:

- LP2A-1,3,5 — HOMERUN TO PANEL "LP2A", CIRCUITS #1,3,5 (VIA 20A-1P C/B'S). PROVIDE INSULATED GROUND CONDUCTOR IN ACCORDANCE WITH SPECIFICATIONS.
- CONCEALED CONDUIT AND/OR WIRING
- BELOW GRADE CONDUIT AND/OR WIRING
- CIRCUITRY / CONDUIT TURNING DOWN
- CIRCUITRY / CONDUIT TURNING UP
- CIRCUIT CONTINUATION

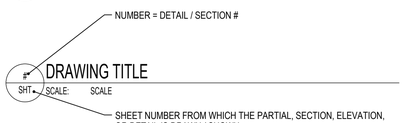
ELECTRICAL EQUIPMENT DESIGNATED BY SOLID HEAVY LINE WEIGHT INDICATES NEW WORK TO BE PROVIDED.

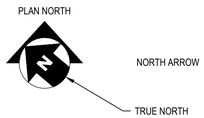
ELECTRICAL EQUIPMENT DESIGNATED BY SOLID LIGHT LINE WEIGHT INDICATES EXISTING EQUIPMENT TO REMAIN, UNLESS OTHERWISE INDICATED.

ELECTRICAL EQUIPMENT DESIGNATED BY DASHED HEAVY LINE WEIGHT REPRESENTS EXISTING EQUIPMENT TO BE REMOVED AND DISPOSED, UNLESS INDICATED TO BE REMOUNTED, RELOCATED, OR TURNED OVER TO OWNER.

DESIGNATIONS

SECTION REFERENCE: (SEE BELOW FOR DETAILS)





ABBREVIATIONS

2/C	TWO CONDUCTOR AS IN A MULTICONDUCTOR CABLE
AMP	AMPERE
AC	ALTERNATING CURRENT
ACU	AIR CONDITIONING UNIT
AF	AMPERE FRAME
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CURRENT
AT	AMPERE TRIP
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CHW	CHILLED WATER
CKT	CIRCUIT
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
CUH	CABINET UNIT HEATER
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DP	DOUBLE POLE
DR	DOOR
DT	DOUBLE THROW
DWG	DRAWING
EC	EMPTY CONDUIT
EF	EXHAUST FAN
ELEC	ELECTRIC OR ELECTRICAL
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL/ANNUNCIATOR PANEL
FCU	FAN COIL UNIT
FU	FUSE, FUSED
FVNR	FULL VOLTAGE NON-REVERSING
GRS	GALVANIZED RIGID STEEL
GF	GROUND FAULT
GFCI	GOVERNMENT FURNISHED CONTRACTOR INSTALLED
GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HW	HOT WATER
HZ	HERTZ
H&V	HEATING AND VENTILATING
HOA	HAND-OFF-AUTOMATIC SELECTOR SWITCH
KAIC	KILO AMPERE INTERRUPTING CAPACITY
KVA	KILO VOLT-AMPERE
KW	KILOWATT
KWH	KILOWATT-HOUR
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MLO	MAIN LUGS ONLY
MSS	MAIN SERVICE SWITCHBOARD
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NF	NON-FUSED
NFDS	NON-FUSED DISCONNECT SWITCH
NIC	NOT IN CONTRACT
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OC	ON CENTER
OL'S	OVERLOADS
PH	PHASE
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PBD	PANELBOARD
RAF	RETURN AIR FAN
RF	RADIO FREQUENCY
RM	ROOM
SAF	SUPPLY AIR FAN
SCR	SHORT CIRCUIT RATING
SD	STARTER DOOR
SP	SINGLE POLE
DT	DOUBLE THROW
ST	SINGLE THROW
SYM	SYMMETRICAL
TB	TERMINAL BOX
T	THERMOSTAT
TYP	TYPICAL
UH	UNIT HEATER
U.N.O	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT
VA	VOLT-AMPERE
W/	WITH
W/O	WITHOUT
XFMR	TRANSFORMER
XLP	CROSS-LINKED POLYETHYLENE

PROJECT	SHEET NO.
0001-076-634	5(1)

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PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
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REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	001	0001-076-634, C-501 RW-201	5(2)

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

ELECTRICAL SPECIFICATIONS:

1.1 REFERENCES

A. EXAMINE DRAWINGS AND OTHER DISCIPLINE SECTIONS OF SPECIFICATIONS FOR REQUIREMENTS THAT AFFECT WORK OF THIS SECTION.

B. AS USED IN THIS SECTION, "PROVIDE" MEANS "FURNISH AND INSTALL" AND "POS" MEANS PROVIDED UNDER OTHER SECTIONS." "FURNISH" MEANS "TO PURCHASE AND DELIVER TO THE PROJECT SITE COMPLETE WITH EVERY NECESSARY APPURTENANCE AND SUPPORT," AND "INSTALL" MEANS "TO UNLOAD" AT THE DELIVERY POINT AT THE SITE AND PERFORM EVERY OPERATION NECESSARY TO ESTABLISH SECURE MOUNTING AND CORRECT OPERATION AT THE PROPER LOCATION IN THE PROJECT."

C. PERFORM WORK AND PROVIDE MATERIAL AND EQUIPMENT AS SHOWN ON DRAWINGS AND AS SPECIFIED OR INDICATED IN THIS SECTION OF THE SPECIFICATIONS. COMPLETELY COORDINATE WORK OF THIS SECTION WITH WORK OF OTHER TRADES AND PROVIDE A COMPLETE AND FULLY FUNCTIONAL INSTALLATION. DRAWINGS AND SPECIFICATIONS FORM COMPLIMENTARY REQUIREMENTS; PROVIDE WORK SPECIFIED & NOT SHOWN, AND WORK SHOWN AND NOT SPECIFIED AS THOUGH EXPLICITLY REQUIRED BY BOTH. ALTHOUGH WORK IS NOT SPECIFICALLY SHOWN OR SPECIFIED, PROVIDE SUPPLEMENTARY COMPLETE INSTALLATION. REMOVE ALL DEBRIS CAUSED BY CONTRACTORS WORK.

D. PERFORM WORK STRICTLY AS REQUIRED BY RULES, REGULATIONS, STANDARDS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES THAT HAVE LAWFUL JURISDICTION.

E. AS WORK PROGRESSES AND FOR DURATION OF CONTRACT, MAINTAIN COMPLETE AND SEPARATE SET OF PRINTS OF CONTRACT DRAWINGS AT JOB SITE AT ALL TIMES. RECORD WORK COMPLETED AND ALL CHANGES FROM ORIGINAL CONTRACT DRAWINGS CLEARLY AND ACCURATELY INCLUDING WORK INSTALLED AS A MODIFICATION OR ADDITION TO THE ORIGINAL DESIGN.

F. WORK SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO THE FOLLOWING:

1. LED DISPLAY.
2. CONDUIT AND RACEWAYS.
3. WIRE AND CABLE.
4. JUNCTION BOXES AND COVERS..
5. TESTING.
6. FIRE SEAL, (AND) FIREPROOF FOAM.
7. NAMEPLATES, LABELS AND TAGS.

G. REMOVE, EXTEND, ALTER AND RECONNECT EXISTING CONDUITS. RECONNECT EXISTING CONDUIT THAT IS CUT AND DISCONNECTED TO ACCOMMODATE WORK. PROVIDE NEW CONDUIT WHERE WIRE CANNOT BE PULLED IN EXISTING. CONNECT NEW AND EXISTING WORK TO FUNCTION AS COMPLETE, CONTINUOUSLY GROUNDED SYSTEM. REMOVE CONDUIT AND EQUIPMENT NOT INTENDED FOR REUSE AND STORE WHERE DIRECTED.

H. ALL WIRING SHALL BE INSIDE METAL CONDUITS BOXES AND RACEWAYS.

I. CONDUITS SHALL NOT INTERFERE WITH BRIDGE MAINTENANCE OR ACCESS TO OTHER EQUIPMENT.

1.2 CONTRACT DOCUMENTS

A. LISTING OF DRAWINGS DOES NOT LIMIT RESPONSIBILITY OF DETERMINING FULL EXTENT OF WORK REQUIRED BY CONTRACT DOCUMENTS. REFER TO STRUCTURAL AND OTHER DRAWINGS AND OTHER SECTIONS THAT INDICATE TYPES OF CONSTRUCTION IN WHICH WORK SHALL BE INSTALLED AND WORK OF OTHER TRADES WITH WHICH WORK OF THIS SECTION MUST BE COORDINATED.

B. ITEMS REFERRED TO IN SINGULAR LANGUAGE IN CONTRACT DOCUMENTS SHALL BE PROVIDED IN QUANTITIES NECESSARY TO COMPLETE WORK.

1.3 CODES, STANDARDS, AUTHORITIES AND PERMITS

A. PERFORM WORK IN STRICT ACCORDANCE WITH THE RULES, REGULATIONS, STANDARDS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES HAVING LEGAL JURISDICTION OVER THE SITE.

B. MATERIAL AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES (UL).

C. THE ENTIRE INSTALLATION SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, AND ALL APPLICABLE CODES.

D. COMPLY WITH DOMINION ENERGY STANDARDS. COORDINATE ALL WORK RELATED TO SERVICE AND SERVICE EQUIPMENT WITH DOMINION ENERGY. CONTRACTOR SHALL SERVE AS THE PRIMARY CONTACT WITH DOMINION ENERGY.

1.4 RECORD DRAWINGS

A. MAINTAIN RECORD DRAWINGS ON SITE. RECORD SET MUST BE COMPLETE AND CURRENT AND AVAILABLE FOR INSPECTION WHEN REQUISITIONS FOR PAYMENT ARE SUBMITTED.

1.5 SUBMITTALS

A. SUBMIT SHOP DRAWINGS AND PRODUCT DATA WITHIN 2 WEEKS AFTER AWARD OF CONTRACT. CHECK, STAMP AND MARK WITH PROJECT NAME SUBMITTALS BEFORE TRANSMITTING TO OWNER. INDICATE DEVIATIONS FROM CONTRACT DOCUMENTS.

B. SCHEDULE AT LEAST 14 WORKING DAYS (EXCLUDING SATURDAYS AND SUNDAYS), EXCLUSIVE OF TRANSMITTAL TIME FOR SUBMITTAL REVIEW.

C. MATERIAL AND EQUIPMENT REQUIRING SHOP DRAWING AND PRODUCT DATA SUBMITTAL SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO:

1. METERING EQUIPMENT.
2. JUNCTION BOXES.
3. CONDUCTORS AND CONDUITS
4. PANELBOARDS
5. CIRCUIT BREAKERS.
6. RECEPTACLES
7. RACEWAYS
8. LIGHTING CONTROLS

D. PROVIDE MATERIALS THAT ARE U.L. LISTED FOR INTENDED APPLICATION.

2.1 RACEWAYS AND FITTINGS

A. INTERMEDIATE METAL CONDUIT (IMC), (HOT DIP GALVANIZED) SHALL BE USED IN LOCATIONS EXPOSED TO THE WEATHER. THE USE OF TYPE LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR SHORT, SHARP BENDS AND WITHIN CONCRETE MAY BE USED, AS ALLOWABLE BY THE NEC. ALL WIRING SHALL BE IN CONDUIT.

B. RACEWAYS SHALL BE INSTALLED AS A COMPLETE SYSTEM AND SHALL BE CONTINUOUS FROM OUTLET TO OUTLET, UNLESS NOTED OTHERWISE. RACEWAYS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO ALL BOXES AND FITTINGS. RACEWAYS AND BOXES SHALL BE SUPPORTED FROM STRUCTURAL STEEL PER NEC. DEFLECTION AND EXPANSION COUPLINGS SHALL BE USED WHEN RACEWAYS CROSS EXPANSION JOINTS.

C. THE MINIMUM SIZE CONDUIT USED SHALL BE 3/4 INCH. LARGER SIZES SHALL BE USED PER FILL REQUIRED BY THE NATIONAL ELECTRICAL CODE.

D. CONDUIT MAY BE RUN EXPOSED AND SHALL BE NEAT AND PERPENDICULAR AND PARALLEL TO STRUCTURE.

E. A NYLON PULL CORD SHALL BE INSTALLED IN ALL CONDUITS IN WHICH CONDUCTORS ARE NOT INSTALLED. A 10 INCH MINIMUM LENGTH OF THE CORD SHALL EXTEND OUT OF EACH END OF THE CONDUIT.

F. UNDERGROUND SERVICE SHALL BE IN SCHEDULE 80 PVC WITH MINIMUM 30" COVER.

G. ALL RACEWAYS SHALL BE CONCEALED TO THE EXTENT POSSIBLE. CONDUIT SHALL BE THE SIZE REQUIRED FOR THE CONDUCTORS BUT IN NO CASE SHALL IT BE SMALLER THAN 3/4 INCH TRADE SIZE.

H. GROUNDING CONDUCTORS SHALL BE INSTALLED WHEREVER WIRING IS INSTALLED IN ALL RACEWAYS. NO EXCEPTIONS.

I. ALL METALLIC CONDUITS SHALL TERMINATE WITH INSULATED THROAT CONNECTORS OR PLASTIC BUSHINGS TO PROTECT WIRING INSULATION BEFORE WIRING IS PULLED IN.

2.2 JUNCTION BOXES AND PULL BOXES

A. PROVIDE CODE GAUGE GALVANIZED STEEL JUNCTION AND PULL BOXES FOR CONDUIT 1 1/4" TRADE SIZE AND LARGER, WHERE INDICATED AND AS NECESSARY TO FACILITATE INSTALLATION, OF REQUIRED DIMENSIONS, WITH ACCESSIBLE, REMOVABLE SCREW ON COVERS. PROVIDE JUNCTION AND PULL BOXES IN SPECIAL SIZES AND SHAPES DETERMINED IN FIELD WHERE NECESSARY. ALL BOXES EXPOSED TO WEATHER SHALL BE NEMA 3R OR BETTER. ALL AREAS SHALL BE CONSIDERED WET LOCATIONS.

B. JUNCTION BOX COVERS SHALL BE ACCESSIBLE.

C. SHEET METAL PULL BOXES SHALL BE SUPPORTED ADEQUATELY TO MAINTAIN SHAPE. LARGER BOXES SHALL HAVE STRUCTURAL STEEL BRACING WELDED INTO RIGID ASSEMBLY FORMED ADEQUATELY TO MAINTAIN ALIGNMENT IN SHIPMENT AND INSTALLATION. SECURE COVERS WITH CORROSION RESISTANT SCREWS OR BOLTS.

D. ALL CONDUITS, BOXES, COVERS, ETC. USED AT, OR BELOW THE WALKING SURFACE OF THE BRIDGE WHERE SALT-TREATMENTS MAY DRIP FROM ABOVE,SHALL BE CORROSION-RESISTANT.

2.3 WIRE AND CABLE (600 V INSULATION)

A. PROVIDE SINGLE CONDUCTOR, ANNEALED COPPER WIRE AND CABLE WITH INSULATION RATED 600 V, OF SIZES SPECIFIED AND SCHEDULED ON DRAWINGS, FOR SECONDARY SERVICE, FEEDERS, BRANCH AND SYSTEM WIRING. WIRE INSULATED FOR 300 V MAY BE USED WHERE VOLTAGE IS LESS THAN 100 V, IF ISOLATED FROM HIGHER VOLTAGES. WIRE SIZES SHOWN AND SPECIFIED ARE AMERICAN WIRE GAUGE FOR COPPER.

B. WIRE #8 AND LARGER SHALL BE STRANDED; #10 AND SMALLER SHALL BE SOLID. WIRE AND CABLE SHALL HAVE THWN-THHN INSULATION, 75°C.

D. WIRING WITHIN LIGHT FIXTURES AND OTHER HIGH-TEMPERATURE EQUIPMENT SHALL HAVE 150°C INSULATION AS REQUIRED BY NEC.

E. SPLICES AND TERMINATIONS

1. MAKE SPLICES IN BRANCH CIRCUIT WIRING WITH UL LISTED, SOLDERLESS CONNECTORS RATED 600V, OF SIZES AND TYPES REQUIRED BY MANUFACTURER'S RECOMMENDATIONS WITH TEMPERATURE RATINGS EQUAL TO THOSE OF WIRES. SPLICE CONNECTORS SHALL BE SCREW ON. INSULATE SPLICES WITH INTEGRAL COVERS OR WITH PLASTIC OR RUBBER FRICTION TAPE TO PRESERVE CHARACTERISTICS OF WIRE AND CABLE INSULATION.

2. PROVIDE STANDARD BOLT ON LUGS WITH HEX SCREWS TO ATTACH COPPER WIRE AND CABLE TO PANELBOARDS AND ELECTRICAL EQUIPMENT.

3. AMPACITY OF SPLICES AND CONNECTORS SHALL BE EQUAL TO THOSE OF ASSOCIATED WIRES AND CABLES.

4. WHERE 20A CIRCUITS WIRE SIZE HAS BEEN INCREASED FOR VOLTAGE DROP, A #12 PIGTAIL MAY BE USED FOR TERMINATION TO DEVICES.

F. MINIMUM WIRE SIZE SHALL BE #12 AWG.

2.4 COLOR CODING

A. COLOR CODE SECONDARY SERVICE, FEEDERS AND BRANCH CIRCUIT CONDUCTORS AS FOLLOWS: 120/208V WHITE, BLACK, RED, BLUE. PROVIDE WITH SOLID GREEN GROUNDING CONDUCTOR. 277/480V YELLOW FOR PHASE A, BROWN FOR PHASE B, AND ORANGE FOR PHASE C. PROVIDE WITH SOLID GREEN GROUNDING CONDUCTOR.

B. BRANCH CIRCUIT CONDUCTORS #12 AND #10 SHALL HAVE SOLID COLOR COMPOUND, SOLID COLOR COATING. NEUTRALS AND EQUIPMENT GROUNDS SHALL HAVE SOLID COMPOUND OR SOLID COLOR COATING (WHITE, GRAY AND GREEN), EXCEPT THAT NEUTRALS WITH COLORED STRIPE SHALL BE USED WHERE REQUIRED BY NEC. CONDUCTORS #8 AND LARGER WITH STRIPES, BANDS OR HASH MARKS SHALL HAVE BACKGROUND COLOR OTHER THAN WHITE, GREEN, AND GRAY.

2.5 PANELBOARDS

A. PANELBOARDS SHALL BE FULLY RATED AND LABELED WITH A UL SHORT CIRCUIT WITHSTAND RATING.

B. INTERIORS SHALL BE COMPLETELY FACTORY ASSEMBLED WITH BOLT-ON DEVICES.

C. PROVIDE COMPLETE WITH HINGED FRONT COVER. ALL CIRCUIT BREAKER HANDLES AND SEMI-FLUSH CYLINDER LOCK WITH CATCH ASSEMBLY.

D. MAIN BUS BARS SHALL BE 100% COPPER SIZED IN ACCORDANCE WITH UL STANDARDS TO LIMIT TEMPERATURE RISE ON ANY CURRENT CARRYING PART TO A MAXIMUM 65°C ABOVE AN AMBIENT OF 40° MAXIMUM.

E. PROVIDE BOLTED GROUND COPPER BAR AND FULL SIZE NEUTRALS, UNLESS NOTED OTHERWISE.

F. ENCLOSURE SHALL BE AT LEAST 20 INCHES WIDE, MADE OF GALVANIZED STEEL. PROVIDE MINIMUM GUTTER SPACE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.

G. PROVIDE ENGRAVED NAMEPLATE FOR EACH PANEL SECTION.

H. SURFACES OF THE TRIM ASSEMBLY SHALL BE PROPERLY CLEANED, PRIMED, AND A FINISH COAT OF GRAY ANSI 61 PAINT APPLIED.

I. PANELBOARD SHALL BE SQUARE D, EATON, SIEMENS, OR ABB.

2.6 CIRCUIT BREAKERS

A. PROTECTIVE DEVICES SHALL BE MOLDED CASE CIRCUIT BREAKERS PROVIDING COMPLETE CIRCUIT OVER CURRENT PROTECTION BY HAVING INVERSE TIME AND INSTANTANEOUS TRIPPING CHARACTERISTICS. SHALL BE FULLY-RATED FOR AVAILABLE INTERRUPTING AMPERAGE.

B. CIRCUIT BREAKERS SHALL BE OPERATED BY A TOGGLE TYPE HANDLE AND SHALL HAVE A QUICK MAKE, QUICK BREAK OVER CENTER SWITCHING MECHANISM THAT IS MECHANICALLY TRIP FREE.

C. AUTOMATIC TRIPPING OF THE BREAKER SHALL BE CLEARLY INDICATED BY THE HANDLE POSITION.

D. PROVIDE HACR RATED CIRCUIT BREAKERS FOR MOTOR CIRCUIT PROTECTION AS INDICATED ON THE DRAWINGS.

2.7 TRANSFORMERS

A. PROVIDE COPPER WINDING DRY TYPE TRANSFORMERS AS SHOWN ON DRAWINGS. UNLESS SPECIFIED OTHERWISE, DESIGN, MANUFACTURE AND TESTING OF TRANSFORMERS SHALL MEET REQUIREMENTS OF NEMA NO. ST 20 AND UL STANDARDS.

B. TRANSFORMERS SHALL HAVE SEPARATE PRIMARY AND SECONDARY WINDINGS FOR EACH PHASE. EACH PRIMARY WINDING OF TRANSFORMER SHALL HAVE TAPS WHICH SHALL PROVIDE 2-1/2% INCREMENTS ABOVE FULL RATED VOLTAGE FULL RATED VOLTAGE.

C. TRANSFORMERS SHALL HAVE 115 DEGREES C RISE WITH 220 DEGREES C INSULATION SYSTEM RATED FOR CONTINUOUS OPERATION AT RATED KVA. TRANSFORMER SURFACE TEMPERATURE RISE SHALL NOT EXCEED 115 DEGREES C.

2.8 WIRE PULLING EQUIPMENT

A. PROVIDE POLYETHYLENE ROPES FOR PULLING WIRE.

B. PROVIDE FISH WIRES FOR TELEPHONE AND OTHER EMPTY CONDUIT SYSTEMS REQUIRED, WITHOUT SPLICES AND WITH AMPLE EXPOSED LENGTHS AT EACH END.

2.9 WIRING DEVICES

A. WIRING DEVICES SHALL BE COMPLETE WITH ALL MOUNTING DEVICES AND OTHER APPURTENANCES WHERE REQUIRED. ALL WIRING DEVICES SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER EXCEPT AS SPECIFICALLY STATED OTHERWISE.

B. RECEPTACLES.
ALL RECEPTACLES SHALL BE GFCI DUPLEX OUTLETS IN WHILE-IN-USE WEATHERPROOF BOXES, 125 VOLT AC. 20 AMP, TWO POLE, THREE WIRE GROUNDING TYPE, SPECIFICATION GRADE, WEATHER-RESISTANT SPECIAL AND HEAVY-DUTY TYPE RECEPTACLES SHALL BE PROVIDED AS SUITABLE FOR THE INTENDED USE.

C. OUTLET BOXES
CAST IRON OR ALUMINUM WITH THREADED HUB OUTLET BOXES SHALL BE USED FOR OUTDOOR, EXPOSED AND WET LOCATIONS.

2.10 SAFETY SWITCHES

A. FUSED SAFETY SWITCHES SHALL BE PROVIDED AS REQUIRED. SUCH SWITCHES SHALL BE OF THE PROPER SIZE AND NUMBER OF POLES FOR USE WITH THE EQUIPMENT REQUIRING THE SWITCH.

B. SAFETY SWITCHES SHALL BE THE ENCLOSED HEAVY-DUTY TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM AND EXTERNAL PAD-LOCKING OPERATING HANDLE.

C. ALL SWITCH ENCLOSURES SHALL BE SHALL BE OF THE APPROPRIATE NEMA RATING FOR THE INTENDED USE AND AS SPECIFIED ON THE DRAWINGS.

D. SWITCHES USED AS A SERVICE DISCONNECT SHALL BE UL LISTED AS SERVICE EQUIPMENT.

2.11 LIGHTING FIXTURES AND ACCESSORIES

A. LIGHTING SHALL BE INSTALLED IN ACCORDANCE WITH THE IES RECOMMENDED STANDARDS.

B. ALL FIXTURES SHALL BE FURNISHED COMPLETE WITH SOCKETS, INTERNAL WIRING, LEADS, TRIM, HANGERS, SUPPORTS, FRAMES, BALLASTS, ETC., AS APPLICABLE.

C. ALL FIXTURES SHALL BE SUPPORTED BY MEANS OF ADEQUATE HANGERS WITH ATTACHMENTS TO STRUCTURE. PROVIDE HOT-DIPPED GALVANIZED STEEL STRUT, WELDED STEEL, ETC. AS REQUIRED TO SUPPORT ELECTRICAL, FIXTURES, CONDUIT, AND BOXES.

D. EXTERIOR LIGHTING
A COMPLETE SYSTEM OF ARTIFICIAL EXTERIOR LIGHTING SHALL BE PROVIDED FOR ALL AREAS AS SHOWN IN DRAWINGS. IN GENERAL, ALL EXTERIOR LIGHTING SHALL BE LED. LED FIXTURES SHALL BE SUPPORTED FROM STRUCTURE PER MANUFACTURER'S RECOMMENDATIONS. DRIVERS WILL BE LOCATED REMOTELY IN WEATHER TIGHT BOXES BELOW STRUCTURE WHERE NECESSARY.

PROJECT	SHEET NO.
0001-076-634	5(2)

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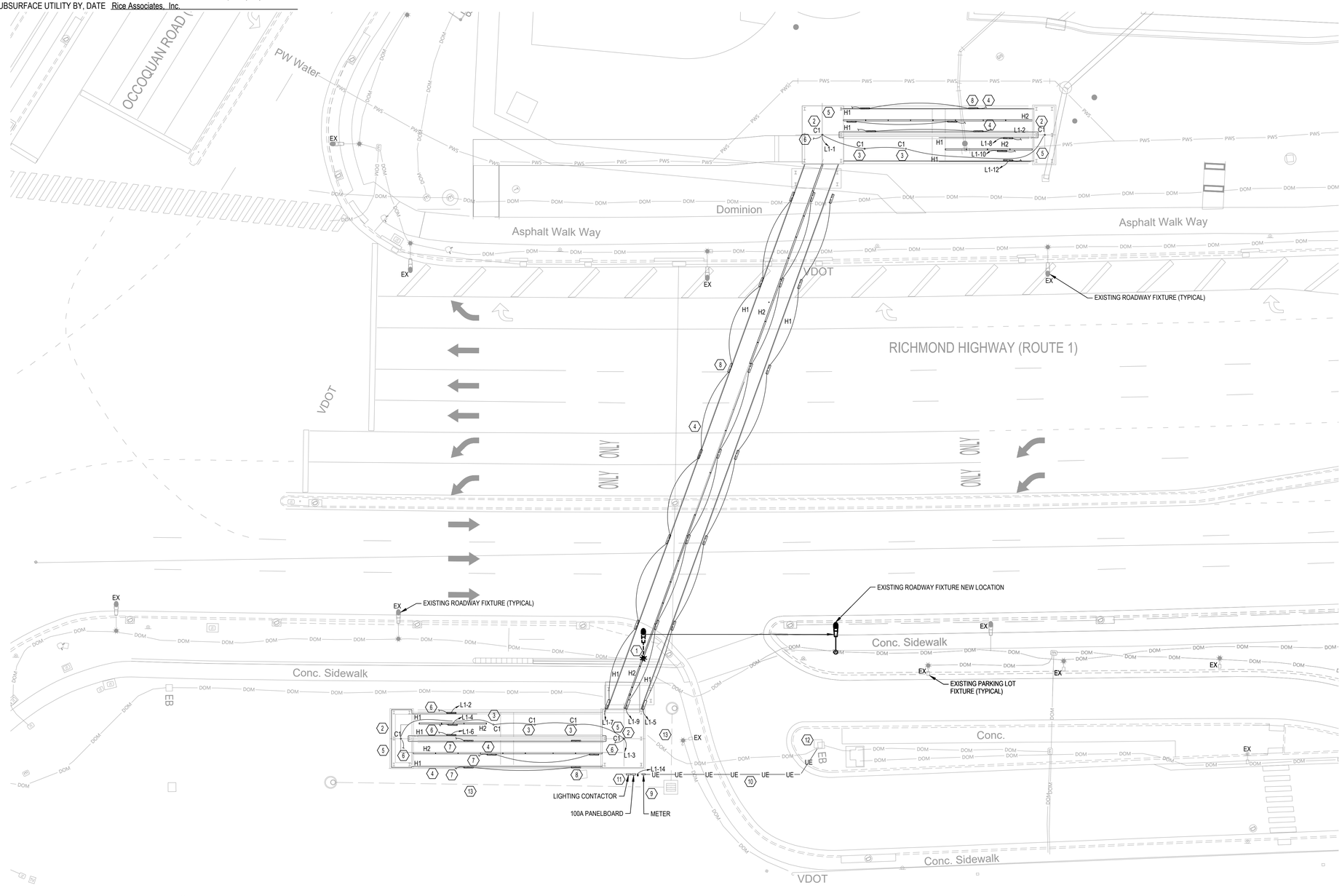
LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorainne Barksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	001	0001-076-634, C-501 RW-201	5(3)

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



1 / 5(2) ELECTRICAL SITE PLAN - PEDESTRIAN BRIDGE LIGHTING PLAN
SCALE: 1" = 20'-0"

GENERAL SHEET NOTES:

A. REFER TO STRUCTURAL CONSTRUCTION DOCUMENTS FOR TYPES AND MATERIALS. COORDINATE LIGHTING FIXTURE ROUGH-IN, TRIMS, AND SUPPORT WITH PROJECT CONDITIONS AND WITH LIGHTING SUPPLIER PRIOR TO RELEASE OF LIGHTING FIXTURES.

B. FIELD MEASURE ALL LIGHTING HANDRAILS TO DETERMINE EXACT LENGTHS. LIGHTING FIXTURES SHALL PROVIDE UNIFORM LIGHTING FROM END TO END OF HANDRAIL. A MAXIMUM 6" LIGHTING INTERRUPTION IS ALLOWED AT EACH END OF RAILING AND AT RAILING SUPPORTS FOR CONTINUOUS INSTALLATIONS.HANDRAILS SHALL STRICTLY FOLLOW THE VUSBC.

C. ALL HANDRAIL LIGHTING SHALL BE GROUNDED TO THE STRUCTURE AND THE STRUCTURE SHALL BE GROUNDED TO THE ELECTRICAL SERVICE GROUNDING ELECTRODE.

D. HANDRAIL LIGHTING VARIES IN AVAILABLE LENGTHS. PROVIDE ADEQUATE NUMBER OF SECTIONS, JUNCTION BOXES, DRIVERS, AND CONNECTIONS TO COVER ALL AREAS SHOWN TO BE LIT AT THE LUMEN AND WATT DENSITIES (PER FOOT) DESIGNATED ON THE LIGHT FIXTURE SCHEDULE.

E. COORDINATE LIGHTING FIXTURE LAYOUT WITH WORK OF OTHER TRADES SO THAT LIGHTING OUTPUT IS NOT BLOCKED BY WORK OF OTHER TRADES.CONTRACTOR SHALL CALL FOR EXISTING UNDERGROUND UTILITIES TO BE MARKED PRIOR TO EXCAVATION. CONTRACTOR TO MAKE USE OF ALL AVAILABLE EXISTING DRAWINGS AND CONSTRUCTION DOCUMENTS TO ASSIST IN LOCATING THE UNDERGROUND UTILITIES AND STRUCTURES. HOWEVER, NO ASSURANCE AS TO ACCURACY OR COMPLETENESS OF THE LOCATION OF THE UNDERGROUND UTILITIES OR STRUCTURES IS ABLE TO BE GIVEN.

F. UNDERGROUND ELECTRICAL UTILITIES ARE SHOWN DIAGRAMMATICALLY. CONTRACTOR SHALL COORDINATE ACTUAL ROUTING AND DEPTH. WHERE ELECTRICAL SERVICE UTILITIES ARE INDICATED CONTRACTOR SHALL COORDINATE INSTALLATION REQUIREMENTS WITH UTILITY COMPANY PRIOR TO INSTALLATION.

G. CONTRACTOR TO EXERCISE PRECAUTIONARY MEASURES INCLUDING HAND DIGGING OR VACUUM EXCAVATION TO PROTECT THE EXISTING UTILITIES AND STRUCTURES. WHERE EXACT LOCATIONS OF UTILITIES AND STRUCTURES CAN NOT BE ACCURATELY DETERMINED, HAND OR VACUUM EXCAVATION SHALL BE REQUIRED.

H. UNDERGROUND BRANCH CIRCUITS, COMMUNICATIONS, AND CONTROL CONDUITS SHALL BE A MINIMUM OF 1" IN SIZE.

I. ALL EXTERIOR ELECTRICAL DEVICES, EQUIPMENT, BOXES AND ENCLOSURES SHALL BE WEATHERPROOF AND RATED FOR INSTALLATION IN THE ENVIRONMENT THEY ARE LOCATED. ALL EXTERIOR RECEPTACLES SHALL INCLUDE WEATHERPROOF "WHILE-IN-USE" COVERS AND GFCI PROTECTION FOR EACH DEVICE.

J. ALL HANDRAILS SHALL BE GROUNDED. PROVIDE A DEDICATED EQUIPMENT GROUNDING CONDUCTOR AND BOND TO HANDRAIL EVERY HANDRAIL SECTION. ALL HANDRAIL LIGHTING SHALL BE GFCI PROTECTED. DO NOT SHARE NEUTRALS BETWEEN CIRCUITS.

K. CONTRACTOR SHALL SUBMIT COORDINATION DRAWINGS SHOWING ALL CONDUIT PATHS AND CONNECTIONS TO DRIVERS AND LIGHT FIXTURES.

SHEET KEYNOTES:

1. REMOVE EXISTING LIGHTING POLE AND POLE MOUNTED LIGHTING FIXTURE AND RELOCATE AS INDICATED ON DRAWING EXTENDING CIRCUIT AS NECESSARY. CUT BACK AND EXTEND LIGHTING CIRCUIT. PROVIDE NEW POLE BASE AND GROUNDING. REPLACE CONDUCTORS AS REQUIRED. RECONNECT FIXTURE AND PHOTOCELL TO EXISTING CIRCUIT IN NEW LOCATION.REFER TO STRUCTURAL DRAWINGS FOR NEW POLE BASE DETAIL.
2. EACH LANDING SHALL BE ILLUMINATED VIA SURFACE MOUNTED CANOPY FIXTURES. REFER TO DETAIL (3) AND (4) ON SHEET 5(3).
3. THE LOWER RAMP AT GRADE LEVEL SHALL BE ILLUMINATED BY SURFACE MOUNTED CANOPY FIXTURES.REFER TO DETAIL (1) AND (3) ON SHEET 5(3).
4. RAMP AND BRIDGE ABOVE GRADE LEVEL SHALL BE ILLUMINATED BY ASYMMETRICAL HANDRAIL LIGHTING. ASYMMETRICAL HANDRAIL LIGHTING SHALL BE MOUNTED AT 3'-6" ABOVE FINISHED FLOOR, AND AT HIGHEST POINT BELOW STRUCTURE, REFER TO DETAIL (5) ON SHEET 5(3).
5. HANDRAILS AT LANDINGS SHALL BE UN-ILLUMINATED (TYPICAL). REFER TO DETAIL (3) and (4) ON SHEET 5(3).
6. EXTEND CIRCUIT UPTO FIXTURE ON LEVEL ABOVE.
7. EXTEND CIRCUIT DOWN TO FIXTURE ON LEVEL BELOW.
8. BOX CONTAINING THE DRIVERS OF THE FIXTURE (TYPICAL). MAKE CONNECTIONS TO FIXTURE IN CONDUIT. INCLUDE GROUNDING CONDUCTOR.
9. REFER TO DRAWING 5(5) DETAIL 1. CIRCUIT THE CONVENIENCE RECEPTACLE TO CIRCUIT L1-14 SHOWN ON PLAN.
10. COORDINATE UNDERGROUND SECONDARY ELECTRIC SERVICE WITH DOMINION ENERGY. COORDINATE EQUIPMENT RATINGS WITH AVAILABLE FAULT CURRENT RATINGS.
11. PROVIDE LINE-VOLTAGE PHOTOCELL. WIRE CONTROL CIRCUIT THROUGH THE PHOTOCELL TO THE MECHANICALLY-HELD LIGHTING CONTACTOR. PROVIDE INTERPOSING RELAY WITH FORM "C" CONTACTS FOR PROPER OPERATION. ALL LIGHTING CIRCUITS SHALL BE ENERGIZED WHEN PHOTOCELL CLOSES (DARKNESS) AND OFF DURING DAYLIGHT HOURS.
12. EXISTING DOMINION ENERGY 240/120V SINGLE-PHASE PAD-MOUNTED TRANSFORMER ALREADY IN USE.
13. PROPOSED DRAINAGE STORM SEWER PIPES. COORDINATE WITH CIVIL.

PROJECT	SHEET NO.
0001-076-634	5(3)

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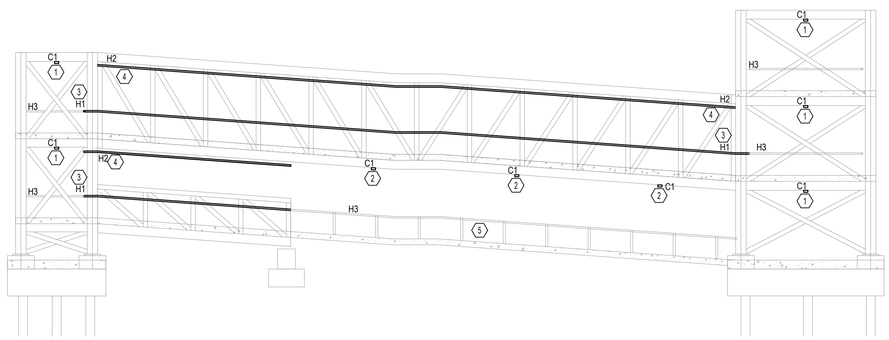
LIMITED ACCESS HIGHWAY

By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorainne Barksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

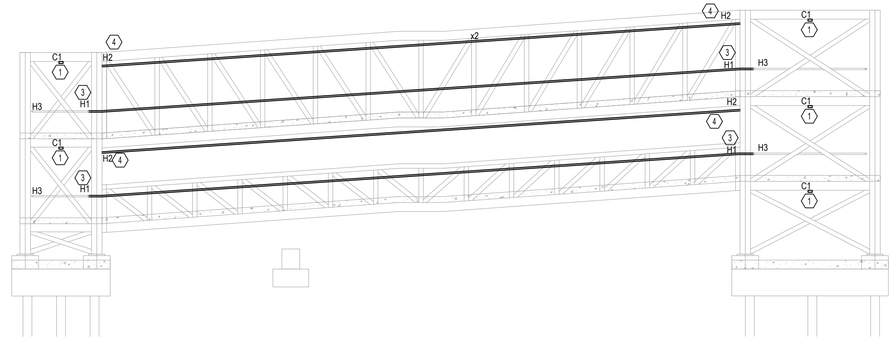
REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	001	0001-076-634, C-501 RW-201	5(4)

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



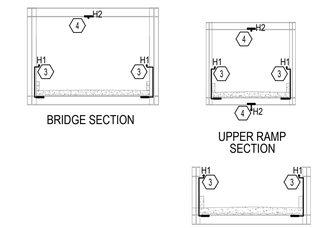
1 5(3) ELECTRICAL DETAIL - PEDESTRIAN BRIDGE LIGHTING SECTION
SCALE: N.T.S.

PLAN NORTH



2 5(3) ELECTRICAL DETAIL - PEDESTRIAN BRIDGE LIGHTING SECTION
SCALE: N.T.S.

PLAN NORTH



5 5(3) ELECTRICAL DETAIL - PEDESTRIAN BRIDGE LIGHTING SECTIONS
SCALE: N.T.S.

GENERAL NOTES:

A. DETAILS REPRESENT GENERAL LEVELS OF QUALITY AND WORKMANSHIP. THESE DETAILS ARE TYPICAL AND MAY NOT NECESSARILY BE REFERENCED IN THE PLANS NOR MAY THEY REPRESENT ALL POSSIBLE CONDITIONS. CONTRACTOR SHALL REVIEW PLANS AND SPECIFICATIONS AND DETAILS AS APPROPRIATE.

B. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH WORK OF OTHER TRADES TO ASSURE IMPLEMENTATION OF THESE DETAILS.

C. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE INSTALLATION AND NOTIFY ARCHITECT OF DESIGN TEAM OF DISCREPANCIES BETWEEN DETAIL AND ACTUAL CONDITIONS PRIOR TO PROCEEDING WITH WORK. OBTAIN APPROVAL FROM THE DESIGN TEAM TO DEVIATE FROM THE DETAILS AND ITS INTENTIONS FOR RELATED WORK.

D. CONTRACTOR SHALL CALL FOR EXISTING UNDERGROUND UTILITIES TO BE MARKED PRIOR TO EXCAVATION. CONTRACTOR TO MAKE USE OF ALL AVAILABLE EXISTING DRAWINGS AND CONSTRUCTION DOCUMENTS TO ASSIST IN LOCATING THE UNDERGROUND UTILITIES AND STRUCTURES. HOWEVER, NO ASSURANCE AS TO ACCURACY OR COMPLETENESS OF THE LOCATION OF THE UNDERGROUND UTILITIES OR STRUCTURES IS ABLE TO BE GIVEN.

E. UNDERGROUND ELECTRICAL UTILITIES ARE SHOWN DIAGRAMMATICALLY. CONTRACTOR SHALL COORDINATE ACTUAL ROUTING AND DEPTH. WHERE ELECTRICAL SERVICE UTILITIES ARE INDICATED CONTRACTOR SHALL COORDINATE INSTALLATION REQUIREMENTS WITH UTILITY COMPANY PRIOR TO INSTALLATION.

F. CONTRACTOR TO EXERCISE PRECAUTIONARY MEASURES INCLUDING HAND DIGGING OR VACUUM EXCAVATION TO PROTECT THE EXISTING UTILITIES AND STRUCTURES. WHERE EXACT LOCATIONS OF UTILITIES AND STRUCTURES CAN NOT BE ACCURATELY DETERMINED, HAND OR VACUUM EXCAVATION SHALL BE REQUIRED.

G. UNDERGROUND BRANCH CIRCUITS, COMMUNICATIONS, AND CONTROL CONDUITS SHALL BE A MINIMUM OF 1" IN SIZE.

H. ALL EXTERIOR ELECTRICAL DEVICES, EQUIPMENT, BOXES AND ENCLOSURES SHALL BE WEATHERPROOF AND RATED FOR INSTALLATION IN THE ENVIRONMENT THEY ARE LOCATED. ALL EXTERIOR RECEPTACLES SHALL INCLUDE WEATHERPROOF LOCKABLE "WHILE-IN-USE" COVERS AND GFCI PROTECTION FOR EACH DEVICE.

I. FIELD MEASURE ALL LIGHTING PATHWAYS TO DETERMINE EXACT LENGTHS. LIGHTING FIXTURES SHALL PROVIDE UNIFORM LIGHTING FROM END TO END OF PATHWAYS.

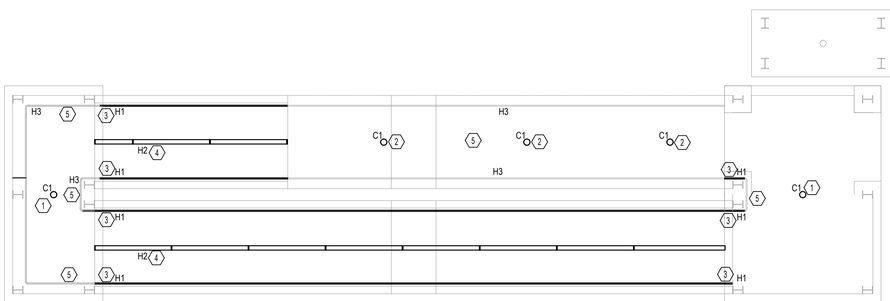
J. COORDINATE LIGHTING FIXTURE LAYOUT WITH WORK OF OTHER TRADES SO THAT LIGHTING OUTPUT IS NOT BLOCKED BY STRUCTURE OR THE WORK OF OTHER TRADES.

K. SURFACE MOUNTED LIGHTING FIXTURES OVER RAMPS AND WALKWAYS SHALL BE MOUNTED SO THAT THE BOTTOM OF THE FIXTURE IS FLUSH OR BELOW WITH THE BOTTOM OF THE STRUCTURE.

L. REFER TO CONDUCTOR SIZES ON THE PANEL SCHEDULE FOR CIRCUITS UPSIZED FOR VOLTAGE DROP.

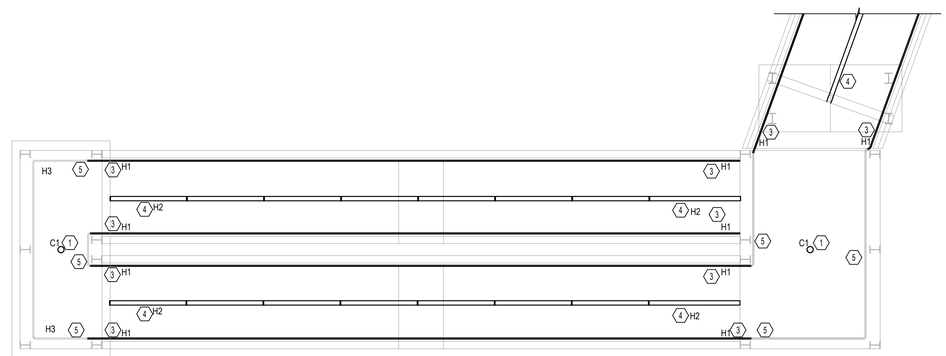
M. LIGHTING SHALL BE CONTROLLED BY PHOTOCELL. CONTRACTOR SHALL MOUNT PHOTOCELL TO TOP OF STRUCTURE ORIENTED NORTH IN LOCATION SHOWN.

N. REFER TO STRUCTURAL DRAWINGS FOR HANDRAIL MOUNTING.



3 5(3) ELECTRICAL DETAIL - PEDESTRIAN BRIDGE LIGHTING PLAN LOWER LEVEL
SCALE: N.T.S.

PLAN NORTH



4 5(3) ELECTRICAL DETAIL - PEDESTRIAN BRIDGE LIGHTING PLAN UPPER LEVEL
SCALE: N.T.S.

PLAN NORTH

SHEET KEYNOTES:

1. EACH LANDING SHALL BE ILLUMINATED VIA SURFACE MOUNTED CANOPY FIXTURES.
2. THE LOWER RAMP AT GRADE LEVEL SHALL BE ILLUMINATED BY SURFACE MOUNTED CANOPY FIXTURES.
3. RAMP AND BRIDGE ABOVE GRADE LEVEL SHALL BE ILLUMINATED BY ASYMMETRICAL HANDRAIL LIGHTING. ASYMMETRICAL HANDRAIL LIGHTING SHALL BE MOUNTED AT 3'-6" ABOVE FINISHED SURFACE OF RAMP.
4. AN UPPER LEVEL OF SYMMETRIC TYPE H2 LIGHTING SHALL BE MOUNTED AS HIGH AS POSSIBLE BUT NO HIGHER THAN FLUSH WITH STRUCTURE TO ILLUMINATE THE FACES OF RAMP AND BRIDGE OCCUPANTS AS THEY WALK ALONG THE PATHWAYS.
5. HANDRAILS AT LANDINGS SHALL BE UN-ILLUMINATED.

PROJECT	SHEET NO.
0001-076-634	5(4)

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By Resolution of Commonwealth Transportation Board dated April 18th, 2012

PROJECT MANAGER Gladis Arboleda, PWC Dept. of Transportation (703)792-5276
SURVEYED BY, DATE Rice Associates, Inc.
DESIGN BY Lorainne Barksdale P.E. CFM, Johnson, Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	001	0001-076-634, C-501 RW-201	5(5)

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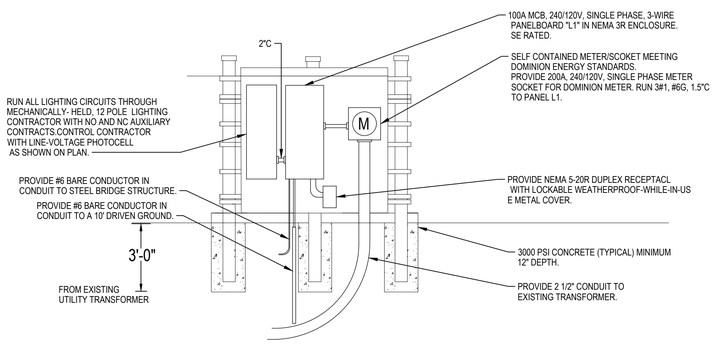

1 5(5) POWER PEDESTAL DETAIL
SCALE: NONE

PANELBOARD SCHEDULE: L1

MAIN: 100A MCB — VOLTAGE: 240/120V, 1 PHASE, 3 WIRE + GND — INTER. RATING: PER STUDY
LOCATION: 0 - FED FROM XFMR — MOUNTING: SURFACE

Wire and Conduit (Copper Conductors)	DESCRIPTION	LOAD TYPE	LOAD	BREAKER AMP/POLE	BREAKER SF	CKT NO.	P H	CKT NO.	BREAKER AMP/POLE	BREAKER SF	LOAD	LOAD TYPE	DESCRIPTION	Wire and Conduit (Copper Conductors)
1:2#10,#10G,3/4C.	**LIGHTING (L)**	**(L)**	**500**	**20 / 1**		1	A	2	**20 / 1**		**1650**	**L**	**LIGHTING**	**1:2#12,#12G,3/4C.**
1:2#10,#10G,3/4C.	**LIGHTING (L)**	**(L)**	**500**	**20 / 1**		3	B	4	**20 / 1**		**1650**	**L**	**LIGHTING RAMP**	**1:2#10,#10G,3/4C.**
1:2#10,#10G,3/4C.	**LIGHTING BRIDGE**	**(L)**	**1260**	**20 / 1**		5	A	6	**20 / 1**		**1650**	**L**	**LIGHTING RAMP**	**1:2#10,#10G,3/4C.**
1:2#10,#10G,3/4C.	**LIGHTING BRIDGE**	**(L)**	**1260**	**20 / 1**		7	B	8	**20 / 1**		**1650**	**L**	**LIGHTING RAMP**	**1:2#10,#10G,3/4C.**
1:2#10,#10G,3/4C.	**LIGHTING BRIDGE**	**(L)**	**1260**	**20 / 1**		9	A	10	**20 / 1**		**1650**	**L**	**LIGHTING RAMP**	**1:2#10,#10G,3/4C.**
	SPARE			**20 / 1**		11	B	12	**20 / 1**		**1650**	**L**	**LIGHTING RAMP**	**1:2#10,#10G,3/4C.**
	SPARE			**20 / 1**		13	A	14	**20 / 1**		**180**	**R**	**REC:**	**1:2#12,#12G,3/4C.**
	SPARE			**20 / 1**		15	B	16	**20 / 1**		**5**	**EC**	**LTG CONTROL CKT**	**1:2#12,#12G,3/4C.**
	SPARE			**20 / 1**		17	A	18	**20 / 1**				**SPARE**	
	SPARE			**20 / 1**		19	B	20	**20 / 1**				**SPARE**	
	SPACE					21	A	22					**SPACE**	
	SPACE					23	B	24					**SPACE**	
	SPACE					25	A	26					**SPACE**	
	SPACE					27	B	28					**SPACE**	
	SPACE					29	A	30					**SPACE**	

CONN. LOAD BREAKDOWN	kVA	LOAD SUMMARY	kVA	AMPS	PROVIDE THE FOLLOWING:
LIGHTING (L)	9.9	SUBFED PANELS (SF)	0	0	UL LISTED FOR SERVICE ENTRANCE.
EQUIPMENT - CONT. (EC)	0.0	SUBFED LUGS (NO CB)	0	0	
EQUIPMENT - NONCONT. (EN)	0.0	PHASE A	8	68	
RECEPTACLES (R)	0.2	PHASE B	7	56	
KITCHEN (K)	0.0				
MECH - ALL SEASON (MA)	0.0	CONNECTED	15	68	
MECH - HEATING (MH)	0.0	CALCULATED DEMAND	15	68	
MECH - COOLING (MC)	0.0	MIN MAIN REQUIRED*	17	78	
STANDBY - NO LOAD (S)	0.0				
OTHER (LOAD TYPE BLANK)	4.8	* = DEMAND + 25% OF CONT. LOADS			

2 5(5) PANEL SCHEDULE - L1
SCALE: NONE

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	CONTROL	TYPE	WATTS	LUMENS	EFFICACY	VOLTS	CRI	CCT	B-U-G RATING	MOUNTING	REMARKS
EXTERIOR LIGHTING														
C1	SURFACE MOUNTED CANOPY LIGHT	GARDCO LIGHTING	SFC-5R-48L-250-WW-G2-UNV-MGY-DL	0-10V	LED	40	4656	116.40	120	80	3000	B2-U0-G0	SURFACE	NOTES 1,2
H1	ILLUMINATED HANDRAIL - ASYMMETRIC	INTENSE LIGHTING	IVR2-RPS-ST4-S4-W-HO-30-30AS-IVR-RPS-2-OT96	0-10V	LED	12	880	73.33	120	70	3000	B0-B3-G1	SURFACE	NOTES 1,3,4
H2	ILLUMINATED HANDRAIL - SYMMETRICAL	INTENSE LIGHTING	IVR2-RPS-ST4-S4-W-HO-30-60S-IVR-RPS-2-OT96	0-10V	LED	12	880	73.33	120	70	3000	B1-B3-G1	SURFACE	NOTES 1,3,4
H3	ILLUMINATED HANDRAIL - NO ILLUMINATION	INTENSE LIGHTING	IVR2-RPS-ST4-S4-W-NL	0-10V	LED			#DIV/0!	120	70	3000	B0-B0-G0	SURFACE	NOTES 1,3,4

REMARKS:
1. PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION.
2. MOUNT FIXTURE TO AVOID CONFLICT WITH STRUCTURE.
3. CORDINATE EXACT FIXTURE LENGTH WITH EXISTING CONDITIONS PRIOR TO ORDERING.
4. PROVIDE APPROPRIATE DRIVER FOR LENGTH OF FIXTURE.

3 5(5) LIGHT FIXTURE SCHEDULE
SCALE: NONE

PROJECT	SHEET NO.
0001-076-634	5(5)

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3/28/2026
1:19:01 AM

d122979XS(01)-XS(03).dgn
Plotted By: DLitchfield

LIMITED ACCESS HIGHWAY — By Resolution of Commonwealth Transportation Board dated April 18th, 2012

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DESIGN BY Lorainne Barksdale P.E. CFM, Johnson,Mirmiran & Thompson (804) 323-9900
SUBSURFACE UTILITY BY, DATE Rice Associates, Inc.

CROSS SECTIONS

SCALE 1 IN. = 10 FT

COMMONWEALTH OF VIRGINIA
LORAINNE R. BARKSDALE
Lic. No. 047412
PROFESSIONAL ENGINEER

Johnson, Mirmiran, & Thompson
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	XS(1)

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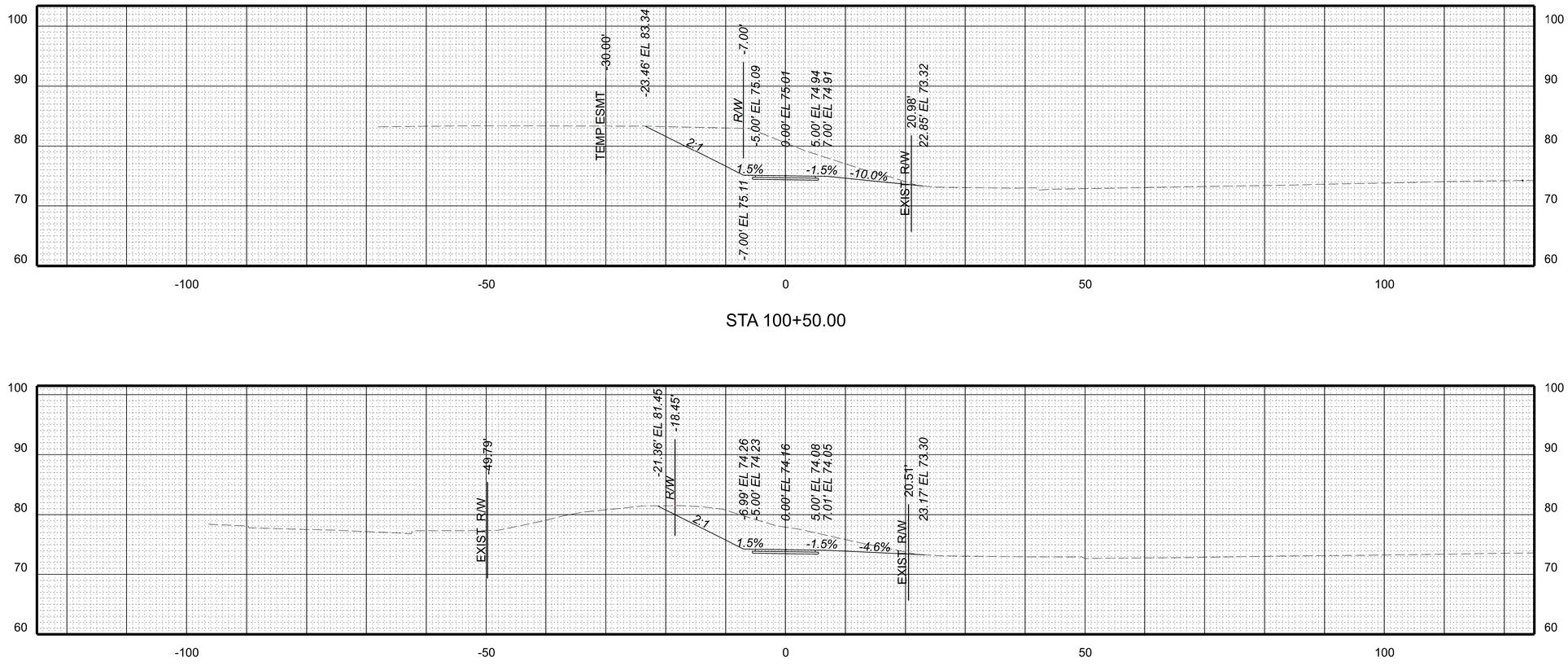

STA 100+50.00

STA 100+25.00

STA 100+00.00

PROJECT	SHEET NO.
0001-076-634	XS(1)

100% PLANS

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3/28/2026
1:19:18 AM

dl22979XS(01)-XS(03).dgn
Plotted By: DLitchfield

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LORAINNE R. BARKSDALE
Lic. No. 047412
PROFESSIONAL ENGINEER

Johnson, Mirmiran, & Thompson
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	XS(2)

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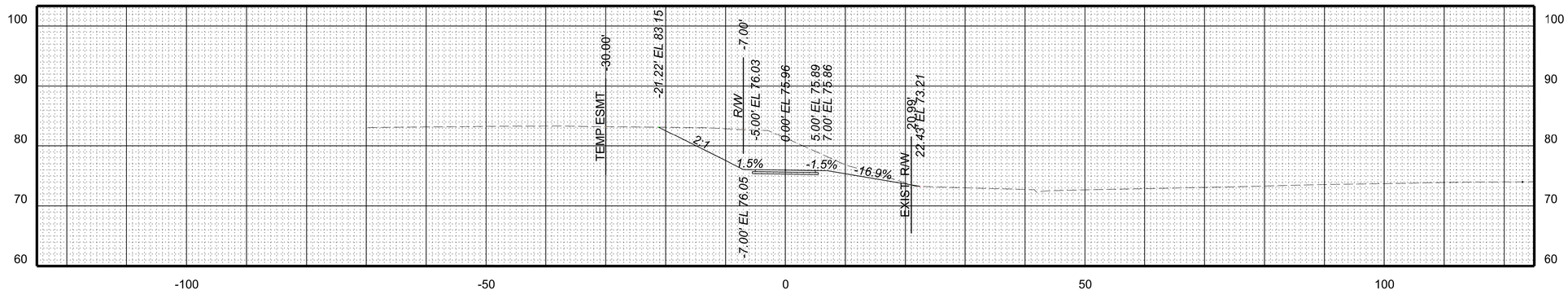

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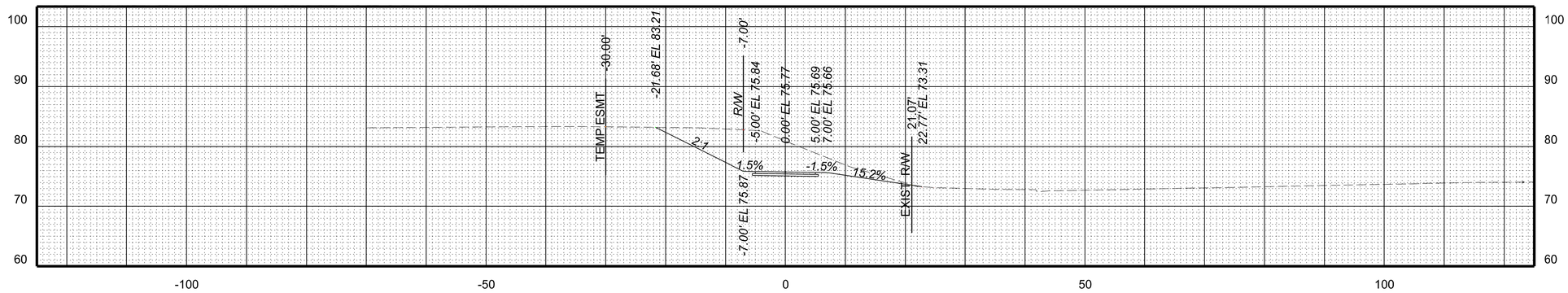

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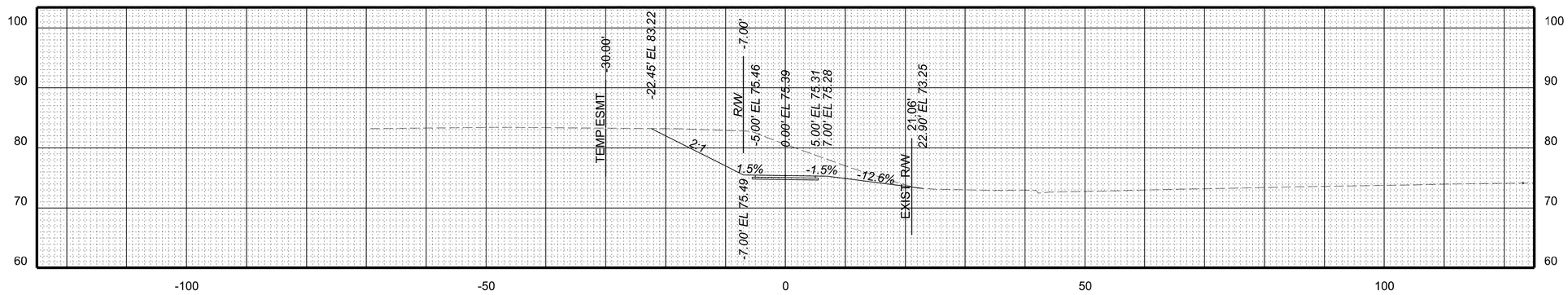

STA 100+75.00

PROJECT	SHEET NO.
0001-076-634	XS(2)

100% PLANS

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3/28/2026
1:19:36 AM

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CROSS SECTIONS

SCALE 1 IN. = 10 FT

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LORAINNE R. BARKSDALE
Lic. No. 047412
PROFESSIONAL ENGINEER

Johnson, Mirmiran, & Thompson
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	001	0001-076-634,C-501 RW-201	XS(3)

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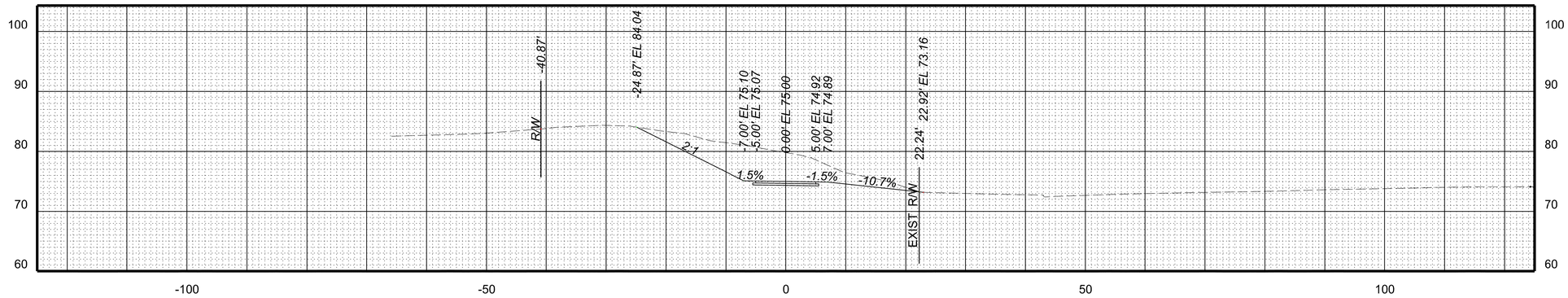
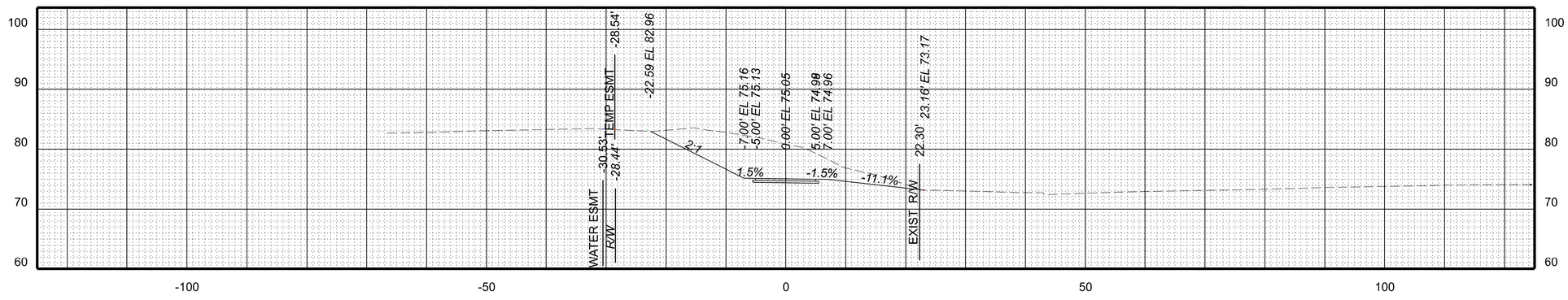


STA 101+57.22



STA 101+50.00

PROJECT	SHEET NO.
0001-076-634	XS(3)

100% PLANS

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