dll55310l.dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

FOR INDEX OF SHEETS SEE SHEET 1B

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE OPEN ROADS DESIGN (ORD)
GEOPAK Computer Identification No. (115531)

90% PLANS SUBMITTAL
JANUARY 2026

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

ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

COMMONWEALTH OF VIRGINIA

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

CITY OF ALEXANDRIA
DUKE STREET AND WEST TAYLOR RUN PARKWAY
INTERSECTION IMPROVEMENT PROJECT

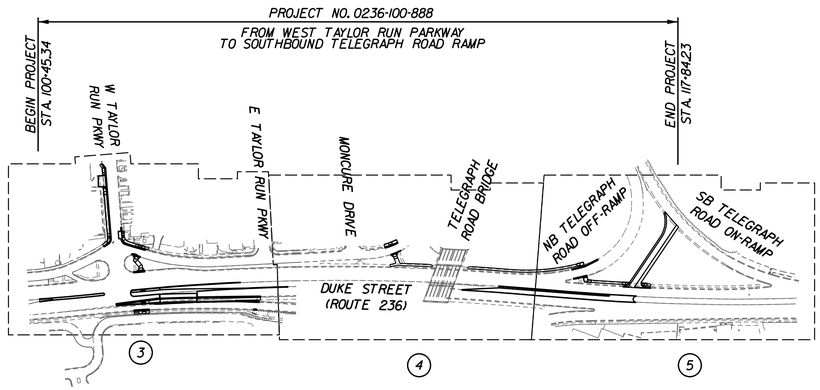
STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.		236	0236-100-888 SEE TABULATIONS BELOW FOR SECTION NUMBERS	1

FHWA-534 DATA-33001
UPC 115531

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA				
	Duke Street Principal Arterial (GS-5)	Duke Street Service Rd Service Road (GS-9)	W TaylorRun Pkwy Minor Collector (GS-7)	EB Duke St to SB Telegraph Rd Ramp Ramp (GS-R)
	Fr: W Taylor Run Pkwy To: E of Telegraph Rd	Fr: W Taylor Run Pkwy To: E of W Taylor Run Pkwy	Fr: Duke St To: N of Duke St	Fr: Duke St To: SB Telegraph Rd Ramp
ADT (2026)	36,390	3,630	3,490	2,020
ADT (2036)	37,230	3,730	3,590	2,070
DHV	3,723	373	359	207
D (%) (design hour)	72	80	64	100
T (%) (design hour)	8	2	2	2
V (MPH) ⊛	25 E of Telegraph 35 W of Telegraph	25	25	25

⊛ See Plan and Profile Sheets for horizontal and vertical curve design speed data

PROJECT NO. 0236-100-888
FROM WEST TAYLOR RUN PARKWAY
TO SOUTHBOUND TELEGRAPH ROAD RAMP



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 JUNE 2025, MUTCD 11TH EDITION, VIRGINIA MUTCD VERSION 11.0, VIRGINIA WORK AREA PROTECTION MANUAL VERSION 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-5.11U, EXCEPT WHERE OTHERWISE NOTED.

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

CONVENTIONAL SIGNS

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

ALL FEATURES WITHIN THE PROJECT LIMITS ARE TO BE MAINTAINED BY THE CITY OF ALEXANDRIA

SCALE
0 200' 400'

POPULATION 155,230 (JULY, 2023 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
0236-100-888	PE-101	STP-5B01(101)	PE	115531	1,716	0.33	1,716	0.33	PRELIM. ENG.	INTERSECTION IMPROVEMENTS AT DUKE ST & W TAYLOR RUN PKWY INTERSECTION FROM 220 FT WEST OF THE W TAYLOR RUN PKWY INTERSECTION TO 600 FT WEST OF THE DOVE ST INTERSECTION.
	RW-201	STP-5B01(579)	RW	115531	1,716	0.33	1,716	0.33	RIGHT-OF-WAY	
	C-501	STP-5B01(580)	C	115531	1,716	0.33	1,716	0.33	CONSTR.	

NOTE: PROJECT LENGTH BASED ON CONSTRUCTION BASELINE

TIER 1 PROJECT

LOCALLY ADMINISTERED PROJECTS

NAME OF LOCALITY

(SIGNATURE)
NAME OF RESPONSIBLE LOCAL GOVERNMENT OFFICAL (TYPED)
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION
DATE | TITLE OF POSITION

(SIGNATURE)
NAME OF RESPONSIBLE LOCAL GOVERNMENT OFFICAL (TYPED)
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
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

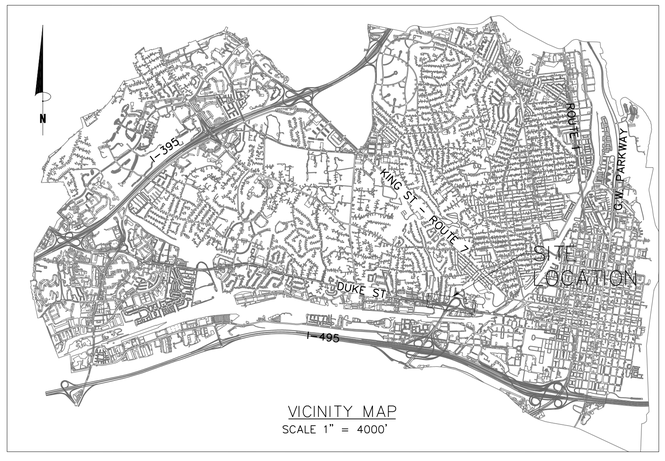
APPROVED FOR CONSTRUCTION

DISTRICT ENGINEER/ADMINISTRATOR

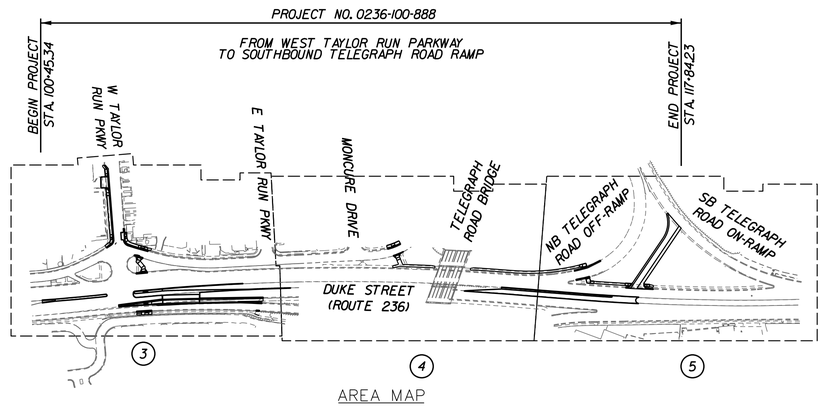
Copyright 2025, Commonwealth of Virginia

CITY OF *Alexandria* VIRGINIA

DUKE STREET AND WEST TAYLOR RUN PARKWAY INTERSECTION IMPROVEMENT PROJECT



VICINITY MAP
SCALE 1" = 4000'



AREA MAP
SCALE 1" = 200'

SHEET INDEX

Sheet Number	Sheet Title
	SEE SHEET 1B FOR INDEX OF SHEETS

PROJECT DESCRIPTION:
THIS PROJECT CONSISTS OF SAFETY AND TRAFFIC IMPROVEMENTS AT THE INTERSECTION OF DUKE STREET (RTE 236) AND WEST TAYLOR RUN PARKWAY (RTE XXX). IMPROVEMENTS INCLUDE A NEW RAMP CONNECTING EB DUKE STREET TO THE EXISTING SB TELEGRAPH ROAD ON-RAMP (EAST OF TELEGRAPH ROAD BRIDGE), A WIDENED AND EXTENDED CONCRETE MEDIAN BETWEEN EB DUKE STREET AND THE EXISTING SB TELEGRAPH ROAD ON-RAMP (SOUTH OF W TAYLOR RUN PARKWAY INTERSECTION) TO ACCOMODATE A FUTURE BUS RAPID TRANSIT STATION, AND PEDESTRIAN IMPROVEMENTS.

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.

APPROVED

X _____ DATE: _____
DIRECTOR

RECOMMENDED FOR APPROVAL

X _____ DATE: _____
DEPUTY DIRECTOR OF OPERATIONS

RECOMMENDED FOR APPROVAL

X _____ DATE: _____
DEPUTY DIRECTOR OF INFRASTRUCTURE & ENVIRONMENTAL QUALITY

RECOMMENDED FOR APPROVAL

X _____ DATE: _____
DEPUTY DIRECTOR OF RIGHT-OF-WAY & DEVELOPMENT SERVICES

RECOMMENDED FOR APPROVAL

X _____ DATE: _____
DEPUTY DIRECTOR OF TRANSPORTATION

DEPARTMENT OF PROJECT IMPLEMENTATION

APPROVED

X _____ DATE: _____
DIRECTOR

RECOMMENDED FOR APPROVAL

X _____ DATE: _____
DIVISION CHIEF

811 Know what's below. Call before you dig.
KNOW WHAT'S BELOW. CALL BEFORE YOU DIG. DIAL 811 IN VIRGINIA OR 1-800-552-7001

PROJECT TITLE : DUKE STREET AND WEST TAYLOR RUN PARKWAY INTERSECTION IMPROVEMENT PROJECT

60% DESIGN

CITY OF ALEXANDRIA, VIRGINIA
DEPARTMENT OF PROJECT IMPLEMENTATION
301 KING STREET
ALEXANDRIA, VIRGINIA 22314

REVISIONS

DESCRIPTION	BY	DATE
-	-	-

ALEXANDRIA PROJECT NO.:	-
DATE OF PLAN ISSUANCE:	7/25/25
CONSULTANT PROJECT ID.:	-
DESIGNED BY: C.SMITH	DATE: 7/25/25
DRAWN BY: C.SMITH	DATE: 7/25/25
CHECKED BY: M.MARTIN	DATE: 7/25/25
APPROVED BY: -	DATE: -

COVER SHEET

SHEET
1

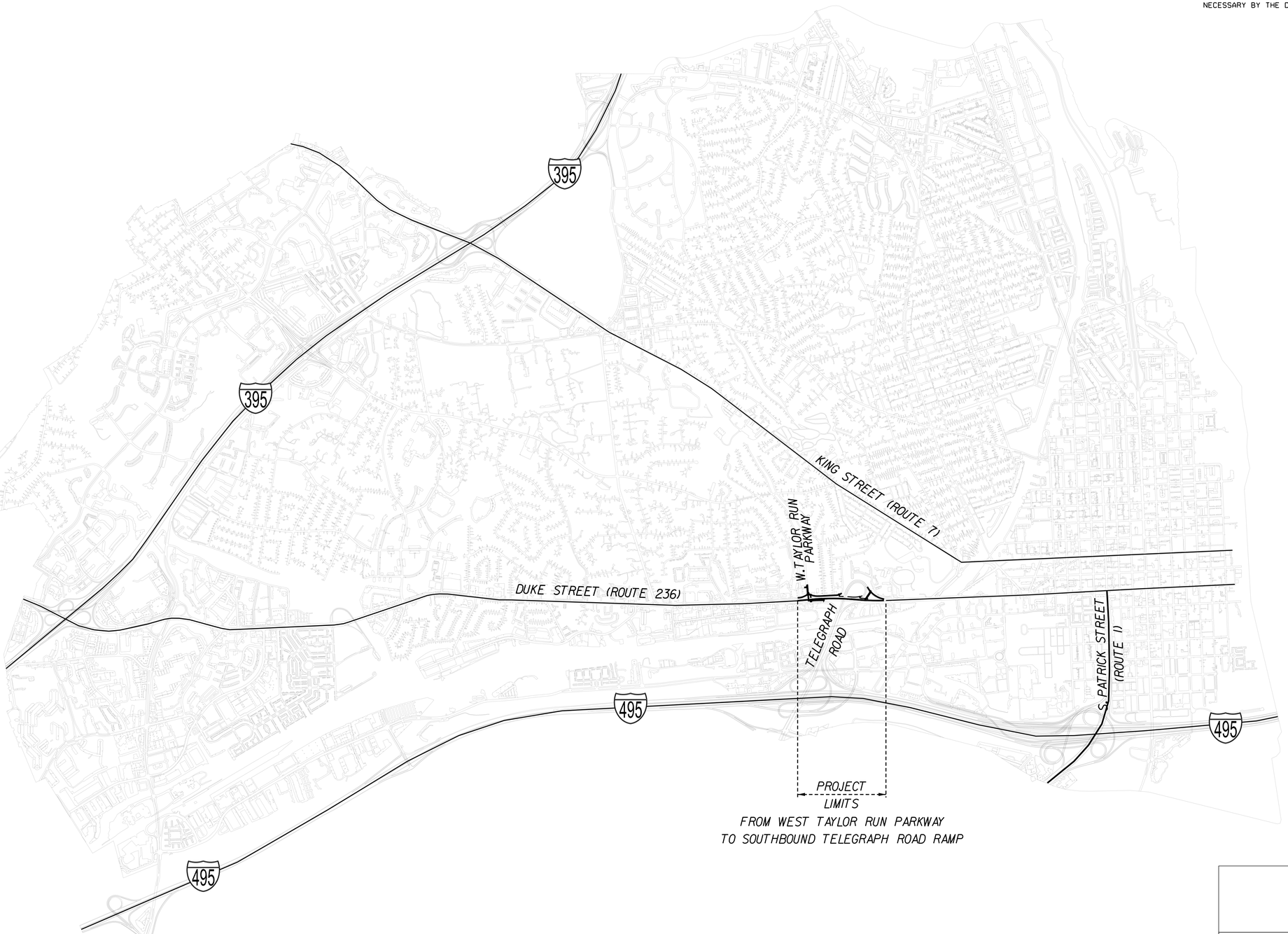
C:\Users\USCJ135097\OneDrive - WSP 0365\Desktop\COA\DPI TTLB-2234-Consultant.dwg PLOTTED: 4/22/2025 10:04:23 AM BY JOHNSON, CECIL

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

LOCATION MAP
(CITY OF ALEXANDRIA)

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	236	0236-100-888	1A

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



FROM WEST TAYLOR RUN PARKWAY
TO SOUTHBOUND TELEGRAPH ROAD RAMP

LOCATION MAP

SCALE	PROJECT	SHEET NO.
0 1250' 2500'	0236-100-888	1A

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

INDEX OF SHEETS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IB

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	STATIONS
I	TITLE SHEET	
IA	LOCATION MAP	
IB	INDEX OF SHEETS	
IC	RIGHT OF WAY DATA SHEET	
ID	SURVEY ALIGNMENT DATA SHEET	
IE(1) - IE(3)	CONSTRUCTION ALIGNMENT DATA	
IF(1) - IF(4)	UNDERGROUND UTILITY TEST HOLE INFORMATION	
IG(1) - IG(3)	UTILITY PLAN	
IH(1)	TRANSPORTATION MANAGEMENT PLAN	
IH(2)	SEQUENCE OF CONSTRUCTION	
IJ(1) - IJ(2)	MAINTENANCE OF TRAFFIC - PHASE 1 - STAGE 1	
IJ(3) - IJ(4)	MAINTENANCE OF TRAFFIC - PHASE 1 - STAGE 2	
IJ(5) - IJ(6)	MAINTENANCE OF TRAFFIC - PHASE 1 - STAGE 3	
IJ(7) - IJ(8)	MAINTENANCE OF TRAFFIC - PHASE 2 - STAGE IA	
IJ(9) - IJ(10)	MAINTENANCE OF TRAFFIC - PHASE 2 - STAGE IB	
IJ(11) - IJ(12)	MAINTENANCE OF TRAFFIC - PHASE 2 - STAGE 2	
IJ(13) - IJ(14)	MAINTENANCE OF TRAFFIC - PHASE 2 - STAGE 3	
IJ(15)	MAINTENANCE OF TRAFFIC - PHASE 3 - STAGE 1	
IJ(16)	MAINTENANCE OF TRAFFIC - PHASE 3 - STAGE 2	
IJ(17)	MAINTENANCE OF TRAFFIC - PHASE 3 - STAGE 3	
IJ(18)	ROADWAY DETOUR 1 - DUKE STREET EB LEFT TURN LANE CLOSURE	
IJ(19)	ROADWAY DETOUR 2 - TELEGRAPH ROAD ON-RAMP CLOSURE	
IJ(20)	ROADWAY DETOUR 3 - DUKE ST EB LEFT TURN LANE AND WB RIGHT TURN LANE CLOSURES	
IJ(21)	ROADWAY DETOUR 4 - SB W TAYLOR RUN PARKWAY ROAD CLOSURE	
IJ(22)	PEDESTRIAN DETOUR 1 - EB DUKE STREET SIDEWALK CLOSURE	
IJ(23)	PEDESTRIAN DETOUR 2 - SB W TAYLOR RUN PARKWAY SIDEWALK CLOSURE	
2	GENERAL NOTES	
2A(1) - 2A(8)	TYPICAL SECTIONS	
2B(1) - 2B(5)	CG-12 RAMP DETAIL SHEETS	
2C(1) - 2C(2)	CITY OF ALEXANDRIA STANDARD DETAILS	
2D(1) - 2D(3)	GEOMETRY PLAN SHEETS	
2E	EROSION AND SEDIMENT CONTROL NARRATIVE	
3	PLAN SHEET	100+00 TO 107+00
3A(1)	PROFILE - DUKE STREET	100+00 TO 107+00
3A(2)	PROFILE - DUKE STREET SERVICE ROAD	200+00 TO 207+00
3A(3)	PROFILE - W TAYLOR RUN PARKWAY	10+00 TO 13+75
3B	PHASE 1 EROSION AND SEDIMENT CONTROL PLANS	100+00 TO 107+00
3C	PHASE 2 EROSION AND SEDIMENT CONTROL PLANS	100+00 TO 107+00
3RW	RIGHT OF WAY PLANS	100+00 TO 107+00
4	PLAN SHEET	107+00 TO 114+00
4A(1)	PROFILE - DUKE STREET	107+00 TO 114+00
4A(2)	PROFILE - DUKE STREET SERVICE ROAD	207+00 TO 211+00
4B	PHASE 1 EROSION AND SEDIMENT CONTROL PLANS	100+00 TO 107+00
4C	PHASE 2 EROSION AND SEDIMENT CONTROL PLANS	100+00 TO 107+00
5	PLAN SHEET	114+00 TO 121+00
5A(1)	PROFILE - DUKE STREET	114+00 TO 121+00
5A(2)	PROFILE - TELEGRAPH ROAD	40+00 TO 45+25
5A(3)	PROFILE - EB DUKE STREET TO SB TELEGRAPH ROAD RAMP	30+00 TO 32+20
5B	PHASE 1 EROSION AND SEDIMENT CONTROL PLANS	114+00 TO 121+00
5C	PHASE 2 EROSION AND SEDIMENT CONTROL PLANS	114+00 TO 121+00
6	DRIVEWAY PROFILES	
7(1)	DRAINAGE DESCRIPTIONS	
7A	DRAINAGE PROFILES	
8(1) - 8(2)	DRAINAGE CALCULATIONS	
8A(1) - 8A(6)	DRAINAGE AREA MAPS	
8B(1) - 8B(2)	OUTFALL AREA MAPS	
8C(1) - 8C(3)	EXISTING LAND USE MAPS	
8D(1) - 8D(3)	PROPOSED LAND USE MAPS	
9(1) - 9(3)	SIGNING AND PAVEMENT MARKING PLANS	
10(1) - 10(4)	LIGHTING PLANS	
11(1) - 11(7)	SIGNAL AND ITS PLANS	
12(1)	LANDSCAPE PLAN	100+00 TO 107+00
12(2)	LANDSCAPE PLAN	107+00 TO 114+00
12(3)	LANDSCAPE PLAN	114+00 TO 121+00
12(4)	LANDSCAPE NOTES AND MASTER PLANT SCHEDULE	
13(1) - 13(6)	SIGHT DISTANCE EXHIBITS	
XS00 - XS32	CROSS SECTION SHEETS	

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

RIGHT OF WAY DATA SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IC

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

Parcel Information					AREA: Areas greater than or equal to 1 acre will be shown in acres to 3 decimal places (x.xxx AC). Areas less than 1 acre will be shown in square feet (xx,xxx SF)															
					Fee Take Summary			Permanent Easements					Utility Easements					Temporary			
Number	Landowner Name	Sheet Number Number	Deed Acreage	Remainder	Total	Prescriptive	Non-Prescr.	(Dr)ainage	(Sl)ope							Electric	VDOT	For Cut/Fill Slopes and Roadway Construction	For Entrance Construction		Proffers Yes/No
001	Dale Weed, Trustee & Paul C. Kinchelo, Jr. Trustee	3	4.15 AC	4.149 AC	34 SF	34 SF		238 SF										440 SF	372 SF		No
002	The Jablonski Family Living Trust	3	9,716 SF	9,694 SF	22 SF	22 SF															No

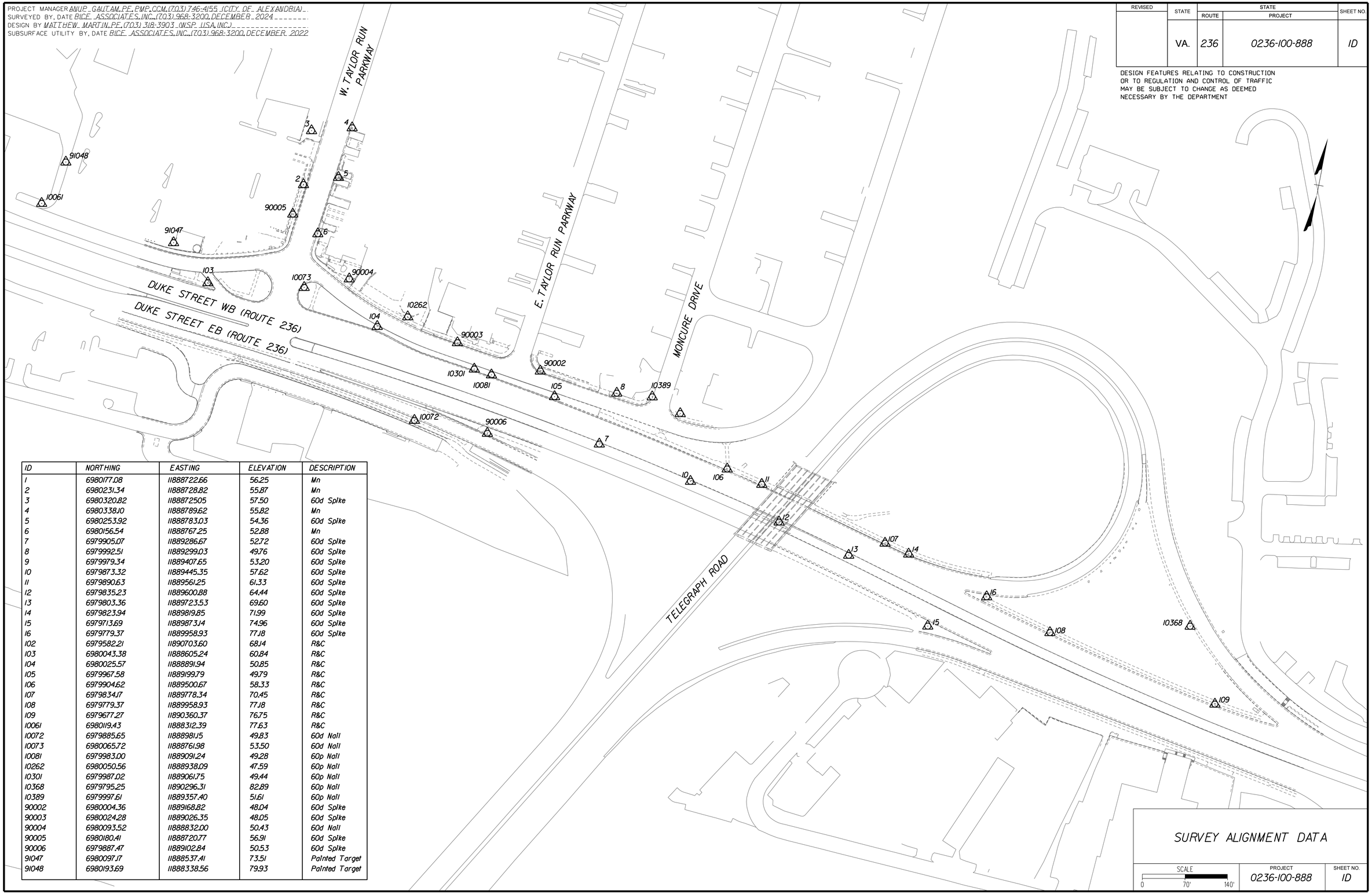
RIGHT OF WAY DATA SHEET

	PROJECT	SHEET NO.
	0236-100-888	IC

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	ID

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



ID	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	6980177.08	11888722.66	56.25	Mn
2	6980231.34	11888728.82	55.87	Mn
3	6980320.82	11888725.05	57.50	60d Spike
4	6980338.10	11888789.62	55.82	Mn
5	6980253.92	11888783.03	54.36	60d Spike
6	6980156.54	11888767.25	52.88	Mn
7	6979905.07	11889286.67	52.72	60d Spike
8	6979992.51	11889299.03	49.76	60d Spike
9	6979979.34	11889407.65	53.20	60d Spike
10	6979873.32	11889445.35	57.62	60d Spike
11	6979890.63	11889561.25	61.33	60d Spike
12	6979835.23	11889600.88	64.44	60d Spike
13	6979803.36	11889723.53	69.60	60d Spike
14	6979823.94	11889819.85	71.99	60d Spike
15	6979713.69	11889873.14	74.96	60d Spike
16	6979779.37	11889958.93	77.18	60d Spike
102	6979582.21	11890703.60	68.14	R&C
103	6980043.38	11888605.24	60.84	R&C
104	6980025.57	11888891.94	50.85	R&C
105	6979967.58	11889199.79	49.79	R&C
106	6979904.62	11889500.67	58.33	R&C
107	6979834.17	11889778.34	70.45	R&C
108	6979779.37	11889958.93	77.18	R&C
109	6979677.27	11890360.37	76.75	R&C
10061	6980119.43	11888312.39	77.63	R&C
10072	6979885.65	11888981.15	49.83	60d Nail
10073	6980065.72	11888761.98	53.50	60d Nail
10081	6979983.00	11889091.24	49.28	60p Nail
10262	6980050.56	11888938.09	47.59	60p Nail
10301	6979987.02	11889061.75	49.44	60p Nail
10368	6979795.25	11890296.31	82.89	60p Nail
10389	6979997.61	11889357.40	51.61	60p Nail
90002	6980004.36	11889168.82	48.04	60d Spike
90003	6980024.28	11889026.35	48.05	60d Spike
90004	6980093.52	11888832.00	50.43	60d Nail
90005	6980180.41	11888720.77	56.91	60d Spike
90006	6979887.47	11889102.84	50.53	60d Spike
91047	6980097.17	11888537.41	73.51	Painted Target
91048	6980193.69	11888338.56	79.93	Painted Target

SURVEY ALIGNMENT DATA

SCALE	PROJECT	SHEET NO.
0 70' 140'	0236-100-888	ID

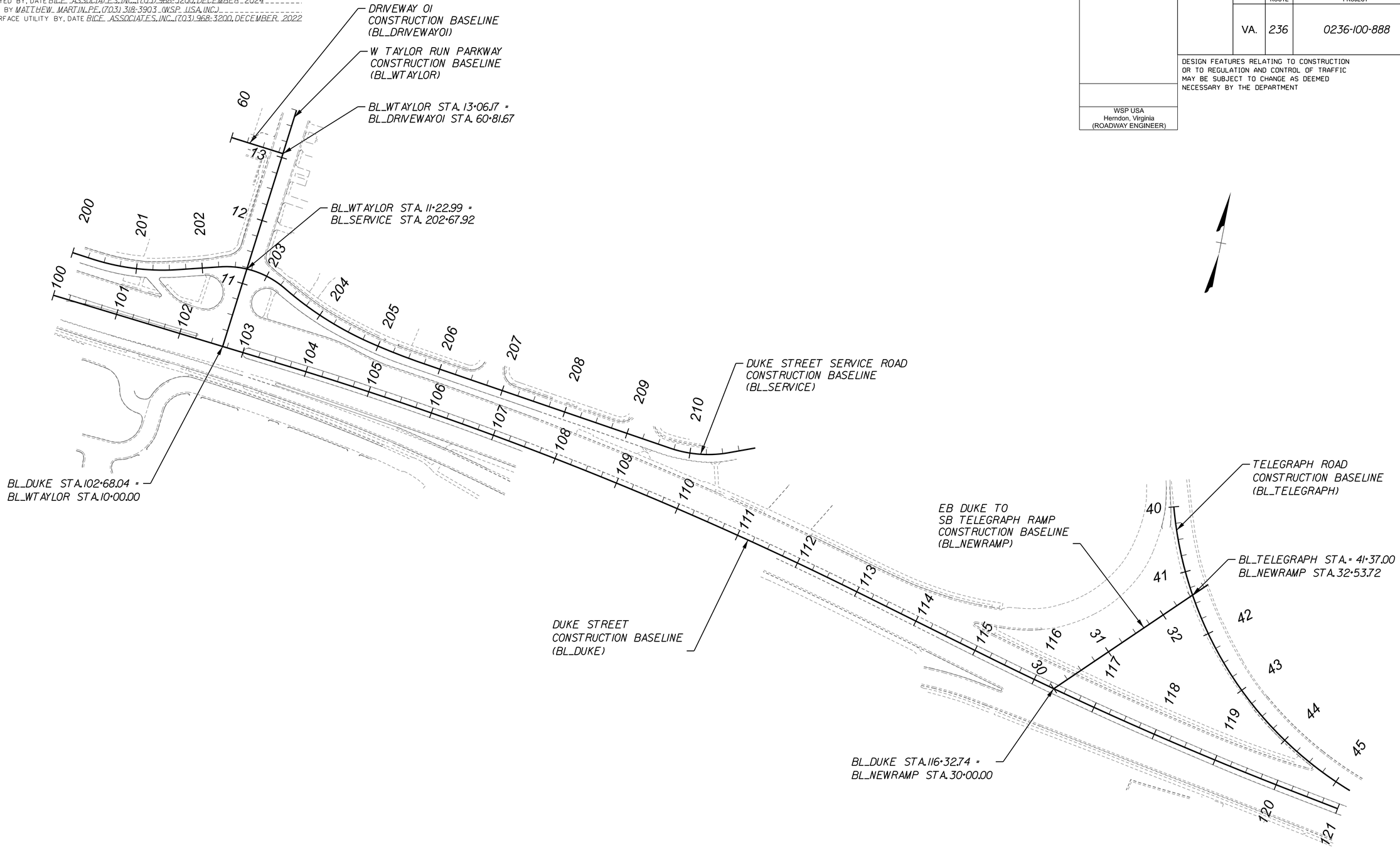
dll5531101E(1).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



CONSTRUCTION ALIGNMENT DATA
SHEET 1 OF 3

SCALE	PROJECT	SHEET NO.
0 70' 140'	0236-100-888	IE(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IE(2)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

DUKE STREET

FROM STA. 100+00.00 TO STA. 121+00.00

Alignment Name: BL_DUKE
Alignment Description:
Alignment Style: Linear\Road Design\Alignments\Horizontal\25 Scale Baselines

		Station	Northing	Easting
Element: Linear				
	START	100+00.00 R1	6980004.99	11888457.84
	PC	103+66.61 R1	6979967.35	11888822.51
	Tangential Direction:	S84°06'26"E		
	Tangential Length:	366.61		
Element: Circular				
	PC	103+66.61 R1	6979967.35	11888822.51
	HPI	108+34.56 R1	6979919.3	11889287.99
	CC		6974396.94	11888247.57
	PT	113+00.34 R1	6979794.67	11889739.04
	Radius:	5600		
	Delta:	09°33'11.98" Right		
	Degree of Curvature (Arc):	01°01'23.30"		
	Length:	933.73		
	Tangent:	467.95		
	Chord:	932.65		
	Middle Ordinate:	19.45		
	External:	19.52		
	Back Tangent Direction:	S84°06'26"E		
	Back Radial Direction:	S05°53'34"W		
	Chord Direction:	S79°19'50"E		
	Ahead Radial Direction:	S15°26'46"W		
	Ahead Tangent Direction:	S74°33'14"E		
Element: Linear				
	PT	113+00.34 R1	6979794.67	11889739.04
	PC	115+20.89 R1	6979735.93	11889951.63
	Tangential Direction:	S74°33'14"E		
	Tangential Length:	220.56		
Element: Circular				
	PC	115+20.89 R1	6979735.93	11889951.63
	HPI	117+75.03 R1	6979668.25	11890196.58
	CC		6985133.67	11891443.09
	PT	120+28.82 R1	6979623.03	11890446.66
	Radius:	5600		
	Delta:	05°11'48.34" Left		
	Degree of Curvature (Arc):	01°01'23.30"		
	Length:	507.92		
	Tangent:	254.14		
	Chord:	507.75		
	Middle Ordinate:	5.76		
	External:	5.76		
	Back Tangent Direction:	S74°33'14"E		
	Back Radial Direction:	S15°26'46"W		
	Chord Direction:	S77°09'08"E		
	Ahead Radial Direction:	S10°14'58"W		
	Ahead Tangent Direction:	S79°45'02"E		
Element: Linear				
	PT	120+28.82 R1	6979623.03	11890446.66
	END	121+00.00 R1	6979610.36	11890516.72
	Tangential Direction:	S79°45'02"E		
	Tangential Length:	71.19		

W TAYLOR RUN PARKWAY

FROM STA. 10+00.00 TO STA. 13+75.00

Alignment Name: BL_WTAYLOR
Alignment Description:
Alignment Style: Linear\Road Design\Alignments\Horizontal\25 Scale Baselines

		Station	Northing	Easting
Element: Linear				
	START	10+00.00 R1	6979977.47	11888724.47
	END	13+75.00 R1	6980350.1	11888766.52
	Tangential Direction:	N06°26'15"E		
	Tangential Length:	375		

DUKE STREET SERVICE ROAD

FROM STA. 200+00.00 TO STA. 211+00.00

Alignment Name: BL_SERVICE
Alignment Description:
Alignment Style: Linear\Road Design\Alignments\Horizontal\25 Scale Baselines

		Station	Northing	Easting
Element: Linear				
	START	200+00.00 R1	6980073.92	11888474.16
	PC	200+30.36 R1	6980070.18	11888504.29
	Tangential Direction:	S82°55'50"E		
	Tangential Length:	30.36		
Element: Circular				
	PC	200+30.36 R1	6980070.18	11888504.29
	HPI	200+97.90 R1	6980061.87	11888571.32
	CC		6980417.52	11888547.37
	PT	201+63.79 R1	6980079.09	11888636.62
	Radius:	350		
	Delta:	21°50'34.63" Left		
	Degree of Curvature (Arc):	16°22'12.80"		
	Length:	133.43		
	Tangent:	67.54		
	Chord:	132.62		
	Middle Ordinate:	6.34		
	External:	6.46		
	Back Tangent Direction:	S82°55'50"E		
	Back Radial Direction:	S07°04'10"W		
	Chord Direction:	N86°08'53"E		
	Ahead Radial Direction:	S14°46'24"E		
	Ahead Tangent Direction:	N75°13'36"E		
Element: Linear				
	PT	201+63.79 R1	6980079.09	11888636.62
	PC	202+27.49 R1	6980095.34	11888698.21
	Tangential Direction:	N75°13'36"E		
	Tangential Length:	63.7		
Element: Circular				
	PC	202+27.49 R1	6980095.34	11888698.21
	HPI	202+82.60 R1	6980109.39	11888751.5
	CC		6979964.8	11888732.63
	PT	203+32.14 R1	6980082.13	11888799.41
	Radius:	135		
	Delta:	44°25'00.87" Right		
	Degree of Curvature (Arc):	42°26'28.75"		
	Length:	104.65		
	Tangent:	55.12		
	Chord:	102.05		
	Middle Ordinate:	10.01		
	External:	10.82		
	Back Tangent Direction:	N75°13'36"E		
	Back Radial Direction:	S14°46'24"E		
	Chord Direction:	S82°33'54"E		
	Ahead Radial Direction:	S29°38'37"W		
	Ahead Tangent Direction:	S60°21'23"E		
Element: Linear				
	PT	203+32.14 R1	6980082.13	11888799.41
	PC	203+37.55 R1	6980079.46	11888804.1
	Tangential Direction:	S60°21'23"E		
	Tangential Length:	5.41		
Element: Circular				
	PC	203+37.55 R1	6980079.46	11888804.1
	HPI	204+12.03 R1	6980042.62	11888868.84
	CC		6980522.71	11889056.35
	PCC	204+85.47 R1	6980025.83	11888941.4
	Radius:	510		
	Delta:	16°37'03.30" Left		
	Degree of Curvature (Arc):	11°14'04.08"		
	Length:	147.92		
	Tangent:	74.48		
	Chord:	147.4		
	Middle Ordinate:	5.35		
	External:	5.41		
	Back Tangent Direction:	S60°21'23"E		
	Back Radial Direction:	S29°38'37"W		
	Chord Direction:	S68°39'55"E		
	Ahead Radial Direction:	S13°01'33"W		
	Ahead Tangent Direction:	S76°58'27"E		
Element: Circular				
	PCC	204+85.47 R1	6980025.83	11888941.4
	HPI	205+29.46 R1	6980015.92	11888984.26
	CC		6981000.1	11889166.79
	PT	205+73.39 R1	6980009.8	11889027.83
	Radius:	1000		
	Delta:	05°02'16.54" Left		
	Degree of Curvature (Arc):	05°43'46.48"		
	Length:	87.93		
	Tangent:	43.99		
	Chord:	87.9		
	Middle Ordinate:	0.97		
	External:	0.97		
	Back Tangent Direction:	S76°58'27"E		
	Back Radial Direction:	S13°01'33"W		
	Chord Direction:	S79°29'35"E		
	Ahead Radial Direction:	S07°59'17"W		
	Ahead Tangent Direction:	S82°00'43"E		
Element: Linear				
	PT	205+73.39 R1	6980009.8	11889027.83
	PC	209+69.09 R1	6979954.81	11889419.68
	Tangential Direction:	S82°00'43"E		
	Tangential Length:	395.69		
Element: Circular				
	PC	209+69.09 R1	6979954.81	11889419.68
	HPI	210+15.24 R1	6979948.4	11889465.39
	CC		6980131.58	11889444.49
	PT	210+59.42 R1	6979964.94	11889508.47
	Radius:	178.5		
	Delta:	28°59'38.15" Left		
	Degree of Curvature (Arc):	32°05'54.51"		
	Length:	90.33		
	Tangent:	46.15		
	Chord:	89.37		
	Middle Ordinate:	5.68		
	External:	5.87		
	Back Tangent Direction:	S82°00'43"E		
	Back Radial Direction:	S07°59'17"W		
	Chord Direction:	N83°29'28"E		
	Ahead Radial Direction:	S21°00'21"E		
	Ahead Tangent Direction:	N68°59'39"E		
Element: Linear				
	PT	210+59.42 R1	6979964.94	11889508.47
	END	211+00.00 R1	6979979.49	11889546.36
	Tangential Direction:	N68°59'39"E		
	Tangential Length:	40.58		

CONSTRUCTION ALIGNMENT DATA
SHEET 2 OF 3

PROJECT	SHEET NO.
0236-100-888	IE(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	1E(3)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

EB DUKE TO SB TELEGRAPH RAMP
FROM STA. 30+00.00 TO STA. 32+54.00

Alignment Name: BL_NEWRAMP
Alignment Description:
Alignment Style: Linear\Road Design\Alignments\Horizontal\25 Scale Baselines

		Station	Northing	Easting
Element: Linear				
	START	30+00.00 R1	6979707.22	11890059.73
	END	32+53.72 R1	6979886.35	11890239.42
	Tangential Direction:	N45°05'25"E		
	Tangential Length:	253.72		

TELEGRAPH ROAD RAMP
FROM STA. 40+00.00 TO STA. 45+25.00

Alignment Name: BL_TELEGRAPH
Alignment Description:
Alignment Style: Linear\Road Design\Alignments\Horizontal\25 Scale Baselines

		Station	Northing	Easting
Element: Circular				
	PC	40+00.00 R1	6980012.24	11890186.24
	HPI	42+83.58 R1	6979739.5	11890263.89
	CC		6980165.58	11890724.84
	PT	45+25.00 R1	6979640.68	11890529.7
	Radius:	560		
	Delta:	53°42'51.66" Left		
	Degree of Curvature (Arc):	10°13'53.00"		
	Length:	525		
	Tangent:	283.58		
	Chord:	505.98		
	Middle Ordinate:	60.4		
	External:	67.71		
	Back Tangent Direction:	S15°53'32"E		
	Back Radial Direction:	S74°06'28"W		
	Chord Direction:	S42°44'58"E		
	Ahead Radial Direction:	S20°23'36"W		
	Ahead Tangent Direction:	S69°36'24"E		

DRIVEWAY 01
FROM STA. 60+00.00 TO STA. 60+82.00

Alignment Name: BL_DRIVEWAY01
Alignment Description:
Alignment Style: Linear\Road Design\Alignments\Horizontal\25 Scale Baselines

		Station	Northing	Easting
Element: Linear				
	START	60+00.00 R1	6980290.86	11888677.65
	END	60+81.67 R1	6980281.7	11888758.8
	Tangential Direction:	S83°33'45"E		
	Tangential Length:	81.67		

CONSTRUCTION ALIGNMENT DATA
SHEET 3 OF 3

	PROJECT	SHEET NO.
	0236-100-888	1E(3)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	1F(1)

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

PLAN SHEET	TEST HOLE NO.	ROADWAY	(1) STATION & OFFSET			OWNER	TYPE OF FACILITY	(2) TOP ELEV (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	(5) UTILITY ADJUSTMENT REQUIRED
5	TH #01	EXIT RAMP TO TELEGRAPH ROAD	32+15.45	25.85	L	DOMINION	2" PVC ELECTRICAL	84.64	NO	3.3' COVER TO FINAL GRADE	NO
5	TH #02	EXIT RAMP TO TELEGRAPH ROAD	32+12.01	27.65	L	DOMINION	2" PVC ELECTRICAL	83.86	NO	4.2' COVER TO FINAL GRADE	NO
5	TH #03	DUKE STREET	114+42.82	6.39	L	VDOT	2" PVC FIBER OPTIC CABLE	74.03	YES	DIRECT CONFLICT WITH PROPOSED JUNCTION BOX	YES
3	TH #04	W. TAYLOR RUN PARKWAY	11+74.98	10.38	L	FAIRFAX WATER	2" COPPER WATER	50.74	NO	CONFLICTING INLET REMOVED FROM DESIGN 2.5' COVER TO FINAL GRADE	NO
3	TH #05	W. TAYLOR RUN PARKWAY	11+70.29	10.74	L	DOMINON	24" X 24" CONCRETE DUCT BANK, ELECTRICAL	48.69	NO	CONFLICTING INLET REMOVED FROM DESIGN 4.5' COVER TO FINAL GRADE	NO
3	TH #06	W. TAYLOR RUN PARKWAY	11+68.96	11.94	R	FAIRFAX WATER	8" STEEL WATER	48.77	NO	CONFLICTING STORM PIPE REMOVED FROM DESIGN 6.5' HORIZONTAL CLEAR TO PROPOSED STORM PIPE 4.2' COVER TO FINAL GRADE	NO
3	TH #07	W. TAYLOR RUN PARKWAY	11+74.54	11.76	R	FAIRFAX WATER	8" STEEL WATER	48.60	NO	CONFLICTING STORM PIPE REMOVED FROM DESIGN 6.8' HORIZONTAL CLEAR TO PROPOSED INLET 4.5' COVER TO FINAL GRADE	NO
3	TH #08	W. TAYLOR RUN PARKWAY	11+72.72	2.2	R	WASHINGTON GAS	2" PVC GAS LINE	49.87	NO	CONFLICTING STORM PIPE REMOVED FROM DESIGN 16.9' HORIZONTAL CLEAR TO PROPOSED INLET 3.5' COVER TO FINAL GRADE	NO
4	TH #09	DUKE STREET	112+72.96	63.25	L	VERIZON	22" X 22" CONCRETE DUCT BANK, FIBER OPTIC CABLE	65.15	NO	14.9' HORIZONTAL CLEAR TO PROPOSED INLET 1.6' COVER TO FINAL GRADE	NO
4	TH #10	DUKE STREET	112+70.39	65.88	L	VDOT	(2) 2" PVC FIBER OPTIC CABLE	65.95	YES	EXPOSED BY PROPOSED GRADING SEE SHEET 1G(2) FOR PROPOSED RELOCATION	YES
4	TH #11	DUKE STREET	116+38.51	50.24	L	VDOT	(2) 3" PVC FIBER OPTIC CABLE	76.61	NO	4.2' CLEAR OVER PROPOSED STORM PIPE	NO

Utility Owners

City Of Alexandria Utilities
Sewer, Traffic, Storm Drains, Communications
301 King St. Suite 1300,
Alexandria, VA. 22314
FOIArequest@alexandriava.gov

AT&T
10 N. Jefferson ST Suite 308
Frederick, MD. 21701
Ken Caudill
(301) 760-3879
KenCaudill@kci.com

Comcast
324 W. Main Street
Charlottesville VA, 22903
Douglas Wright
(434) 326-3529
DOUGLAS_WRIGHT@comcast.com

Dominion Electric Distribution
3072 Centerville Road,
Herndon, VA. 20171
Julia Mathers
(571)203-5085
julia.e.mathers@dom.com

Utility Owners

Jones Utilities Construction
Robert Jones
Utility Owner
436 TV Drive
Fredericksburg, VA 22408
r_jones@jucinc.net

MCI-Verizon
12379 Sunrise Valley Drive Suite A
Reston, VA. 20191
Adam Rice
(571) 2208978
adam.rice@verizon.com

Products Pipeline
1800 Trenton Avenue
Richmond Va 23234
Keith Chantree
(804) 248-9328
likeith_chantree@kindermorgan.com

Redflex Traffic Electric
1150 N. Alma School Road
Mesa, AZ. 85201
Vera Mobility
(480) 596-4559
designtickets@verramobility.com

Utility Owners

VA American Water
2223 Duke Street
Alexandria VA 22314
Matthew Ganci
(703) 706-3862
matthew.ganci@amwater.com

Verizon
20730 Ashburn Rd
Ashburn Va, 20147
Garry Walker
(703) 694-6477
Garry.n.walker@verizon.com

Washington Gas
6801 Industrial Rd.
Springfield, VA 22151
Shaakira Karriem-Broaden
(703) 750-7575
shaakira.karriem-broaden@washgas.com

Notes:
(1) All Test Holes are referenced from the Roadway Baseline unless otherwise noted.
(2) Elevations shown hereon are to the Top of the Facility unless otherwise noted.
(3) "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/Minimum Clearances to be confirmed by VDOT/City of Alexandria/Facility Owner
(6) All construction activities within 24"of Active Gas Line shall not use mechanized equipment

UNDERGROUND UTILITY TEST HOLE INFORMATION

PROJECT	SHEET NO.
0236-100-888	1F(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IF(2)

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

RICE ASSOCIATES
10661 Gaskins Way
Manassas VA 20109
703-968-3200
www.ricesurveys.com

TEST HOLE # 1 Data Form

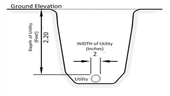
VDOT Project #: _____ UPC: _____ Date: 01/06/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Duke St.

General Location: Duke St.

Test Hole Dug: 1 Survey Mark: Hub & Tack

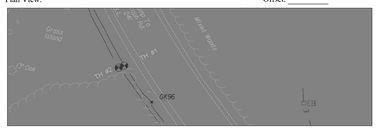
Cross Sectional View:



Utility Owner: Dominion

Existing Ground Elevation: 86.84'
Northing 6,979,872.57
Easting 11,890,234.20
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:



Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 2" PVC (Polyvinyl Chloride); Electrical	2.20'	84.64'	Fair

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/15/2026

TEST HOLE # 1 Data Form

VDOT Project #: _____ UPC: _____ Date: 01/06/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88

Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

Pavement Type/Thickness ☐Asphalt _____ ☐Concrete _____ ☐Soil
Soil Description: ☐Sand ☒Clay ☐Rocky ☐Dry ☐Moist ☒Hard ☐Soft
Utility Description: ☐Good ☒Fair ☐Poor
Utility Marker Set: ☐Nail ☒Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☐Blue ☒Red ☐Yellow ☐Green ☐Orange ☐White ☐Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☐Flagman ☐DDO ☐N/A

Pictures:

Beginning

Exposed Utility

Ending

TEST HOLE # 2 Data Form

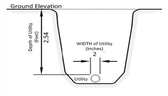
VDOT Project #: _____ UPC: _____ Date: 01/06/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Duke St.

General Location: Duke St.

Test Hole Dug: 2 Survey Mark: Hub & Tack

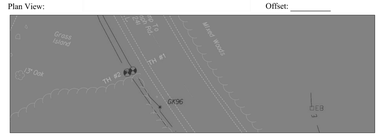
Cross Sectional View:



Utility Owner: Dominion

Existing Ground Elevation: 86.40'
Northing 6,979,871.20
Easting 11,890,230.57
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:



Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 2" PVC (Polyvinyl Chloride); Electrical	2.54'	83.86'	Fair

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/15/2026

TEST HOLE # 2 Data Form

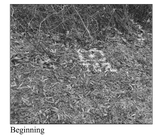
VDOT Project #: _____ UPC: _____ Date: 01/06/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88

Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

Pavement Type/Thickness ☐Asphalt _____ ☐Concrete _____ ☐Soil
Soil Description: ☐Sand ☒Clay ☐Rocky ☐Dry ☐Moist ☐Hard ☐Soft
Utility Description: ☐Good ☒Fair ☐Poor
Utility Marker Set: ☐Nail ☒Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☐Blue ☒Red ☐Yellow ☐Green ☐Orange ☐White ☐Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☐Flagman ☐DDO ☐N/A

Pictures:



Beginning

Exposed Utility

Ending

TEST HOLE # 3 Data Form

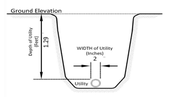
VDOT Project #: _____ UPC: _____ Date: 01/06/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Duke St.

General Location: Duke St.

Test Hole Dug: 3 Survey Mark: Hub & Tack

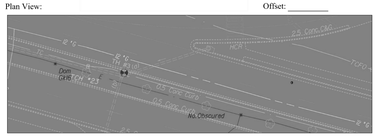
Cross Sectional View:



Utility Owner: Vdot

Existing Ground Elevation: 75.32'
Northing 6,979,762.88
Easting 11,889,878.06
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:



Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 2" PVC (Polyvinyl Chloride); Fiber Optic Cable	1.29'	74.03'	Fair

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/15/2026

TEST HOLE # 3 Data Form

VDOT Project #: _____ UPC: _____ Date: 01/06/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88

Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

Pavement Type/Thickness ☐Asphalt _____ ☐Concrete _____ ☐Soil
Soil Description: ☐Sand ☒Clay ☒Rocky ☐Dry ☐Moist ☐Hard ☐Soft
Utility Description: ☐Good ☒Fair ☐Poor
Utility Marker Set: ☐Nail ☒Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☐Blue ☐Red ☐Yellow ☐Green ☐Orange ☐White ☒Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☐Flagman ☐DDO ☐N/A

Pictures:

Beginning

Exposed Utility

Ending

TEST HOLE # 4 Data Form

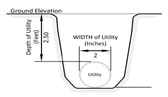
VDOT Project #: _____ UPC: _____ Date: 01/07/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Taylor Run Pkwy

General Location: Taylor Run Pkwy

Test Hole Dug: 4 Survey Mark: Nail and Disk

Cross Sectional View:



Utility Owner: Fairfax Water

Existing Ground Elevation: 53.24'
Northing 6,980,152.49
Easting 11,888,733.77
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:

Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 2" Copper; Water	2.50'	50.74'	Good

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/15/2026

TEST HOLE # 4 Data Form

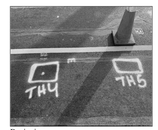
VDOT Project #: _____ UPC: _____ Date: 01/07/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88

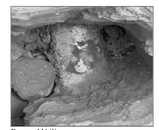
Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

Pavement Type/Thickness ☒Asphalt 8 ☐Concrete _____ ☐Soil
Soil Description: ☐Sand ☒Clay ☒Rocky ☒Dry ☐Moist ☐Hard ☐Soft
Utility Description: ☒Good ☐Fair ☐Poor
Utility Marker Set: ☒Nail ☐Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☒Blue ☐Red ☐Yellow ☐Green ☐Orange ☐White ☐Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☒Flagman ☐DDO ☐N/A

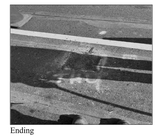
Pictures:



Beginning



Exposed Utility



Ending

UNDERGROUND UTILITY TEST HOLE INFORMATION

SCALE 0 10' 20'

PROJECT	SHEET NO.
0236-100-888	IF(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	1F(3)

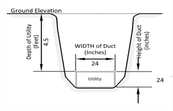
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

RA RICE ASSOCIATES
10661 Gaskins Way
Manassas VA 20109
703-968-3200
www.ricesurveys.com

TEST HOLE # 5 Data Form

VDOT Project #: _____ UPC: _____ Date: 01/07/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Taylor Run Pkwy
General Location: Taylor Run Pkwy
Test Hole Dug: 5 Survey Mark: Nail and Disk
Cross Sectional View:



Utility Owner: Dominion
Existing Ground Elevation: 53.19'
Northing 6,980,147.89
Easting 11,888,732.88
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:

Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 24"x24" Concrete Duct Bank; Electrical	4.50'	48.69'	Fair

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/15/2026

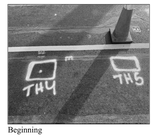
TEST HOLE # 5 Data Form

VDOT Project #: _____ UPC: _____ Date: 01/07/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

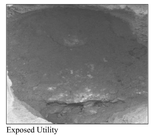
Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88
Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

Pavement Type/Thickness ☒Asphalt 4 ☐Concrete ☐Soil
Soil Description: ☐Sand ☒Clay ☒Rocky ☒Dry ☐Moist ☐Hard ☐Soft
Utility Description: ☐Good ☒Fair ☐Poor
Utility Marker Set: ☒Nail ☐Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☐Blue ☒Red ☐Yellow ☐Green ☐Orange ☐White ☐Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☒Flagman ☐DDO ☐N/A

Pictures:



Beginning



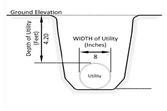
Exposed Utility

Ending

TEST HOLE # 6 Data Form

VDOT Project #: _____ UPC: _____ Date: 01/08/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Taylor Run Pkwy
General Location: Taylor Run Pkwy
Test Hole Dug: 6 Survey Mark: Nail and Disk
Cross Sectional View:



Utility Owner: Fairfax Water
Existing Ground Elevation: 52.97'
Northing 6,980,144.02
Easting 11,888,755.28
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:

Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 8" Steel; Water	4.20'	48.77'	Fair

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/15/2026

TEST HOLE # 6 Data Form

VDOT Project #: _____ UPC: _____ Date: 01/08/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

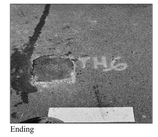
Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88
Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

Pavement Type/Thickness ☒Asphalt 8" ☐Concrete ☐Soil
Soil Description: ☐Sand ☒Clay ☒Rocky ☐Dry ☐Moist ☒Hard ☐Soft
Utility Description: ☐Good ☒Fair ☐Poor
Utility Marker Set: ☒Nail ☐Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☐Blue ☐Red ☐Yellow ☐Green ☐Orange ☐White ☐Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☒Flagman ☐DDO ☐N/A

Pictures:

Beginning

Exposed Utility

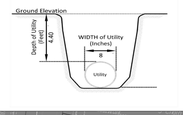


Ending

TEST HOLE # 7 Data Form

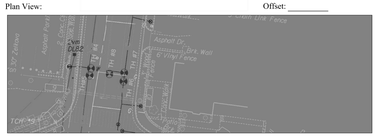
VDOT Project #: _____ UPC: _____ Date: 01/08/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Taylor Run Pkwy
General Location: Taylor Run Pkwy
Test Hole Dug: 7 Survey Mark: Nail and Disk
Cross Sectional View:



Utility Owner: Fairfax Water
Existing Ground Elevation: 53.00'
Northing 6,980,149.59
Easting 11,888,755.73
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:



Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 8" Steel; Water	4.40'	48.60'	Fair

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/15/2026

TEST HOLE # 7 Data Form

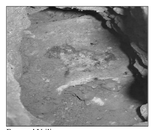
VDOT Project #: _____ UPC: _____ Date: 01/08/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88
Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

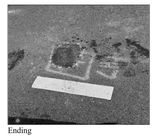
Pavement Type/Thickness ☒Asphalt 8" ☐Concrete ☐Soil
Soil Description: ☐Sand ☒Clay ☒Rocky ☐Dry ☐Moist ☒Hard ☐Soft
Utility Description: ☐Good ☒Fair ☐Poor
Utility Marker Set: ☒Nail ☐Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☒Blue ☐Red ☐Yellow ☐Green ☐Orange ☐White ☐Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☐Flagman ☐DDO ☐N/A

Pictures:

Beginning



Exposed Utility

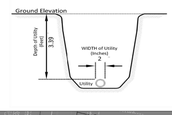


Ending

TEST HOLE # 8 Data Form

VDOT Project #: _____ UPC: _____ Date: 01/08/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Taylor run
General Location: Taylor run
Test Hole Dug: 8 Survey Mark: Nail and Disk
Cross Sectional View:



Utility Owner: Washington Gas
Existing Ground Elevation: 53.26'
Northing 6980148.85
Easting 11888746.02
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:

Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 2" PVC (Polyvinyl Chloride); Gas Line	3.39'	49.87'	Fair

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/15/2026

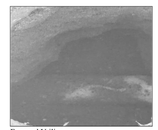
TEST HOLE # 8 Data Form

VDOT Project #: _____ UPC: _____ Date: 01/08/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

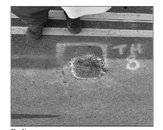
Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88
Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

Pavement Type/Thickness ☒Asphalt 4" ☐Concrete ☐Soil
Soil Description: ☒Sand ☐Clay ☒Rocky ☐Dry ☐Moist ☐Hard ☐Soft
Utility Description: ☐Good ☒Fair ☐Poor
Utility Marker Set: ☒Nail ☐Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☐Blue ☐Red ☒Yellow ☐Green ☐Orange ☐White ☐Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☐Flagman ☐DDO ☐N/A

Pictures:



Exposed Utility



Ending

UNDERGROUND UTILITY TEST HOLE INFORMATION

SCALE	PROJECT	SHEET NO.
0 10' 20'	0236-100-888	1F(3)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IF(4)

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

RA RICE ASSOCIATES
10661 Gaskins Way
Manassas VA 20109
703-968-3200
www.ricesurveys.com

TEST HOLE # 9 Data Form

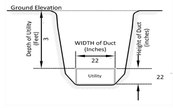
VDOT Project #: _____ UPC: _____ Date: 01/09/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Duke St.

General Location: Duke St.

Test Hole Dug: 9 Survey Mark: Hub & Tack

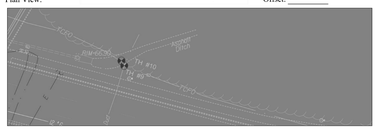
Cross Sectional View:



Utility Owner: Verizon

Existing Ground Elevation: 68.15'
Northing 6,979,862.95
Easting 11,889,729.17
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:



Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 22"x22" Concrete Duct Bank; Fiber Optic Cable	3.00'	65.15'	Fair

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/15/2026

RA RICE ASSOCIATES
10661 Gaskins Way
Manassas VA 20109
703-968-3200
www.ricesurveys.com

TEST HOLE # 9 Data Form

VDOT Project #: _____ UPC: _____ Date: 01/09/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88

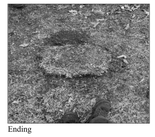
Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

Pavement Type/Thickness ☐Asphalt _____ ☐Concrete _____ ☐Soil
Soil Description: ☐Sand ☒Clay ☒Rocky ☐Dry ☒Moist ☐Hard ☐Soft
Utility Description: ☐Good ☒Fair ☐Poor
Utility Marker Set: ☐Nail ☒Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☐Blue ☐Red ☐Yellow ☐Green ☐Orange ☐White ☒Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☐Flagman ☐ODO ☐N/A

Pictures:

Beginning

Exposed Utility



Ending

RA RICE ASSOCIATES
10661 Gaskins Way
Manassas VA 20109
703-968-3200
www.ricesurveys.com

TEST HOLE # 10 Data Form

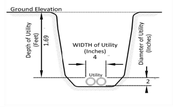
VDOT Project #: _____ UPC: _____ Date: 01/09/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Duke St.

General Location: Duke St.

Test Hole Dug: 10 Survey Mark: Hub & Tack

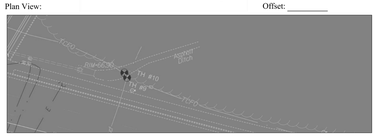
Cross Sectional View:



Utility Owner: Vdot

Existing Ground Elevation: 67.64'
Northing 6,979,866.16
Easting 11,889,727.36
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:



Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 2 Ea. at 2" PVC (Polyvinyl Chloride); Fiber Optic Cable	1.69'	65.95'	Fair

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/15/2026

RA RICE ASSOCIATES
10661 Gaskins Way
Manassas VA 20109
703-968-3200
www.ricesurveys.com

TEST HOLE # 10 Data Form

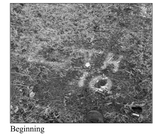
VDOT Project #: _____ UPC: _____ Date: 01/09/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88

Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

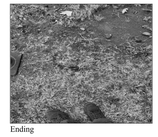
Pavement Type/Thickness ☐Asphalt _____ ☐Concrete _____ ☐Soil
Soil Description: ☐Sand ☒Clay ☒Rocky ☐Dry ☐Moist ☐Hard ☐Soft
Utility Description: ☐Good ☒Fair ☐Poor
Utility Marker Set: ☐Nail ☒Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☐Blue ☐Red ☐Yellow ☐Green ☐Orange ☐White ☒Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☐Flagman ☐ODO ☐N/A

Pictures:



Beginning

Exposed Utility



Ending

RA RICE ASSOCIATES
10661 Gaskins Way
Manassas VA 20109
703-968-3200
www.ricesurveys.com

TEST HOLE # 11 Data Form

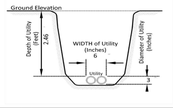
VDOT Project #: _____ UPC: _____ Date: 01/19/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

☐County ☒City ☐Town: Alexandria ☒Road ☐Route: Duke St.

General Location: Duke St.

Test Hole Dug: 11 Survey Mark: Hub & Tack

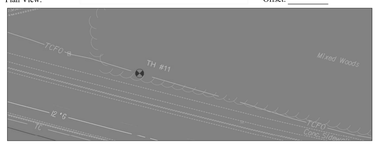
Cross Sectional View:



Utility Owner: Vdot

Existing Ground Elevation: 79.07'
Northing 6,979,753.58
Easting 11,890,080.96
☐Right / ☐Left Of Station _____
Offset: _____

Plan View:



Exposed Utility Information

Utility	O.D./Width : Material : Type of Utility : ()	Depth	Elevation*	Condition
1	O.D. (1) 2 Ea. at 3" PVC (Polyvinyl Chloride); Fiber Optic Cable	2.46'	76.61'	Fair

O.D./Width Based On (1) Full (2) Half (3) Partial (4) See Remarks
* Elevation on Top Of Utility Unless Otherwise Noted

Remarks:

COMMONWEALTH OF VIRGINIA
TIMOTHY EDWARD PAYNE
Lic. No. 3090
LAND SURVEYOR
Reviewed: 01/20/2026

RA RICE ASSOCIATES
10661 Gaskins Way
Manassas VA 20109
703-968-3200
www.ricesurveys.com

TEST HOLE # 11 Data Form

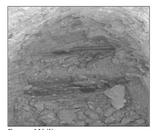
VDOT Project #: _____ UPC: _____ Date: 01/19/2026
Company Project #: Wsp2007.03 Plan Sheet #: 1

Baseline: _____ Horizontal Datum: NAD 83
Vertical Datum: NAVD 88

Benchmarks Used:
☐BM ☐TBM #1 Elev.: _____ Description: _____

Pavement Type/Thickness ☐Asphalt _____ ☐Concrete _____ ☐Soil
Soil Description: ☐Sand ☒Clay ☒Rocky ☐Dry ☐Moist ☒Hard ☐Soft
Utility Description: ☐Good ☒Fair ☐Poor
Utility Marker Set: ☐Nail ☒Hub & Tack ☐Steel Plate ☐Market Ball
Survey Marker Location: Above Centerline Of Utility
Ribbon Color Installed ☐Blue ☐Red ☐Yellow ☐Green ☐Orange ☐White ☒Pink ☐N/A
Special Traffic Control Items Used: ☐Arrowboard ☐Crash Truck ☐Flagman ☐ODO ☐N/A

Pictures:



Exposed Utility

UNDERGROUND UTILITY TEST HOLE INFORMATION

SCALE	PROJECT	SHEET NO.
0 10' 20'	0236-100-888	IF(4)

1/23/2026
4:41:24 PM

dll5531010(1).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IG(1)

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

WSP USA Herndon, Virginia (HYDRAULICS ENGINEER)	WSP USA Herndon, Virginia (ROADWAY ENGINEER)

NOTES:
1. CONTRACTOR TO MAINTAIN WATER ACCESS DURING CONSTRUCTION

1 BL_DUKE STA.102+68.04
BL_WTAYLOR STA.10+00.00

2 BL_SERVICE STA.202+67.86
BL_WTAYLOR STA.11+22.99

3 BL_WTAYLOR STA.13+06.17
BL_DRIVEWAY STA.60+81.67

END PROJECT STA.13+58.10
PROP. RIGHT-OF-WAY
ADJUST EX.GAS VALVE TO GRADE
PROP.PERM.DRAINAGE ESMT
PROP.TEMP.CONSTRUCTION ESMT
DRIVEWAY CONSTRUCTION BASELINE (BL_DRIVEWAY01)
DO NOT DISTURB EX.UTILITY POLE
W TAYLOR RUN PKWY CONSTRUCTION BASELINE (BL_WTAYLOR)
EX.RIGHT-OF-WAY
TH #7
TH #8
TH #4
DO NOT DISTURB EX.UTILITY POLE
Elec. Pole w/ Light • CI01-4 • DL82
ADJUST EX.GAS VALVE TO GRADE
TH #5
PROP.TEMP. CONSTRUCTIONESMT
ADJUST EX.GAS VALVE TO GRADE
TH #6
LP • CI01-4 • DL61
EX.RIGHT-OF-WAY
ADJUST EX.TRAFFIC BOX TO GRADE
ADJUST EX.GAS TEST STATION TO GRADE
SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)
EX.RIGHT-OF-WAY
DUKE STREET SERVICE ROAD
DUKE STREET WB (ROUTE 236)
DUKE STREET EB (ROUTE 236)
DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)
BEGIN PROJECT STA.100+45.34
W TAYLOR RUN PARKWAY
EX.RIGHT-OF-WAY
PROP.WATER METER CONNECTION SHALL BE INSTALLED BELOW THE PROP.STORM PIPE WITH MINIMUM 1' CLEARANCE
RELOCATED WATER METER FROM 16' SOUTH. PROVIDE NEW CONNECTION TO EX.WATER MAIN
PROVIDE CONNECTION FROM NEW WATER METER LOCATION TO EXISTING LATERAL CONNECTION TO PROPERTY
RELOCATE EX.WATER METER 16' NORTH.REMOVE WATER LINE BETWEEN WATER MAIN AND EX.WATER METER LOCATION.MAINTAIN EX.LATERAL CONNECTION TO THE PROPERTY (NOT SHOWN IN SURVEY)
EX.RIGHT-OF-WAY
EX.UTILITY POLE TO BE RELOCATED BY DOMINION ENERGY
PROP. RIGHT-OF-WAY
REMOVE AND RESET EX. HYDRANT
EX.RIGHT-OF-WAY
EX.RIGHT-OF-WAY
DO NOT DISTURB EX.UTILITY BOX
REMOVE EX. PED POLE (SEE SHEET II(2))
ADJUST EX. TRAFFIC BOX TO AVOID CONFLICT WITH PROPOSED BOLLARD
REMOVE & RESET EX.POLE & BOX
DEMO EX. LIGHT POLE
DEMO EX.LIGHT POLE
REMOVE EX.PED POLE (SEE SHEET II(2))
ADJUST EX. COMM.MANHOLE TO GRADE
RELOCATE EX. COMM.BOX OUTSIDE OF CURB RAMP
ADJUST EX.SANITARY MANHOLE TO MEET THE TEMPORARY PAVEMENT GRADE DURING CONSTRUCTION
RELOCATE EXISTING POLICE DEPT.POLE
DEMO EX.LIGHT POLE
REMOVE EX. PEDESTRIAN HYBRID BEACON
RPA Limits
FEMA Floodplain Zone AE
EX.RIGHT-OF-WAY
EX.RIGHT-OF-WAY
EX.RIGHT-OF-WAY
EX.RIGHT-OF-WAY
EX.RIGHT-OF-WAY
EX.RIGHT-OF-WAY
EX.RIGHT-OF-WAY
EX.RIGHT-OF-WAY
EX.RIGHT-OF-WAY
MATCH LINE - STA.107+00 - SEE SHEET IG(2)
MATCH LINE - STA.207+00 - SEE SHEET IG(2)

DALE WEED, TRUSTEE & PAUL C. KINCHELO, JR. TRUSTEE
DB 1629 PG 886
4.15 AC.
MAP# 062-03-02-02

GEORGE F. SCHULS & SUSAN M. SCHULS
DB 762 PG 870
12,405 SQ.FT
MAP# 062-03-03-19

THOMAS HOWARD RITTER REVOCABLE TRUST
Inst.# 110019557
2,502 SQ.FT
MAP# 062-03-03-18

DUKE STREET L.L.C.
DB 1629 PG 886
54,557 SQ.FT
MAP# 062-03-04-07

DONRICH L.C.
DB 1594 PG 1499
21,795 SQ.FT
MAP# 062-03-04-10

SWALLOW LLC
Inst.# 040050531
19,784 SQ.FT

WITTER DRIVE

UTILITY PLAN
STA.100+00 TO 107+00
SHEET 1 OF 3

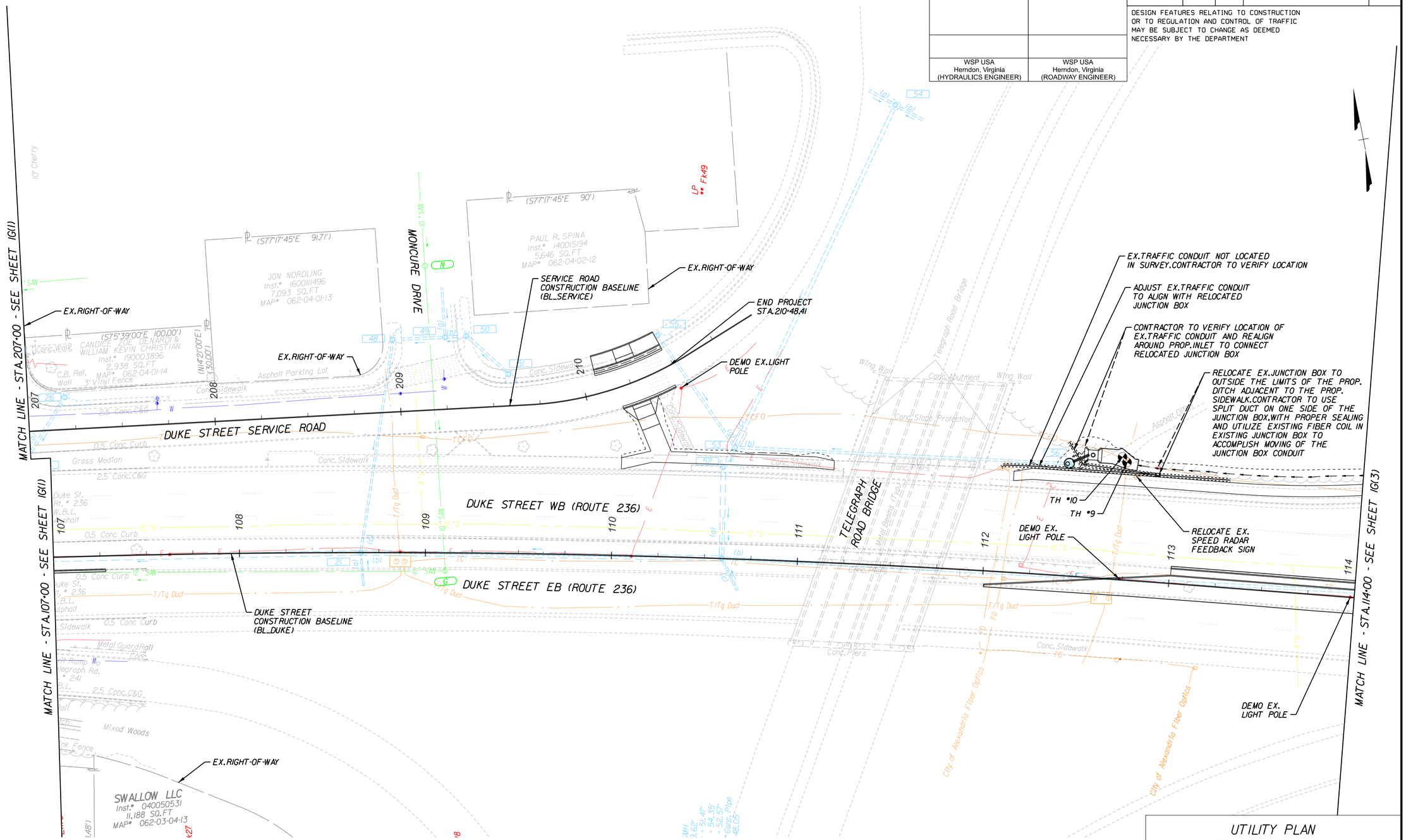
SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IG(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	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

WSP USA Herndon, Virginia (HYDRAULICS ENGINEER)	WSP USA Herndon, Virginia (ROADWAY ENGINEER)



UTILITY PLAN
STA.107+00 TO 114+00
SHEET 2 OF 3

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	1G(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IG(3)

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

WSP USA Herndon, Virginia (HYDRAULICS ENGINEER)	WSP USA Herndon, Virginia (ROADWAY ENGINEER)

MATCH LINE - STA.114+00 - SEE SHEET IG(2)

TELEGRAPH ROAD OFF-RAMP

TELEGRAPH ROAD ON-RAMP

DUKE STREET WB (ROUTE 236)

DUKE STREET EB (ROUTE 236)

TELEGRAPH ROAD CONSTRUCTION BASELINE (BL_TELEGRAPH)

DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)

4 BL_DUKE STA.116+32.74
BL_NEWRAMP STA.30+00.00

5 BL_TELEGRAPH STA.41+37.00
BL_NEWRAMP STA.32+53.72

REFER TO TRAFFIC SIGNAL PLAN (SHEET 11(4)) FOR TRAFFIC CONDUIT RELOCATION AND INSTALLMENT DETAILS

RELOCATE EX. PEDESTRIAN HYBRID BEACON

RELOCATE EX. PEDESTRIAN HYBRID BEACON

RELOCATE EX. TRAFFIC BOX TO MEDIAN

TH #3

ADJUST EX. TRAFFIC CONDUIT AROUND PROPOSED JUNCTION BOX AS NECESSARY

DEMO EX. LIGHT POLE

INSTALL CONCRETE ENCASEMENT WHERE UNDER PAVEMENT TO PROTECT THE CONDUIT FROM POTENTIAL CRUSHING UNDER VEHICULAR LOADING

TH #1

TH #2

EB DUKE TO SB TELEGRAPH RAMP CONSTRUCTION BASELINE (BL_NEWRAMP)

TH #11 (APPROX. LOCATION)

DEMO EX. LIGHT POLE

REMOVE EXISTING JUNCTION BOX. INSTALL SPLIT DUCT.

END PROJECT STA.117+84.17

EX. RIGHT-OF-WAY

FORT ELLSWORTH CONDOMINIUM
321,808 SQ.FT
MAP# 062-04-0A-00

SHUTERS HILL OWNERS ASSOCIATION
DB 983 PG 792
14,762 SQ.FT
MAP# 062-04-04-37

MII LLC
Inst.# 160013185
4,614 SQ.FT
MAP# 072-02-01-04

AITCHESON REAL ESTATE, INC.
DB 723 PG 512
DB 1695 PG 1094
70,873 SQ.FT
MAP# 072-02-01-07

AITCHESON REAL ESTATE, INC.
DB 723 PG 512
DB 1695 PG 1094
33,810 SQ.FT
MAP# 072-02-01-08

2350 DUKE STREET PARTNERSHIP
DB 1132 PG 1779
65,264 SQ.FT
MAP# 072-02-01-09
MAP# 072-02-01-10

J.T. MARTYN, JR. & E.F. CANNON, TRUSTEES, LLC
Inst.# 190017996
48,337 SQ.FT

UTILITY PLAN
STA.114+00 TO 121+00
SHEET 3 OF 3

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IG(3)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IH(1)

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

TRANSPORTATION MANAGEMENT PLAN

Temporary Traffic Control Plan

1. This Transportation Management Plan (TMP) was developed based on VDOT's IIM-LD 241.7 or IIM-TE-351.5 - Transportation Management Plan Requirements, Federal Highway Administration (FHWA) rule on Work Zone Safety and Mobility, and best best practices. This is a Type B TMP as defined by VDOT IIM-LD-241.7. This project consists of safety and traffic improvements at the intersection of Duke St (Route 236) and West Taylor Run Parkway. Improvements include a new ramp connecting EB Duke St to the existing SB Telegraph Rd On-Ramp (East of Telegraph Rd Bridge), a widened and extended concrete median between EB Duke St and the existing SB Telegraph Rd On-Ramp (South of West Taylor Run Pkwy intersection) to accommodate a future bus rapid transit station, and pedestrian improvements in the City of Alexandria, Virginia.

2. Within the project area, Duke St (Route 236) is a four lane divided roadway with turn lanes and auxiliary lanes in both the directions and is classified as a Principal Arterial / Commercial Connector. Duke St is an east-west corridor that has a posted speed limit of 25 mph east of West Taylor Run Pkwy, and 35 mph west of West Taylor Run Pkwy Travelers primarily include, commuters, local and commercial traffic.

3. West Taylor Run Pkwy is a two lane undivided roadway with a bike lane in the northbound direction, a sharrow lane in the southbound direction, and street parking along both sides. West Taylor Run Pkwy is a north-south corridor that is classified as a Minor Collector and has a posted speed limit of 25 mph. Travelers primarily include, commuters and local traffic.

4. Duke St Service Rd is a two lane undivided roadway with sharrow lanes in both directions west of West Taylor Run Pkwy. Duke St Service Rd is an east-west local road with a posted speed limit of 25 mph. During the weekday PM Peak (4 PM - 6 PM), westbound traffic is restricted east of the West Taylor Run Pkwy intersection.

5. The length of the work zone along Duke St is approximately 0.34 miles long, and both directions of vehicular and pedestrian traffic will be impacted by construction. The length of work zone along West Taylor Run Pkwy is approximately 250 ft long, and only the southbound direction of vehicular traffic will be impacted by construction. Pedestrian traffic along both southbound and northbound West Taylor Run Pkwy will be impacted by construction. The work zone along Duke St Service Rd is primarily at the intersection of West Taylor Run Pkwy and along the service road between Moncure Dr and Hilton St Vehicle and pedestrian traffic will be impacted by construction.

6. The work zones will typically be active during weekday daytime hours.

7. Site specific temporary traffic control plans are found on the IJ sheet series. The temporary traffic controls necessary to complete the proposed work during hours defined in the Transportation Operations Plan are to be implemented using Typical Traffic Control (TTC) figures in the VA Work Area Protection Manual Version II (VA WAPM). The following are the TTC figures anticipated to be utilized during construction:
   - Figure TTC-1 (Work Beyond the Shoulder)
   - Figure TTC-4 (Stationary Work on a Shoulder)
   - Figure TTC-7 (Shoulder Closure with Barrier and Lane Shift)
   - Figure TTC-16 (Stationary Lane Closure on a Divided Highway)
   - Figure TTC-20 (Lane Closure with Temporary Traffic Barrier)
   - Figure TTC-23 (Lane Closure on a Two-Lane Road Using Flaggers)
   - Figure TTC-29 (Turn Lane Closure)
   - Figure TTC-30 (Flagging at a De-Energized Signalized Intersection)
   - Figure TTC-35 (Sidewalk Detour or Diversion)
   - Figure TTC-36 (Crosswalk Closure and Pedestrian Detours)
   - Figure TTC-39 (Work Operation in the Vicinity of an Entrance Ramp)
   - Figure TTC-52 (Signing for Speed Limit and Fine Signs in Work Zones)

Public Communications Plan

1. The contractor shall provide advance notice of all approved closures to the engineer who will communicate with the VDOT Northern Virginia Office of Public Affairs, City of Alexandria Supervisors, federal agencies and schools in close proximity, radio and television, emergency services, trucking associations, bus service (WMATA/Alexandria Transit Company (DASH)), and the Traffic Operations Center, as determined appropriate.

2. The contractor shall coordinate with VDOT and City of Alexandria to develop a Public Communication Plan based on contractor's projected work schedule. Ensuring proper, timely and accurate communication to the media and general public is critical to providing en-route traveler information.

Transportation Operations Plan

1. The Contractor shall be responsible for providing a designated Work Zone Safety Coordinator to develop and monitor all traffic control devices and ensure compliance with the VA WAPM Version II.

2. The contractor shall notify Alexandria's Emergency Operations Center (EOC) to place lane closure information on the 511 system and VA-Traffic.

3. In the event of a crash or other emergency situation in the work zone, the contractor should immediately notify appropriate emergency response agencies (911) and the Contracting Officer.

4. If a crash involves the contractor's equipment, materials, or personnel, or if the crash is within the limits of a temporary lane closure, the contractor should make the incident area accessible to emergency vehicles when feasible, and shall be ready to follow the direction of the Police and the Contracting Officer in order to restore normal operations.

5. Local Emergency REsponse Contacts are:
   - Alexandria City Police Department 703-746-4444
   - Alexandria Fire Station 703-746-5207
   - Virginia State Police Area 48 Office 703-323-2671
   - Alexandria's Emergency Operations Center 703-746-6105

6. Unless pre-approved and documented, all lane and/or shoulder closures shall be in accordance with the VDOT's NOVA District Lane Closure Guidelines, Northern Virginia, 3rd Release, Dated February, 2024. All lane and/or shoulder closures shall be completely removed on a daily basis with lanes fully open to traffic at all times beyond allowable and/or approved lane closure hours.

7. Regardless of prior approval, any request for deviation from the allowable lane closure hours must be submitted to VDOT NOVA District Traffic Operations for review a minimum of fourteen (14) days in advance of work.

8. The contractor must contact the VDOT Northern Region Transportation Operations Center (TOC 703-877-3449) 15-45 minutes prior to executing lane and/or shoulder closures and contact TOC once work has been completed and lane and/or shoulder closures have been removed.

9. The contractor shall continually monitor lane closures and detour routes. If applicable, and make spot adjustments as needed/available to ease undue backups, delays, or queuing.

10. All lane and/or shoulder closures shall be entered into LCAMS at least ten (10) days in advance of the proposed lane and/or shoulder closure and no later than close of business Wednesday the week prior to the closure stating the location, purpose, time and duration of closure. Any conflicts generated from LCAMS shall be resolved no later than close of business Thursday the week prior to the closure.

11. The applicant/contractor shall be trained and responsible for maintaining project lane closure information or any work within VDOT right-of-way on LCAMS and VaTraffic/511 throughout the duration of the project in accordance with IIM-OD-16-03, dated December 16, 2016.

12. The applicant/contractor shall verify there are no activities 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.

13. Lane closures along VDOT maintained roadways will not be permitted during inclement weather or emergency situations.

14. Lane and/or shoulder closures along VDOT maintained roadways shall not begin if heavy traffic or significant queuing and backups are already present along the roadway(s).

15. Access to/from all ramps, roadways, side streets, driveways and properties, as applicable, within and adjacent to the work area shall be maintained/provided at all times throughout the duration of the work.

16. If impacts to any VDOT maintained traffic signals are anticipated or occur at any time during the project, then VDOT Traffic Operations Engineering/TOE shall be notified and coordinated with.

17. Lane and shoulder closure hours of operation along VDOT maintained roadways may be adjusted by VDOT Traffic Operations at any time if significant traffic impacts routinely develop as a result of the project or citizen complaints are received.

18. Depending on the location of work and time of year, the applicant/contractor shall 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.

TTC General Notes

1. The traffic control devices and safety measures shall be in conformance with the most recent revisions thereto of the following:
   - The Manual of Uniform Traffic Control Devices, 2026
   - The Virginia Work Area Protection Manual, 2026, Version II
   - The Virginia Road and Bridge Standards, 2016
   - The Virginia Road and Bridge Specifications, 2020

2. Unless otherwise approved or directed by the engineer, the contractor shall plan and prosecute the work in accordance with Sequence of Construction outlined on Sheet IH(2).

3. The sequence of construction and maintenance of traffic show the major traffic control and the sequencing of construction. The daily control of traffic, including provision, placement, maintenance, and removal of traffic control devices shall be the Contractor's responsibility.

4. Signing, traffic barrier service concrete, and any other traffic control devices shall be installed prior to the beginning of each stage of construction and shall be removed as necessary prior to the next stage.

5. Before implementing a change in traffic patterns or roadway configuration, the contractor shall install PMCS signs on affected roadways seven (7) days prior to the change.

6. The group 1 and 2 channelization devices and signs shown are for schematic purposes only. The contractor shall follow the VA WAPM Version II for the proper placement of these and other traffic control devices.

7. The clear zone shall be free of stored materials and parked equipment (for clear zone widths, refer to the VA WAPM Appendix A). Where material is stored or vehicles are parked behind guardrail, a minimum offset of 5' shall be maintained from the face of the guardrail to any material, equipment or vehicles. Sight distances at intersection should not be impacts by materials, equipment, or traffic control devices. Nothing shall be stored within the temporary barrier manufacturer's recommended clear zone or within 250' downstream of a barrier opening.

8. All areas excavated below existing pavement surface and within the clear zone, at the conclusion of each workaday, shall be back filled to form an approximate 6:1 wedge, against the existing pavement surface for the safety and protection of vehicular traffic.

9. The cost of the required Shadow Vehicle shall be included in price bid for other items in the contract and no additional compensation for this item will be made.

10. All construction signs shall be the responsibility of the contractor, including furnishing, installing, adjusting, maintaining, and removing the signs and posts per the Specifications and Standard Details. If the signs are not setup as a pay item, they shall be considered incidental to the price of other items.

11. All existing pavement marking that is in conflict with construction pavement markings shall be covered with construction pavement marking (TY. E) 6". Use VA WAPM Version II Figure TTC-55.

12. Use Type D Class III construction pavement markings on roadway asphalt pavement and concrete surfaces including the bridges and any approach slabs. Temporary pavement markers shall be installed as directed by the engineer. Use VA WAPM Version II Figure TTC-60.

13. At such time, as construction is complete, the contractor is required to provide permanent striping, in accordance with approved marking plan and transition traffic to ultimate section.

14. Signs to be temporarily covered shall be completely covered by nontransparent material.

15. Contractor shall maintain positive drainage during construction.

16. The placement of temporary traffic control signs are approximate. Contractor shall verify the placement of the signs in the field and modify the placement to avoid conflicts. Sign placement shall be in accordance with the current VA WAPM.

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

This is to verify that Connell Smith 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: 5/31/2029
Verification Number: 052325136
State Traffic Ops Eng

TRANSPORTATION MANAGEMENT PLAN

	PROJECT	SHEET NO.
	0236-100-888	IH(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	236	0236-100-888	IH(2)

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

SEQUENCE OF CONSTRUCTION

PHASE 1 - NARRATIVE:

PURPOSE: CONSTRUCT THE NEW RAMP FROM DUKE ST TO THE EXISTING RAMP TO TELEGRAPH RD, EASTBOUND DUKE ST LEFT TURN LANE TO NEW RAMP, SIDEWALK ALONG WESTBOUND DUKE ST, AND CURB RAMPS ON DUKE ST SERVICE RD EAST OF MONCURE DR. INSTALL CHANNELIZING DEVICES, MARKINGS, SIGNS AND ALL OTHER TEMPORARY CONTROLS AS SHOWN ON PHASE 1 PLANS (SHEETS 1J(01) - 1J(07)).

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MAINTAIN THE EXISTING TRAVEL LANES OPEN TO TRAFFIC AT ALL TIMES EXCEPT AS INDICATED IN NOVA DISTRICT LANE CLOSURE GUIDELINES, NORTHERN VIRGINIA, 3RD RELEASE, FEBRUARY 2024.

UNLESS PRE-APPROVED AND NOTED, THE ALLOWABLE HOURS FOR ALL LANE AND/OR SHOULDER CLOSURES SHALL BE IN ACCORDANCE WITH THE NOVA DISTRICT LANE CLOSURE GUIDELINES, DATED FEBRUARY 29, 2024. ALL LANE AND/OR SHOULDER CLOSURES SHALL BE COMPLETELY REMOVED ON A DAILY BASIS WITH LANES FULLY OPEN TO TRAFFIC AT ALL TIMES BEYOND ALLOWABLE AND/OR APPROVED LANE CLOSURE HOURS.

PHASE 1 - STAGE 1

INSTALL TEMPORARY MARKED CROSSWALK CROSSING DUKE ST SERVICE RD AT THE INTERSECTION WITH MONCURE DR. CONSTRUCT SOUTH SIDE CURB RAMP ON DUKE SERVICE RD UTILIZING FLAGGING OPERATIONS. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

CONSTRUCT THE NEW RAMP, EXCLUDING THE RAMP CONNECTIONS TO THE MAINLINE AND EXISTING RAMP, AND SIDEWALK ALONG WESTBOUND DUKE ST UTILIZING LONG TERM SHOULDER CLOSURES ALONG WESTBOUND DUKE ST AND TELEGRAPH RD ON-RAMP. MAINTAIN ALL EXISTING LANES. CONTRACTOR SHALL MAINTAIN 11-FT MINIMUM LANE WIDTH.

SHIFT TELEGRAPH RD OFF-RAMP TRAFFIC TO CONSTRUCT CURB AND GUTTER AND CURB RAMP NORTH OF THE TELEGRAPH OFF-RAMP. ERADICATE ALL EXISTING MARKINGS IN CONFLICT WITH LANE SHIFT. CONTRACTOR SHALL MAINTAIN 16-FT MINIMUM LANE WIDTH.

DURING ALL SIDEWALK/CURB RAMP CONSTRUCTION IN STAGE 1, DETOUR PEDESTRIANS TO EXISTING SIDEWALK ALONG EASTBOUND DUKE ST. SEE PEDESTRIAN DETOUR 1 (SHEET 1J(22)) FOR ROUTE AND SIGNAGE DETAILS.

PHASE 1 - STAGE 2

UTILIZING THE TEMPORARY MARKED CROSSWALK CROSSING DUKE ST SERVICE RD AT THE INTERSECTION WITH MONCURE DR. CONSTRUCT NORTH SIDE CURB RAMP ON DUKE SERVICE RD UTILIZING FLAGGING OPERATIONS. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

CONSTRUCT NEW RAMP TIE-INS TO WESTBOUND DUKE ST AND TELEGRAPH RD ON-RAMP. UTILIZING SHORT TERM LANE CLOSURES.

SHIFT TELEGRAPH RD OFF-RAMP TRAFFIC TO CONSTRUCT CURB AND GUTTER AND CURB RAMP SOUTH OF THE TELEGRAPH OFF-RAMP.

DURING ALL SIDEWALK/ CURB RAMP CONSTRUCTION IN STAGE 2, DETOUR PEDESTRIANS TO EXISTING SIDEWALK ALONG EASTBOUND DUKE ST. SEE PEDESTRIAN DETOUR 1 (SHEET 1J(22)) FOR ROUTE AND SIGNAGE DETAILS. THE TEMPORARY CROSSWALK ON DUKE ST SERVICE RD IS TO BE REMOVED AFTER THIS STAGE 2.

PHASE 1 - STAGE 3

CONSTRUCT EASTBOUND DUKE ST LEFT TURN LANE TO NEW RAMP, AND CURB ALONG MEDIAN UTILIZING SHORT LANE CLOSURES.

PHASE 2 NARRATIVE:

PURPOSE: RECONSTRUCT MEDIANS AT INTERSECTION OF DUKE ST AT WEST TAYLOR RUN PKWY TO REALIGN EASTBOUND DUKE ST, CONSTRUCT NEW CONCRETE MEDIAN AND BUS PAD ALONG EASTBOUND DUKE ST, AND RECONSTRUCT SIDEWALK CURB RAMP ALONG THE EXISTING EASTBOUND DUKE ST RAMP TO TELEGRAPH INSTALL CHANNELIZING DEVICES, TEMPORARY BARRIER, MARKINGS, SIGNS AND ALL OTHER TEMPORARY CONTROLS AS SHOWN ON PHASE 2 PLANS (SHEETS 1J(08) - 1J(17)).

THE CONTRACTOR SHALL INSTALL SIGNAGE TO INDICATE A WORKZONE SPEED LIMIT OF 25 MPH DURING CONSTRUCTION ACTIVITIES ON DUKE ST DURING THIS PHASE. EXISTING SPEED LIMIT SIGNS IN CONFLICT WITH THE WORK ZONE SPEED LIMIT SHALL BE COMPLETELY COVERED BY NONTRANSPARENT MATERIAL.

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MAINTAIN THE EXISTING TRAVEL LANES OPEN TO TRAFFIC AT ALL TIMES EXCEPT AS INDICATED IN NOVA DISTRICT LANE CLOSURE GUIDELINES, NORTHERN VIRGINIA, 3RD RELEASE, FEBRUARY 2024.

UNLESS PRE-APPROVED AND NOTED, THE ALLOWABLE HOURS FOR ALL LANE AND/OR SHOULDER CLOSURES SHALL BE IN ACCORDANCE WITH THE NOVA DISTRICT LANE CLOSURE GUIDELINES, DATED FEBRUARY 29, 2024. ALL LANE AND/OR SHOULDER CLOSURES SHALL BE COMPLETELY REMOVED ON A DAILY BASIS WITH LANES FULLY OPEN TO TRAFFIC AT ALL TIMES BEYOND ALLOWABLE AND/OR APPROVED LANE CLOSURE HOURS.

PHASE 2 - STAGE 1A

DEMOLISH EXISTING MEDIAN WEST OF WEST TAYLOR RUN PKWY AND CONSTRUCT PERMANENT PAVEMENT UTILIZING LONG TERM CLOSURES ALONG EASTBOUND AND WESTBOUND DUKE ST. CLOSE EASTBOUND DUKE ST LEFT TURN LANE ONTO WEST TAYLOR RUN PKWY.

DURING STAGE 1A, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 1 (SHEET 1J(18)) FOR ROUTE AND SIGNAGE DETAILS.

MAINTAIN EXISTING EAST PEDESTRIAN CROSSING AT THE INTERSECTION UNTIL TEMPORARY PEDESTRIAN RAMPS AND CROSSWALK WEST OF INTERSECTION ARE IN PLACE.

SEE SHEET 1J(7) FOR SIGNAL MODIFICATION NOTES.

PHASE 2 - STAGE 1B

DEMOLISH EXISTING MEDIAN EAST OF WEST TAYLOR RUN PKWY AND CONSTRUCT TEMPORARY PAVEMENT UTILIZING LONG TERM CLOSURES ALONG EASTBOUND AND WESTBOUND DUKE ST. MAINTAIN CLOSURE OF EASTBOUND DUKE ST LEFT TURN LANE ONTO WEST TAYLOR RUN PKWY.

DURING STAGE 1B, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 1 (SHEET 1J(18)) FOR ROUTE AND SIGNAGE DETAILS.

CONSTRUCT TEMPORARY PEDESTRIAN CURB RAMPS AND INSTALL MARKED CROSSWALK WEST OF INTERSECTION, TO MAINTAIN PEDESTRIAN ACCESS. CLOSE AND ERADICATE EXISTING CROSSWALK EAST OF INTERSECTION. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

SEE SHEET 1J(9) FOR SIGNAL MODIFICATION NOTES.

PHASE 2 - STAGE 2

CONSTRUCTION DURING THIS STAGE SHALLBE COMPLETED WITH NIGHTTIME OPERATIONS ONLY. AS SUCH, THE RAMP TO SOUTHBOUND TELEGRAPH RD SHALL BE CLOSED ONLY DURING NIGHTTIME OPERATIONS. MAINTAIN TEMPORARY WEST PEDESTRIAN CROSSING AT THE INTERSECTION DURING THIS STAGE.

SHIFT EASTBOUND THROUGH LANES ONTO TEMPORARY PAVEMENT IN THE EAST MEDIAN CONSTRUCTED IN STAGE 1B. CONTRACTOR SHALL MAINTAIN 11-FT MINIMUM LANE WIDTH.

CONSTRUCT NEW CONCRETE MEDIAN AND CONCRETE BUS PAD BETWEEN EASTBOUND DUKE ST AND SOUTHBOUND TELEGRAPH ROAD ON-RAMP, AND RECONSTRUCT SIDEWALK CURB RAMP ALONG THE EXISTING EASTBOUND DUKE ST RAMP TO TELEGRAPH RD UTILIZING LONG TERM LANE CLOSURES ALONG EASTBOUND AND WESTBOUND DUKE ST. MAINTAIN CLOSURE OF EASTBOUND DUKE ST LEFT TURN LANE ONTO WEST TAYLOR RUN PKWY., AND CLOSE EASTBOUND DUKE ST RAMP TO SOUTHBOUND TELEGRAPH RD.

DURING STAGE 2, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 1 (SHEET 1J(18)) FOR ROUTE AND SIGNAGE DETAILS.

DURING STAGE 2, DETOUR EXISTING EASTBOUND DUKE ST TO SOUTHBOUND TELEGRAPH RD RAMP TRAFFIC TO THE NEW TELEGRAPH ROAD RAMP CONSTRUCTED IN PHASE 1. SEE ROADWAY DETOUR 2 (SHEET 1J(19)) FOR ROUTE AND SIGNAGE DETAILS.

SEE SHEET 1J(11) FOR SIGNAL MODIFICATION NOTES.

PHASE 2 - STAGE 3

MAINTAIN TEMPORARY WEST PEDESTRIAN CROSSING AT THE INTERSECTION DURING THIS STAGE.

CONSTRUCT FULL DEPTH PAVEMENT ADJACENT TO CONCRETE BUS PAD UTILIZING NIGHTTIME LANE CLOSURES. RECONSTRUCT EAST MEDIAN AND REMOVE TEMPORARY PAVEMENT UTILIZING LANE CLOSURE OF OUTSIDE EASTBOUND LANE AND RE-OPENING EASTBOUND DUKE RAMP TO SOUTHBOUND TELEGRAPH RD.

DURING STAGE 3, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 3 (SHEET 1J(20)) FOR ROUTE AND SIGNAGE DETAILS.

SEE SHEET 1J(13) FOR SIGNAL MODIFICATION NOTES.

PHASE 3 NARRATIVE:

PURPOSE: RECONSTRUCT SIDEWALKS AND CURB RAMPS ALONG WEST TAYLOR RUN PKWY AND DUKE ST SERVICE RD. INSTALL CHANNELIZING DEVICES, MARKINGS, SIGNS, AND ALL OTHER TEMPORARY CONTROLS AS SHOWN ON PHASE 3 PLANS (SHEETS 1J(16) - 1J(21)).

THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MAINTAIN THE EXISTING TRAVEL LANES OPEN TO TRAFFIC AT ALL TIMES EXCEPT AS INDICATED IN NOVA DISTRICT LANE CLOSURE GUIDELINES, NORTHERN VIRGINIA, 3RD RELEASE, FEBRUARY 2024.

UNLESS PRE-APPROVED AND NOTED, THE ALLOWABLE HOURS FOR ALL LANE AND/OR SHOULDER CLOSURES SHALL BE IN ACCORDANCE WITH THE NOVA DISTRICT LANE CLOSURE GUIDELINES, DATED FEBRUARY 29, 2024. ALL LANE AND/OR SHOULDER CLOSURES SHALL BE COMPLETELY REMOVED ON A DAILY BASIS WITH LANES FULLY OPEN TO TRAFFIC AT ALL TIMES BEYOND ALLOWABLE AND/OR APPROVED LANE CLOSURE HOURS.

PHASE 3 - STAGE 1

CONSTRUCT TEMPORARY PEDESTRIAN RAMPS, SIDEWALK AND INSTALL TEMPORARY MARKED CROSSWALK CROSSING DUKE STREET SERVICE ROAD PRIOR TO WORK AREA. CLOSE AND ERADICATE EXISTING CROSSWALK IN WORK AREA. EXISTING TEMPORARY PEDESTRIAN RAMPS AND MARKED CROSSWALK INSTALLED IN PHASE 2 STAGE 1B SHALL REMAIN IN PLACE. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

RECONSTRUCT SIDEWALK AND CURB RAMP ALONG WESTBOUND DUKE ST SERVICE RD AND NORTHBOUND W TAYLOR RUN PKWY UTILIZING SHORT TERM LANE CLOSURE OF WESTBOUND DUKE ST SERVICE RD AND FLAGGING OPERATIONS (TTC-30.2). MAINTAIN BOTH TRAVEL LANES ON DUKE ST SERVICE RD AT THE END OF EACH WORK DAY. POLICE PRESENCE IS REQUIRED.

DURING THIS STAGE CLOSE THE DUKE STREET EASTBOUND LEFT TURN LANE AND WESTBOUND RIGHT TURN LANE. DETOUR EASTBOUND LEFT TURN TRAFFIC AND WESTBOUND RIGHT TURN TRAFFIC TO UTILIZE THE SERVICE ROAD AT THE CAMBRIDGE ROAD INTERSECTION. SEE ROADWAY DETOUR 3 (SHEET 1J(20)) FOR ROUTE AND SIGNAGE DETAILS.

SEE SHEET 1J(15) FOR SIGNAL MODIFICATION NOTES.

PHASE 3 - STAGE 2

CONTRACTOR SHALL MAINTAIN AND UTILIZE TEMPORARY PEDESTRIAN RAMPS, SIDEWALK AND MARKED CROSSWALK INSTALLED IN STAGE 1.

RECONSTRUCT SIDEWALK AND CURB RAMP ALONG EASTBOUND DUKE ST SERVICE RD UTILIZING SHORT TERM LANE CLOSURE OF EASTBOUND DUKE ST SERVICE RD AND FLAGGING OPERATIONS (TTC-30.2). MAINTAIN BOTH TRAVEL LANES ON DUKE ST SERVICE RD AT THE END OF EACH WORK DAY. POLICE PRESENCE IS REQUIRED.

CONTRACTOR SHALL REMOVE ALL TEMPORARY FACILITIES ON DUKE STREET SERVICE ROAD AT THE END OF THIS STAGE.

DURING THIS STAGE CLOSE THE DUKE STREET EASTBOUND LEFT TURN LANE AND WESTBOUND RIGHT TURN LANE. DETOUR EASTBOUND LEFT TURN TRAFFIC AND WESTBOUND RIGHT TURN TRAFFIC TO UTILIZE THE SERVICE ROAD AT THE CAMBRIDGE ROAD INTERSECTION. SEE ROADWAY DETOUR 3 (SHEET 1J(20)) FOR ROUTE AND SIGNAGE DETAILS.

SEE SHEET 1J(16) FOR SIGNAL MODIFICATION NOTES.

PHASE 3 - STAGE 3

CONSTRUCT TEMPORARY PEDESTRIAN RAMPS AND INSTALL TEMPORARY MARKED CROSSWALK, CROSSING WEST TAYLOR RUN PARKWAY, PRIOR TO WORK AREA. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK. DETOUR PEDESTRIANS TO THE EAST SIDE OF WEST TAYLOR RUN PARKWAY. SEE PEDESTRIAN DETOUR 2 (SHEET 1J(23)) FOR ROUTE AND SIGNAGE DETAILS.

CONSTRUCT SIDEWALK ALONG SOUTHBOUND WEST TAYLOR RUN PKWY UTILIZING WEEKEND LANE CLOSURE. CLOSE SOUTHBOUND WEST TAYLOR RUN PKWY.

DURING STAGE 3, DETOUR SOUTHBOUND WEST TAYLOR RUN PKWY TRAFFIC TO N QUAKER LANE. SEE ROADWAY DETOUR 4 (SHEET 1J(21)) FOR ROUTE AND SIGNAGE DETAILS.

CONTRACTOR SHALL REMOVE ALL REMAINING TEMPORARY FACILITIES AT THE END OF THIS STAGE.

SEE SHEET 1J(17) FOR SIGNAL MODIFICATION NOTES.

SEQUENCE OF CONSTRUCTION

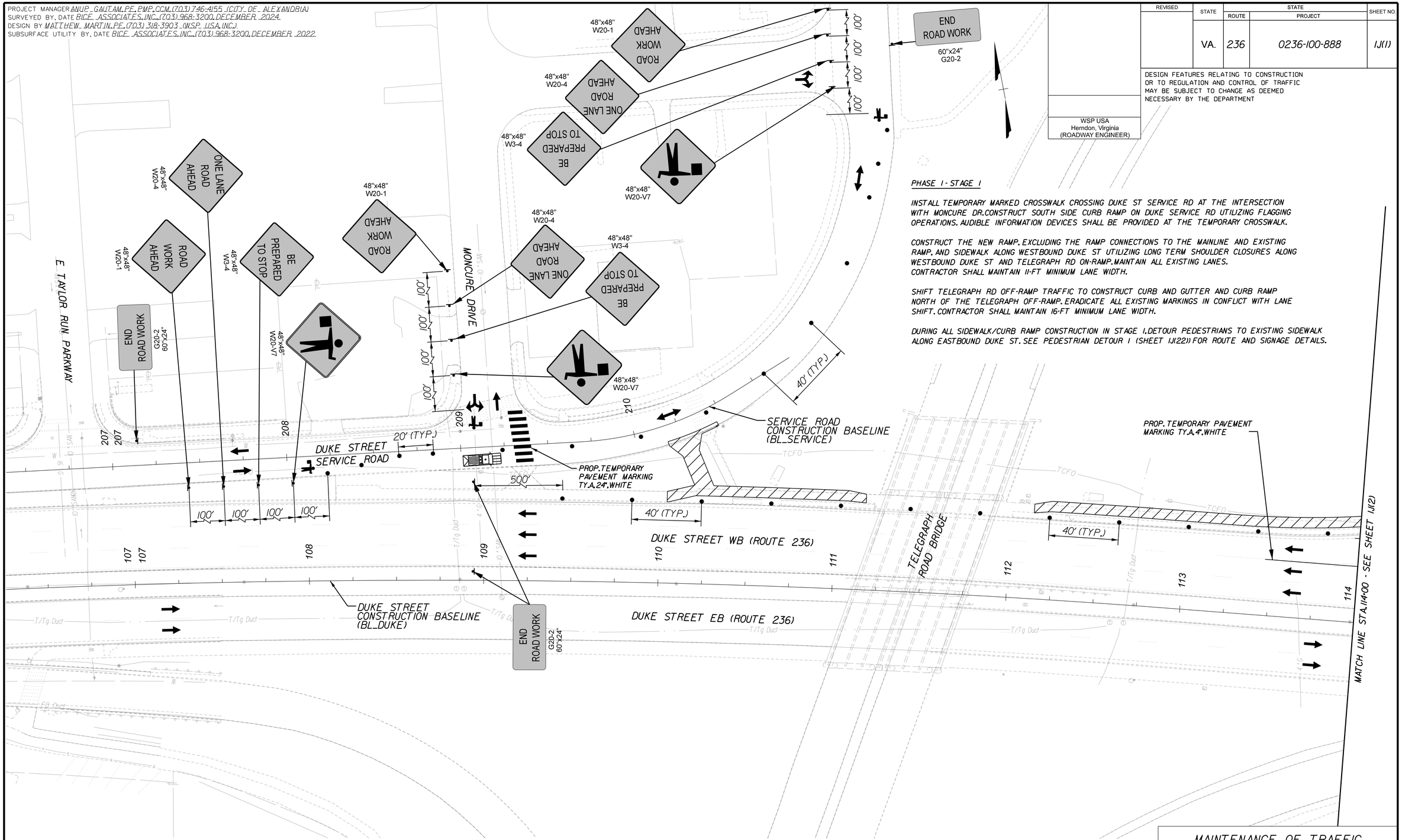
PROJECT	SHEET NO.
0236-100-888	IH(2)

PROJECT MANAGER ANUP_GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW_MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



PHASE I - STAGE I

INSTALL TEMPORARY MARKED CROSSWALK CROSSING DUKE ST SERVICE RD AT THE INTERSECTION WITH MONCURE DR. CONSTRUCT SOUTH SIDE CURB RAMP ON DUKE SERVICE RD UTILIZING FLAGGING OPERATIONS. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

CONSTRUCT THE NEW RAMP, EXCLUDING THE RAMP CONNECTIONS TO THE MAINLINE AND EXISTING RAMP, AND SIDEWALK ALONG WESTBOUND DUKE ST UTILIZING LONG TERM SHOULDER CLOSURES ALONG WESTBOUND DUKE ST AND TELEGRAPH RD ON-RAMP. MAINTAIN ALL EXISTING LANES. CONTRACTOR SHALL MAINTAIN 11-FT MINIMUM LANE WIDTH.

SHIFT TELEGRAPH RD OFF-RAMP TRAFFIC TO CONSTRUCT CURB AND GUTTER AND CURB RAMP NORTH OF THE TELEGRAPH OFF-RAMP. ERADICATE ALL EXISTING MARKINGS IN CONFLICT WITH LANE SHIFT. CONTRACTOR SHALL MAINTAIN 16-FT MINIMUM LANE WIDTH.

DURING ALL SIDEWALK/CURB RAMP CONSTRUCTION IN STAGE I, DETOUR PEDESTRIANS TO EXISTING SIDEWALK ALONG EASTBOUND DUKE ST. SEE PEDESTRIAN DETOUR 1 (SHEET IJ(22)) FOR ROUTE AND SIGNAGE DETAILS.

MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC
PHASE I - STAGE I
SHEET 1 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(1)

PROJECT MANAGER ANUP_GAUTAM,PE,PMP,CCM,(703)746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES,INC.,(703)968-3200,DECEMBER 2024
DESIGN BY MATTHEW_MARTIN,PE,(703)318-3903 (WSP USA,INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES,INC.,(703)968-3200,DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(2)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

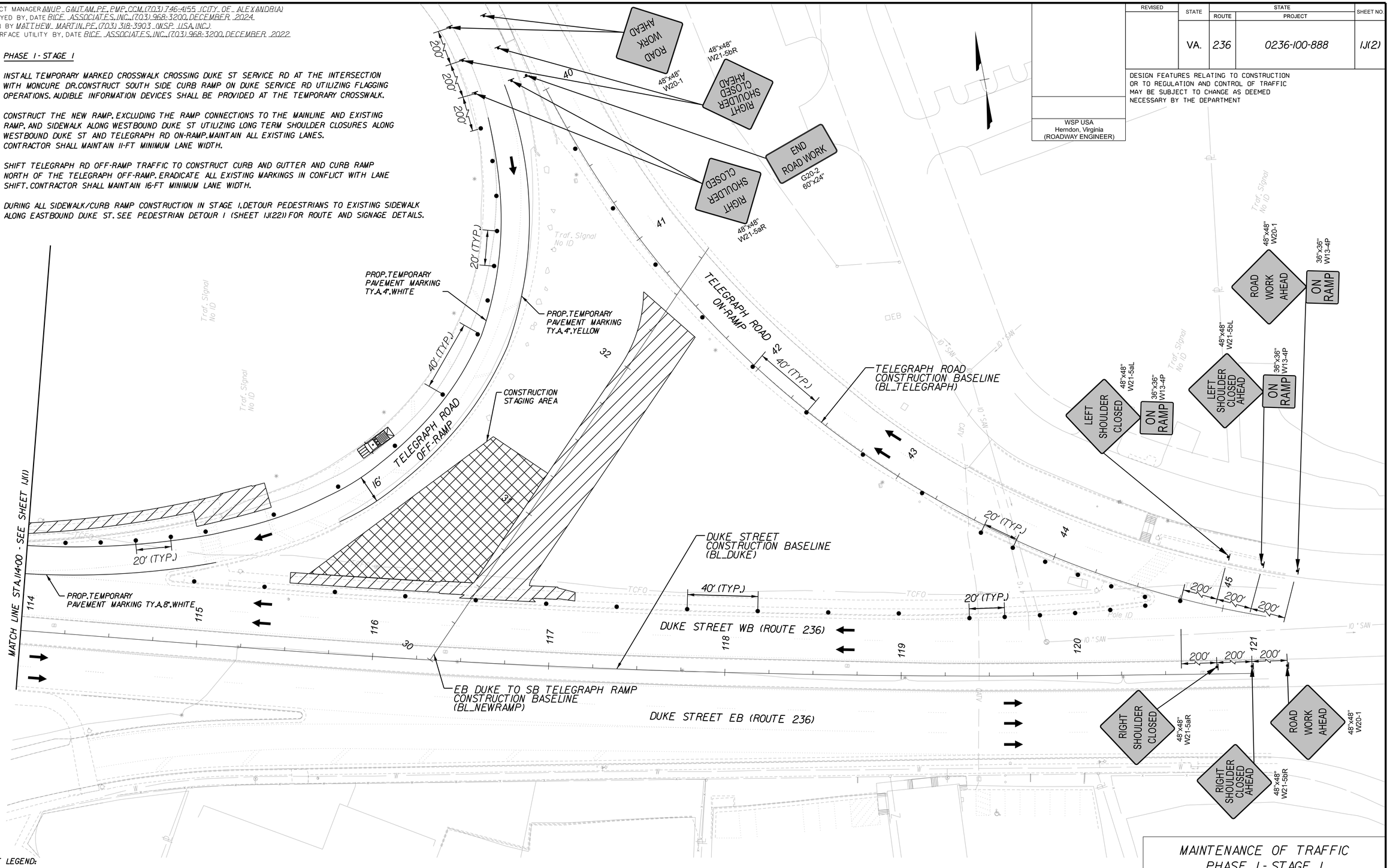
PHASE I - STAGE I

INSTALL TEMPORARY MARKED CROSSWALK CROSSING DUKE ST SERVICE RD AT THE INTERSECTION WITH MONCURE DR. CONSTRUCT SOUTH SIDE CURB RAMP ON DUKE SERVICE RD UTILIZING FLAGGING OPERATIONS. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

CONSTRUCT THE NEW RAMP, EXCLUDING THE RAMP CONNECTIONS TO THE MAINLINE AND EXISTING RAMP, AND SIDEWALK ALONG WESTBOUND DUKE ST UTILIZING LONG TERM SHOULDER CLOSURES ALONG WESTBOUND DUKE ST AND TELEGRAPH RD ON-RAMP. MAINTAIN ALL EXISTING LANES. CONTRACTOR SHALL MAINTAIN 11-FT MINIMUM LANE WIDTH.

SHIFT TELEGRAPH RD OFF-RAMP TRAFFIC TO CONSTRUCT CURB AND GUTTER AND CURB RAMP NORTH OF THE TELEGRAPH OFF-RAMP. ERADICATE ALL EXISTING MARKINGS IN CONFLICT WITH LANE SHIFT. CONTRACTOR SHALL MAINTAIN 16-FT MINIMUM LANE WIDTH.

DURING ALL SIDEWALK/CURB RAMP CONSTRUCTION IN STAGE I, DETOUR PEDESTRIANS TO EXISTING SIDEWALK ALONG EASTBOUND DUKE ST. SEE PEDESTRIAN DETOUR 1 (SHEET IJ(22)) FOR ROUTE AND SIGNAGE DETAILS.



MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC
PHASE I - STAGE I
SHEET 2 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(2)

dll5531010ij03.dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP_GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW_MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(3)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE I - STAGE 2

UTILIZING THE TEMPORARY MARKED CROSSWALK CROSSING DUKE ST SERVICE RD AT THE INTERSECTION WITH MONCURE DR. CONSTRUCT NORTH SIDE CURB RAMP ON DUKE SERVICE RD UTILIZING FLAGGING OPERATIONS. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

CONSTRUCT NEW RAMP TIE-INS TO WESTBOUND DUKE ST AND TELEGRAPH RD ON-RAMP. UTILIZING SHORT TERM LANE CLOSURES.

SHIFT TELEGRAPH RD OFF-RAMP TRAFFIC TO CONSTRUCT CURB AND GUTTER AND CURB RAMP SOUTH OF THE TELEGRAPH OFF-RAMP.

DURING ALL SIDEWALK/ CURB RAMP CONSTRUCTION IN STAGE 2, DETOUR PEDESTRIANS TO EXISTING SIDEWALK ALONG EASTBOUND DUKE ST. SEE PEDESTRIAN DETOUR I (SHEET IJ(22)) FOR ROUTE AND SIGNAGE DETAILS. THE TEMPORARY CROSSWALK ON DUKE ST SERVICE RD IS TO BE REMOVED AFTER THIS STAGE 2.

E TAYLOR RUN PARKWAY
MONCURE DRIVE
DUKE STREET SERVICE ROAD
DUKE STREET WB (ROUTE 236)
DUKE STREET EB (ROUTE 236)
TELEGRAPH ROAD BRIDGE
SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)
DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)
PROP. TEMPORARY PAVEMENT MARKING TY.A, 24", WHITE
MATCH LINE STA. 114+00 - SEE SHEET IJ(4)

END ROAD WORK 60"x24" G20-2
ROAD WORK AHEAD 48"x48" W20-1
ONE LANE AHEAD 48"x48" W20-4
BE PREPARED TO STOP 48"x48" W3-4
48"x48" W20-V7
100' 100' 100' 100' 100' 100' 100'
40' (TYP.)
20' (TYP.)

MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC
PHASE I - STAGE 2
SHEET 1 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(3)

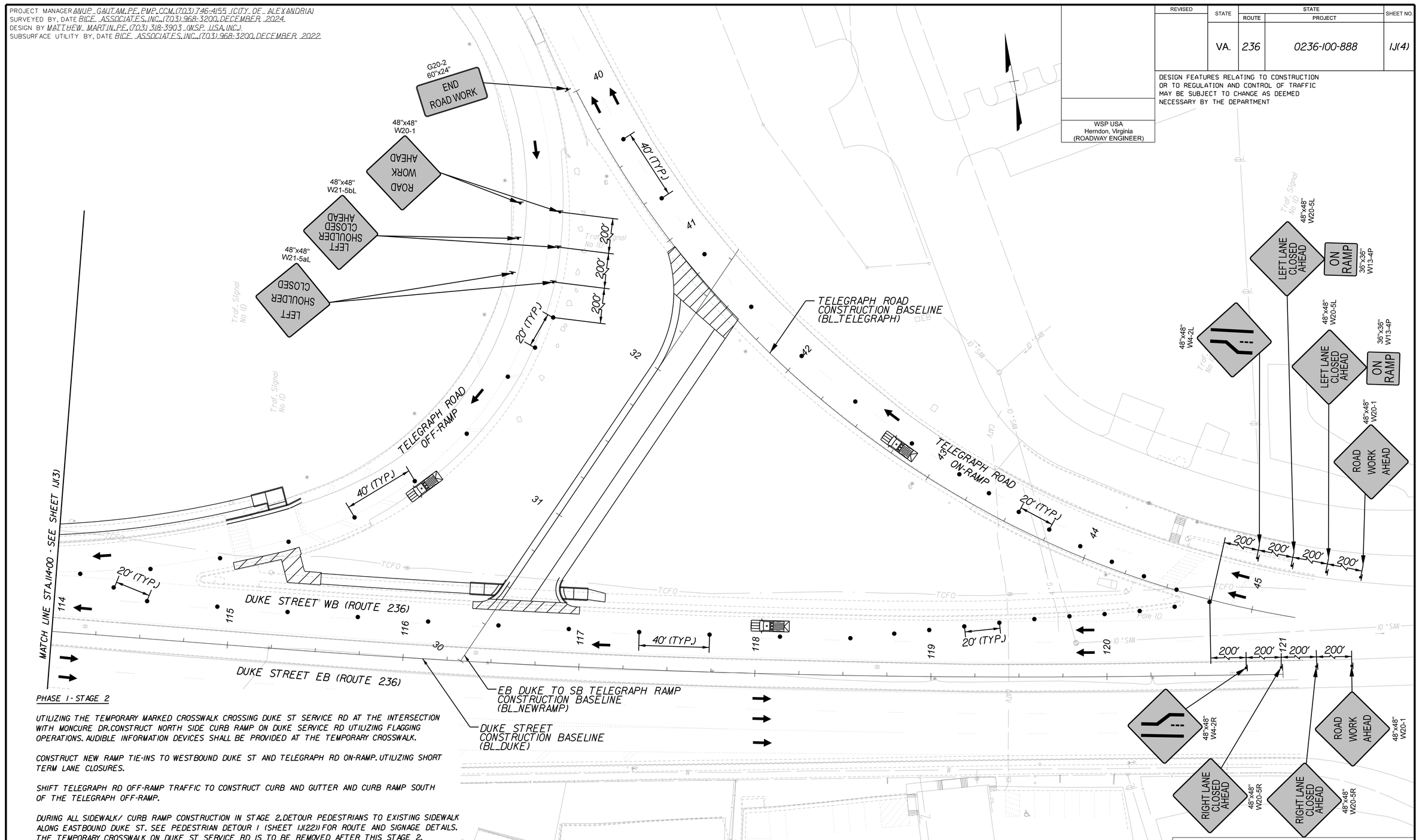
dll5531010ij(04).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP_GAUTAM,PE,PMP,CCM,(703)746-4155 (CITY_OF_ALEXANDRIA)
SURVEYED BY, DATE RICE_ASSOCIATES,INC.,(703)968-3200,DECEMBER_2024
DESIGN BY MATTHEW_MARTIN,PE,(703)318-3903_(WSP_USA,INC.)
SUBSURFACE UTILITY BY, DATE RICE_ASSOCIATES,INC.,(703)968-3200,DECEMBER_2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



PHASE I - STAGE 2

UTILIZING THE TEMPORARY MARKED CROSSWALK CROSSING DUKE ST SERVICE RD AT THE INTERSECTION WITH MONCURE DR.CONSTRUCT NORTH SIDE CURB RAMP ON DUKE SERVICE RD UTILIZING FLAGGING OPERATIONS. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

CONSTRUCT NEW RAMP TIE-INS TO WESTBOUND DUKE ST AND TELEGRAPH RD ON-RAMP. UTILIZING SHORT TERM LANE CLOSURES.

SHIFT TELEGRAPH RD OFF-RAMP TRAFFIC TO CONSTRUCT CURB AND GUTTER AND CURB RAMP SOUTH OF THE TELEGRAPH OFF-RAMP.

DURING ALL SIDEWALK/ CURB RAMP CONSTRUCTION IN STAGE 2,DETOUR PEDESTRIANS TO EXISTING SIDEWALK ALONG EASTBOUND DUKE ST. SEE PEDESTRIAN DETOUR I (SHEET IJ(22)) FOR ROUTE AND SIGNAGE DETAILS. THE TEMPORARY CROSSWALK ON DUKE ST SERVICE RD IS TO BE REMOVED AFTER THIS STAGE 2.

MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC
PHASE I - STAGE 2
SHEET 2 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(4)

PROJECT MANAGER: ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE: RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY: MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE: RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE I - STAGE 3

CONSTRUCT EASTBOUND DUKE ST LEFT TURN LANE TO NEW RAMP, AND CURB ALONG MEDIAN UTILIZING SHORT LANE CLOSURES.

E TAYLOR RUN PARKWAY

MONCURE DRIVE

DUKE STREET SERVICE ROAD

SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)

DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)

DUKE STREET EB (ROUTE 236)

DUKE STREET WB (ROUTE 236)

TELEGRAPH ROAD BRIDGE

250' 200' 200' 200'

20' (TYP.)

40' (TYP.)

40' (TYP.)

END ROAD WORK
G20-2
60"X24"

ROAD WORK AHEAD
48"X48"
W20-1

LEFT LANE CLOSED AHEAD
48"X48"
W20-5L

LEFT LANE CLOSED AHEAD
48"X48"
W20-5L

48"X48"
W4-2L

MATCH LINE STA.114+00 - SEE SHEET IJ(6)

MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC
PHASE I - STAGE 3
SHEET 1 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(5)

PROJECT MANAGER ANUP_GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW_MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

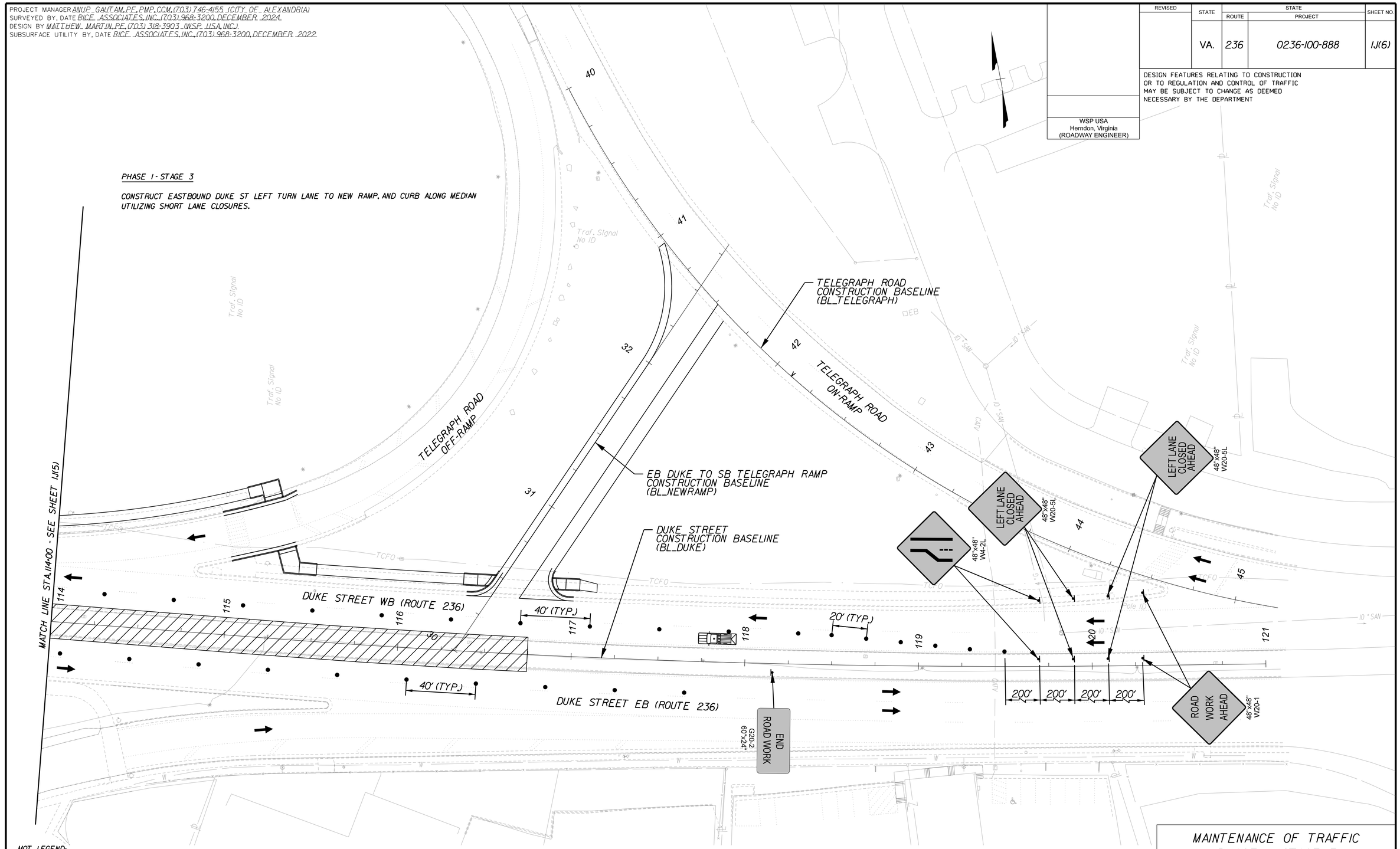
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(6)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE I - STAGE 3

CONSTRUCT EASTBOUND DUKE ST LEFT TURN LANE TO NEW RAMP, AND CURB ALONG MEDIAN UTILIZING SHORT LANE CLOSURES.



MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC
PHASE I - STAGE 3
SHEET 2 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(6)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(7)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE 2 - STAGE IA

DEMOLISH EXISTING MEDIAN WEST OF WEST TAYLOR RUN PKWY AND CONSTRUCT PERMANENT PAVEMENT UTILIZING LONG TERM CLOSURES ALONG EASTBOUND AND WESTBOUND DUKE ST. CLOSE EASTBOUND DUKE ST LEFT TURN LANE ONTO WEST TAYLOR RUN PKWY.

DURING STAGE IA, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 1 (SHEET IJ(18)) FOR ROUTE AND SIGNAGE DETAILS.

MAINTAIN EXISTING EAST PEDESTRIAN CROSSING AT THE INTERSECTION UNTIL TEMPORARY PEDESTRIAN RAMPS AND CROSSWALK WEST OF INTERSECTION ARE IN PLACE.

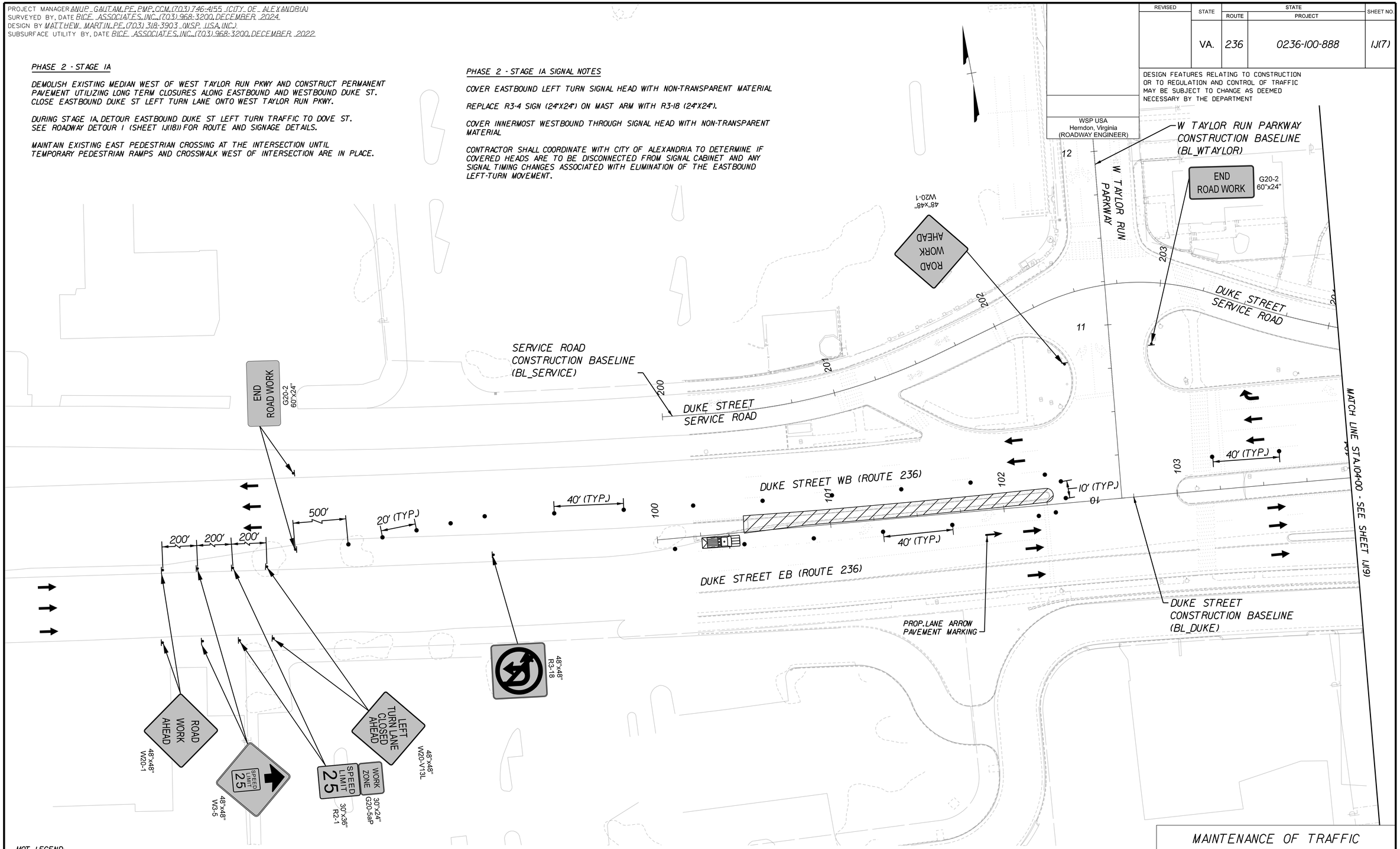
PHASE 2 - STAGE IA SIGNAL NOTES

COVER EASTBOUND LEFT TURN SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL

REPLACE R3-4 SIGN (24"X24") ON MAST ARM WITH R3-18 (24"X24").

COVER INNERMOST WESTBOUND THROUGH SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL

CONTRACTOR SHALL COORDINATE WITH CITY OF ALEXANDRIA TO DETERMINE IF COVERED HEADS ARE TO BE DISCONNECTED FROM SIGNAL CABINET AND ANY SIGNAL TIMING CHANGES ASSOCIATED WITH ELIMINATION OF THE EASTBOUND LEFT-TURN MOVEMENT.



MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC PHASE 2 - STAGE IA SHEET 1 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(7)

PROJECT MANAGER ANUP_GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW_MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(8)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE 2 - STAGE IA

DEMOLISH EXISTING MEDIAN WEST OF WEST TAYLOR RUN PKWY AND CONSTRUCT PERMANENT PAVEMENT UTILIZING LONG TERM CLOSURES ALONG EASTBOUND AND WESTBOUND DUKE ST. CLOSE EASTBOUND DUKE ST LEFT TURN LANE ONTO WEST TAYLOR RUN PKWY.

DURING STAGE IA, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 1 (SHEET IJ(18)) FOR ROUTE AND SIGNAGE DETAILS.

MAINTAIN EXISTING EAST PEDESTRIAN CROSSING AT THE INTERSECTION UNTIL TEMPORARY PEDESTRIAN RAMPS AND CROSSWALK WEST OF INTERSECTION ARE IN PLACE.

E TAYLOR RUN PARKWAY

MONCURE DRIVE

SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)

Taylor Run

DUKE STREET SERVICE ROAD

DUKE STREET WB (ROUTE 236)

DUKE STREET EB (ROUTE 236)

MATCH LINE STA.104+00 - SEE SHEET IJ(8)

40' (TYP.)

20' (TYP.)

PROP. TEMPORARY PAVEMENT MARKING TY.A.4".YELLOW

200' 200' 200' 200' 200' 200'

205 206 207 207 208 209 210 105 106 108 109 110 111

TELEGRAPH ROAD BRIDGE

DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)

Ex. Sanitary Sewer Esmt. DB 661 PG 243

30"X24" G20-5aP	WORK ZONE	SPEED LIMIT 25	30"X36" R2-1	
48"X48" W4-2L				
SPEED LIMIT 25	48"X48" W3-5			
LEFT LANE CLOSED AHEAD	48"X48" W20-5L			
LEFT LANE CLOSED AHEAD	48"X48" W20-5L			
ROAD WORK AHEAD	48"X48" W20-1			
END ROAD WORK	G20-2 60"X24"			

MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC PHASE 2 - STAGE IA SHEET 2 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(8)

PROJECT MANAGER ANUP_GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW_MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(9)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE 2 - STAGE IB

DEMOLISH EXISTING MEDIAN EAST OF WEST TAYLOR RUN PKWY AND CONSTRUCT TEMPORARY PAVEMENT UTILIZING LONG TERM CLOSURES ALONG EASTBOUND AND WESTBOUND DUKE ST. MAINTAIN CLOSURE OF EASTBOUND DUKE ST LEFT TURN LANE ONTO WEST TAYLOR RUN PKWY.

DURING STAGE IB, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR I (SHEET IJ(18)) FOR ROUTE AND SIGNAGE DETAILS.

CONSTRUCT TEMPORARY PEDESTRIAN CURB RAMPS AND INSTALL MARKED CROSSWALK WEST OF INTERSECTION, TO MAINTAIN PEDESTRIAN ACCESS. CLOSE AND ERADICATE EXISTING CROSSWALK EAST OF INTERSECTION. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

PHASE 2 - STAGE IB SIGNAL NOTES

COVER EASTBOUND LEFT TURN SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL.

REPLACE R3-4 SIGN (24"X24") ON MAST ARM WITH R3-18 (24"X24").

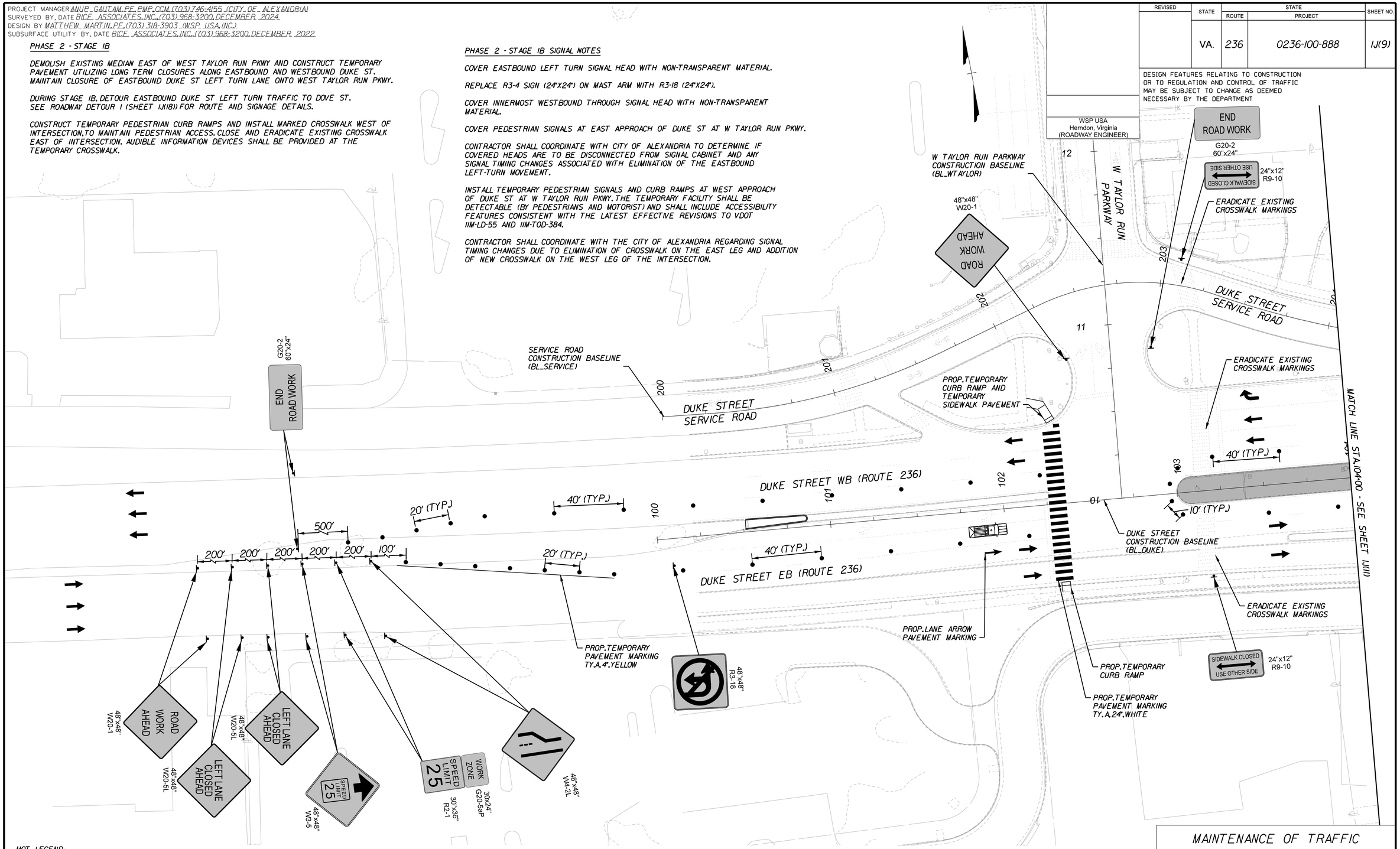
COVER INNERMOST WESTBOUND THROUGH SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL.

COVER PEDESTRIAN SIGNALS AT EAST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY.

CONTRACTOR SHALL COORDINATE WITH CITY OF ALEXANDRIA TO DETERMINE IF COVERED HEADS ARE TO BE DISCONNECTED FROM SIGNAL CABINET AND ANY SIGNAL TIMING CHANGES ASSOCIATED WITH ELIMINATION OF THE EASTBOUND LEFT-TURN MOVEMENT.

INSTALL TEMPORARY PEDESTRIAN SIGNALS AND CURB RAMPS AT WEST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY. THE TEMPORARY FACILITY SHALL BE DETECTABLE (BY PEDESTRIANS AND MOTORIST) AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE LATEST EFFECTIVE REVISIONS TO VDOT IIM-LD-55 AND IIM-TOD-384.

CONTRACTOR SHALL COORDINATE WITH THE CITY OF ALEXANDRIA REGARDING SIGNAL TIMING CHANGES DUE TO ELIMINATION OF CROSSWALK ON THE EAST LEG AND ADDITION OF NEW CROSSWALK ON THE WEST LEG OF THE INTERSECTION.



MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC
PHASE 2 - STAGE IB
SHEET 1 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(9)

PROJECT MANAGER ANUP_GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF_ALEXANDRIA)
SURVEYED BY, DATE RICE_ASSOCIATES, INC., (703) 968-3200, DECEMBER_2024
DESIGN BY MATTHEW_MARTIN, PE, (703) 318-3903_(WSP_USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE_ASSOCIATES, INC., (703) 968-3200, DECEMBER_2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(10)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE 2 - STAGE IB

DEMOLISH EXISTING MEDIAN EAST OF WEST TAYLOR RUN PKWY AND CONSTRUCT TEMPORARY PAVEMENT UTILIZING LONG TERM CLOSURES ALONG EASTBOUND AND WESTBOUND DUKE ST. MAINTAIN CLOSURE OF EASTBOUND DUKE ST LEFT TURN LANE ONTO WEST TAYLOR RUN PKWY.

DURING STAGE IB, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 1 (SHEET IJ(18)) FOR ROUTE AND SIGNAGE DETAILS.

CONSTRUCT TEMPORARY PEDESTRIAN CURB RAMPS AND INSTALL MARKED CROSSWALK WEST OF INTERSECTION, TO MAINTAIN PEDESTRIAN ACCESS. CLOSE AND ERADICATE EXISTING CROSSWALK EAST OF INTERSECTION. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

E TAYLOR RUN PARKWAY

MONCURE DRIVE

SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)

Taylor Run

DUKE STREET SERVICE ROAD

DUKE STREET WB (ROUTE 236)

DUKE STREET EB (ROUTE 236)

DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)

MATCH LINE STA.104+00 - SEE SHEET IJ(10)

Ex. Sanitary Sewer Esmt. DB 661 PG 243

TELEGRAPH ROAD BRIDGE

40' (TYP.)

20' (TYP.)

500'

200' 200' 200' 200' 200' 200'

105 106 107 108 109 110 111 205 206 207 207 208 209 210

30"x24" G20-5aP WORK ZONE SPEED LIMIT 25

30"x36" R2-1 SPEED LIMIT 25

48"x48" W3-5

48"x48" W4-2L

LEFT LANE CLOSED AHEAD 48"x48" W20-5R

LEFT LANE CLOSED AHEAD 48"x48" W20-5R

ROAD WORK AHEAD 48"x48" W20-1

PROP. TEMPORARY PAVEMENT MARKING TY.A.4", YELLOW

END ROAD WORK G20-2 60"x24"

MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC PHASE 2 - STAGE IB SHEET 2 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(10)

PROJECT MANAGER ANUP_GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE_ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW_MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE_ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(II)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE 2 - STAGE 2

CONSTRUCTION DURING THIS STAGE SHALLBE COMPLETED WITH NIGHTTIME OPERATIONS ONLY. AS SUCH, THE RAMP TO SOUTHBOUND TELEGRAPH RD SHALL BE CLOSED ONLY DURING NIGHTTIME OPERATIONS. MAINTAIN TEMPORARY WEST PEDESTRIAN CROSSING AT THE INTERSECTION DURING THIS STAGE.

SHIFT EASTBOUND THROUGH LANES ONTO TEMPORARY PAVEMENT IN THE EAST MEDIAN CONSTRUCTED IN STAGE IB. CONTRACTOR SHALL MAINTAIN 11-FT MINIMUM LANE WIDTH.

CONSTRUCT NEW CONCRETE MEDIAN AND CONCRETE BUS PAD BETWEEN EASTBOUND DUKE ST AND SOUTHBOUND TELEGRAPH ROAD ON-RAMP, AND RECONSTRUCT SIDEWALK CURB RAMP ALONG THE EXISTING EASTBOUND DUKE ST RAMP TO TELEGRAPH RD UTILIZING LONG TERM LANE CLOSURES ALONG EASTBOUND AND WESTBOUND DUKE ST. MAINTAIN CLOSURE OF EASTBOUND DUKE ST LEFT TURN LANE ONTO WEST TAYLOR RUN PKWY., AND CLOSE EASTBOUND DUKE ST RAMP TO SOUTHBOUND TELEGRAPH RD.

DURING STAGE 2, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 1 (SHEET IJ(II8)) FOR ROUTE AND SIGNAGE DETAILS.

DURING STAGE 2, DETOUR EXISTING EASTBOUND DUKE ST TO SOUTHBOUND TELEGRAPH RD RAMP TRAFFIC TO THE NEW TELEGRAPH ROAD RAMP CONSTRUCTED IN PHASE 1. SEE ROADWAY DETOUR 2 (SHEET IJ(II9)) FOR ROUTE AND SIGNAGE DETAILS.

PHASE 2 - STAGE 2 SIGNAL NOTES

REMOVE EASTBOUND LEFT TURN SIGNAL HEAD AND RELOCATE THE CENTER THROUGH LANE SIGNAL HEAD IN ITS PLACE.

RELOCATE LEFTMOST THROUGH SIGNAL HEAD TO THE PREVIOUS LOCATION OF THE CENTER THROUGH LANE SIGNAL HEAD TO ALIGN WITH THE TEMPORARY LANE CONFIGURATION. CONTRACTOTOR TO FIELD ADJUST HEAD AS NECESSARY.

REPLACE R3-4 SIGN (24"X24") ON MAST ARM WITH R3-18 (24"X24").

COVER THE EASTBOUND LANE TO TELEGRAPH RD SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL.

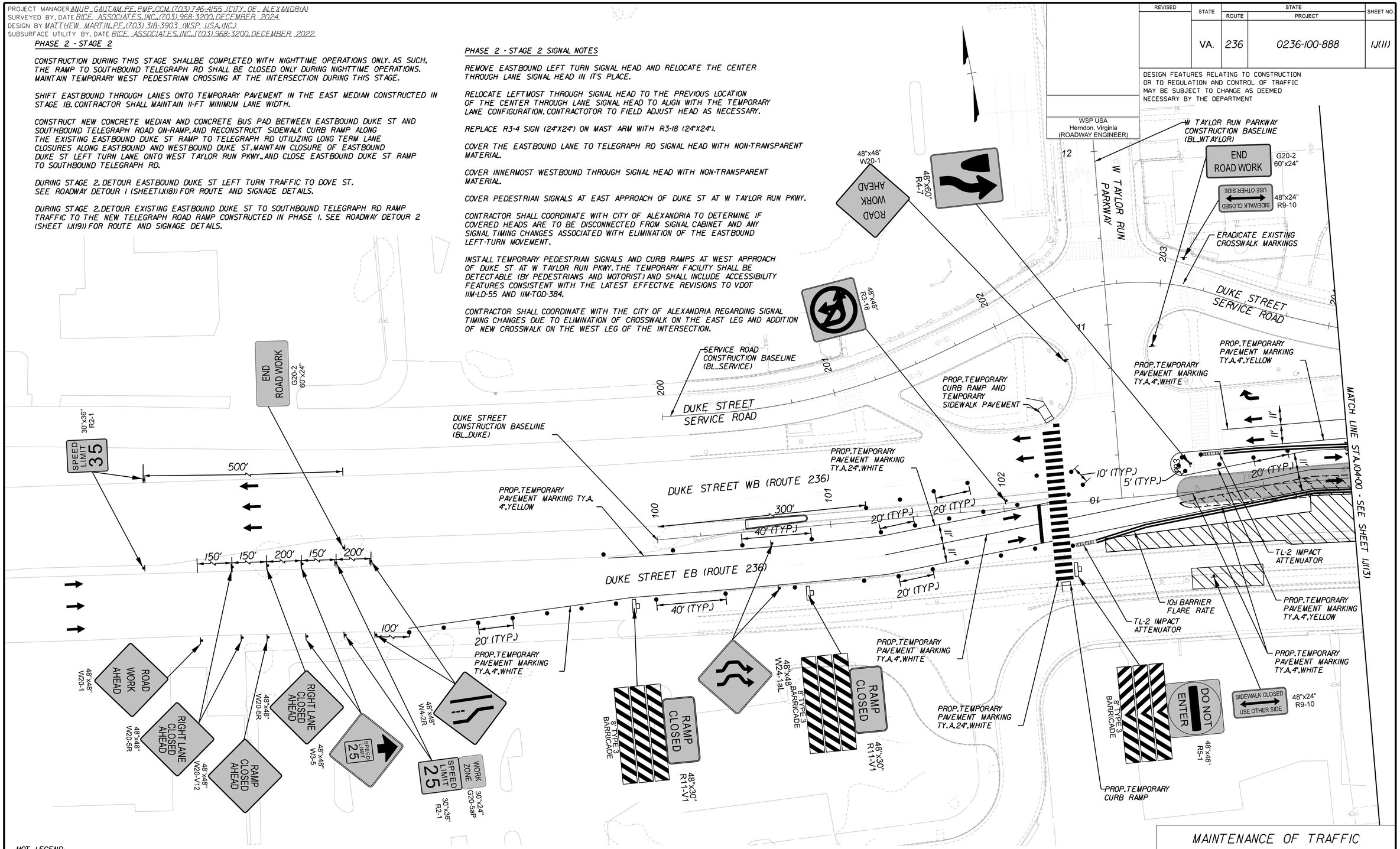
COVER INNERMOST WESTBOUND THROUGH SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL.

COVER PEDESTRIAN SIGNALS AT EAST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY.

CONTRACTOR SHALL COORDINATE WITH CITY OF ALEXANDRIA TO DETERMINE IF COVERED HEADS ARE TO BE DISCONNECTED FROM SIGNAL CABINET AND ANY SIGNAL TIMING CHANGES ASSOCIATED WITH ELIMINATION OF THE EASTBOUND LEFT-TURN MOVEMENT.

INSTALL TEMPORARY PEDESTRIAN SIGNALS AND CURB RAMPS AT WEST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY. THE TEMPORARY FACILITY SHALL BE DETECTABLE (BY PEDESTRIANS AND MOTORIST) AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE LATEST EFFECTIVE REVISIONS TO VDOT IIM-LD-55 AND IIM-TOD-384.

CONTRACTOR SHALL COORDINATE WITH THE CITY OF ALEXANDRIA REGARDING SIGNAL TIMING CHANGES DUE TO ELIMINATION OF CROSSWALK ON THE EAST LEG AND ADDITION OF NEW CROSSWALK ON THE WEST LEG OF THE INTERSECTION.



MAINTENANCE OF TRAFFIC PHASE 2 - STAGE 2 SHEET 1 OF 2

MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(II)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	1J(12)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE 2 - STAGE 2

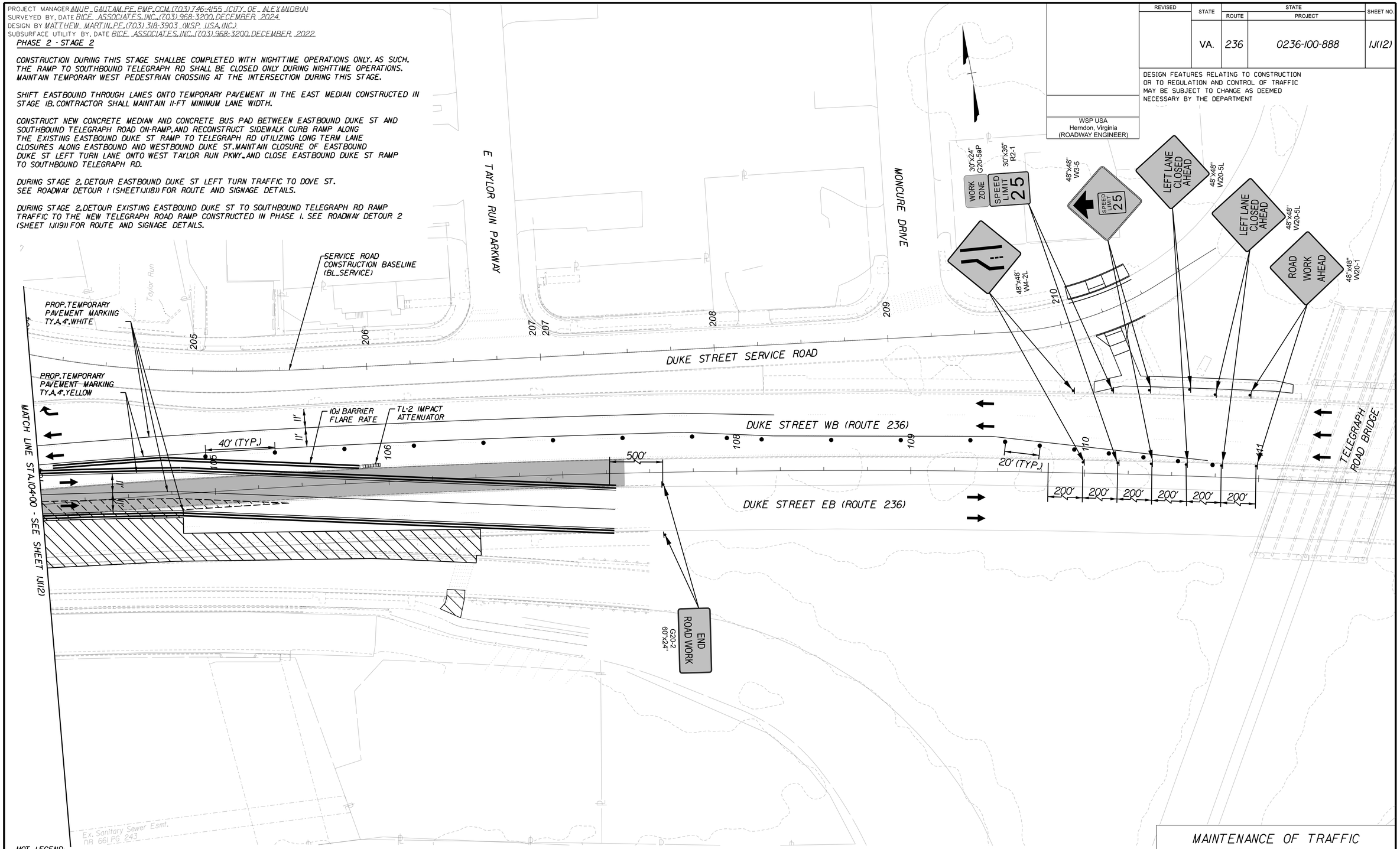
CONSTRUCTION DURING THIS STAGE SHALLBE COMPLETED WITH NIGHTTIME OPERATIONS ONLY. AS SUCH, THE RAMP TO SOUTHBOUND TELEGRAPH RD SHALL BE CLOSED ONLY DURING NIGHTTIME OPERATIONS. MAINTAIN TEMPORARY WEST PEDESTRIAN CROSSING AT THE INTERSECTION DURING THIS STAGE.

SHIFT EASTBOUND THROUGH LANES ONTO TEMPORARY PAVEMENT IN THE EAST MEDIAN CONSTRUCTED IN STAGE 1B. CONTRACTOR SHALL MAINTAIN 11-FT MINIMUM LANE WIDTH.

CONSTRUCT NEW CONCRETE MEDIAN AND CONCRETE BUS PAD BETWEEN EASTBOUND DUKE ST AND SOUTHBOUND TELEGRAPH ROAD ON-RAMP, AND RECONSTRUCT SIDEWALK CURB RAMP ALONG THE EXISTING EASTBOUND DUKE ST RAMP TO TELEGRAPH RD UTILIZING LONG TERM LANE CLOSURES ALONG EASTBOUND AND WESTBOUND DUKE ST. MAINTAIN CLOSURE OF EASTBOUND DUKE ST LEFT TURN LANE ONTO WEST TAYLOR RUN PKWY., AND CLOSE EASTBOUND DUKE ST RAMP TO SOUTHBOUND TELEGRAPH RD.

DURING STAGE 2, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 1 (SHEET 1J(18)) FOR ROUTE AND SIGNAGE DETAILS.

DURING STAGE 2, DETOUR EXISTING EASTBOUND DUKE ST TO SOUTHBOUND TELEGRAPH RD RAMP TRAFFIC TO THE NEW TELEGRAPH ROAD RAMP CONSTRUCTED IN PHASE 1. SEE ROADWAY DETOUR 2 (SHEET 1J(19)) FOR ROUTE AND SIGNAGE DETAILS.



MOT LEGEND:

- PROP. WORK AREA
- PROP. NIGHTTIME WORK AREA
- GROUP 2 CHANNELIZING DEVICES
- TYPE III BARRICADE
- TRAFFIC FLOW ARROW
- PROP. CONSTR. STAGING AREA
- TEMPORARY PAVEMENT
- TEMPORARY BARRIER SERVICE CONCRETE
- TRUCK MOUNTED ATTENUATOR
- FLAGGER

MAINTENANCE OF TRAFFIC
PHASE 2 - STAGE 2
SHEET 2 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	1J(12)

PROJECT MANAGER ANUP_GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW_MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(13)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE 2 - STAGE 3

MAINTAIN TEMPORARY WEST PEDESTRIAN CROSSING AT THE INTERSECTION DURING THIS STAGE.

CONSTRUCT FULL DEPTH PAVEMENT ADJACENT TO CONCRETE BUS PAD UTILIZING NIGHTTIME LANE CLOSURES. RECONSTRUCT EAST MEDIAN AND REMOVE TEMPORARY PAVEMENT UTILIZING LANE CLOSURE OF OUTSIDE EASTBOUND LANE AND RE-OPENING EASTBOUND DUKE RAMP TO SOUTHBOUND TELEGRAPH RD.

DURING STAGE 3, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 3 (SHEET IJ(20)) FOR ROUTE AND SIGNAGE DETAILS.

PHASE 2 - STAGE 3 SIGNAL NOTES

COVER THE EASTBOUND LEFT TURN SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL.

REPLACE R3-4 SIGN (24"X24") ON MAST ARM WITH R3-18 (24"X24").

COVER INNERMOST WESTBOUND THROUGH SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL.

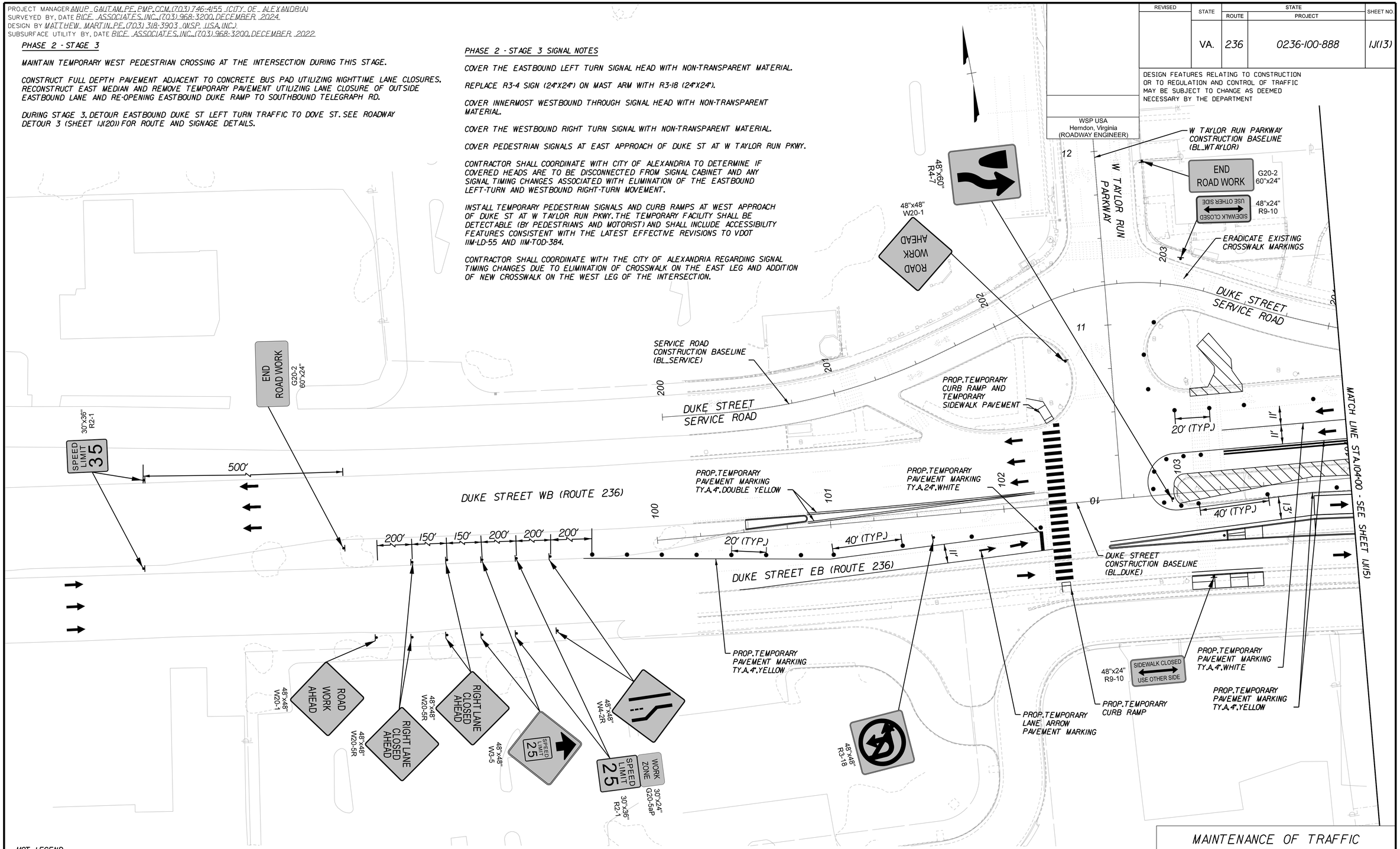
COVER THE WESTBOUND RIGHT TURN SIGNAL WITH NON-TRANSPARENT MATERIAL.

COVER PEDESTRIAN SIGNALS AT EAST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY.

CONTRACTOR SHALL COORDINATE WITH CITY OF ALEXANDRIA TO DETERMINE IF COVERED HEADS ARE TO BE DISCONNECTED FROM SIGNAL CABINET AND ANY SIGNAL TIMING CHANGES ASSOCIATED WITH ELIMINATION OF THE EASTBOUND LEFT-TURN AND WESTBOUND RIGHT-TURN MOVEMENT.

INSTALL TEMPORARY PEDESTRIAN SIGNALS AND CURB RAMPS AT WEST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY. THE TEMPORARY FACILITY SHALL BE DETECTABLE (BY PEDESTRIANS AND MOTORIST) AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE LATEST EFFECTIVE REVISIONS TO VDOT IIM-LD-55 AND IIM-TOD-384.

CONTRACTOR SHALL COORDINATE WITH THE CITY OF ALEXANDRIA REGARDING SIGNAL TIMING CHANGES DUE TO ELIMINATION OF CROSSWALK ON THE EAST LEG AND ADDITION OF NEW CROSSWALK ON THE WEST LEG OF THE INTERSECTION.



MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC
PHASE 2 - STAGE 3
SHEET 1 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(13)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(14)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE 2 - STAGE 3

MAINTAIN TEMPORARY WEST PEDESTRIAN CROSSING AT THE INTERSECTION DURING THIS STAGE.

CONSTRUCT FULL DEPTH PAVEMENT ADJACENT TO CONCRETE BUS PAD UTILIZING NIGHTTIME LANE CLOSURES. RECONSTRUCT EAST MEDIAN AND REMOVE TEMPORARY PAVEMENT UTILIZING LANE CLOSURE OF OUTSIDE EASTBOUND LANE AND RE-OPENING EASTBOUND DUKE RAMP TO SOUTHBOUND TELEGRAPH RD.

DURING STAGE 3, DETOUR EASTBOUND DUKE ST LEFT TURN TRAFFIC TO DOVE ST. SEE ROADWAY DETOUR 3 (SHEET IJ(20)) FOR ROUTE AND SIGNAGE DETAILS.

E TAYLOR RUN PARKWAY
MONCURE DRIVE
DUKE STREET SERVICE ROAD
DUKE STREET WB (ROUTE 236)
DUKE STREET EB (ROUTE 236)
TELEGRAPH ROAD BRIDGE
MATCH LINE STA.10400 - SEE SHEET IJ(14)
SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)
DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)
PROP. TEMPORARY PAVEMENT MARKING TY.A 4", WHITE
PROP. TEMPORARY PAVEMENT MARKING TY.A 4", YELLOW
10:1 BARRIER FLARE RATE
TL-2 IMPACT ATTENUATOR
40' (TYP.)
20' (TYP.)
500'
200'
11'
13'
48"x48" R3-1
RIGHT TURN LANE CLOSED AHEAD 48"x48" W20-V13
48"x48" W4-2L
30"x24" G20-5aP WORK ZONE
30"x36" R2-1 SPEED LIMIT 25
48"x48" W3-5 SPEED LIMIT 25
LEFT LANE CLOSED AHEAD 48"x48" W20-5L
LEFT LANE CLOSED AHEAD 48"x48" W20-5L
ROAD WORK AHEAD 48"x48" W20-1
END ROAD WORK G20-2 60"x24"
Ex. Sanitary Sewer Esmt. DB 661 PG 243

MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC
PHASE 2 - STAGE 3
SHEET 2 OF 2

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(14)

PROJECT MANAGER ANUP_GAUTAM,PE,PMP,CCM,(703)746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES,INC.,(703)968-3200,DECEMBER 2024
DESIGN BY MATTHEW_MARTIN,PE,(703)318-3903 (WSP USA,INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES,INC.,(703)968-3200,DECEMBER 2022

PHASE 3 - STAGE I

CONSTRUCT TEMPORARY PEDESTRIAN RAMPS,SIDEWALK AND INSTALL TEMPORARY MARKED CROSSWALK CROSSING DUKE STREET SERVICE ROAD PRIOR TO WORK AREA.CLOSE AND ERADICATE EXISTING CROSSWALK IN WORK AREA.EXISTING TEMPORARY PEDESTRIAN RAMPS AND MARKED CROSSWALK INSTALLED IN PHASE 2 STAGE IB SHALL REMAIN IN PLACE. AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK.

RECONSTRUCT SIDEWALK AND CURB RAMP ALONG WESTBOUND DUKE ST SERVICE RD AND NORTHBOUND W TAYLOR RUN PKWY UTILIZING SHORT TERM LANE CLOSURE OF WESTBOUND DUKE ST SERVICE RD AND FLAGGING OPERATIONS (TTC-30.2). MAINTAIN BOTH TRAVEL LANES ON DUKE ST SERVICE RD AT THE END OF EACH WORK DAY.POLICE PRESENCE IS REQUIRED.

DURING THIS STAGE CLOSE THE DUKE STREET EASTBOUND LEFT TURN LANE AND WESTBOUND RIGHT TURN LANE. DETOUR EASTBOUND LEFT TURN TRAFFIC AND WESTBOUND RIGHT TURN TRAFFIC TO UTILIZE THE SERVICE ROAD AT THE CAMBRIDGE ROAD INTERSECTION. SEE ROADWAY DETOUR 3 (SHEET IJ(20)) FOR ROUTE AND SIGNAGE DETAILS.

PHASE 3 - STAGE I SIGNAL NOTES

INSTALL TEMPORARY PEDESTRIAN SIGNALS AND CURB RAMPS AT WEST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY. THE TEMPORARY FACILITY SHALL BE DETECTABLE (BY PEDESTRIANS AND MOTORIST) AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE LATEST EFFECTIVE REVISIONS TO VDOT IIM-LD-55 AND IIM-TOD-384.

INSTALL PERMANENT PEDESTRIAN SIGNALS AT EAST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY.

COVER THE EASTBOUND LEFT TURN SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL.

REPLACE R3-4 SIGN (24"X24") ON MAST ARM WITH R3-18 (24"X24")

COVER THE WESTBOUND RIGHT TURN SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL.

TRAFFIC SIGNAL HEADS FOR DUKE STREET SERVICE RD AND W TAYLOR RUN PKWY SHALL BE DE-ENERGIZED DURING FLAGGING OPERTATIONS.

TRAFFIC SIGNAL HEADS FOR DUKE ST WILL REMAIN OPERATIONAL DURING THIS PHASE.

CONTRACTOR TO COORDINATE WITH CITY OF ALEXANDRIA TO DETERMINE IF COVERED HEADS ARE TO BE DISCONNECTED FROM SIGNAL CABINET AND ANY SIGNAL TIMING CHANGES ASSOCIATED WITH ELIMINATION OF THE EB LEFT-TURN MOVEMENT AND WB RIGHT-TURN MOVEMENT.

CONTRACTOR SHALL COORDINATE WITH THE CITY OF ALEXANDRIA REGARDING SIGNAL TIMING CHANGES DUE TO ELIMINATION OF CROSSWALK ON THE EAST LEG AND ADDITION OF NEW CROSSWALK ON THE WEST LEG OF THE INTERSECTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(15)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

W TAYLOR RUN PARKWAY CONSTRUCTION BASELINE (BL_WTAYLOR)

SERVICE STREET CONSTRUCTION BASELINE (BL_SERVICE)

DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)

W TAYLOR RUN PARKWAY

E TAYLOR RUN PARKWAY

DUKE STREET SERVICE ROAD

DUKE STREET WB (ROUTE 236)

DUKE STREET EB (ROUTE 236)

END ROAD WORK G20-2 60"x24"

24"x12" R9-9 SIDEWALK CLOSED

24"x12" R9-10 SIDEWALK CLOSED USE OTHER SIDE

PROP.TEMPORARY CURB RAMP

PROP.TEMPORARY PAVEMENT MARKING TY.A,24",WHITE

PROP.TEMPORARY CURB RAMP AND TEMPORARY SIDEWALK PAVEMENT

20' (TYP.)

40' (TYP.)

75' 75'

250' 300' 250'

100'

48"x48" W20-V13L LEFT TURN LANE CLOSED AHEAD

48"x48" W20-4 ONE LANE ROAD AHEAD

48"x48" W20-1 ROAD WORK AHEAD

48"x48" W3-4 BE PREPARED TO STOP

48"x48" W20-V7

48"x48" W20-V13R RIGHT TURN LANE CLOSED AHEAD

48"x48" R3-1

48"x48" R3-18

48"x48" W20-1 ROAD WORK AHEAD

48"x48" W20-4 ONE LANE ROAD AHEAD

48"x48" W3-4 BE PREPARED TO STOP

48"x48" W20-1 ROAD WORK AHEAD

MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC PHASE 3 - STAGE I SHEET 1 OF 1

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(15)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(16)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASE 3 - STAGE 2

CONTRACTOR SHALL MAINTAIN AND UTILIZE TEMPORARY PEDESTRIAN RAMPS, SIDEWALK AND MARKED CROSSWALK INSTALLED IN STAGE 1.

RECONSTRUCT SIDEWALK AND CURB RAMP ALONG EASTBOUND DUKE ST SERVICE RD UTILIZING SHORT TERM LANE CLOSURE OF EASTBOUND DUKE ST SERVICE RD AND FLAGGING OPERATIONS (TTC-30.2). MAINTAIN BOTH TRAVEL LANES ON DUKE ST SERVICE RD AT THE END OF EACH WORK DAY. POLICE PRESENCE IS REQUIRED.

CONTRACTOR SHALL REMOVE ALL TEMPORARY FACILITIES ON DUKE STREET SERVICE ROAD AT THE END OF THIS STAGE.

DURING THIS STAGE CLOSE THE DUKE STREET EASTBOUND LEFT TURN LANE AND WESTBOUND RIGHT TURN LANE. DETOUR EASTBOUND LEFT TURN TRAFFIC AND WESTBOUND RIGHT TURN TRAFFIC TO UTILIZE THE SERVICE ROAD AT THE CAMBRIDGE ROAD INTERSECTION. SEE ROADWAY DETOUR 3 (SHEET IJ(20)) FOR ROUTE AND SIGNAGE DETAILS.

PHASE 3 - STAGE 2 SIGNAL NOTES

INSTALL TEMPORARY PEDESTRIAN SIGNALS AND CURB RAMPS AT WEST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY. THE TEMPORARY FACILITY SHALL BE DETECTABLE (BY PEDESTRIANS AND MOTORIST) AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE LATEST EFFECTIVE REVISIONS TO VDOT IIM-LD-55 AND IIM-TOD-384.

INSTALL PERMANENT PEDESTRIAN SIGNALS AT EAST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY.

COVER THE EASTBOUND LEFT TURN SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL.

REPLACE R3-4 SIGN (24"X24") ON MAST ARM WITH R3-18 (24"X24")

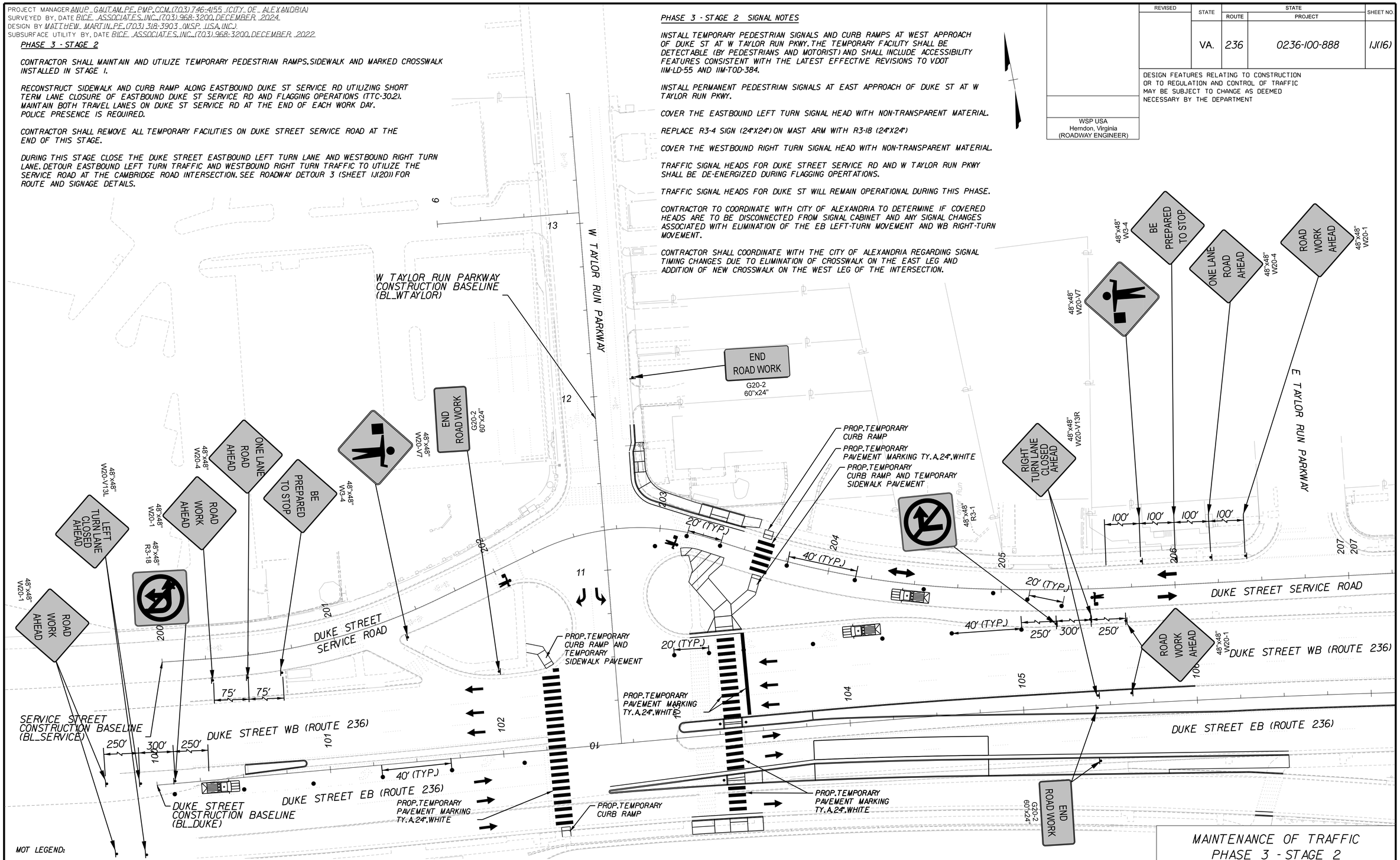
COVER THE WESTBOUND RIGHT TURN SIGNAL HEAD WITH NON-TRANSPARENT MATERIAL.

TRAFFIC SIGNAL HEADS FOR DUKE STREET SERVICE RD AND W TAYLOR RUN PKWY SHALL BE DE-ENERGIZED DURING FLAGGING OPERTATIONS.

TRAFFIC SIGNAL HEADS FOR DUKE ST WILL REMAIN OPERATIONAL DURING THIS PHASE.

CONTRACTOR TO COORDINATE WITH CITY OF ALEXANDRIA TO DETERMINE IF COVERED HEADS ARE TO BE DISCONNECTED FROM SIGNAL CABINET AND ANY SIGNAL CHANGES ASSOCIATED WITH ELIMINATION OF THE EB LEFT-TURN MOVEMENT AND WB RIGHT-TURN MOVEMENT.

CONTRACTOR SHALL COORDINATE WITH THE CITY OF ALEXANDRIA REGARDING SIGNAL TIMING CHANGES DUE TO ELIMINATION OF CROSSWALK ON THE EAST LEG AND ADDITION OF NEW CROSSWALK ON THE WEST LEG OF THE INTERSECTION.



MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC PHASE 3 - STAGE 2 SHEET 1 OF 1

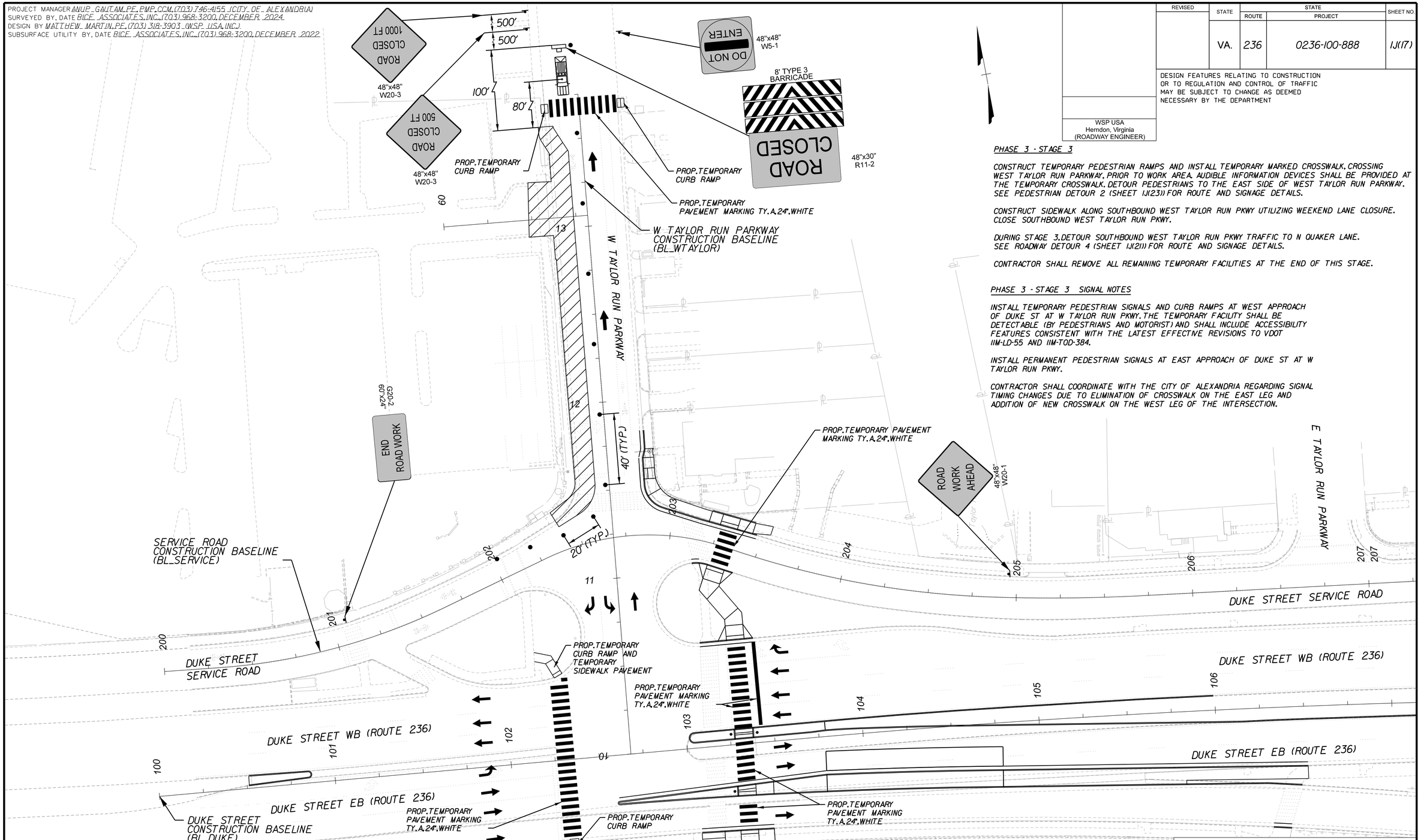
SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	IJ(16)

PROJECT MANAGER ANUP_GAUTAM,PE,PMP,CCM,(703)746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES,INC.,(703)968-3200,DECEMBER 2024
DESIGN BY MATTHEW_MARTIN,PE,(703) 318-3903 (WSP USA,INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES,INC.,(703)968-3200,DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	1J(17)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



PHASE 3 - STAGE 3

CONSTRUCT TEMPORARY PEDESTRIAN RAMPS AND INSTALL TEMPORARY MARKED CROSSWALK, CROSSING WEST TAYLOR RUN PARKWAY, PRIOR TO WORK AREA, AUDIBLE INFORMATION DEVICES SHALL BE PROVIDED AT THE TEMPORARY CROSSWALK. DETOUR PEDESTRIANS TO THE EAST SIDE OF WEST TAYLOR RUN PARKWAY. SEE PEDESTRIAN DETOUR 2 (SHEET 1J(23)) FOR ROUTE AND SIGNAGE DETAILS.

CONSTRUCT SIDEWALK ALONG SOUTHBOUND WEST TAYLOR RUN PKWY UTILIZING WEEKEND LANE CLOSURE. CLOSE SOUTHBOUND WEST TAYLOR RUN PKWY.

DURING STAGE 3, DETOUR SOUTHBOUND WEST TAYLOR RUN PKWY TRAFFIC TO N QUAKER LANE. SEE ROADWAY DETOUR 4 (SHEET 1J(21)) FOR ROUTE AND SIGNAGE DETAILS.

CONTRACTOR SHALL REMOVE ALL REMAINING TEMPORARY FACILITIES AT THE END OF THIS STAGE.

PHASE 3 - STAGE 3 SIGNAL NOTES

INSTALL TEMPORARY PEDESTRIAN SIGNALS AND CURB RAMPS AT WEST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY. THE TEMPORARY FACILITY SHALL BE DETECTABLE (BY PEDESTRIANS AND MOTORIST) AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE LATEST EFFECTIVE REVISIONS TO VDOT IIM-LD-55 AND IIM-TOD-384.

INSTALL PERMANENT PEDESTRIAN SIGNALS AT EAST APPROACH OF DUKE ST AT W TAYLOR RUN PKWY.

CONTRACTOR SHALL COORDINATE WITH THE CITY OF ALEXANDRIA REGARDING SIGNAL TIMING CHANGES DUE TO ELIMINATION OF CROSSWALK ON THE EAST LEG AND ADDITION OF NEW CROSSWALK ON THE WEST LEG OF THE INTERSECTION.

MOT LEGEND:

- PROP. WORK AREA
- PROP. CONSTR. STAGING AREA
- PROP. NIGHTTIME WORK AREA
- TEMPORARY PAVEMENT
- GROUP 2 CHANNELIZING DEVICES
- TEMPORARY BARRIER SERVICE CONCRETE
- TYPE III BARRICADE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC FLOW ARROW
- FLAGGER

MAINTENANCE OF TRAFFIC PHASE 3 - STAGE 3 SHEET 1 OF 1

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	1J(17)

1/23/2026
4:46:14 PM

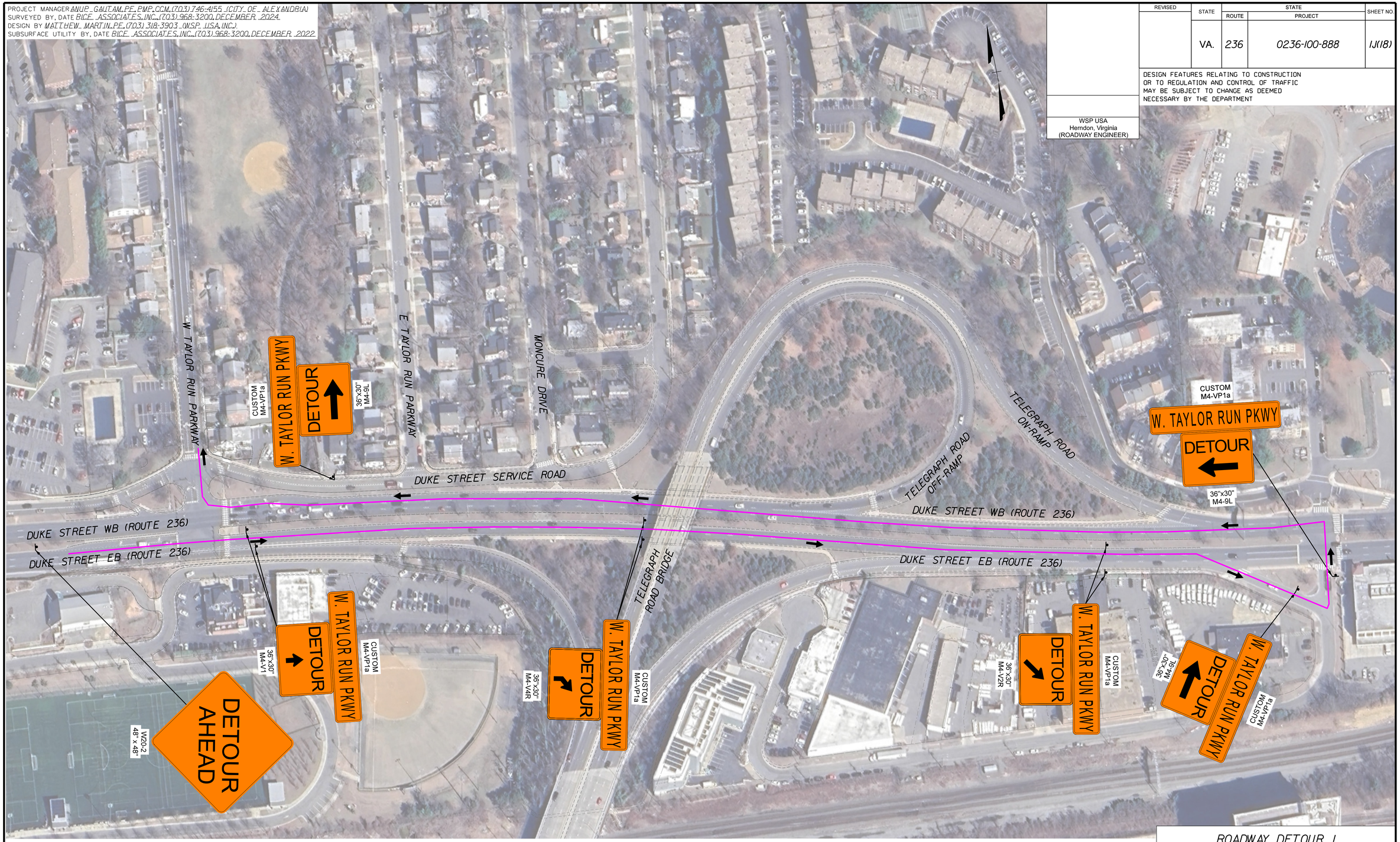
dll55310\1J118\dgn
Plotted By: USEB695877

PROJECT MANAGER: ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE: RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY: MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE: RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	1J(18)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



MOT DETOUR LEGEND:

- DIRECTIONAL ARROW
- DETOUR ROUTE
- DETOUR ROUTE

THIS DETOUR APPLIES TO THE FOLLOWING STAGES:
- PHASE 2 STAGE 1A
- PHASE 2 STAGE 1B
- PHASE 2 STAGE 2

ROADWAY DETOUR 1
DUKE STREET EB LEFT TURN LANE CLOSURE

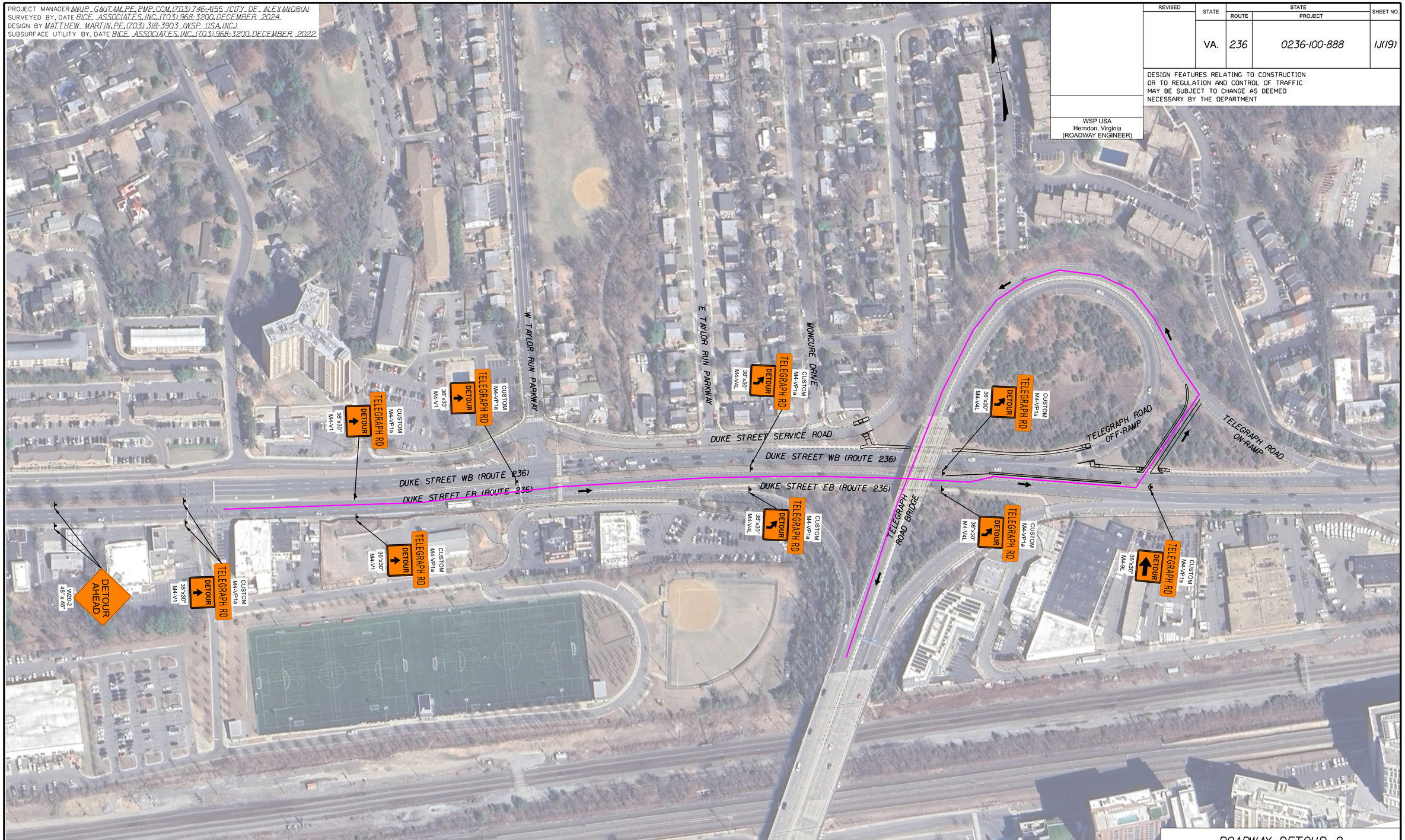
SCALE	PROJECT	SHEET NO.
0 80' 160'	0236-100-888	1J(18)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(19)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



MOT DETOUR LEGEND:

- DIRECTIONAL ARROW
- DETOUR ROUTE
- DETOUR ROUTE

THIS DETOUR APPLIES TO THE FOLLOWING STAGE:
- PHASE 2 STAGE 2

ROADWAY DETOUR 2
TELEGRAPH ROAD ON-RAMP CLOSURE

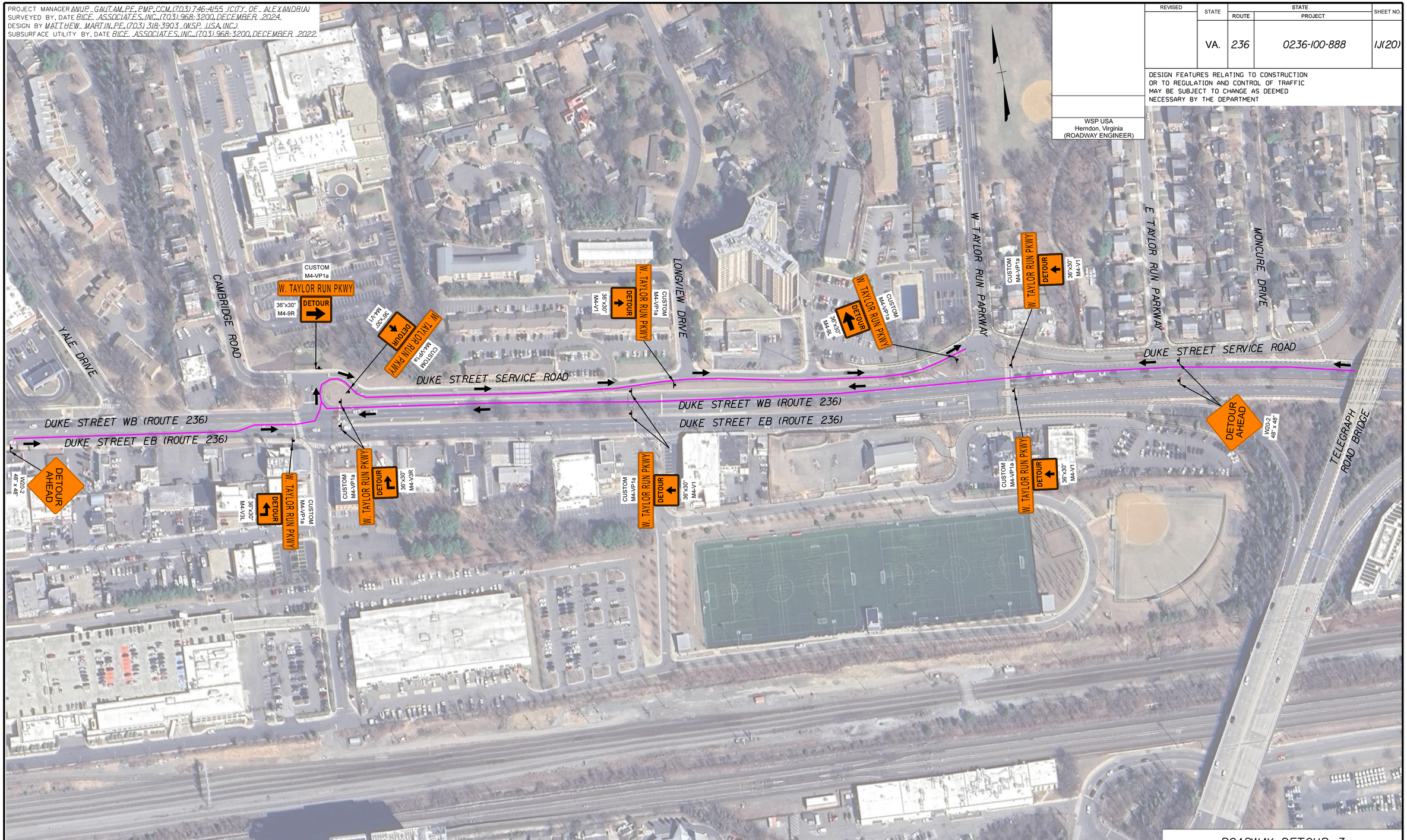
SCALE	PROJECT	SHEET NO.
0 100' 200'	0236-100-888	IJ(19)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	1J(20)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



MOT DETOUR LEGEND:

- DIRECTIONAL ARROW
- DETOUR ROUTE
- DETOUR ROUTE

THIS DETOUR APPLIES TO THE FOLLOWING STAGES:
- PHASE 2 STAGE 3
- PHASE 3 STAGE 1
- PHASE 3 STAGE 2

ROADWAY DETOUR 3
DUKE ST EB LEFT TURN AND WB RIGHT TURN LANE CLOSURES

SCALE	PROJECT	SHEET NO.
0 100' 200'	0236-100-888	1J(20)

1/23/2026
5:54:21 PM

dll553101jl(21).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	1J(21)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

SEMINARY ROAD
JANNEY'S LANE
N QUAKER LANE
YALE DRIVE
CAMBRIDGE ROAD
CLOVERWAY DRIVE
SKYHILL ROAD
E TAYLOR RUN PARKWAY
W TAYLOR RUN PARKWAY
DART MOUTH ROAD
S VIEW TERRACE
TAYLOR RUN PARKWAY
MONCURE DRIVE
TELEGRAPH ROAD BRIDGE
DUKE STREET (ROUTE 236)

CUSTOM M4-VP1a DUKE ST DETOUR 36"x30" M4-9L
CUSTOM M4-VP1a DUKE ST DETOUR 36"x30" M4-9L
DETOUR AHEAD 48"x48" W20-2
60"x30" R11-4 ROAD CLOSED TO THRU TRAFFIC
ROAD CLOSED 1/2 Mile 48"x48" W20-3 MOD
CUSTOM M4-VP1a DUKE ST DETOUR 36"x30" M4-9L
ROAD CLOSED 0.25 MILES AHEAD LOCAL TRAFFIC ONLY 60"x30" R11-3
48"x48" W20-3
ROAD CLOSED 1000 FT
48"x48" W20-3
ROAD CLOSED 500 FT
36"x30" M4-V3R DETOUR DUKE ST CUSTOM M4-VP1a
DETOUR DUKE ST 36"x30" M4-9L CUSTOM M4-VP1a
48"x30" R11-2 MOUNTED ON TYPE 3 BARRICADE ROAD CLOSED
36"x30" M4-9L DETOUR DUKE ST CUSTOM M4-VP1a

MOT DETOUR LEGEND:
- DIRECTIONAL ARROW
- DETOUR ROUTE
- DETOUR ROUTE

THIS DETOUR APPLIES TO THE FOLLOWING STAGE:
- PHASE 3 STAGE 3

ROADWAY DETOUR 4
SB W TAYLOR RUN PARKWAY ROAD CLOSURE

SCALE	PROJECT	SHEET NO.
0 200' 400'	0236-100-888	1J(21)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(22)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

W TAYLOR RUN PARKWAY
E TAYLOR RUN PARKWAY
MONCURE DRIVE
DUKE STREET SERVICE ROAD
DUKE STREET WB (ROUTE 236)
DUKE STREET EB (ROUTE 236)
TELEGRAPH ROAD BRIDGE
TELEGRAPH ROAD OFF-RAMP
TELEGRAPH ROAD ON-RAMP

48"x36" M4-9bL DETOUR
30"x30" W11-2
21"x15" W16-7PR
21"x15" W16-7PL
24"x12" W16-9P AHEAD
SIDEWALK CLOSED
30"x18" R9-9
48"x24" R9-11L SIDEWALK CLOSED AHEAD CROSS HERE
48"x36" M4-9bR

MOT DETOUR LEGEND:
- DIRECTIONAL ARROW
- DETOUR ROUTE
- DETOUR ROUTE

THIS DETOUR APPLIES TO THE FOLLOWING STAGES:
- PHASE I STAGE 1
- PHASE I STAGE 2

PEDESTRIAN DETOUR 1
EB DUKE STREET SIDEWALK CLOSURE

SCALE	PROJECT	SHEET NO.
0 80' 160'	0236-100-888	IJ(22)

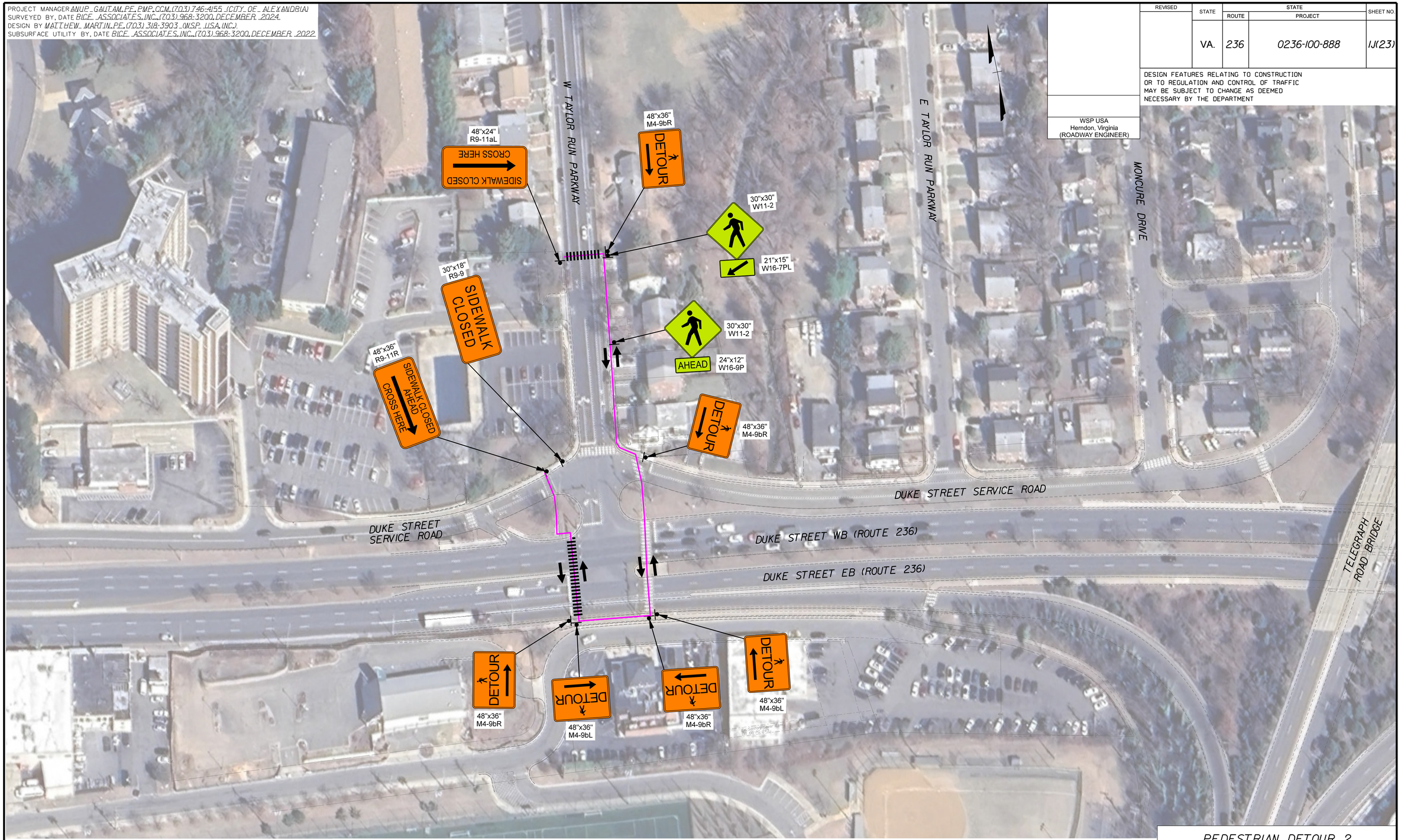
dll5531010123 1.dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP_GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW_MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	IJ(23)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



MOT DETOUR LEGEND:

- DIRECTIONAL ARROW
- DETOUR ROUTE
- DETOUR ROUTE

THIS DETOUR APPLIES TO THE FOLLOWING STAGE:
- PHASE 3 STAGE 3

PEDESTRIAN DETOUR 2
SB W TAYLOR RUN PARKWAY SIDEWALK CLOSURE

SCALE	PROJECT	SHEET NO.
0 50' 100'	0236-100-888	IJ(23)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

GENERAL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2

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

GRADING

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

G-2 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction.

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: _____

G-6 The borrow material for this project shall be a minimum CBR 5.0 or as approved by the Materials Engineer.

G-7 Material from regular excavation which is suitable for stabilization with hydraulic cement (lime) shall be placed in the top portion of the subgrade.

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 City of Alexandria 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-7 All pipe on this project shall be concrete pipe. For strength, sheet thickness, or class designation: available sizes: height of cover limitations; and other restrictions for a particular pipe type or height cover, see 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 City of Alexandria Design and Construction 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-15 Where the plans specify the installation of standard curb drop inlets adjacent to the City of Alexandria Standard Curb and Gutter, the Standard Drop Inlets (as shown in the City of Alexandria Design and Construction Standards shall be modified in accordance with details shown on sheet number (specify sheet number). These drop inlets shall be considered and paid for as Standard Drop Inlets for the type specified.

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

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-4 All trees located within the Clear Zone or within a minimum of 30 feet of the edge of pavement, within the limits of the right of way or construction easement, unless otherwise noted on plans or directed by the Engineer, shall be removed.

I-5 That portion of the right of way lying within the Clear Zone or within a minimum of 10 feet from the edge of pavement or surfacing or within the limits of the construction slopes beyond 10 feet, shall be cleared and grubbed where sufficient right of way or construction easement is provided.

I-6 Certain trees shall be preserved as noted on plans or as directed by the Engineer.

I-7 Where Standard slope roundoffs would damage trees, bushes or other desirable vegetation, they shall be omitted when so ordered by the Engineer.

I-8A Clearing and grubbing shall be confined to those areas needed for construction. No trees or shrubs in ungraded areas shall be cut without the permission of the Engineer. Sta. 30+36 to Sta. 32+54

I-9 When no centerline alignment is shown for a proposed entrance, the entrance shall be constructed in the same location as the existing entrance.

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-17 For method of constructing Straight-Line Taper Lanes in curb and/or curb and gutter sections, see typical details on Sheet _____.

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

EC-2, Ty. 1 / EC-2, Ty. 2 / EC-2, Ty. 3 / EC-2, Ty. 4	Denotes Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3, Ty. 1 / EC-3, Ty. 2 / EC-3, Ty. 3	Denotes Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
TSF-A / TSF-B	Denotes Temporary Silt Fence, St'd EC-5 Type A or B
TCD	Denotes Temporary Check Dam, St'd EC-16
TDC	Denotes Temporary Diversion Channel, St'd EC-12
DD	Denotes Temporary Diversion Dike, St'd EC-9
TC-I	Denotes Turbidity Curtain, Type - Impervious
TC-P	Denotes Turbidity Curtain, Type - Pervious
RCD-1	Denotes Rock Check Dam, Type I: St'd EC-4
RCD-2	Denotes Rock Check Dam, Type II: St'd EC-4
IP-A	Denotes Inlet Protection, Type A: St'd EC-6
IP-B	Denotes Inlet Protection, Type B: St'd EC-6
TSI	Denotes Slope Interrupter: St'd EC-15
LOD	Denotes Limits of Disturbance

E-4 Permanent vegetation shall be established on all denuded areas not otherwise stabilized with non-erodible materials. See the Roadside Development sheet for details on permanent vegetation establishment.

FINDINGS

F-1 This project will cause changes to the road system on Duke Street between West Taylor Run Parkway and Telegraph Road. The work is not expected to impact archaeological resources. However, in the unlikely event that archaeological resources are encountered during the project, the conditions below apply.

RECOMMENDATIONS

R-1 The statements in archaeology conditions below shall appear in General Notes of all site plans and on all site plan sheets that involve demolition or ground disturbance (including Basement/Foundation Plans, Demolition, Erosion and Sediment Control, Grading, Landscaping, Utilities, and Sheeting and Shoring) so that on-site contractors are aware of the requirements:

a. The applicant shall call Alexandrian Archaeology immediately (703-746-4399) if any buried structural remains (evidence of historic dams or weirs) or concentrations of artifacts are discovered during development. Work must cease in the area of the discovery until a City Archaeologist comes to the site and records the finds.

b. The applicant/developer shall not allow any metal detection to be conducted within the project area, unless authorized by Alexandria Archaeology.

*THESE NOTES HAVE BEEN MODIFIED TO REFER TO CITY OF ALEXANDRIA STANDARDS AND PROJECT SPECIFICATIONS WHERE APPLICABLE.

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

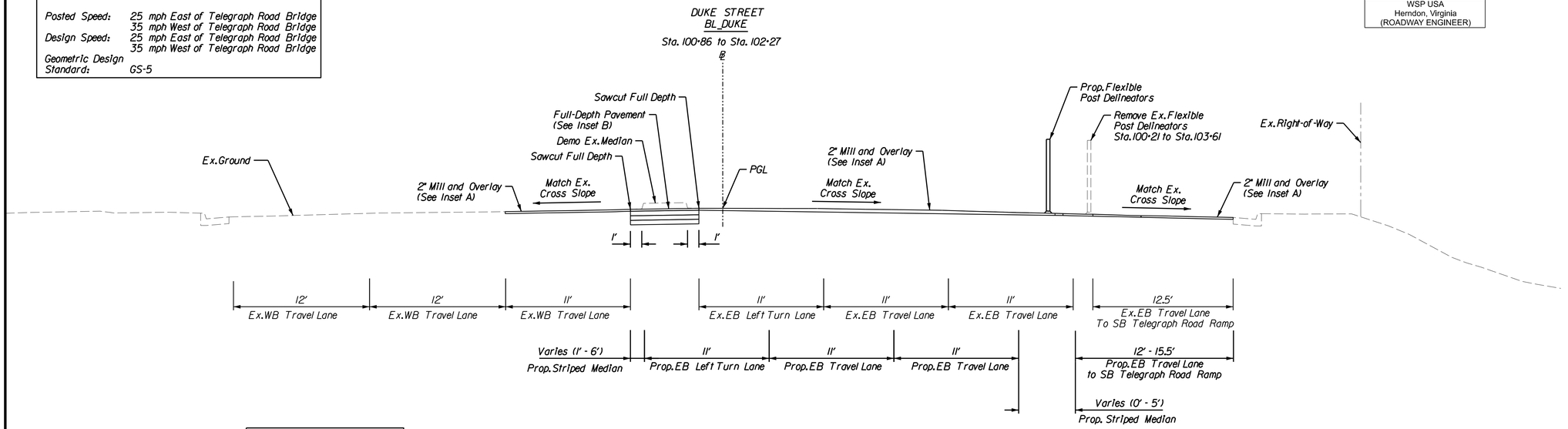
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2A(1)

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

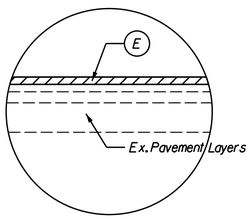
WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

Duke Street (Route 236)

Posted Speed: 25 mph East of Telegraph Road Bridge
35 mph West of Telegraph Road Bridge
Design Speed: 25 mph East of Telegraph Road Bridge
35 mph West of Telegraph Road Bridge
Geometric Design Standard: GS-5

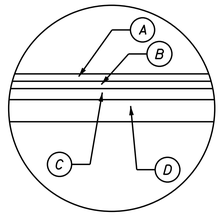


DUKE STREET
INSET A
MILL AND OVERLAY



Not to Scale

DUKE STREET
INSET B
FULL-DEPTH PAVEMENT



Not to Scale

(A) 2" Surface Course (Asphalt Concrete Ty. SM-12.5A, estimated at 236 lbs/Sy)
(B) 2" Intermediate Course (Asphalt Concrete Ty. IM-19.0A, estimated at 236 lbs/Sy)
(C) 6" Base Course (Asphalt Concrete Ty. BM-25.0)
(D) 6" Subbase, Cement Treated Aggregate, VDOT CTA
(E) 2" Mill and Overlay (Asphalt Concrete Ty. SM-12.5A, estimated at 236 lbs/Sy)

Notes:

1. All widening to be performed in accordance with VDOT Standard WP-2

TYPICAL SECTIONS
DUKE STREET
SHEET 1 OF 4

SCALE	PROJECT	SHEET NO.
0 5' 10'	0236-100-888	2A(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2A(2)

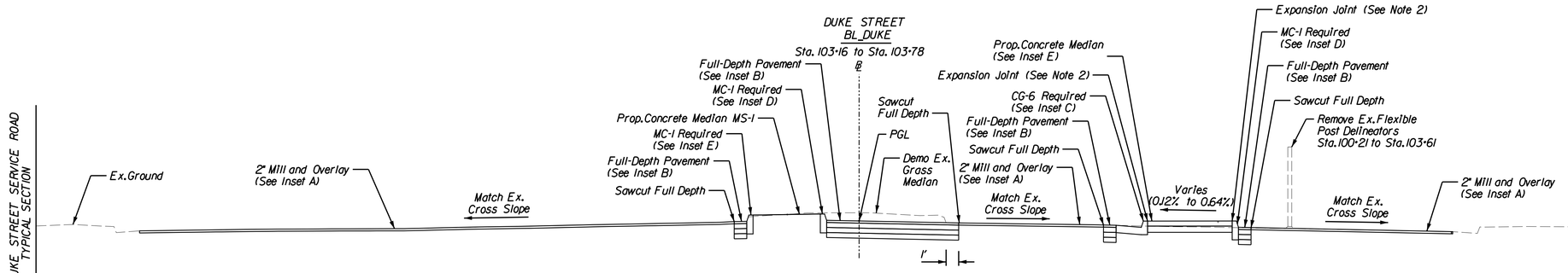
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

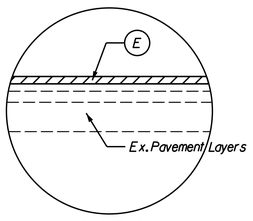
Duke Street (Route 236)

Posted Speed:	25 mph East of Telegraph Road Bridge
	35 mph West of Telegraph Road Bridge
Design Speed:	25 mph East of Telegraph Road Bridge
	35 mph West of Telegraph Road Bridge
Geometric Design Standard:	GS-5

SEE DUKE STREET SERVICE ROAD TYPICAL SECTION

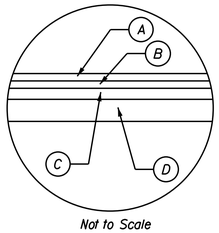


DUKE STREET INSET A
MILL AND OVERLAY



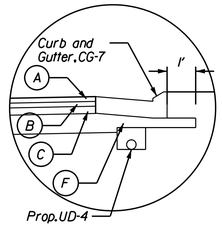
Not to Scale

DUKE STREET INSET B
FULL-DEPTH PAVEMENT



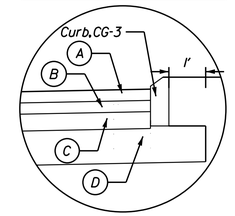
Not to Scale

DUKE STREET INSET J
CURB AND GUTTER



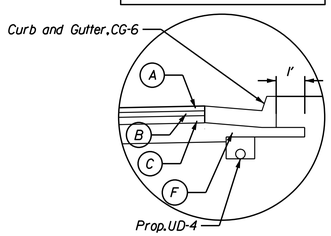
Not to Scale

DUKE STREET INSET K
MEDIAN CURB



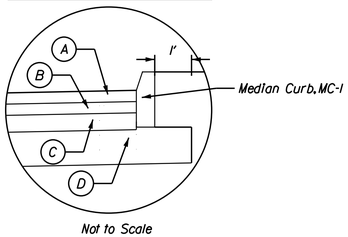
Not to Scale

DUKE STREET INSET C
CURB AND GUTTER



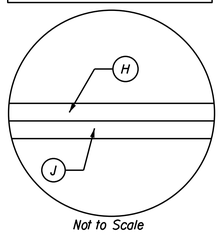
Not to Scale

DUKE STREET INSET D
MEDIAN CURB



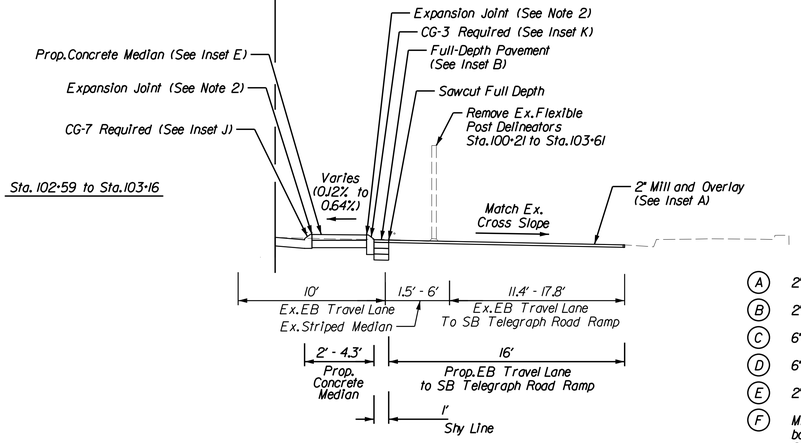
Not to Scale

DUKE STREET
SEE INSET E
CONCRETE MEDIAN



Not to Scale

Sta. 102+59 to Sta. 103+16



Notes:

1. All widening to be performed in accordance with VDOT Standard WP-2
2. When the Asphalt pavement or Concrete Sidewalk abuts the Concrete pavement, Curb and Gutter, Hydraulic Concrete, or Prop.Concrete Median, a 1/2" expansion joint with filler material shall be provided

(A) 2" Surface Course (Asphalt Concrete Ty.SM-12.5A, estimated at 236 lbs/Sy)
(B) 2" Intermediate Course (Asphalt Concrete Ty.IM-19.0A, estimated at 236 lbs/Sy)
(C) 6" Base Course (Asphalt Concrete Ty.BM-25.0)
(D) 6" Subbase, Cement Treated Aggregate, VDOT CTA
(E) 2" Mill and Overlay (Asphalt Concrete Ty.SM-12.5A, estimated at 236 lbs/Sy)
(F) Min.6" Subbase, Cement Treated Aggregate, VDOT CTA or extended to the bottom of existing aggregate, whichever is greater and connected to Standard UD-4 beneath the Curb and Gutter, and extending a min. of 1' beyond the Curb and Gutter
(H) 4" Hydraulic Cement Concrete, Class A3
(J) 4" min. Aggregate Base Material Type I, Size No.21A (Extended 6" on either side of Sidewalk)

TYPICAL SECTIONS
DUKE STREET
SHEET 2 OF 4

SCALE	PROJECT	SHEET NO.
0 5' 10'	0236-100-888	2A(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2A(3)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

Duke Street (Route 236)

Posted Speed:	25 mph East of Telegraph Road Bridge 35 mph West of Telegraph Road Bridge
Design Speed:	25 mph East of Telegraph Road Bridge 35 mph West of Telegraph Road Bridge
Geometric Design Standard:	GS-5

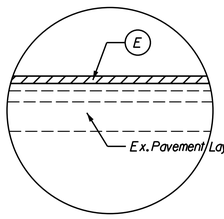
SEE DUKE STREET SERVICE ROAD TYPICAL SECTION

DUKE STREET
BL DUKE
Sta. 103+78 to Sta. 107+28
℄

Prop. Grass Median
MC-1 Required (See Inset D)
Full Depth Pavement (See Inset B)
Sawcut Full Depth
2" Mill and Overlay (See Inset A)
PGL
MC-1 Required (See Inset D)
Demo Ex. Grass Median
Full-Depth Pavement. (See Inset B)
Sawcut Full Depth
2" Mill and Overlay (See Inset A)
Full-Depth Pavement (See Inset B)
Sawcut Full Depth
CG-6 Required (See Inset C)
Expansion Joint (See Note 2)
Varies (-0.69% to 1.5%)
Prop. Concrete Median. (See Inset E)
Expansion Joint (See Note 2)
MC-1 Required (See Inset D)
Full-Depth Pavement. (See Inset B)
Sawcut Full Depth
2" Mill and Overlay (See Inset A)
Ex. Ground

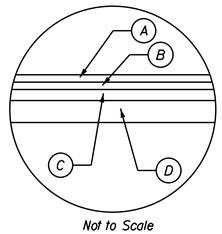
12' Ex.WB Travel Lane | 12' Ex.WB Travel Lane | 11' Ex.WB Travel Lane
1' Shy Line | 10' Ex.EB Travel Lane | 10' Ex.EB Travel Lane
1' | 1.5' - 5.7' Ex. Median | 1' | 13' - 19' Ex.EB Travel Lane To SB Telegraph Road Ramp
Width of Full Depth Pavement: 1' - 12' | Width of 2" Mill and Overlay: 12' - 21'
1' Shy Line
11' Prop.EB Travel Lane | 11' Prop.EB Travel Lane | 10' Prop. Concrete Median | 16' - 21' Prop.EB Travel Lane to SB Telegraph Road Ramp

DUKE STREET
INSET A
MILL AND OVERLAY



Not to Scale

DUKE STREET
INSET B
FULL-DEPTH PAVEMENT



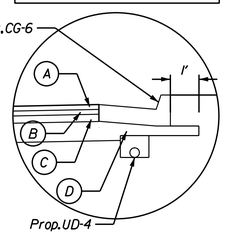
Not to Scale

Sta. 103+78 to Sta. 104+78

Prop. Reinforced Concrete Pad (See Inset F)
Prop. Reinforced Concrete Bus Pad. (See Inset G)
Expansion Joint (See Note 2)
MC-1 Required. (See Inset D)
Demo Ex. Concrete Median
Full-Depth Pavement. (See Inset B)
Sawcut Full Depth
2" Mill and Overlay (See Inset A)
CG-6 Required
Expansion Joint (See Note 2)
Match Ex. Cross Slope
Varies (-0.12% to 1.5%)
Match Ex. Cross Slope
Ex. Ground

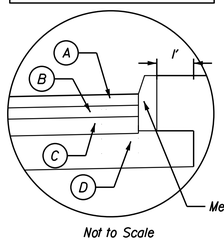
10' Ex.EB Travel Lane | 10' Ex.EB Travel Lane | 1.5' - 2.4' Ex. Median | 13' - 14' Ex.EB Travel Lane To SB Telegraph Road Ramp
11' Prop.EB Travel Lane | 10' Prop. Concrete Median | 16' - 21' Prop.EB Travel Lane to SB Telegraph Road Ramp
1' Shy Line

DUKE STREET
INSET C
CURB AND GUTTER



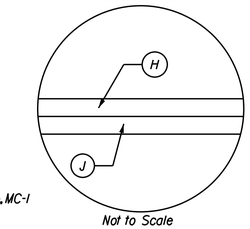
Not to Scale

DUKE STREET
SEE INSET D
MEDIAN CURB



Not to Scale

DUKE STREET
SEE INSET E
CONCRETE MEDIAN/SIDEWALK



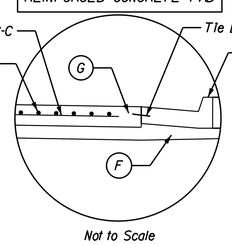
Not to Scale

Sta. 105+81 to Sta. 106+54

CG-6 Required (See Inset C)
Expansion Joint (See Note 2)
Prop. Sidewalk (See Inset E)
1.5%
MC-1 Required (See Inset D)
Full-Depth Pavement (See Inset B)
Sawcut Full Depth
2" Mill and Overlay (See Inset A)
Match Ex. Cross Slope
Ex. Ground

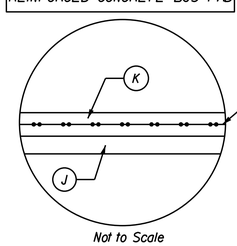
1' Bench | 14' - 19' Ex.EB Travel Lane To SB Telegraph Road Ramp
8' Prop. Sidewalk | 1' Bench | 16' - 21' Prop.EB Travel Lane to SB Telegraph Road Ramp
1' Shy Line

DUKE STREET
SEE INSET F
REINFORCED CONCRETE PAD



Not to Scale

DUKE STREET
SEE INSET G
REINFORCED CONCRETE BUS PAD



Not to Scale

(A) 2" Surface Course (Asphalt Concrete Ty. SM-12.5A, estimated at 236 lbs/Sy)
(B) 2" Intermediate Course (Asphalt Concrete Ty. IM-19.0A, estimated at 236 lbs/Sy)
(C) 6" Base Course (Asphalt Concrete Ty. BM-25.0)
(D) 6" Subbase, Cement Treated Aggregate, VDOT CTA
(E) 2" Mill and Overlay (Asphalt Concrete Ty. SM-12.5A, estimated at 236 lbs/Sy)
(F) Min. 6" Subbase, Cement Treated Aggregate, VDOT CTA or extended to the bottom of existing aggregate, whichever is greater and connected to Standard UD-4 beneath the Curb and Gutter, and extending a min. of 1' beyond the Curb and Gutter
(G) 12" Class A3 Hydraulic Cemment Concrete Pavement (HCCP), Standard PR-2 with 15' max. joint spacing
(H) 4" Hydraulic Cement Concrete, Class A3
(J) 4" min. Aggregate Base Material Type I, Size No. 21A (Extended 6" on either side of Sidewalk)
(K) 6" Hydraulic Cement Concrete, Class A4

Notes:

1. All widening to be performed in accordance with VDOT Standard WP-2
2. When the Asphalt pavement or Concrete Sidewalk abuts the Concrete pavement, Curb and Gutter, Hydraulic Concrete, or Prop. Concrete Median', a 1/2" expansion joint with filler material shall be provided

TYPICAL SECTIONS
DUKE STREET
SHEET 3 OF 4

SCALE	PROJECT	SHEET NO.
0 5' 10'	0236-100-888	2A(3)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2A(4)

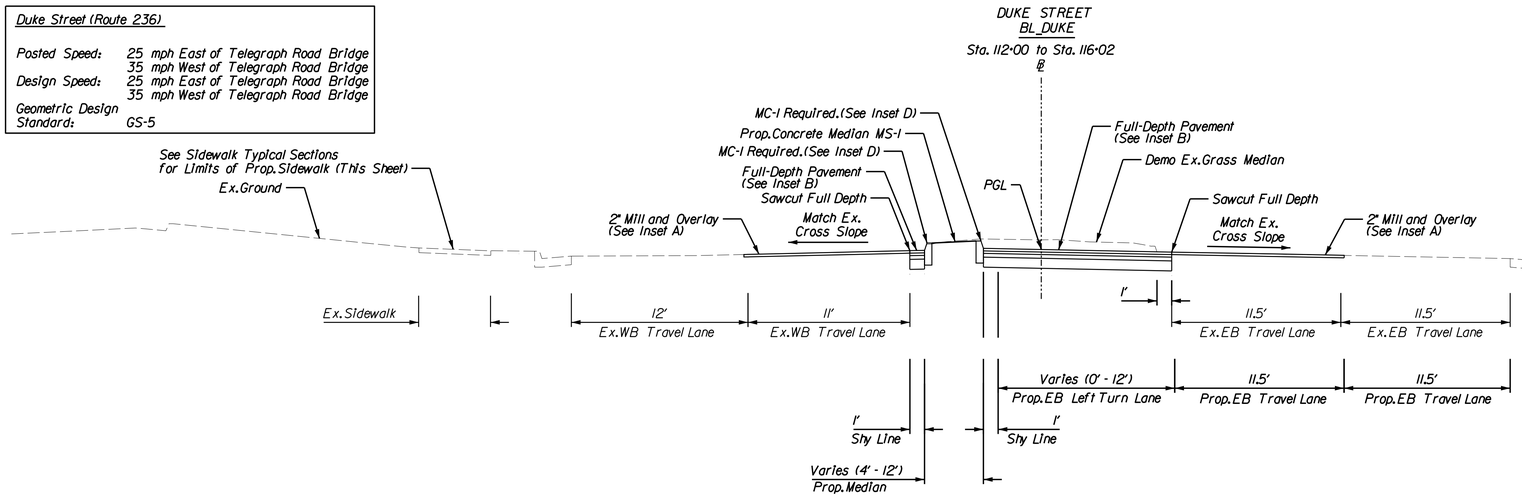
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

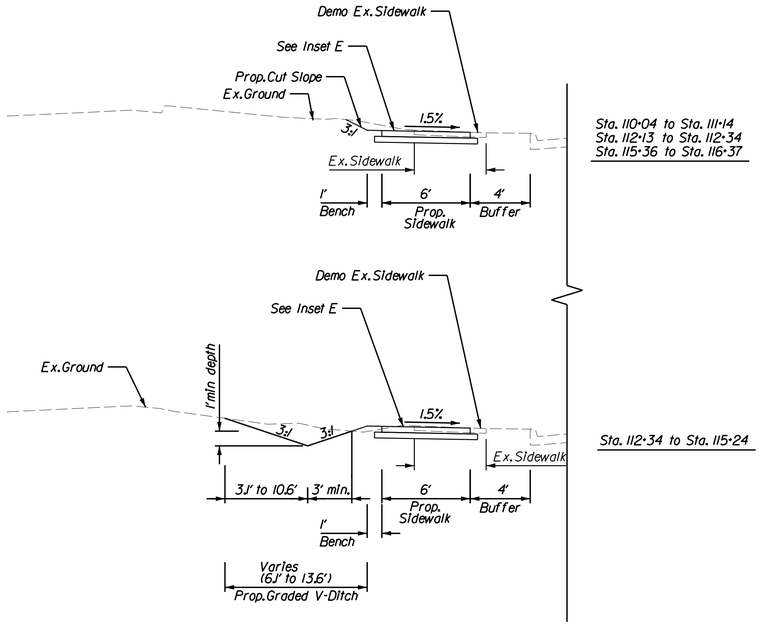
WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

Duke Street (Route 236)

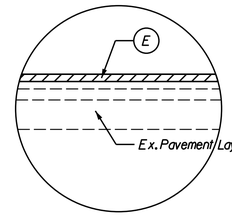
Posted Speed: 25 mph East of Telegraph Road Bridge
35 mph West of Telegraph Road Bridge
Design Speed: 25 mph East of Telegraph Road Bridge
35 mph West of Telegraph Road Bridge
Geometric Design Standard: GS-5

DUKE STREET
BL DUKE
Sta. 112+00 to Sta. 116+02
℄



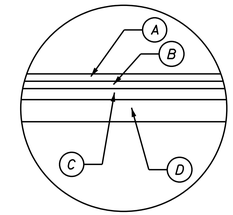


DUKE STREET
INSET A
MILL AND OVERLAY



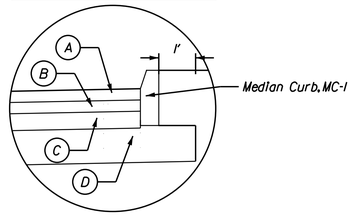
Not to Scale

DUKE STREET
INSET B
FULL-DEPTH PAVEMENT



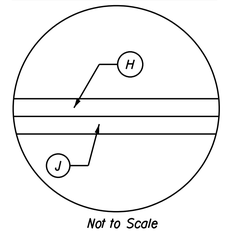
Not to Scale

DUKE STREET
INSET D
MEDIAN CURB



Not to Scale

DUKE STREET
INSET E
CONCRETE SIDEWALK



Not to Scale

(A) 2" Surface Course (Asphalt Concrete Ty. SM-12.5A, estimated at 236 lbs/Sy)
(B) 2" Intermediate Course (Asphalt Concrete Ty. IM-19.0A, estimated at 236 lbs/Sy)
(C) 6" Base Course (Asphalt Concrete Ty. BM-25.0)
(D) 6" Subbase, Cement Treated Aggregate, VDOT CTA
(E) 2" Mill and Overlay (Asphalt Concrete Ty. SM-12.5A, estimated at 236 lbs/Sy)
(H) 4" Hydraulic Cement Concrete, Class A3
(J) 4" min. Aggregate Base Material Type I, Size No. 21A (Extended 6" on either side of Sidewalk)

Notes:

1. All widening to be performed in accordance with VDOT Standard WP-2
2. When the Asphalt pavement or Concrete Sidewalk abuts the Concrete pavement, Curb and Gutter, Hydraulic Concrete, or Prop. Concrete Median", a 1/2" expansion joint with filler material shall be provided

TYPICAL SECTIONS
DUKE STREET
SHEET 4 OF 4

SCALE	PROJECT	SHEET NO.
0 5' 10'	0236-100-888	2A(4)

dll553102A(5).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

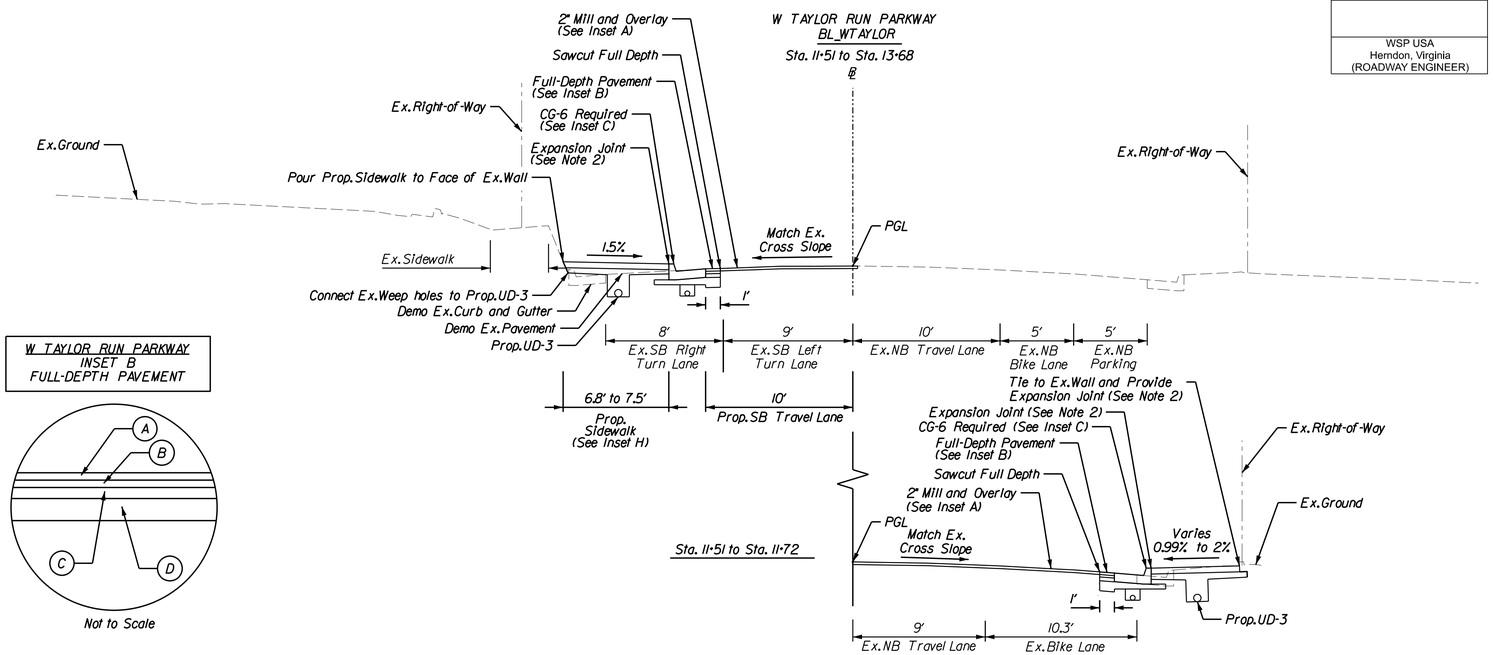
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2A(5)

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

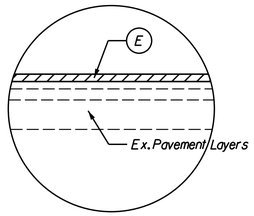
WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

W Taylor Run Parkway

Posted Speed: 25 mph
Design Speed: 25 mph
Geometric Design Standard: GS-7

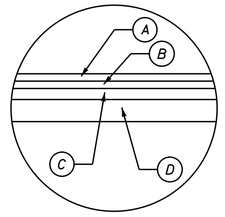


W TAYLOR RUN PARKWAY
INSET A
MILL AND OVERLAY



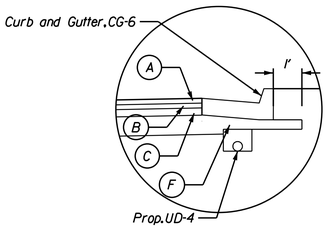
Not to Scale

W TAYLOR RUN PARKWAY
INSET B
FULL-DEPTH PAVEMENT



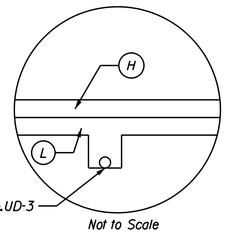
Not to Scale

W TAYLOR RUN PARKWAY
INSET C
CURB AND GUTTER



Not to Scale

W TAYLOR RUN PARKWAY
INSET H
CONCRETE SIDEWALK



Not to Scale

(A) 2" Surface Course (Asphalt Concrete Ty.SM-12.5A, estimated at 236 lbs/Sy)

(B) 2" Intermediate Course (Asphalt Concrete Ty.IM-19.0A, estimated at 236 lbs/Sy)

(C) 6" Base Course (Asphalt Concrete Ty.BM-25.0)

(E) 2" Mill and Overlay (Asphalt Concrete Ty.SM-12.5A, estimated at 236 lbs/Sy)

(F) Min.6" Subbase, Cement Treated Aggregate, VDOT CTA or extended to the bottom of existing aggregate, whichever is greater and connected to Standard UD-4 beneath the Curb and Gutter, and extending a min.of 1' beyond the Curb and Gutter

(H) 4" Hydraulic Cement Concrete, Class A3

(L) #57 Aggregate, #8 Aggregate, or Crushed Glass meeting #8 gradation requirement

Notes:

1. All widening to be performed in accordance with VDOT Standard WP-2
2. When the Concrete Sidewalk abuts Curb and Gutter, Hydraulic Concrete or Retaining wall, a 1/2" expansion joint with filler material shall be provided

TYPICAL SECTIONS
W TAYLOR RUN PARKWAY
SHEET 1 OF 1

SCALE	PROJECT	SHEET NO.
0 5' 10'	0236-100-888	2A(5)

dll553102A(6).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2A(6)

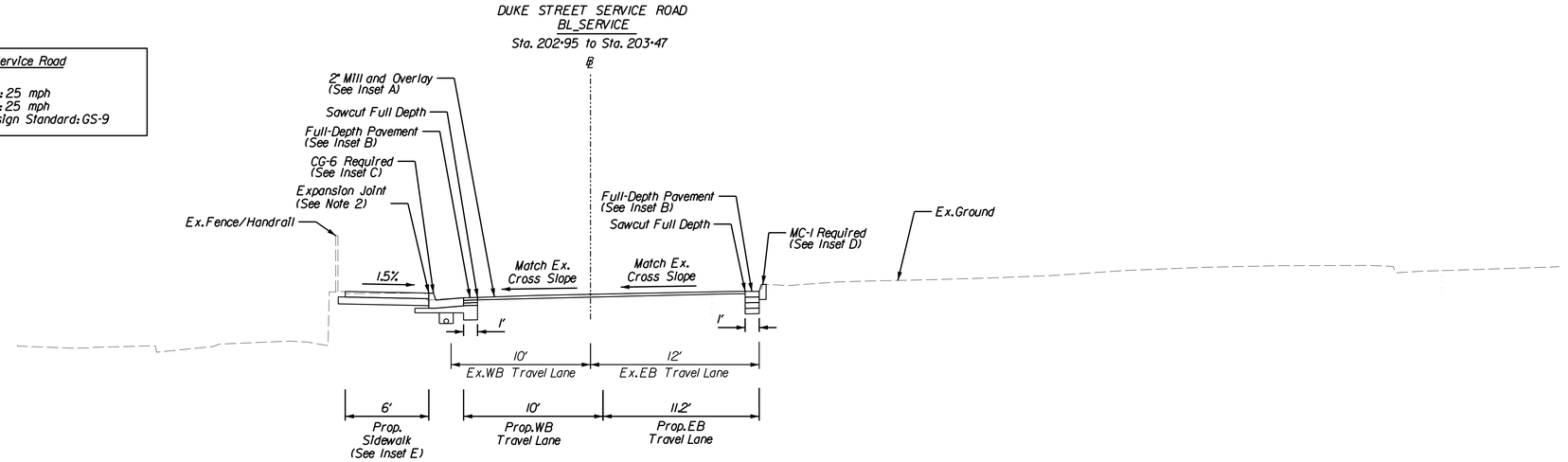
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

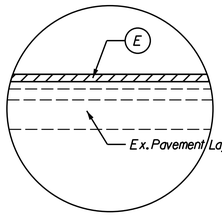
Duke Street Service Road

Posted Speed: 25 mph
Design Speed: 25 mph
Geometric Design Standard: GS-9

DUKE STREET SERVICE ROAD
BL_SERVICE
Sta. 202+95 to Sta. 203+47

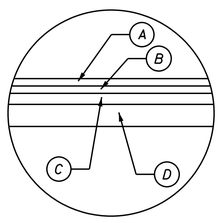


DUKE STREET SERVICE ROAD
INSET A
MILL AND OVERLAY



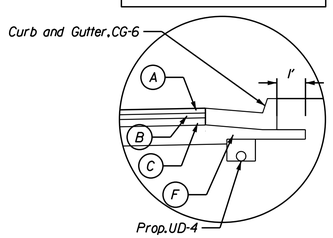
Not to Scale

DUKE STREET SERVICE ROAD
INSET B
FULL-DEPTH PAVEMENT



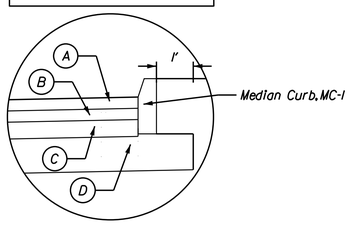
Not to Scale

DUKE STREET SERVICE ROAD
INSET C
CURB AND GUTTER



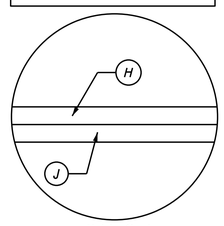
Not to Scale

DUKE STREET SERVICE ROAD
INSET D
MEDIAN CURB



Not to Scale

DUKE STREET SERVICE ROAD
INSET E
CONCRETE SIDEWALK



Not to Scale

(A) 2" Surface Course (Asphalt Concrete Ty. SM-12.5A, estimated at 236 lbs/Sy)
(B) 2" Intermediate Course (Asphalt Concrete Ty. IM-19.0A, estimated at 236 lbs/Sy)
(C) 6" Base Course (Asphalt Concrete Ty. BM-25.0)
(D) 6" Subbase, Cement Treated Aggregate, VDOT CTA
(E) 2" Mill and Overlay (Asphalt Concrete Ty. SM-12.5A, estimated at 236 lbs/Sy)
(F) Min. 6" Subbase, Cement Treated Aggregate, VDOT CTA or extended to the bottom of existing aggregate, whichever is greater and connected to Standard UD-4 beneath the Curb and Gutter, and extending a min. of 1' beyond the Curb and Gutter
(H) 4" Hydraulic Cement Concrete, Class A3
(J) 4" min. Aggregate Base Material Type I, Size No. 21A (Extended 6" on either side of Sidewalk)

Notes:

1. All widening to be performed in accordance with VDOT Standard WP-2
2. When the Concrete Sidewalk abuts Curb and Gutter, Hydraulic Concrete or Retaining wall, a 1/2" expansion joint with filler material shall be provided

TYPICAL SECTIONS
DUKE STREET SERVICE ROAD
SHEET 1 OF 1

SCALE	PROJECT	SHEET NO.
0 5' 10'	0236-100-888	2A(6)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2A(7)

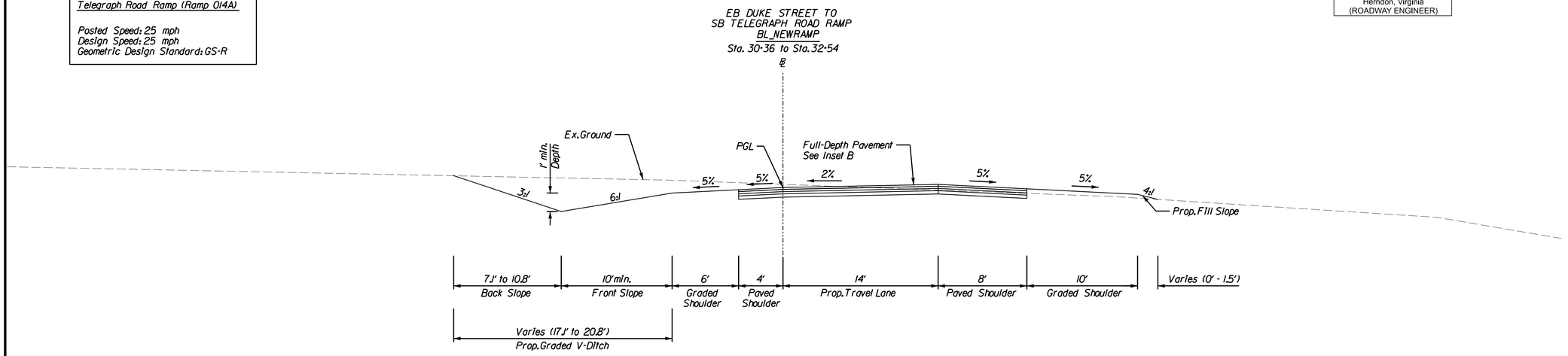
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

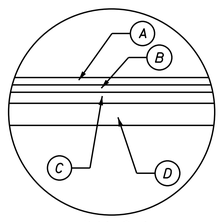
Telegraph Road Ramp (Ramp 014A)

Posted Speed: 25 mph
Design Speed: 25 mph
Geometric Design Standard: GS-R

EB DUKE STREET TO
SB TELEGRAPH ROAD RAMP
BL_NEWRAMP
Sta. 30+36 to Sta. 32+54



EB DUKE STREET TO SB TELEGRAPH ROAD RAMP
INSET B
FULL-DEPTH PAVEMENT



Not to Scale

(A) 2" Surface Course (Asphalt Concrete Ty. SM-12.5A, estimated at 236 lbs/Sy)
(B) 2" Intermediate Course (Asphalt Concrete Ty. IM-19.0A, estimated at 236 lbs/Sy)
(C) 6" Base Course (Asphalt Concrete Ty. BM-25.0)
(D) 6" Subbase, Cement Treated Aggregate, VDOT CTA

Notes:

1. All widening to be performed in accordance with VDOT Standard WP-2

TYPICAL SECTIONS
EB DUKE TO SB TELEGRAPH RAMP
SHEET 1 OF 1

SCALE	PROJECT	SHEET NO.
0 5' 10'	0236-100-888	2A(7)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

GEOTECHNICAL RECOMMENDATIONS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2A(8)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

Table D2: Summary of Unsuitable Subgrade Soils and Treatments
Duke Street and West Taylor Run Parkway Intersection Improvement
City of Alexandria, Virginia
DMY Project No. 01.05152.03

Station Range		Soil Classification	Type of Unsuitable Subgrade	Reference Borings	Recommended Treatment Method
Duke St EB (Route 236) - Median Between EB & WB					
100+45	102+30	SC/SM	Excessive Moisture	RB-01	A, B or C
103+00	104+88	CL/SM	Low CBR	RB-02	D or E
113+75	117+25	CH	Low CBR, Highly Plastic, and High Swell	RB-07 and RB-08	D or E
Telegraph Road On-ramp					
30+36	32+55	CH	Low CBR, Highly Plastic, and High Swell	RB-09 and RB-10	D or E

Method A: For unstable areas as identified by proofrolling, dry up the top 2 feet of subgrade soils beneath the proposed pavement using mechanical means to within 120% of the optimum moisture content and recompact in-place.
Method B: For unstable areas as identified by proofrolling, undercut to a depth of 2 feet below subgrade and backfill with compacted suitable fill with a minimum CBR value of 10.
Method C: For unstable areas as identified by proofrolling, dry up the subgrade soils using lime to within 120% of the optimum moisture content for a typical depth of 12 inches and recompact in-place. Lime content in the range of 1% to 5% by dry weight of soil is anticipated.
Method D: Undercut the unsuitable soils in its entirety or 3 feet from the proposed pavement subgrade elevation and replace with compacted suitable fills with a minimum CBR value of 10.
Method E: Undercut the unsuitable soils in its entirety or 2 feet from the proposed pavement subgrade elevation, place a layer of woven subgrade stabilization geotextile, and then backfill with Select Material, Type I, min CBR-30.

page 1 of 1

Notes:

1. *See Geotechnical Report for Additional Details regarding Unsuitable Soils.*
2. *The Undercut Depths listed in the table above shall be field verified during construction. The City Inspector has the authority to make field changes to redice the Undercut Depths based on field inspection of existing conditions and/or additional testing.*

TYPICAL SECTIONS
GEOTECHNICAL RECOMMENDATIONS
SHEET 1 OF 1

	PROJECT	SHEET NO.
	0236-100-888	2A(8)

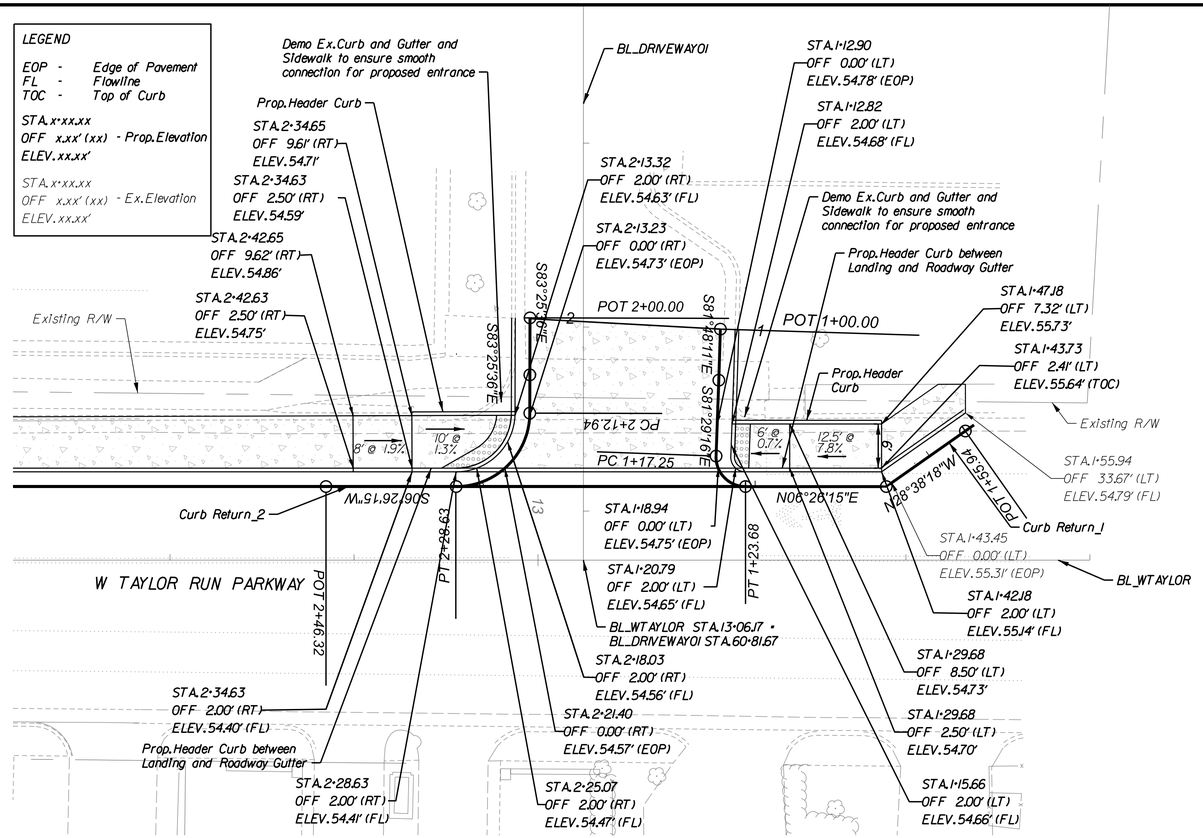
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

LEGEND

EOP - Edge of Pavement
FL - Flowline
TOC - Top of Curb

STA. x+xx.xx
OFF x.xx' (xx) - Prop. Elevation
ELEV. xx.xx'

STA. x+xx.xx
OFF x.xx' (xx) - Ex. Elevation
ELEV. xx.xx'

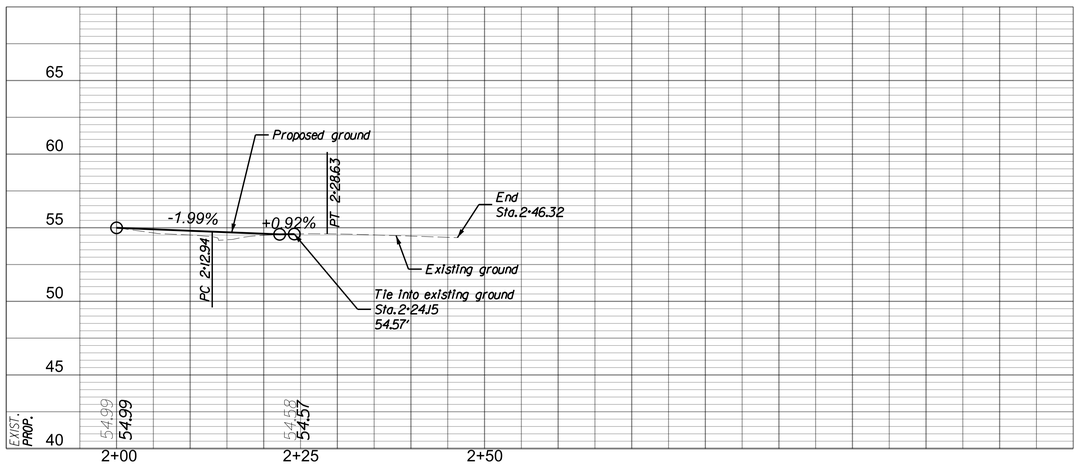


REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2B(1)

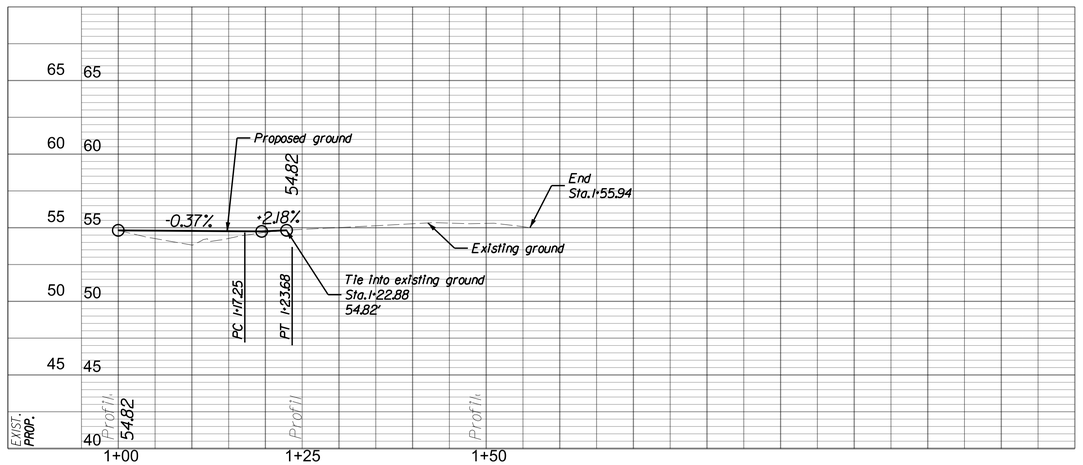
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

CURB RETURN_2



CURB RETURN_1



NOTES:
1. FINISHED GRADE FOR CURB RETURN PROFILES IS EDGE OF PAVEMENT (EOP) UNLESS OTHERWISE SHOWN.
2. SLOPES SHOWN ARE APPROXIMATE AVERAGES FOR EACH RAMP AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL USE STATIONS, OFFSETS, AND ELEVATIONS FOR CONSTRUCTION.

VERTICAL SCALE 10' 5' 0

CG-12 DETAILS AND CURB RETURN PROFILES SHEET 1 OF 5

SCALE	PROJECT	SHEET NO.
0 10' 20'	0236-100-888	2B(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2B(2)

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

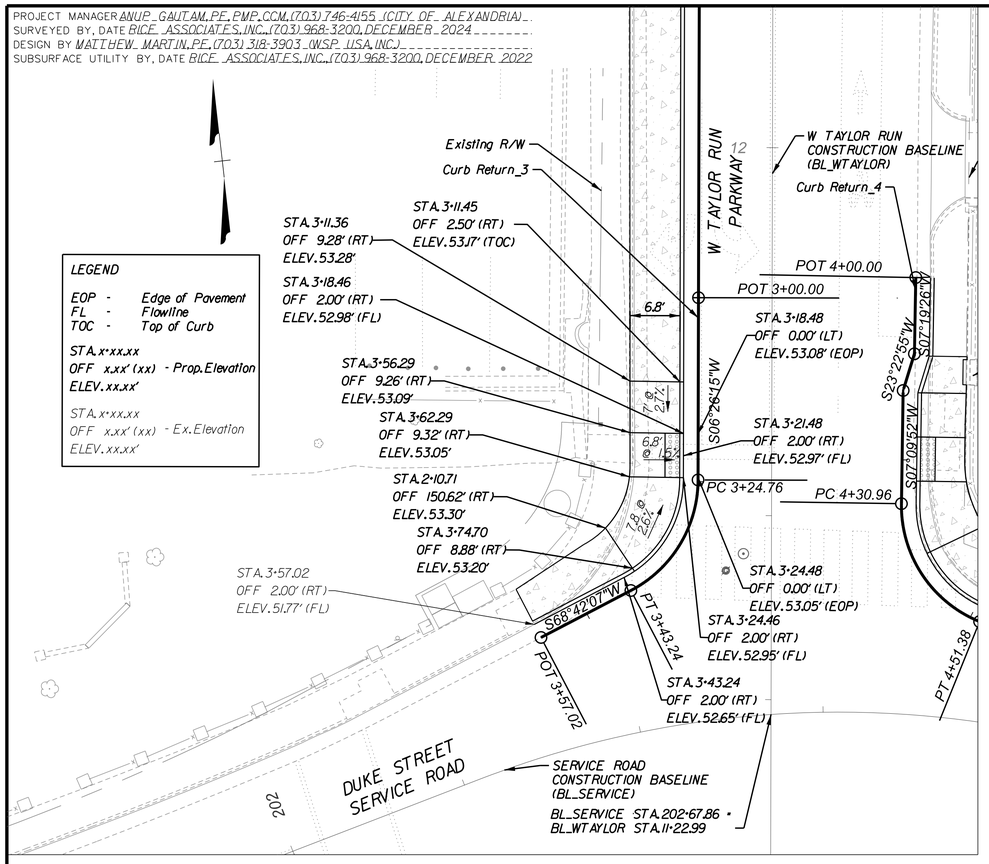
WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

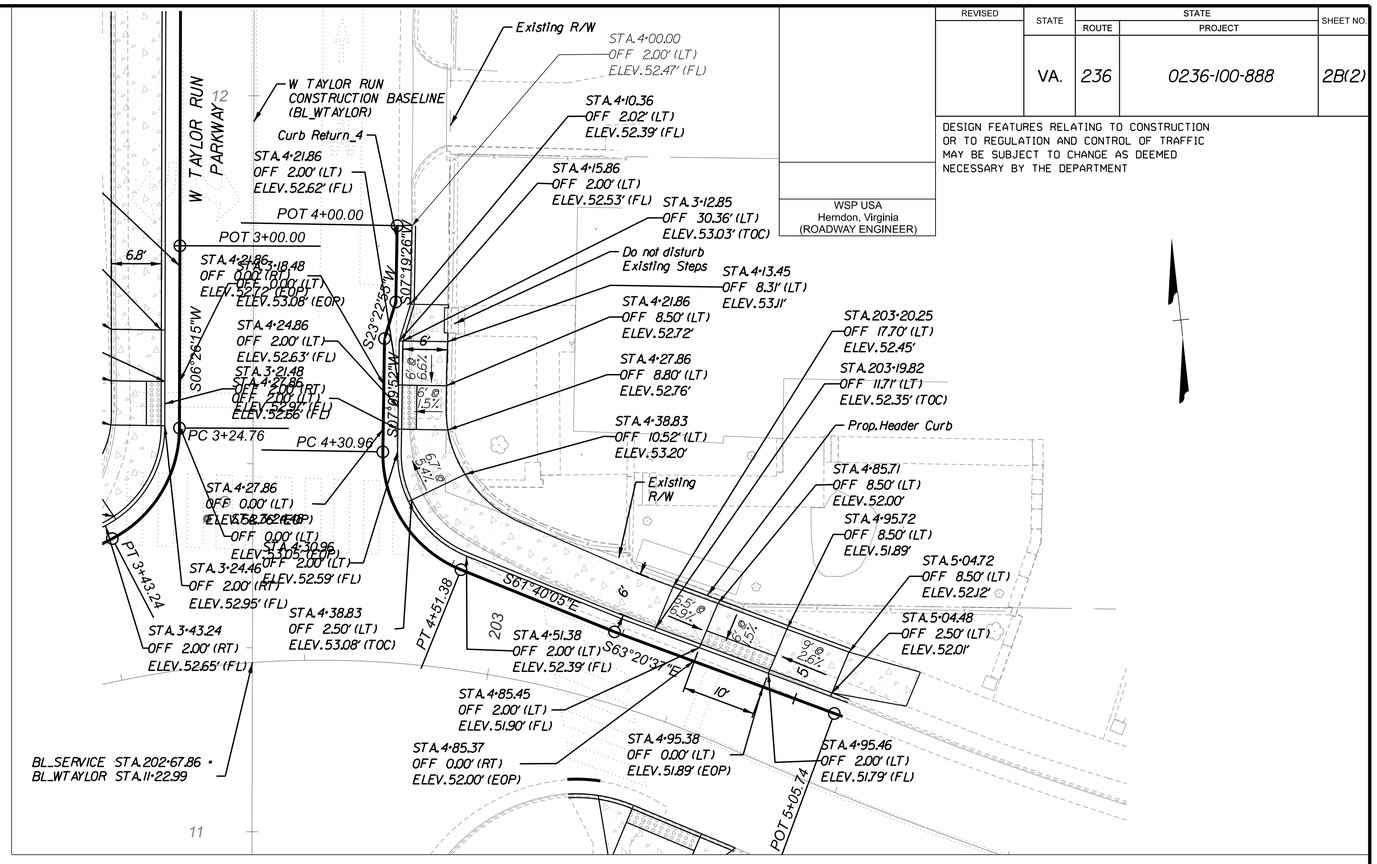
LEGEND

EOP - Edge of Pavement
FL - Flowline
TOC - Top of Curb

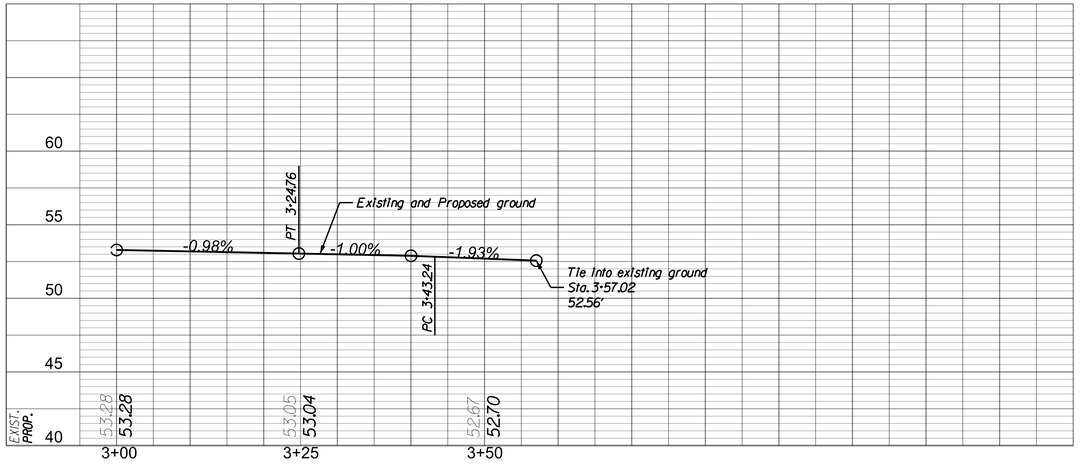
STA. x+xx.xx
OFF x.xx' (xx) - Prop. Elevation
ELEV. xx.xx'

STA. x+xx.xx
OFF x.xx' (xx) - Ex. Elevation
ELEV. xx.xx'

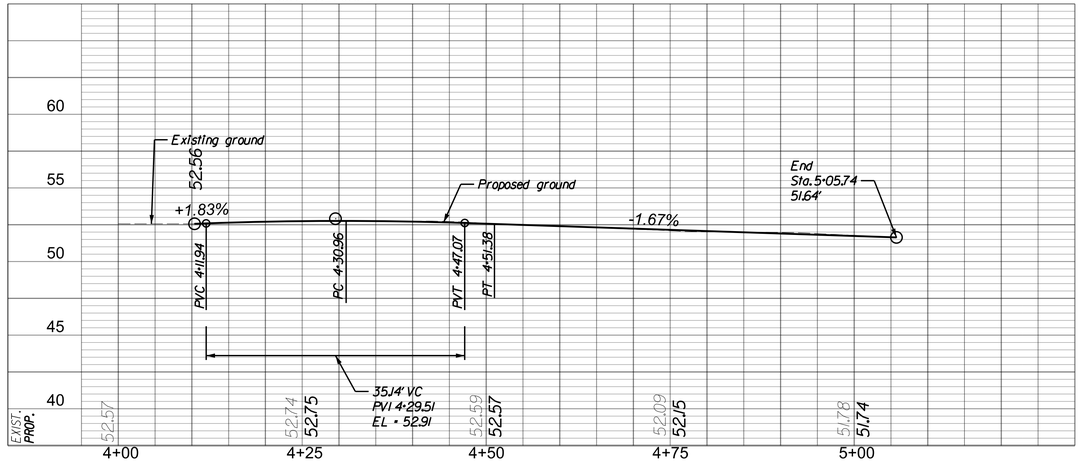




CURB RETURN_3



CURB RETURN_4



NOTES:
1. FINISHED GRADE FOR CURB RETURN PROFILES IS EDGE OF PAVEMENT (EOP) UNLESS OTHERWISE SHOWN.
2. SLOPES SHOWN ARE APPROXIMATE AVERAGES FOR EACH RAMP AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL USE STATIONS, OFFSETS, AND ELEVATIONS FOR CONSTRUCTION.

VERTICAL SCALE: 10' 5' 0

CG-12 DETAILS AND CURB RETURN PROFILES
SHEET 2 OF 5

SCALE	PROJECT	SHEET NO.
0 10' 20'	0236-100-888	2B(2)

dll553102B(3).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2B(3)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

DUKE STREET SERVICE ROAD

SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)
BL_SERVICE STA. 202+67.86 •
BL_W TAYLOR STA. 11+22.99

DUKE STREET WB (ROUTE 236)

DUKE STREET EB (ROUTE 236)

BL_DUKE

BL_DUKE STA. 102+68.04 •
BL_W TAYLOR STA. 10+00.00

W TAYLOR RUN PARKWAY

LEGEND

EOP - Edge of Pavement
FL - Flowline
TOC - Top of Curb

STA. x+xx.xx
OFF x.xx' (xx) - Prop. Elevation
ELEV. xx.xx'

STA. x+xx.xx
OFF x.xx' (xx) - Ex. Elevation
ELEV. xx.xx'

PT 4+51.38
S67°40'05"E
S63°20'37"E
POT 5+05.74

STA. 203+19.42
OFF 12.41' (RT)
ELEV. 52.50' (FL)
(HIGH POINT)

STA. 203+24.90
OFF 12.10' (RT)
ELEV. 52.47' (FL)

STA. 203+35.55
OFF 12.16' (RT)
ELEV. 52.39' (FL)

STA. 203+15.04
OFF 13.43' (RT)
ELEV. 52.22' (FL)

STA. 203+19.42
OFF 12.41' (RT)
ELEV. 52.58' (TOC)

STA. 203+24.48
OFF 20.59' (RT)
ELEV. 52.95'

STA. 203+24.08
OFF 27.53' (RT)
ELEV. 53.04'

STA. 203+31.36
OFF 31.16' (RT)
ELEV. 53.08'

STA. 203+40.48
OFF 12.11' (RT)
ELEV. 51.89' (FL)

STA. 203+40.48
OFF 12.61' (RT)
ELEV. 52.69' (TOC)

STA. 203+35.64
OFF 20.16' (RT)
ELEV. 52.87'

STA. 203+35.66
OFF 21.98' (RT)
ELEV. 52.88'

STA. 103+35.82
OFF 76.85' (LT)
ELEV. 53.46'

STA. 103+27.70
OFF 71.02' (LT)
ELEV. 53.66'

STA. 103+37.70
OFF 71.04' (LT)
ELEV. 53.44'

STA. 103+27.70
OFF 67.52' (LT)
ELEV. 53.61'

STA. 103+37.70
OFF 67.04' (LT)
ELEV. 53.41'

STA. 103+12.43
OFF 58.99' (LT)
ELEV. 53.68' (FL)

STA. 103+23.03
OFF 59.51' (LT)
ELEV. 53.81' (TOC)

STA. 103+42.41
OFF 59.55' (LT)
ELEV. 53.29' (TOC)

STA. 103+42.72
OFF 59.06' (LT)
ELEV. 52.79' (FL)

STA. 103+27.72
OFF 59.02' (LT)
ELEV. 53.18' (FL)

STA. 103+37.72
OFF 59.04' (LT)
ELEV. 52.93' (FL)

STA. 103+27.72
OFF 57.02' (LT)
ELEV. 53.28' (EOP)

STA. 103+37.72
OFF 57.04' (LT)
ELEV. 53.03' (EOP)

STA. 103+27.94
OFF 8.92' (LT)
ELEV. 54.11' (FL)

STA. 103+37.94
OFF 8.92' (LT)
ELEV. 53.83' (FL)

STA. 103+27.76
OFF 2.92' (LT)
ELEV. 54.13' (FL)

STA. 103+37.76
OFF 2.92' (LT)
ELEV. 53.88' (FL)

STA. 103+27.03
OFF 21.37' (RT)
ELEV. 53.81' (EOP)

STA. 103+37.04
OFF 20.96' (RT)
ELEV. 53.52' (EOP)

STA. 103+26.97
OFF 23.37' (RT)
ELEV. 53.71' (FL)

STA. 103+36.98
OFF 22.97' (RT)
ELEV. 53.42' (FL)

STA. 103+47.03
OFF 23.06' (RT)
ELEV. 53.59' (TOC)

STA. 103+26.28
OFF 46.36' (RT)
ELEV. 53.36' (EOP)

STA. 103+26.79
OFF 29.37' (RT)
ELEV. 53.64' (FL)

STA. 103+36.78
OFF 29.69' (RT)
ELEV. 53.35' (FL)

STA. 103+46.77
OFF 30.04' (RT)
ELEV. 53.58' (TOC)

PROP. BUS SHELTER PAD FOR FUTURE BUS STOP
(FUTURE BUS STOP TO BE INSTALLED BY OTHERS)

STA. 103+04.26
OFF 47.79' (RT)
ELEV. 53.91' (FL)

STA. 103+26.22
OFF 48.36' (RT)
ELEV. 53.26' (FL)

STA. 103+36.27
OFF 46.68' (RT)
ELEV. 53.07' (EOP)

STA. 103+36.21
OFF 48.68' (RT)
ELEV. 52.97' (FL)

STA. 103+17.21
OFF 48.61' (RT)
ELEV. 53.98' (TOC)

STA. 103+45.21
OFF 48.99' (RT)
ELEV. 52.74' (FL)

STA. 103+45.19
OFF 49.49' (RT)
ELEV. 53.17' (TOC)

STA. 103+16.98
OFF 56.15' (RT)
ELEV. 53.99'

STA. 103+25.98
OFF 56.42' (RT)
ELEV. 53.37'

STA. 103+35.97
OFF 56.78' (RT)
ELEV. 53.08'

STA. 103+44.96
OFF 57.14' (RT)
ELEV. 53.18'

NOTES:
1. SLOPES SHOWN ARE APPROXIMATE AVERAGES FOR EACH RAMP AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL USE STATIONS, OFFSETS, AND ELEVATIONS FOR CONSTRUCTION.

CG-12 DETAILS

SHEET 3 OF 5

SCALE	PROJECT	SHEET NO.
0 10' 20'	0236-100-888	2B(3)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2B(4)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

LEGEND

EOP - Edge of Pavement
FL - Flowline
TOC - Top of Curb

STA. x+xx.xx
OFF x.xx' (xx) - Prop. Elevation
ELEV. xx.xx'

STA. x+xx.xx
OFF x.xx' (xx) - Ex. Elevation
ELEV. xx.xx'

Existing R/W

STA. 210+31.66
OFF 20.06' (LT)
ELEV. 58.75'

SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)

Prop. Header Curb

STA. 210+48.55
OFF 19.85' (LT)
ELEV. 60.48'

STA. 210+20.39
OFF 20.18' (LT)
ELEV. 58.00'

STA. 210+48.63
OFF 12.70' (LT)
ELEV. 60.36' (TOC)

STA. 210+24.73
OFF 12.47' (LT)
ELEV. 57.89' (FL)

STA. 210+07.98
OFF 20.31' (LT)
ELEV. 57.29'

STA. 210+48.63
OFF 12.20' (LT)
ELEV. 59.86' (FL)

STA. 210+31.53
OFF 12.36' (LT)
ELEV. 58.65' (FL)

STA. 210+31.49
OFF 10.36' (LT)
ELEV. 58.75' (EOP)

STA. 210+07.75
OFF 13.34' (LT)
ELEV. 57.23' (TOC)

STA. 210+20.16
OFF 10.56' (LT)
ELEV. 57.99' (EOP)

STA. 210+31.19
OFF 11.56' (RT)
ELEV. 59.08' (FL)

DUKE STREET SERVICE ROAD

STA. 210+07.74
OFF 12.84' (LT)
ELEV. 56.81' (FL)

STA. 210+21.79
OFF 11.39' (RT)
ELEV. 58.34' (FL)

STA. 210+45.89
OFF 11.72' (RT)
ELEV. 60.18' (FL)

STA. 210+35.87
OFF 12.10' (RT)
ELEV. 59.95' (TOC)

STA. 210+17.13
OFF 11.27' (RT)
ELEV. 58.01' (FL)

STA. 210+17.12
OFF 11.77' (RT)
ELEV. 58.47' (TOC)

STA. 210+31.08
OFF 20.06' (RT)
ELEV. 59.12'

STA. 210+22.09
OFF 19.96' (RT)
ELEV. 58.38'

STA. 210+31.02
OFF 26.06' (RT)
ELEV. 59.00'

STA. 210+25.78
OFF 26.00' (RT)
ELEV. 58.26'

STA. 210+22.65
OFF 38.00' (RT)
ELEV. 57.80'

STA. 210+30.86
OFF 42.30' (RT)
ELEV. 58.19'

DUKE STREET WB (ROUTE 236)

DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)

Prop. Header Curb

STA. 115+14.61
OFF 88.02' (LT)
ELEV. 76.09'

STA. 115+07.03
OFF 85.44' (LT)
ELEV. 76.26'

STA. 114+93.82
OFF 70.28' (LT)
ELEV. 75.12' (FL)

STA. 115+08.92
OFF 79.75' (LT)
ELEV. 76.17'

STA. 115+20.26
OFF 90.01' (LT)
ELEV. 76.51'

STA. 115+64.13
OFF 102.70' (LT)
ELEV. 78.02' (FL)

TELEGRAPH ROAD OFF-RAMP

STA. 115+23.71
OFF 80.08' (LT)
ELEV. 76.36' (FL)

STA. 115+24.37
OFF 78.19' (LT)
ELEV. 76.46' (EOP)

STA. 115+18.66
OFF 76.19' (LT)
ELEV. 76.04' (EOP)

STA. 115+18.01
OFF 78.08' (LT)
ELEV. 75.94' (FL)

STA. 115+32.45
OFF 54.79' (LT)
ELEV. 77.93' (EOP)

STA. 115+26.71
OFF 52.87' (LT)
ELEV. 77.53' (EOP)

STA. 115+27.36
OFF 50.97' (LT)
ELEV. 77.43' (FL)

STA. 115+00.96
OFF 43.05' (LT)
ELEV. 76.21' (FL)

STA. 115+33.10
OFF 52.90' (LT)
ELEV. 77.83' (FL)

Prop. Header Curb

STA. 115+35.98
OFF 44.50' (LT)
ELEV. 77.88'

STA. 115+31.65
OFF 38.50' (LT)
ELEV. 77.49'

STA. 115+35.98
OFF 38.50' (LT)
ELEV. 77.76'

DUKE STREET WB (ROUTE 236)

Prop. Header Curb

STA. 115+44.04
OFF 44.50' (LT)
ELEV. 77.12'

STA. 115+44.03
OFF 38.50' (LT)
ELEV. 77.00'

DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)

DUKE STREET EB (ROUTE 236)

NOTES:
1. SLOPES SHOWN ARE APPROXIMATE AVERAGES FOR EACH RAMP AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL USE STATIONS, OFFSETS, AND ELEVATIONS FOR CONSTRUCTION.

CG-12 DETAILS

SHEET 4 OF 5

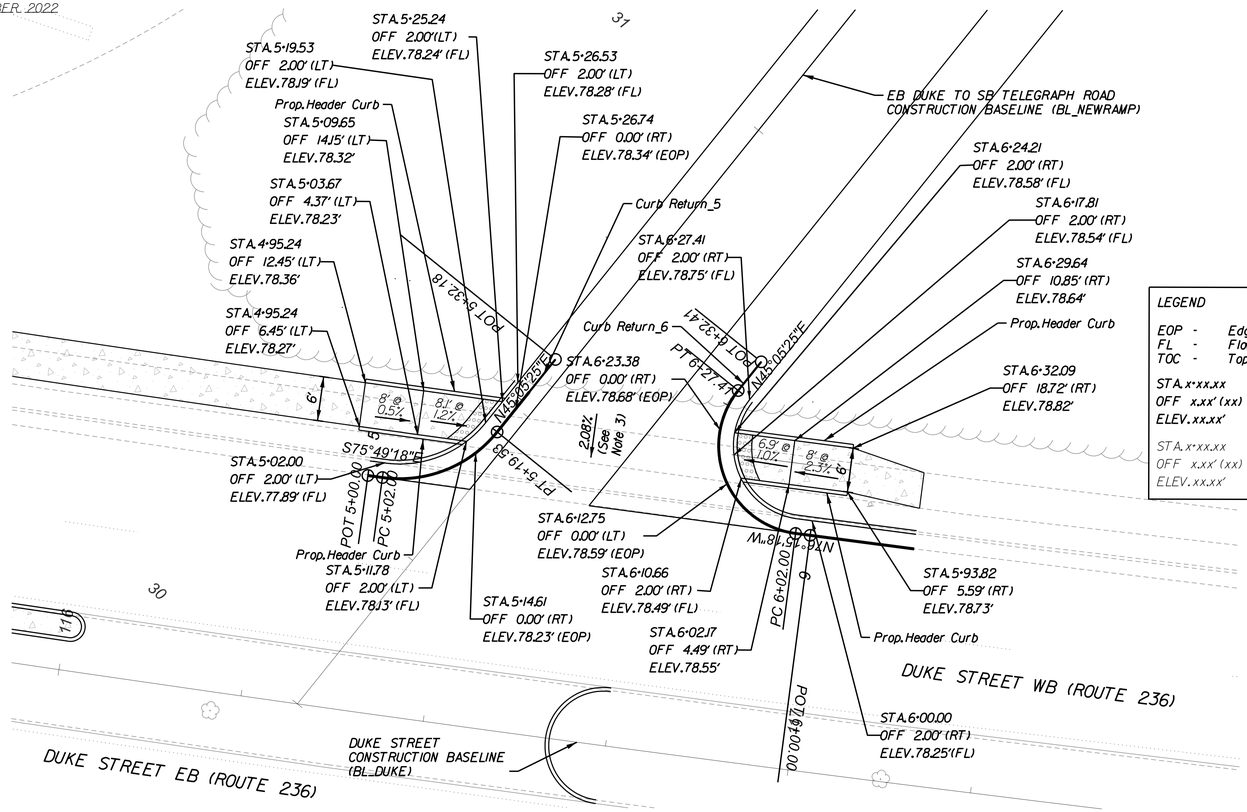
SCALE	PROJECT	SHEET NO.
0 10' 20'	0236-100-888	2B(4)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2B(5)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



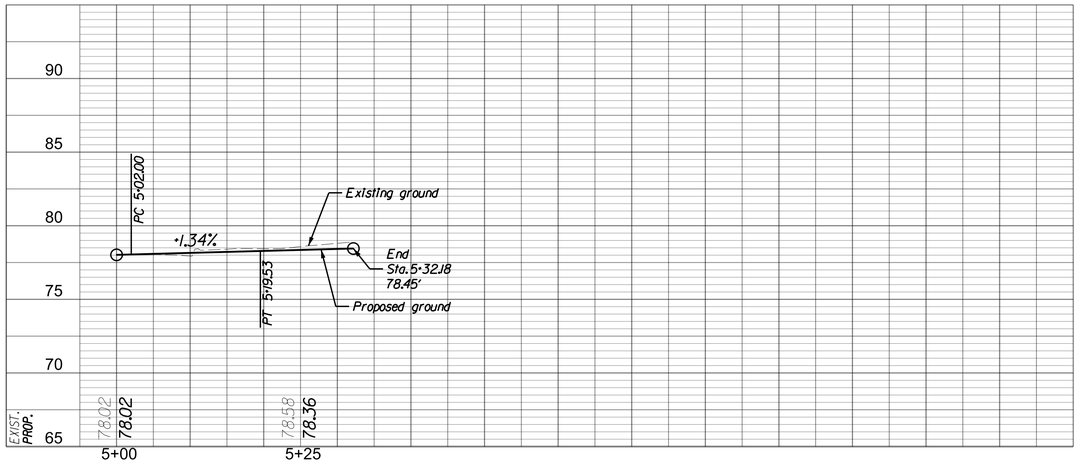
LEGEND

EOP - Edge of Pavement
FL - Flowline
TOC - Top of Curb

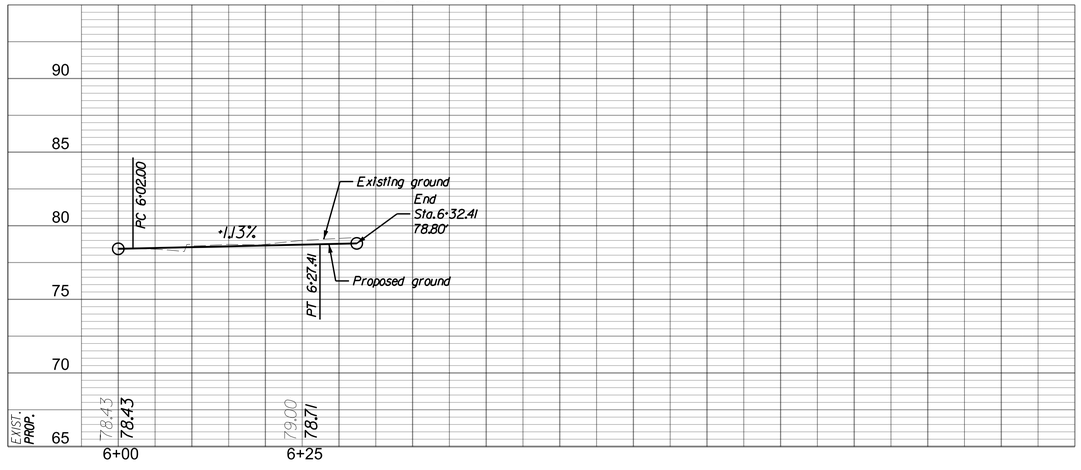
STA.x+xx.xx
OFF x.xx' (xx) - Prop.Elevation
ELEV.xx.xx'

STA.x+xx.xx
OFF x.xx' (xx) - Ex.Elevation
ELEV.xx.xx'

CURB RETURN_5



CURB RETURN_6



NOTES:

1. FINISHED GRADE FOR CURB RETURN PROFILES IS EDGE OF PAVEMENT (EOP) UNLESS OTHERWISE SHOWN.

2. SLOPES SHOWN ARE APPROXIMATE AVERAGES FOR EACH RAMP AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL USE STATIONS, OFFSETS, AND ELEVATIONS FOR CONSTRUCTION.

3. THIS CROSS SLOPE APPLIES TO THE ENTIRE WIDTH OF THE CROSSWALK AND IS MEASURED PERPENDICULAR TO THE PEDESTRIAN ACCESS ROUTE, NOT IN THE DIRECTION OF VEHICULAR TRAVEL. THE CONTRACTOR SHALL ENSURE THE CROSS SLOPE OF THE CROSSWALK DOES NOT EXCEED THE SLOPE LISTED ON THE PLANS.

VERTICAL SCALE 10' 5' 0

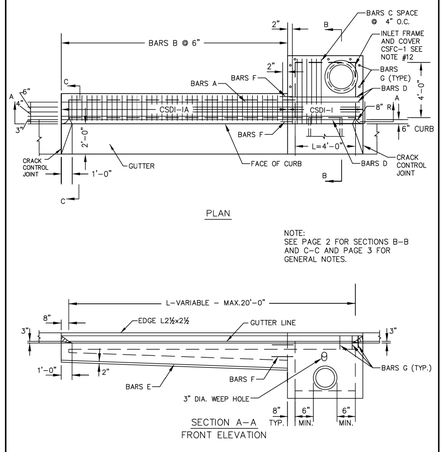
CG-12 DETAILS AND CURB RETURN PROFILES SHEET 5 OF 5

SCALE	PROJECT	SHEET NO.
0 10' 20'	0236-100-888	2B(5)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2C(1)

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

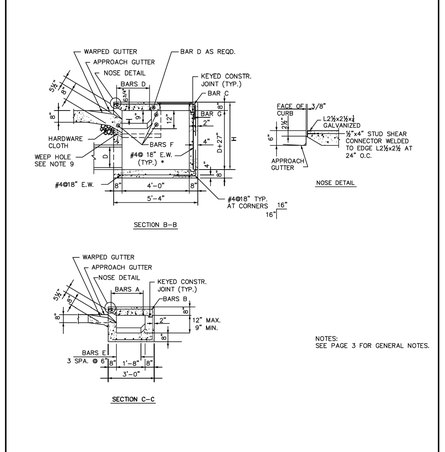


CURB DROP INLET
WITH VARIABLE LENGTH INLET

01/16/2021	
REVISION	DATE
CSDI-1 & CSDI-1A	

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRIA, VIRGINIA

PAGE 1



CURB DROP INLET

01/16/2021	
REVISION	DATE
CSDI-1 & CSDI-1A	

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRIA VIRGINIA

PAGE 2

GENERAL NOTES:

1. DEPTH OF INLET (H) SHALL BE SHOWN ON PLANS. MINIMUM DEPTH (H)=4'-0" MAXIMUM DEPTH (H)=8'-0".
2. THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
3. THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR IN ACCORDANCE WITH CSS-1 TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE.
4. THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE.
5. ALL REINFORCING BARS TO BE #5 OR AS SHOWN ON PLANS.
6. ALL REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2" OR AS SHOWN ON PLANS.
7. CAST-IN PLACE CONCRETE IS TO BE CLASS A3 (3000PSI). PRECAST CONCRETE IS TO BE 4000PSI.
8. ALL REINFORCING STEEL TO BE CUT CLEAR OF ALL OPENINGS BY 2".
9. 3" DIAMETER WEEP HOLE TO BE LOCATED TO DRAIN SUBBASE MATERIAL. WEEP HOLE WITH 12"X12" PLASTIC HARDWARE CLOTH 2" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03", NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
10. LENGTH OF ANGLE IRON AS SHOWN ON PAGE 1 IS TO BE L+16".
11. INLET FRAME AND COVER SHALL MEET REQUIREMENTS FOR HS20 LOADING. (REFER TO FRAME AND COVER DETAIL (CSFC-1.)
12. JOINTS BETWEEN CONCRETE COVER AND GUTTERS (WHEN REQUIRED) ARE TO BE DOWELED, KEYED OR OTHER CITY APPROVED METHODS.
13. FOR RETROFIT PROJECTS:
    A. CHECK WITH CITY INSPECTOR TO CONNECT NEXT CONCRETE C&G SECTION TO REQUIRED SAW CUT, PROPER JOINT MATERIAL ETC.
    B. CURB OPENING SHALL NOT ENCROACH UPON CROSSWALK AREA.
    C. PROVIDE NOTES FOR THE THICKNESS OF BEDDING AND TYPE ON SUBGRADE PRIOR TO INSTALLATION.
14. FOR BACKFILL DETAIL SEE BEDDING DETAIL (CSJT-1).
15. FOR CURB DROP INLET REINFORCEMENT SEE PAGE 4.

CURB DROP INLET
GENERAL NOTES

01/16/2021	
REVISION	DATE
CSDI-1 & CSDI-1A	

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRIA VIRGINIA

PAGE 3

CURB DROP INLET REINFORCEMENT SCHEDULE

L	AREA OF SLOT	BARS A		BARS B		BARS C		BARS D		BARS E		BARS F		BARS G		WEIGHT
Ft.	Sq. Ft.	NO. of Bar	Lin. Ft.*	NO. of Bar	Lin. Ft.*	NO. of Bar	Lin. Ft.*	NO. of Bar	Lin. Ft.*	NO. of Bar	Lin. Ft.*	NO. of Bar	Lin. Ft.*	NO. of Bar	Lin. Ft.*	Lbs.
4'	1.83	5	1'-6"	2	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	1'-6"	3	1'-6"	4	1'-0"	64
6'	2.75	5	3'-6"	6	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	3'-6"	3	1'-6"	4	1'-0"	111
8'	3.67	5	5'-6"	10	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	5'-6"	3	1'-6"	4	1'-0"	158
10'	4.58	5	7'-6"	14	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	7'-6"	3	1'-6"	4	1'-0"	204
12'	5.50	5	9'-6"	18	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	9'-6"	3	1'-6"	4	1'-0"	251
14'	6.42	5	11'-6"	22	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	11'-6"	3	1'-6"	4	1'-0"	298
16'	7.33	5	13'-6"	26	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	13'-6"	3	1'-6"	4	1'-0"	345
18'	8.25	5	15'-6"	30	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	15'-6"	3	1'-6"	4	1'-0"	391
20'	9.17	5	17'-6"	34	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	17'-6"	3	1'-6"	4	1'-0"	438

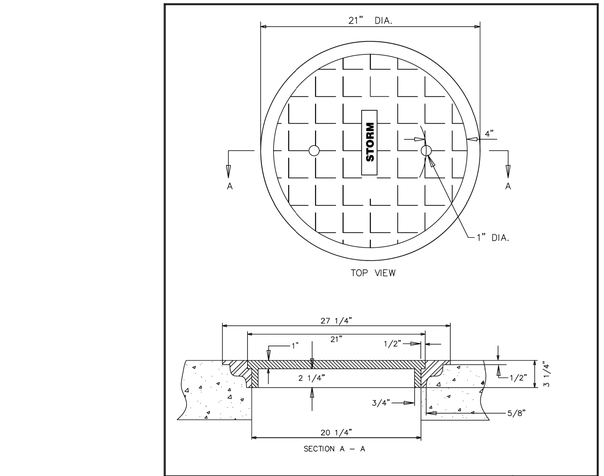
* DENOTES LENGTH OF ONE (1) BAR.

CURB DROP INLET
REINFORCEMENT SCHEDULE

01/16/2021	
REVISION	DATE
CSDI-1 & CSDI-1A	

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRIA, VIRGINIA

PAGE 4

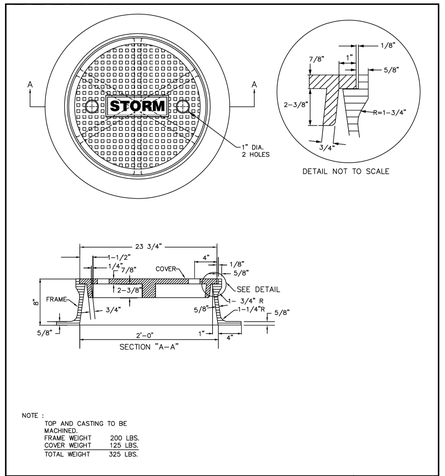


YARD & CURB DROP INLET FRAME & COVER

01/16/2021	
REVISION	DATE
CSFC-1	

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRIA, VIRGINIA

PAGE 15



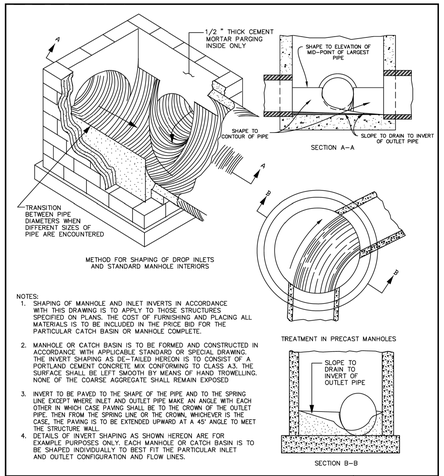
NOTE :
TOP AND CASTING TO BE MACHINED.
FRAME WEIGHT 200 LBS.
COVER WEIGHT 125 LBS.
TOTAL WEIGHT 325 LBS.

MANHOLE FRAME & COVER

01/16/2021	
REVISION	DATE
CSFC-2	

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRIA, VIRGINIA

PAGE 16



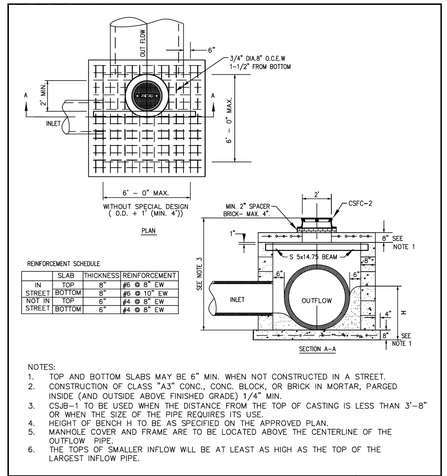
NOTES:
1. SHAPING OF MANHOLE AND INLET INVERTS IN ACCORDANCE WITH THIS DRAWING IS TO APPLY TO THOSE STRUCTURES SPECIFIED ON PLANS. THE COST OF FURNISHING AND PLACING ALL MATERIALS IS TO BE INCLUDED IN THE PRICE BID FOR THE PARTICULAR CATCH BASIN OR MANHOLE COMPLETE.
2. MANHOLE OR CATCH BASIN IS TO BE FORMED AND CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STANDARD OR SPECIAL DRAWING. THE INVERT SHAPING AS DE-TAILED HEREON IS TO CONSIST OF A PORTLAND CEMENT CONCRETE MIX CONFORMING TO CLASS A3. THE SURFACE SHALL BE LEFT SMOOTH BY MEANS OF HAND TROWELLING. NONE OF THE COARSE AGGREGATE SHALL REMAIN EXPOSED
3. INVERT TO BE PAVED TO THE SHAPE OF THE PIPE AND TO THE SPRING LINE EXCEPT WHERE INLET AND OUTLET PIPE MAKE AN ANGLE WITH EACH OTHER IN WHICH CASE PAVING SHALL BE TO THE CROWN OF THE OUTLET PIPE, THEN FROM THE SPRING LINE OR THE CROWN, WHICHEVER IS THE CASE, THE PAVING IS TO BE EXTENDED UPWARD AT A 45° ANGLE TO MEET THE STRUCTURE WALL.
4. DETAILS OF INVERT SHAPING AS SHOWN HEREON ARE FOR EXAMPLE PURPOSES ONLY. EACH MANHOLE OR CATCH BASIN IS TO BE SHAPED INDIVIDUALLY TO BEST FIT THE PARTICULAR INLET AND OUTLET CONFIGURATION AND FLOW LINES.

SHAPING MANHOLE AND INLET INVERTS

01/16/2021	
REVISION	DATE
CSIS-1	

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRA, VIRGINIA

PAGE 14



REINFORCEMENT SCHEDULE

	SLAB	THICKNESS	REINFORCEMENT
IN	TOP	8"	#5 @ 8" EW
STREET	BOTTOM	8"	#5 @ 10" EW
NOT IN	TOP	6"	#4 @ 8" EW
STREET	BOTTOM	6"	#4 @ 8" EW

NOTES:
1. TOP AND BOTTOM SLABS MAY BE 6" MIN. WHEN NOT CONSTRUCTED IN A STREET.
2. CONSTRUCTION OF CLASS "A3" CONC., CONC. BLOCK, OR BRICK IN MORTAR, PARGED INSIDE (AND OUTSIDE ABOVE FINISHED GRADE) 1/4" MIN.
3. CSJB-1 TO BE USED WHEN THE DISTANCE FROM THE TOP OF CASTING IS LESS THAN 3'-8" OR WHEN THE SIZE OF THE PIPE REQUIRES ITS USE.
4. HEIGHT OF BENCH H TO BE AS SPECIFIED ON THE APPROVED PLAN.
5. MANHOLE COVER AND FRAME ARE TO BE LOCATED ABOVE THE CENTERLINE OF THE OUTFLOW PIPE.
6. THE TOPS OF SMALLER INFLOW WLL BE AT LEAST AS HIGH AS THE TOP OF THE LARGEST INFLOW PIPE.

STORM SEWER JUNCTION BOX

01/16/2021	
REVISION	DATE
CSJB-1	

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRIA, VIRGINIA

PAGE 13

CITY OF ALEXANDRIA
STANDARD DETAILS

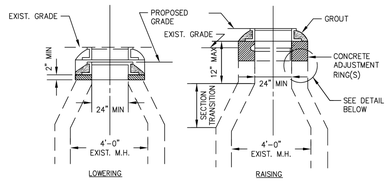
SCALE 0 10' 20'

PROJECT	SHEET NO.
0236-100-888	2C(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

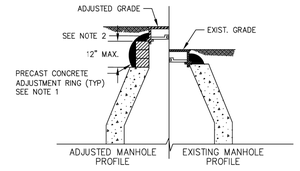
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2C(2)

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



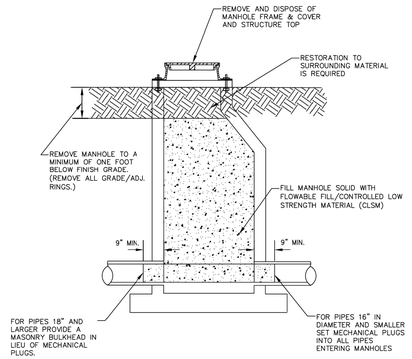
ADJUSTMENT (FRAME & COVER ONLY)

RAISE OR LOWER FRAME AND COVER SUCH THAT HEIGHT OF 24" NECK SECTION, INCLUDING FRAME AND COVER, DOES NOT EXCEED 12" MAXIMUM OR 2" MINIMUM. IF RANGE IS EXCEEDED, USE MODIFIED MANHOLE ADJUSTMENT.



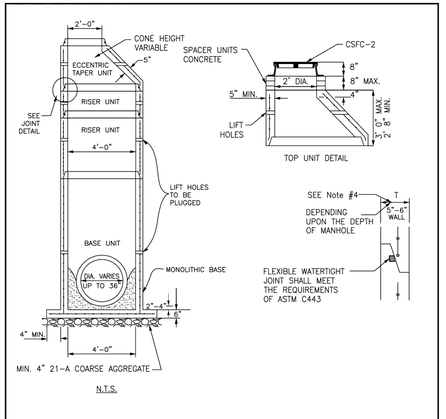
SEE NOTES ON MODIFIED MANHOLE ADJUSTMENT DETAIL, CSMA-1A.

MANHOLE (Grade Rim Adjustments)	06/21/2021 REVISION DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES ALEXANDRIA, VIRGINIA	CSMA-1
	PAGE 33



NOTE:
VDOT A3 CONCRETE SHALL BE USED FOR THE CONCRETE MATERIAL.

MANHOLE ABANDONMENT	06/21/2021 REVISION DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES ALEXANDRIA, VIRGINIA	CSMA-1
	PAGE 41



NOTE:
FOR REINFORCEMENT SCHEDULE SEE CSMH-2, PAGE 11.

PRECAST MANHOLE 4' INSIDE DIAMETER; FOR PIPES UP TO 36" IN DIAMETER	01/16/2021 REVISION DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES ALEXANDRIA, VIRGINIA	CSMH-1
	PAGE 10

NOTES:
1. THE MANHOLE SHALL BE DESIGNED TO MEET HS-20 LOADING CAPACITY.
2. JOINTS BETWEEN UNITS SHALL BE TONGUE & GROOVE.
3. PIPE MUST BE FLUSH WITH INSIDE WALL OF MANHOLE.
4. WALLS TO DEPTH OF 12' TO BE 5" THICK. WALLS DEEPER THAN 12' TO BE 6".
5. LOSS FOR STRAIGHT RUN MANHOLE SHALL BE 0.05 FEET. IN NO CASE SHALL LOSS LESS THAN 0.05 FEET BE ALLOWED.
6. FOR RETROFIT PROJECTS:

   A. PROVIDE CONCRETE BENCH (FOR TERMINAL USE BRICKS WITH SLOPE TOWARD OUTLET) UP TO CROWN OF PIPE INVERT. (IF REQUIRED)

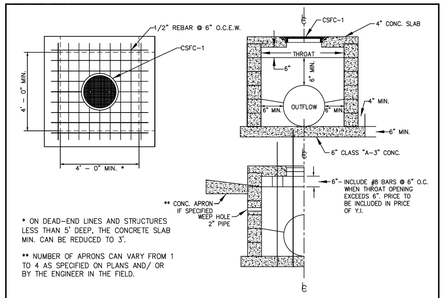
   B. GRADE AND SLOPE ADJUSTMENT SHALL BE PROVIDED IN THE FIELD BY CONTRACTOR PER APPROVED PLANS REQUIREMENTS.

   IF THE STRUCTURE IS NOT PRECAST OR HAS ANGLE BETWEEN THE RCP PIPE AND STRUCTURE'S

   C. PROVIDE ARCH BRICK ADJUSTMENT AROUND RCP PIPE

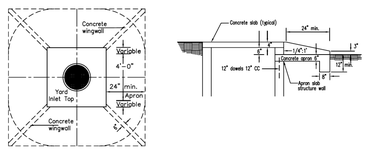
   D. PROVIDE RAILS (IF REQUIRED)
7. THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR IN ACCORDANCE WITH CSIS-1 TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE.

PRECAST MANHOLE GENERAL NOTES	01/16/2021 REVISION DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES ALEXANDRIA, VIRGINIA	CSMH-1 & CSMH-2
	PAGE 12



* ON DEAD-END LINES AND STRUCTURES LESS THAN 5' DEEP, THE CONCRETE SLAB MIN. CAN BE REDUCED TO 3'.

** NUMBER OF APRONS CAN VARY FROM 1 TO 4 AS SPECIFIED ON PLANS AND/ OR BY THE ENGINEER IN THE FIELD.



TYPICAL CONCRETE APRON

YARD INLET	01/16/2021 REVISION DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES ALEXANDRIA, VIRGINIA	CSYI-1
	PAGE 8

NOTES:
1. WHEN SPECIFIED, CONCRETE APRONS (1/4" PER FEET MIN) TO BE INCLUDED IN PRICE OF YARD INLET.
2. CONCRETE APRON MAY BE CAST IN PLACE OR PRECAST. REINFORCING MUST BE 6"X6" NO 6 WIRE MESH. ALL CONCRETE MUST BE CLASS A3.
3. AN 6" THICK CONC. APRON 2' WIDE (MIN.) WILL BE INSTALLED IN FRONT OF EACH THROAT. THEY WILL BE SHAPED TO MEET CONDITIONS AS DIRECTED IN THE FIELD BY CITY INSPECTOR.
4. CLASS "A3" CONC. USED THROUGHOUT. WALLS OF POURED OR BLOCK CONC. OR BRICK IN MORTAR WILL BE PARGED 1/4" INSIDE (AND OUTSIDE ABOVE FINISHED GRADE).
5. WALLS OF POURED OR SOLID BLOCK CONCRETE WILL BE 8" THICK.
6. SPECIAL DESIGN WILL BE REQUIRED FOR PIPE SIZES GREATER THEN 36".
7. FOR RETROFIT PROJECTS:
   A. PROVIDE CONCRETE BENCH (FOR TERMINAL USE BRICKS WITH SLOPE TOWARD OUTLET) UP TO CROWN OF PIPE INVERT. (IF REQUIRED)
   B. GRADE AND SLOPE ADJUSTMENT SHALL BE PROVIDED IN THE FIELD BY CONTRACTOR PER APPROVED PLANS REQUIREMENTS.

   IF THE STRUCTURE IS NOT PRECAST OR HAS ANGLE BETWEEN THE RCP PIPE AND STRUCTURE'S
   A. PROVIDE ARCH BRICK ADJUSTMENT AROUND RCP PIPE
   B. PROVIDE RAILS (IF REQUIRED)

YARD INLET GENERAL NOTES	01/16/2021 REVISION DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES ALEXANDRIA, VIRGINIA	CSYI-1
	PAGE 9

CITY OF ALEXANDRIA
STANDARD DETAILS

SCALE 0 10' 20'	PROJECT 0236-100-888	SHEET NO. 2C(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	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

NOTES:
1. ALL STATIONS AND OFFSETS AT CURB/AND GUTTER ARE TO THE FACE OF CURB.
2. ALL ELEVATIONS PROVIDED ARE AT THE FLOW LINE OF CURB

STA 13+58.10 OFF 20.01' (LT)
STA 13+26.20 OFF 14.07' (LT)
STA 13+26.79 OFF 31.28' (LT)
END PROJECT STA 13+58.10
STA 13+46.70 OFF 12.00' (LT)
STA 13+28.20 OFF 12.00' (LT)
DRIVEWAY CONSTRUCTION BASELINE (BL_DRIVEWAY01)
R = 2'
BL_WTAYLOR STA 13+06.17 = BL_DRIVEWAY01 STA 60+81.67
R = 8'
STA 12+96.92 OFF 32.92' (LT)
STA 12+96.88 OFF 19.98' (LT)
STA 12+66.80 OFF 12.00' (LT)
W TAYLOR RUN PKWY CONSTRUCTION BASELINE (BL_WTAYLOR)
W TAYLOR RUN PARKWAY (POSTED SPEED - 25 MPH)
STA 11+82.37 OFF 21.52' (RT)
STA 11+71.72 OFF 21.35' (RT)
STA 11+66.74 OFF 19.84' (RT)
STA 11+51.64 OFF 19.65' (RT)
R = 15'
STA 11+55.14 OFF 12.00' (LT)
R = 15'
STA 202+95.03 OFF 15.48' (LT)
STA 203+15.15 OFF 11.50' (LT)
STA 203+46.97 OFF 11.98' (LT)
STA 202+51.74 OFF 21.05' (LT)
STA 202+40.06 OFF 17.63' (LT)
STA 203+24.90 OFF 12.10' (RT)
STA 203+54.72 OFF 14.50' (LT)
R = 20'
STA 203+40.48 OFF 12.11' (RT)
STA 203+15.04 OFF 13.43' (RT)
SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)
BL_SERVICE STA 202+67.86 = BL_WTAYLOR STA 11+22.99
DUKE STREET SERVICE ROAD (POSTED SPEED - 25 MPH)
STA 103+42.72 OFF 59.06' (LT)
STA 103+12.43 OFF 58.99' (LT)
STA 103+78.84 OFF 8.98' (LT) ELEV 52.74'
STA 104+79.18 OFF 1.64' (RT) ELEV 50.87'
STA 104+85.02 OFF 8.71' (LT) ELEV 50.65'
DUKE STREET WEST BOUND (ROUTE 236) (POSTED SPEED - 35 MPH)
R = 3487'
STA 105+56.98 OFF 8.58' (LT) ELEV 49.91'
STA 105+99.23 OFF 8.46' (LT) ELEV 49.81'
STA 106+33.82 OFF 7.41' ELEV 49.71'
STA 103+04.71 OFF 8.89' (LT) ELEV 54.71'
STA 103+78.86 OFF 3.30' (LT) ELEV 52.92'
STA 103+97.02 OFF 2.82' (LT) ELEV 52.52'
BL_DUKE STA 102+68.04 = BL_WTAYLOR STA 10+00.00
R = 3'
R = 2979'
STA 106+13.99 OFF 7.49' (RT) ELEV 49.74'
R = 6938'
DUKE STREET EAST BOUND (ROUTE 236) (POSTED SPEED - 35 MPH)
STA 103+70.94 OFF 2.96' (LT) ELEV 53.10'
STA 103+04.71 OFF 2.89' (LT) ELEV 54.83'
STA 102+59.31 OFF 26.12' (RT) ELEV 55.68'
R = 2954'
STA 106+51.32 OFF 33.54' (RT) ELEV 49.33'
STA 100+85.00 OFF 6.32' (LT)
STA 100+51.32 OFF 6.90' (LT)
BEGIN PROJECT STA 100+45.34
R = 2'
STA 100+85.04 OFF 3.32' (LT)
STA 100+50.93 OFF 1.94' (LT)
DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)
R = 1'
STA 102+59.35 OFF 28.12' (RT) ELEV 55.79'
STA 103+78.16 OFF 8.32' (RT)
R = 2944'
STA 104+78.58 OFF 13.63' (RT)
STA 106+51.34 OFF 41.09' (RT)
STA 103+01.07 OFF 24.43' (RT) ELEV 54.33'
STA 103+77.57 OFF 21.31' (RT) ELEV 52.36' (FL)
STA 104+77.85 OFF 26.61' (RT) ELEV 50.32'
STA 106+28.35 OFF 42.93' (RT) ELEV 49.60'
STA 106+47.59 OFF 44.64' (RT) ELEV 49.73'
WITTER DRIVE
STA 103+00.98 OFF 28.71' (RT) ELEV 54.41'
STA 103+45.21 OFF 48.99' (RT)
STA 105+81.80 OFF 38.91' (RT)
STA 106+30.33 OFF 67.36' (RT)
STA 103+16.09 OFF 23.81' (RT) ELEV 53.95'
STA 103+04.26 OFF 47.79' (RT)
STA 106+40.68 OFF 68.28' (RT)
STA 103+15.97 OFF 29.07' (RT) ELEV 53.98
MATCH LINE - STA 207+00 - SEE SHEET 2D(2)
MATCH LINE - STA 107+00 - SEE SHEET 2D(2)
E TAYLOR RUN PARKWAY
Taylor Run

GEOMETRY PLAN SHEET
STA 100+00 TO 107+00
SHEET 1 OF 3

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	2D(1)

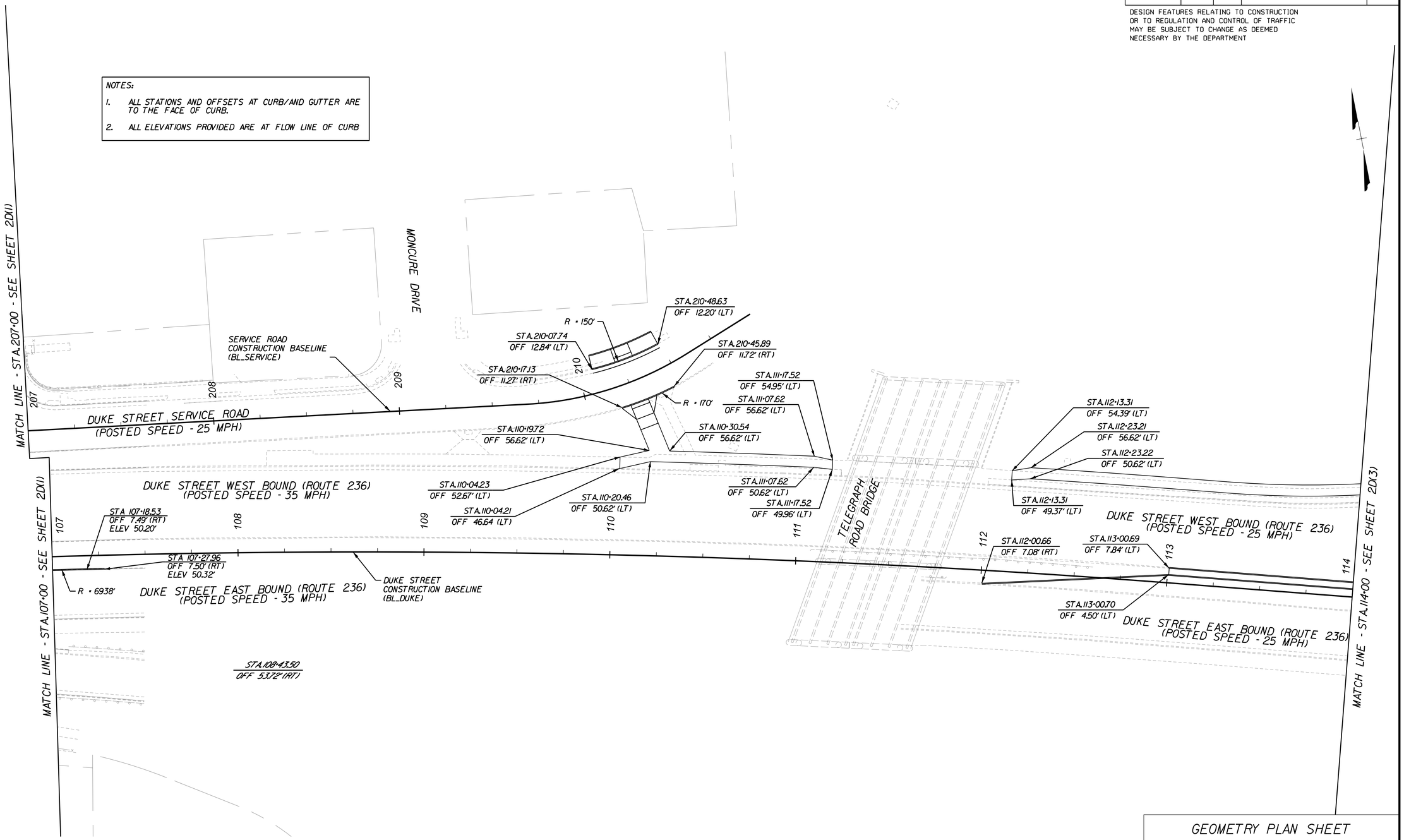
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	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

NOTES:

1. ALL STATIONS AND OFFSETS AT CURB/AND GUTTER ARE TO THE FACE OF CURB.
2. ALL ELEVATIONS PROVIDED ARE AT FLOW LINE OF CURB



GEOMETRY PLAN SHEET
STA.107+00 TO 114+00
SHEET 2 OF 3

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	2D(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	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

NOTES:

1. ALL STATIONS AND OFFSETS AT CURB/AND GUTTER ARE TO THE FACE OF CURB.
2. ALL ELEVATIONS PROVIDED ARE AT THE TOP OF CURB

MATCH LINE - STA.114+00 - SEE SHEET 2D(2)

TELEGRAPH ROAD OFF-RAMP

STA.115+64.13
OFF 102.70' (LT)

STA.115+28.82
OFF 81.91' (LT)

STA.114+93.82
OFF 70.28' (LT)

STA.115+00.96
OFF 43.05' (LT)

R = 578'

STA.115+22.01
OFF 49.33' (LT)

R = 225'

STA.115+38.07
OFF 54.69' (LT)

STA.115+20.89
OFF 7.50' (LT)

STA.115+20.89
OFF 4.50' (LT)

R = 5592'

R = 5596'

STA.116+00.72
OFF 7.50' (LT)

STA.116+00.69
OFF 4.50' (LT)

DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)

R = 2'

R = 15'

STA.116+56.53
OFF 47.35' (LT)

STA.116+52.90
OFF 41.35' (LT)

STA.116+39.94
OFF 34.06' (LT)

STA.116+37.93
OFF 34.06' (LT)

BL_DUKE STA.116+32.74 = BL_NEWRAMP STA.30+00.00

R = 8'

R = 10'

STA.116+88.33
OFF 49.21' (LT)

STA.117+13.31
OFF 42.40' (LT)

STA.117+13.29
OFF 37.52' (LT)

STA.116+98.93
OFF 34.00' (LT)

STA.116+96.92
OFF 34.00' (LT)

STA.116+74.73
OFF 7.42' (LT)

STA.116+74.71
OFF 7.42' (RT)

END PROJECT
STA.117+84.23

BL_TELEGRAPH STA.41+37.00 = BL_NEWRAMP STA.32+53.72

R = 80'

STA.32+49.86
OFF 14.00' (RT)

STA.31+98.83
OFF 0.00' (RT)

TELEGRAPH ROAD ON-RAMP

EB DUKE TO SB TELEGRAPH RAMP CONSTRUCTION BASELINE (BL_NEWRAMP)

TELEGRAPH ROAD CONSTRUCTION BASELINE (BL_TELEGRAPH)

DUKE STREET WEST BOUND (ROUTE 236)
(POSTED SPEED - 25 MPH)

DUKE STREET EAST BOUND (ROUTE 236)
(POSTED SPEED - 25 MPH)

40 41 42 43 44 45 30 31 32 114 115 116 117 118 119 120 121

GEOMETRY PLAN SHEET
STA.114+00 TO 121+00
SHEET 3 OF 3

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	2D(3)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

EROSION & SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:

THE SCOPE OF THE PROJECT IS TO IMPROVE THE SAFETY AND TRAFFIC OPERATIONS OF THE WEST TAYLOR RUN PARKWAY AND DUKE STREET INTERSECTION. THE PROJECT INCLUDES SIDEWALK RECONSTRUCTION, MEDIAN MODIFICATION, ON-RAMP WIDENING AND ROADWAY RESURFACING. THE SCOPE ALSO INCLUDES NEW RAMP CONNECTION FROM EASTBOUND DUKE STREET TO TELEGRAPH ROAD AND PROPOSED WIDENING ON DUKE STREET TO INCLUDE LEFT TURN LANE ONTO THE EXISTING RAMP.

DISTURBED AREA:

THE TOTAL AREA WITHIN THE CONSTRUCTION LIMITS IS 1.81 ACRES.

EXISTING SITE CONDITIONS:

DUKE STREET HAS PRIMARILY TWO LANES IN EACH DIRECTION, WITH LEFT/RIGHT TURN LANES, RAMP DECELERATION/ACCELERATION LANES, AND A 16' RAISED MEDIAN. THERE IS EXISTING CURB AND GUTTER THROUGHOUT THE CORRIDOR. WEST TAYLOR RUN PARKWAY IS A CURBED TWO LANE WITH BIKE LANES ON THE SHOULDER. THE PROJECT LIMIT WITHIN THE TELEGRAPH ROAD AND DUKE STREET HAS ONE LANE ON RAMP CONFIGURATION.

ADJACENT AREAS:

NORTH: ACCESS TO SINGLE FAMILY RESIDENTIAL NEIGHBORHOODS
SOUTH: ACCESS TO A SCHOOL AND RESIDENTIAL NEIGHBORHOODS
EAST: DIVIDED LANES WITH ACCESS TO COMMERCIAL AND RESIDENTIAL NEIGHBORHOODS AND SIDEWALKS ON BOTH SIDES OF DUKE STREET AND TO THE RAMP OF TELEGRAPH ROAD
WEST: DIVIDED LANES WITH WOODED BUFFER AND ACCESS TO COMMERCIAL AND RESIDENTIAL NEIGHBORHOODS AND SIDEWALKS ON BOTH SIDES OF DUKE STREET

OFFSITE AREAS:

IT IS ANTICIPATED THAT NO OFFSITE AREAS WILL BE DAMAGED WITH THE CONSTRUCTION OF THIS PROJECT. A GRADING AGREEMENT AND TEMPORARY CONSTRUCTION EASEMENT WILL BE ACQUIRED FOR ANY WORK THAT OCCURS OUTSIDE THE RIGHT OF WAY.

CRITICAL AREAS:

NONE

SOILS:

SEE TABLE (THIS SHEET).

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE LATEST EDITION AND ALL REVISIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AS WELL AS THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL (SECTION 11) AND SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

STRUCTURAL PRACTICES

CHECK DAMS (EC-4) (C-SCM-06)
PLACE CHECK DAMS AS INDICATED IN EXISTING DITCHES PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. PLACE THEM AS INDICATED IN PROPOSED DITCHES AS THEIR GRADING IS COMPLETED.

SILT FENCE (EC-5) (P-PCM-04)
FOR ALL LOCATIONS WHERE RUNOFF LEAVES THE SITE SILT FENCE OR "SUPER" SILT FENCE SHALL BE PLACED APPROXIMATELY 2' OFF LIMITS OF GRADING PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES. IN LOCATIONS WHERE BOTH SILT FENCE AND TREE PROTECTION ARE REQUIRED, "SUPER" SILT FENCE MAY DOUBLE AS TREE PROTECTION.

INLET PROTECTION (EC-6) (C-SCM-04)
TYPE B INLET PROTECTION SHALL BE PLACED AT ALL SLOTTED INLETS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES. ALL INLETS RECEIVING RUN-OFF FROM DISTURBED AREAS SHALL BE PROTECTED.

TREE PRESERVATION AND PROTECTION (C-SSM-01)
A FENCE BARRIER IS TO BE PLACED AROUND THE TREES WHICH WILL NOT BE DISTURBED, AND AT LOCATIONS INDICATED ON THE PLANS, TO PROTECT FROM CONSTRUCTION EQUIPMENT AND SOIL COMPACTION.

VEGETATIVE PRACTICES

TEMPORARY SEEDING (STD 3.31) (C-SSM-09)
TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS BUT LESS THAN ONE YEAR. DENUDED AREAS SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.
THE APPROPRIATE HYDRAULIC EROSION CONTROL PRODUCT (HECP) WILL BE APPLIED TO SUCH AREAS, PER VDOT IIM-MAINT-2016.8.0.

PERMANENT STABILIZATION

PERMANENT SEEDING (STD. 3.31) (C-SSM-10)
PERMANENT SEEDING SHALL BE APPLIED WITHIN SEVEN DAYS TO AREAS AT FINAL GRADE OR DENUDED AREAS THAT WILL REMAIN DORMANT FOR LONGER THAN ONE YEAR. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT APPLIED.
THE APPROPRIATE HYDRAULIC EROSION CONTROL PRODUCT (HECP) WILL BE APPLIED TO SUCH AREAS, PER VDOT IIM-MAINT-2016.8.0.

MAINTENANCE

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

1. THE PERIMETER SILT FENCE - CHECK FOR, AND REPAIR, UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.

2. STORM DRAIN AND CULVERT INLET PROTECTIONS - AGGREGATE SHALL BE REPLACED OR CLEANED WHEN INSPECTION REVEALS THAT CLOGGED VOIDS ARE CAUSING PONDING PROBLEMS WHICH INTERFERE WITH ON-SITE CONSTRUCTION.

3. TEMPORARY CHECK DAMS - CHECK FOR, AND REPAIR, UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF THE HEIGHT OF THE ROLL.

4. SODDED AREAS - ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND WATERED AS NEEDED.

STORMWATER MANAGEMENT

NO PERMANENT OR TEMPORARY STORMWATER MANAGEMENT FACILITIES ARE PROPOSED FOR THIS PROJECT.

MANAGEMENT STRATEGIES

1. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK.

2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND-DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

3. PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

4. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION, MAINTENANCE, AND REPLACEMENT OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

5. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.

6. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS A FIRST STEP IN CLEARING.

7. ALL DISTURBED AREAS SHALL DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING AND FOLLOWING LAND DISTURBING ACTIVITIES UNTIL FINAL STABILIZATION IS ACHIEVED.

8. A RECORD OF THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE INITIATED SHALL BE MAINTAINED AND INCLUDED IN THE STORMWATER POLLUTION PREVENTION PLAN.

9. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES DAILY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY BY THE CONTRACTOR.

10. TEMPORARY SEEDING OR FINAL SODDING WILL FOLLOW IMMEDIATELY AFTER GRADING.

11. ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR LONGER THAN 14 DAYS SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.

12. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.

13. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.

14. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.

15. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

16. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.

17. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.

18. ALL APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH WHEN PERFORMING EROSION AND SEDIMENT CONTROL WORK (I.E. INSTALLING, MAINTAINING, AND REMOVING MEASURES).

SOILS DATA

SOIL NUMBER	SOIL NAME	SLOPE	PROBLEM CLASS	HYDROLOGIC GROUP	K VALUE	EROSION POTENTIAL
30A	CODORUS AND HATBORO SOILS	0%-2%	III	D	0.37	LOW
47B	GRIST MILL-WOODSTOWN COMPLEX	2%-7%	IVA	D	0.24	LOW
66	KINGSTOWNE SANDY CLAY LOAM	0%-45%	IVB	D	0.15	MEDIUM
95	URBAN LAND	-	IVB	-	-	-
100	URBAN LAND-KINGSTOWNE COMPLEX	-	IVB	-	0.15	MEDIUM
109B	WOODSTOWN SANDY LOAM	2%-7%	IVA	C	0.24	MEDIUM

WSP USA, INC.
Herndon, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	2E

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 NARRATIVE AND DETAILS

	PROJECT	SHEET NO.
	0236-100-888	2E

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	3

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

WSP USA Herndon, Virginia (HYDRAULICS ENGINEER)	WSP USA Herndon, Virginia (ROADWAY ENGINEER)

LEGEND

- MILL & OVERLAY
- FULL-DEPTH PAVEMENT
- CONCRETE PAVEMENT
- C ---------- CONSTRUCTION LIMITS IN CUT
- F _ _ _ _ CONSTRUCTION LIMITS IN FILL
- PROP. TEMPORARY CONSTRUCTION EASEMENT
- PROP. PERMANENT DRAINAGE EASEMENT
- PROP. RIGHT-OF-WAY
- PROP. GRADED V-DITCH

1. PROP. MEDIAN CURB MC-1
2. PROP. CURB & GUTTER CG-6
3. TIE TO EX. CURB
4. TIE TO EX. CURB AND GUTTER
5. PROP. FULL-DEPTH SAWCUT
6. PROP. CURB RAMP CG-12 TYPE A
7. PROP. CURB RAMP CG-12 TYPE B
8. PROP. CONCRETE SIDEWALK
9. TIE TO EX. SIDEWALK
10. DEMO EX. SIDEWALK
11. DEMO EX. CURB RAMP
12. REMOVE EX. DRAINAGE STRUCTURE
13. REMOVE EX. PIPE
14. PIPE TO BE CLEANED OUT
15. PROP. UNDERDRAIN UD-4
16. CONNECT UD-4 IF PRESENT
- ### PARCEL NUMBER

1. BL_DUKE STA.102+68.04 BL_WTAYLOR STA.10+00.00
2. BL_SERVICE STA.202+67.86 BL_WTAYLOR STA.11+22.99
3. BL_WTAYLOR STA.13+06.17 BL_DRIVEWAY STA.60+81.67

END PROJECT STA.13+58.10
PROP. RIGHT-OF-WAY
PROP. PERM. DRAINAGE ESMT
DEMO EX. CURB AND GUTTER AND SIDEWALK TO ENSURE SMOOTH CONNECTION FOR PROPOSED ENTRANCE
WARP GUTTER TO ENSURE POSITIVE DRAINAGE ACROSS DRIVEWAY
PROP. RESIDENTIAL ENTRANCE CSRE-1 (SEE SHEET 2C)
PROP. TEMP. CONSTRUCTION ESMT
TIE TO EX. DRIVEWAY
DRIVEWAY CONSTRUCTION BASELINE (BL_DRIVEWAY01)
DEMO EX. CURB AND GUTTER AND SIDEWALK TO ENSURE SMOOTH CONNECTION FOR PROPOSED ENTRANCE
DO NOT DISTURB EX. UTILITY POLE
TIE PROP. SIDEWALK TO FACE OF EX. WALL
W TAYLOR RUN PKWY CONSTRUCTION BASELINE (BL_WTAYLOR)
EX. RIGHT-OF-WAY
PROPOSED WATERLINE (SEE SHEET IG(1))
CONTRACTOR TO VERIFY LOCATION OF WEEP HOLES IN EX. RETAINING WALL AND CONNECT TO PROP. UD-3
DO NOT DISTURB EX. STEPS
DO NOT DISTURB EX. FENCE
RPA Limits
FEMA Floodplain Zone AE
PROP. TEMP. CONSTRUCTION ESMT
DO NOT DISTURB EX. UTILITY POLE
PROP. HEADER CURB
SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)
FLATTEN GUTTER TO TIE TO EXISTING PAVEMENT
DUKE STREET SERVICE ROAD
DEMO EX. CONCRETE MEDIAN
PROP. CONCRETE MEDIAN MS-1
DO NOT DISTURB EX. UTILITY BOX
PROP. BOLLARDS (SEE NOTE 2)
DUKE STREET WB (ROUTE 236)
PROP. CONCRETE MEDIAN MS-1
PROP. PEDESTRIAN REFUGE ISLAND
DUKE STREET EB (ROUTE 236)
DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)
BEGIN PROJECT STA.100+45.34
PROP. REINFORCED CONCRETE PAD
PROP. CURB AND GUTTER CG-7
PROP. CURB CG-3
SEE CURB TRANSITION DETAIL (THIS SHEET)
PROP. BUS SHELTER PAD FOR FUTURE BUS STOP (FUTURE BUS STOP TO BE INSATLLED BY OTHERS)
SAWCUT CONCRETE SIDEWALK
WITTER DRIVE
DO NOT DISTURB EX. SIGNAL POLE
SAWCUT CONCRETE SIDEWALK
PROP. BOLLARD (SEE NOTE 2)
PROP. CONCRETE MEDIAN
MATCH LINE - STA.207+00 (SEE SHEET 4)
E TAYLOR RUN PARKWAY

NOTES:
1. REFER SHEET SERIES 2B FOR CG-12 DETAILS AND CURB RETURN PROFILES.
2. PROPOSED BOLLARDS SHALL BE 6" BARE STREET STEEL PIPE FILLED WITH CONCRETE. PROPOSED BOLLARDS SHALL BE INSTALLED AT MINIMUM 1.5' BEHIND THE FACE OF CURB.
3. CONTRACTOR SHALL CALL ALEXANDRIA ARCHAEOLOGY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (EVIDENCE OF HISTORIC DAMS OR WEIRS) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERD DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF DISCOVERY UNTIL A CITY ARCHAEOLOGIST VISITS THE SITE AND RECORDS THE FINDS.
4. THE CONTRACTOR SHALL NOT ALLOW ANY METAL DETECTION TO BE CONDUCTED WITHIN THE PROJECT AREA, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY.
5. REFER TO UTILITY PLAN (SHEETS IG(1) - IG(3)) FOR PROPOSED UTILITY WORK.

CURB TRANSITION DETAIL
4" CURB (CG-3, CG-7)
6" CURB (MC-1, CG-6)
TOP OF CURB
4"
6"
5' TRANSITION
FLOWLINE

PLAN SHEET
STA.100+00 TO 107+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	3

1/23/2026
4:53:29 PM

dll5531034(1).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

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

WSP USA, INC.
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	3A(1)

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

PROFILE
DUKE STREET
STA. 100+00 TO 107+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	3A(1)

1/23/2026
4:53:41 PM

dll553103A(2).dgn
Plotted By: USEB695877

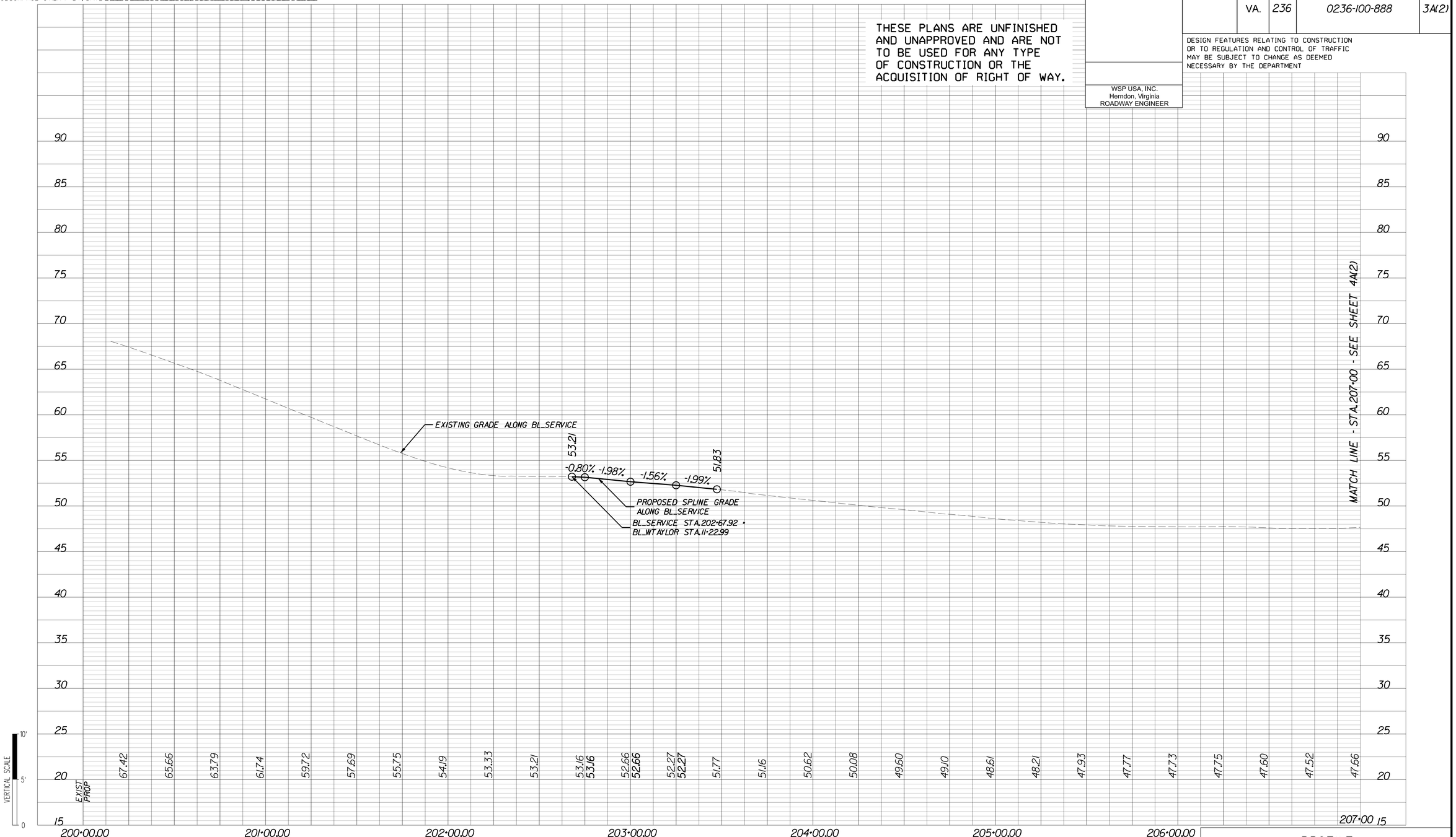
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

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

WSP USA, INC.
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	3A(2)

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



PROFILE
DUKE STREET SERVICE ROAD
STA. 200+00 TO 207+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	3A(2)

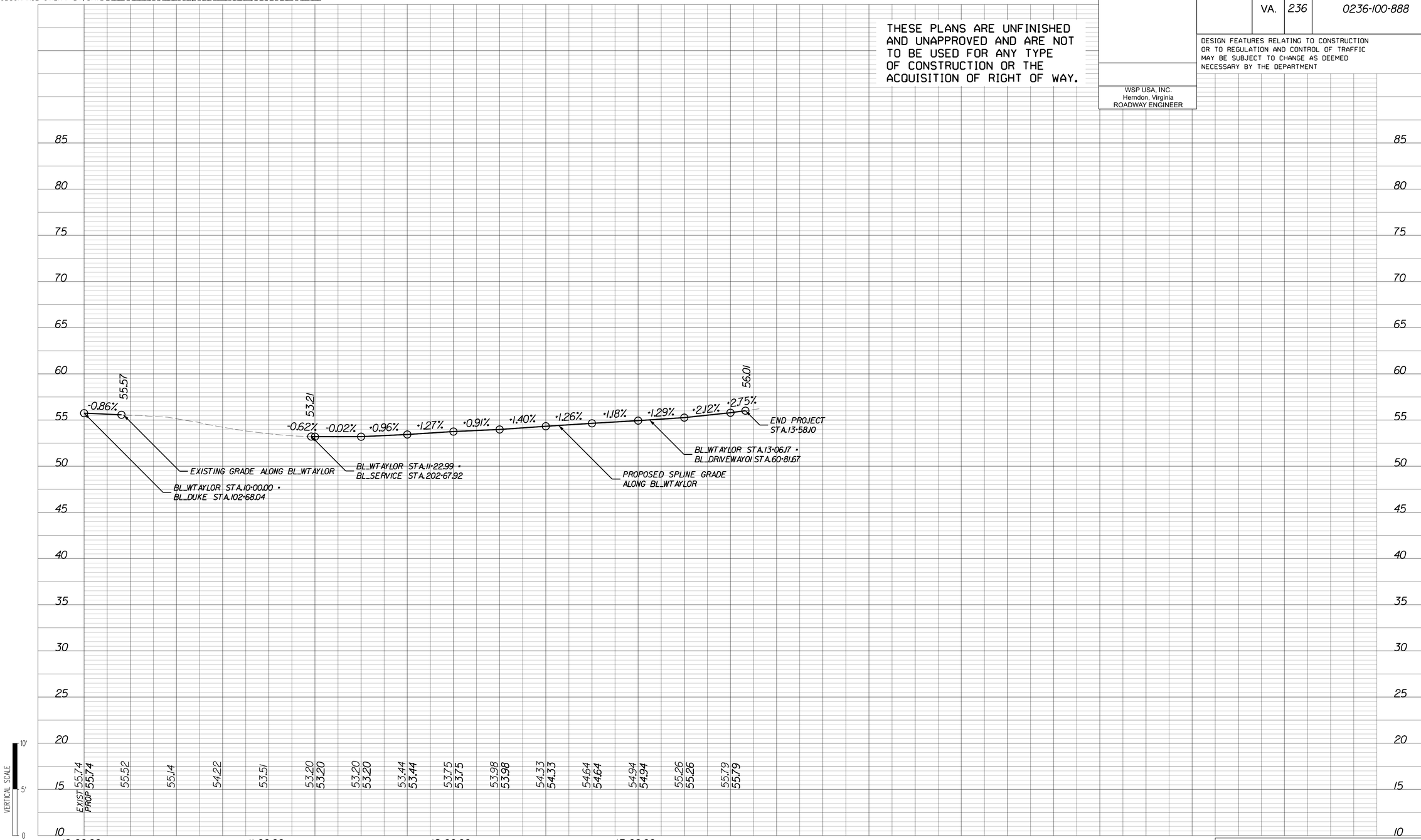
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

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

WSP USA, INC.
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	3A(3)

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



PROFILE
W TAYLOR RUN PARKWAY
STA.10+00 TO 13+75

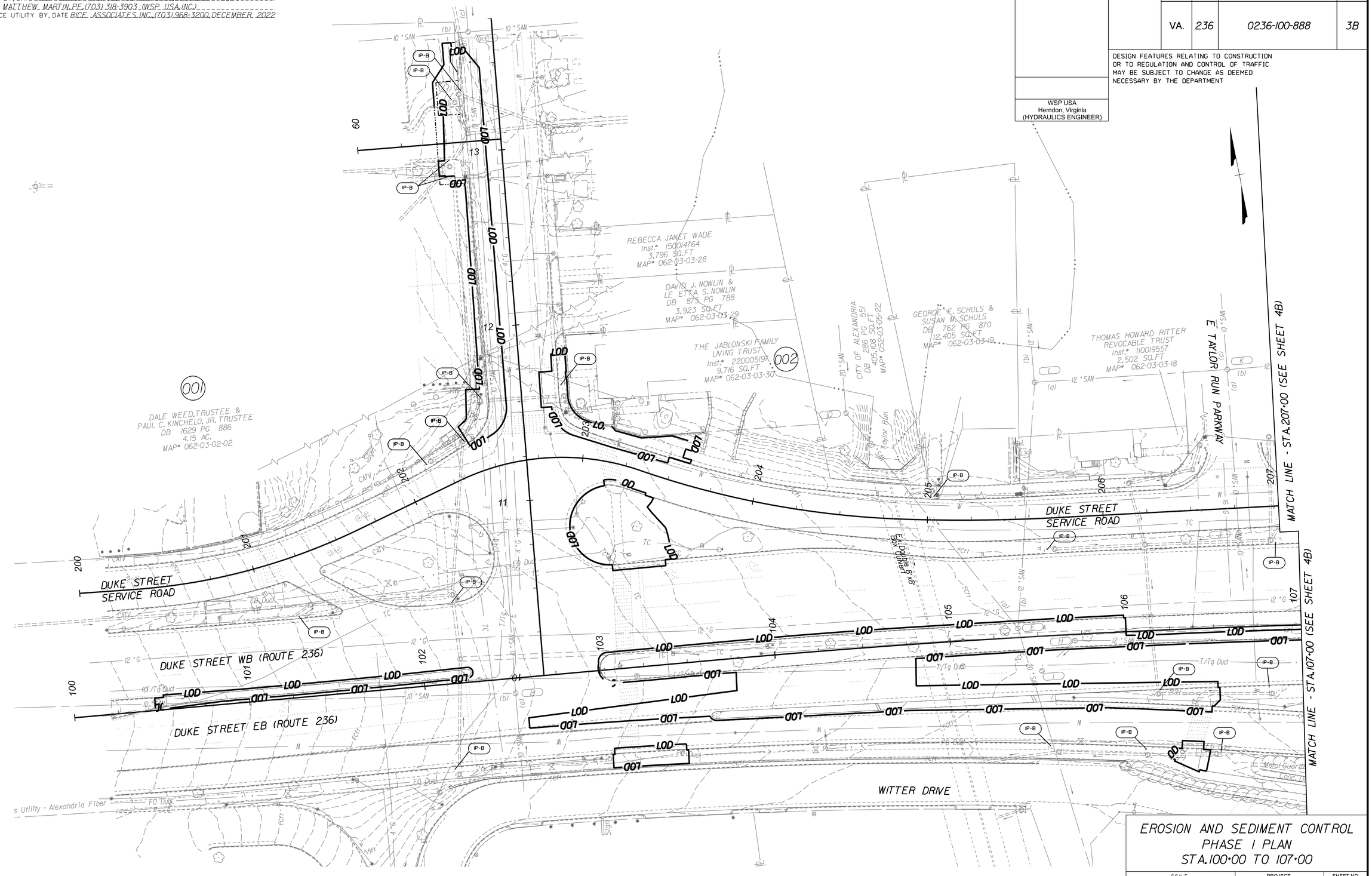
SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	3A(3)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	3B

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)



EROSION AND SEDIMENT CONTROL
PHASE I PLAN
STA.100+00 TO 107+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	3B

1/23/2026
4:54:27 PM

dll553103C.dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	3C

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

REBECCA JANET WADE
Inst.# 150014764
3,796 SQ.FT
MAP# 062-03-03-28

DAVID J. NOWLIN &
LE ETTA S. NOWLIN
DB 875 PG 788
3,923 SQ.FT
MAP# 062-03-03-29

THE JABLONSKI FAMILY
LIVING TRUST
Inst.# 220005197
9,716 SQ.FT
MAP# 062-03-03-30

CITY OF ALEXANDRIA
DB 286 PG 551
405,108 SQ.FT
MAP# 052-03-05-22

GEORGE F. SCHULS &
SUSAN M. SCHULS
DB 762 PG 870
12,405 SQ.FT
MAP# 062-03-03-49

THOMAS HOWARD RITTER
REVOCABLE TRUST
Inst.# 110019557
2,502 SQ.FT
MAP# 062-03-03-18

DALE WEED, TRUSTEE &
PAUL C. KINCHELO, JR. TRUSTEE
DB 1629 PG 886
4.15 AC.
MAP# 062-03-02-02

E TAYLOR RUN PARKWAY

DUKE STREET SERVICE ROAD

DUKE STREET WB (ROUTE 236)

DUKE STREET EB (ROUTE 236)

WITTER DRIVE

Ex. Double 8'x8' Box Culvert

MATCH LINE - STA.207+00 (SEE SHEET 4C)

MATCH LINE - STA.107+00 (SEE SHEET 4C)

EROSION AND SEDIMENT CONTROL
PHASE 2 PLAN
STA.100+00 TO 107+00

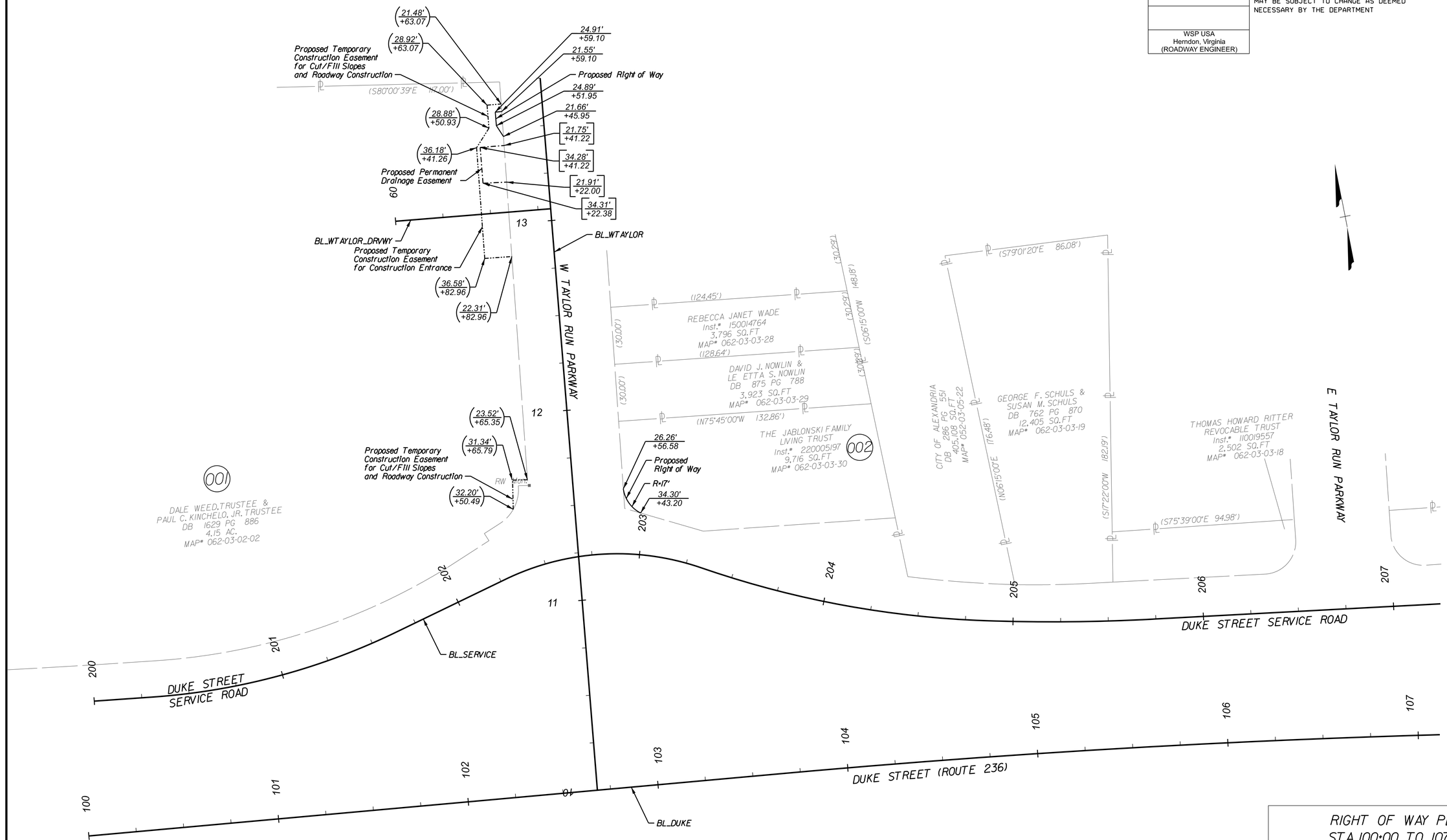
SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	3C

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	3RW

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



RIGHT OF WAY PLAN
STA. 100+00 TO 107+00
SHEET 1 OF 1

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	3RW

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

LEGEND

- MILL & OVERLAY
- FULL-DEPTH PAVEMENT
- CONCRETE PAVEMENT
- C — CONSTRUCTION LIMITS IN CUT
- F — CONSTRUCTION LIMITS IN FILL
- PROP. TEMPORARY CONSTRUCTION EASEMENT
- PROP. PERMANENT DRAINAGE EASEMENT
- PROP. RIGHT-OF-WAY
- PROP. GRADED V-DITCH
- 1 PROP. MEDIAN CURB MC-1
- 2 PROP. CURB & GUTTER CG-6
- 3 TIE TO EX. CURB
- 4 TIE TO EX. CURB AND GUTTER
- 5 PROP. FULL-DEPTH SAWCUT
- 6 PROP. CURB RAMP CG-12 TYPE A
- 7 PROP. CURB RAMP CG-12 TYPE B
- 8 PROP. CONCRETE SIDEWALK
- 9 TIE TO EX. SIDEWALK
- 10 DEMO EX. SIDEWALK
- 11 DEMO EX. CURB RAMP
- 12 REMOVE EX. DRAINAGE STRUCTURE
- 13 REMOVE EX. PIPE
- 14 PIPE TO BE CLEANED OUT
- 15 PROP. UNDERDRAIN UD-4
- 16 CONNECT UD-4 IF PRESENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	4

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

WSP USA Herndon, Virginia (HYDRAULICS ENGINEER)	WSP USA Herndon, Virginia (ROADWAY ENGINEER)

NOTES:
1. REFER TO SHEET SERIES 2B FOR CG-12 DETAILS AND CURB RETURN PROFILES.
2. CONTRACTOR SHALL CALL ALEXANDRIA ARCHAEOLOGY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (EVIDENCE OF HISTORIC DAMS OR WEIRS) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERD DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF DISCOVERY UNTIL A CITY ARCHAEOLOGIST VISITS THE SITE AND RECORDS THE FINDS.
3. THE CONTRACTOR SHALL NOT ALLOW ANY METAL DETECTION TO BE CONDUCTED WITHIN THE PROJECT AREA, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY.
4. REFER TO UTILITY PLAN (SHEETS IG(1) - IG(3)) FOR PROPOSED UTILITY WORK.

MATCH LINE - STA.207+00 (SEE SHEET 3)
MATCH LINE - STA.107+00 (SEE SHEET 3)
MATCH LINE - STA.114+00 (SEE SHEET 5)
DUKE STREET SERVICE ROAD
DUKE STREET WB (ROUTE 236)
DUKE STREET EB (ROUTE 236)
MONCURE DRIVE
TELEGRAPH ROAD BRIDGE
Telegraph Road Bridge
SERVICE ROAD CONSTRUCTION BASELINE (BL_SERVICE)
DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)
EX.RIGHT-OF-WAY
END PROJECT STA.210+48.41
PROP.HEADER CURB
PROP.CURB,CG-2
DEMO EX.LIGHT POLE
REALIGN ASPHALT DITCH TIE TO DITCH 02
DITCH D02 V-DITCH WITH FORESLOPE 3:1 BACKSLOPE 3:1
PROP.CONCRETE MEDIAN MS-1
DEMO EX. LIGHT POLE
JON NORDLING Inst.# 160011496 7,093 SQ.FT MAP# 062-04-01-13
PAUL R. SPINA Inst.# 140015194 5,646 SQ.FT MAP# 062-04-02-12
CANDICE ZOE DENARDI & WILLIAM KEVIN CHRISTIAN Inst.# 190003896 2,938 SQ.FT MAP# 062-04-01-14
(S77°17'45"E 91.71')
(S77°17'45"E 90')
(S75°39'00"E 100.00')
(N14°21'00"E 30.00')
Asphalt Parking Lot
Conc.Sidewalk
Conc.Curb
C.B. Ret. Wall
3' Vinyl Fence
0.5 Conc Curb
2.5 Conc.C&G
Conc.Slope Protection
Conc.Abutment
Wing Wall
Asphalt Ditch
Conc.Piers
Metal Beams (Typ.)
T/Tg Duct
F.O.
City of Alexandria Fiber Optics
Metal GuardRail
Chain Link Fence
Duke St. Rt.# 236 N.B.L. Asphalt
Telegraph Rd. Rt.# 241 S.B.L.
12"G
12"SAN
8"SAN
6"W
4"G
209
210
211
107
108
109
110
111
112
113
114

PLAN SHEET
STA.107+00 TO 114+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	4

1/23/2026
4:55:09 PM

dll5531041(1).dgn
Plotted By: USEB695877

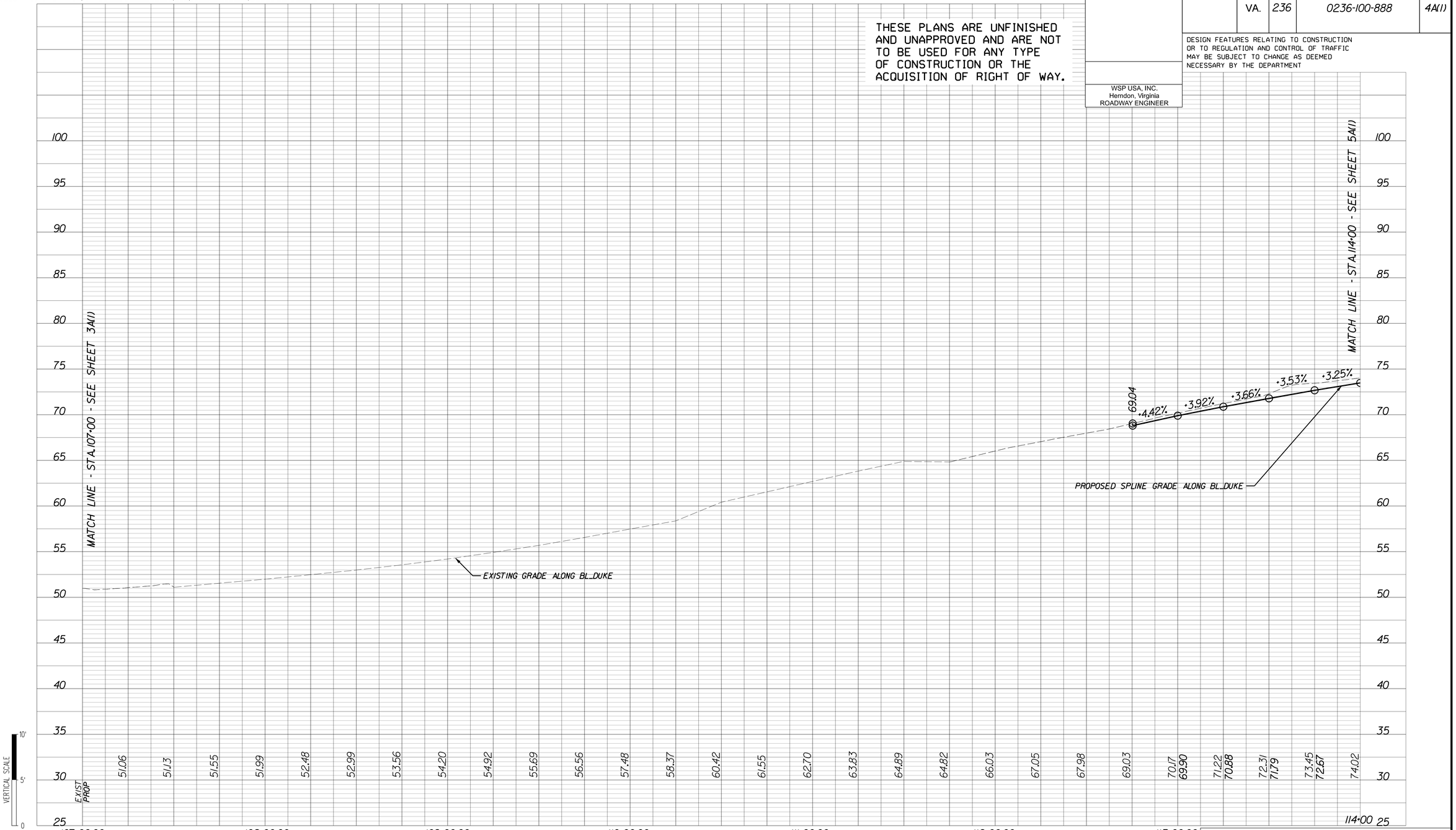
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	4A(1)

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

WSP USA, INC.
Herndon, Virginia
ROADWAY ENGINEER



PROFILE
DUKE STREET
STA.107+00 TO 114+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	4A(1)

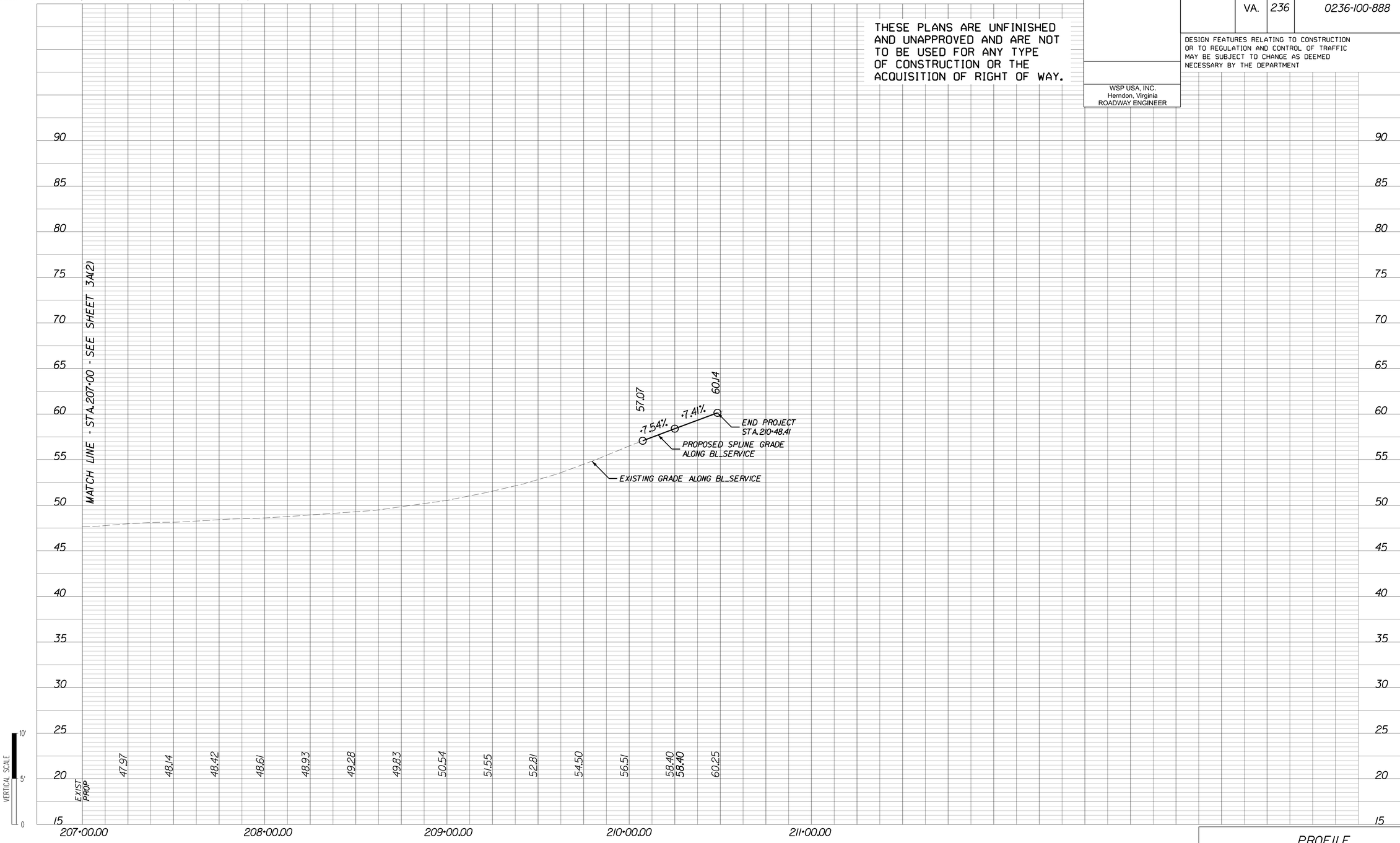
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

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

WSP USA, INC.
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	4A(2)

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



PROFILE
DUKE STREET SERVICE ROAD
STA.207+00 TO 211+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	4A(2)

1/23/2026
4:55:35 PM

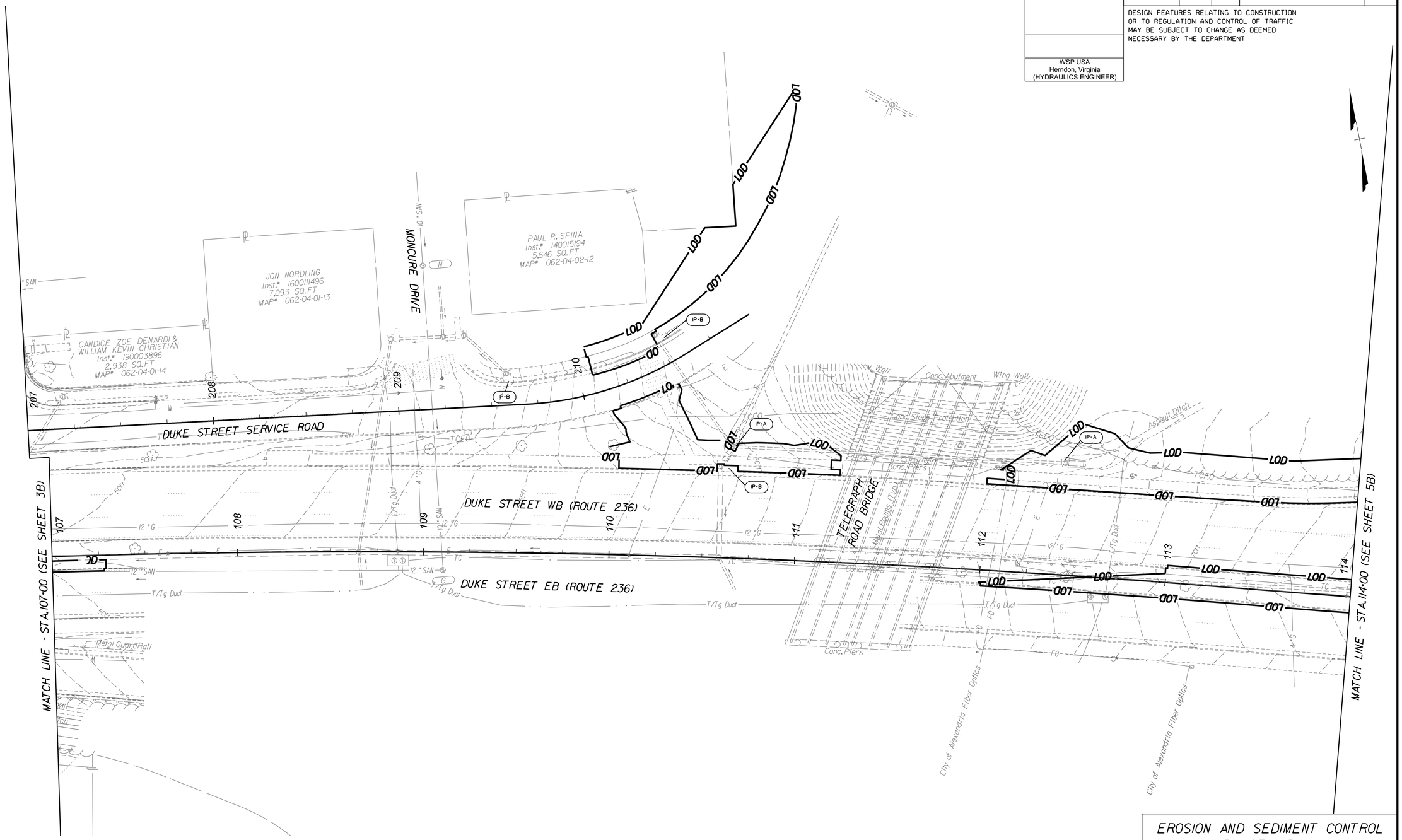
dll553104B.dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	4B

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)



EROSION AND SEDIMENT CONTROL
PHASE I PLAN
STA.107+00 TO 114+00

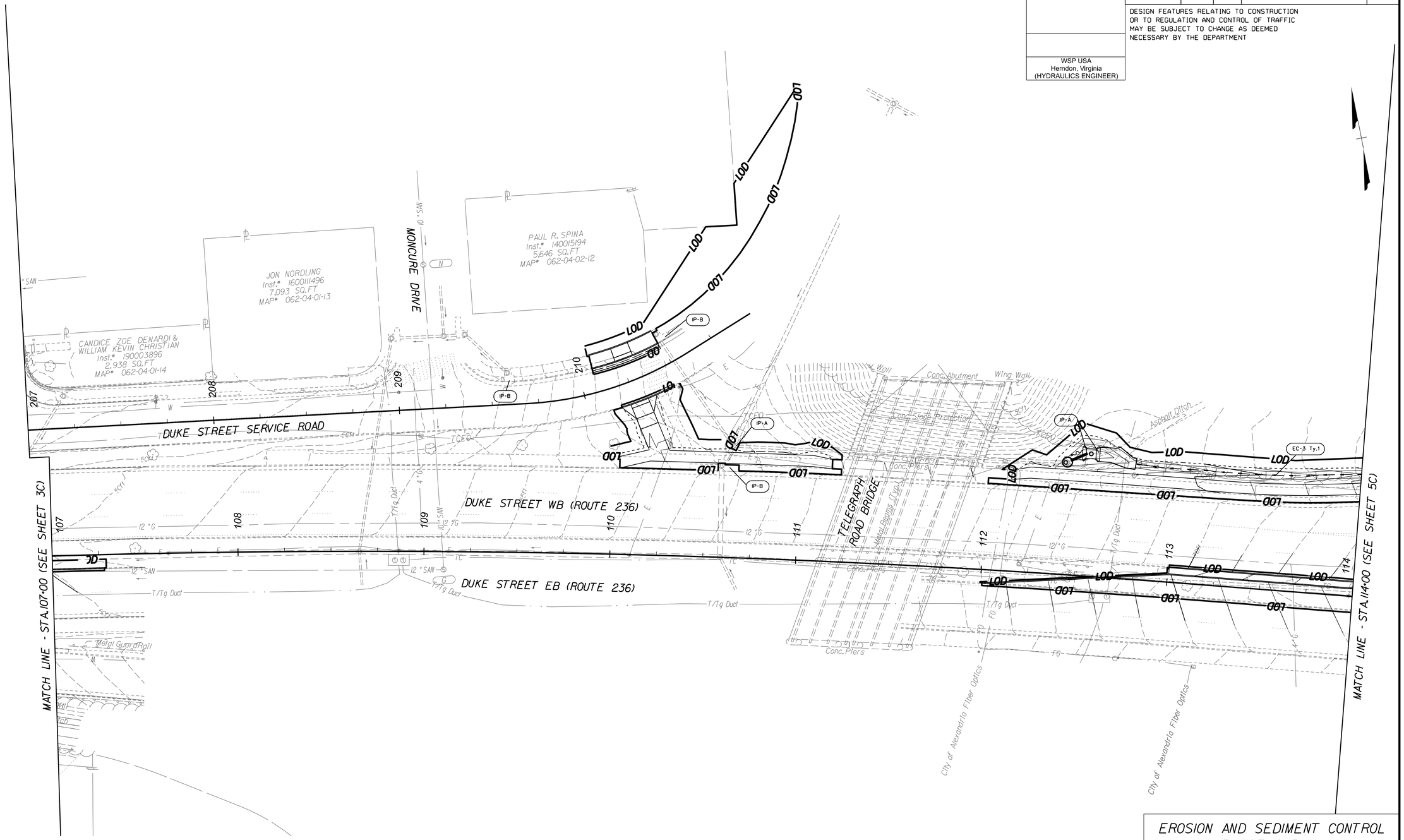
SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	4B

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	4C

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)



EROSION AND SEDIMENT CONTROL
PHASE 2 PLAN
STA.107+00 TO 114+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	4C

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

LEGEND

- MILL & OVERLAY
- FULL-DEPTH PAVEMENT
- CONCRETE PAVEMENT
- C ---------- CONSTRUCTION LIMITS IN CUT
- F _ _ _ _ _ CONSTRUCTION LIMITS IN FILL
- PROP. TEMPORARY CONSTRUCTION EASEMENT
- PROP. PERMANENT DRAINAGE EASEMENT
- PROP. RIGHT-OF-WAY
- PROP. GRADED V-DITCH
- 1 PROP. MEDIAN CURB MC-1
- 2 PROP. CURB & GUTTER CG-6
- 3 TIE TO EX. CURB
- 4 TIE TO EX. CURB AND GUTTER
- 5 PROP. FULL-DEPTH SAWCUT
- 6 PROP. CURB RAMP CG-12 TYPE A
- 7 PROP. CURB RAMP CG-12 TYPE B
- 8 PROP. CONCRETE SIDEWALK
- 9 TIE TO EX. SIDEWALK
- 10 DEMO EX. SIDEWALK
- 11 DEMO EX. CURB RAMP
- 12 REMOVE EX. DRAINAGE STRUCTURE
- 13 REMOVE EX. PIPE
- 14 PIPE TO BE CLEANED OUT
- 15 PROP. UNDERDRAIN UD-4
- 16 CONNECT UD-4 IF PRESENT

WSP USA Herndon, Virginia (HYDRAULICS ENGINEER)	WSP USA Herndon, Virginia (ROADWAY ENGINEER)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	5

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

NOTES:
1. REFER TO SHEET SERIES 2B FOR CG-12 DETAILS AND CURB RETURN PROFILES.
2. CONTRACTOR SHALL CALL ALEXANDRIA ARCHAEOLOGY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (EVIDENCE OF HISTORIC DAMS OR WEIRS) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERD DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF DISCOVERY UNTIL A CITY ARCHAEOLOGIST VISITS THE SITE AND RECORDS THE FINDS.
3. THE CONTRACTOR SHALL NOT ALLOW ANY METAL DETECTION TO BE CONDUCTED WITHIN THE PROJECT AREA, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY.
4. REFER TO UTILITY PLAN (SHEETS IG(1) - IG(3)) FOR PROPOSED UTILITY WORK.

4 BL_DUKE STA. 116+32.74 / BL_NEWRAMP STA. 30+00.00
5 BL_TELEGRAPH STA. 41+37.00 / BL_NEWRAMP STA. 32+53.72

DITCH D01 V-DITCH WITH FORESLOPE 6:1 BACKSLOPE 3:1
DITCH D02 V-DITCH WITH FORESLOPE 3:1 BACKSLOPE 3:1
DEMO EX. SHOULDER
TIE TO EX. PAVED SHOULDER
TIE TO EX. EDGE OF PAVEMENT
EX. RIGHT-OF-WAY
EB DUKE TO SB TELEGRAPH RAMP CONSTRUCTION BASELINE (BL_NEWRAMP)
PROP. EDGE OF PAVED SHOULDER
PROP. EDGE OF TRAVELWAY
TELEGRAPH ROAD CONSTRUCTION BASELINE (BL_TELEGRAPH)
PROP. CONCRETE MEDIAN MS-1
DUKE STREET CONSTRUCTION BASELINE (BL_DUKE)
MATCH LINE - STA. 114+00 (SEE SHEET 4)
TELEGRAPH ROAD OFF-RAMP
TELEGRAPH ROAD ON-RAMP
DUKE STREET WB (ROUTE 236)
DUKE STREET EB (ROUTE 236)
END PROJECT STA. 117+84.17
FORT ELLSWORTH CONDOMINIUM 321,808 SQ.FT MAP# 062-04-0A-00
SHUTERS HILL OWNERS ASSOCIATION DB 983 PG 792 14,762 SQ.FT MAP# 062-04-04-37
MII LLC Inst.# 160013185 4,614 SQ.FT MAP# 072-02-01-04
J.T. MARTYN, JR. & E.F. CANNON, TRUSTEES, LLC Inst.# 190017996 48,337 SQ.FT
2350 Posted 2 - Sty. Br. Bldg.

PLAN SHEET
STA. 114+00 TO 121+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	5

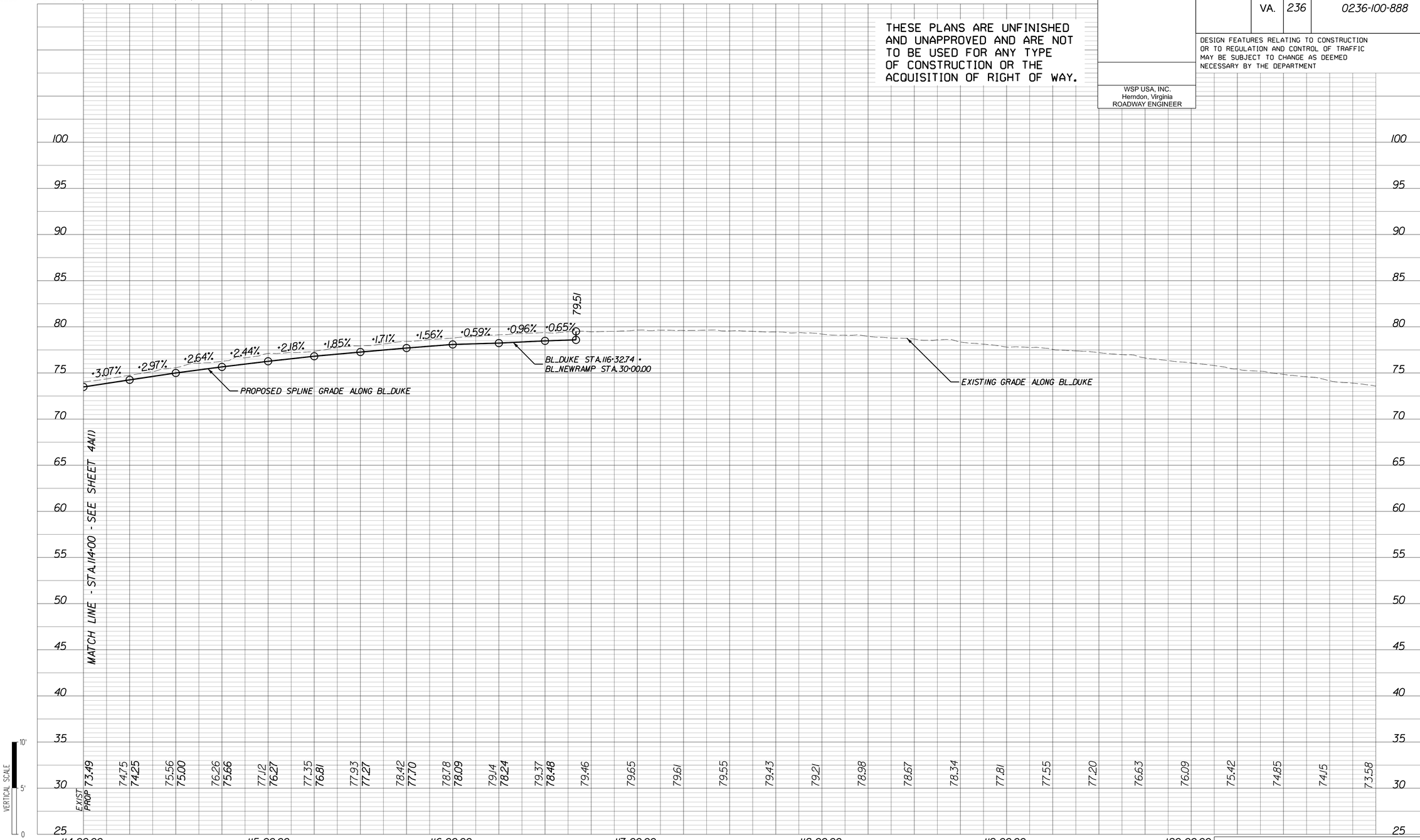
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

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

WSP USA, INC.
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	5A(1)

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



PROFILE
DUKE STREET
STA.114+00 TO 121+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	5A(1)

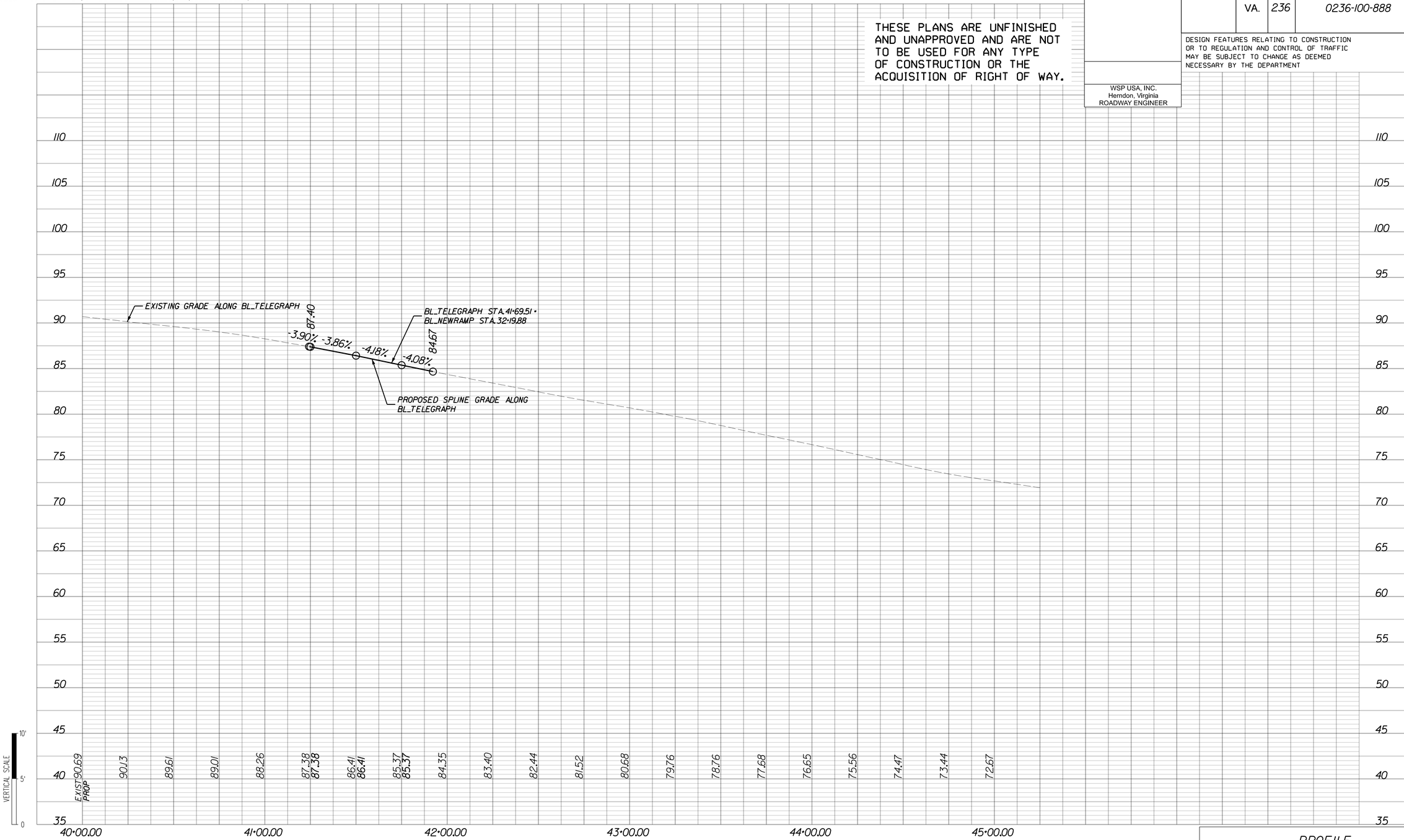
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

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

WSP USA, INC.
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	5A(2)

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



PROFILE
TELEGRAPH ROAD
STA. 40+00 TO 45+25

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	5A(2)

dll553105A(3).dgn
Plotted By: USEB695877

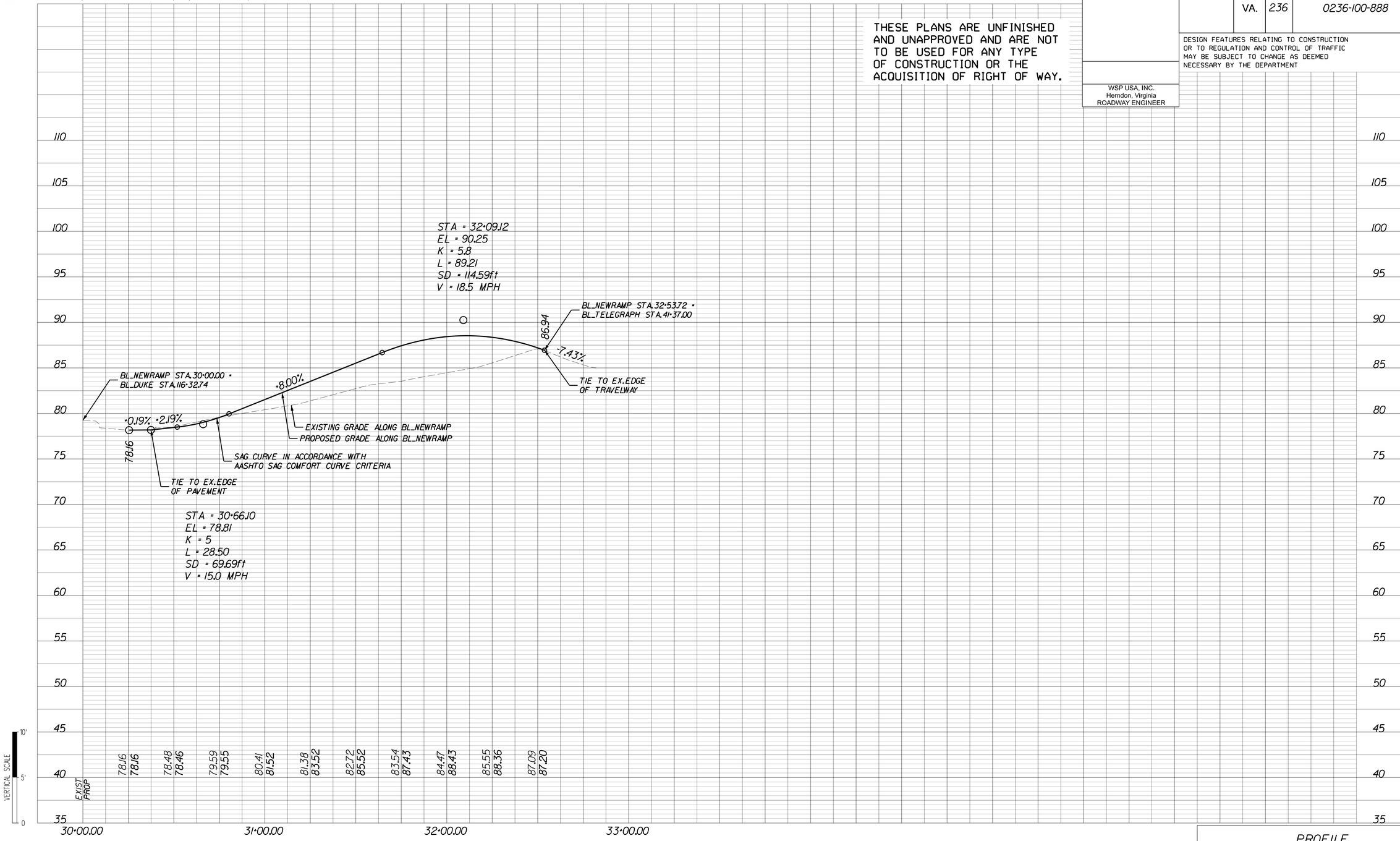
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

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

WSP USA, INC.
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	5A(3)

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



PROFILE
EB DUKE TO TELEGRAPH RAMP
STA. 30+00 TO 32+20

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	5A(3)

1/23/2026
4:56:52 PM

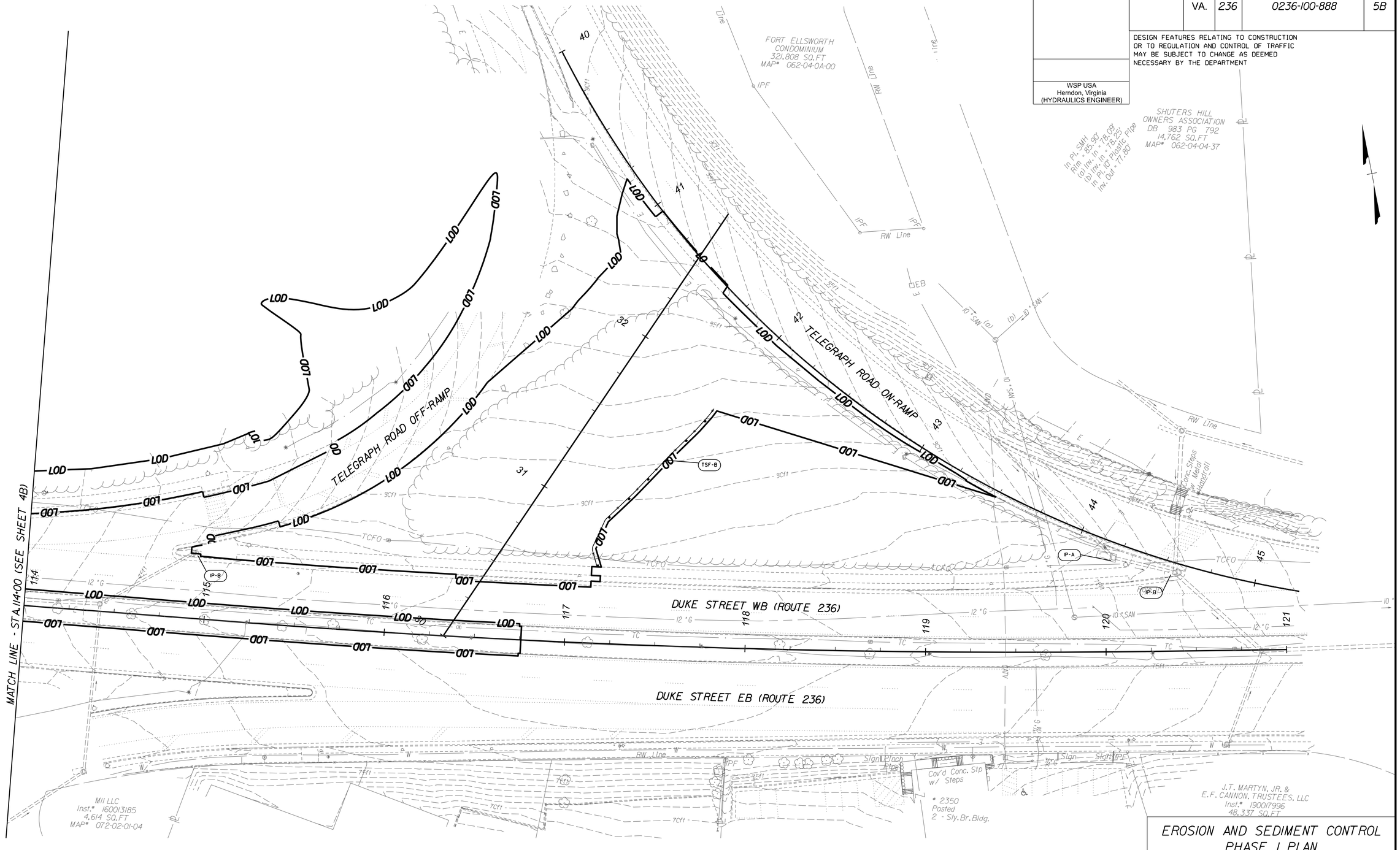
dll553105B.dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	5B

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)



EROSION AND SEDIMENT CONTROL
PHASE I PLAN
STA.114+00 TO 121+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	5B

1/23/2026
4:57:07 PM

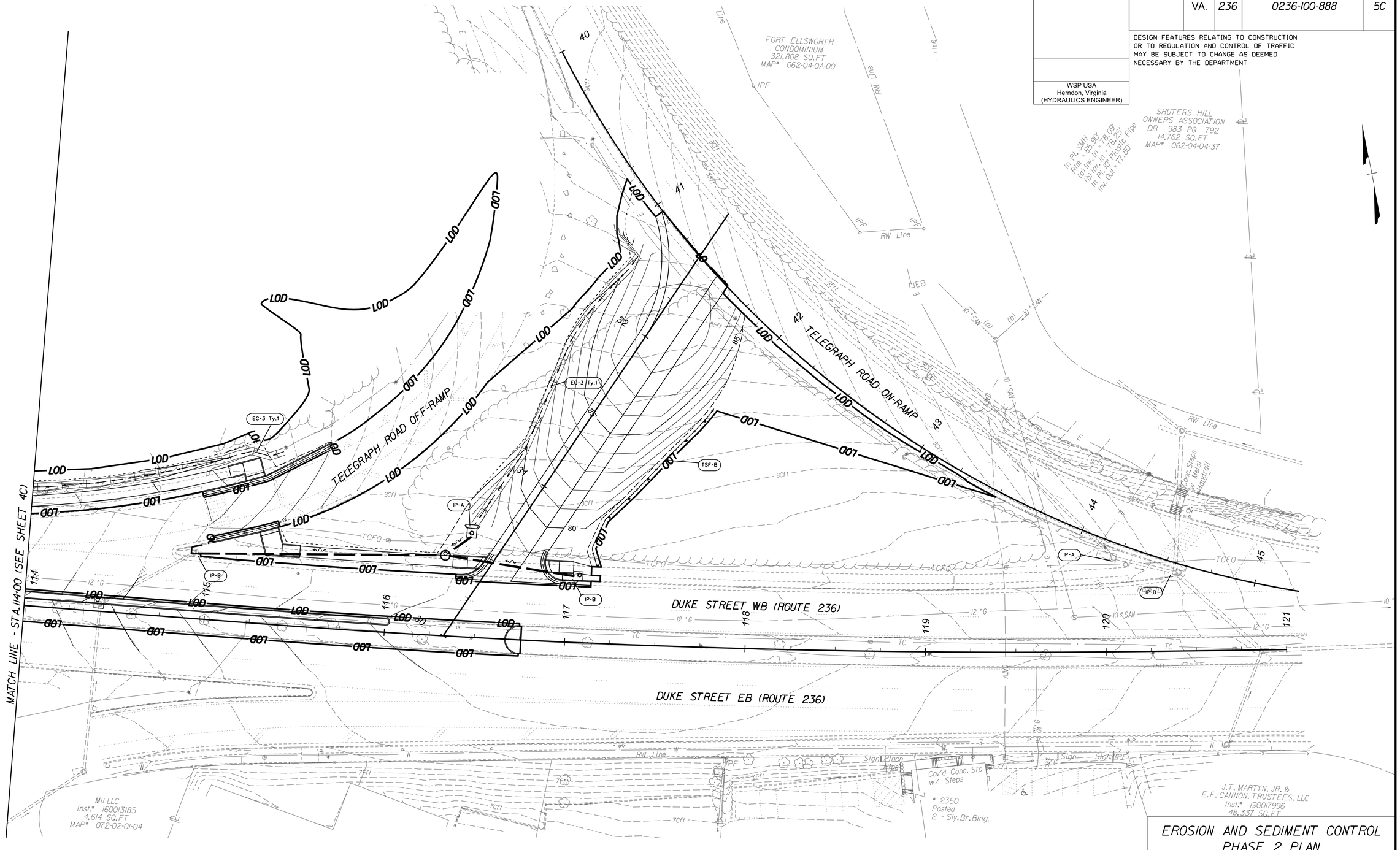
dll553105C.dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	5C

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)


MATCH LINE - STA.114+00 (SEE SHEET 4C)
FORT ELLSWORTH CONDOMINIUM 321,808 SQ.FT MAP# 062-04-0A-00
SHUTERS HILL OWNERS ASSOCIATION DB 983 PG 792 14,762 SQ.FT MAP# 062-04-04-37
In. Pl. SMH Rim = 85.90' (a) Inv. In = 78.09' (b) Inv. In = 78.25' In Pl. 10" Plastic Pipe Inv. Out = 77.80'
TELEGRAPH ROAD OFF-RAMP
TELEGRAPH ROAD ON-RAMP
DUKE STREET WB (ROUTE 236)
DUKE STREET EB (ROUTE 236)
LOD
EC-3 Ty.1
TSF-B
IP-A
IP-B
TCFO
RW Line
Conc. Steps w/ Metal Handrail
Cov'd Conc. Stp w/ Steps
* 2350 Posted 2 - Sty. Br. Bldg.
Sign
Sign
Storm MH
Inlet
MH
MH
MH

1/23/2026
4:57:22 PM

dll553106.dgn
Plotted By: USEB695877

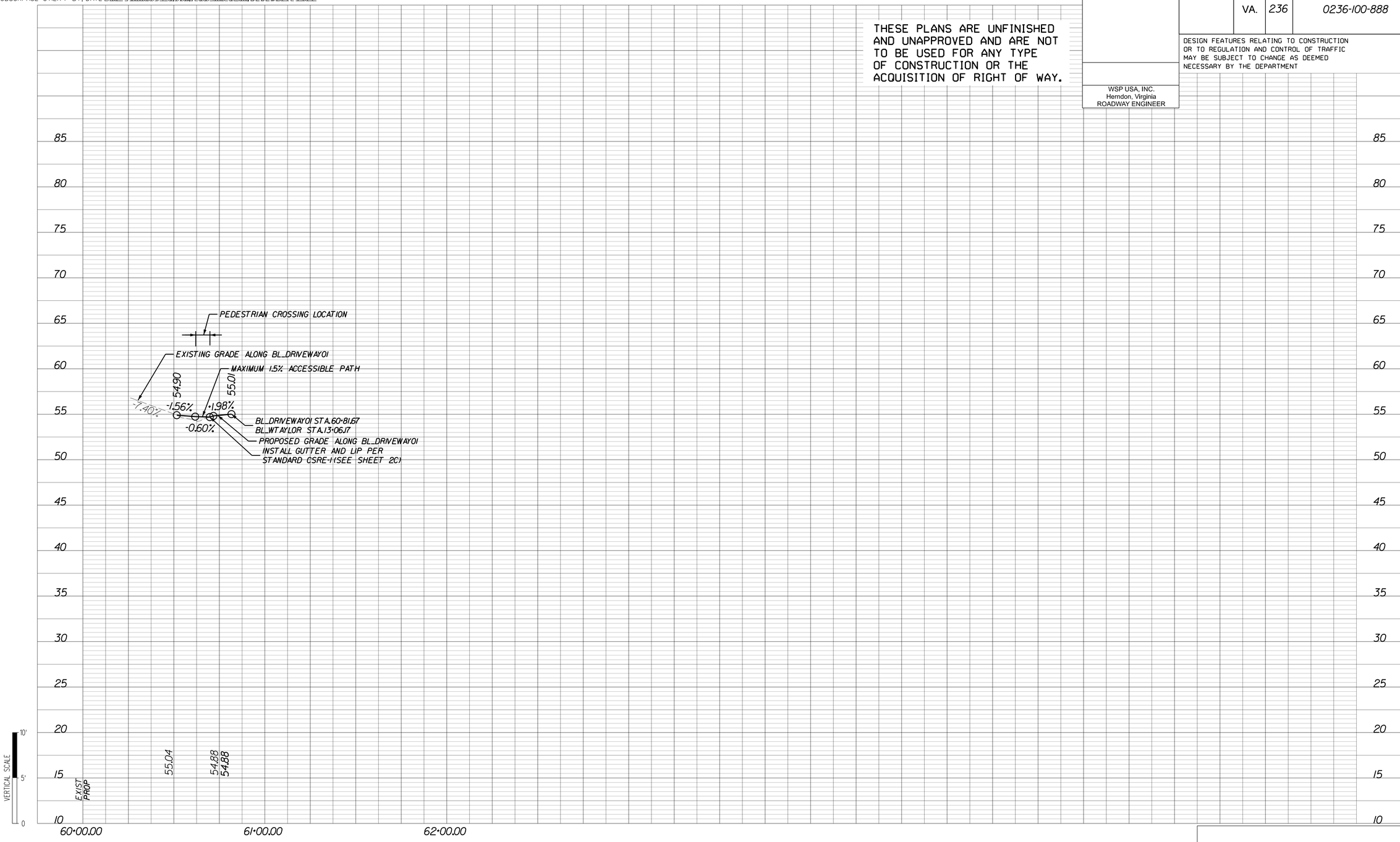
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

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

WSP USA, INC.
Herndon, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	6

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



DRIVEWAY PROFILE

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	6

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

EXISTING DRAINAGE DESCRIPTIONS

1 In Pl. SSMH
Rim = 71.87'
Inv. In = 67.87'
In Pl. 15" Conc. Pipe
Inv. Out = 67.78'

2 In Pl. SSMH
Rim = 41.07'
(a) Inv. In = 32.75'
(b) Inv. In = 39.07'
In Pl. 15" Conc. Pipe
Inv. Out = 32.65'

3 In Pl. Curb Inlet
Rim = 61.69'
In Pl. 12" Conc. Pipe
(No Access)

4 In Pl. Curb Inlet
Rim = 57.54'
(a) Inv. In = 47.80'
(b) Inv. In = 47.29'
In Pl. 18" Conc. Pipe
Inv. Out = 46.89'

5 In Pl. Curb Inlet
Rim = 57.49'
(a) Inv. In = 46.58'
(b) Inv. In = 54.49'
In Pl. 30" Conc. Pipe
Inv. Out = 46.55'

6 In Pl. Curb Inlet
Rim = 57.49'
In Pl. 15" Conc. Pipe
Inv. Out = 53.68'

7 In Pl. Curb Inlet
Rim = 53.39'
In Pl. 15" Conc. Pipe
Inv. Out = 48.87'

8 In Pl. Curb Inlet
Rim = 52.99'
(a) Inv. In = 48.37'
(b) Inv. In = 48.44'
In Pl. 15" Conc. Pipe
Inv. Out = 48.22'

9 In Pl. Curb Inlet
Rim = 53.07'
Inv. In = 48.74'
In Pl. 15" Conc. Pipe
Inv. Out = 48.62'

10 In Pl. Curb Inlet
Rim = 53.14'
In Pl. 15" Conc. Pipe
Inv. Out = 49.24'

11 In Pl. Headwall
(a) Inv. In = 35.89'
(b) Inv. In = 35.75'
In Pl. 8' x 8' Box Culvert

12 In Pl. Conc. Endwall
In Pl. 8' x 8' Box Culvert
(a) Inv. Out = 23.21'
(b) Inv. Out = 23.24'

13 In Pl. SSMH
Rim = 38.01'
(a) Inv. In = 28.49'
(b) Inv. In = 32.81'
In Pl. 24" Conc. Pipe
Inv. Out = 28.48'

14 In Pl. Drop Inlet
Rim = 37.55'
Inv. In = 33.92'
In Pl. 24" Conc. Pipe
Inv. Out = 33.87'

15 In Pl. Curb Inlet
Rim = 46.50'
In Pl. 12" Conc. Pipe
Inv. Out = 42.35'

16 In Pl. Curb Inlet
Rim = 49.48'
Inv. In = 44.03'
In Pl. 15" Conc. Pipe
Inv. Out = 43.82'

17 In Pl. Curb Inlet
Rim = 49.24'
Inv. In = 44.48'
In Pl. 15" Conc. Pipe
Inv. Out = 44.43'

18 In Pl. Curb Inlet
Rim = 49.02'
In Pl. 15" Conc. Pipe
Inv.Out = 44.87'

19 In Pl. Curb Inlet
Rim = 48.79'
In Pl. 12" Conc. Pipe
Inv. Out = 43.15'

20 In Pl. SSMH
Rim = 50.43'
(a) Inv. In = 44.33'
(b) Inv. In = 39.03'
(c) Inv. In = 30.68'
In Pl. 30" Conc. Pipe
Inv. Out = 38.99'

21 In Pl. SSMH
Rim = 53.23'
(a) Inv. In = 44.83'
(b) Inv. In = 43.95'
(c) Inv. In = 43.98'
In Pl. 30" Conc. Pipe
Inv. Out = 43.83'

22 In Pl. Curb Inlet
Rim = 49.90'
In Pl. 15" Conc. Pipe
Inv. Out = 45.86'

23 In Pl. Curb Inlet
Rim = 49.63'
Inv. In = 44.99'
In Pl. 15" Conc. Pipe
Inv. Out = 44.69'

24 In Pl. Curb Inlet
Rim = 49.70'
In Pl. 15" Conc. Pipe
Inv. Out = 45.14'

25 In Pl. Curb Inlet
Rim = 49.73'
(a) Inv. In = 42.02'
(b) Inv. In = 42.41'
In Pl. 15" Conc. Pipe
Inv. Out = 42.03'

26 In Pl. Curb Inlet
Rim = 48.13'
In Pl. 15" Conc. Pipe
Inv. Out = 44.23'

27 In Pl. Curb Inlet
Rim = 47.46'
In Pl. 15" Conc. Pipe
Inv. Out = 43.06'

28 In Pl. Curb Inlet
Rim = 49.58'
(a) Inv. In = 41.50'
(b) Inv. In = 41.96'
(c) Inv. In = 41.90'
In Pl. 15" Conc. Pipe
Inv. Out = 41.29'

29 In Pl. Curb Inlet
Rim = 47.96'
Inv. In = 44.31'
In Pl. 15" Conc. Pipe
Inv. Out = 43.93'

30 In Pl. SSMH
Rim = 47.49'
Inv. In = 44.33'
In Pl. 15" Conc. Pipe
Inv. Out = 44.29'

31 In Pl. Curb Inlet
Rim = 47.05'
Inv. In = 44.65'
In Pl. 15" Conc. Pipe
Inv. Out = 44.45'

32 In Pl. Curb Inlet
Rim = 47.22'
In Pl. 12" Conc. Pipe
(No Access)

33 In Pl. SSMH
Rim = 50.56'
(Full Of Debris)

34 In Pl. Curb Inlet
Rim = 49.18'
In Pl. 15" Conc. Pipe
Inv. Out = 45.08'

35 In Pl. Drop Inlet
w/ SSMH
Rim = 48.52'
Throat Inv. = 47.75'
In Pl. 15" Conc. Pipe
Inv. Out = 44.18'

36 In Pl. SSMH
Rim = 48.45'
(a) Inv. In = 43.61'
(b) Inv. In = 43.97'
(c) Inv. In = 43.65'
In Pl. 18" Conc. Pipe
Inv. Out = 43.55'

37 In Pl. Curb Inlet
Rim = 47.80'
Inv. In = 42.90'
In Pl. 18" Conc. Pipe
Inv. Out = 43.68'

38 In Pl. SSMH
Rim = 48.73'
Inv. In = 44.74'
In Pl. 18" Conc. Pipe
Inv. Out = 44.73'

39 In Pl. Curb Inlet
Rim = 48.03'
Inv. In = 42.63'
In Pl. 18" Conc. Pipe
Inv. Out = 42.42'

40 In Pl. SSMH
Rim = 45.86'
Inv. In = 40.46'
In Pl. 24" Conc. Pipe
Inv. Out = 40.25'

41 In Pl. Curb Inlet
Rim = 79.50'
In Pl. 15" Conc. Pipe
Inv. Out = 76.00'

42 In Pl. Curb Inlet
Rim = 55.37'
Inv. In (a) = 51.37'
Inv. In (b) = 51.37'
In Pl. 18" Conc. Pipe
Inv. Out = 51.29'

43 In Pl. SSMH
Rim = 45.86'
Inv. In = 40.46'
In Pl. 18" Conc. Pipe
Inv. Out = 40.25'

44 In Pl. Curb Inlet
Rim = 54.76'
In Pl. 18" Conc. Pipe
Inv. Out = 50.66'

45 In Pl. Curb Inlet
Rim = 54.82'
Inv. In = 50.52'
In Pl. 18" Conc. Pipe
Inv. Out (1) = 48.92'
In Pl. 18" Conc. Pipe
Inv. Out (2) = 49.67'

46 In Pl. SSMH
Rim = 55.01'
Inv. In = 52.09'
In Pl. 18" Conc. Pipe
Inv. Out = 52.06'

47 In Pl. SSMH
Rim = 55.17'
Inv. In (a) = 47.16'
Inv. In (b) = 47.21'
In Pl. 24" Conc. Pipe
Inv. Out (1) = 46.92'
In Pl. 24" Conc. Pipe
Inv. Out (2) = 47.02'

48 In Pl. Curb Inlet
Rim = 51.89'
Inv. In = 46.99'
In Pl. 18" Conc. Pipe
Inv. Out = 46.72'

49 In Pl. SSMH
Rim = 51.99'
Inv. In (a) = 47.66'
Inv. In (b) = 47.53'
In Pl. 15" Conc. Pipe
Inv. Out = 47.51'

50 In Pl. Curb Inlet
Rim = 52.41'
Inv. In = 47.99'
In Pl. 15" Conc. Pipe
Inv. Out = 47.96'

51 In Pl. Curb Inlet
Rim = 53.23'
In Pl. 15" Conc. Pipe
Inv. Out = 49.45'

52 In Pl. Curb Inlet
Rim = 52.41'
Inv. In = 47.99'
In Pl. 15" Conc. Pipe
Inv. Out = 47.96'

53 In Pl. Drop Inlet
Rim = 59.67'
Inv. In (a) = 55.10'
Inv. In (b) = 55.07'
Inv. In (c) = 53.07'
In Pl. 30" Conc. Pipe
Inv. Out = 53.04'

54 In Pl. Drop Inlet
Rim = 75.19'
Inv. In (a) = 70.19'
Inv. In (b) = 70.09'
In Pl. 24" Conc. Pipe
Inv. Out = 63.77'

55 In Pl. Curb Inlet
Rim = 60.42'
In Pl. 15" Conc. Pipe
Inv. Out = 56.07'

56 In Pl. Drop Inlet
Rim = 66.90'
In Pl. 15" Conc. Pipe
Inv. Out = 60.80'

PROPOSED DRAINAGE DESCRIPTIONS

3-1
I Std.CSDI-1A, L=10' Req.
H= 4.3' Inv.51.40
Connect to Existing 18" Concrete Pipe (Inv.51.58)
Connect to Existing 18" Concrete Pipe (Inv.51.40)
Field Verify all Existing Pipe Inverts
Std.CSIS-1 Req.

3-2
Modify Existing Structure Req.
Repair Cracks on Interior Walls
Fill in Existing Slot

3-3
Adjust Existing Structure Req.
Repair Cracks on Interior Walls
Warp Proposed Gutter to Connect Proposed Edge of Pavement to Existing Slot

3-4
Adjust Existing Structure Req.
Adjust To Grade. Lower 0.1'
Proposed Top Elev. 54.7

3-5
Adjust Existing Structure Req.
Repair Cracks on Interior Walls
Warp Proposed Gutter to Connect Proposed Edge of Pavement to Existing Slot

3-6
I Std. DI-2B, L=10' Req.
H= 3.7' Inv. 49.32
Connect UD-4
Std. CSIS-1 Req.

3-6 — 3-7
13'-15" Concrete Pipe Req.(2' Cover)
Silt Tight Joint Type
Inv.(In) 49.32 Inv.(Out) 49.26

3-7
3.0 Lin.Ft.Std.CSMH-1 Req.
I Std.CSFC-2 Frame & Cover Req.
Inv.49.16
Connect to Existing 15" Concrete Pipe (Inv.49.16)
Connect UD-4 to MH
Field Verify all Existing Pipe Inverts
Std.CSIS-1 Req.

3-8
Modify Existing Structure Req.
Repair Cracks on Interior Walls
Fill in Existing Slot

3-9
I Std.CSDI-1A, L=10' Req.
H= 4.0' Inv. 49.30
Std.CSIS-1 Req.

3-9 — 3-10
159'-15" Concrete Pipe Req.(3' Cover)
Silt Tight Joint Type
Inv.(In) 49.30 Inv.(Out) 46.41

3-10
I Std.CSDI-1A, L=6' Req.
H= 4.1' Inv. 46.31
Std.CSIS-1 Req.

3-10 — 3-11
85'-15" Concrete Pipe Req.(3' Cover)
Silt Tight Joint Type
Inv.(In) 46.31 Inv.(Out) 45.89

3-11
I Std.CSDI-1A, L=6' Req.
H= 5.1' Inv. 44.69
Connect to Existing 15" Concrete Pipe (Inv. 44.99)
Connect to Existing 15" Concrete Pipe (Inv. 44.69)
Field Verify all Existing Pipe Inverts
Std.CSIS-1 Req.

4-1
I Std.CSYI-1 (2 Parallel Throats) Req.
H= 3.8' Inv. 62.43
Std.CSIS-1 Req.

4-1 — 4-2
10'-24" Concrete Pipe Req.(2' Cover)
Silt Tight Joint Type
Inv.(In) 62.43 Inv.(Out) 62.38

4-2
4.9 Lin.Ft. Std.CSMH-1 Req.
I Std.CSFC-2 Frame & Cover Req.
Connect to Existing 18" Concrete Pipe (Inv. 60.80)
Field Verify Existing Pipe Invert
Inv. 60.80
Std.CSIS-1 Req.

5-1
I Std.CSDI-1A, L=10' Req.
H= 3.8' Inv. 74.83
Connect UD-4 to DI
Std.IS-1 Req.

5-1 — 5-3
70'-15" Concrete Pipe Req.(2' Cover)
Silt Tight Joint Type
Inv.(In) 74.83 Inv.(Out) 74.48

5-2
I Std.CSYI-1 (1 Throat) Req.
H= 6.1' Inv. 70.78
Std.CSIS-1 Req.

5-2 — 5-3
16'-15" Concrete Pipe Req.(6' Cover)
Silt Tight Joint Type
Inv.(In) 70.86 Inv.(Out) 70.78

5-3
7.0 Lin.Ft. Std.CSMH-1 Req.
I Std.CSFC-2 Frame & Cover Req.
Inv. 70.68
Std.CSIS-1 Req.

5-3 — 5-4
135'-15" Concrete Pipe Req.(6' Cover)
Silt Tight Joint Type
Inv.(In) 70.68 Inv.(Out) 70.00

5-4
Modify Existing Structure Req.
Modify to Connect Proposed 15" Concrete Pipe (Inv. 70.00)
Std.CSIS-1 Req.

5-5
I Std.JB-1 Req.
H=9.7', W=4', D=5'
Type A Tower Req.
I Std.CSFC-2 Frame & Cover Req.
Connect to Existing 15" Concrete Pipe (Inv. 65.72)
Connect to Existing 15" Concrete Pipe (Inv. 68.55)
Connect to Existing 18" Concrete Pipe (Inv. 65.72)
Field Verify all Existing Pipe Inverts
Inv. 65.72
Std.IS-1 Req.

WSP USA, INC.
Herndon, Virginia
HYDRAULICS ENGINEER

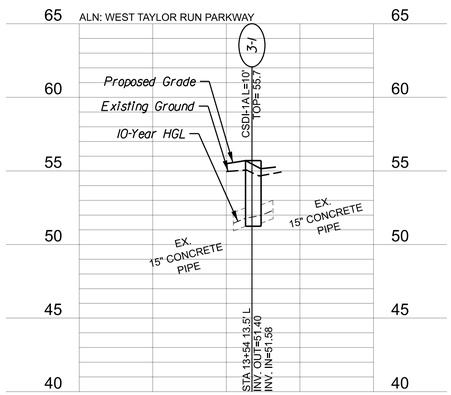
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	7(1)

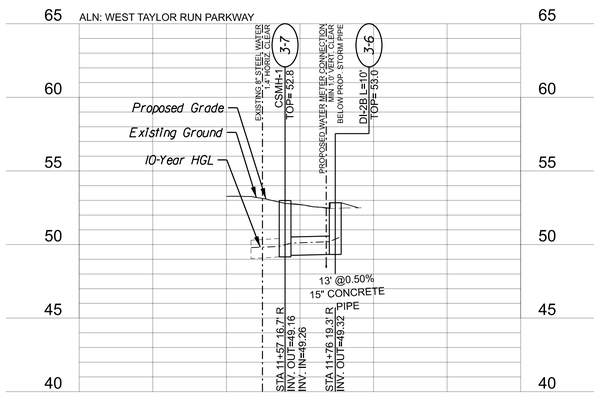
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

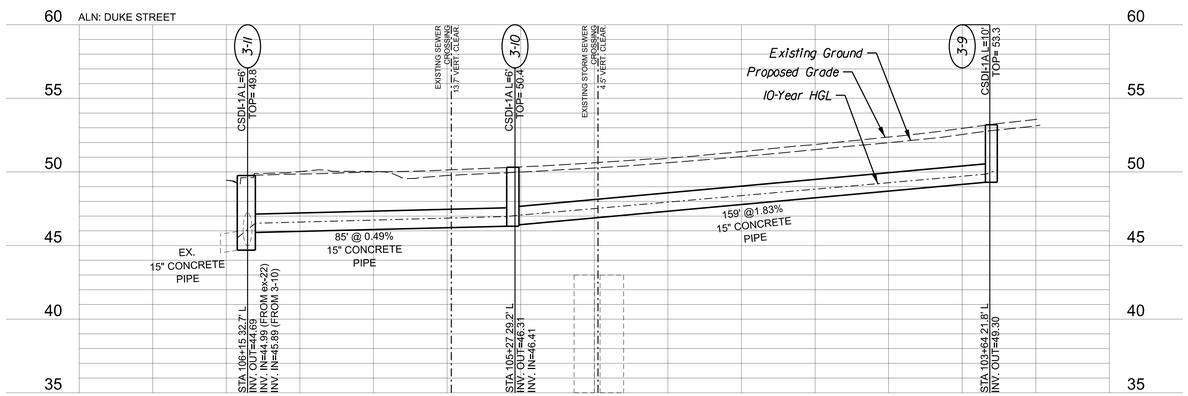
EXISTING AND PROPOSED DRAINAGE DESCRIPTIONS

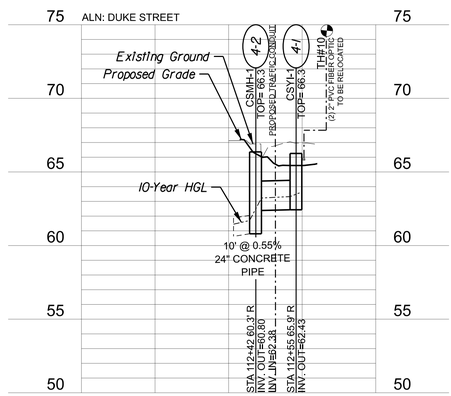
	PROJECT	SHEET NO.
	0236-100-888	7(1)

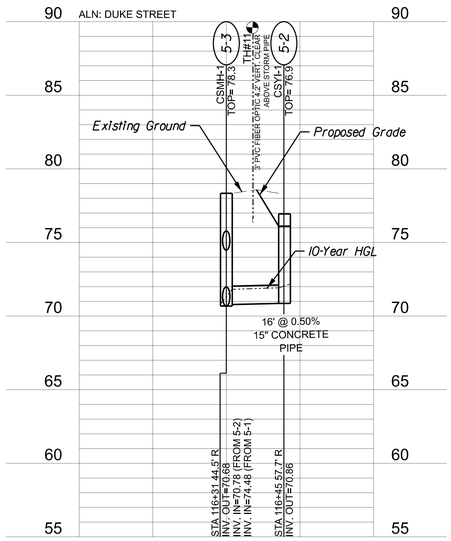
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

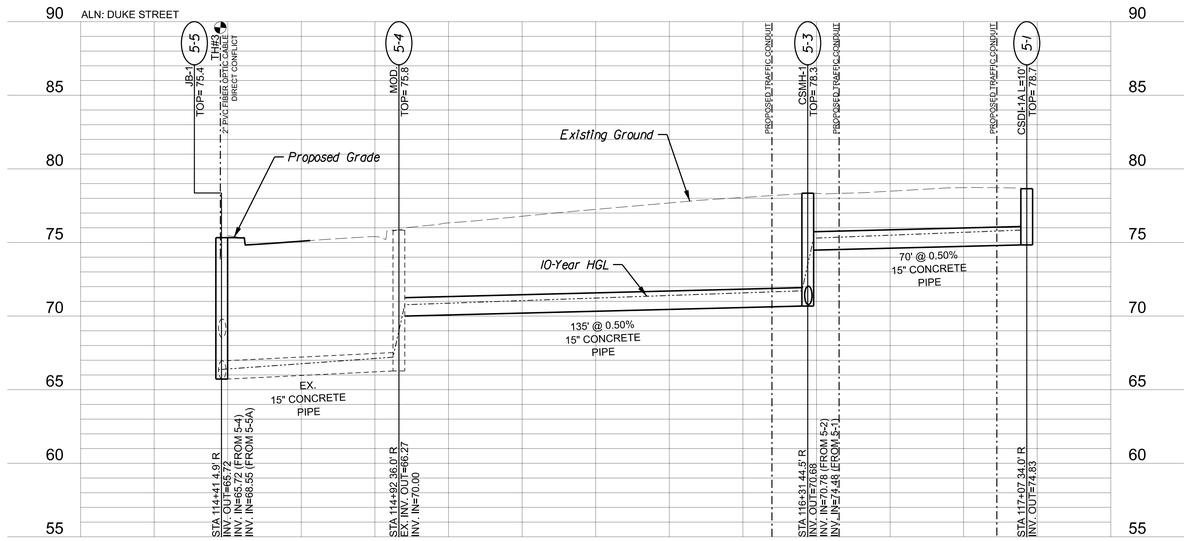












REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	7A

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

DRAINAGE PROFILES

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	7A

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

DRAINAGE DESIGN SUMMARY

All discharges to evaluate and enclosed storm sewer systems are computed using the Rational method or TR-55 as appropriate. Drainage areas are delineated in Openroads using the survey and GIS contours and data. The rational method per VDOT DM 6.4.3.1, is used to determine the peak flow values for inlets and roadside ditches as the drainage areas for these conveyances are less than 200 acres in size. Per VDOT DM 6.4.2.6, rainfall intensity rates were determined using VDOT standard methodology with B, D, and E values for the nearest NOAA station, Vienna Tysons Corner.
All proposed roadside ditches are designed to convey the 10-year storm and to resist erosion during the 2-year storm, in accordance with VDOT DM 7.3.3.
Duke Street is an urban principal arterial without shoulder and a design speed of 45 mph. As such, per VDOT DM 9.3.1, the typical allowable spread is half the travel lane plus the gutter width, as determined with a set rainfall intensity of 4 in/hr. The typical proposed section is a 2-foot gutter (CSCG-1) and variable travel lanes, giving a typical allowable spread between 7 and 8 feet feet.
The connecting road, West Taylor Run Parkway, is urban collector road without shoulder and a posted speed of 25 mph. As such, per VDOT DM 9.3.1, the typical allowable spread is half the travel lane plus the gutter width, as determined with a set rainfall intensity of 4 in/hr. The typical proposed section is a 2-foot gutter (CSCG-1) and 10-foot travel lane, giving a typical allowable spread of 7 feet.
The proposed ramp to Telegraph Road has an open section with design speed of 25 mph.
Duke Street is a principal arterial and West Taylor Run Parkway is a collector, both without shoulder and design speeds less than 50 mph. As such, per Table 9-2 of the VDOT DM, the design storm frequency for storm drain conduit is the 10-year rainfall event.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8(1)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

WSP — **HYDRAULIC GRADE LINE COMPUTATIONS (VDOT LD-229)**

Project: Duke Street and West Taylor Run Parkway Intersection Improvements
Location: City of Alexandria, Virginia
Design Phase: 90% Plans
Designed: Rejani Kocheril 2026-01-06 **Description:** Storm Drain Computations
Checked: Christopher Leonard 2026-01-07 **Design Storm:** 10 Year Storm

Alexandria City, Virginia — i=B/(Tc+D)^E

Year	B	D	E	Cf
2	59.17	12.12	0.86	1.00
10	65.80	11.58	0.80	1.00
25	62.99	10.95	0.76	1.10
50	60.95	10.35	0.73	1.20
100	58.74	9.73	0.70	1.25

From pt	To pt	Pavement Area [ac]	C	Other Area [ac]	C	CA INCR	CA ACCUM	TC [min]	Intensity [in/hr]	Design Flow [cfs]	INVERT ELEVATION up	INVERT ELEVATION down	Pipe Length [ft]	Slope [ft/ft]	LINE SIZE [in]	Capacity Q [cfs]	% of Capacity	Actual Velocity [fps]	Full Flow Velocity [fps]	Pipe Flow Time [min]	Remarks
ex-47o		0.000	0.90	0.000	0.00	0.000	5.118	5.70			46.44										Approximate outfall location and invert.
ex-47	ex-47o	0.442	0.90	0.032	0.35	0.409	5.118	5.60	6.67	34.13	46.92	46.44	48	0.0100	2, 24	45.24	75%	7.91		0.10	
3-4	ex-47	0.000	0.90	0.000	0.00	0.000	2.182	5.56	6.68	14.58	50.25	47.21	41	0.0745	18	28.67	51%	16.29	14.40	0.04	
3-5	3-4	0.021	0.90	0.003	0.35	0.020	1.716	5.54	6.69	11.48	51.29	50.46	15	0.0546	18	24.54	47%	13.66	16.22	0.02	
3-5a	3-5	1.556	0.90	0.755	0.30	1.627	1.627	5.00	6.86	11.16	51.75	51.37	38	0.0100	15	6.46	173%	9.09	13.89	0.07	Node for offsite area contribution.
ex-41	3-5	0.043	0.90	0.088	0.35	0.069	0.069	5.00	6.86	0.48	76.00	51.37	230	0.1069	15	21.12	2%	7.06	5.26	0.54	
3-3	3-4	0.434	0.90	0.214	0.35	0.465	0.465	5.00	6.86	3.19	50.66	50.46	15	0.0131	18	12.01	27%	5.75	17.21	0.04	
3-2	ex-47	0.000	0.90	0.000	0.00	0.000	2.527	5.02	6.85	17.32	49.67	47.16	47	0.0531	18	24.20	72%	14.89	6.80	0.05	
3-1	3-2	0.817	0.90	1.045	0.35	1.101	2.527	5.01	6.86	17.33	51.40	50.52	13	0.0665	18	27.09	64%	16.26	13.69	0.01	
ex-46	3-1	0.740	0.90	2.203	0.35	1.426	1.426	5.00	6.86	9.78	52.06	51.58	7	0.0665	18	27.09	36%	14.09	15.33	0.01	

From pt	To pt	Pavement Area [ac]	C	Other Area [ac]	C	CA INCR	CA ACCUM	TC [min]	Intensity [in/hr]	Design Flow [cfs]	INVERT ELEVATION up	INVERT ELEVATION down	Pipe Length [ft]	Slope [ft/ft]	LINE SIZE [in]	Capacity Q [cfs]	% of Capacity	Actual Velocity [fps]	Full Flow Velocity [fps]	Pipe Flow Time [min]	Remarks
ex-5o		0.000	0.90	0.000	0.00	0.000	4.762	15.69			35.77										Discharge to box culvert. Invert approximate.
ex-5	ex-5o	0.000	0.90	0.000	0.00	0.000	4.762	15.39	4.67	22.26	46.55	35.77	259	0.0417	30	83.70	27%	14.42		0.30	
ex-6	ex-5	0.823	0.90	0.203	0.35	0.812	0.812	8.00	6.02	4.88	53.68	52.49	60	0.0200	15	9.13	54%	7.56	17.05	0.13	
ex-4	ex-5	0.128	0.90	0.007	0.35	0.117	3.951	15.34	4.68	18.49	46.89	46.58	31	0.0100	18	10.52	176%	10.46	7.44	0.05	
ex-2	ex-4	0.000	0.90	0.000	0.00	0.000	2.824	15.25	4.69	13.25	52.65	47.80	77	0.0630	15	16.21	82%	14.73	5.95	0.09	
ex-1	ex-2	1.838	0.90	1.221	0.31	2.028	2.028	15.00	4.73	9.59	67.78	52.75	218	0.0690	15	16.97	56%	14.25	13.21	0.25	Node for offsite area contribution.
ex-3	ex-2	0.766	0.90	0.305	0.35	0.796	0.796	5.00	6.86	5.46	59.16	59.07	9	0.0100	12	3.56	153%	6.95	13.83	0.02	No survey access. Invert approximate.
ex-8	ex-4	0.145	0.90	0.095	0.35	0.163	1.009	10.22	5.53	5.58	48.22	47.29	82	0.0114	15	6.88	81%	6.25	4.54	0.22	
ex-7	ex-8	0.322	0.90	0.115	0.35	0.330	0.330	5.00	6.86	2.27	48.87	48.44	17	0.0247	15	10.15	22%	6.66	5.61	0.04	
3-8	ex-8	0.000	0.90	0.000	0.00	0.000	0.515	10.16	5.54	2.86	48.62	48.37	21	0.0115	15	7.05	41%	5.44	8.27	0.06	
3-7	3-8	0.112	0.90	0.017	0.35	0.107	0.515	10.06	5.56	2.87	49.16	48.74	33	0.0124	15	7.20	40%	5.53	5.74	0.10	
3-6	3-7	0.442	0.90	0.032	0.35	0.409	0.409	10.00	5.57	2.28	49.32	49.26	13	0.0050	15	4.57	50%	3.72	5.87	0.06	

From pt	To pt	Pavement Area [ac]	C	Other Area [ac]	C	CA INCR	CA ACCUM	TC [min]	Intensity [in/hr]	Design Flow [cfs]	INVERT ELEVATION up	INVERT ELEVATION down	Pipe Length [ft]	Slope [ft/ft]	LINE SIZE [in]	Capacity Q [cfs]	% of Capacity	Actual Velocity [fps]	Full Flow Velocity [fps]	Pipe Flow Time [min]	Remarks
ex-19o		0.000	0.90	0.000	0.00	0.000	0.283	5.01			37.96										Discharge to box culvert. Invert approximate.
ex-19	ex-19o	0.289	0.90	0.065	0.35	0.283	0.283	5.00	6.86	1.94	43.15	37.96	12	0.4475	12	23.83	8%	18.26		0.01	

From pt	To pt	Pavement Area [ac]	C	Other Area [ac]	C	CA INCR	CA ACCUM	TC [min]	Intensity [in/hr]	Design Flow [cfs]	INVERT ELEVATION up	INVERT ELEVATION down	Pipe Length [ft]	Slope [ft/ft]	LINE SIZE [in]	Capacity Q [cfs]	% of Capacity	Actual Velocity [fps]	Full Flow Velocity [fps]	Pipe Flow Time [min]	Remarks
ex-16o		0.000	0.90	0.000	0.00	0.000	0.644	5.33			35.00										Discharge to box culvert. Invert approximate.
ex-16	ex-16o	0.269	0.90	0.022	0.35	0.250	0.644	5.29	6.77	4.36	43.82	35.00	42	0.2091	15	29.54	15%	17.23		0.04	
ex-17	ex-16	0.055	0.90	0.005	0.35	0.051	0.394	5.12	6.82	2.69	44.43	44.03	48	0.0084	15	5.91	46%	4.70	24.07	0.17	
ex-18	ex-17	0.339	0.90	0.107	0.35	0.343	0.343	5.00	6.86	2.35	44.87	44.48	35	0.0111	15	6.80	35%	5.03	4.81	0.12	

From pt	To pt	Pavement Area [ac]	C	Other Area [ac]	C	CA INCR	CA ACCUM	TC [min]	Intensity [in/hr]	Design Flow [cfs]	INVERT ELEVATION up	INVERT ELEVATION down	Pipe Length [ft]	Slope [ft/ft]	LINE SIZE [in]	Capacity Q [cfs]	% of Capacity	Actual Velocity [fps]	Full Flow Velocity [fps]	Pipe Flow Time [min]	Remarks
ex-20o		0.000	0.90	0.000	0.00	0.000	12.216	60.51			35.75										Discharge to box culvert. Invert approximate.
ex-20	ex-20o	0.000	0.90	0.000	0.00	0.000	12.216	60.36	2.14	26.19	38.99	35.75	116	0.0279	30	68.53	38%	13.03		0.15	
ex-28	ex-20	0.102	0.90	0.032	0.35	0.103	5.538	60.28	2.15	11.88	41.29	40.68	45	0.0136	15	7.55	157%	9.68	13.96	0.08	
ex-24	ex-28	0.430	0.90	0.048	0.35	0.404	0.404	5.00	6.86	2.77	45.14	41.90	48	0.0678	15	16.82	16%	10.13	6.15	0.08	
ex-29	ex-28	0.078	0.90	0.030	0.35	0.080	1.092	15.18	4.70	5.13	43.93	41.96	30	0.0657	15	16.55	31%	11.90	13.70	0.04	
ex-30	ex-29	0.000	0.90	0.000	0.00	0.000	1.011	15.03	4.72	4.78	44.29	44.31	34	0.0000	15	ADV GR	ADV GR	3.89	13.49	0.15	
ex-31	ex-30	0.925	0.90	0.512	0.35	1.011	1.011	15.00	4.73	4.78	44.45	44.33	12	0.0103	15	6.57	73%	5.84	3.89	0.03	Includes area from upstream connections.
ex-25	ex-28	0.394	0.90	0.132	0.35	0.400	3.940	60.12	2.15	8.47	42.03	41.50	69	0.0077	15	5.67	149%	6.90	5.35	0.17	
ex-27	ex-25	2.255	0.90	3.240	0.35	3.164	3.164	60.00	2.15	6.81	43.06	42.02	56	0.0186	15	8.82	77%	7.93	4.62	0.12	Includes area from upstream connections.
ex-26	ex-25	0.348	0.90	0.179	0.35	0.376	0.376	5.00	6.86	2.58	44.23	42.41	39	0.0465	15	13.94	18%	8.67	7.19	0.08	
3-11	ex-20	0.124	0.90	0.020	0.35	0.119	0.587	6.18	6.50	3.82	44.69	44.33	33	0.0109	15	6.76	57%	5.68	11.36	0.10	
3-10	3-11	0.100	0.90	0.003	0.35	0.091	0.158	5.70	6.64	1.05	46.31	45.89	85	0.0049	15	4.53	23%	3.00	5.51	0.47	
3-9	3-10	0.075	0.90	0.000	0.00	0.067	0.067	5.00	6.86	0.46	49.30	46.41	159	0.0183	15	8.73	5%	3.76	3.69	0.70	
ex-22	3-11	0.313	0.90	0.084	0.35	0.311	0.311	5.00	6.86	2.13	45.86	44.99	62	0.0140	15	7.65	28%	5.34	7.11	0.19	
ex-21	ex-20	0.000	0.90	0.000	0.00	0.000	6.091	10.51	5.47	33.33	43.83	39.03	249	0.0193	30	56.92	59%	12.05	6.24	0.34	
ex-21a	ex-21	0.000	0.90	0.715	0.23	0.161	0.161	5.00	6.86	1.10	45.29	44.83	46	0.0100	12	3.56	31%	4.00	11.60	0.19	Node for offsite area contribution.
ex-48	ex-21	0.502	0.90	0.188	0.35	0.517	2.030	10.04	5.57	11.30	46.72	43.98	113	0.0242	18	16.36	69%	9.99	4.54	0.19	Includes area from upstream connections.
ex-49	ex-48	0.850	0.90	1.136	0.35	1.162	1.512	10.00	5.57	8.43	47.51	46.99	22	0.0235	15	9.91	85%	9.07	9.26	0.04	
ex-50	ex-49	0.218	0.90	0.325	0.33	0.304	0.350	5.09	6.83	2.39	47.96	47.53	5	0.0796	15	18.23	13%	10.28	8.07	0.01	
ex-51	ex-50	0.050	0.90	0.003	0.35	0.046	0.046	5.00	6.86	0.31	49.45	47.99	27	0.0551	15	15.16	2%	4.95	14.85	0.09	
ex-52A	ex-21	0.000	0.90	0.000	0.00	0.000	3.900	10.23	5.53	21.56	48.05	43.95	191	0.0214	30	60.06	36%	11.23	12.35	0.28	
ex-52B	ex-52A	0.419	0.90	0.139	0.34	0.423	0.423	5.00	6.86	2.90	52.94	52.57	37	0.0100	15	6.46	45%	5.12	12.24	0.12	
ex-52	ex-52A	0.438	0.90	0.106	0.35	0.431	2.537	10.16	5.54	14.06	52.96	51.47	45	0.0333	30	74.80	19%	11.69	5.26	0.06	
ex-53	ex-52	0.001	0.90	0.243	0.35	0.086	2.106	10.14	5.55	11.68	53.04	52.99	7	0.0070	24	18.98	62%	6.35	15.24	0.02	
ex-54	ex-53	1.075	0.90	1.785	0.35	1.592	1.592	10.00	5.57	8.88	63.77	55.07	119	0.0730	24	61.11	15%	13.86	6.04	0.14	Includes area from upstream connections.
ex-55	ex-53	0.139	0.90	0.084	0.35	0.154	0.154	5.00	6.86	1.06	56.07	55.10	66	0.0147	15	7.84	13%	4.46	19.45	0.25	
4-2	ex-53	0.000	0.90	0.000	0.00	0.000	0.274	6.36	6.45	1.77	60.80	55.07	177	0.0323	15	11.62	15%	6.84	6.39	0.43	
4-1	4-2	0.000	0.90	0.497	0.55	0.274	0.274	6.31	6.46	1.77	62.43	62.38	10	0.0055	24	16.71	11%	3.46	9.47	0.05	
5-5	ex-52A	0.000	0.90	0.000	0.00	0.000	0.939	7.84	6.06	5.69	65.72	54.35	380	0.0289	18	18.17	31%	9.10	5.32	0.70	
5-5A	5-5	0.328	0.90	0.007	0.35	0.297	0.505	5.31	6.76	3.41	69.67	68.55	90	0.0125	15	7.23	47%	5.81	10.28	0.26	
5-5b	5-5A	0.192	0.90	0.099	0.35	0.208	0.208	5.00	6.86	1.42	70.27	69.49	78	0.0100	15	6.46	22%	4.22	5.89	0.31	Node for offsite area contribution.
5-4	5-5	0.172	0.90	0.113	0.35	0.194	0.435	7.65	6.10	2.65	66.27	65.72	56	0.0098	15	6.39	42%	4.97	5.26	0.19	
5-3	5-4	0.000	0.90	0.000	0.00	0.000	0.240	6.98	6.28	1.51	70.68	70.00	135	0.0050	15	4.57	33%	3.34	5.21	0.67	
5-2	5-3	0.000	0.90	0.347	0.49	0.171	0.171	6.89	6.30	1.07	70.86	70.78	16	0.0050	15	4.57	24%	3.04	3.72	0.09	
5-1	5-3	0.067	0.90	0.028	0.35	0.070	0.070	5.00	6.86	0.48	74.83	74.48	70	0.0050	15	4.57	10%	2.41	3.72	0.49	

From pt	To pt	Pavement Area [ac]	C	Other Area [ac]	C	CA INCR	CA ACCUM	TC [min]	Intensity [in/hr]	Design Flow [cfs]	INVERT ELEVATION up	INVERT ELEVATION down	Pipe Length [ft]	Slope [ft/ft]	LINE SIZE [in]	Capacity Q [cfs]	% of Capacity	Actual Velocity [fps]	Full Flow Velocity [fps]	Pipe Flow Time [min]	Remarks
ex-R-15		0.000	0.90	0.000	0.00	0.000	22.337	25.40			43.75										
ex-R-14	ex-R-15	0.000	0.90	0.000	0.00	0.000	22.337	25.14	3.66	81.76	45.58	43.86	182	0.0095	48	139.82	58%	11.56		0.26	
ex-R-13	ex-R-14	0.000	0.90	0.000	0.00	0.000	22.337	25.06	3.67	81.90	47.44	45.60	77	0.0240	48	222.47	37%	16.36	11.13	0.08	
ex-R-12	ex-R-13	0.879	0.90	0.128	0.35	0.836	22.337	25.04	3.67	81.93	47.41	47.48	8	0.0000	48	ADV GR	ADV GR	6.52	17.70	0.02	
ex-R-11	ex-R-12	7.677	0.90	25.926	0.35	15.983	21.502	25.00	3.67	78.93	49.45	47.70	46	0.0385	48	281.69	28%	19.23	6.52	0.04	Includes area from upstream connections.
ex-R-10	ex-R-11	0.000	0.90	0.000	0.00	0.000	5.518	5.80	6.61	36.48	56.49	54.52	73	0.0270	30	67.42	54%	14.01	22.42	0.09	
ex-R-9	ex-R-10	0.000	0.90	0.000	0.00	0.000	5.518	5.75	6.63	36.56	58.71	56.88	45	0.0408	24	45.67	80%	16.15	13.74	0.05	
ex-R-8	ex-R-9	0.345	0.90	0.093	0.35	0.343	0.343	5.00	6.86	2.35	59.71	59.12	45	0.0132	15	7.42	32%	5.37	14.54	0.14	Includes area from upstream connections.
ex-R-7	ex-R-8	0.737	0.90	0.346	0.35	0.784	0.784	5.00	6.86	5.38	62.14	59.47	47	0.0564	15	15.35	35%	11.40	6.05	0.07	Includes area from upstream connections.
ex-R-6	ex-R-9	0.000	0.90	0.000	0.00	0.000	4.391	5.51	6.70	29.42	67.91	58.72	226	0.0408	24	45.67	64%	15.45	12.51	0.24	
ex-R-5	ex-R-6	0.274	0.90	0.052	0.35	0.265	0.265	5.00	6.86	1.82	69.44	68.01	51	0.0281	15	10.83	17%	6.56	14.54	0.13	
ex-R-4	ex-R-5	0.232	0.90	0.544	0.16	0.295	4.126	5.39	6.74	27.79	68.63	68.01	61	0.0101	24	22.74	122%	8.85	8.82	0.11	
ex-R-3	ex-R-4	2.589	0.90	2.149	0.35	3.082	3.082	5.00	6.86	21.15	69.68	68.64	74	0.0141	24	26.85	79%	9.47	7.24	0.13	Includes area from upstream connections.
ex-R-2	ex-R-4	0.001	0.90	0.015	0.35	0.006	0.749	5.33	6.76	5.06	69.46	68.73	32	0.0231	18	15.96	32%	8.02	8.55	0.07	
ex-R-1	ex-R-2	0.413	0.90	1.061	0.35	0.743	0.743	5.00	6.86	5.09	72.89	70.48	141	0.0171	18	13.73	37%	7.19	9.03	0.33	

WSP — **HYDRAULIC GRADE LINE COMPUTATIONS (VDOT LD-347)**

Project: Duke Street and West Taylor Run Parkway Intersection Improvements
Location: City of Alexandria, Virginia
Design Phase: 90% Plans
Designed: Rejani Kocheril 2026-01-06 **Description:** Hydraulic Grade Line Computations
Checked: Christopher Leonard 2026-01-07 **Design Storm:** 10 Year Storm

Structure	Outlet WSE [ft]	Do [in]	Qo [cfs]	Lo [ft]	Sfo [ft/ft]	Hf [ft]	JUNCTION LOSS Vo [fps]	Ho [ft]	Di [in]	Qi [cfs]	Vi [fps]	Qo*Vo	Hi [ft]	Angle [deg]	Kb	HD [ft]	Ht [ft]	1.3 Ht [ft]	0.5 Ht [ft]	FINAL H [ft]	Junction WSE [ft]	Rim	Condition	Min Cover at Structure	Cover
ex-47o																					48.04	50.00			
ex-47	48.04	34	34.13	48	0.018	0.878	7.91	0.243	18	17.32	9.80	270.06	0.522	24	0.21	0.313	1.08	1.08	0.54	1.42	49.46	55.17	OK	5.93	OK
3-4	49.46	18	14.58	41	0.056	2.297	8.25	0.264	18	11.48	6.50	120.27	0.229	55	0.51	0.334	0.83	0.83	0.41	2.71	52.17	54.73	OK	2.56	OK
3-5	52.17	18	11.48	15	0.012	0.181	6.50	0.164	15	11.16	9.09	74.55	0.450	15	0.10	0.129	0.74	0.74	0.37	0.55	52.72	55.37	OK	2.37	OK
3-5a	52.72	15	11.16	38	0.030	1.125	9.09	0.386	0	0.00	0.00	101.49	0.000	0	0.00	0.000	0.39	0.50	0.25	1.38	54.10	57.00	OK	3.82	OK
ex-41	52.72	15	0.48	230	0.102	23.510	0.39	0.001	0	0.00	0.00	0.18	0.000	0	0.00	0.000	0.00	0.00	0.00	23.51	76.23	79.50	OK	1.56	OK
3-3	52.17	18	3.19	15	0.001	0.014	1.81	0.015	0	0.00	0.00	5.77	0.000	0	0.00	0.000	0.02	0.02	0.01	0.02	52.20	54.76	OK	2.39	OK
3-2	49.46	18	17.32	47	0.041	1.949	9.80	0.373	18	17.33	9.81	169.75	0.523	74	0.63	0.942	1.84	1.84	0.92	2.87	52.33	54.82	OK	2.59	OK
3-1	52.33	18	17.33	13	0.027	0.362	9.81	0.374	18	9.78	5.54	169.97	0.167	0	0.00	0.000	0.54	0.70	0.35	0.71	53.04	55.67	OK	2.38	OK
ex-46	53.04	18	9.78	7	0.008	0.055	5.54	0.143	0	0.00	0.00	54.16	0.000	0	0.00	0.000	0.14	0.19	0.09	0.15	53.19	55.01	OK	1.24	OK

Structure	Outlet WSE [ft]	Do [in]	Qo [cfs]	Lo [ft]	Sfo [ft/ft]	Hf [ft]	JUNCTION LOSS Vo [fps]	Ho [ft]	Di [in]	Qi [cfs]	Vi [fps]	Qo*Vo	Hi [ft]	Angle [deg]	Kb	HD [ft]	Ht [ft]	1.3 Ht [ft]	0.5 Ht [ft]	FINAL H [ft]	Junction WSE [ft]	Rim	Condition	Min Cover at Structure	Cover
ex-5o																					38.82	51.48			
ex-5	38.82	30	22.26	259	0.035	9.159	4.53	0.080	18	18.49	10.46	100.91	0.595	85	0.68	1.157	1.83	2.38	1.19	10.35	49.17	57.49	OK	3.56	OK
ex-6	53.49	15	4.88	60	0.014	0.841	7.56	0.267	0	0.00	0.00	36.95	0.000	0	0.00	0.000	0.27	0.35	0.17	1.01	54.50	57.49	OK	1.87	OK
ex-4	49.17	18	18.49	31	0.031	0.957	10.46	0.425	15	13.25	10.80	193.47	0.634	84	0.68	1.232	2.29	2.29	1.15	2.10	51.27	57.54	OK	8.30	OK
ex-2	51.27	15	13.25	77	0.058	4.459	10.80	0.453	15	9.59	7.81	143.12	0.332	0	0.00	0.000	0.79	1.02	0.51	4.97	56.24	61.07	OK	0.83	OK
ex-1	56.24	15	9.59	218	0.066	14.452	7.81	0.285	0	0.00	0.00	74.92	0.000	0	0.00	0.000	0.28	0.37	0.18	14.64	70.88	71.87	OK	2.65	OK
ex-3	59.87	12	5.46	9	0.032	0.289	6.95	0.225	0	0.00	0.00	37.99	0.000	0	0.00	0.000	0.23	0.29	0.15	0.44	60.31	61.69	OK	1.36	OK
ex-8	51.27	15	5.58	82	0.007	0.611	4.55	0.080	15	2.86	2.33	25.36	0.029	20	0.17	0.014	0.12	0.16	0.08	0.69	51.97	52.99	OK	2.83	OK
ex-7	51.97	15	2.27	17	0.001	0.021	1.85	0.016	0	0.00	0.00	4.18	0.000	0	0.00	0.000	0.02	0.02	0.01	0.03	52.00	53.39	OK	3.08	OK
3-8	51.97	15	2.86	21	0.002	0.041	2.33	0.021	15	2.87	2.34	6.65	0.030	6	0.00	0.000

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8(2)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

WSP
Project: Duke Street and West Taylor Run Parkway Intersection Improvements
Location: City of Alexandria, Virginia
Design Phase: 90% Plans
Description: Ditch Stability-Capacity Analysis, Ditch D01-EB Duke St to SB Telegraph Rd Ramp-L 32+25 to 30+58
Design Year: 2 Year for Stability Design
10 Year for Capacity Design

Designed by: Rejani Kocheril
Date: 2026-01-06
Checked by: Christopher Leonard
Date: 2026-01-07

Constants for: Arlington County, Virginia	i=B/((Tc+D)^E)		
Year	B	D	E
2	59.17	12.12	0.86
10	65.80	11.88	0.80

Min. Freeboard Provided: 0.9 feet

Downstream Node: Storm 5-2
Tailwater - 10-YR: 76.11
Tailwater - 2-YR: 76.11
WSE - 10-YR (Top): 85.67
WSE - 2-YR (Top): 85.65

STA TO STA		Ditch Pos. (L/eft (R/ight (M/edian	L	Pavement Area	Pavement C	Grass Area	Grass C	Offsite Area	Offsite C	Additional Area: Ditch/ Culvert/ Storm	Additional Area: Ditch/ Culvert/ Storm No.	Additional Area: Area	Additional Area: C	Additional Area: Tc	Total Area	Total C Avg.	C*A (delta)	C*A (sum)	Tc	I - 2yr	Q - 2yr	I - 10yr	Q - 10yr	Ditch Type (Cur if pt Median	Front Slope	Bot. Wid.	Back Slope	Road Shlder Elev.	Back of Ditch Elev.	XS Inv. Elev.	Ditch Slope	Allow ↑ Earth	Allow ↑ Lining	2-Year Storm [Bare Earth] Grass n=0.030 Depth	Q	↑ (average)	↑ Within Limits?	2-Year Storm [Lining] Lining - EC-3 Type-1 n=0.050 Depth	Q	↑ (average)	↑ Within Limits?	10-Year Storm [Lining] Lining - EC-3 Type-1 n=0.050 Depth	Q	↑ (average)	Remarks: Material Lining	10-Year Freeboard	Depth Within Limits?
			(ft)	(ac)		(ac)		(ac)				(ac)		(min)	(ac)				(min)	(in/hr)	(cfs)	(in/hr)	(cfs)		x:1	(ft)	x:1	(ft)	(ft)	(ft)	(ft/ft)	(psf)	(psf)	(ft)	(cfs)	(psf)		(ft)	cfs	(psf)		(ft)	cfs	(psf)		(ft)	
Alignment: EB Duke St to SB Telegraph Rd Ramp																																													
D01-EB Duke St to SB Telegraph Rd Ramp-L 32+25													Initial TOC:	5.00	mins																														
	32+25	L										0.16	0.51	5.00	0.00	0.00	0.000	0.00	5.00							87.69	86.56	85.40																
32+25	31+75	L	50	0.047	0.90	0.111	0.35					0.00	0.00	0.00	0.00	0.00	0.000	0.00	5.00	5.14	0.42	6.86	0.56	C	6	0	3	86.61	84.17	82.98	0.0484	0.044	6	0.20	0.42	0.29	NO!!!	0.25	0.42	0.36	YES	0.27	0.56	0.40	Lining - EC-3 Type-1	0.92	YES
31+75	31+25	L	50	0.020	0.90	0.060	0.35					0.00	0.00	0.00	0.08	0.49	0.039	0.04	5.49	5.02	0.61	6.70	0.81	C	6	0	3	82.66	81.98	80.72	0.0452	0.044	6	0.23	0.61	0.32	NO!!!	0.29	0.61	0.39	YES	0.31	0.81	0.43	Lining - EC-3 Type-1	0.95	YES
31+25	30+75	L	50	0.019	0.90	0.059	0.35					0.00	0.00	0.00	0.08	0.49	0.038	0.08	5.95	4.91	0.79	6.57	1.05	C	6	0	3	78.77	80.08	77.10	0.0724	0.044	6	0.23	0.79	0.52	NO!!!	0.28	0.79	0.63	YES	0.32	1.05	0.70	Lining - EC-3 Type-1	1.35	YES
30+75	30+58	L	17	0.003	0.90	0.027	0.35					0.00	0.00	0.00	0.03	0.40	0.012	0.09	6.31	4.85	0.83	6.46	1.11	C	6	0	3	77.78	80.07	76.11	0.0584	0.044	6	0.25	0.83	0.45	NO!!!	0.30	0.83	0.54	YES	0.34	1.11	0.60	Lining - EC-3 Type-1	1.33	YES
													AREA TOTAL		0.35	0.49	CA TOT	0.17	Tc Total =		6.31																								

Min. Freeboard Provided: 0.4 feet

Downstream Node: Storm 4-1
Tailwater - 10-YR: 67.36
Tailwater - 2-YR: 67.36
WSE - 10-YR (Top): 75.35
WSE - 2-YR (Top): 75.29

STA TO STA		Ditch Pos. (L/eft (R/ight (M/edian	L	Pavement Area	Pavement C	Grass Area	Grass C	Offsite Area	Offsite C	Additional Area: Ditch/ Culvert/ Storm	Additional Area: Ditch/ Culvert/ Storm No.	Additional Area: Area	Additional Area: C	Additional Area: Tc	Total Area	Total C Avg.	C*A (delta)	C*A (sum)	Tc	I - 2yr	Q - 2yr	I - 10yr	Q - 10yr	Ditch Type (Cur if pt Median	Front Slope	Bot. Wid.	Back Slope	Road Shlder Elev.	Back of Ditch Elev.	XS Inv. Elev.	Ditch Slope	Allow ↑ Earth	Allow ↑ Lining	2-Year Storm [Bare Earth] Grass n=0.030 Depth	Q	↑ (average)	↑ Within Limits?	2-Year Storm [Lining] Lining - EC-3 Type-1 n=0.050 Depth	Q	↑ (average)	↑ Within Limits?	10-Year Storm [Lining] Lining - EC-3 Type-1 n=0.050 Depth	Q	↑ (average)	Remarks: Material Lining	10-Year Freeboard	Depth Within Limits?
			(ft)	(ac)		(ac)		(ac)				(ac)		(min)	(ac)				(min)	(in/hr)	(cfs)	(in/hr)	(cfs)		x:1	(ft)	x:1	(ft)	(ft)	(ft)	(ft/ft)	(psf)	(psf)	(ft)	(cfs)	(psf)		(ft)	cfs	(psf)		(ft)	cfs	(psf)		(ft)	
Alignment: Duke Street																																													
D02-Duke Street -L 115+00 to 112+79													Initial TOC:	5.00	mins																														
	115+00	L										0.44	0.57	5.00	0.00	0.00	0.000	0.00	5.00							76.07	75.80	74.79																
115+00	114+50	L	50	0.180	0.90	0.262	0.35					0.00	0.00	0.00	0.00	0.00	0.000	0.00	5.00	5.14	1.32	6.86	1.76	C	3	0	3	75.47	74.60	73.58	0.0242	0.044	6	0.41	1.32	0.29	NO!!!	0.50	1.32	0.36	YES	0.56	1.76	0.40	Lining - EC-3 Type-1	0.46	YES
114+50	114+00	L	50			0.022	0.35					0.00	0.00	0.00	0.02	0.35	0.008	0.01	5.44	5.03	1.33	6.72	1.77	C	3	0	3	73.19	73.15	71.96	0.0324	0.044	6	0.39	1.33	0.38	NO!!!	0.47	1.33	0.45	YES	0.53	1.77	0.51	Lining - EC-3 Type-1	0.66	YES
114+00	113+50	L	50			0.018	0.35					0.00	0.00	0.00	0.02	0.35	0.006	0.01	5.83	4.94	1.33	6.60	1.78	C	3	0	3	71.32	71.30	70.10	0.0372	0.044	6	0.38	1.33	0.42	NO!!!	0.46	1.33	0.51	YES	0.52	1.78	0.57	Lining - EC-3 Type-1	0.68	YES
113+50	113+00	L	50			0.014	0.35					0.00	0.00	0.00	0.01	0.35	0.005	0.02	6.20	4.85	1.33	6.49	1.79	C	3	0	3	69.60	69.28	68.28	0.0364	0.044	6	0.38	1.33	0.41	NO!!!	0.46	1.33	0.50	YES	0.52	1.79	0.56	Lining - EC-3 Type-1	0.48	YES
113+00	112+79	L	21	0.002	0.90	0.000	0.35					0.00	0.00	0.00	0.00	0.90	0.001	0.02	6.32	4.83	1.33	6.46	1.79	C	3	0	3	68.77	68.42	67.36	0.0434	0.044	6	0.37	1.33	0.48	NO!!!	0.45	1.33	0.58	YES	0.50	1.79	0.64	Lining - EC-3 Type-1	0.56	YES
													AREA TOTAL		0.50	0.55	CA TOT	0.27	Tc Total =		6.32																								

WSP
Project: Duke Street and West Taylor Run Parkway Intersection Improvements
Location: Arlington County, Virginia

Designed: Rejani Kocheril 2026/01/06
Checked: Christopher Leonard 2026/01/07

STORMWATER INLET COMPUTATIONS (FHWA HEC-22)

Design Phase: 90% Plans
Description: Spread Calculations

Carryover Diagram	INLET NO.	INLET TYPE	INLET LEN. (FT)	STATION	Drainage Area (Ac)	C	CA	Intensity (in/hr)	Q_b Carryover (cfs)	Q Inc. (cfs)	Q_T Total Flow (cfs)	S Gutter Slope (ft/ft)	S_x Cross Slope (ft/ft)	Gutter T Spread (Ft)	W (Ft)	W/T	S_w (ft/ft)	S_w,S_x (ft/ft)	E_o (ft/ft)	Total Depr. a (in)	S'_w (ft/ft)	S_a (ft/ft)	Comp. Len. L_T (ft)	L Spec. Length (ft)	L/L_T	E (App. 9C-18)	Q_i Intercepted (cfs)	Q_b Carryover (cfs)	Curb Inlets Only: Max Depth at Curb Allowed (in)	Curb Inlets Only: Max Depth at Curb (in)	Curb Inlets Only: Inlet Slot Height (in)	Sag Inlets Only: d (ft)	Sag Inlets Only: h (ft)	Sag Inlets Only: d/h	Spread T @ Sag (ft)	Spread, Max (ft)	Spread, Allowed (ft)	Spread OK?	REMARKS
	ex-3	DI-2E	9	Duke Street 201+15	1.071	0.74	0.80	4.00	0.00	3.21	3.21	0.044	0.012	**10.04**	2.0	0.20	0.06	5.30	0.65	3.22	0.13	0.10	**19.2**	**9**	**0.47**	0.68	2.18	1.03	6.00	2.64	-	-	-	-	-	**10.04**	**8.00**	**FAIL**	Upstream cf project area. Included to determine bypass.
	ex-4	DI-3BB	16	Duke Street 201+95	0.135	0.87	0.12	4.00	1.03	0.47	1.50	0.027	0.021	**5.47**	2.0	0.37	0.06	2.93	0.84	2.99	0.12	0.13	**10.4**	**16**	**1.53**	1.00	1.50	0.00	6.00	2.39	-	-	-	-	-	**5.47**	**8.00**	**OK**	
	ex-7	DI-3B	6	Duke Street 202+18	0.437	0.76	0.33	4.00	0.00	1.33	1.33	0.041	0.039	**3.49**	2.0	0.57	0.06	1.62	0.94	2.57	0.11	0.14	**10.6**	**6**	**0.57**	0.78	1.04	0.29	6.00	2.03	-	-	-	-	-	**3.49**	**7.50**	**OK**	
	ex-8 (Left)	DI-4A	-	Duke Street 202+38	0.127	0.69	0.09	4.00	0.29	0.35	0.65	0.001	0.054	**4.84**	2.0	0.41	0.06	1.15	0.80	2.20	0.09	0.13	-	-	-	-	-	0.65	6.00	3.35	-	-	-	-	-	**4.84**	**7.50**	**OK**	
	ex-8	DI-4A	2.5	Duke Street 202+38	-	-	-	-	0.95	0.00	0.95	-	0.054	-	2.0	0.54	0.06	1.15	0.90	2.20	0.09	0.14	**0.0**	**2.5**	-	1.00	0.95	0.00	6.00	2.60	5.50	0.41	0.46	0.89	**3.69**	**3.69**	**7.50**	**OK**	
	ex-8 (Right)	DI-4A	-	Duke Street 202+38	0.112	0.67	0.08	4.00	0.00	0.31	0.31	0.001	0.054	**3.60**	2.0	0.56	0.06	1.15	0.91	2.20	0.09	0.14	-	-	-	-	-	0.31	6.00	2.55	-	-	-	-	-	**3.60**	**7.50**	**OK**	
	3-6	DI-2B	10	W Taylor Run Prwy 11+76	0.474	0.86	0.41	4.00	0.00	1.65	1.65	0.017	0.070	**3.62**	2.0	0.55	0.06	0.90	0.89	1.83	0.08	0.14	**8.9**	**10**	**1.13**	1.00	1.65	0.00	5.00	2.85	-	-	-	-	-	**3.62**	**6.18**	**OK**	
	ex-19	DI-3B	6	Duke Street 205+02	0.354	0.80	0.28	4.00	0.00	1.14	1.14	0.018	0.039	**3.92**	2.0	0.51	0.06	1.58	0.90	2.55	0.11	0.14	**7.8**	**6**	**0.77**	0.93	1.06	0.08	6.00	2.41	-	-	-	-	-	**3.92**	**7.00**	**OK**	
	ex-18	DI-3B	6	Duke Street 206+55	0.447	0.77	0.34	4.00	0.00	1.38	1.38	0.026	0.049	**3.57**	2.0	0.56	0.06	1.28	0.92	2.33	0.10	0.14	**9.4**	**6**	**0.64**	0.84	1.16	0.22	5.00	2.42	-	-	-	-	-	**3.57**	**7.96**	**OK**	
	ex-17 (Left)	DI-3D	-	Duke Street 206+19	0.021	0.87	0.02	4.00	0.22	0.07	0.30	0.001	0.034	**4.36**	2.0	0.46	0.06	1.81	0.87	2.67	0.11	0.13	-	-	-	-	-	0.30	6.00	2.47	-	-	-	-	-	**4.36**	**12.00**	**OK**	
	ex-17	DI-3D	2.5	Duke Street 206+19	0.43	0.00	0.43	-	0.00	0.13	0.13	0.001	0.034	-	2.0	0.58	0.06	1.81	0.94	2.67	0.11	0.14	**0.0**	**2.5**	-	1.00	0.43	0.00	6.00	2.10	5.50	0.41	0.46	0.90	**3.44**	**3.44**	**12.00**	**OK**	
	ex-17 (Right)	DI-3D	-	Duke Street 206+19	0.039	0.85	0.03	4.00	0.00	0.13	0.13	0.001	0.034	**2.89**	2.0	0.69	0.06	1.81	0.98	2.67	0.11	0.14	-	-	-	-	-	0.13	6.00	1.87	-	-	-	-	-	**2.89**	**12.00**	**OK**	
	ex-16	DI-3B	6	Duke Street 205+67	0.291	0.86	0.25	4.00	0.00	1.01	1.01	0.007	0.035	**4.81**	2.0	0.42	0.06	1.79	0.84	2.66	0.11	0.13	**5.9**	**6**	**1.02**	1.00	1.01	0.00	6.00	2.68	-	-	-	-	-	**4.81**	**12.00**	**OK**	
	ex-6	DI-3B	18	Duke Street 201+57	1.026	0.79	0.81	4.00	0.00	3.27	3.27	0.038	0.027	**6.48**	2.0	0.31	0.06	2.32	0.74	2.85	0.12	0.11	**16.8**	**18**	**1.07**	1.00	3.27	0.00	6.00	2.95	-	-	-	-	-	**6.48**	**8.00**	**OK**	
	5-1 (Left)	DI-3C	-	Duke Street 117+07	0.030	0.78	0.02	4.00	0.00	0.10	0.10	0.001	0.017	**2.77**	2.0	0.72	0.06	3.79	0.99	3.10	0.13	0.15	-	-	-	-	-	0.10	6.00	1.65	-	-	-	-	-	**2.77**	**8.00**	**OK**	
	5-1	DI-3C	10	Duke Street 117+07	-	-	-	-	0.28	0.00	0.28	-	0.017	-	2.0	0.54	0.06	3.79	0.96	3.10	0.13	0.14	**0.0**	**10**	-	1.00	0.28	0.00	6.00	1.83	5.50	0.13	0.46	0.29	**3.68**	**3.68**	**8.00**	**OK**	
	5-1 (Right)	DI-3C	-	Duke Street 117+07	0.064	0.72	0.05	4.00	0.00	0.19	0.19	0.001	0.017	**4.82**	2.0	0.42	0.06	3.79	0.90	3.10	0.13	0.13	-	-	-	-	-	0.19	6.00	2.06	-	-	-	-	-	**4.82**	**8.00**	**OK**	
	5-5A	DI-4E	6	Duke Street 113+76	0.335	0.89	0.30	6.86	0.00	2.06	2.06	0.015	0.025	**6.69**	2.0	0.30	0.06	2.48	0.73	2.89	0.12	0.11	**10.6**	**6**	**0.57**	0.78	1.60	0.46	6.00	2.92	-	-	-	-	-	**6.69**	**12.00**	**OK**	
	5-4	DI-3B	4	Duke Street 114+92	0.285	0.68	0.19	4.00	0.00	0.78	0.78	0.023	0.016	**4.43**	2.0	0.45	0.06	3.85	0.93	3.11	0.13	0.14	**7.2**	**4**	**0.56**	0.77	0.60	0.18	6.00	1.97	-	-	-	-	-	**4.43**	**8.00**	**OK**	
	ex-52	DI-4E	10	Duke Street	0.544	0.79	0.43	4.00	0.18	1.74	1.92	0.047	0.015	**6.55**	2.0	0.31	0.06	4.18	0.81	3.14	0.13	0.12	**14.0**	**10**	**0.72**	0.90	1.72	0.20	6.00	2.32	-	-	-	-	-	**6.55**	**8.00**	**OK**	
	ex-51	DI-3E	4	Duke Street	0.053	0.87	0.05	4.00	0.00	0.18	0.18	0.068	0.031	**1.28**	2.0	1.56	0.06	1.99	1.00	2.75	0.11	0.15	**5.2**	**4**	**0.77**	0.93	0.17	0.01	6.00	0.98	-	-	-	-	-	**1.28**	**7.50**	**OK**	
	ex-52B	DI-3B	10	Duke Street	0.557	0.76	0.42	4.00	0.00	1.71	1.71	0.046	0.019	**5.37**	2.0	0.37	0.06	3.24	0.85	3.04	0.13	0.13	**12.7**	**10**	**0.79**	0.94	1.60	0.11	6.00	2.28	-	-	-	-	-	**5.37**	**8.00**	**OK**	
	ex-22	DI-3E	6	Duke Street	0.397	0.78	0.31	4.00	0.11	1.25	1.36	0.010	0.013	**9.08**	2.0	0.22	0.06	4.92	0.68	3.20	0.13	0.10	**8.3**	**6**	**0.72**	0.90	1.23	0.13	6.00	2.58	-	-	-	-	-	**9.08**	**8.00**	**FAIL**	Upstream of project area. Included to determine bypass.
	3-11 (Left)	DI-3C	-	Duke Street 106+15	0.074	0.76	0.06	4.00	0.13	0.23	0.36	0.001	0.019	**6.65**	2.0	0.30	0.06	3.37	0.77	3.05	0.13	0.12	-	-	-	-	-	-	6.00	2.53	-	-	-	-	-	**6.65**	**8.00**	**OK**	
	3-11	DI-3C	6	Duke Street 106+15	-	-	-	-	0.61	0.00	0.61	-	0.019	-	2.0	0.31	0.06	3.37	0.78	3.05	0.13	0.12	**2.1**	**6**	**2.83**	1.00	0.61	0.00	6.00	2.49	5.50	0.15	0.46	0.32	**6.47**	**6.47**	**8.00**	**OK**	
	3-11 (Right)	DI-3C	-	Duke Street 106+15	0.070	0.89	0.06	4.00	0.00	0.25	0.25	0.001	0.019	**5.46**	2.0	0.37	0.06	3.37	0.85	3.05	0.13	0.13	-	-	-	-	-	0.25	6.00	2.27	-	-	-	-	-	**5.46**	**8.00**	**OK**	
	3-10	DI-3B	6	Duke Street 105+27	0.103	0.88	0.09	4.00	0.00	0.37	0.37	0.009	0.008	**4.89**	2.0	0.41	0.06	7.74	0.95	3.31	0.14	0.14	**3.9**	**6**	**1.54**	1.00	0.37	0.00	6.00	1.78	-	-	-	-	-	**4.89**	**7.50**	**OK**	
	3-9	DI-3B	6	Duke Street 103+64	0.075	0.90	0.07	4.00	0.00	0.27	0.27	0.022	0.010	**1.83**	2.0	1.10	0.06	6.30	1.00	3.26	0.14	0.15	**4.4**	**10**	**2.30**	1.00	0.27	0.00	6.00	1.37	-	-	-	-	-	**1.83**	**7.50**	**OK**	
	ex-R-4	DI-4E	6	Duke Street	0.776	0.38	0.29	6.86	0.00	2.04	2.04	0.022	0.016	**7.77**	2.0	0.26	0.06	3.79	0.72	3.10	0.13	0.11	**12.1**	**6**	**0.49**	0.71	1.44	0.60	6.00	2.64	-	-	-	-	-	**7.77**	**12.00**	**OK**	

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 4.1

Project Name: Duke Street and West Taylor Run Parkway Intersection Improvement Project
Date: 1/22/2026
Linear Development Project? Yes

CLEAR ALL (Ctrl+Shift+R)

data input cells
constant values
calculation cells
final results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 1.38

Check:
BMP Design Specifications List: 2024 Stds & Specs
Linear project? Yes
Land cover areas entered correctly? ✓
Total disturbed area entered? ✓

Maximum reduction required	*20%*
The site's net increase in impervious cover (acres) is	*0.361028007*
Post-Development TP Load Reduction for Site (lb/yr):	*0.55*

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest (acres) – undisturbed, protected forest or reforested land			0.04	0.42	0.47
Mixed Open (acres) – undisturbed/infrequently maintained grass or shrub land			0.13	0.01	0.13
Managed Turf (acres) – disturbed, graded for yards or other turf to be mowed/managed		0.01	0.13	0.59	0.72
Impervious Cover (acres)		0.00	0.01	0.05	0.06
					1.38

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) – undisturbed, protected forest or reforested land					0.00
Mixed Open (acres) – undisturbed/infrequently maintained grass or shrub land					0.00
Managed Turf (acres) – disturbed, graded for yards or other turf to be mowed/managed		0.01	0.28	0.67	0.96
Impervious Cover (acres)		0.00	0.02	0.40	0.42
Area Check	**OK.**	**OK.**	**OK.**	**OK.**	1.38

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**0.49**
Linear Project TP Load Reduction Required (lb/yr):	0.55

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	8.12

Final Post-Development TN Load	13.52

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre Pre-ReDevelopment	Listed	Adjusted*
Forest Cover (acres)	0.47	0.12
Weighted Rv(forest)	0.05	0.05
Weighted Loading Rate(forest)	0.10	0.10
% Forest	34%	12%
Mixed Open Cover (acres)	0.13	0.12
Weighted Rv(mixed)	0.13	0.13
Weighted Loading Rate(mixed)	0.39	0.39
% Mixed Open	10%	11%
Managed Turf Cover (acres)	0.72	0.72
Weighted Rv(turf)	0.24	0.24
Weighted Loading Rate(turf)	0.83	0.83
% Managed Turf	52%	71%
Impervious Cover (acres)	0.06	0.06
Rv(impervious)	0.95	0.95
Weighted Loading Rate(impervious)	0.86	0.86
% Impervious	4%	6%
Total Site Area (acres)	**1.38**	**1.02**
Site Rv	**0.20**	**0.25**
Treatment Volume and Nutrient Load		
Pre-ReDevelopment Treatment Volume (acre-ft)	0.0227	0.0211
Pre-ReDevelopment Treatment Volume (cubic feet)	989	918
Pre-ReDevelopment TP Load (lb/yr)	**0.75**	**0.70**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	0.54	0.69
Baseline TP Load (lb/yr) (0.26 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		*0.27*

** Adjusted Land Cover Summary:*
Pre-ReDevelopment land cover minus pervious land cover (forest, mixed open or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

Column I shows load reduction requirement for new impervious cover (based on new development load limit, 0.26 lbs/acre/year).

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final) Post ReDev. & New Impervious	
Forest Cover (acres)	0.00
Weighted Rv(forest)	0.00
Wgt. Ld. Rate(forest)	0.00
% Forest	0%
Mixed Open Cover (acres)	0.00
Weighted Rv(mixed)	0.00
Wgt. Ld. Rate(mixed)	0.00
% Mixed Open	0%
Managed Turf Cover (acres)	0.96
Weighted Rv (turf)	0.24
Wgt. Ld. Rate(turf)	0.82
% Managed Turf	70%
Impervious Cover (acres)	0.42
Rv(impervious)	0.95
Wgt. Ld. Rate(impervious)	0.86
% Impervious	30%
Final Site Area (acres)	**1.38**
Final Post Dev Site Rv	**0.46**
Treatment Volume and Nutrient Load	
Final Post-Development Treatment Volume (acre-ft)	0.0525
Final Post-Development Treatment Volume (cubic feet)	2,288
Final Post-Development TP Load (lb/yr)	**1.14**
Final Post-Development TP Load per acre (lb/acre/yr)	0.83

Land Cover Summary-Post Post-ReDevelopment	
Forest Cover (acres)	0.00
Weighted Rv(forest)	0.00
Wgt. Ld. Rate(forest)	0.00
% Forest	0%
Mixed Open Cover (acres)	0.00
Weighted Rv(mixed)	0.00
Wgt. Ld. Rate(mixed)	0.00
% Mixed Open	0%
Managed Turf Cover (acres)	0.96
Weighted Rv (turf)	0.24
Wgt. Ld. Rate(turf)	0.82
% Managed Turf	94%
ReDev. Impervious Cover (acres)	0.06
Rv(impervious)	0.95
Wgt. Ld. Rate(impervious)	0.86
% Impervious	6%
Total ReDev. Site Area (acres)	**1.02**
ReDev Site Rv	**0.28**
Treatment Volume and Nutrient Load	
Post-ReDevelopment Treatment Volume (acre-ft)	0.0239
Post-ReDevelopment Treatment Volume (cubic feet)	1,043
Post-ReDevelopment TP Load (lb/yr)*	**0.83**
Post-ReDevelopment TP Load per acre (lb/acre/yr)	0.82
Max. Reduction Required (Below Pre-ReDevelopment Load)	**20%**

Land Cover Summary-Post Post-Development New Impervious	
New Impervious Cover (acres)	0.36
Rv(impervious)	0.95
Post-Development Treatment Volume (acre-ft)	0.0286
Post-Development Treatment Volume (cubic feet)	1,245
Post-Development TP Load (lb/yr)	**0.31**

TP Load Reduction Required for Redeveloped Area (lb/yr)	**0.27**

TP Load Reduction Required for New Impervious Area (lb/yr)	**0.22**

WATER QUALITY SUMMARY

The project is located in the Cameron Run Hydraulic Unit Code (HUC) [PL26]. The total disturbed area for the project is approximately 1.38 acres.
The latest VRRM Version 4.1 spreadsheets were used to calculate the water quality treatment requirement and the required TP load Reduction for this linear project was found to be 0.55 lb/yr.
*Because neither the project area nor the reduction requirement exceeds the relevant limits, the full reduction requirement can be met through the application

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8A(1)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

ex-46
A=0.740 Ac, C=0.90
A=0.503 Ac, C=0.35
A=0.253 Ac, C=0.20

3-1
A=0.817 Ac, C=0.90
A=1.045 Ac C=0.35

3-6
A=0.442 Ac, C=0.90
A=0.032 Ac C=0.35

3-5a
A=1.556 Ac, C=0.90
A=0.503 Ac, C=0.35
A=0.253 Ac C=0.20

3-3
A=0.434 Ac, C=0.90
A=0.214 Ac C=0.35

ex-41
A=0.043 Ac, C=0.90
A=0.088 Ac C=0.35

ex-28
A=0.188 Ac, C=0.90
A=0.000 Ac C=0.35

ex-24
A=0.430 Ac, C=0.90
A=0.029 Ac C=0.35

ex-1
A=1.838 Ac, C=0.90
A=0.865 Ac, C=0.35
A=0.356 Ac C=0.20

3-5
A=0.021 Ac, C=0.90
A=0.003 Ac C=0.35

ex-19
A=0.289 Ac, C=0.90
A=0.065 Ac C=0.35

ex-8
A=0.145 Ac, C=0.90
A=0.095 Ac C=0.35

ex-7
A=0.322 Ac, C=0.90
A=0.115 Ac C=0.35

ex-4
A=0.128 Ac, C=0.90
A=0.007 Ac C=0.35

ex-16
A=0.269 Ac, C=0.90
A=0.022 Ac C=0.35

ex-3
A=0.766 Ac, C=0.90
A=0.305 Ac C=0.35

ex-6
A=0.823 Ac, C=0.90
A=0.203 Ac C=0.35

3-9
A=0.075 Ac, C=0.90
A=0.000 Ac C=0.35

3-10
A=0.100 Ac, C=0.90
A=0.003 Ac C=0.35

3-11
A=0.124 Ac, C=0.90
A=0.020 Ac C=0.35

MATCHLINE SEE SHEET 8A(2)

DRAINAGE AREA MAPS

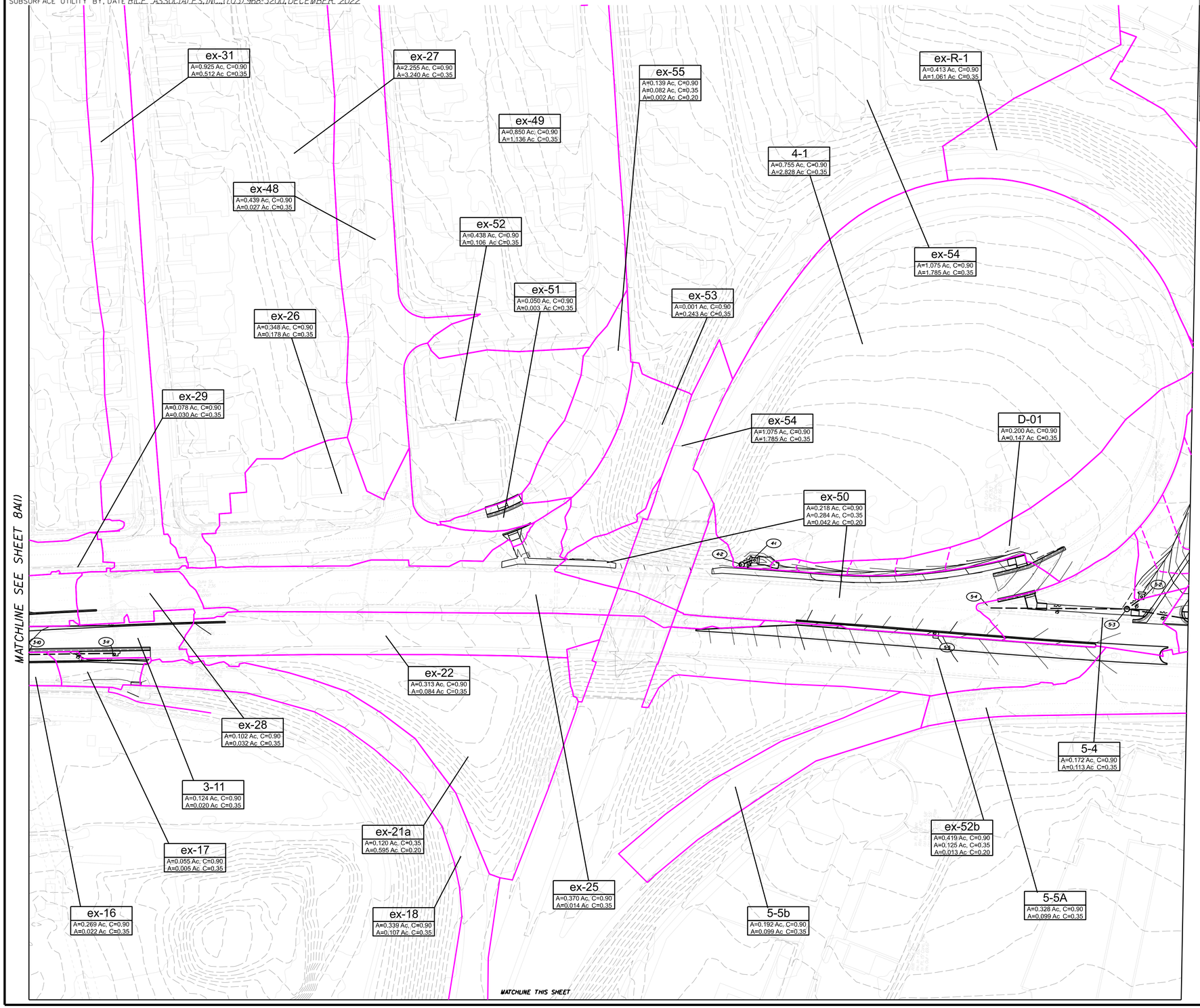
SCALE	PROJECT	SHEET NO.
0 50' 100'	0236-100-888	8A(1)

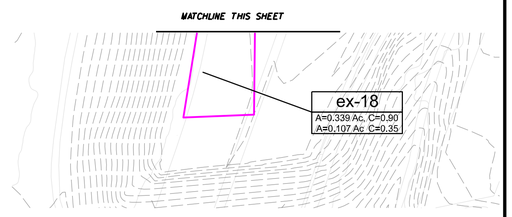
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8A(2)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

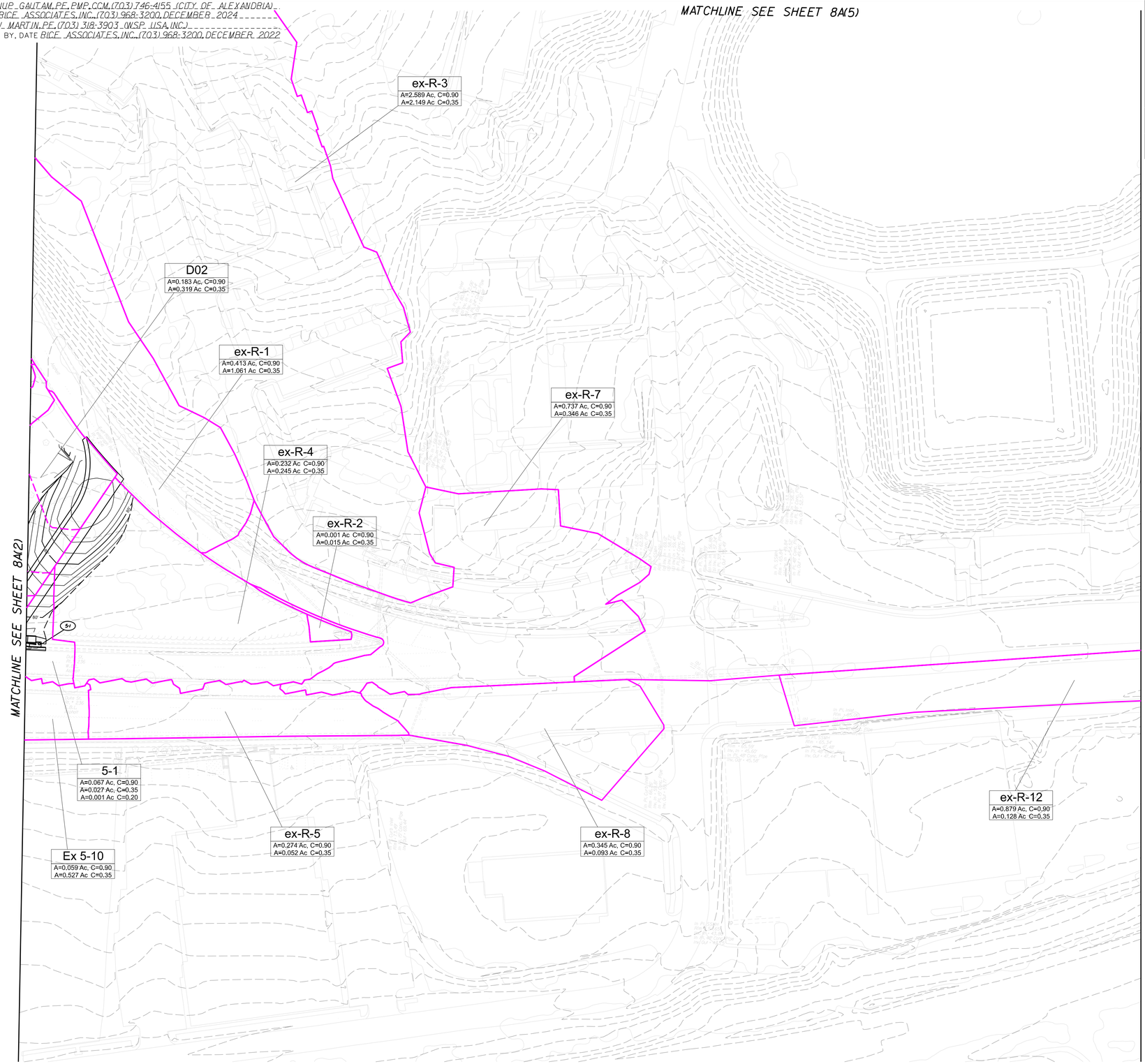




DRAINAGE AREA MAPS

SCALE	PROJECT	SHEET NO.
0 50' 100'	0236-100-888	8A(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022



REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8A(3)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

DRAINAGE AREA MAPS

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	8A(3)

1/23/2026
6:20:23 PM

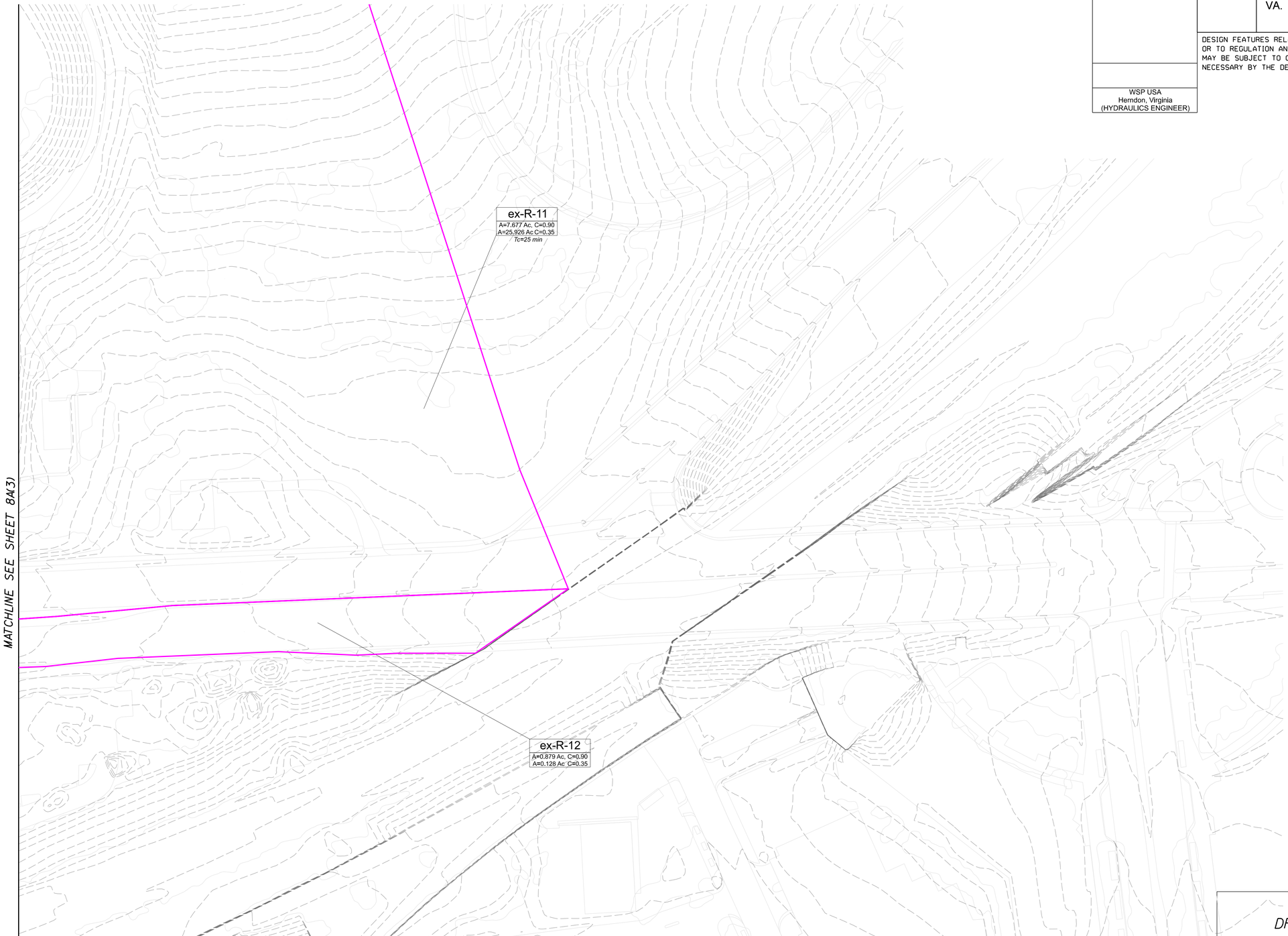
dll553108A(4).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8A(4)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)



DRAINAGE AREA MAPS

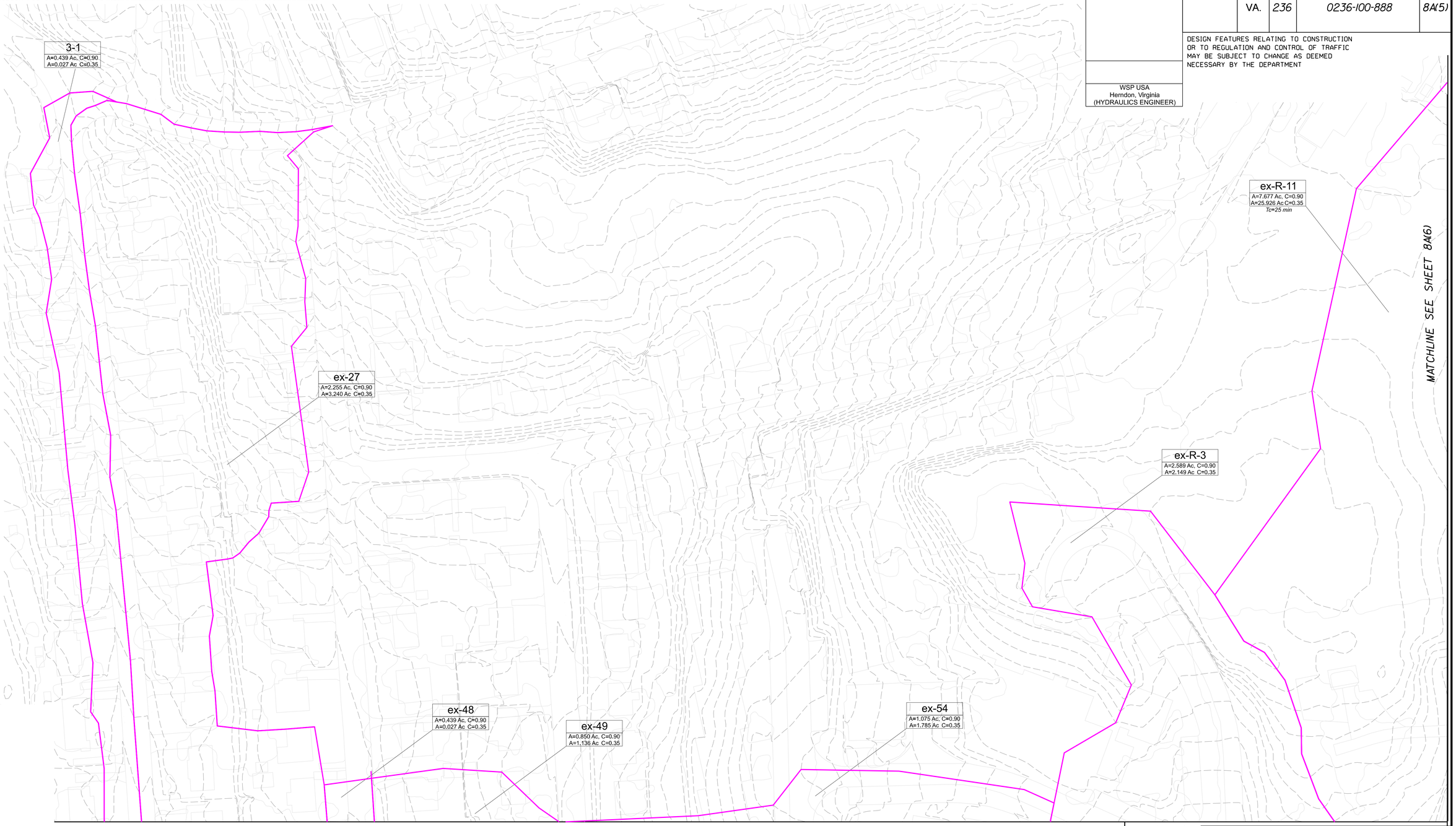
SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	8A(4)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8A(5)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)



MATCH LINE SEE SHEET 8A(4)

DRAINAGE AREA MAPS

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	8A(5)

1/23/2026
6:20:45 PM

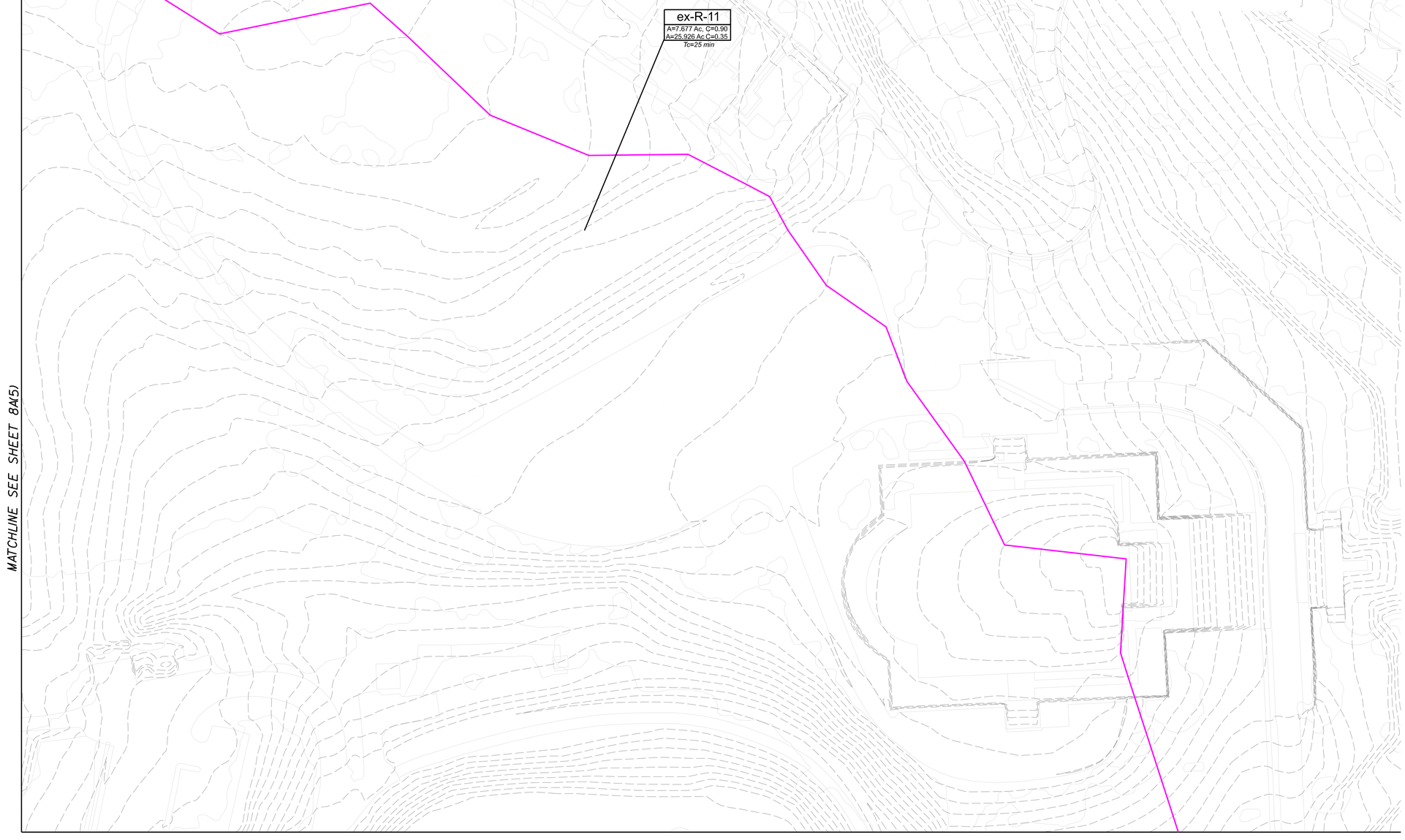
dll5531084(6).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	236	0236-100-888	8A(6)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)



MATCHLINE SEE SHEET 8A(5)

MATCHLINE SEE SHEET 8A(4)

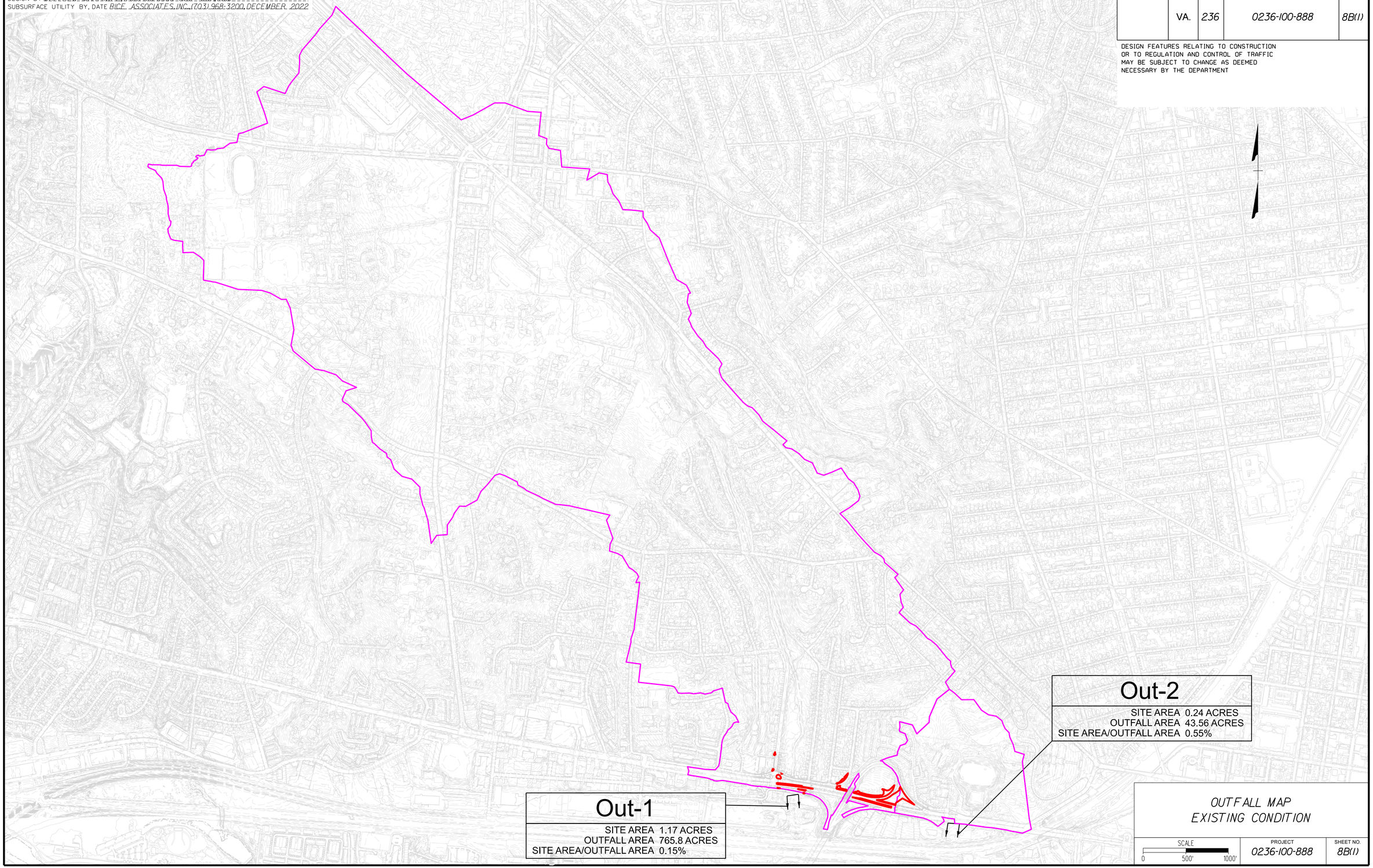
DRAINAGE AREA MAPS

SCALE	PROJECT	SHEET NO.
0 50' 100'	0236-100-888	8A(6)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	236	0236-100-888	8B(1)

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



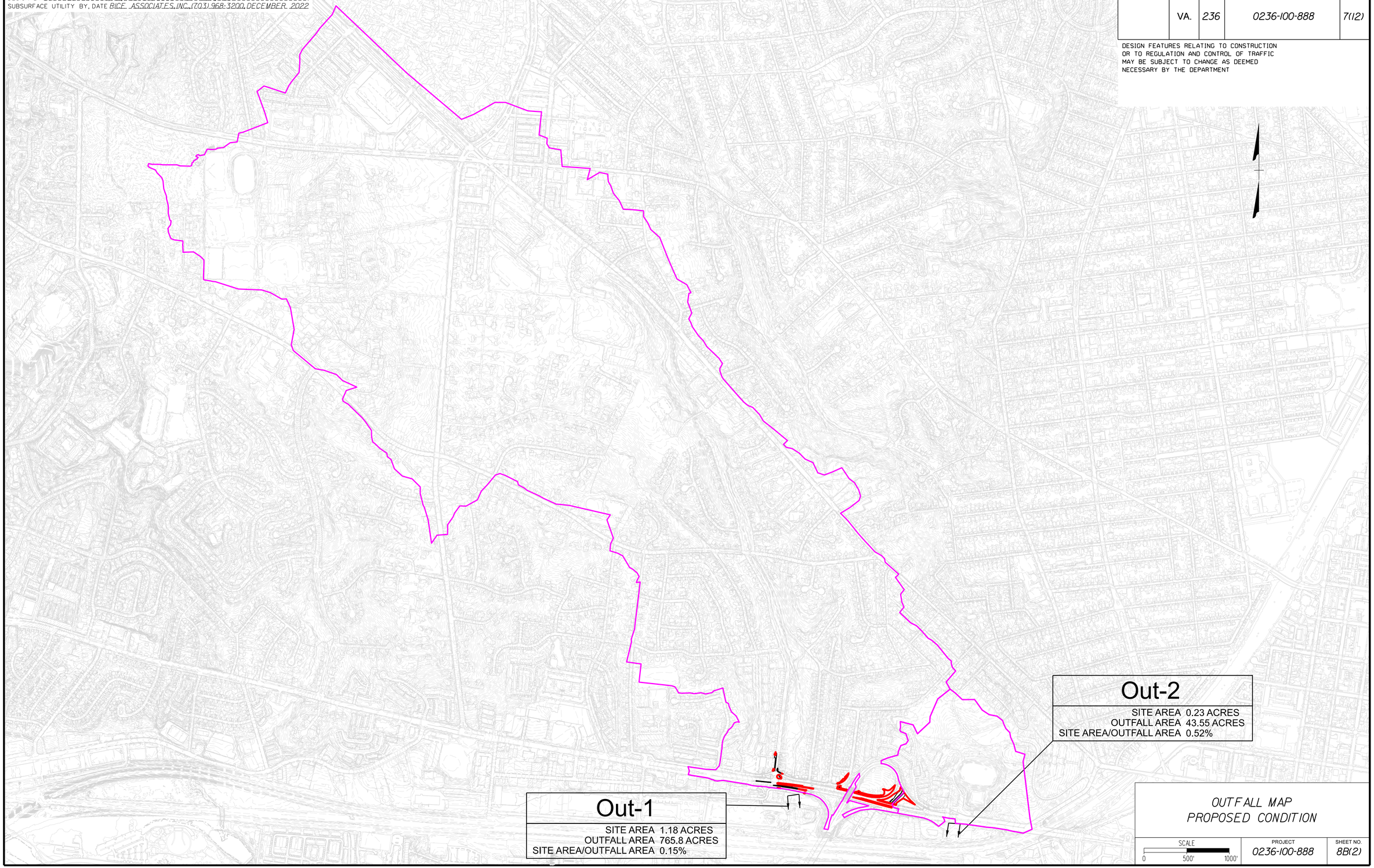
OUTFALL MAP
EXISTING CONDITION

SCALE	PROJECT	SHEET NO.
0 500' 1000'	0236-100-888	8B(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	236	0236-100-888	7(12)

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



OUTFALL MAP
PROPOSED CONDITION

SCALE	PROJECT	SHEET NO.
0 500' 1000'	0236-100-888	8B(2)

dll553108C(1).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8C(1)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

LEGEND
- FOREST COVER
- MIXED OPEN COVER
- MANAGED TURF COVER
- IMPERVIOUS COVER
- —LOD— LIMIT OF DISTURBANCE

HUC	SHEET NUMBER	EXISTING CONDITIONS DISTURBED AREA (AC)	Forest Cover	Mixed Open Cover	Managed Turf Cover	Impervious Cover	SHEET NUMBER	PROPOSED CONDITIONS DISTURBED AREA (AC)	Forest Cover	Mixed Open Cover	Managed Turf Cover	Impervious Cover
PL26	3(1)	0.196	0.000	0.000	0.169	0.028	3(2)	0.196	0.000	0.000	0.106	0.091
	4(1)	0.252	0.041	0.036	0.150	0.025	4(2)	0.252	0.000	0.000	0.169	0.083
	5(1)	0.925	0.424	0.098	0.396	0.006	5(2)	0.925	0.000	0.000	0.679	0.246
	TOTAL	**1.374**	**0.465**	**0.135**	**0.715**	**0.059**	**TOTAL**	**1.374**	**0.000**	**0.000**	**0.954**	**0.420**

MATCH LINE - STA.207+00 (SEE SHEET 8C(2))

MATCH LINE - STA.107+00 (SEE SHEET 8C(2))

EXISTING LAND USE MAPS

SCALE 0 25' 50'

PROJECT 0236-100-888

SHEET NO. 8C(1)

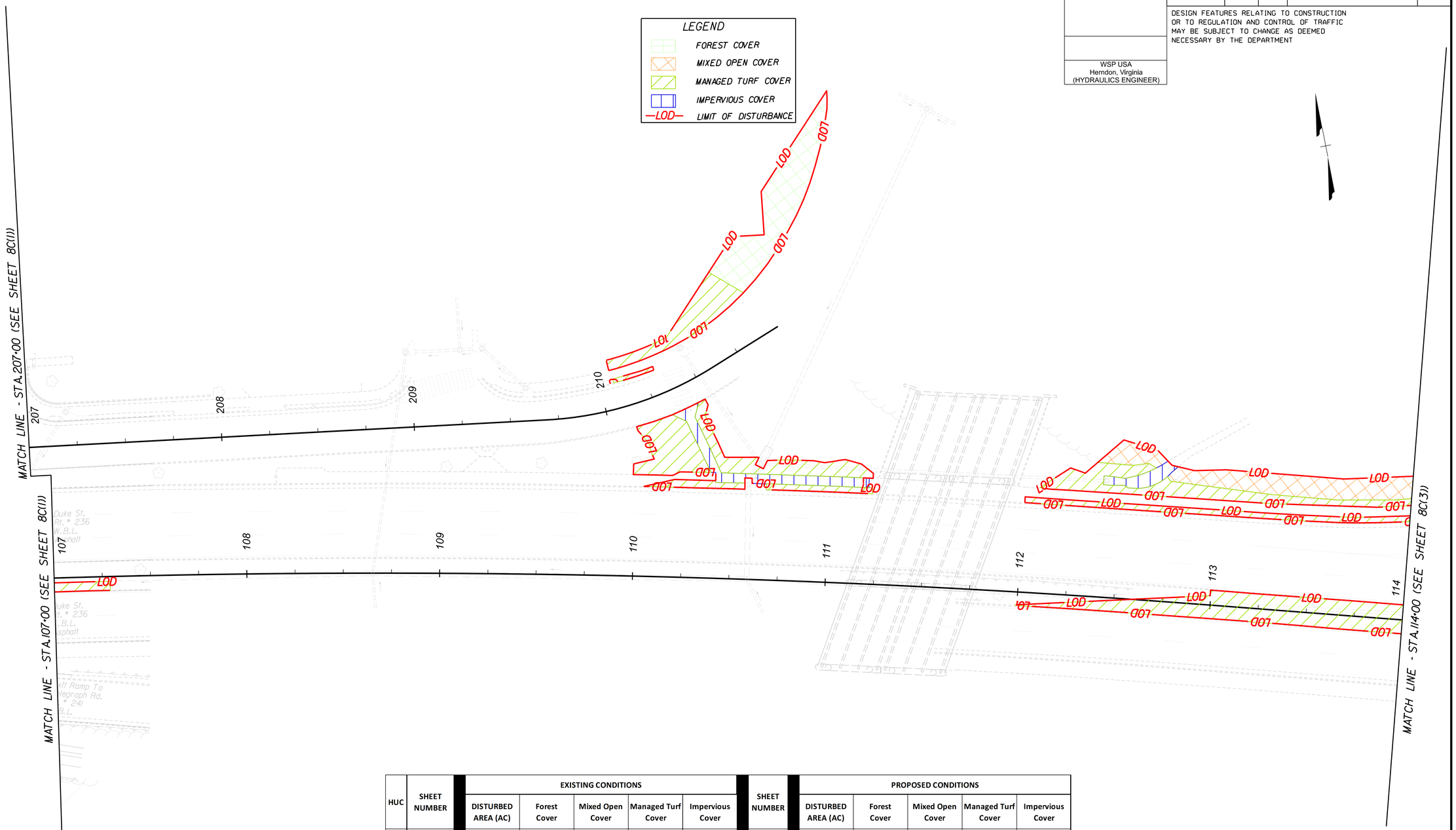
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8C(2)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

LEGEND
- FOREST COVER
- MIXED OPEN COVER
- MANAGED TURF COVER
- IMPERVIOUS COVER
- —LOD— LIMIT OF DISTURBANCE



HUC	SHEET NUMBER	EXISTING CONDITIONS DISTURBED AREA (AC)	Forest Cover	Mixed Open Cover	Managed Turf Cover	Impervious Cover	SHEET NUMBER	PROPOSED CONDITIONS DISTURBED AREA (AC)	Forest Cover	Mixed Open Cover	Managed Turf Cover	Impervious Cover
PL26	3(1)	0.196	0.000	0.000	0.169	0.028	3(2)	0.196	0.000	0.000	0.106	0.091
	4(1)	0.252	0.041	0.036	0.150	0.025	4(2)	0.252	0.000	0.000	0.169	0.083
	5(1)	0.925	0.424	0.098	0.396	0.006	5(2)	0.925	0.000	0.000	0.679	0.246
	TOTAL	**1.374**	**0.465**	**0.135**	**0.715**	**0.059**	**TOTAL**	**1.374**	**0.000**	**0.000**	**0.954**	**0.420**

EXISTING LAND USE MAPS

SCALE 0 25' 50'

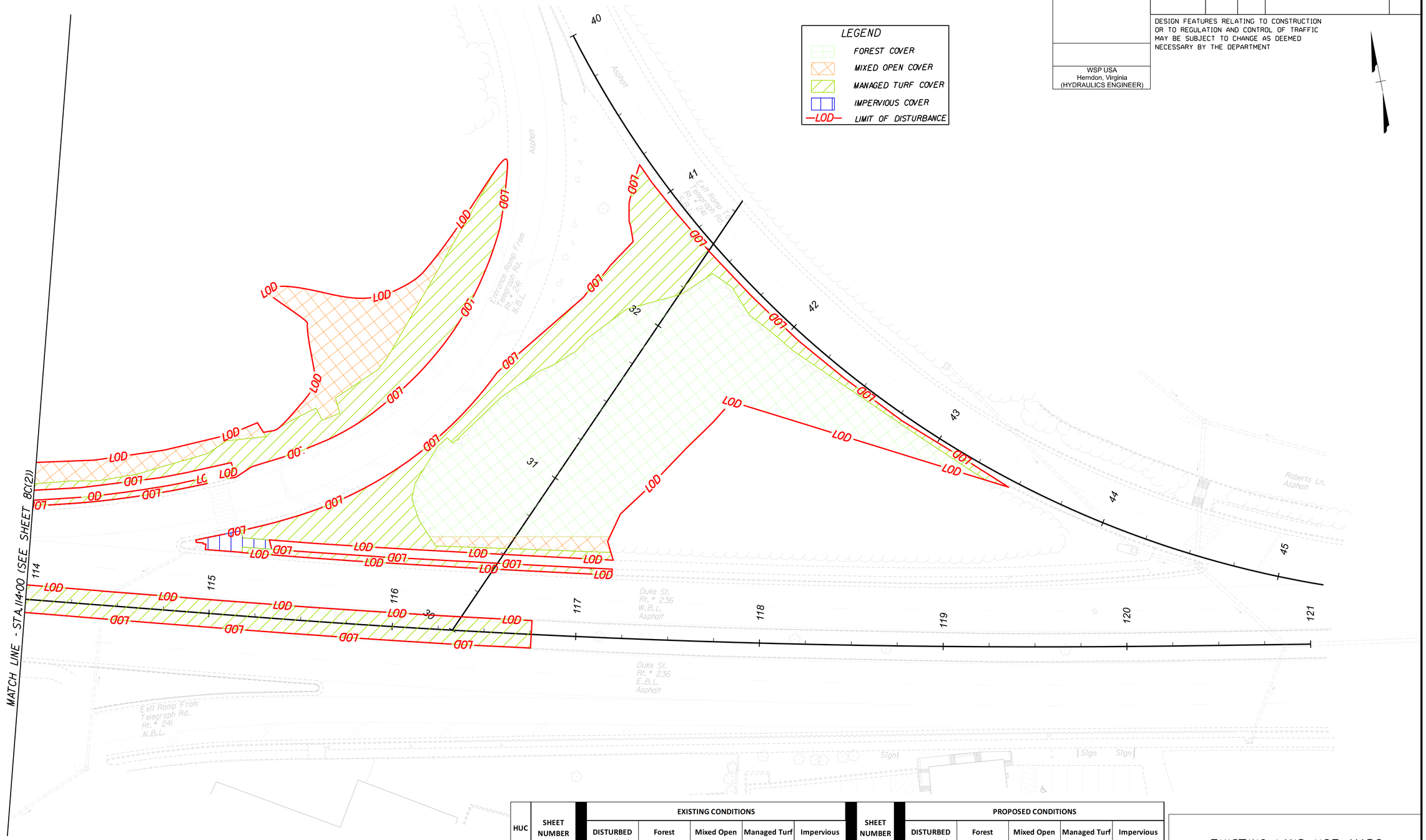
PROJECT	SHEET NO.
0236-100-888	8C(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8C(3)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)



HUC	SHEET NUMBER	EXISTING CONDITIONS DISTURBED AREA (AC)	Forest Cover	Mixed Open Cover	Managed Turf Cover	Impervious Cover	SHEET NUMBER	PROPOSED CONDITIONS DISTURBED AREA (AC)	Forest Cover	Mixed Open Cover	Managed Turf Cover	Impervious Cover
PL26	3(1)	0.196	0.000	0.000	0.169	0.028	3(2)	0.196	0.000	0.000	0.106	0.091
	4(1)	0.252	0.041	0.036	0.150	0.025	4(2)	0.252	0.000	0.000	0.169	0.083
	5(1)	0.925	0.424	0.098	0.396	0.006	5(2)	0.925	0.000	0.000	0.679	0.246
	TOTAL	**1.374**	**0.465**	**0.135**	**0.715**	**0.059**	**TOTAL**	**1.374**	**0.000**	**0.000**	**0.954**	**0.420**

EXISTING LAND USE MAPS

SCALE 0 25' 50'

PROJECT	SHEET NO.
0236-100-888	8C(3)

dll5531108DX11.dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

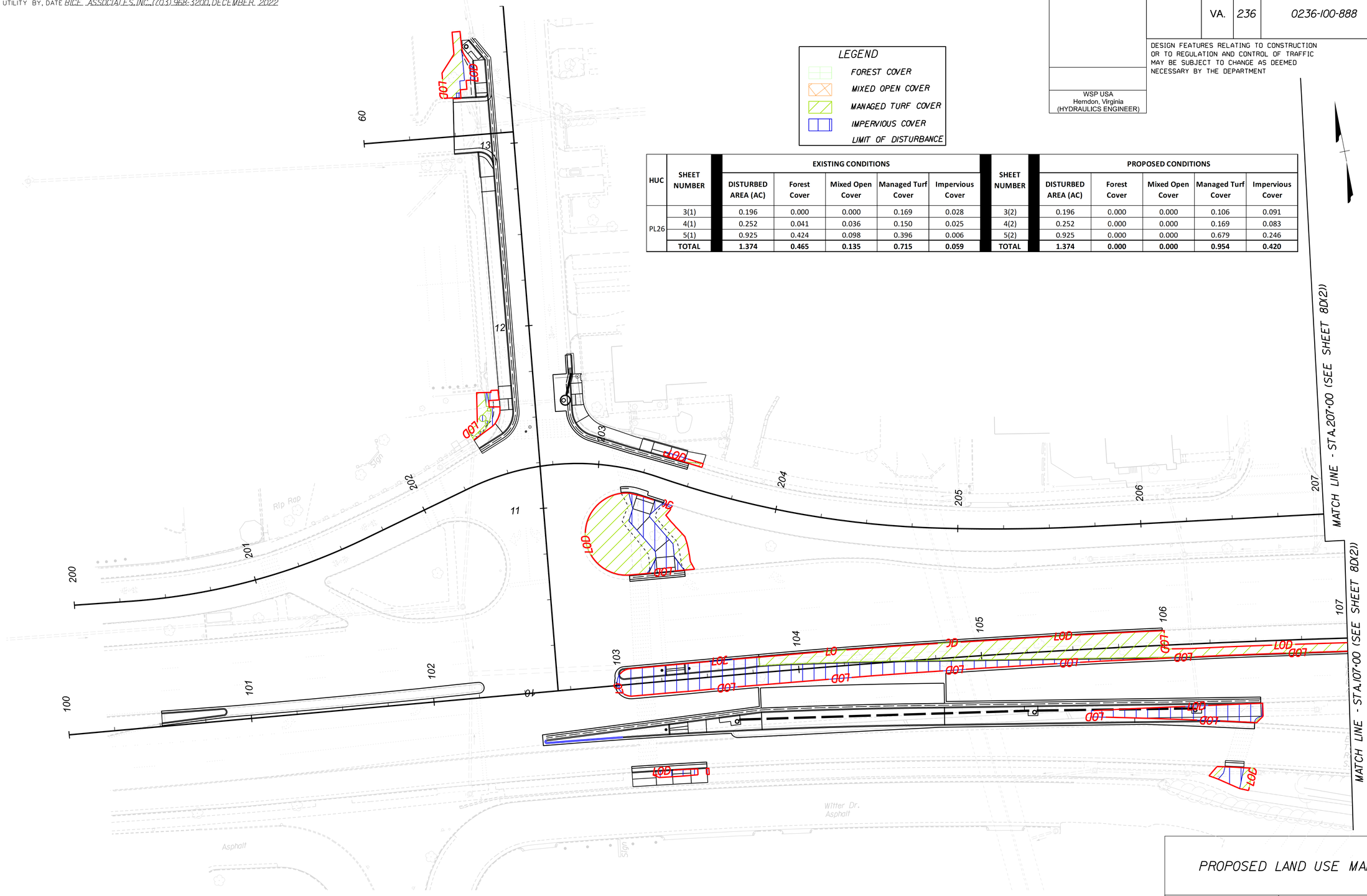
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8D(1)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

LEGEND
- FOREST COVER
- MIXED OPEN COVER
- MANAGED TURF COVER
- IMPERVIOUS COVER
- LIMIT OF DISTURBANCE

HUC	SHEET NUMBER	EXISTING CONDITIONS DISTURBED AREA (AC)	Forest Cover	Mixed Open Cover	Managed Turf Cover	Impervious Cover	SHEET NUMBER	PROPOSED CONDITIONS DISTURBED AREA (AC)	Forest Cover	Mixed Open Cover	Managed Turf Cover	Impervious Cover
PL26	3(1)	0.196	0.000	0.000	0.169	0.028	3(2)	0.196	0.000	0.000	0.106	0.091
	4(1)	0.252	0.041	0.036	0.150	0.025	4(2)	0.252	0.000	0.000	0.169	0.083
	5(1)	0.925	0.424	0.098	0.396	0.006	5(2)	0.925	0.000	0.000	0.679	0.246
	TOTAL	**1.374**	**0.465**	**0.135**	**0.715**	**0.059**	**TOTAL**	**1.374**	**0.000**	**0.000**	**0.954**	**0.420**



PROPOSED LAND USE MAPS

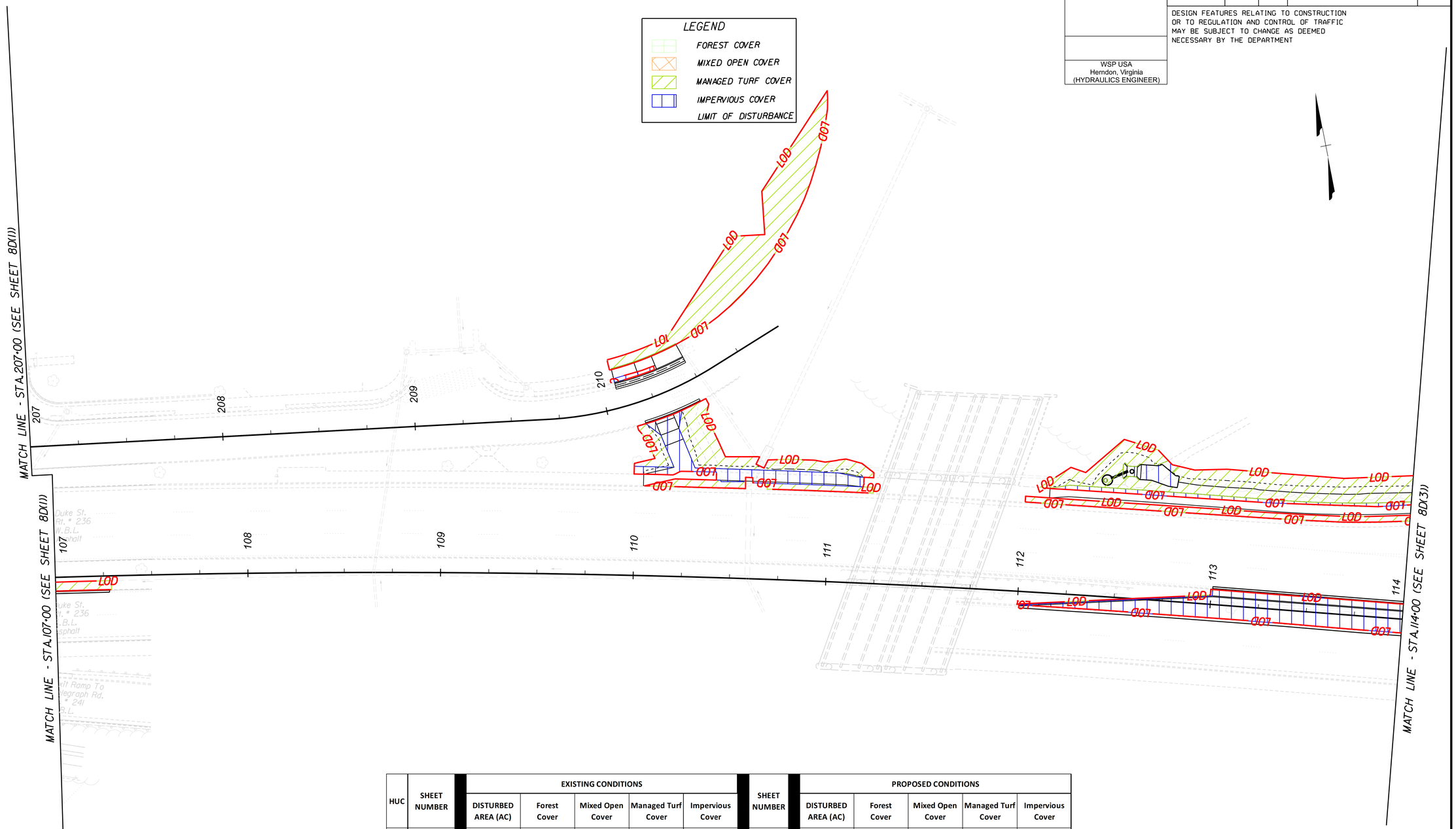
SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	8D(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	8D(2)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)



HUC	SHEET NUMBER	EXISTING CONDITIONS DISTURBED AREA (AC)	Forest Cover	Mixed Open Cover	Managed Turf Cover	Impervious Cover	SHEET NUMBER	PROPOSED CONDITIONS DISTURBED AREA (AC)	Forest Cover	Mixed Open Cover	Managed Turf Cover	Impervious Cover
PL26	3(1)	0.196	0.000	0.000	0.169	0.028	3(2)	0.196	0.000	0.000	0.106	0.091
	4(1)	0.252	0.041	0.036	0.150	0.025	4(2)	0.252	0.000	0.000	0.169	0.083
	5(1)	0.925	0.424	0.098	0.396	0.006	5(2)	0.925	0.000	0.000	0.679	0.246
	TOTAL	**1.374**	**0.465**	**0.135**	**0.715**	**0.059**	**TOTAL**	**1.374**	**0.000**	**0.000**	**0.954**	**0.420**

PROPOSED LAND USE MAPS

SCALE 0 25' 50'

PROJECT	SHEET NO.
0236-100-888	8D(2)

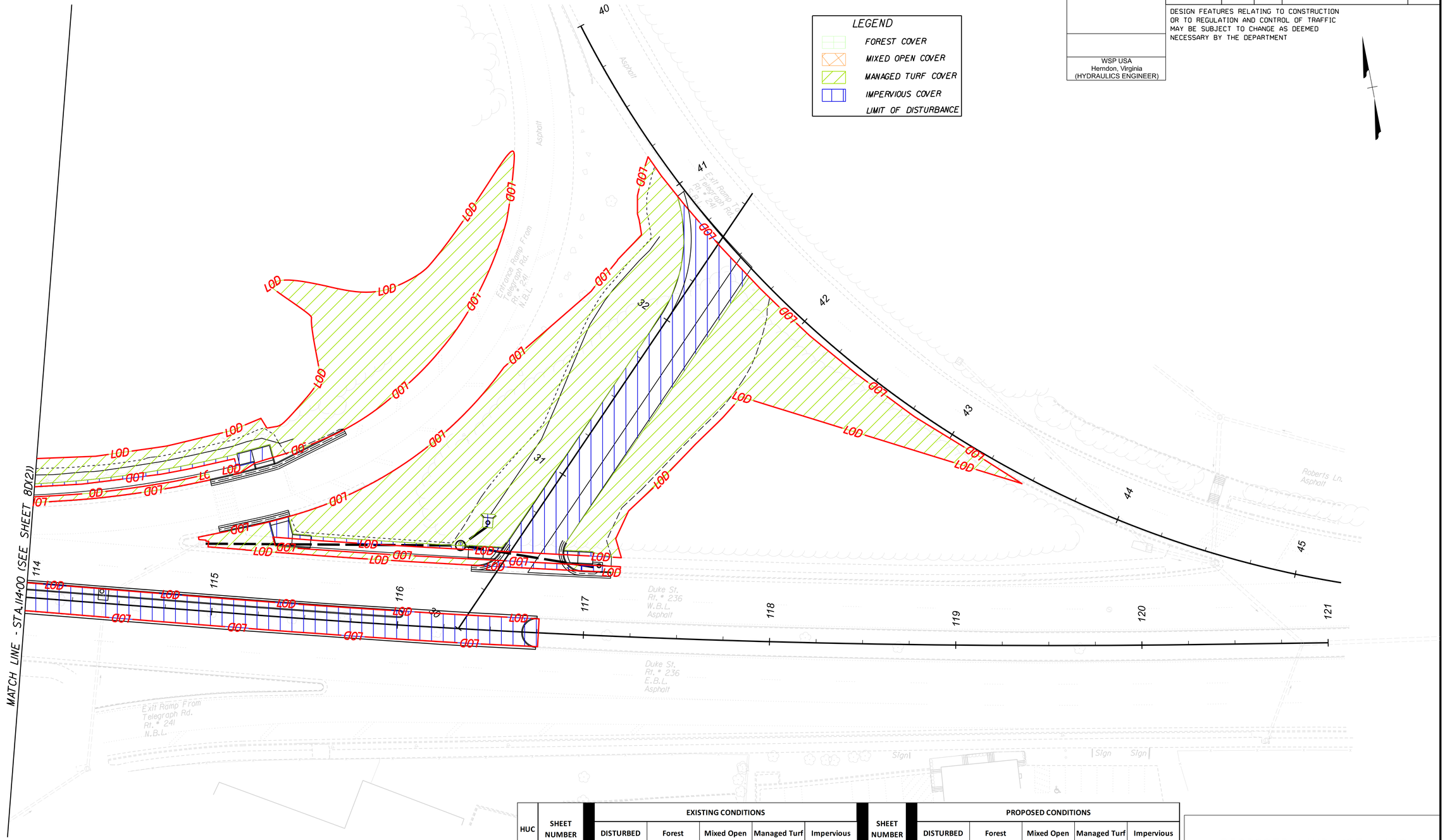
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	236	0236-100-888	8D(3)

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

WSP USA
Herndon, Virginia
(HYDRAULICS ENGINEER)

LEGEND
- FOREST COVER
- MIXED OPEN COVER
- MANAGED TURF COVER
- IMPERVIOUS COVER
- LIMIT OF DISTURBANCE


MATCH LINE - STA.114+00 (SEE SHEET 8D(2))
LOD
LOD
LOD

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	9(1)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

LEGEND

- (A) PROP. WHITE SOLID LINE, 4" WIDTH
- (B) PROP. WHITE DASHED LINE, 10' LENGTH, 30' GAP, 4" WIDTH
- (C) PROP. WHITE DASHED LINE, 2' LENGTH, 6' GAP, 4" WIDTH
- (D) PROP. WHITE SOLID LINE, 24" WIDTH
- (E) PROP. WHITE SOLID LINE, 8" WIDTH
- (F) PROP. WHITE SOLID LINE, 6" WIDTH
- (G) PROP. HIGH-VISIBILITY CROSSWALK, WHITE SOLID LINE, 24" WIDTH, 10' LENGTH, 24" SPACING
- (H) PROP. HATCHING, WHITE SOLID LINE, 24" WIDTH AT 45 DEGREES & 20' SPACING
- (I) PROP. HATCHING, YELLOW SOLID LINE, 24" WIDTH AT 45 DEGREES & 20' SPACING
- (J) PROP. YELLOW SOLID LINE, 4" WIDTH
- (K) PROP. YELLOW DOUBLE SOLID LINE, 4" WIDTH, 7" SPACE, 4" WIDTH
- (L) PROP. TURN ARROW MARKING, WHITE
- (M) PROP. YIELD LINE, WHITE, 24" BASE, 36" HEIGHT, 12" SPACING
- (N) PROP. WHITE, SHARED-LANE MARKINGS "SHARROWS"
- (O) PROP. WHITE, WORD MESSAGE, "ONLY"
- (P) PROP. WHITE, WORD MESSAGE, "SLOW"
- (R) PROP. WHITE, WORD MESSAGE, "PED"
- (S) PROP. WHITE, WORD MESSAGE, "XING"
- (T) TIE TO EX. PAVEMENT MARKINGS

EX. SIGN
PROP. SIGN
EX. SIGN TO BE REMOVED
EX. SIGN TO REMAIN

DUKE STREET
POSTED SPEED = 35 MPH WEST OF BRIDGE
25 MPH EAST OF BRIDGE
DESIGN SPEED = 25 MPH

WEST TAYLOR PARKWAY
POSTED SPEED = 25 MPH
DESIGN SPEED = 25 MPH

GENERAL NOTES

ALL SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE FOLLOWING MANUALS, OR THE MOST CURRENT REVISION THERETO:
A) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 10TH EDITION
B) VIRGINIA SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
C) VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS
D) VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS

2. PROPOSED FLEXIBLE POST DELINEATORS SHALL BE INSTALLED WITH HARDENED BASE BETWEEN DELINEATORS. THEY SHALL BE MAINTAINED BY CITY OF ALEXANDRIA.

PAVEMENT MARKING NOTES

1. ALL PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED, SHALL BE REFLECTORIZED, TYPE B, CLASS I PAVEMENT MARKINGS.

2. ANY EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE COMPLETELY ERADICATED.

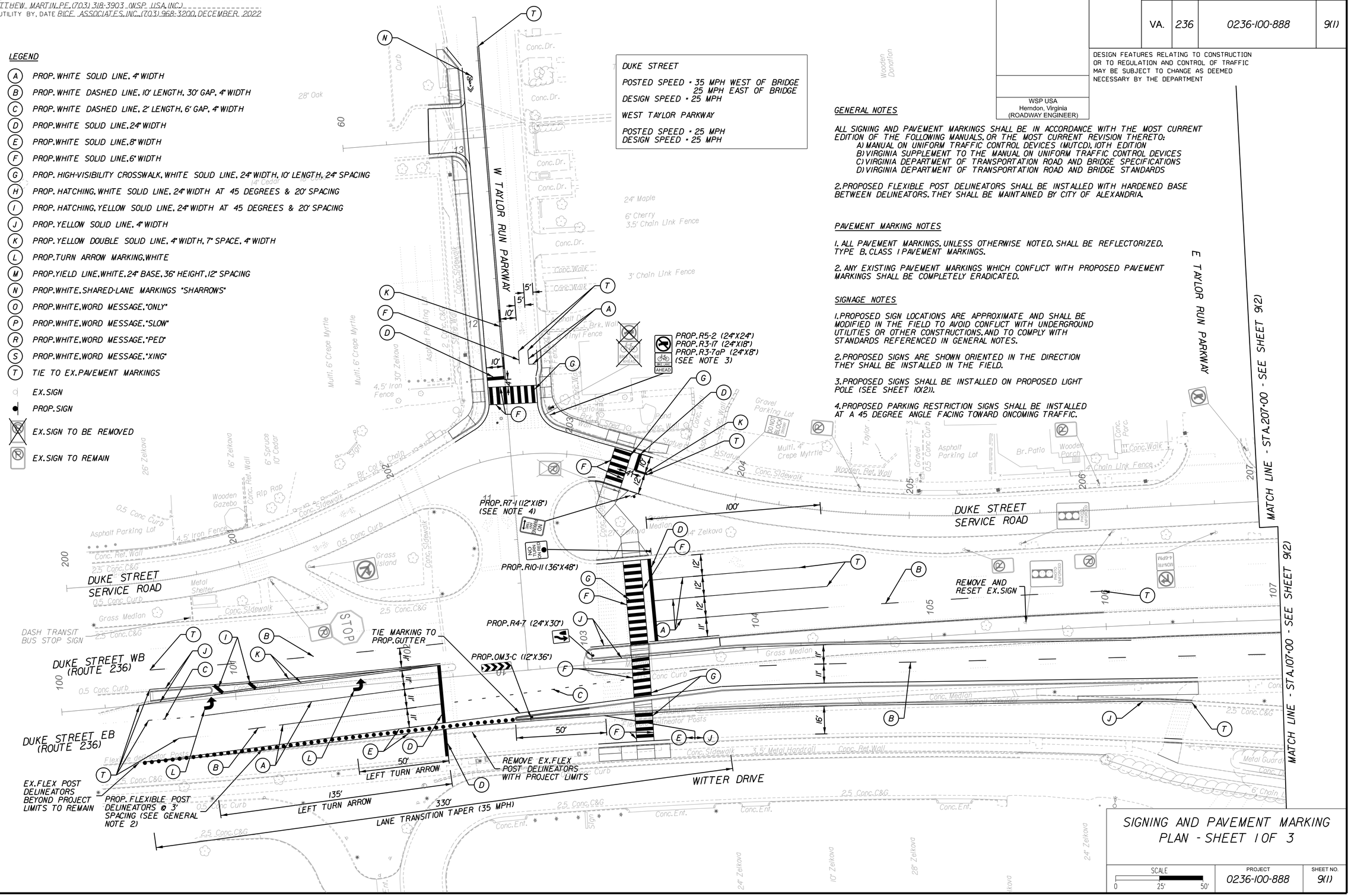
SIGNAGE NOTES

1. PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE MODIFIED IN THE FIELD TO AVOID CONFLICT WITH UNDERGROUND UTILITIES OR OTHER CONSTRUCTIONS, AND TO COMPLY WITH STANDARDS REFERENCED IN GENERAL NOTES.

2. PROPOSED SIGNS ARE SHOWN ORIENTED IN THE DIRECTION THEY SHALL BE INSTALLED IN THE FIELD.

3. PROPOSED SIGNS SHALL BE INSTALLED ON PROPOSED LIGHT POLE (SEE SHEET 10(2)).

4. PROPOSED PARKING RESTRICTION SIGNS SHALL BE INSTALLED AT A 45 DEGREE ANGLE FACING TOWARD ONCOMING TRAFFIC.



SIGNING AND PAVEMENT MARKING PLAN - SHEET 1 OF 3

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	9(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	9(2)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

LEGEND

- (A) PROP. WHITE SOLID LINE, 4" WIDTH
- (B) PROP. WHITE DASHED LINE, 10' LENGTH, 30' GAP, 4" WIDTH
- (C) PROP. WHITE DASHED LINE, 2' LENGTH, 6' GAP, 4" WIDTH
- (D) PROP. WHITE SOLID LINE, 24" WIDTH
- (E) PROP. WHITE SOLID LINE, 8" WIDTH
- (F) PROP. WHITE SOLID LINE, 6" WIDTH
- (G) PROP. HIGH-VISIBILITY CROSSWALK, WHITE SOLID LINE, 24" WIDTH, 10' LENGTH, 24" SPACING
- (H) PROP. HATCHING, WHITE SOLID LINE, 24" WIDTH AT 45 DEGREES & 20' SPACING
- (I) PROP. HATCHING, YELLOW SOLID LINE, 24" WIDTH AT 45 DEGREES & 20' SPACING
- (J) PROP. YELLOW SOLID LINE, 4" WIDTH
- (K) PROP. YELLOW DOUBLE SOLID LINE, 4" WIDTH, 7" SPACE, 4" WIDTH
- (L) PROP. TURN ARROW MARKING, WHITE
- (M) PROP. YIELD LINE, WHITE, 24" BASE, 36" HEIGHT, 12" SPACING
- (N) PROP. WHITE, SHARED-LANE MARKINGS "SHARROWS"
- (O) PROP. WHITE, WORD MESSAGE, "ONLY"
- (P) PROP. WHITE, WORD MESSAGE, "SLOW"
- (R) PROP. WHITE, WORD MESSAGE, "PED"
- (S) PROP. WHITE, WORD MESSAGE, "XING"
- (T) TIE TO EX. PAVEMENT MARKINGS

EX. SIGN
PROP. SIGN
EX. SIGN TO BE REMOVED
EX. SIGN TO REMAIN

DUKE STREET
POSTED SPEED = 35 MPH WEST OF BRIDGE
25 MPH EAST OF BRIDGE
DESIGN SPEED = 25 MPH

WEST TAYLOR PARKWAY
POSTED SPEED = 25 MPH
DESIGN SPEED = 25 MPH

MATCH LINE - STA.107+00 - SEE SHEET 9(1)

MATCH LINE - STA.207+00 - SEE SHEET 9(1)

MATCH LINE - STA.114+00 - SEE SHEET 9(3)

DUKE STREET SERVICE ROAD

DUKE STREET WB (ROUTE 236)

DUKE STREET EB (ROUTE 236)

MONCURE DRIVE

TELEGRAPH ROAD BRIDGE

Telegraph Road Bridge

PROP. W11-2 (36"X36")
PROP. W16-9P (24"X12")

PROP. W11-2 (36"X36")
PROP. W16-7P (24"X12")

PROP. W11-2 (36"X36")
PROP. W16-7P (24"X12")

PROP. W11-2 (36"X36")
PROP. W16-9P (24"X12")

PROP. D1-1d (70"X18")

PROP. M4-5P (24"X12")
PROP. M1-1 (24"X24")
PROP. M1-1 (30"X24")
PROP. M5-2P (12"X15")

PROP. M4-5P (24"X12")
PROP. M1-1c (30"X24")
PROP. M5-2P (12"X15")

EX. DASH TRANSIT BUS STOP SIGN

SEE SIGNAGE NOTE 4

125'

GENERAL NOTES

ALL SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE FOLLOWING MANUALS, OR THE MOST CURRENT REVISION THERETO:
A) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 10TH EDITION
B) VIRGINIA SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
C) VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS
D) VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS

2. PROPOSED FLEXIBLE POST DELINEATORS SHALL BE INSTALLED. THEY SHALL BE MAINTAINED BY CITY OF ALEXANDRIA.

PAVEMENT MARKING NOTES

1. ALL PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED, SHALL BE REFLECTORIZED, TYPE B, CLASS I PAVEMENT MARKINGS.

2. ANY EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE COMPLETELY ERADICATED.

SIGNAGE NOTES

1. PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE MODIFIED IN THE FIELD TO AVOID CONFLICT WITH UNDERGROUND UTILITIES OR OTHER CONSTRUCTIONS, AND TO COMPLY WITH STANDARDS REFERENCED IN GENERAL NOTES.

2. PROPOSED SIGNS ARE SHOWN ORIENTED IN THE DIRECTION THEY SHALL BE INSTALLED IN THE FIELD.

3. PROPOSED W11-2 & W16-7P SIGNS SHALL HAVE FLUORESCENT YELLOW-GREEN BACKGROUNDS.

4. SIGN ASSEMBLY SHALL BE INSTALLED ON TWO POSTS, SIGN BRACING REQUIRED.

5. PROPOSED M1-1 SIGNS SHALL INCLUDE WHITE ROUTE NUMBERS ON A BLUE BACKGROUND, WHITE LETTERS SPELLING "INTERSTATE" ON A RED BACKGROUND, AND INCLUDE A WHITE BORDER.

SIGNING AND PAVEMENT MARKING PLAN - SHEET 2 OF 3

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	9(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	9(3)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

LEGEND

- (A) PROP. WHITE SOLID LINE, 4" WIDTH
- (B) PROP. WHITE DASHED LINE, 10' LENGTH, 30' GAP, 4" WIDTH
- (C) PROP. WHITE DASHED LINE, 2' LENGTH, 6' GAP, 4" WIDTH
- (D) PROP. WHITE SOLID LINE, 24" WIDTH
- (E) PROP. WHITE SOLID LINE, 8" WIDTH
- (F) PROP. WHITE SOLID LINE, 6" WIDTH
- (G) PROP. HIGH-VISIBILITY CROSSWALK, WHITE SOLID LINE, 24" WIDTH, 10' LENGTH, 24" SPACING
- (H) PROP. HATCHING, WHITE SOLID LINE, 24" WIDTH AT 45 DEGREES & 20' SPACING
- (I) PROP. HATCHING, YELLOW SOLID LINE, 24" WIDTH AT 45 DEGREES & 20' SPACING
- (J) PROP. YELLOW SOLID LINE, 4" WIDTH
- (K) PROP. YELLOW DOUBLE SOLID LINE, 4" WIDTH, 7" SPACE, 4" WIDTH
- (L) PROP. TURN ARROW MARKING, WHITE
- (M) PROP. YIELD LINE, WHITE, 24" BASE, 36" HEIGHT, 12" SPACING
- (N) PROP. WHITE, SHARED-LANE MARKINGS "SHARROWS"
- (O) PROP. WHITE, WORD MESSAGE, "ONLY"
- (P) PROP. WHITE, WORD MESSAGE, "SLOW"
- (R) PROP. WHITE, WORD MESSAGE, "PED"
- (S) PROP. WHITE, WORD MESSAGE, "XING"
- (T) TIE TO EX. PAVEMENT MARKINGS

EX. SIGN
PROP. SIGN
EX. SIGN TO BE REMOVED
EX. SIGN TO REMAIN

GENERAL NOTES

ALL SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE FOLLOWING MANUALS, OR THE MOST CURRENT REVISION THERETO:
A) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 10TH EDITION
B) VIRGINIA SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
C) VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS
D) VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS

2. PROPOSED FLEXIBLE POST DELINEATORS SHALL BE INSTALLED. THEY SHALL BE MAINTAINED BY CITY OF ALEXANDRIA.

PAVEMENT MARKING NOTES

1. ALL PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED, SHALL BE REFLECTORIZED, TYPE B, CLASS I PAVEMENT MARKINGS.

2. ANY EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE COMPLETELY ERADICATED.

SIGNAGE NOTES

1. PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE MODIFIED IN THE FIELD TO AVOID CONFLICT WITH UNDERGROUND UTILITIES OR OTHER CONSTRUCTIONS, AND TO COMPLY WITH STANDARDS REFERENCED IN GENERAL NOTES.

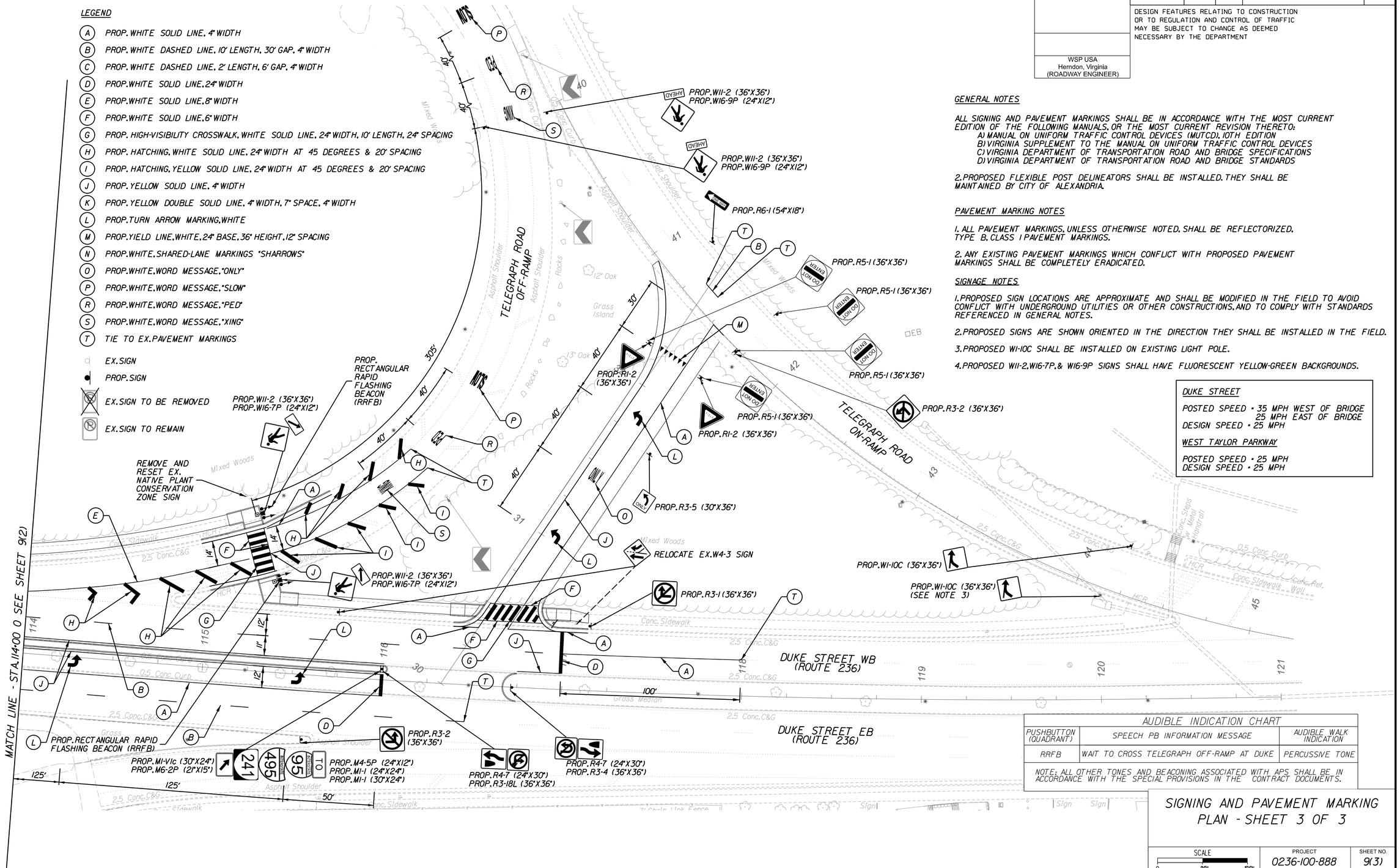
2. PROPOSED SIGNS ARE SHOWN ORIENTED IN THE DIRECTION THEY SHALL BE INSTALLED IN THE FIELD.

3. PROPOSED WI-10C SHALL BE INSTALLED ON EXISTING LIGHT POLE.

4. PROPOSED WII-2, WI6-7P, & WI6-9P SIGNS SHALL HAVE FLUORESCENT YELLOW-GREEN BACKGROUNDS.

DUKE STREET
POSTED SPEED = 35 MPH WEST OF BRIDGE
25 MPH EAST OF BRIDGE
DESIGN SPEED = 25 MPH

WEST TAYLOR PARKWAY
POSTED SPEED = 25 MPH
DESIGN SPEED = 25 MPH



AUDIBLE INDICATION CHART		
PUSHBUTTON (QUADRANT)	SPEECH PB INFORMATION MESSAGE	AUDIBLE WALK INDICATION
RRFB	WAIT TO CROSS TELEGRAPH OFF-RAMP AT DUKE	PERCUSSIVE TONE
NOTE: ALL OTHER TONES AND BEACONING ASSOCIATED WITH APS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS IN THE CONTRACT DOCUMENTS.		

SIGNING AND PAVEMENT MARKING PLAN - SHEET 3 OF 3

SCALE	PROJECT	SHEET NO.
0 30' 60'	0236-100-888	9(3)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	10(1)

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

WSP USA
Herndon, Virginia
(ELECTRICAL ENGINEER)

LIGHTING NOTES

1. The following items and operations shall conform to the standard listed below:

Lighting Pole Foundation	LF-1
Lighting Pole	LP-1
Conduit Installation	Trenched or Bored
Junction Box	JB-S1, JB-S2

2. Lighting Pole foundation depths and above ground foundation projection/reveal (if needed) shall be determined by the Contractor in accordance with the current Road & Bridge Standards. Lighting poles and foundations shall be in accordance with the current Road & Bridge Standards. The pole supplier shall provide a bolt template for the foundation, which shall be centered utilizing the LF-1 foundation.

3. Lighting pole foundations may be field adjusted no more than 10' in any direction from the plan locations, provided that the revised foundation locations:
Remain out of the clear zone and pavement sections.
Remain within the right of way or propose easement.
Does not conflict with vehicle or pedestrians travel way.
Does not affect drainage. Does not conflict with utilities.
Allow the lighting pole foundations to be adjusted with the same alignment with the designated location shown on the plans, and is in accordance with the LF-1 Lighting Pole Foundation Installation Details. If further adjustment is needed, the Project Inspector shall contact the Design Engineer on the plans.
All modifications to the lighting pole placement more than 10 feet shall be approved

4. Junction boxes may be relocated in the field as necessary provided they remain within the right of way, do not conflict with utilities and remain outside the pavement section.

5. All underground and overhead utilities shown on these plans are approximate only and may not be complete. At least 72 hours prior to beginning lighting work, the Contractor shall contact "Miss Utility of Virginia" at 1-800-552-7001 in order to determine the extent, location, and identify all of the utilities within the work area. If the Contractor perceives a conflict between utilities and the proposed lighting equipment, the Contractor shall notify the Engineer immediately so that the conflict may be reviewed. The Contractor shall be responsible for repairing or replacing at their own expense, any existing utilities, pavement, concrete items, etc. that are damaged or disturbed during construction.

6. All Conduits and Junction Boxes shown on these plans are diagrammatic and actual conduit runs and Junction Boxes shall be modified as field conditions warrant. All modification to the conduit runs and Junction Boxes shall be approved by the engineer and shown on the As- Built plans. Conduit systems shall be bonded in accordance with Section 700 of the VDOT Road and Bridge Specifications.

7. Contractor to verify the exisitng number and size of conduits and wire before beginning work. Existing wires to be pulled back to the nearest splice box near VDOT light poles No.68 and 72. Proposed lights will be wired in the same circuits as the exisitng lights. All wire splices to be spliced only in the splice boxes.

8. Contractor to install proposed conduit that matches the existing condiut size and number.

9. All equipment is to be installed within the existing or proposed R/W.

10. The Contractor shall maintain the integrity of the existing roadway lighting systems until such time that the new roadway lighting system is made active.

11. The contractor is responsible for determining proper pole length needed at each location in order to attain proper luminaire mounting height specified at each location in relation to the roadway. The pole type has been determined from survey information.

12. Conduits shall be installed with large radius offsets to bypass drainage inlets, manholes, and other obstructions.

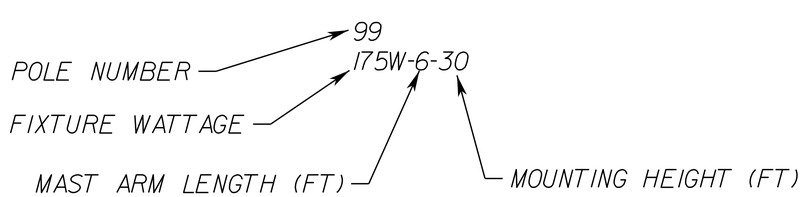
13. The luminaires supplied for this project shall produce for the roadway an average luminance minimum of 0.6 cd/m², an average to minimum uniformity ratio of 3.5/1 (Lavg/Lmin), a maximum to minimum uniformity ratio of 6.0/1 (Lmax/Lmin), and a maximum of 0.3/1 (Lvmax/Lvmin) veiling luminance when calculated using the fixture below with a light-loss factor of 0.86 (LLF).
And for the intersections, shall produce 1.4 fc average maintained illuminance, and an average to minimum ratio of 3.0/1 (Eavg/Emin).
And for the crosswalk vertical illuminance at intersections, shall meet or exceed 1.4 fc average maintained at 5'0" above roadway.
And for the midblock crosswalk vertical illuminance, shall produce 1.9 fc minimum at 5'0" above roadway.
LUMINAIRE FIXTURE: COBRA LED, 175 WATTS
TYPE III, 25,000 LUMENS, 3000K, 30' MOUNTING HEIGHT, GREY COLOR

14. All luminaires assembly shall be pointed to street side.

15. The Breakaway Transformer Base is required for each LP-2 light poles. If the pole is installed behind the guardrail shall be Non-Breakaway Transformer Base and shall meet the Deflection Zone.

16. All Lighting poles shall be field staked by the Contractor and inspected by the Engineer prior to installation of foundations.

LIGHTING LEGEND



LIGHTING NOTES

SCALE 0 25' 50'

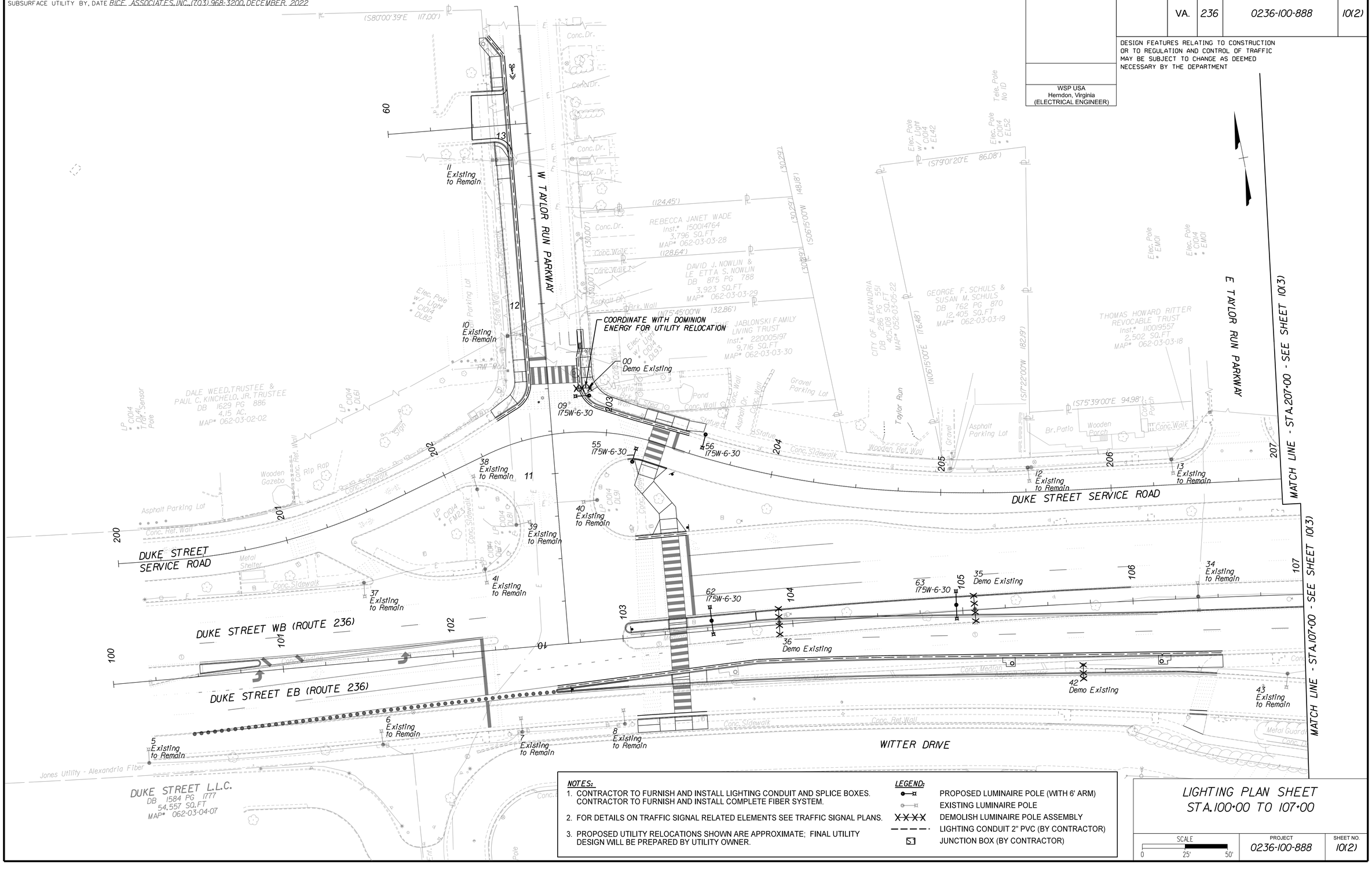
PROJECT	SHEET NO.
0236-100-888	10(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	10(2)

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

WSP USA
Herndon, Virginia
(ELECTRICAL ENGINEER)



NOTES:

1. CONTRACTOR TO FURNISH AND INSTALL LIGHTING CONDUIT AND SPLICE BOXES. CONTRACTOR TO FURNISH AND INSTALL COMPLETE FIBER SYSTEM.
2. FOR DETAILS ON TRAFFIC SIGNAL RELATED ELEMENTS SEE TRAFFIC SIGNAL PLANS.
3. PROPOSED UTILITY RELOCATIONS SHOWN ARE APPROXIMATE; FINAL UTILITY DESIGN WILL BE PREPARED BY UTILITY OWNER.

LEGEND:

- PROPOSED LUMINAIRE POLE (WITH 6' ARM)
- EXISTING LUMINAIRE POLE
- DEMOLISH LUMINAIRE POLE ASSEMBLY
- LIGHTING CONDUIT 2" PVC (BY CONTRACTOR)
- JUNCTION BOX (BY CONTRACTOR)

LIGHTING PLAN SHEET STA.100+00 TO 107+00

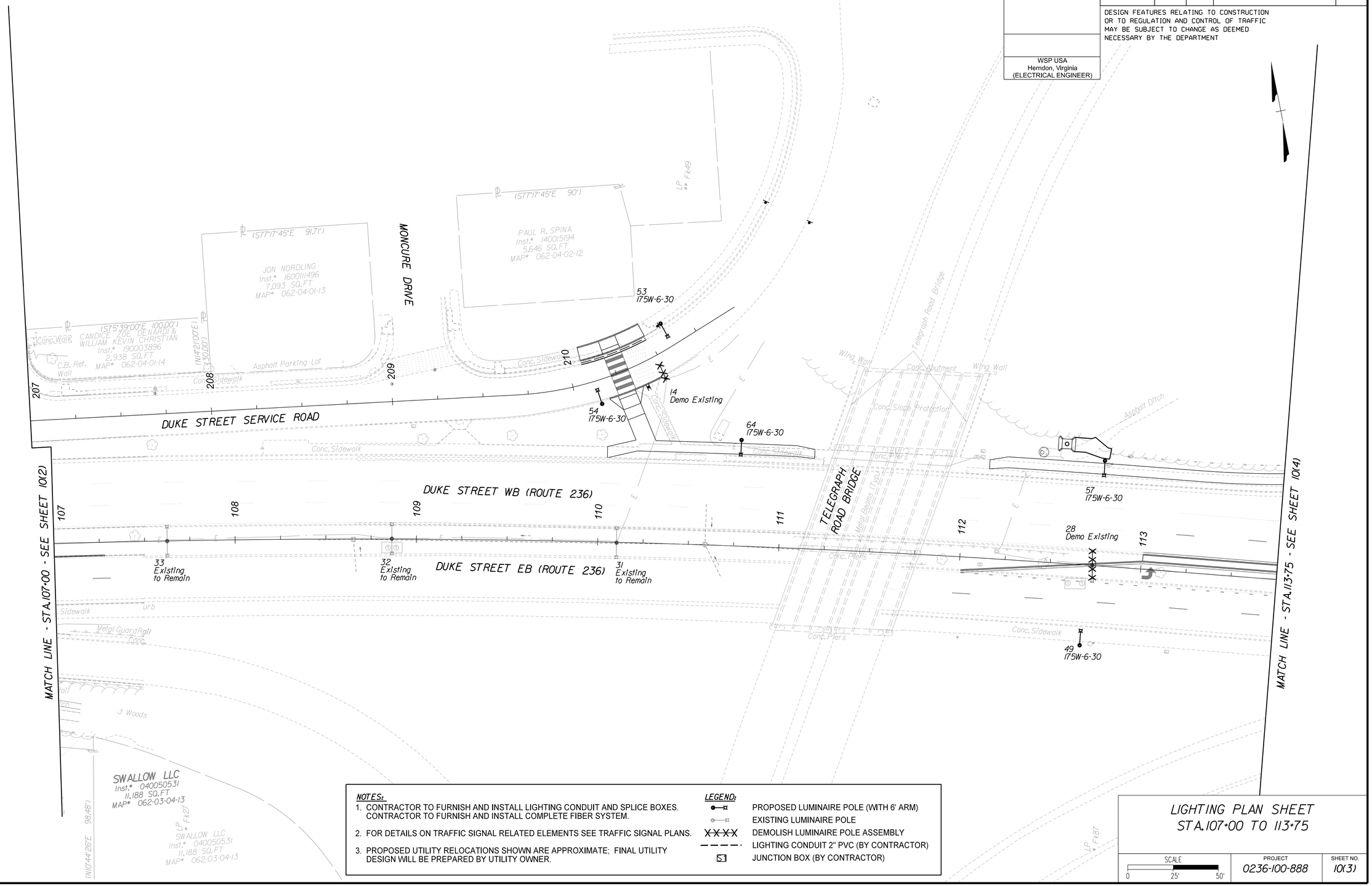
SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	10(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	101(3)

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

WSP USA
Herndon, Virginia
(ELECTRICAL ENGINEER)



NOTES:

1. CONTRACTOR TO FURNISH AND INSTALL LIGHTING CONDUIT AND SPLICE BOXES. CONTRACTOR TO FURNISH AND INSTALL COMPLETE FIBER SYSTEM.
2. FOR DETAILS ON TRAFFIC SIGNAL RELATED ELEMENTS SEE TRAFFIC SIGNAL PLANS.
3. PROPOSED UTILITY RELOCATIONS SHOWN ARE APPROXIMATE; FINAL UTILITY DESIGN WILL BE PREPARED BY UTILITY OWNER.

LEGEND:

- PROPOSED LUMINAIRE POLE (WITH 6' ARM)
- EXISTING LUMINAIRE POLE
- XXXX DEMOLISH LUMINAIRE POLE ASSEMBLY
- LIGHTING CONDUIT 2" PVC (BY CONTRACTOR)
- J1 JUNCTION BOX (BY CONTRACTOR)

LIGHTING PLAN SHEET STA.107+00 TO 113+75

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	101(3)

dll553ll0(4).dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	10(4)

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

WSP USA
Herndon, Virginia
(ELECTRICAL ENGINEER)

MATCH LINE - STA.113+75 - SEE SHEET 10(3)

20 Existing to Remain
18 Existing to Remain
19 Existing to Remain
17 Existing to Remain
52 175W-6-30
21 Existing to Remain
16 Existing to Remain
15 Existing to Remain
61 175W-6-30
58 175W-6-30
59 175W-6-30
22 Existing to Remain
23 Existing to Remain
30 Demo Existing
29 Demo Existing
27 Demo Existing
60 175W-6-30
51 175W-6-30
50 175W-6-30
44 Existing to Remain
26 Existing to Remain
24 Existing to Remain
25 Existing to Remain

TELEGRAPH ROAD ON-RAMP
TELEGRAPH ROAD OFF-RAMP
DUKE STREET WB (ROUTE 236)
DUKE STREET EB (ROUTE 236)

FORT ELLSWORTH CONDOMINIUM
321,808 SQ.FT
MAP# 062-04-0A-00

SHUTERS HILL OWNERS ASSOCIATION
DB 983 PG 792
14,762 SQ.FT
MAP# 062-04-04-37

MII LLC
Inst.# 160013185
4,614 SQ.FT
MAP# 072-02-01-04

AITCHESON REAL ESTATE, INC.
DB 723 PG 512
DB 1695 PG 1094
70,873 SQ.FT
MAP# 072-02-01-07

2350 DUKE STREET PARTNERSHIP
DB 1132 PG 1779
65,264 SQ.FT

J.T. MARTYN, JR. & E.F. CANNON, TRUSTEES, LLC
Inst.# 190017996
48,337 SQ.FT

NOTES:

1. CONTRACTOR TO FURNISH AND INSTALL LIGHTING CONDUIT AND SPLICE BOXES. CONTRACTOR TO FURNISH AND INSTALL COMPLETE FIBER SYSTEM.
2. FOR DETAILS ON TRAFFIC SIGNAL RELATED ELEMENTS SEE TRAFFIC SIGNAL PLANS.
3. PROPOSED UTILITY RELOCATIONS SHOWN ARE APPROXIMATE; FINAL UTILITY DESIGN WILL BE PREPARED BY UTILITY OWNER.

LEGEND:

- PROPOSED LUMINAIRE POLE (WITH 6' ARM)
- EXISTING LUMINAIRE POLE
- DEMOLISH LUMINAIRE POLE ASSEMBLY
- LIGHTING CONDUIT 2" PVC (BY CONTRACTOR)
- JUNCTION BOX (BY CONTRACTOR)

LIGHTING PLAN SHEET STA.113+75 TO 121+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	10(4)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	11(1)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

GENERAL NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM WITH THESE DRAWINGS, PROJECT SPECIFICATIONS, CONTRACT PROVISIONS, WITH ALL CURRENT APPLICABLE CODES AND THE LATEST REVISIONS OF THE FOLLOWING PUBLICATIONS:
   - MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
   - THE VIRGINIA SUPPLEMENT TO THE MUTCD
   - VIRGINIA WORK AREA PROTECTION MANUAL
   - VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH)
   - VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) DRAINAGE MANUAL
   - VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE STANDARDS
   - VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS

   CITY OF ALEXANDRIA DESIGN AND CONSTRUCTION STANDARDS
2. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS AND LICENSES AND KEEP COPIES OF THE SAME ON SITE DURING CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL CITY AND STATE PERMITS AS REQUIRED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CONSTRUCTION PERMITS. THE CONTRACTOR SHALL PROVIDE ANY NECESSARY MOT PLANS TO OBTAIN PERMITS. NO SEPARATE PAYMENT SHALL BE AUTHORIZED FOR PERMITS. THE CONTRACTOR SHALL NOT BE COMPENSATED FOR PERMIT APPLICATION INCIDENTAL TO THE PROJECT. THE COST SHALL BE DISTRIBUTED OVER APPLICABLE SPECIAL PROVISIONS PAY ITEMS.
4. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND ADJUST CONTROLLER TIMINGS TO PROVIDE FOR AN ORDERLY FLOW OF TRAFFIC, OR AS DIRECTED BY THE CITY OF ALEXANDRIA ENGINEER. THE CONTRACTOR SHALL HAVE THEIR IMSA LEVEL II (OR HIGHER) CERTIFIED TECHNICIAN OR REPRESENTATIVE PRESENT TO MONITOR A MINIMUM OF TWO CONSECUTIVE MORNING AND EVENING RUSH HOUR PERIODS, OR AS DIRECTED BY THE CITY OF ALEXANDRIA ENGINEER.
5. ALL INFORMATION PRESENTED IN THESE PLANS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. THE CONTRACTOR SHALL REPORT IMMEDIATELY TO THE CITY OF ALEXANDRIA ANY CONDITIONS CONFLICTING WITH THE DRAWINGS. FIELD MODIFICATIONS TO THE DRAWINGS SHALL NOT BE MADE WITHOUT THE CONSENT OF THE CITY OF ALEXANDRIA.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ELECTRICAL SERVICE TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINETS. EXISTING ELECTRICAL SERVICE SHALL BE MAINTAINED WHERE THE EXISTING SIGNAL CABINET WILL REMAIN.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT PAVEMENT MARKINGS, SIGNS, ETC. THAT MUST BE CUT OR REMOVED, OR THAT ARE DAMAGED DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING POLES, MAST ARMS, FOUNDATIONS, PEDESTRIAN PUSH BUTTONS, TRAFFIC / PEDESTRIAN SIGNAL DISPLAYS, SIGNS, VEHICLE DETECTION, MOUNTING HARDWARE, GROUND MOUNTED NEMA ATC CONTROLLER CABINET WITH TRAFFIC SIGNAL CONTROLLER, CONDUITS, CABLES, JUNCTION BOXES, THERMOPLASTIC PAVEMENT MARKINGS AND ANY INCIDENTAL MATERIALS NECESSARY TO PROVIDE A FUNCTIONAL INSTALLATION. THE BRAND AND VERSION OF VEHICLE DETECTION AND CONTROLLER EQUIPMENT WILL BE SPECIFIED BY THE CITY AS PART OF THE BID PACKAGE.
9. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT ALL REQUIRED PLANS, CATALOGUE CUTS, DESIGNS, AND SHOP DRAWINGS TO THE CITY OF ALEXANDRIA FOR APPROVAL.
10. NO WORK SHALL COMMENCE WITH THE EXCEPTION OF THE SOIL SURVEY FOR THE FOUNDATIONS UNTIL ALL SUBMITTALS REQUIRED ARE RECEIVED, REVIEWED AND ACCEPTED BY THE CITY TRAFFIC ENGINEER'S REPRESENTATIVE.

UTILITIES

1. PRIOR TO CONSTRUCTION OR EXCAVATION, THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY OF LOCATING AND MARKING ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST OR CROSS THROUGH THE AREA OF CONSTRUCTION WHETHER OR NOT THEY ARE SHOWN ON THE PLANS. BEFORE DIGGING, TO AVOID UTILITIES. THE CONTRACTOR SHALL CALL "MISS UTILITY OF VIRGINIA" AT 1-800-552-7001 TO MARK EXISTING UTILITIES WITHIN THE WORK AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT THEIR SOLE EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
2. THIS PLAN DOES NOT GUARANTEE THE EXISTENCE, NONEXISTENCE, SIZE, TYPE, LOCATION, ALIGNMENT OR DEPTH OF ANY OR ALL UNDERGROUND UTILITIES OR OTHER FACILITIES. WHERE SURFACE FEATURES (MANHOLES, CATCH BASINS, VALVES ETC.) ARE UNAVAILABLE OR INCONCLUSIVE, INFORMATION SHOWN MAY BE FROM UTILITY OWNER'S RECORDS AND/OR ELECTRONIC LINE TRACING. THE RELIABILITY OF WHICH IS UNCERTAIN. THE CONTRACTOR SHALL PERFORM TEST EXCAVATION OR OTHER REINVESTIGATION AS NECESSARY TO VERIFY LOCATION AND CLEARANCES.
3. STATE LAW MANDATES THE NOTIFICATION OF UTILITY OWNERS 48 HOURS IN ADVANCE OF EXCAVATION. FOR LOCATION OF UTILITIES CALL:
   - DOMINION ENERGY 866-366-4357
   - VERIZON COMMUNICATIONS 800-837-4966
   - COMCAST 888-683-1000
   - WASHINGTON GAS 703-750-1000
   - VIRGINIA AMERICAN WATER 800-452-6863
   - SANITARY SEWER - ALEXANDRIA RENEW ENTERPRISES 703-721-3500
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SIGNALIZED INTERSECTIONS UNTIL THE TRAFFIC SIGNAL IS ACCEPTED BY THE CITY OF ALEXANDRIA.
5. ANY OF THE CONTRACTOR'S WORK ACTIVITIES WHICH IMPACT ANY UTILITY FACILITY SHALL BE COORDINATED WITH THE OWNER OF THE AFFECTED UTILITY. THE CONTRACTOR SHALL FOLLOW ANY AND ALL WORK PROCEDURES THE UTILITY OWNER MAY REQUIRE.
6. ALL DIRECTIONAL DRILLING SHOULD COMPLY WITH THE REQUIREMENTS OF THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT.

CONSTRUCTION NOTES

1. ALL CLEARING AND GRUBBING SHALL BE IN ACCORDANCE WITH VDOT STANDARDS ANDSPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING AN ATC TRAFFIC SIGNAL CONTROLLER

   THE CONTROLLER SHALL INCLUDE CAPABILITY TO QUEUE JUMP AND TRANSIT SIGNAL PRIORITY. THE CONTRACTOR SHALL CONTACT THE CITY IF ALEXANDRIA TRAFFIC OPERATIONS DIVISION CHIEF KEN JOHNSON AT 703-746-4416 TO ARRANGE FOR THE INSTALLATION OF THE CONTROLLER. THE CONTRACTOR'S QUALIFIED REPRESENTATIVE SHALL WIRE THE CONTROLLER, PROGRAM AND TEST THE PHASING AS SHOWN ON THE PLAN. THE CONTRACTOR SHALL PROVIDE A CERTIFICATION LETTER TO THE CITY OF ALEXANDRIA INDICATING THAT THE WORK IS IN COMPLIANCE WITH VDOT STANDARDS AND IS CONSISTENT WITH THE PHASING ILLUSTRATED ON THE PLAN. THE BRAND AND VERSION OF THE TRAFFIC SIGNAL CONTROLLER WILL BE SPECIFIED BY THE CITY AS PART OF THE BID PACKAGE.

GENERAL NOTES CONTINUATION

3. DURING CONSTRUCTION AND WHEN NOT IN USE, ALL SIGNAL DISPLAYS AND SIGNS SHALL BE COVERED WITH A DURABLE, NON-TRANSPARENT COVER UPON INSTALLATION. THE CONTRACTOR SHALL MAINTAIN COVERS UNTIL THE SIGNAL IS TURNED ON.
4. ALL UNPAVED SURFACES SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AWAY FROM PAVED AREAS AND TOWARD DRAINAGE STRUCTURES.
5. ALL DISTURBED AREAS SHALL BE PREPARED, SEEDED, AND MULCHED.
6. DISTURBED AREAS WITHIN THE PROJECT LIMITS WHICH WILL REMAIN INACTIVE FOR A PERIOD OF 14 OR MORE CONSECUTIVE CALENDAR DAYS SHALL BE TEMPORARILY STABILIZED WITH SEED AND STRAW, MULCH, OR OTHER ACCEPTABLE GROUNDCOVER.
7. THE CONTRACTOR IS REQUIRED TO NOTIFY THE CITY OF ALEXANDRIA THREE (3) DAYS PRIOR TO CONSTRUCTION AND SPECIFICALLY REQUEST A LOCATION INSPECTION BEFORE WORK IS INITIATED.
8. FIVE WORKING DAYS PRIOR TO COMMENCING SIGNAL WORK, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER IN WRITING WITH THE DAYTIME PHONE NUMBER AND EMERGENCY NUMBER OF THE CONTRACTOR'S REPRESENTATIVE. CONTACT KEN JOHNSON WITH THE CITY OF ALEXANDRIA AT 703-746-4416.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC DURING CONSTRUCTION.
   THE CONTRACTOR SHALL IMPLEMENT REASONABLE PROVISIONS FOR PEDESTRIANS DURING ALL PHASES OF THE PROJECT SUBJECT TO APPROVAL BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES).
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE TRAFFIC SIGNAL UNTIL FINAL ACCEPTANCE.

SIGNAL POLES, CONTROLLER, & FOUNDATIONS

1. MAST ARM LENGTH IS TO BE AS SHOWN ON PLAN AND ALL MAST ARMS ARE TO BE FIELD DRILLED ONLY.
2. PEDESTAL POLES (PF-2) SHALL BE 10 FEET IN HEIGHT.
3. TRAFFIC SIGNAL POLES SHALL BE HOT DIPPED GALVANIZED AND SHALL HAVE A MATTE BLACK POWDER TOPCOAT FACTORY FINISH. PEDESTAL POLES SHALL ALSO HAVE MATTE BLACK POWDER TOPCOAT FACTORY FINISH.
4. CONTRACTOR SHALL STAKE NEW POLE AND CONTROLLER LOCATIONS, VERIFY MAST ARM LENGTHS AND OBTAIN APPROVAL FROM THE CITY ENGINEER (OR DESIGNATED REPRESENTATIVE) PRIOR TO INSTALLATION. CONTACT KEN JOHNSON AT 703-746-4416.
5. THE PROJECT SHALL BE RESPONSIBLE FOR THE LOCATION OF BORE HOLES AT EACH SIGNAL POLE LOCATION, AND FOR THE FINAL DESIGN OF EACH SIGNAL POLE FOUNDATIONS PURSUANT TO SPECIAL PROVISION.
6. THE PROJECT SHALL FURNISH THE STRUCTURAL ENGINEER/DESIGNER WITH SOIL CONDITION, SLOPE CONDITION, AND OTHER SITE CHARACTERISTICS NECESSARY TO COMPLETE THE FOUNDATION DESIGN. THE CONTRACTOR SHALL PROVIDE SEALED FOUNDATION DESIGNS TO THE CITY OF ALEXANDRIA PRIOR TO CONSTRUCTION.
7. IF APPLICABLE, ALL RIGHT TURN OVERLAPS SHALL BE WIRED TO THE OVERLAP LOAD-SWITCH POSITION.
8. FOUNDATION DESIGN TO BE PERFORMED BY A STRUCTURAL ENGINEER PURSUANT TO VDOT ROAD AND BRIDGE STANDARDS. FOUNDATION DESIGNS TO BE APPROVED BY THE CITY OF ALEXANDRIA PRIOR TO INSTALLATION.
9. CONTROLLER CABINET FOUNDATION TO BE IN ACCORDANCE WITH VDOT ST'D CF-5.
10. THE PROJECT SHALL PROVIDE AN ATC CABINET (UNLESS OTHERWISE NOTED) AND TRAFFIC SIGNAL CONTROLLER. THE ATC CABINET MUST MEET THE CURRENT ITE SPECIFICATION AT THE TIME OF CONSTRUCTION.
    THE BRAND AND VERSION OF TRAFFIC SIGNAL CONTROLLER WILL BE SPECIFIED BY THE CITY AS PART OF THE BID PACKAGE.
11. ELECTRICAL SERVICE SHALL BE SE-6, UNDERGROUND (METERED).
12. SIGNAL POLES SHALL MEET OR EXCEED SPECIFICATIONS PROVIDED BY THE CITY OF ALEXANDRIA. CONTACT KEN JOHNSON AT 703-746-4416.

CONDUIT, CONDUCTORS, & ELECTRICAL

1. FOR INSTALLATION OF CONDUIT, NO OPEN CUT WILL BE ALLOWED IN ROADWAY SURFACE.
2. JUNCTION BOX COVERS SHALL HAVE THE LETTERS "TRAF" CAST IN THE TOP SURFACE DEPRESSION FOR ALL SIGNAL RELATED JUNCTION BOXES CONTAINING CABLE WITH LESS THAN 50 VOLTS. ALL OTHER JUNCTION BOX COVERS SHALL HAVE THE LETTERS "ELEC" CAST IN THE TOP SURFACE DEPRESSION. NO JB-S1, S2, OR S3 SHALL BE INSTALLED IN A PAVED SHOULDER, SIDEWALK, OR MULTI-PURPOSE TRAIL.
3. ALL JUNCTION BOXES SHALL BE INSTALLED IN ACCORDANCE WITH ST'D. JB-S2 UNLESS OTHERWISE NOTED.
4. SYSTEM BONDING WIRE IS REQUIRED FOR A LL NON-METALLIC CONDUIT WITH 110V AC.
5. ALL NEW UNDERGROUND CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH VDOT ST'D EC-1.
6. ALL CONDUIT ENTERING JUNCTION BOXES SHALL NOT EXTEND OVER 3" MAX. NOR 2" MIN. AND SHALL BE FITTED WITH BELL END OR BUSHING.
7. ALL BOLTS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL.
8. CONTRACTOR TO CONFIRM CONSTRUCTION FOR ALEXANDRIA'S ITS IMPROVEMENTS IN PHASE III AND IV PRIOR TO CONSTRUCTION TO CONFIRM THAT ALL COMMUNICATIONS ARE IN PLACE.
9. CONTRACTOR TO INSTALL AN 1,100 LB PULL ROPE IN ALL PROPOSED SPARE CONDUITS FOR USE IN FUTURE CABLE INSTALLATIONS THAT MAY BE PERFORMED BY OTHERS.

DETECTORS

1. THE BRAND AND VERSION OF VEHICLE DETECTION EQUIPMENT WILL BE SPECIFIED BY THE CITY AS PART OF THE BID PACKAGE.
2. THE BRAND AND VERSION OF PEDESTRIAN PUSHBUTTON EQUIPMENT WILL BE SPECIFIED BY THE CITY AS PART OF THE BID PACKAGE.
   PUSH BUTTON & PLACARD SHALL BE ORIENTED PARALLEL TO THE CROSSING FOR WHICH IT IS INTENDED.
   PUSH BUTTON TO MOUNTED 42" ABOVE FINISHED SIDEWALK GRADE.
   PUSH BUTTON ASSEMBLY SHALL FEATURE INTEGRATED 9"X15" R10-3 (MOD) INSTRUCTIONAL PLAQUE.

TRAFFIC SIGNAL HEADS

1. TRAFFIC SIGNAL HEAD SECTIONS SHALL BE CAST ALUMINUM.
2. HARDWARE SHALL BE STAINLESS STEEL.
3. ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE LED.
4. MAST ARM MOUNTED HEADS TO BE INSTALLED IN ACCORDANCE WITH VDOT ST'D SM-3.
5. PEDESTRIAN SIGNAL HEADS SHALL BE CAST ALUMINUM.
6. PEDESTRIAN SIGNAL HEADS SHALL BE IN ACCORDANCE WITH STANDARD SP-8.
7. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED IN ACCORDANCE WITH STANDARD SMB-3 (ONE-WAY).

SIGNS

1. MAST ARM MOUNTED SIGNS SHALL BE MOUNTED IN ACCORDANCE WITH ST'D. SMD-2 UNLESS OTHERWISE NOTED.

PLAN NOTES - DUKE ST. AND WEST TAYLOR RUN

1. THIS TRAFFIC SIGNAL PLAN IS FOR THE MODIFICATION OF EXISTING SIGNAL EQUIPMENT AT THE INTERSECTION OF DUKE ST. AND WEST TAYLOR RUN.
2. AS A PART OF THE SIGNAL MODIFICATIONS PROPOSED AT THE INTERSECTION: SIGNAL HEADS, PEDESTRIAN SIGNALS WITH APS PUSHBUTTON SHALL BE INSTALLED AT THE INTERSECTION.
3. THE PROJECT SHALL BE RESPONSIBLE FOR MAINTAINING COMMUNICATION TO THE TRAFFIC SIGNAL CONTROLLER AT ALL TIMES.
4. THE PROJECT SHALL CONTACT THE CITY OF ALELANDRIA MARK SKINGER AT MARK.SKINGER@ALEXANDRIAVAGOV AT LEAST NINETY (90) DAYS PRIOR TO THE START OF THE TRAFFIC SIGNAL MODIFICATIONS.

PLAN NOTES - DUKE ST. AND TELEGRAPH RD ON-RAMP

1. THIS TRAFFIC SIGNAL PLAN IS FOR THE PROPOSED SIGNAL AT THE INTERSECTION OF DUKE ST. AND TELEGRAPH RD ON-RAMP.
2. AS A PART OF THE NEW SIGNAL PROPOSED AT THE INTERSECTION: SIGNAL POLES, SIGNAL HEADS, VIDEO DETECTION, PEDESTRIAN FACILITIES, VIDEO SURVEILLANCE CAMERA SHALL BE INSTALLED AT THE INTERSECTION.
3. ELECTRICAL SERVICE SHALL BE INSTALLED IN ACCORDANCE WITH ST'D. SE-5 UNDERGROUND WITH BREAKER BOX AND (2) 60 AMP BREAKERS. ELECTRICAL SERVICE SHALL BE METERED (METER BASE IS REQUIRED). THE CONTRACTOR SHALL INSTALL A SERVICE PAD FOR THE ELECTRIC METER SERVICE (SE-5) PER VDOT SPECIFICATION SECTION 700.05 (d).
4. NEW CONTROLLER AND CABINET SHALL BE INSTALLED WITH ATC CONTROLLER AND CABINET WITH A UPS UNIT ON A NEW FOUNDATION.
5. CONTROLLER SHALL REST IN PHASES 2 AND 6 MINIMUM GREEN.
6. NO TRAFFIC SIGNAL SHALL BE PLACED INTO OPERATION UNTIL THE LOCATION IS 100% COMPLETE. THIS INCLUDES ANY NECESSARY PAVEMENT MARKINGS AND SIGNAGE SHOWN ON THE PLANS AND THAT THE TRAFFIC SIGNAL COMMUNICATION REQUIREMENTS ARE COMPLETE AND OPERATIONAL.
7. ALL SIGNAL POLE FOUNDATIONS SHALL BE INSTALLED ONE FOOT ABOVE THE ELEVATION OF THE PROPOSED GRADE UNLESS OTHERWISE SPECIFIED ON THE PLANS. THE SIGNAL POLE FOUNDATION SHALL BE INSTALLED AS SPECIFIED ON THE PLANS.
8. ALL GROUND MOUNTED SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH ST'D STP-1.
9. REFER TO SHEETS 9(1) THROUGH 9(3) FOR SIGNING AND PAVEMENT MARKING PLAN.
10. THE PROJECT SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING COMMUNICATION TO THE TRAFFIC SIGNAL CONTROLLER AT ALL TIMES. THE PROJECT IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH PROVIDING COMMUNICATION TO THE TRAFFIC SIGNAL. THE PROJECT SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND THE INSTALLATION OF THE COMMUNICATION CIRCUIT CONDUIT(S) AND EQUIPMENT TO THE TRAFFIC SIGNAL CONTROLLER CABINET FOR THE DESIGNATED COMMUNICATION PLATFORM.
11. THE PROJECT SHALL CONTACT THE CITY OF ALELANDRIA MARK SKINGER AT MARK.SKINGER@ALEXANDRIAVA.GOV AT LEAST NINETY (90) DAYS PRIOR TO THE START OF THE TRAFFIC SIGNAL CONSTRUCTION.
12. THIS SITE SHALL UTILIZE THE CITY OF ALELANDRIA FIBER SYSTEM. PLEASE CONTACT MARK SKINGER AT MARK.SKINGER@ALEXANDRIAVA.GOV. ALL FIBER, FIBER TERMINATIONS, FIBER SPLICING, AND FIBER NETWORK EQUIPMENT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PURCHASE AND COORDINATE THE INSTALLATION OF.

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

TRAFFIC SIGNAL PLAN
DUKE STREET AND
W. TAYLOR RUN PARKWAY

PROJECT	SHEET NO.
0236-100-888	11(1)

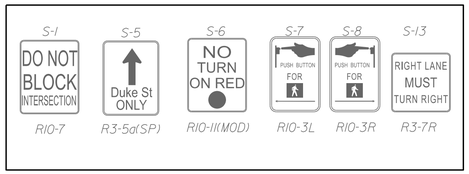
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	II(2)

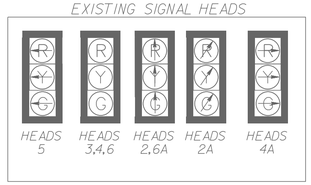
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

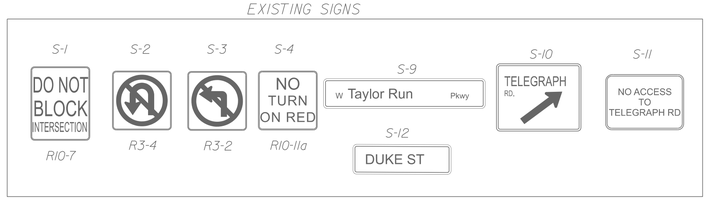
EXISTING SIGNS TO BE REMOVED



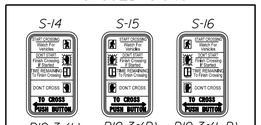
EXISTING SIGNAL HEADS



EXISTING SIGNS

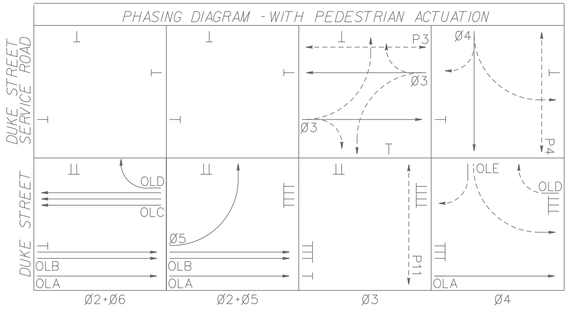


PROPOSED SIGNS

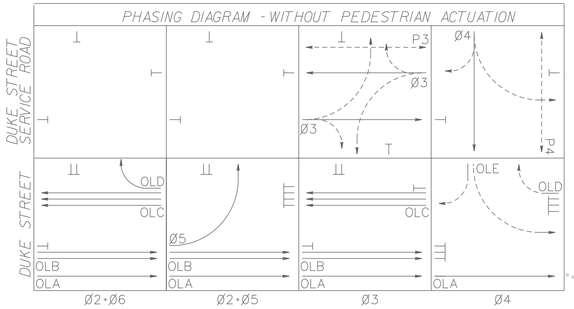


PROPOSED SIGNALS

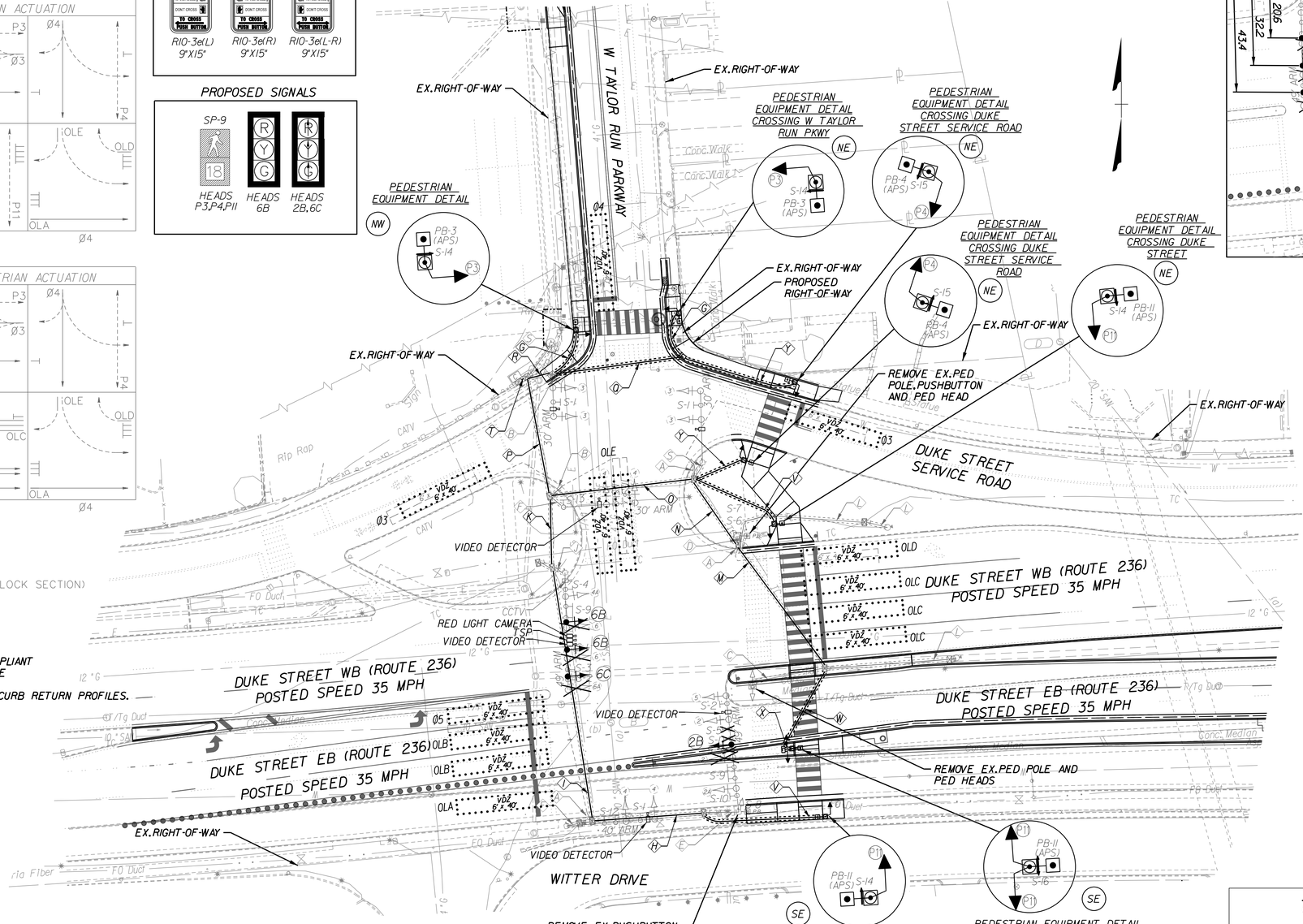
PHASING DIAGRAM - WITH PEDESTRIAN ACTUATION



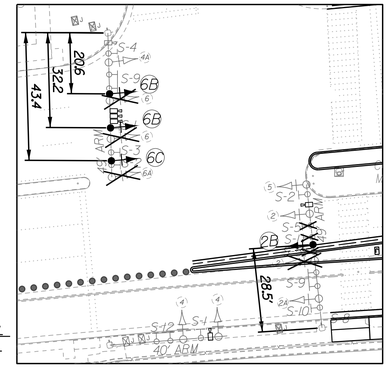
PHASING DIAGRAM - WITHOUT PEDESTRIAN ACTUATION



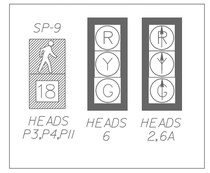
OLA -Ø2+Ø3+Ø4 (NEGATIVE OVERLAP P11)
OLB -Ø2+Ø3+Ø5 (NEGATIVE OVERLAP P11)
OLC -Ø3+Ø6 (NEGATIVE OVERLAP P11)
OLD -Ø4 (FYA) + 06 (GREEN ARROW)
OLE -Ø4 (TIMED OVERLAP TO CLEAR SHORT MID-BLOCK SECTION)



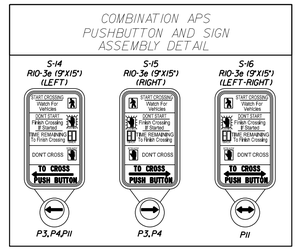
SIGNAL EQUIPMENT DIAGRAM (SCALE 1"=25')



EXISTING SIGNALS TO BE REMOVED



COMBINATION APS PUSHBUTTON AND SIGN ASSEMBLY DETAIL



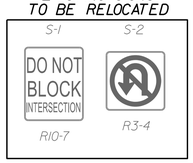
JUNCTION BOX LEGEND

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

(S1) DENOTES STANDARD JB-S1
(S3) DENOTES STANDARD JB-S3
(S4) DENOTES STANDARD JB-S4

CONSTRUCTION NOTES:
1. CONTRACTOR SHALL MAINTAIN A MINIMUM 4' WIDE ADA-COMPLIANT ACCESSIBLE PEDESTRIAN PATH AT ALL LOCATIONS WHERE PEDESTRIAN PUSHBUTTONS ARE INSTALLED.
2. REFER TO SHEET SERIES 2B FOR CG-12 DETAILS AND CURB RETURN PROFILES.

EXISTING SIGNS TO BE RELOCATED



TRAFFIC SIGNAL PLAN
DUKE STREET AND W.TAYLOR RUN PARKWAY

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	II(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CABLE & CONDUIT RUNS

(A) 1-1" METAL CONDUIT ABANDONED

(B) 2-1" METAL CONDUITS ABANDONED

(C) EXISTING CONDUIT(S) ABANDONED
2-14 AWG/5C FOR HEADS P3 REMOVED
1-#6 AWG EGC REMOVED

(D) EXISTING CONDUIT(S) ABANDONED
1-14 AWG/2C FOR PED PB3 REMOVED
1-14 AWG/5C FOR HEAD P3 REMOVED
1-#6 AWG EGC REMOVED

(E) EXISTING CONDUIT(S)
1-14 AWG/2C FOR PED PB3 REMOVED
1-14 AWG/5C FOR HEAD P3 REMOVED
2-14 AWG/7C FOR HEADS 5,2A
1-14 AWG/7C FOR HEADS 2 REMOVED
1-14 AWG/7C FOR HEADS 2B
1-COAXIAL CABLE FOR VDC (BY OTHERS)
1-#6 AWG EGC

(F) EXISTING CONDUIT(S)
1-14 AWG/7C FOR HEAD 4
1-COAXIAL CABLE FOR VDC (BY OTHERS)
1-#6 AWG EGC

(G) 1-3" CONDUIT
1-14 AWG/2C FOR PED PB3
1-14 AWG/5C FOR HEAD P3
1-#6 AWG EGC

(H) EXISTING CONDUIT(S)
1-14 AWG/2C FOR PED PB3 REMOVED
1-14 AWG/5C FOR HEAD P3 REMOVED
1-14 AWG/2C FOR PED PBII
1-14 AWG/5C FOR HEAD PII
2-14 AWG/7C FOR HEADS 5,2A
1-14 AWG/7C FOR HEADS 2 REMOVED
1-14 AWG/7C FOR HEADS 2B
1-COAXIAL CABLE FOR VDC (BY OTHERS)
1-#6 AWG EGC

(I) EXISTING CONDUIT(S)
1-14 AWG/2C FOR PED PB3 REMOVED
1-14 AWG/5C FOR HEAD P3 REMOVED
1-14 AWG/2C FOR PED PBII
1-14 AWG/5C FOR HEAD PII
3-14 AWG/7C FOR HEADS 4,5,2A
1-14 AWG/7C FOR HEADS 2 REMOVED
1-14 AWG/7C FOR HEADS 2B
2-COAXIAL CABLE FOR VDC (BY OTHERS)
1-2C(S) FOR DETECTORS REMOVED
1-#6 AWG EGC

(J) EXISTING CONDUIT(S)
1-14 AWG/7C FOR HEADS 4A
1-14 AWG/7C FOR HEADS 6,6A REMOVED
1-14 AWG/7C FOR HEADS 6B,6C
1-COAXIAL CABLE FOR VDC (BY OTHERS)
1-CABLE FOR TSP (BY OTHERS)
1-CABLE FOR CCTV (BY OTHERS)
1-CABLE FOR RED LIGHT RUNNING (BY OTHERS)
1-#6 AWG EGC

(K) EXISTING CONDUIT(S)
1-14 AWG/2C FOR PED PB3 REMOVED
1-14 AWG/5C FOR HEAD P3 REMOVED
1-14 AWG/2C FOR PED PBII
1-14 AWG/5C FOR HEAD PII
4-14 AWG/7C FOR HEADS 2A,4,5,4A
2-14 AWG/7C FOR HEADS 2,6,6A REMOVED
2-14 AWG/7C FOR HEADS 2B,6B,6C
3-COAXIAL CABLE FOR VDC (BY OTHERS)
1-CABLE FOR TSP (BY OTHERS)
1-CABLE FOR CCTV (BY OTHERS)
1-CABLE FOR RED LIGHT RUNNING (BY OTHERS)
1-2C(S) FOR DETECTORS REMOVED
1-#6 AWG EGC

(L) EXISTING CONDUIT(S)
1-CABLE FOR RED LIGHT RUNNING (BY OTHERS)
1-#6 AWG EGC

(M) EXISTING CONDUIT(S)
2-14 AWG/5C FOR HEADS P3 REMOVED
1-14 AWG/2C FOR PED PBII
2-14 AWG/5C FOR HEADS PII
1-CABLE FOR RED LIGHT RUNNING (BY OTHERS)
1-#6 AWG EGC

(N) EXISTING CONDUIT(S)
3-14 AWG/7C FOR HEADS P3 REMOVED
1-14 AWG/2C FOR PED PB3 REMOVED
1-14 AWG/2C FOR PED PBII
2-14 AWG/5C FOR HEAD PII
1-2C(S) FOR DETECTORS REMOVED
2-CABLE FOR RED LIGHT RUNNING (BY OTHERS)
1-#6 AWG EGC

(O) EXISTING CONDUIT(S)
1-7C FOR HEADS 3
3-14 AWG/5C FOR HEADS P3 REMOVED
1-14 AWG/2C FOR PED PB3 REMOVED
3-14 AWG/2C FOR PED PB4,PBII
4-14 AWG/5C FOR HEAD P4,PBII
1-2C(S) FOR DETECTORS REMOVED
1-2C(S) FOR DETECTORS
2-CABLE FOR RED LIGHT RUNNING (BY OTHERS)
1-COAXIAL CABLE FOR RED LIGHT RUNNING (BY OTHERS)
1-#6 AWG EGC

(P) EXISTING CONDUIT(S)
4-14 AWG/5C FOR HEADS P3 REMOVED
2-14 AWG/2C FOR PED PB3 REMOVED
4-14 AWG/2C FOR PED PB4,PBII
5-14 AWG/5C FOR HEAD P4,PII
6-14 AWG/7C FOR HEADS 2A,3,4,5,4A
2-14 AWG/7C FOR HEADS 2,6,6A REMOVED
2-14 AWG/7C FOR HEADS 2B,6B,6C
1-CABLE FOR TSP (BY OTHERS)
1-CABLE FOR CCTV (BY OTHERS)
2-CABLE FOR RED LIGHT RUNNING (BY OTHERS)
1-COAXIAL CABLE FOR RED LIGHT RUNNING (BY OTHERS)
4-COAXIAL CABLE FOR VDC (BY OTHERS)
3-2C(S) FOR DETECTORS REMOVED
2-2C(S) FOR DETECTORS
1-#6 AWG EGC

(Q) 1-3" BORED CONDUIT
1-3" BORED CONDUIT (SPARE)
2-14 AWG/2C FOR PED PB3,PB4
2-14 AWG/5C FOR HEAD P3,P4
1-#6 AWG EGC

(R) EXISTING CONDUIT(S)
2-2C(S) FOR DETECTORS REMOVED
3-14 AWG/2C FOR PED PB3,PB4
3-14 AWG/5C FOR HEAD P3,P4
1-#6 AWG EGC

(S) EXISTING CONDUIT(S)
1-14 AWG/7C FOR HEADS 3
1-#6 AWG EGC

(T) EXISTING CONDUIT(S)
4-14 AWG/5C FOR HEADS P3 REMOVED
2-14 AWG/2C FOR PED PB3 REMOVED
7-14 AWG/2C FOR PED PB3,PB4,PBII
8-14 AWG/5C FOR HEAD P3,P4,PII
7-14 AWG/7C FOR HEADS 2A,3,4,5,4A
2-14 AWG/7C FOR HEADS 2,6,6A
2-14 AWG/7C FOR HEADS 2B,6B,6C
1-CABLE FOR TSP (BY OTHERS)
1-CABLE FOR CCTV (BY OTHERS)
2-CABLE FOR RED LIGHT RUNNING (BY OTHERS)
1-COAXIAL CABLE FOR RED LIGHT RUNNING (BY OTHERS)
4-COAXIAL CABLE FOR VDC (BY OTHERS)
5-2C(S) FOR DETECTORS REMOVED
2-2C(S) FOR DETECTORS

(U) 1-3" BORED CONDUIT
1-3" BORED CONDUIT (SPARE)
1-14 AWG/2C FOR PED PB3
2-14 AWG/5C FOR HEAD P3
1-#6 AWG EGC

(V) 1-3" CONDUIT
1-14 AWG/2C FOR PED PBII
1-14 AWG/5C FOR HEAD PII
1-#6 AWG EGC

(W) 1-3" BORED CONDUIT
1-3" BORED CONDUIT (SPARE)
1-14 AWG/2C FOR PED PBII
2-14 AWG/5C FOR HEAD PII
1-#6 AWG EGC

(X) 1-3" CONDUIT
1-14 AWG/2C FOR PED PBII
2-14 AWG/5C FOR HEAD PII
1-#6 AWG EGC

(Y) 1-3" CONDUIT
1-14 AWG/2C FOR PED PB4
1-14 AWG/5C FOR HEAD P4
1-#6 AWG EGC

AUDIBLE INDICATION CHART

PUSHBUTTON (QUADRANT)	SPEECH PB INFORMATION MESSAGE	AUDIBLE WALK INDICATION
P3 (NE,NW)	WAIT TO CROSS WEST TAYLOR RUN	PERCUSSIVE TONE
P4 (NE)	WAIT TO CROSS DUKE ST SERVICE	PERCUSSIVE TONE
PII (NE,SE)	WAIT TO CROSS DUKE	PERCUSSIVE TONE

NOTE: ALL OTHER TONES AND BEACONING ASSOCIATED WITH APS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS IN THE CONTRACT DOCUMENTS.

INITIAL TIMING CHART

PHASE	2	3	4	5	6
MOVEMENT	EB THRU	PED	SB THRU LEFT	EB LEFT	WB THRU
PHASE ON	X	X	X	X	X
PHASE OFF					
INTERVAL	PHASE TIMINGS				
MIN GREEN	7.0	1.0	7.0	6.0	7.0
PASSAGE	3.0	3.0	3.0	3.0	3.0
AMBER	4.0	3.0	3.0	3.0	4.0
RED	2.0	0.0	3.0	3.5	2.0
MAX 1	30.0	20.0	30.0	30.0	30.0
MIN GAP	0.0	0.0	0.0	0.0	0.0
TIME BEFORE REDUCTION	0.0	0.0	0.0	0.0	0.0
TIME TO REDUCE	0.0	0.0	0.0	0.0	0.0
PED WALK	0.0	4.0	0.0	0.0	0.0
PED CLEARANCE	0.0	26.0	0.0	0.0	0.0
MODE	MAX-RECALL	NON-LOCK	NON-LOCK	NON-LOCK	MAX-RECALL

COLOR SEQUENCE CHART

	PHASE					COMBINATIONS							
								OLA	OLB	OLC	OLD	OLE	
SIGNAL	2	3	4	5	6	2-5	2-6	2-3-4	2-3-5	3-6	4-6	4	FLASH
	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	R/W	
2A	Ø					Ø	Ø	Ø					Y
2/2B	Ⓒ					Ⓒ	Ⓒ		Ⓒ				Y
3		G											R
4			G									G	R
4A			Ⓖ								Ⓖ		R
5				Ⓖ		Ⓖ							R
6B					G		G			G	G		Y
6C					Ⓒ		Ⓒ			Ⓒ	Ⓒ		Y
P3(APS)[1]	DW	·W	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	BLANK
P4(APS)[1]	DW	DW	·W	DW	DW	DW	DW	DW	DW	DW	DW	DW	BLANK
PII(APS)[1]	DW	·W	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	BLANK

NOTE: BLANK SPACES REPRESENT A RED DISPLAY. ·WALK INDICATION DISPLAYED AFTER PEDESTRIAN CALL IS SERVICED; OTHERWISE "DON'T WALK" INDICATION IS DISPLAYED.
[1]-SEE AUDIBLE INDICATION CHART.

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	11(3)

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

TRAFFIC SIGNAL PLAN
DUKE STREET AND
W.TAYLOR RUN PARKWAY

	PROJECT	SHEET NO.
	0236-100-888	11(3)

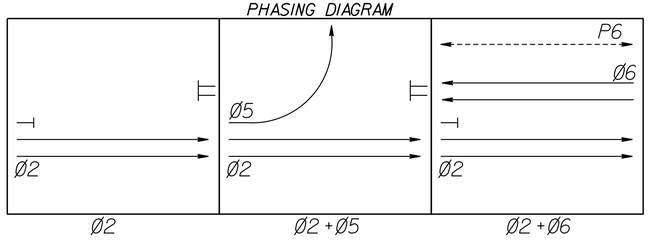
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	11(4)

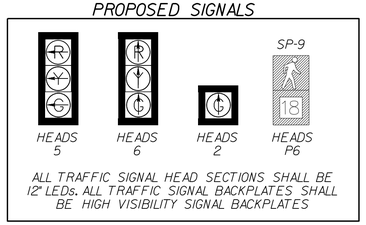
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PHASING DIAGRAM

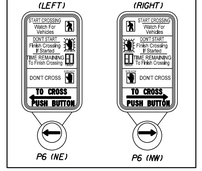


PROPOSED SIGNALS

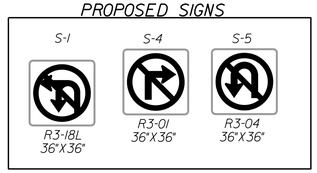


ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE 12" LEDs. ALL TRAFFIC SIGNAL BACKPLATES SHALL BE HIGH VISIBILITY SIGNAL BACKPLATES

COMBINATION APS PUSHBUTTON AND SIGN ASSEMBLY DETAIL



PROPOSED SIGNS



CABLE & CONDUIT RUNS

Ⓐ 1-3" CONDUIT
1-14 AWG/2C FOR PED PB6
1-14 AWG/5C FOR HEAD P6
1-#6 AWG EGC

Ⓑ 1-3" BORED CONDUIT
1-3" BORED CONDUIT (SPARE)
1-14 AWG/2C FOR PED PB6
1-14 AWG/5C FOR HEAD P6
1-#6 AWG EGC

Ⓒ 1-3" CONDUIT
2-14 AWG/7C FOR HEAD 5,2
1-16/3C FOR VDC
1-COAXIAL CABLE FOR VDC
2-14 AWG/2C FOR PED PB6
2-14 AWG/5C FOR HEAD P6
1-#6 AWG EGC

Ⓓ 1-3" CONDUIT
1-14 AWG/7C FOR HEAD 6
1-16/3C FOR VDC
1-COAXIAL CABLE FOR VDC
1-#6 AWG EGC

Ⓔ 1-3" CONDUIT
1-DROP CABLE FOR COMM
1-#6 AWG EGC

Ⓕ 2-4" CONDUIT
1-3" CONDUIT (SPARE)
3-14 AWG/7C FOR HEAD 2,5,6
2-14 AWG/2C FOR PED PB6
2-14 AWG/5C FOR HEAD P6
2-16/3C FOR VDC
2-COAXIAL CABLE FOR VDC
1-#6 AWG EGC

Ⓖ 1-2" CONDUIT FOR ELEC. TO SIGNAL, 1,100 LB PULL ROPE

Ⓗ 1-1" CONDUIT
1-#6 AWG (ECG) FOR SE-5 GROUNDING

Ⓘ 1-1 1/4" CONDUIT (M)
3-#6 AWG FOR SIGNAL ELEC. SERVICE

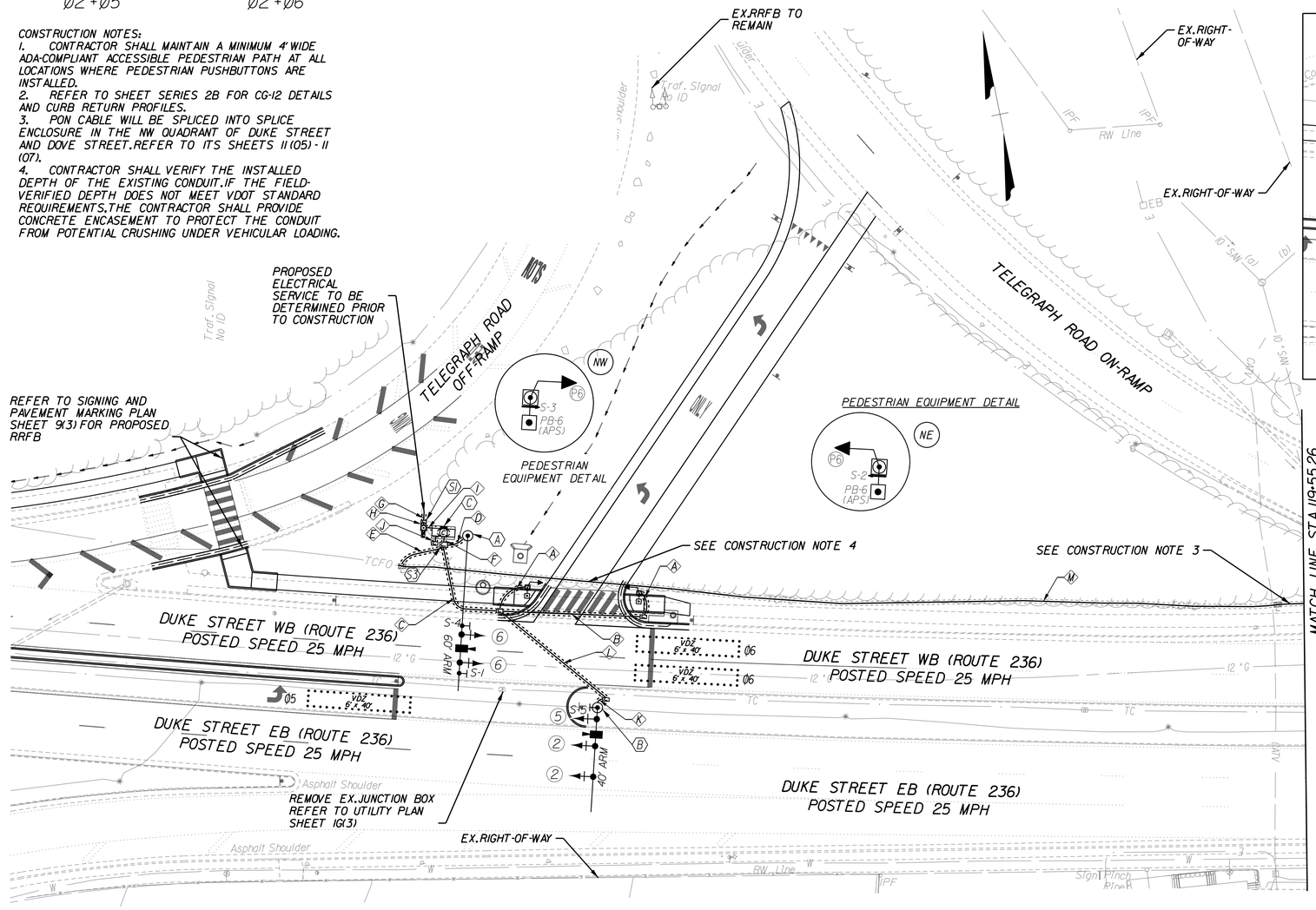
Ⓙ 1-3" CONDUIT
1-#6 AWG (ECG)

Ⓚ 1-3" CONDUIT
2-14 AWG/7C FOR HEAD 2,5
1-16/3C FOR VDC
1-COAXIAL CABLE FOR VDC
1-#6 AWG EGC

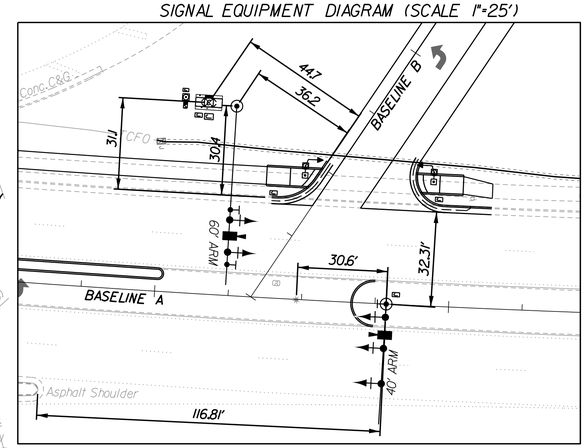
Ⓛ 1-3" BORED CONDUIT
1-3" BORED CONDUIT (SPARE)
2-14 AWG/7C FOR HEAD 2,5
1-16/3C FOR VDC
1-COAXIAL CABLE FOR VDC
1-#6 AWG EGC

Ⓜ EXISTING CONDUIT(S)
96 SINGLE MODE FIBER OPTIC CABLE
1-#6 AWG EGC
1-PON DROP CABLE

CONSTRUCTION NOTES:
1. CONTRACTOR SHALL MAINTAIN A MINIMUM 4' WIDE ADA-COMPLIANT ACCESSIBLE PEDESTRIAN PATH AT ALL LOCATIONS WHERE PEDESTRIAN PUSHBUTTONS ARE INSTALLED.
2. REFER TO SHEET SERIES 2B FOR CG-12 DETAILS AND CURB RETURN PROFILES.
3. PON CABLE WILL BE SPLICED INTO SPLICE ENCLOSURE IN THE NW QUADRANT OF DUKE STREET AND DOVE STREET. REFER TO ITS SHEETS 11(05) - 11(07).
4. CONTRACTOR SHALL VERIFY THE INSTALLED DEPTH OF THE EXISTING CONDUIT. IF THE FIELD-VERIFIED DEPTH DOES NOT MEET VDOT STANDARD REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENT TO PROTECT THE CONDUIT FROM POTENTIAL CRUSHING UNDER VEHICULAR LOADING.



SIGNAL EQUIPMENT DIAGRAM (SCALE 1"=25')



SIGNAL POLE & CONTROLLER LEGEND
(ALL DIMENSIONS ARE TO CENTER OF POLE)

Ⓐ SINGLE MAST ARM POLE (MP-3), TYPE BI
60' ARM PERPENDICULAR TO DUKE ST.
SIGNAL PLACEMENTS: 38.7', 49.6'
SIGN PLACEMENTS: 35.3', 53.9'
VDC Cameras: 43.8'

Ⓑ SINGLE MAST ARM POLE (MP-3), TYPE BI
40' ARM PERPENDICULAR TO DUKE ST.
SIGNAL PLACEMENTS: 4.5', 15.1', 27.1'
SIGN PLACEMENTS: 0'
VDC Cameras: 10'

Ⓒ FOUR DOOR ATC CONTROLLER CABINET CONTROLLER CABINET AND FOUNDATION (CF-5) (PROPOSED)
31.1' NORTH OF DUKE ST. CURBELINE AND
44.7' WEST OF TELEGRAPH RAMP CURBELINE

COLOR SEQUENCE CHART					
PHASES	2	5	6	2-6	FLASH
SIGNAL	R/W	R/W	R/W	R/W	
2	G	G	G	G	N/A
5		~~G~~			R
6			G	G	Y
P6 (APS)			WALK	WALK	DW

NOTE:
BLANK SPACES REPRESENT A RED DISPLAY.

INITIAL TIMING CHART		
PHASE	5	6
MOVEMENT	EB LEFT	WB THRU
PHASE ON	X	X
PHASE OFF		
INTERVAL	PHASE TIMINGS	
MIN GREEN	7.0	12.0
PASSAGE	3.0	3.0
AMBER	3.0	4.0
RED	3.0	2.0
MAX I	30.0	40.0
MIN GAP	0.0	0.0
TIME BEFORE REDUCTION	0.0	0.0
TIME TO REDUCE	0.0	0.0
PED WALK	0.0	7.0
PED CLEARANCE	0.0	15.0
MODE	NON-LOCK	MAX-RECALL

AUDIBLE INDICATION CHART		
PUSHBUTTON (QUADRANT)	SPEECH PB INFORMATION MESSAGE	AUDIBLE WALK INDICATION
P6 (NE, NW)	WAIT TO CROSS TELEGRAPH ON-RAMP AT DUKE	PERCUSSIVE TONE

NOTE: ALL OTHER TONES AND BEACONING ASSOCIATED WITH APS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS IN THE CONTRACT DOCUMENTS.

JUNCTION BOX LEGEND
ALL JUNCTION BOXES SHALL CONFORM TO STANDARD JB-S2 UNLESS OTHERWISE NOTED ON THE PLANS
(S1) DENOTES STANDARD JB-S1
(S3) DENOTES STANDARD JB-S3
(S4) DENOTES STANDARD JB-S4

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

TRAFFIC SIGNAL PLAN
DUKE STREET AND TELEGRAPH ROAD ON-RAMP

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	11(4)

dll553lllll05l.dgn
Plotted By: USEB695877

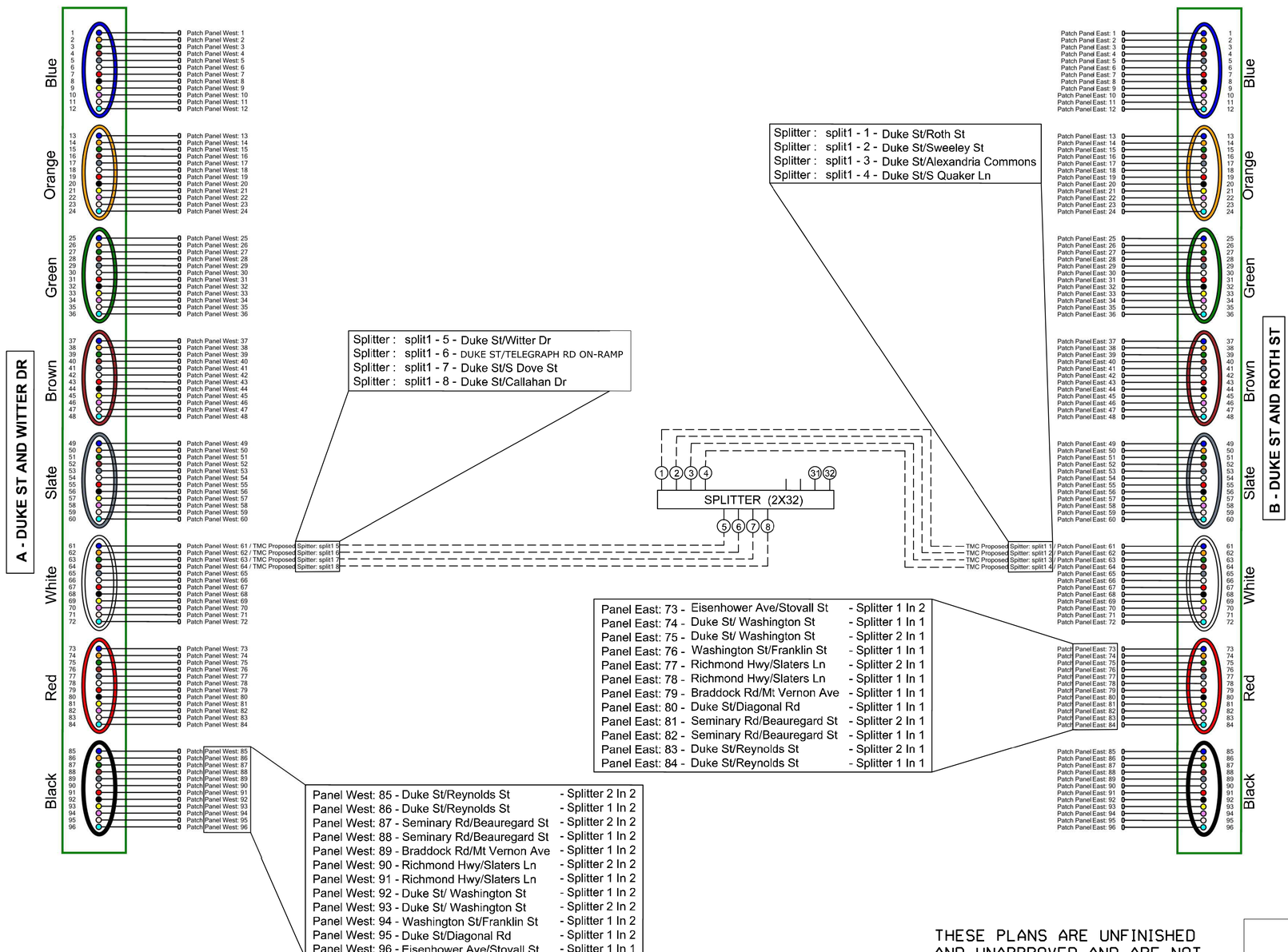
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	II(5)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

PATCH PANEL ADAPTOR PLATES AND PIGTAILS TO BE CHANGED FROM LC.UPC TO SC.APC ON WHITE, RED AND BLACK BUFFER TUBES IN BOTH INTERCONNECT CENTERS FOR PON CONFIGURATION



Panel East: 73 - Eisenhower Ave/Stovall St - Splitter 1 In 2
Panel East: 74 - Duke St/ Washington St - Splitter 1 In 1
Panel East: 75 - Duke St/ Washington St - Splitter 2 In 1
Panel East: 76 - Washington St/Franklin St - Splitter 1 In 1
Panel East: 77 - Richmond Hwy/Slaters Ln - Splitter 2 In 1
Panel East: 78 - Richmond Hwy/Slaters Ln - Splitter 1 In 1
Panel East: 79 - Braddock Rd/Mt Vernon Ave - Splitter 1 In 1
Panel East: 80 - Duke St/Diagonal Rd - Splitter 1 In 1
Panel East: 81 - Seminary Rd/Beauregard St - Splitter 2 In 1
Panel East: 82 - Seminary Rd/Beauregard St - Splitter 1 In 1
Panel East: 83 - Duke St/Reynolds St - Splitter 2 In 1
Panel East: 84 - Duke St/Reynolds St - Splitter 1 In 1

Panel West: 85 - Duke St/Reynolds St - Splitter 2 In 2
Panel West: 86 - Duke St/Reynolds St - Splitter 1 In 2
Panel West: 87 - Seminary Rd/Beauregard St - Splitter 2 In 2
Panel West: 88 - Seminary Rd/Beauregard St - Splitter 1 In 2
Panel West: 89 - Braddock Rd/Mt Vernon Ave - Splitter 1 In 2
Panel West: 90 - Richmond Hwy/Slaters Ln - Splitter 2 In 2
Panel West: 91 - Richmond Hwy/Slaters Ln - Splitter 1 In 2
Panel West: 92 - Duke St/ Washington St - Splitter 1 In 2
Panel West: 93 - Duke St/ Washington St - Splitter 2 In 2
Panel West: 94 - Washington St/Franklin St - Splitter 1 In 2
Panel West: 95 - Duke St/Diagonal Rd - Splitter 1 In 2
Panel West: 96 - Eisenhower Ave/Stovall St - Splitter 1 In 1

LEGEND
- A - BFO 96 to Pullbox @ Duke & Witter
- B - BFO 96 to Pullbox@Duke & Roth

FOR THE PURPOSES OF CLARITY ONLY ACTIVE FIBERS IN PON NETWORK ARCHITECTURE ARE SHOWN AS CONNECTED IN SECTION 8 OF THESE PLANS. ACTIVE CCTV NETWORK ARCHITECTURE IS SHOWN ELSEWHERE. ALL UNUSED FIBERS SHOULD BE ASSIGNED TO BE EXPRESS THRU.

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

TRAFFIC ITS PLAN
DUKE STREET AND
TELEGRAPH ROAD ON-RAMP

PROJECT	SHEET NO.
0236-100-888	II(5)

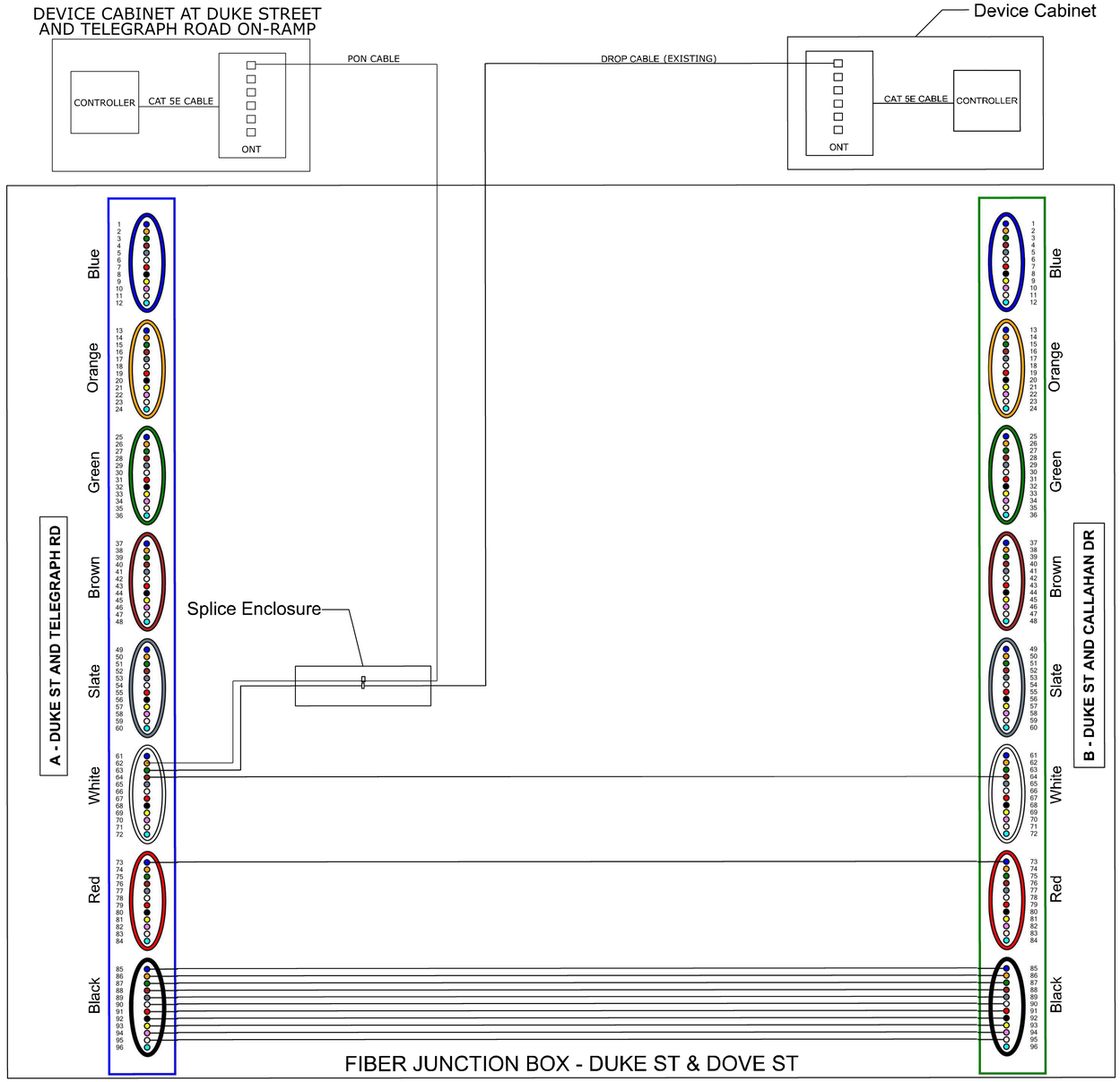
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	11(6)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)

DEVICE CABINET AT DUKE STREET AND TELEGRAPH ROAD ON-RAMP



LEGEND
- A - BFO 96 to Pullbox @ Duke & Telegraph
- B - BFO 96 to Pullbox @ Duke & Callahan

FOR THE PURPOSES OF CLARITY ONLY ACTIVE FIBERS IN PON NETWORK ARCHITECTURE ARE SHOWN AS CONNECTED IN SECTION 8 OF THESE PLANS. ACTIVE CCTV NETWORK ARCHITECTURE IS SHOWN ELSEWHERE. ALL UNUSED FIBERS SHOULD BE ASSIGNED TO BE EXPRESS THRU.

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

TRAFFIC ITS PLAN
DUKE STREET AND
TELEGRAPH ROAD ON-RAMP

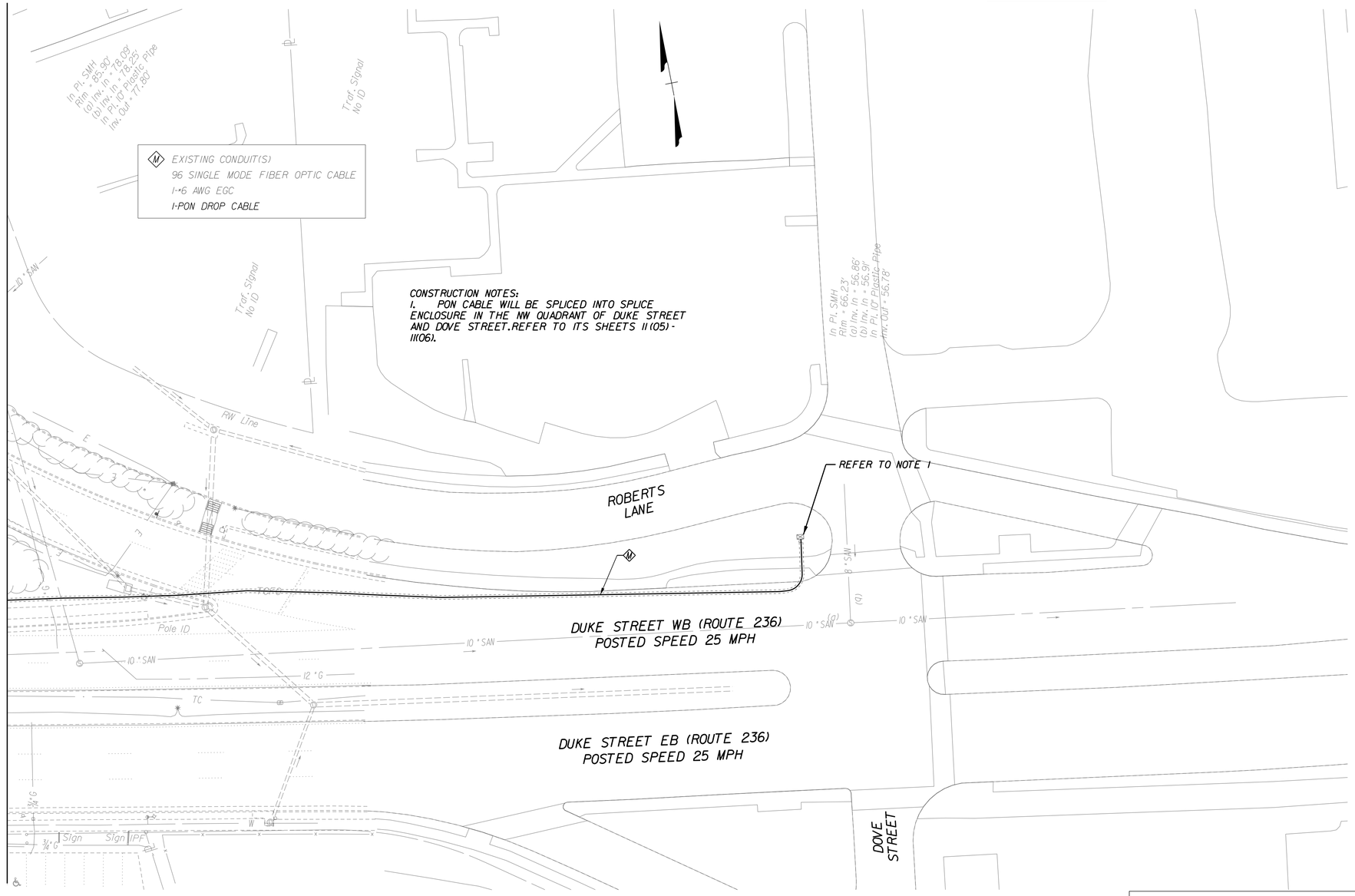
PROJECT	SHEET NO.
0236-100-888	11(6)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	11(7)

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



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

TRAFFIC ITS PLAN
DUKE STREET AND
TELEGRAPH ROAD ON-RAMP

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	11(7)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	12(1)

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

WSP USA
Herndon, Virginia
(LANDSCAPE ARCHITECT)

46 LF TREE PROTECTION FENCE

LEGEND

- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED TREE
- TURFGRASS
- —TPF— TREE PROTECTION FENCE
- EXISTING TREE LINE
- PROPOSED TREE LINE

PLANT SCHEDULE - THIS SHEET						
QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT TYPE	COMMENTS
SHADE TREES						
2	TA	Tilia americana	American Linden	2.5 inch cal.	B&B	Full crown, matched
541 SY	Turfgrass					
131 LF	Tree Protection Fence					

2-TA

85 LF TREE PROTECTION FENCE

147 SY TURFGRASS

128 SY TURFGRASS

266 SY TURFGRASS

MATCH LINE - STA.207+00 - SEE SHEET 12(2)

MATCH LINE - STA.107+00 - SEE SHEET 12(2)

LANDSCAPE PLAN
STA.100+00 TO 107+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	12(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	12(2)

WSP USA
Herndon, Virginia
(LANDSCAPE ARCHITECT)

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

3 EXISTING TREES (NOT SURVEYED) TO BE REMOVED FROM BUFFER IN ORDER TO ENSURE ADEQUATE SIGHT DISTANCE.

LEGEND

- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED TREE
- TURFGRASS
- —TPF— TREE PROTECTION FENCE
- EXISTING TREE LINE
- PROPOSED TREE LINE

PLANT SCHEDULE - THIS SHEET

QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT TYPE	COMMENTS
SHADE TREES						
1	LS	Liquidambar styraciflua 'Rotundiloba'	Sweetgum	2.5 inch cal.	B&B	Full crown, matched; fruitless
1,493 SY	Turfgrass					
94 LF	Tree Protection Fence					

89 SY TURFGRASS
1-LS
17 SY TURFGRASS
47 LF TREE PROTECTION FENCE
41 SY TURFGRASS
1105 SY TURFGRASS
139 SY TURFGRASS
102 SY TURFGRASS
47 LF TREE PROTECTION FENCE

MATCH LINE - STA.107+00 - SEE SHEET 12(1)

MATCH LINE - STA.114+00 - SEE SHEET 12(3)

LANDSCAPE PLAN
STA.107+00 TO 114+00

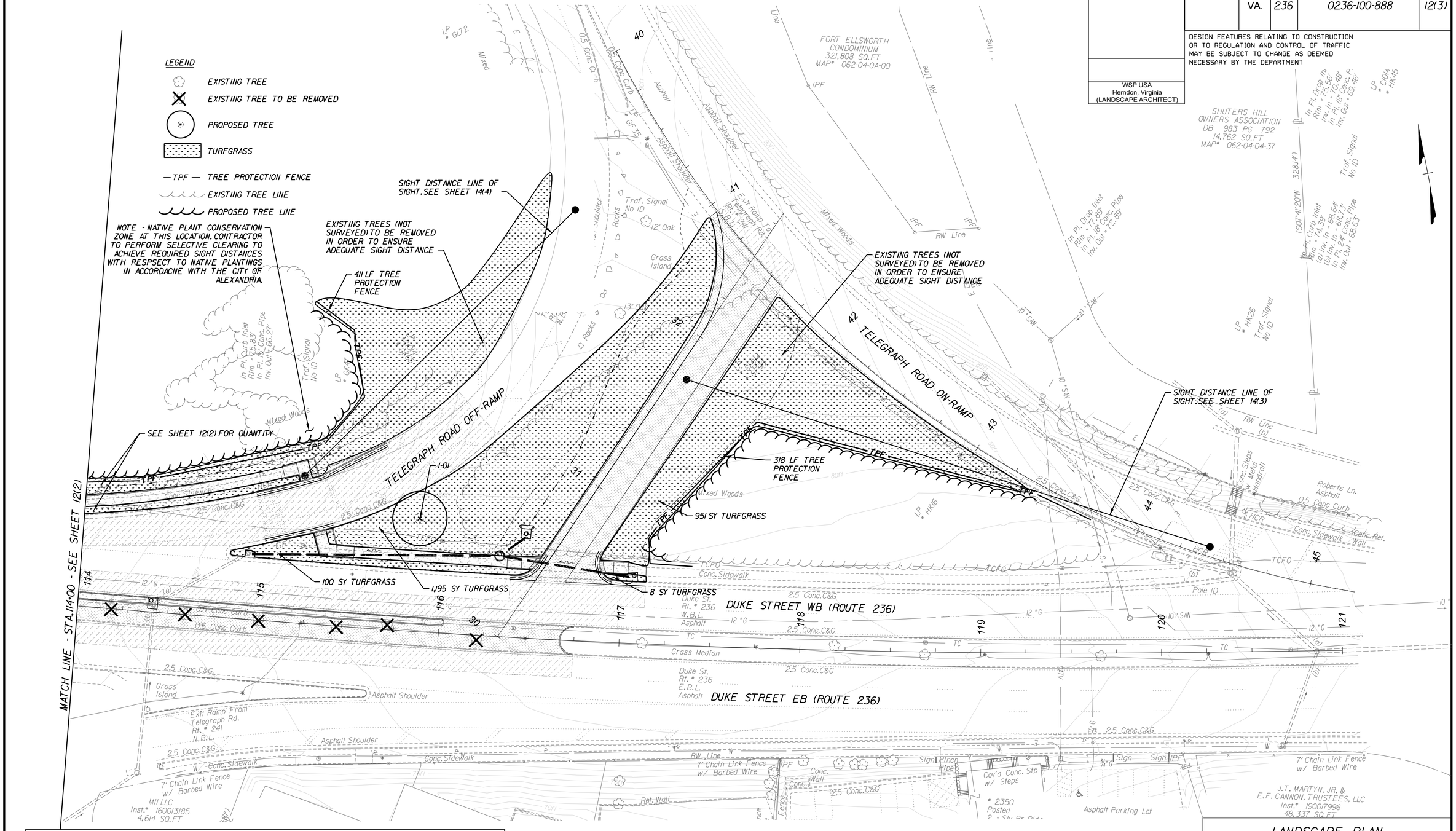
SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	12(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	12(3)

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

WSP USA
Herndon, Virginia
(LANDSCAPE ARCHITECT)



PLANT SCHEDULE - THIS SHEET						
QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT TYPE	COMMENTS
SHADE TREES						
1	QI	Quercus imbricaria	Shingle Oak	2.5 inch cal.	B&B	Full crown, matched
2,254 SY	Turfgrass					
729 LF	Tree Protection Fence					

LANDSCAPE PLAN STA.114+00 TO 121+00

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	12(3)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

WSP USA
Herndon, Virginia
(LANDSCAPE ARCHITECT)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	12(4)

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

LANDSCAPE NOTES

1. All protection and preservation measures for existing vegetation, including maintenance shall be approved by the City of Alexandria Arborist in-field prior to commencement of any site disturbing activity.

2. Specification for all plantings shall be in accordance with the current and most up to date edition of ANSI Z60.1-2014, The American Standard for Nursery Stock as produced by the American Association of Nurserymen; Washington, DC.

3. The applicant shall make suitable arrangements for pre-selection tagging, pre-contract growing, or is undertaking specialized planting stock development with a nursery or grower that is conveniently located to the project site, other procedures that will ensure availability of specified materials. In the event that shortages and/or inability to obtain specified plantings occurs, remedial efforts including species changes, additional plantings and modification to the landscape plan shall be undertaken by the applicant. All remedial efforts shall, with prior approval by the city, be performed to the satisfaction of the Directors of Planning & Zoning, Recreation, Parks & Cultural Activities and Transportation & Environmental Services of the City of Alexandria.

4. In lieu of more strenuous specifications, all landscape related work shall be installed and maintained in accordance with the current and most up-to-date edition (at time of construction) of Landscape Specification Guidelines as produced by the Landscape Contractors Association of Maryland, District of Columbia and Virginia; Gaithersburg, Maryland.

5. Prior to commencement of landscape installation/planting operations, a pre-installation/construction meeting will be scheduled with the City of Alexandria's Arborist and Landscape Architects to review the scope of installation procedures and processes.

6. Contractor to perform maintenance for the duration of the warranty as conditioned by the project. Post-construction maintenance for this project shall be performed by the City of Alexandria in perpetuity, in compliance with City of Alexandria Landscape Guidelines and/or as conditioned by project approval.

7. A certification letter for tree wells, tree trenches and plantings above structure shall be provided by the project's Landscape Architect. The letter shall certify that all below grade construction is in compliance with approved drawings and specifications. The letter shall be submitted to the City of Alexandria Arborist and approved prior to approval of the last and final Certificate of Occupancy for the project. The letter shall be submitted by the owner/applicant/successor and sealed and dated as approved by the project's Landscape Architect.

8. As-built drawings for this landscape and/or irrigation/water management system will be provided in compliance with City of Alexandria Landscape Guidelines. As-built drawings shall include clear identification of all variation(s) and changes from approved drawings including location, quantity and specification of all project elements.

MASTER PLANT SCHEDULE

QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT TYPE	COMMENTS
SHADE TREES						
1	LS	Liquidambar styraciflua 'Rotundiloba'	Sweetgum	2.5 inch cal.	B&B	Full crown, matched; fruitless
1	QI	Quercus imbricaria	Shingle Oak	2.5 inch cal.	B&B	Full crown, matched
2	TA	Tilia americana	American Linden	2.5 inch cal.	B&B	Full crown, matched
4,288 SY		Turfgrass				
954 LF		Tree Protection Fence				

LANDSCAPE NOTES AND MASTER PLAN SCHEDULE

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	12(4)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	13(1)

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

NOTES:

1. THE PURPOSE OF THIS EXHIBIT IS TO DISPLAY THE STOPPING SIGHT DISTANCE FOR THE WESTBOUND MOVEMENT ALONG DUKE STREET SERVICE ROAD APPROACHING THE UNCONTROLLED CROSSWALK AT THE PROPOSED DUKE STREET SERVICE ROAD PROPOSED RAMPS.

2. THE LOCATION OF EYE REPRESENTS THE LOCATION OF THE DRIVER'S EYE.

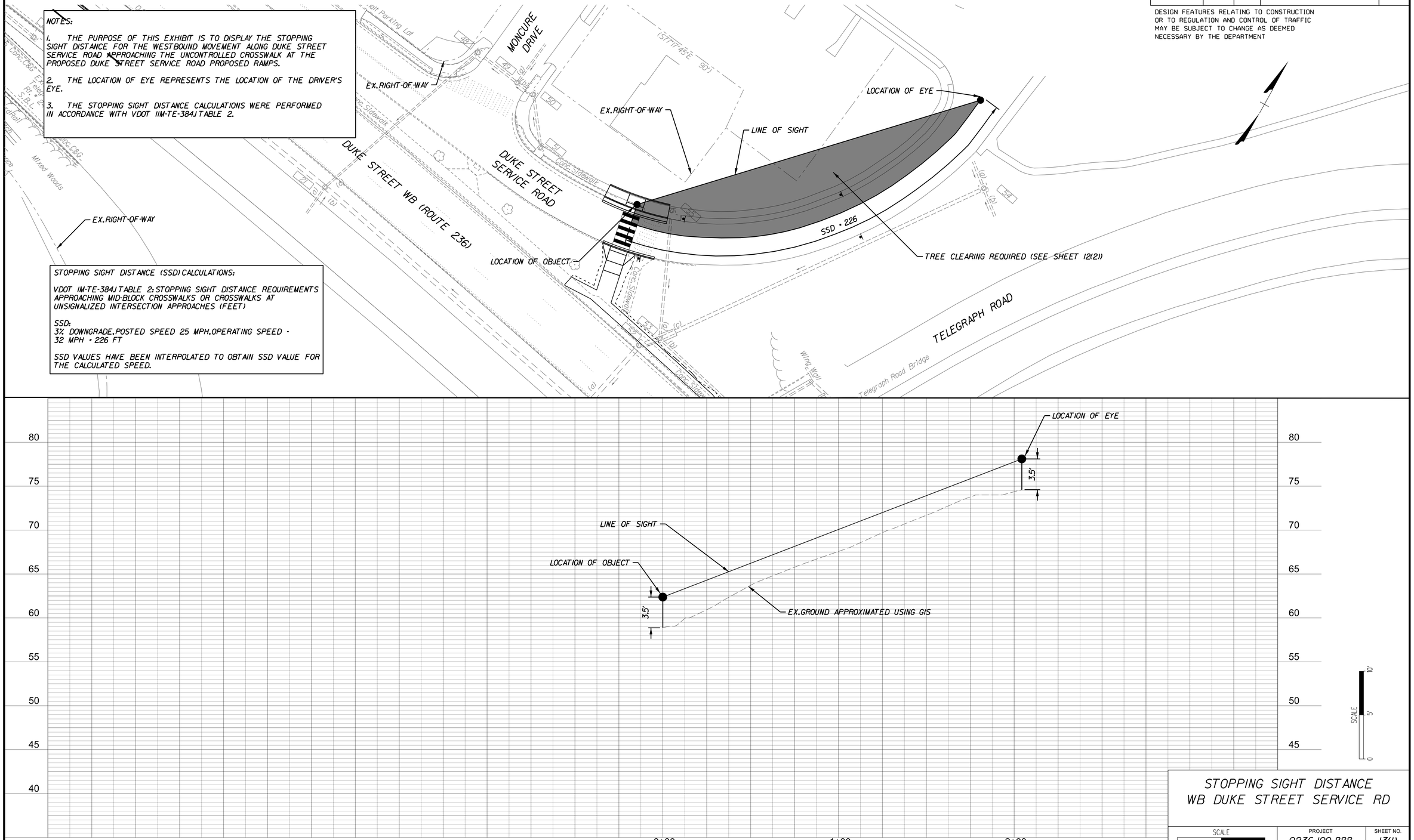
3. THE STOPPING SIGHT DISTANCE CALCULATIONS WERE PERFORMED IN ACCORDANCE WITH VDOT IIM-TE-384J TABLE 2.

STOPPING SIGHT DISTANCE (SSD) CALCULATIONS:

VDOT IM-TE-384J TABLE 2: STOPPING SIGHT DISTANCE REQUIREMENTS APPROACHING MID-BLOCK CROSSWALKS OR CROSSWALKS AT UNSIGNALIZED INTERSECTION APPROACHES (FEET)

SSD:
3% DOWNGRADE, POSTED SPEED 25 MPH, OPERATING SPEED - 32 MPH = 226 FT

SSD VALUES HAVE BEEN INTERPOLATED TO OBTAIN SSD VALUE FOR THE CALCULATED SPEED.



STOPPING SIGHT DISTANCE
WB DUKE STREET SERVICE RD

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	13(1)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	13(2)

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

NOTES:

1. THE PURPOSE OF THIS EXHIBIT IS TO DISPLAY THE STOPPING SIGHT DISTANCE FOR THE WESTBOUND MOVEMENT ALONG DUKE STREET SERVICE ROAD APPROACHING THE UNCONTROLLED CROSSWALK AT THE PROPOSED DUKE STREET SERVICE ROAD PROPOSED RAMPS.

2. THE LOCATION OF EYE REPRESENTS THE LOCATION OF THE DRIVER'S EYE.

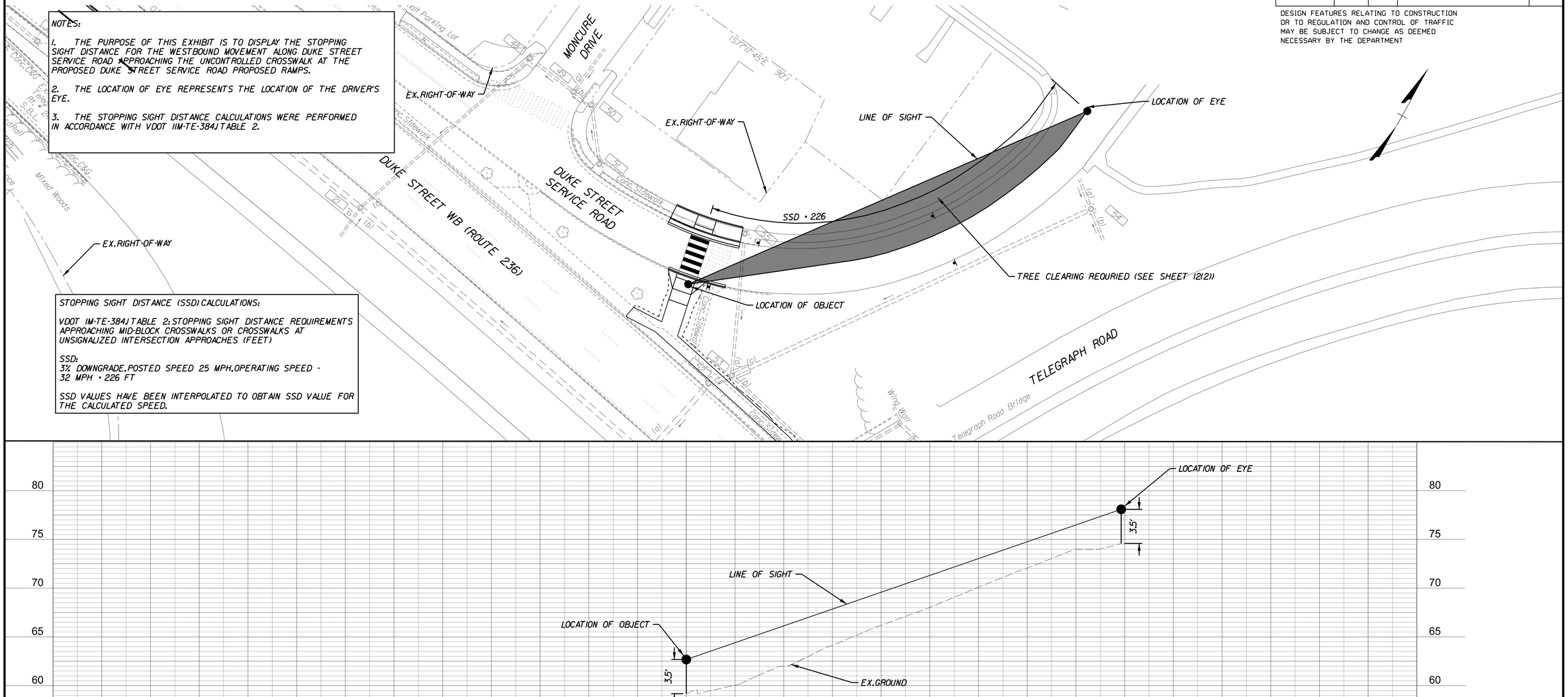
3. THE STOPPING SIGHT DISTANCE CALCULATIONS WERE PERFORMED IN ACCORDANCE WITH VDOT IIM-TE-384J TABLE 2.

STOPPING SIGHT DISTANCE (SSD) CALCULATIONS:

VDOT IM-TE-384J TABLE 2: STOPPING SIGHT DISTANCE REQUIREMENTS APPROACHING MID-BLOCK CROSSWALKS OR CROSSWALKS AT UNSIGNALIZED INTERSECTION APPROACHES (FEET)

SSD:
3% DOWNGRADE, POSTED SPEED 25 MPH, OPERATING SPEED - 32 MPH • 226 FT

SSD VALUES HAVE BEEN INTERPOLATED TO OBTAIN SSD VALUE FOR THE CALCULATED SPEED.



STOPPING SIGHT DISTANCE
WB DUKE STREET SERVICE RD

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	13(2)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	13(3)

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

NOTES:

1. THE PURPOSE OF THIS EXHIBIT IS TO DISPLAY THE INTERSECTION SIGHT TRIANGLE FOR THE LEFT TURN FROM THE PROPOSED RAMP ONTO THE EXISTING TELEGRAPH ROAD ON RAMP.

2. THE LOCATION OF EYE REPRESENTS THE LOCATION OF THE DRIVER'S EYE LOCATED 82 FT FROM THE MIDDLE OF THE NORTHBOUND TRAVELWAY OF EXISTING TELEGRAPH ROAD ON RAMP.

3. THE INTERSECTION SIGHT DISTANCE CALCULATIONS, ASSUMPTIONS, AND EYE LOCATION ARE IN ACCORDANCE WITH 2018 AASHTO GREEN BOOK, CHAPTER 9, SECTION 9.5.3.3.2 CASE C2.

INTERSECTION SIGHT DISTANCE (ISD) CALCULATIONS:

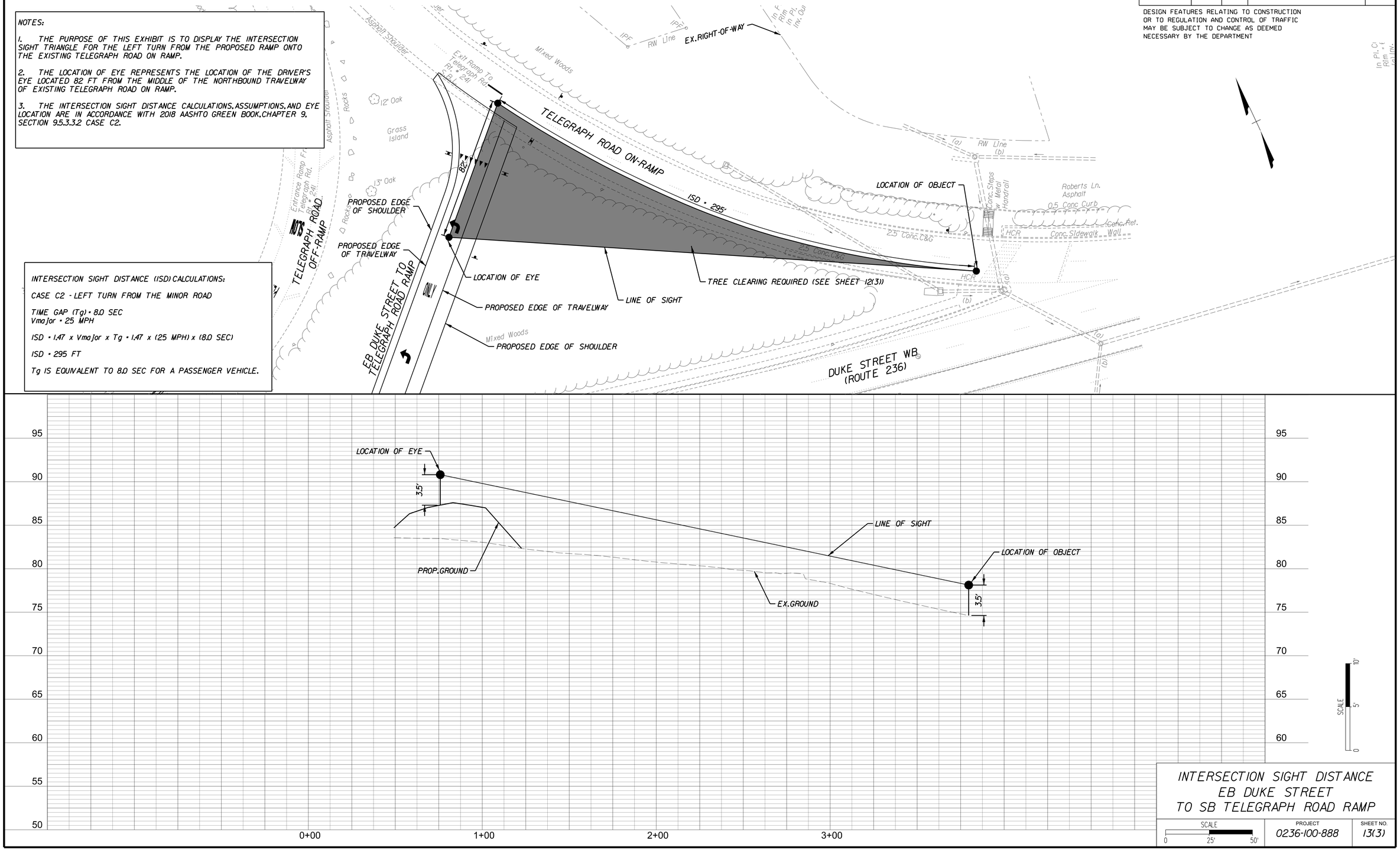
CASE C2 - LEFT TURN FROM THE MINOR ROAD

TIME GAP (Tg) = 8.0 SEC
Vmajor = 25 MPH

ISD = 1.47 x Vmajor x Tg = 1.47 x (25 MPH) x (8.0 SEC)

ISD = 295 FT

Tg IS EQUIVALENT TO 8.0 SEC FOR A PASSENGER VEHICLE.



INTERSECTION SIGHT DISTANCE
EB DUKE STREET
TO SB TELEGRAPH ROAD RAMP

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	13(3)

dll5531_ISD_Sheet 4.dgn
Plotted By: USEB695877

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	13(4)

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

NOTES:

1. THE PURPOSE OF THIS EXHIBIT IS TO DISPLAY THE STOPPING SIGHT TRIANGLE FOR THE WESTBOUND MOVEMENT ALONG THE NB TELEGRAPH ROAD OFF RAMP APPROACHING THE UNCONTROLLED CROSSWALK.

2. THE LOCATION OF EYE REPRESENTS THE LOCATION OF THE DRIVER'S EYE.

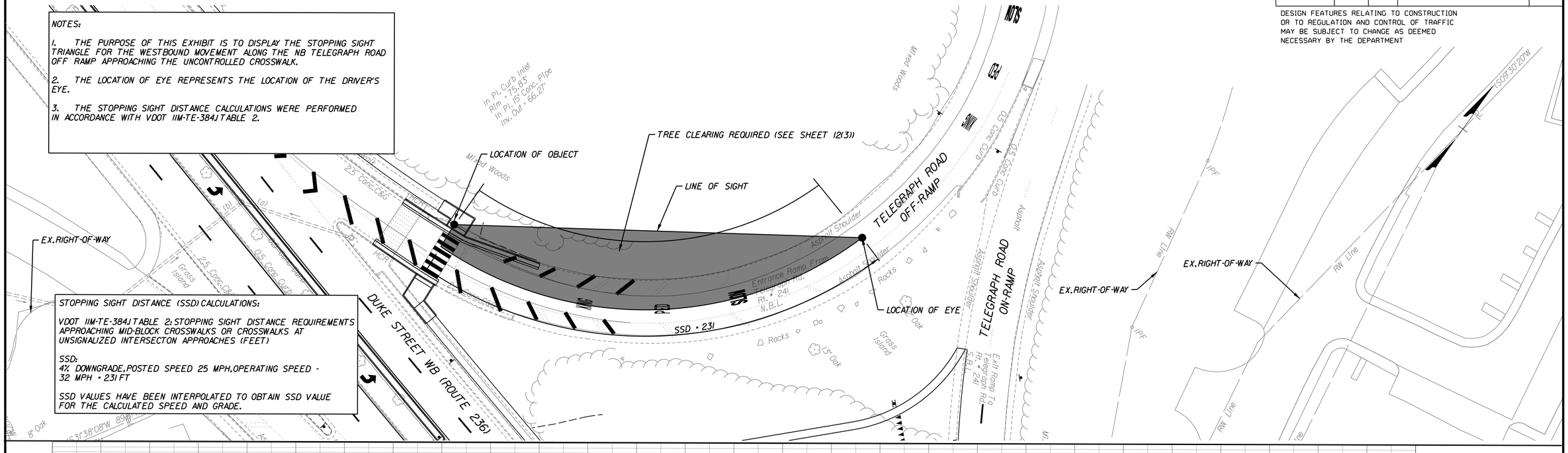
3. THE STOPPING SIGHT DISTANCE CALCULATIONS WERE PERFORMED IN ACCORDANCE WITH VDOT IIM-TE-384J TABLE 2.

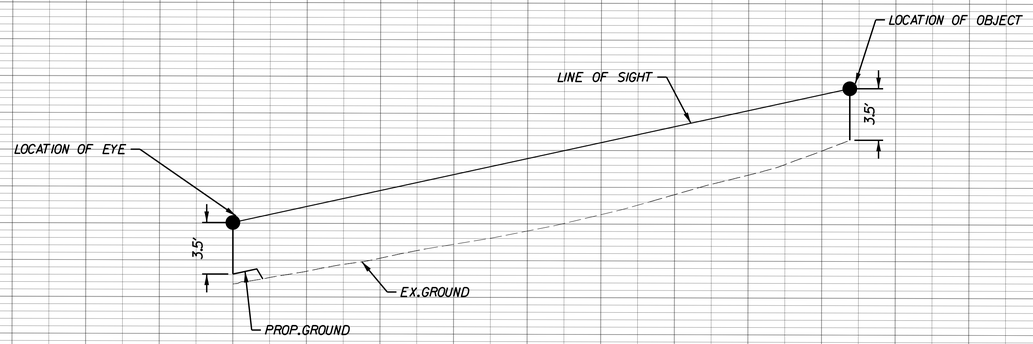
STOPPING SIGHT DISTANCE (SSD) CALCULATIONS:

VDOT IIM-TE-384J TABLE 2: STOPPING SIGHT DISTANCE REQUIREMENTS APPROACHING MID-BLOCK CROSSWALKS OR CROSSWALKS AT UNSIGNALIZED INTERSECTON APPROACHES (FEET)

SSD:
4% DOWNGRADE, POSTED SPEED 25 MPH, OPERATING SPEED - 32 MPH = 231 FT

SSD VALUES HAVE BEEN INTERPOLATED TO OBTAIN SSD VALUE FOR THE CALCULATED SPEED AND GRADE.





95 90 85 80 75 70 65 60 55 50

0+00 1+00 2+00

SCALE 10' 5' 0

STOPPING SIGHT DISTANCE
TELEGRAPH ROAD OFF-RAMP

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	13(4)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	13(5)

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

NOTES:

1. THE PURPOSE OF THIS EXHIBIT IS TO DISPLAY THE STOPPING SIGHT TRIANGLE FOR THE WESTBOUND MOVEMENT ALONG THE NB TELEGRAPH ROAD OFF-RAMP APPROACHING THE UNCONTROLLED CROSSWALK.

2. THE LOCATION OF EYE REPRESENTS THE LOCATION OF THE DRIVER'S EYE.

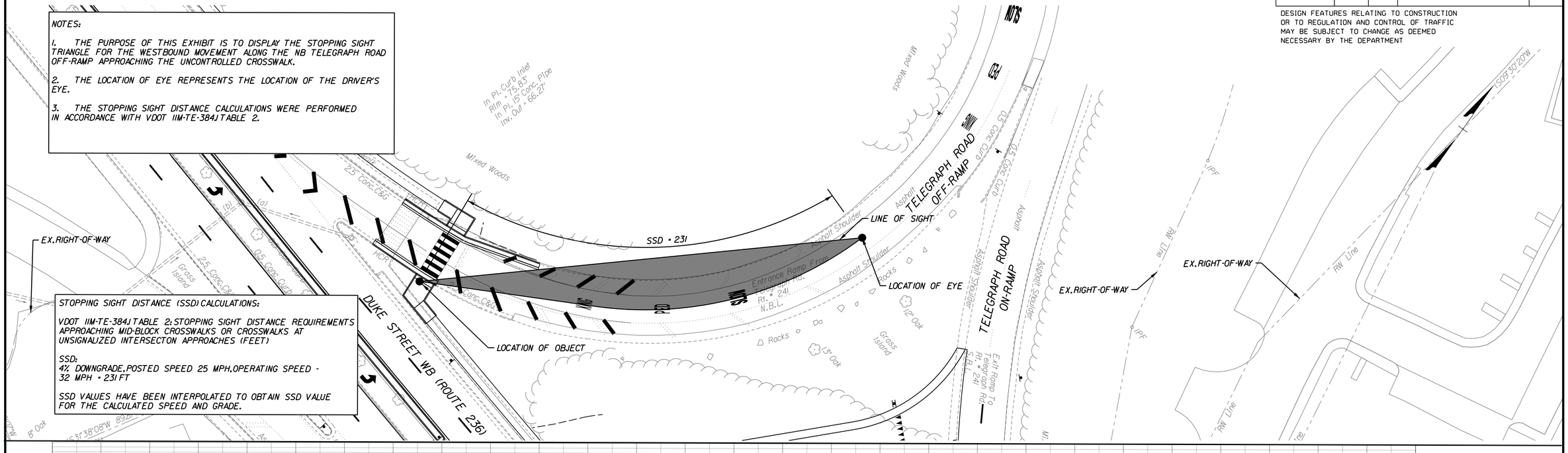
3. THE STOPPING SIGHT DISTANCE CALCULATIONS WERE PERFORMED IN ACCORDANCE WITH VDOT IIM-TE-384.1 TABLE 2.

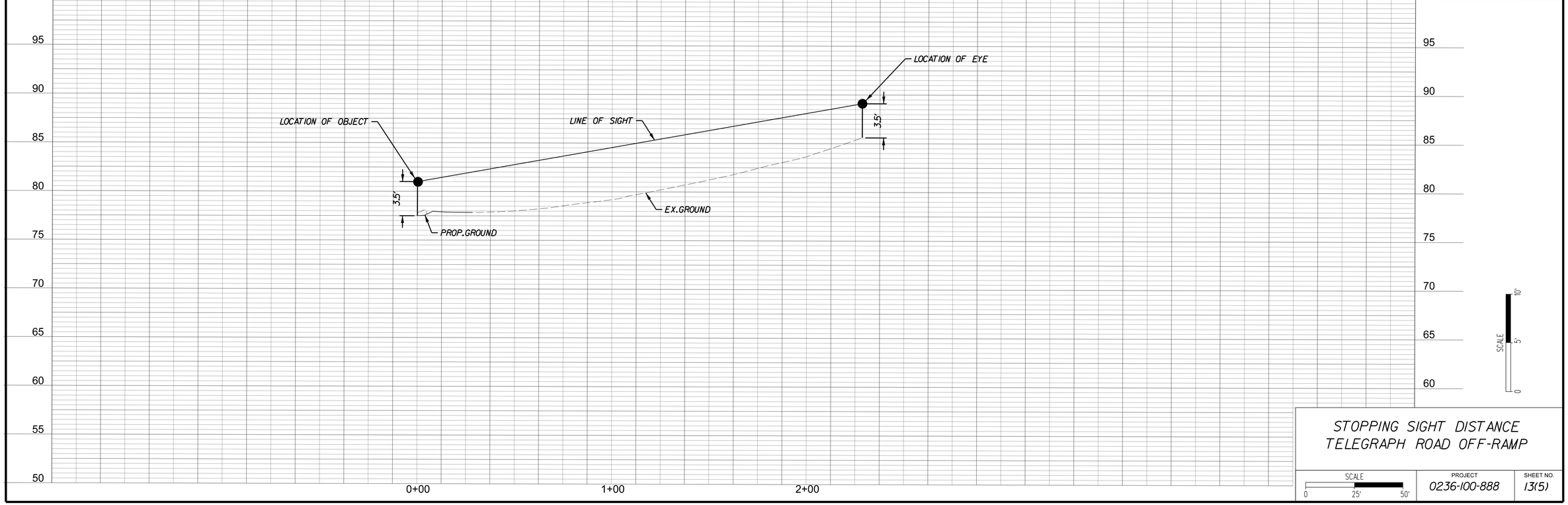
STOPPING SIGHT DISTANCE (SSD) CALCULATIONS:

VDOT IIM-TE-384.1 TABLE 2: STOPPING SIGHT DISTANCE REQUIREMENTS APPROACHING MID-BLOCK CROSSWALKS OR CROSSWALKS AT UNSIGNALIZED INTERSECTON APPROACHES (FEET)

SSD:
4% DOWNGRADE, POSTED SPEED 25 MPH, OPERATING SPEED - 32 MPH = 231 FT

SSD VALUES HAVE BEEN INTERPOLATED TO OBTAIN SSD VALUE FOR THE CALCULATED SPEED AND GRADE.





STOPPING SIGHT DISTANCE
TELEGRAPH ROAD OFF-RAMP

SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	13(5)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	13(6)

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

NOTES:

1. THE PURPOSE OF THIS EXHIBIT IS TO DISPLAY THE STOPPING SIGHT DISTANCE FOR THE EASTBOUND MOVEMENT ALONG THE LEFT TURN LANE OF DUKE STREET TO THE NEW TELEGRAPH ROAD ON-RAMP.
2. THE LOCATION OF EYE REPRESENTS THE LOCATION OF THE DRIVER'S EYE.
3. THE LOCATION OF TRAFFIC SIGNAL HEAD IS PLACED 18' ABOVE THE ROAD SURFACE.
4. THE STOPPING SIGHT DISTANCE CALCULATIONS WERE INTERPOLATED FROM VDOT RDM TABLE A1-2.
5. THE MINIMUM SIGHT DISTANCE FOR SIGNAL VISIBILITY IS FROM TABLE 4D-2 OF THE VA-MUTCD.
6. THE POSTED SPEED LIMIT ALONG EB DUKE STREET AT THE LOCATION OF THIS INTERSECTION IS 25 MPH.HOWEVER,THE POSTED SPEED IS 35 MPH 200 FT UPSTREAM OF THIS LOCATION.THE SSD FOR BOTH 25 MPH AND 35 MPH DESIGN SPEEDS AND THE VISIBILITY FOR 35 MPH ARE SHOWN ON THIS SHEET.

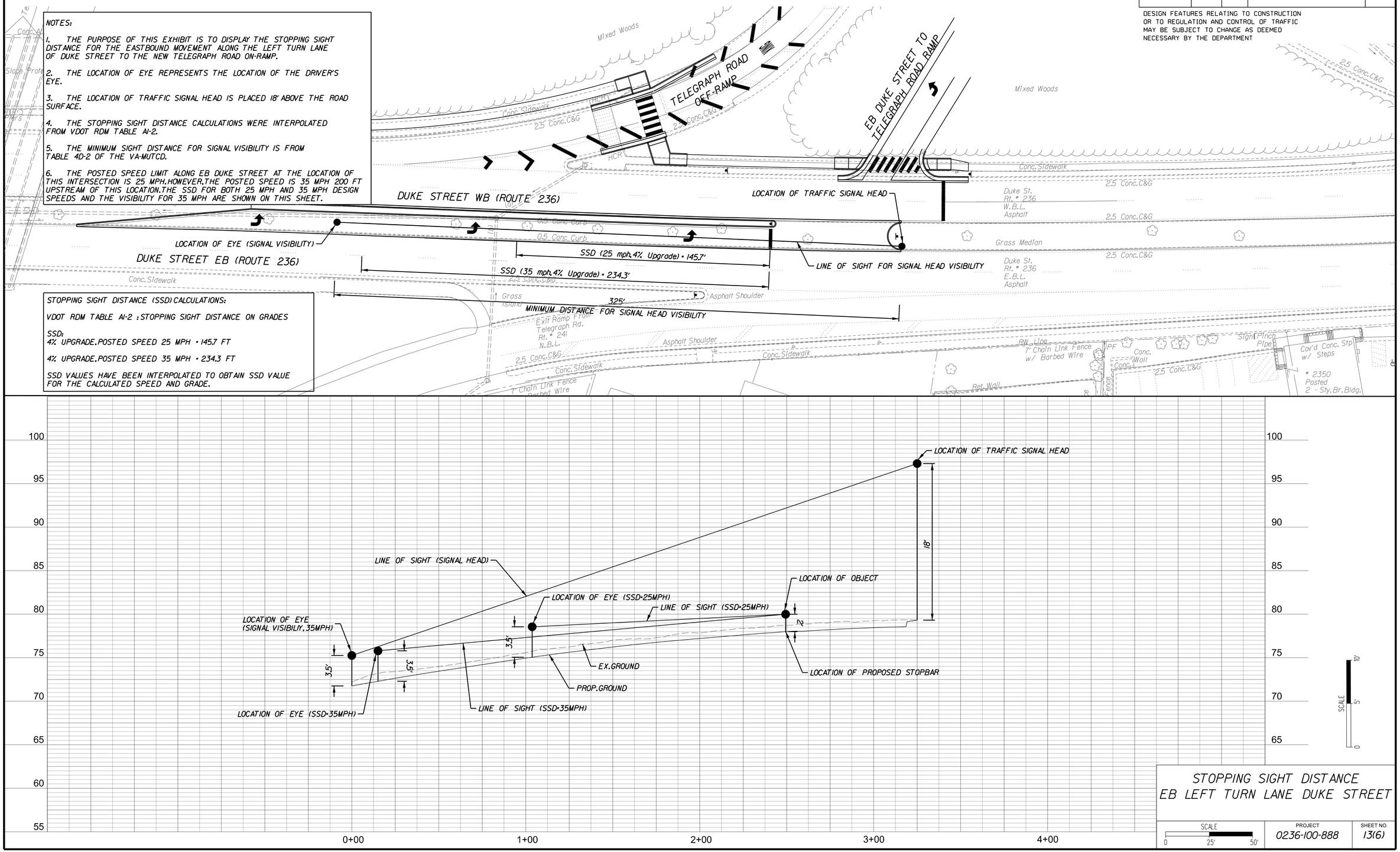
STOPPING SIGHT DISTANCE (SSD) CALCULATIONS:

VDOT RDM TABLE A1-2 : STOPPING SIGHT DISTANCE ON GRADES

SSD:
4% UPGRADE, POSTED SPEED 25 MPH = 145.7 FT

4% UPGRADE, POSTED SPEED 35 MPH = 234.3 FT

SSD VALUES HAVE BEEN INTERPOLATED TO OBTAIN SSD VALUE FOR THE CALCULATED SPEED AND GRADE.



STOPPING SIGHT DISTANCE EB LEFT TURN LANE DUKE STREET

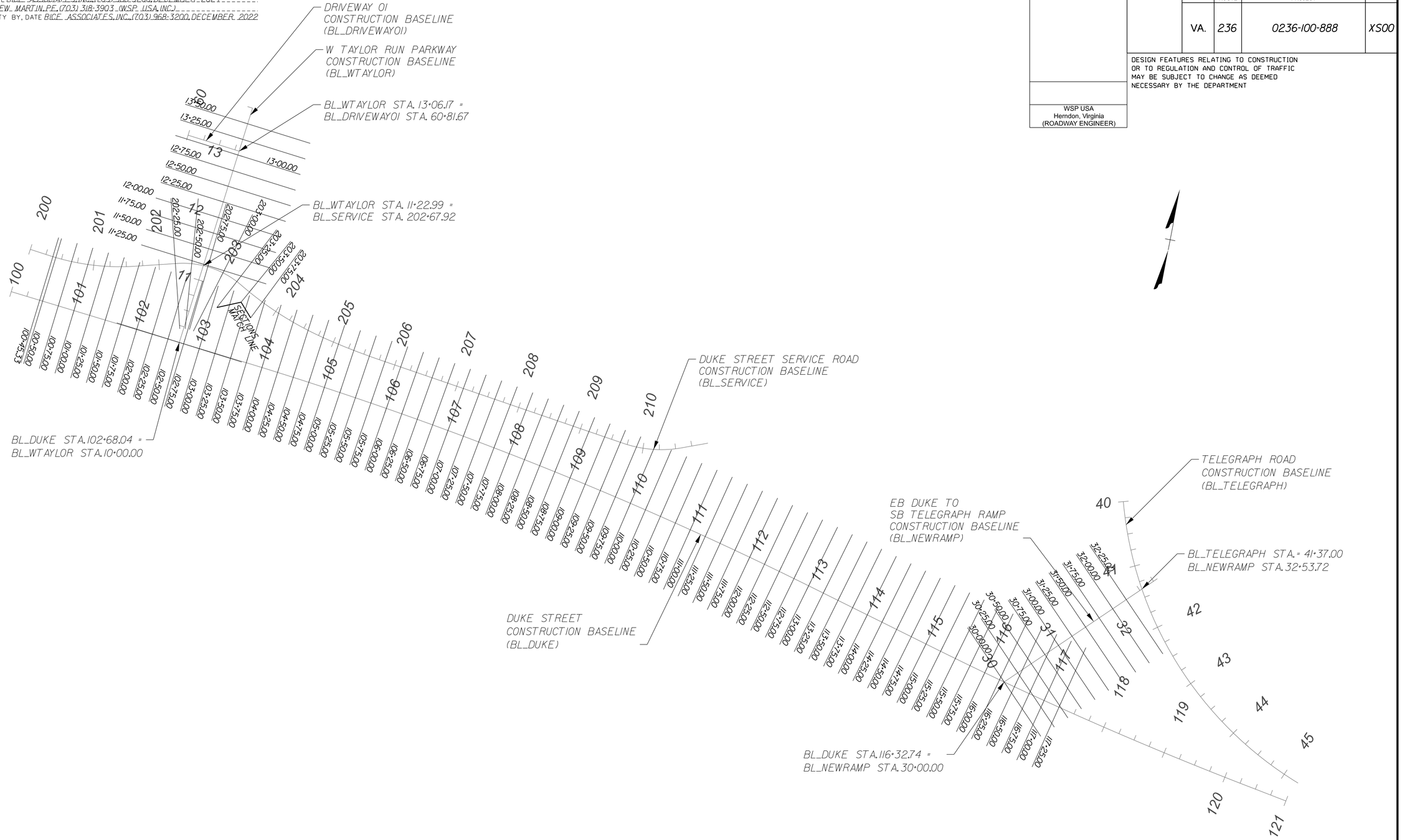
SCALE	PROJECT	SHEET NO.
0 25' 50'	0236-100-888	13(6)

PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS00

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

WSP USA
Herndon, Virginia
(ROADWAY ENGINEER)



CROSS SECTION MATCH LINES

SCALE	PROJECT	SHEET NO.
0 70' 140'	0236-100-888	XS00

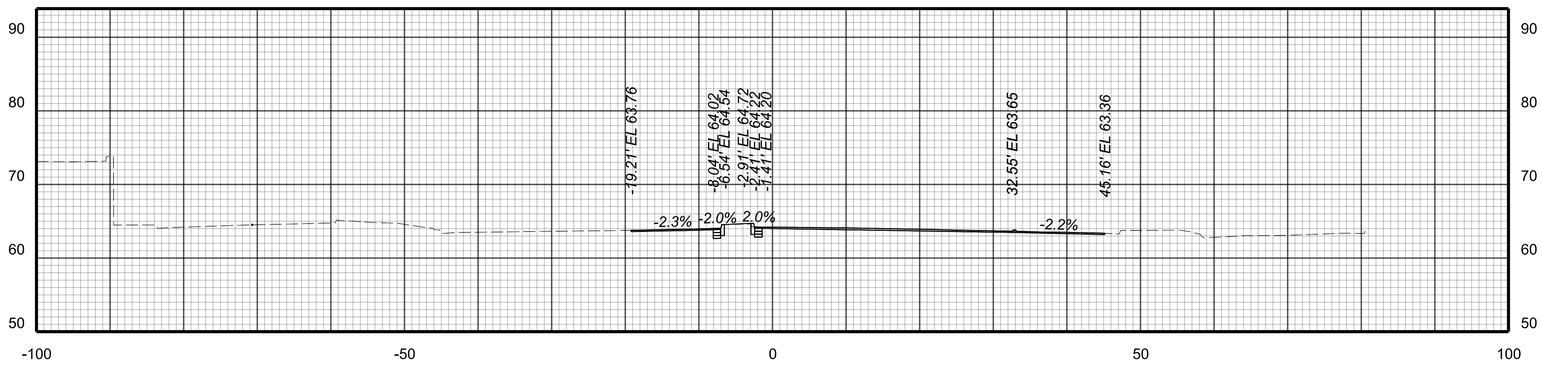
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

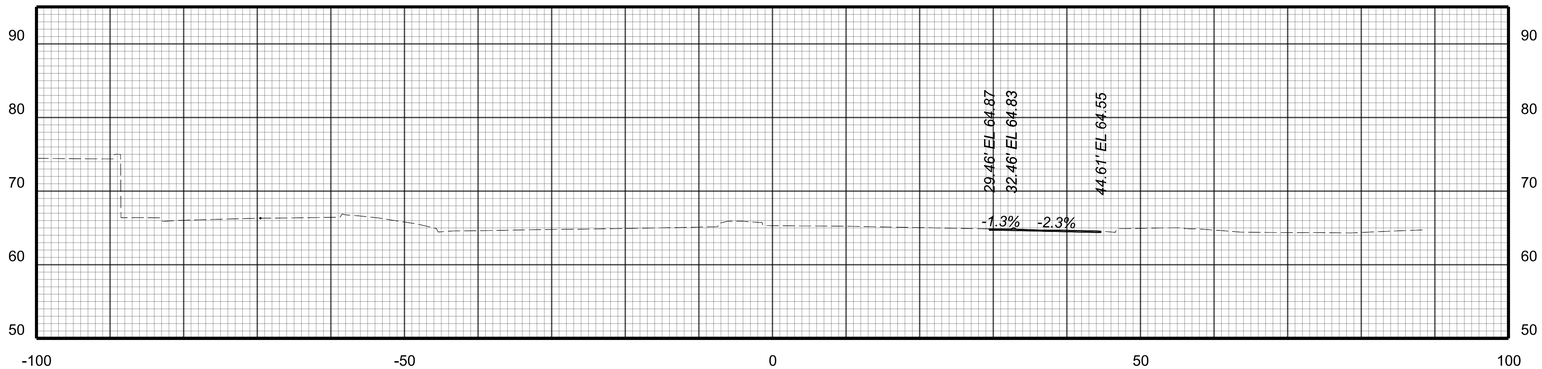
SCALE 1 IN. = 10 FT

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

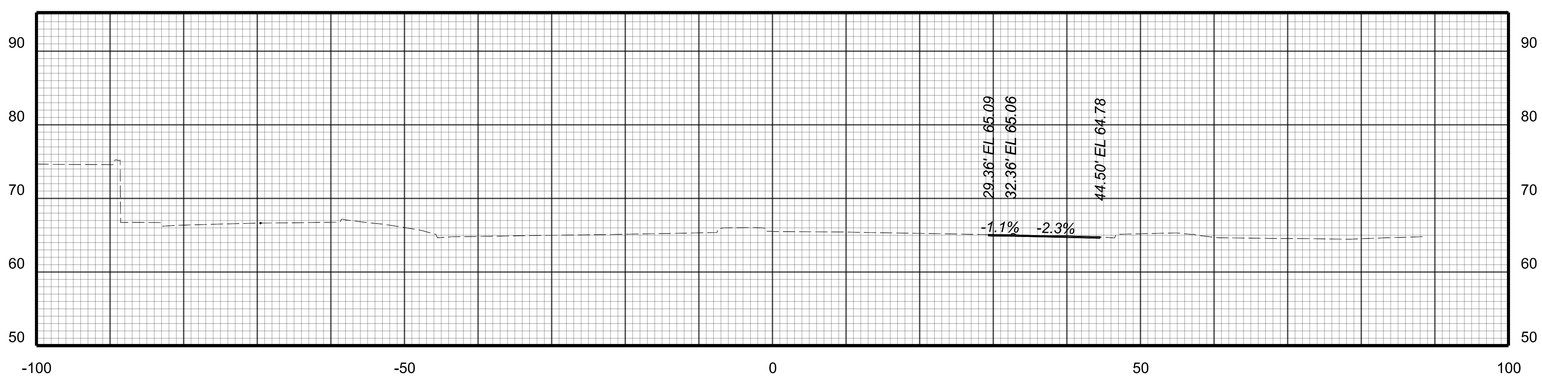
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS01



STA 100+75.00



STA 100+50.00



STA 100+45.33

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS01

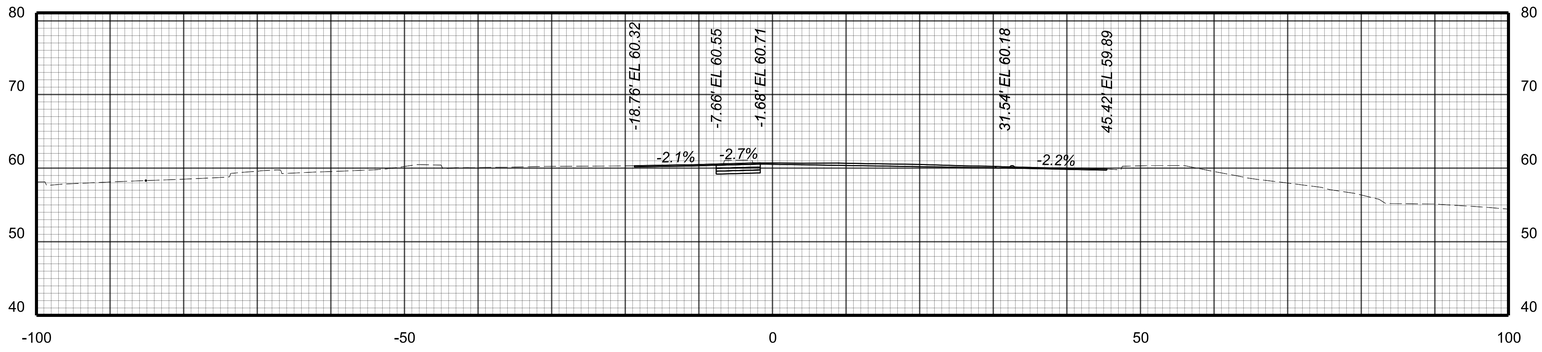
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

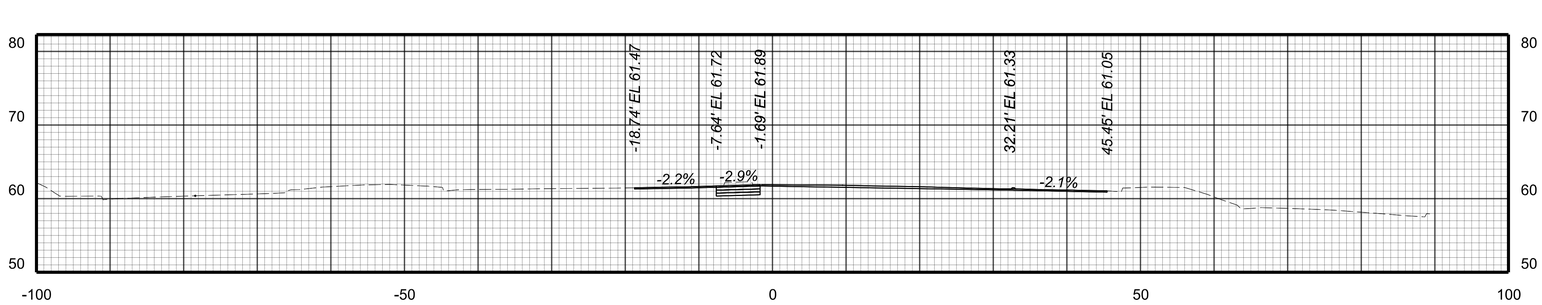
SCALE 1 IN. = 10 FT

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

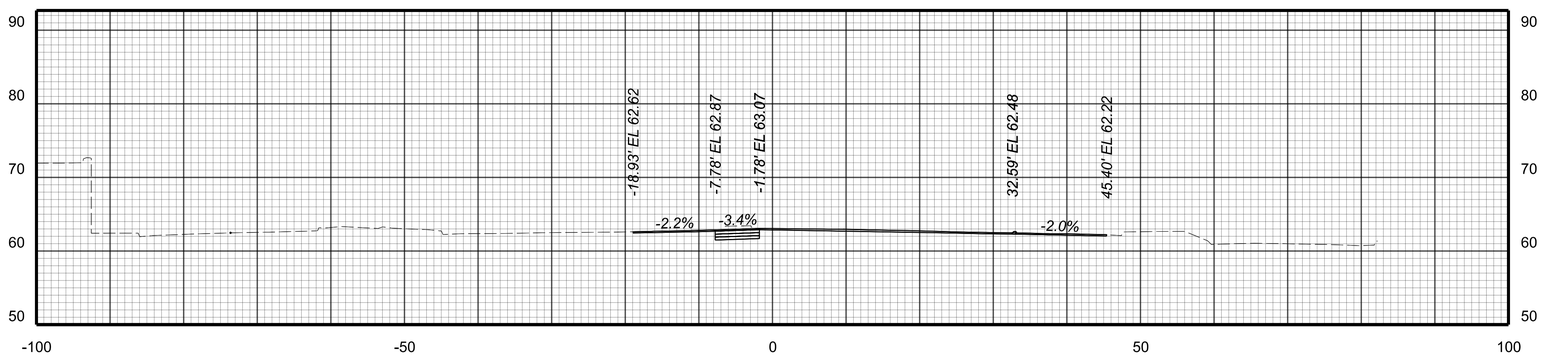
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS02



STA 101+50.00



STA 101+25.00



STA 101+00.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS02

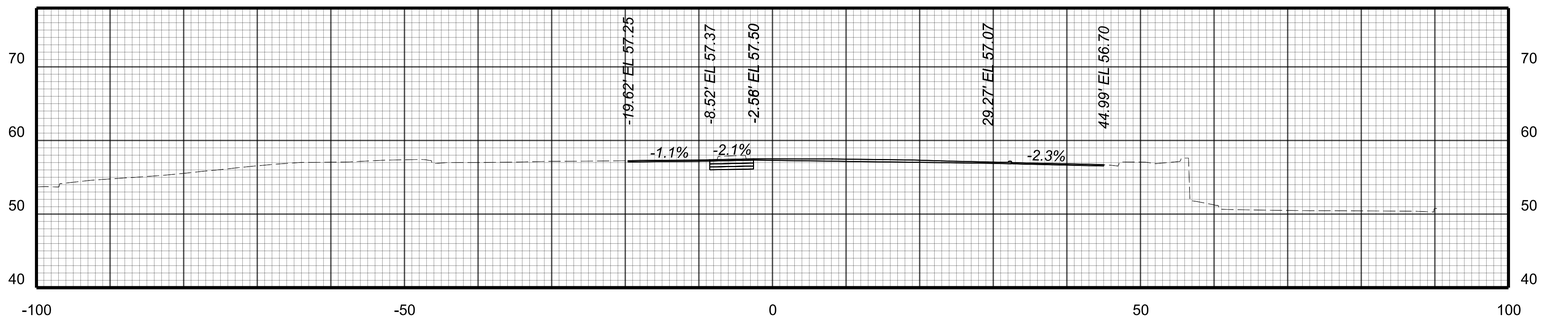
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

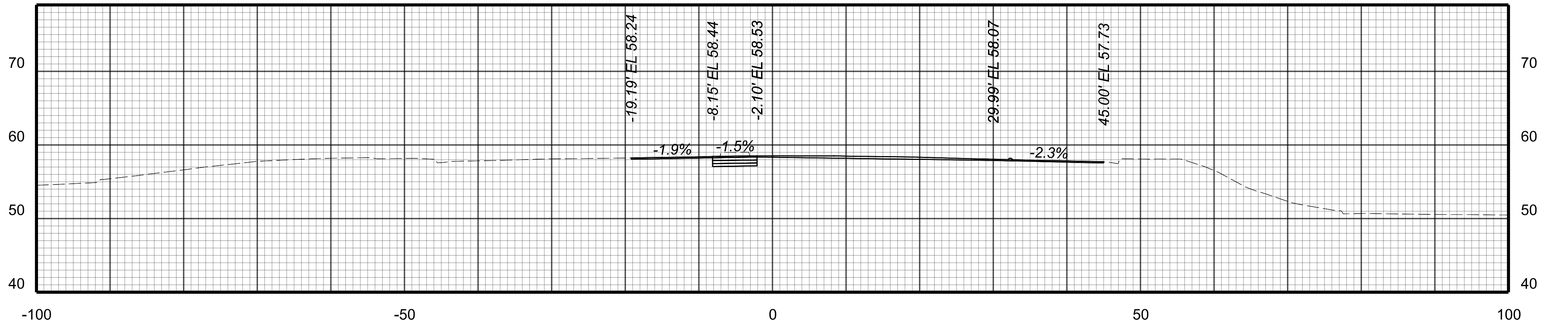
SCALE 1 IN. = 10 FT

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

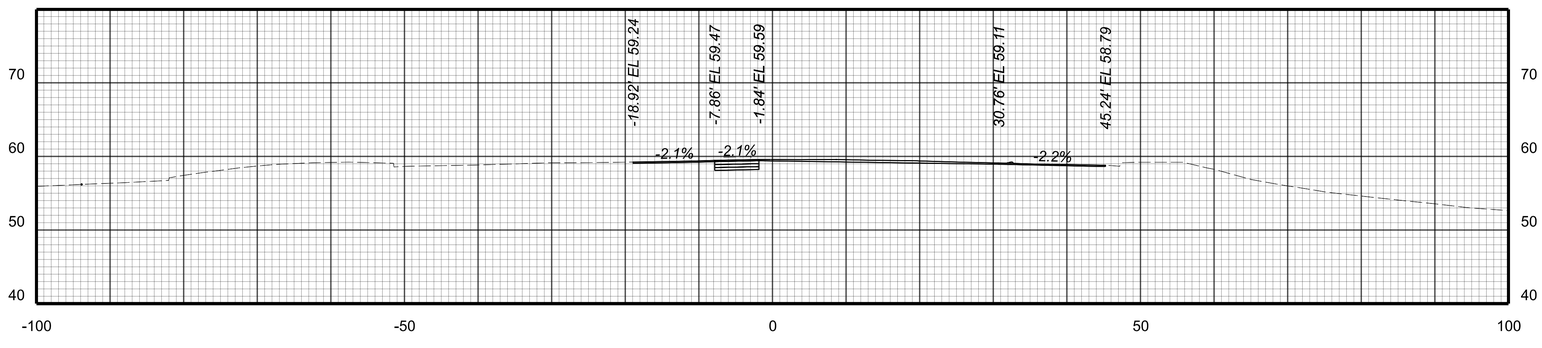
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS03



STA 102+25.00



STA 102+00.00



STA 101+75.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS03

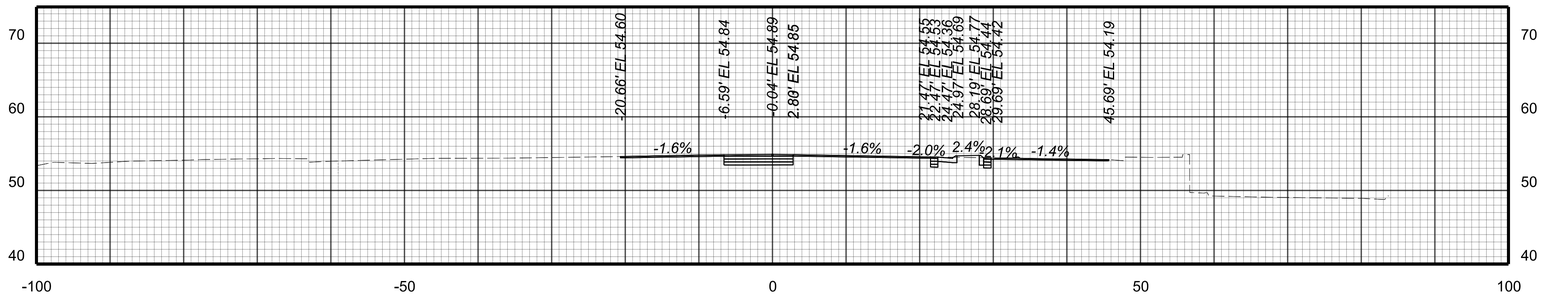
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

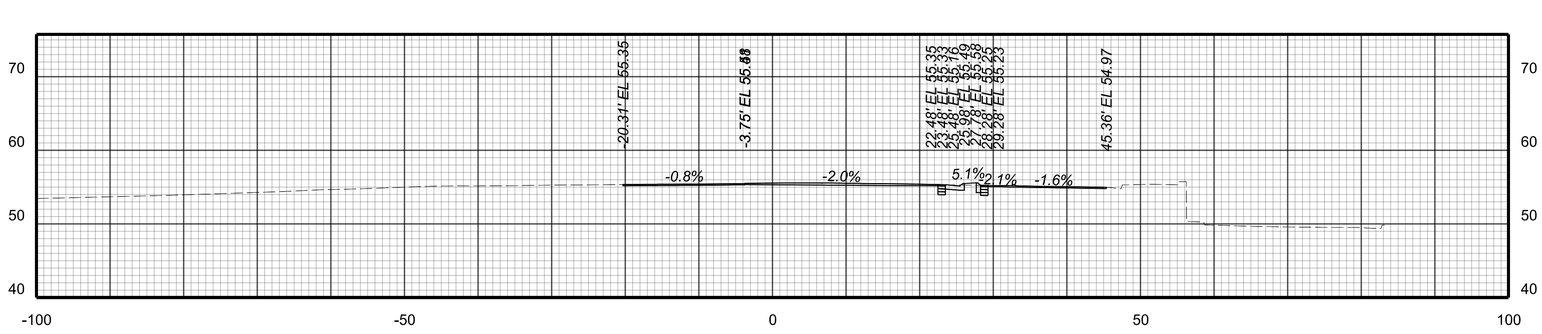
SCALE 1 IN. = 10 FT

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

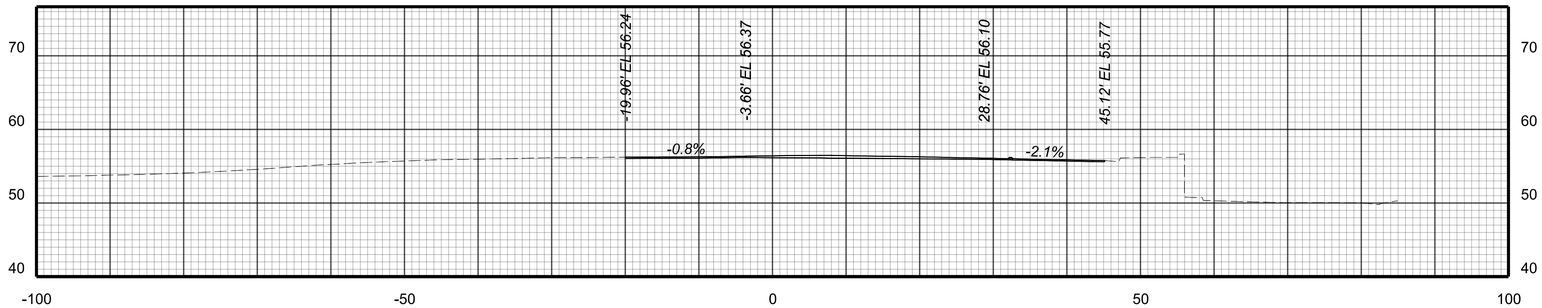
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS04



STA 103+00.00



STA 102+75.00



STA 102+50.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS04

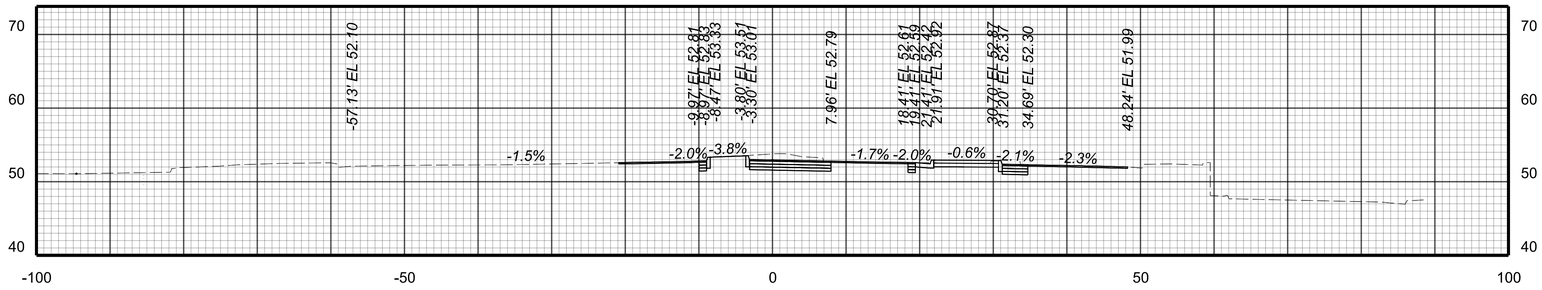
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

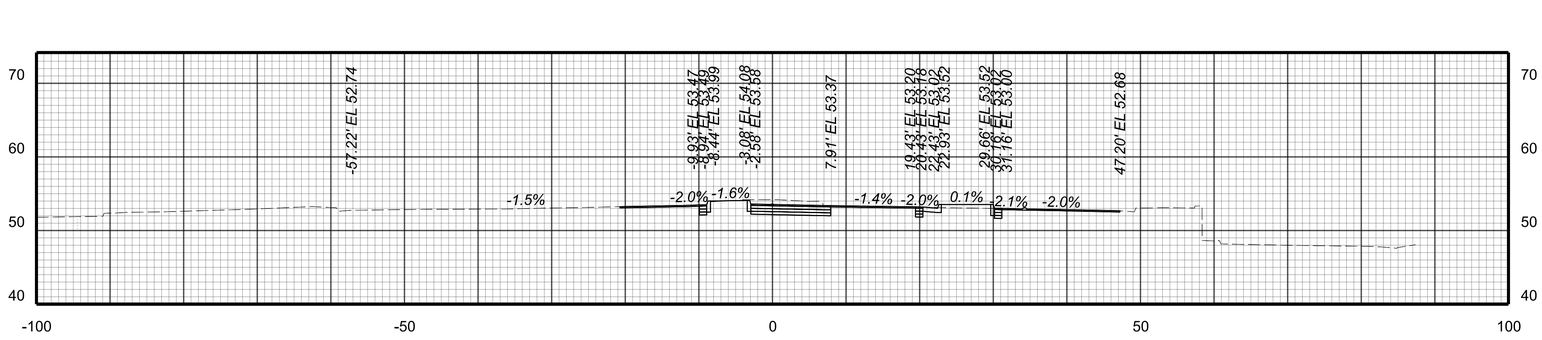
SCALE 1 IN. = 10 FT

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

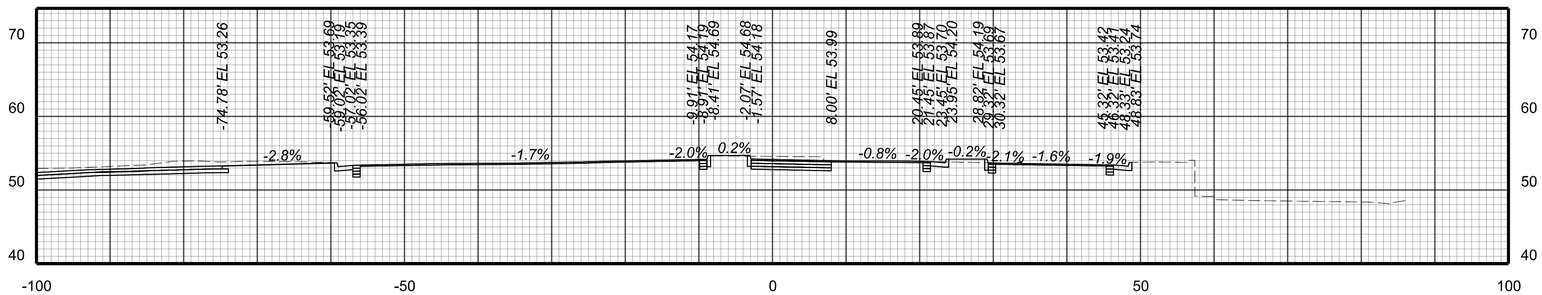
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS05



STA 103+75.00



STA 103+50.00



STA 103+25.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS05

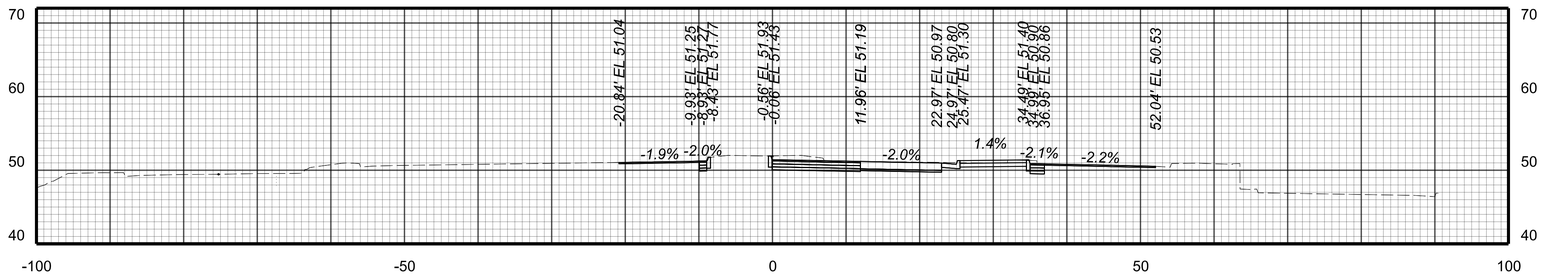
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

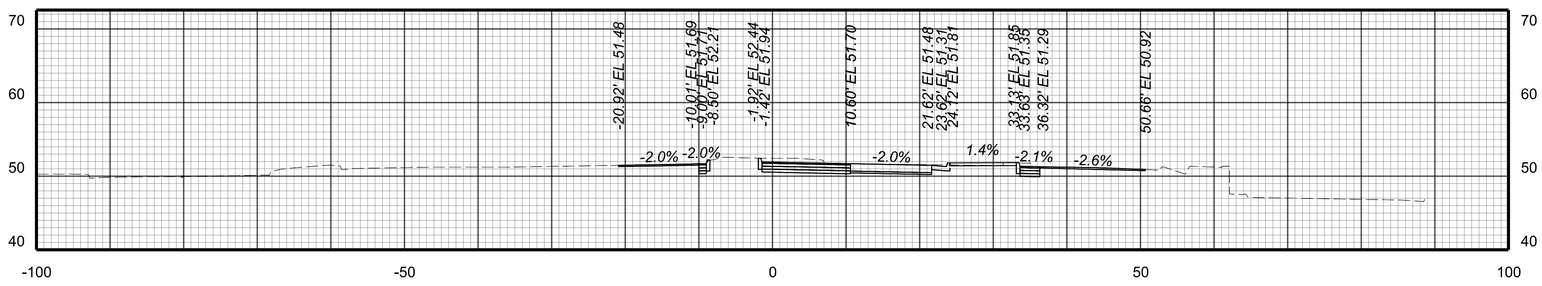
SCALE 1 IN. = 10 FT

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

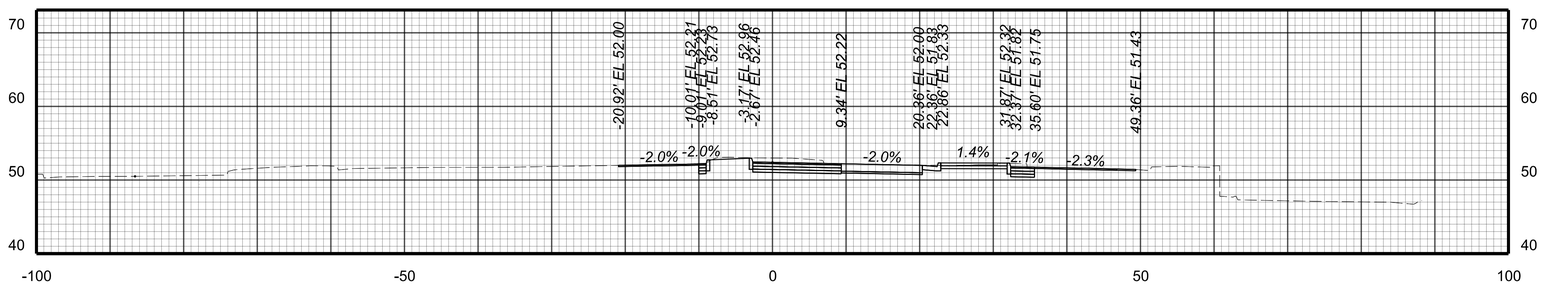
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS06



STA 104+50.00



STA 104+25.00



STA 104+00.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS06

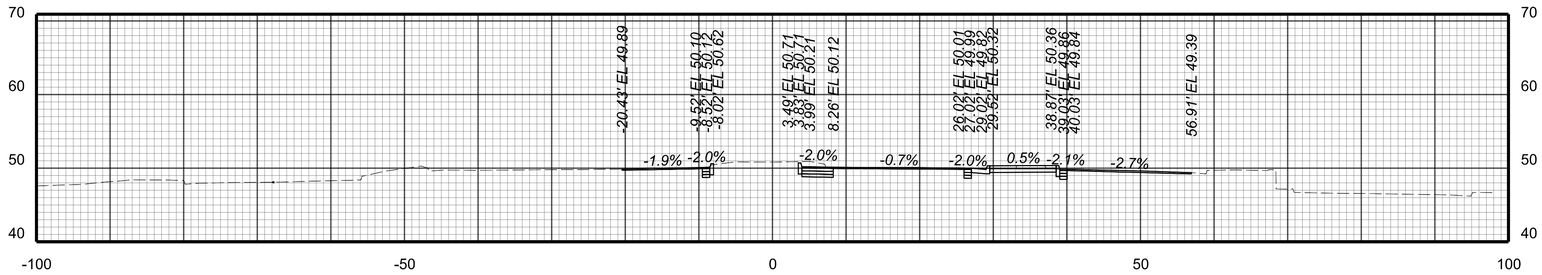
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

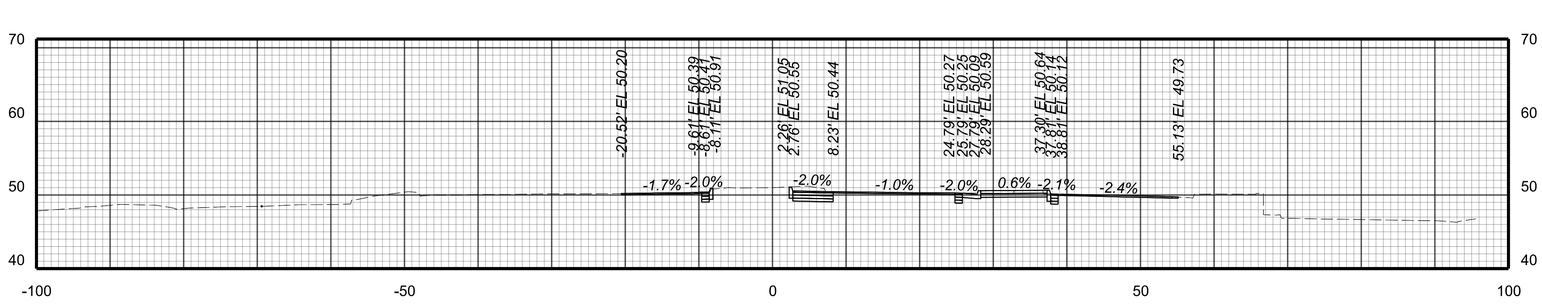
SCALE 1 IN. = 10 FT

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

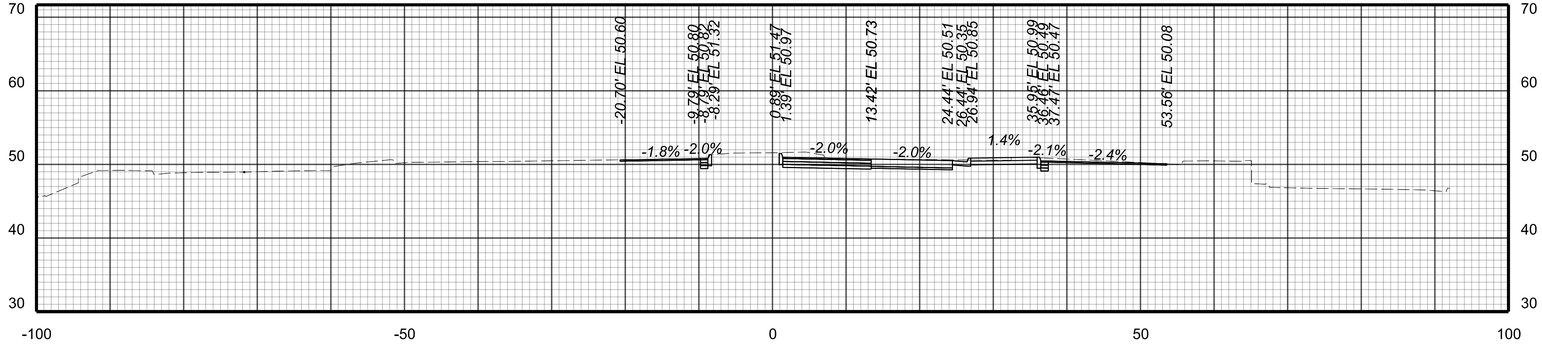
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS07



STA 105+25.00



STA 105+00.00



STA 104+75.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS07

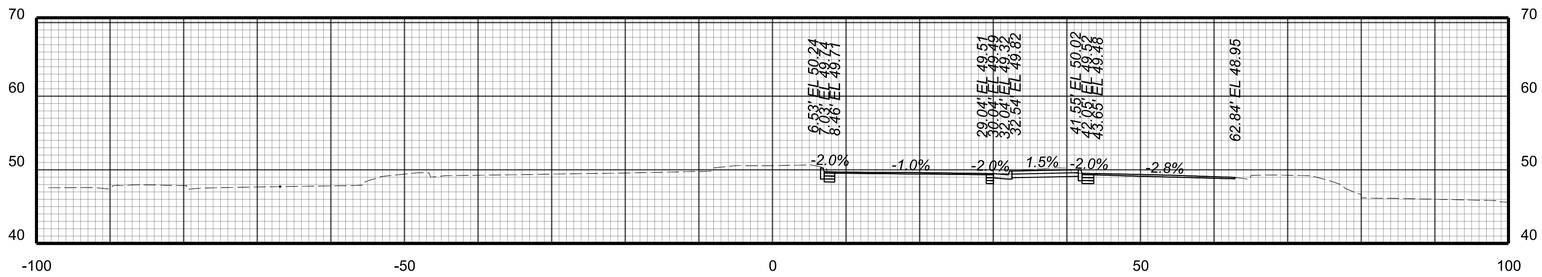
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

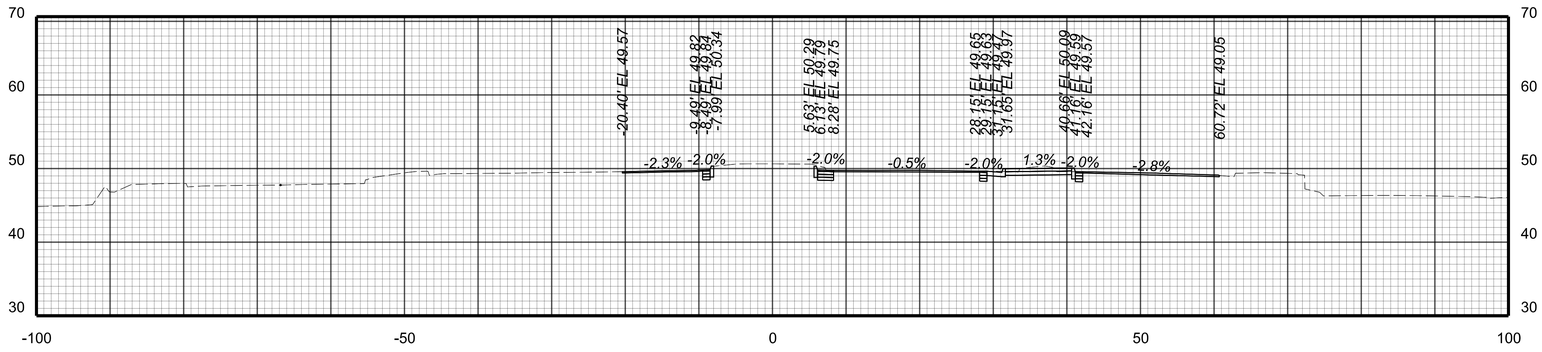
SCALE 1 IN. = 10 FT

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

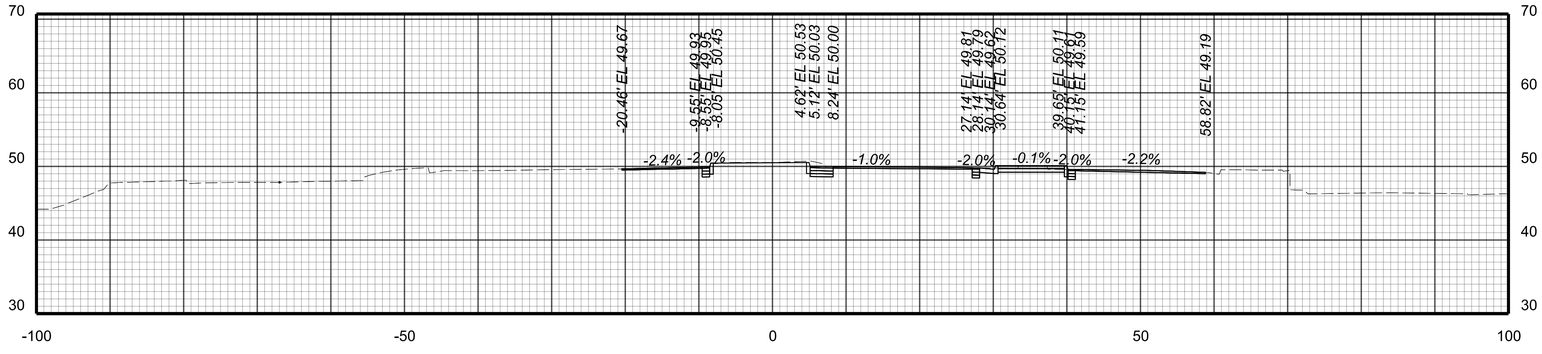
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS08



STA 106+00.00



STA 105+75.00



STA 105+50.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS08

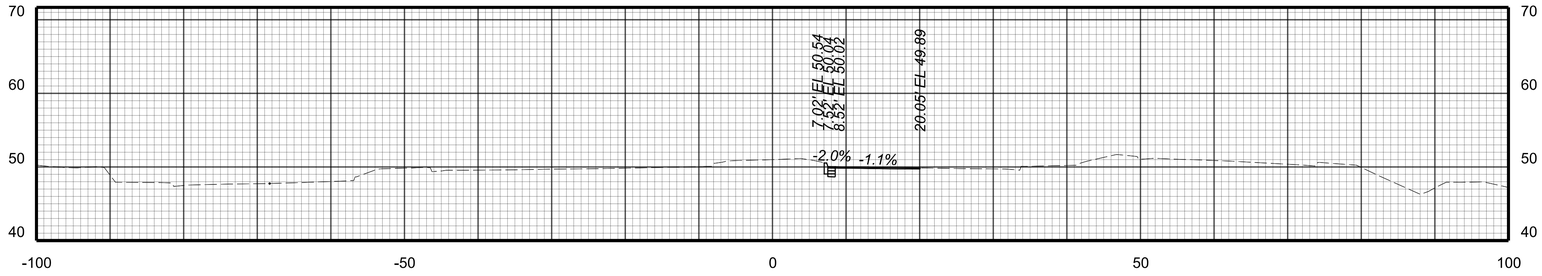
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

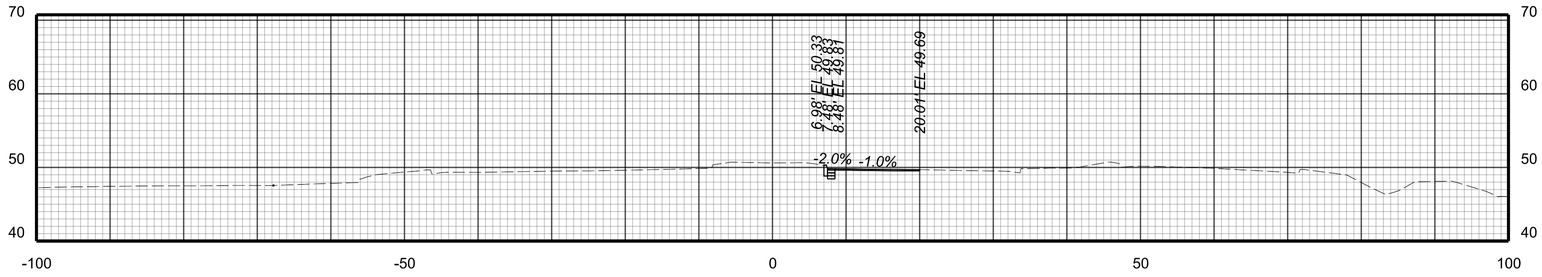
SCALE 1 IN. = 10 FT

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

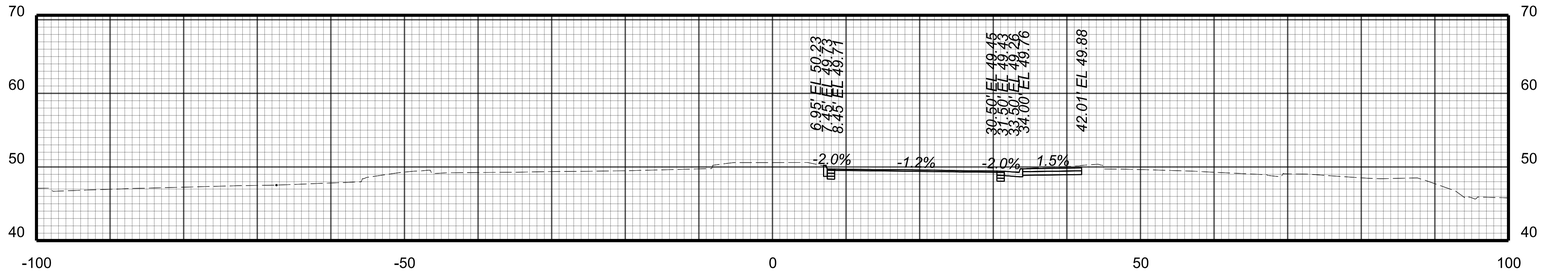
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS09



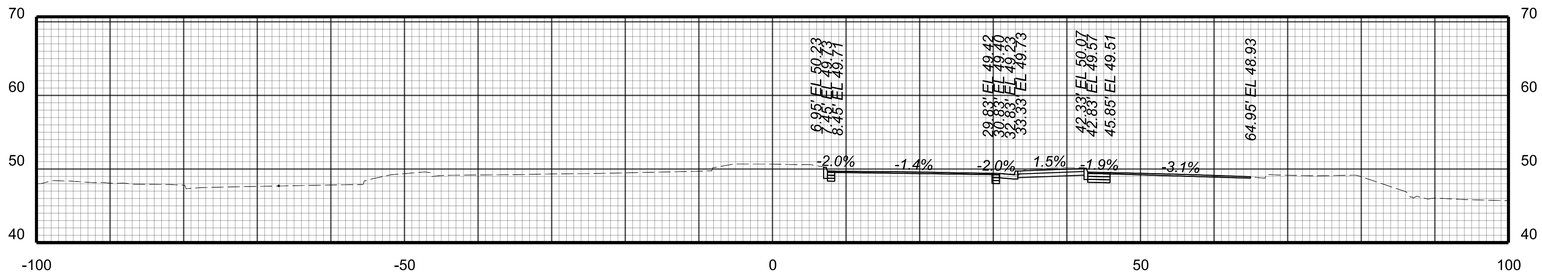
STA 107+00.00



STA 106+75.00



STA 106+50.00



STA 106+25.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS09

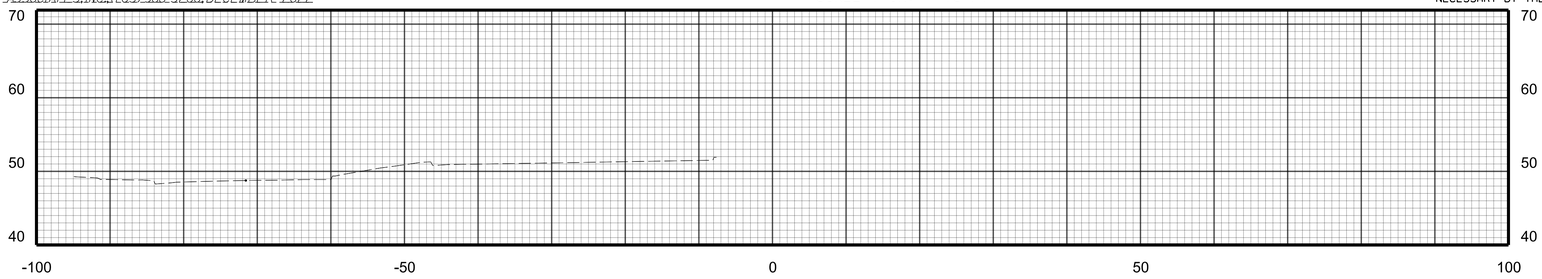
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

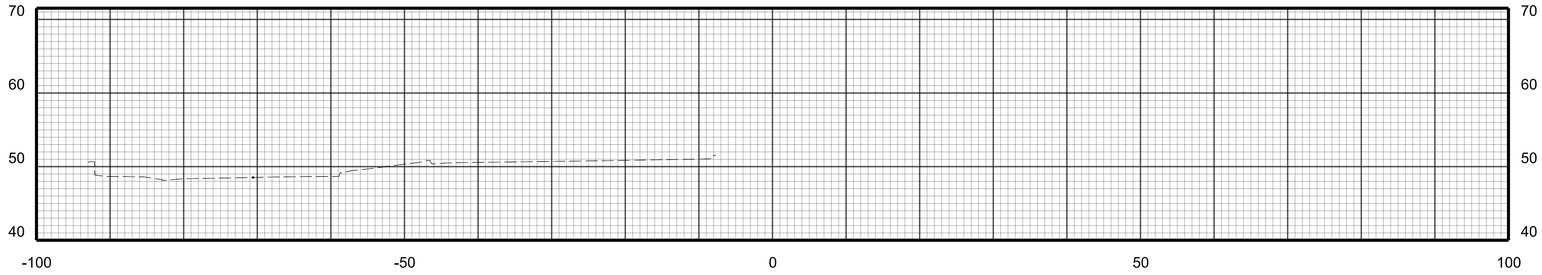
SCALE 1 IN. = 10 FT

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

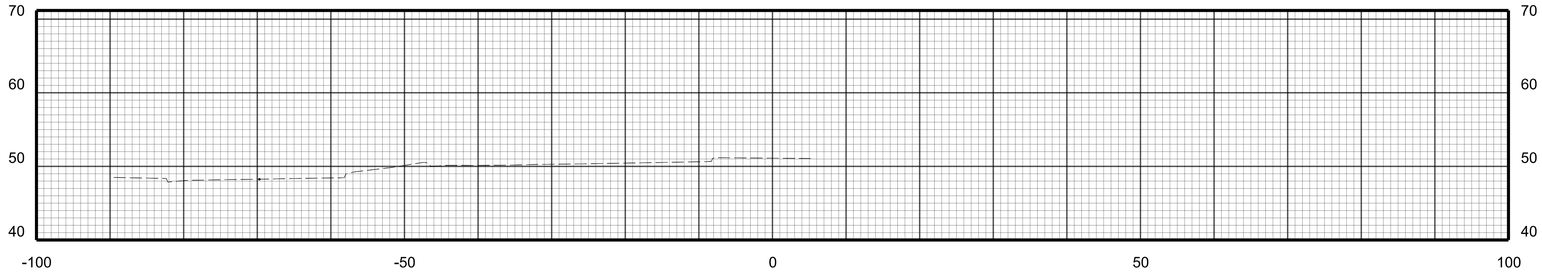
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS10



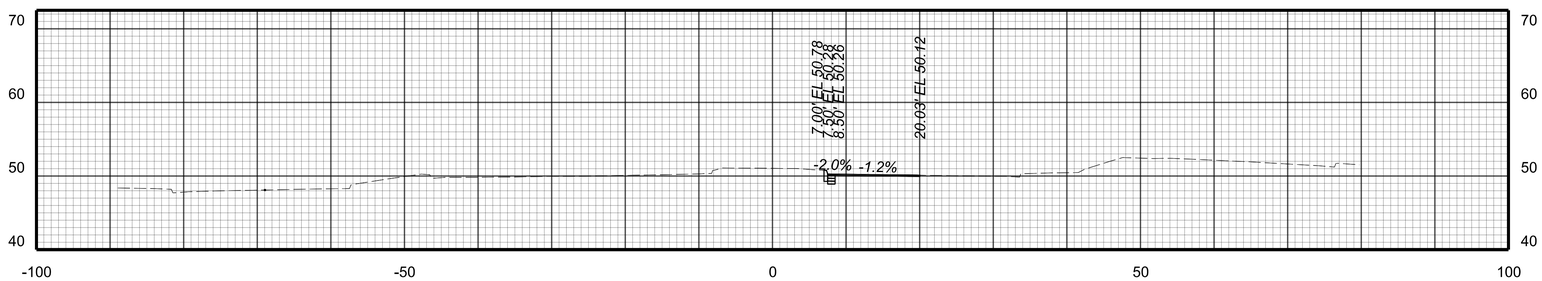
STA 108+00.00



STA 107+75.00



STA 107+50.00



STA 107+25.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS10

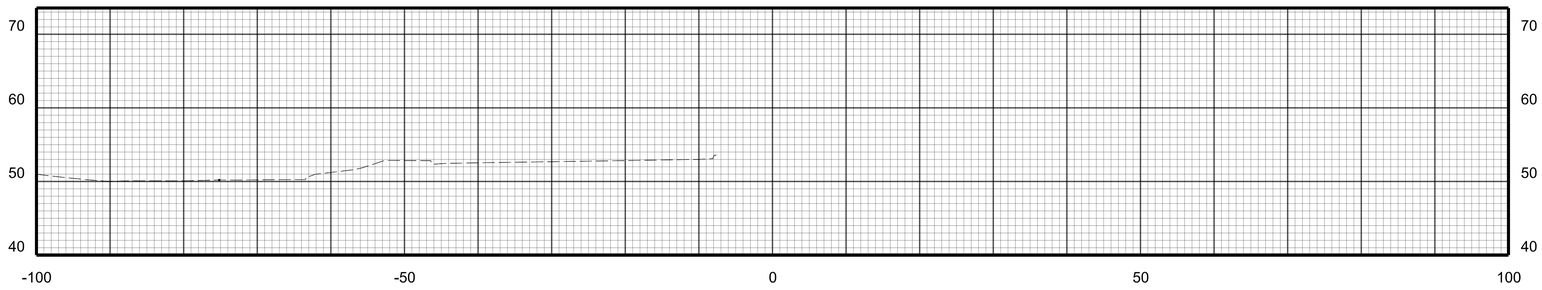
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

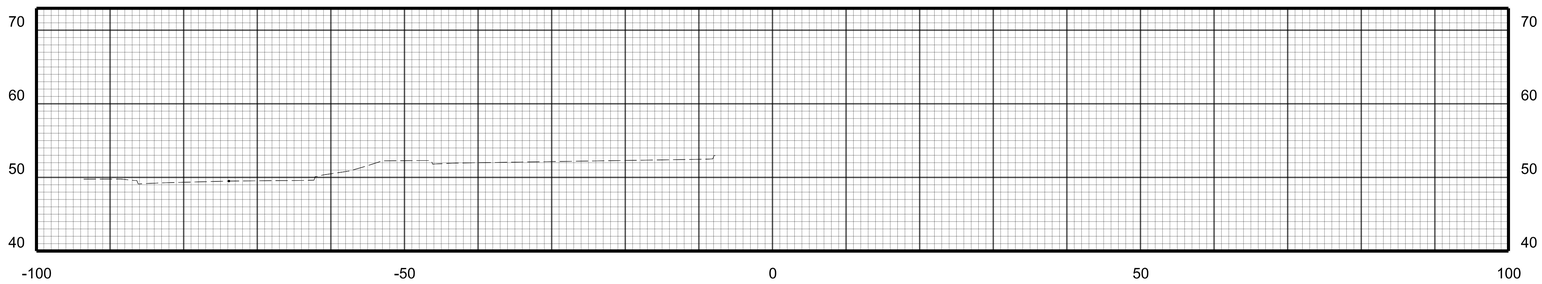
SCALE 1 IN. = 10 FT

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

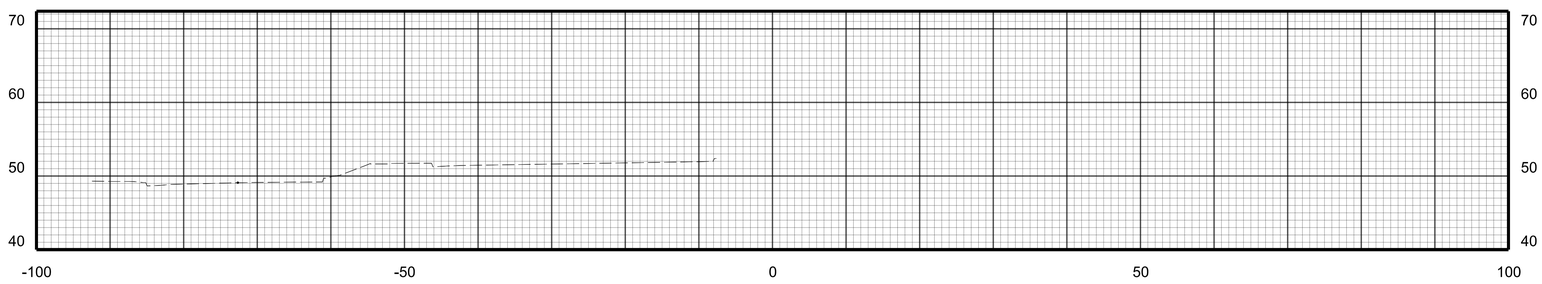
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XSII



STA 108+75.00



STA 108+50.00



STA 108+25.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XSII

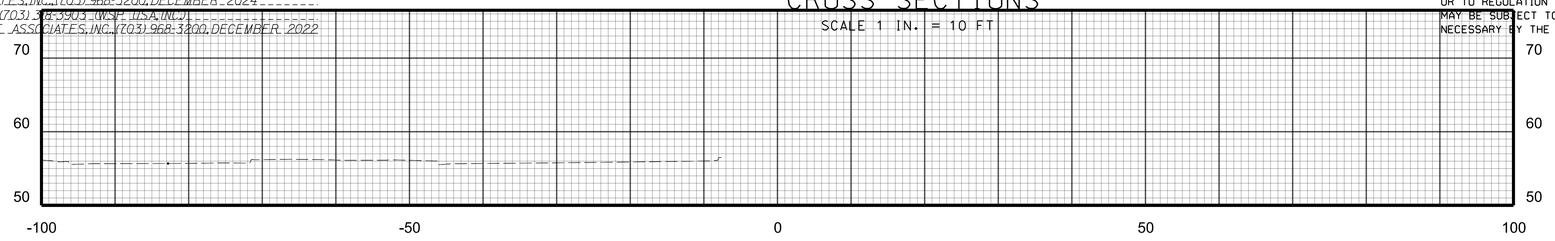
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 718-3903 (WSP USA INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

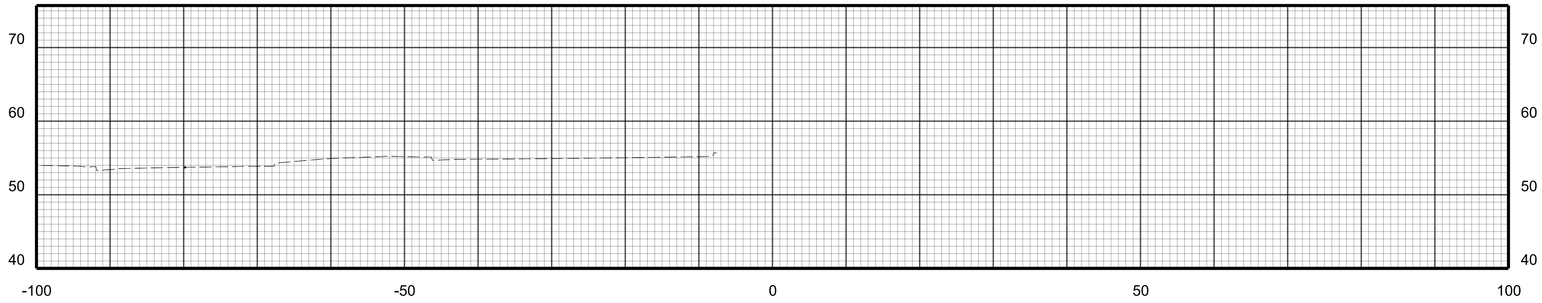
SCALE 1 IN. = 10 FT

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

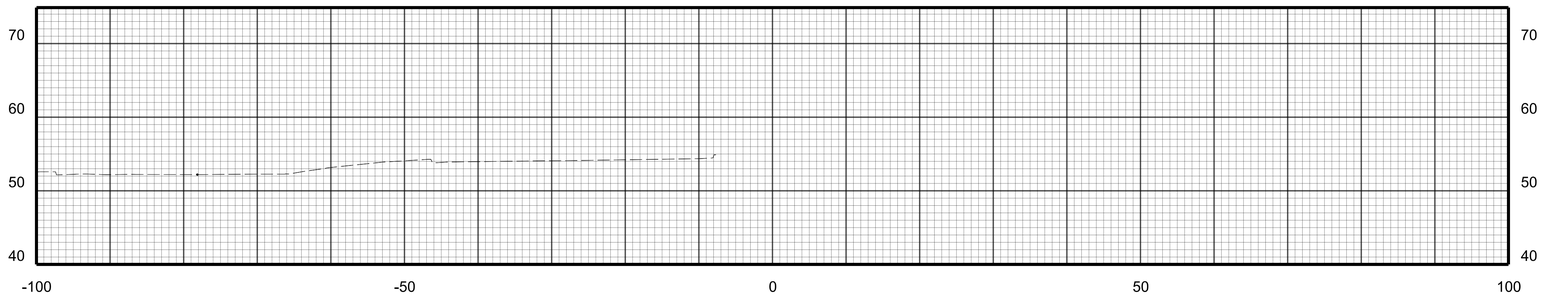
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS12



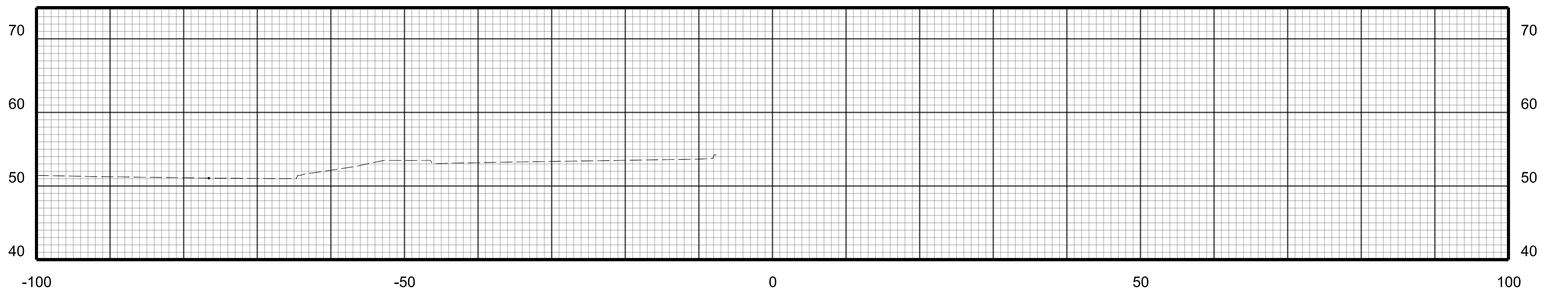
STA 109+75.00



STA 109+50.00



STA 109+25.00



STA 109+00.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS12

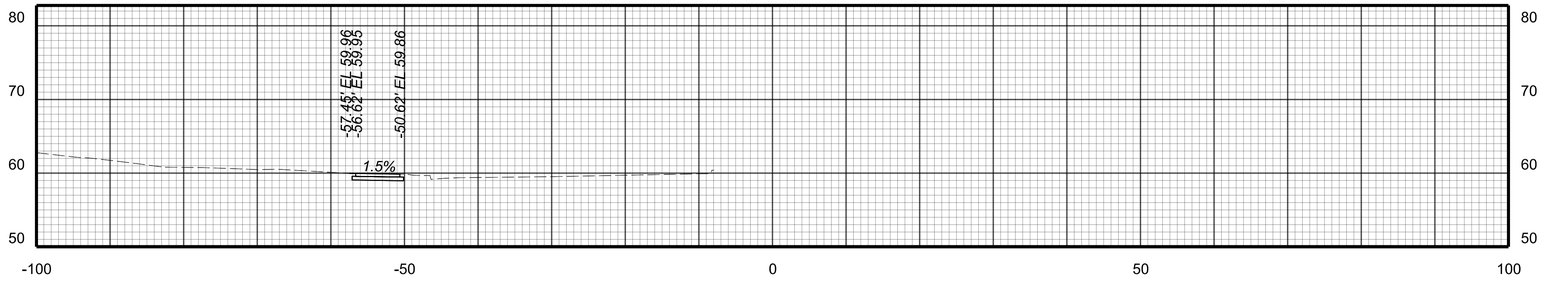
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

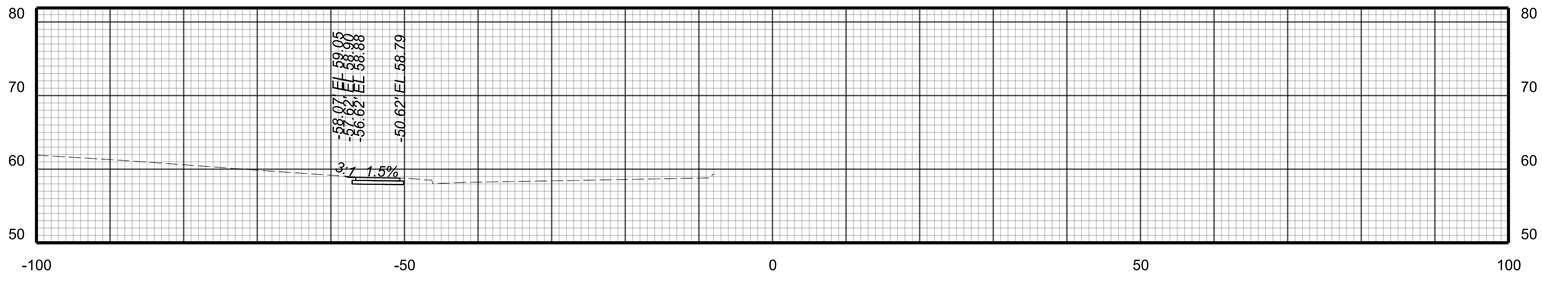
SCALE 1 IN. = 10 FT

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

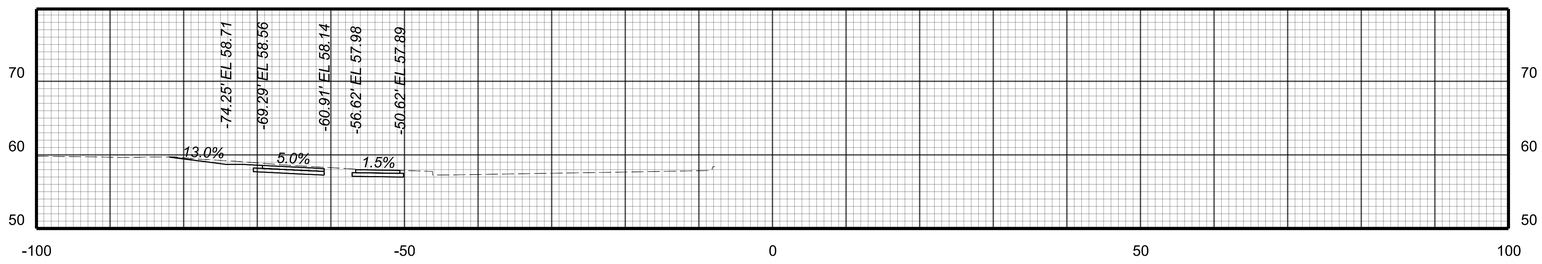
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS13



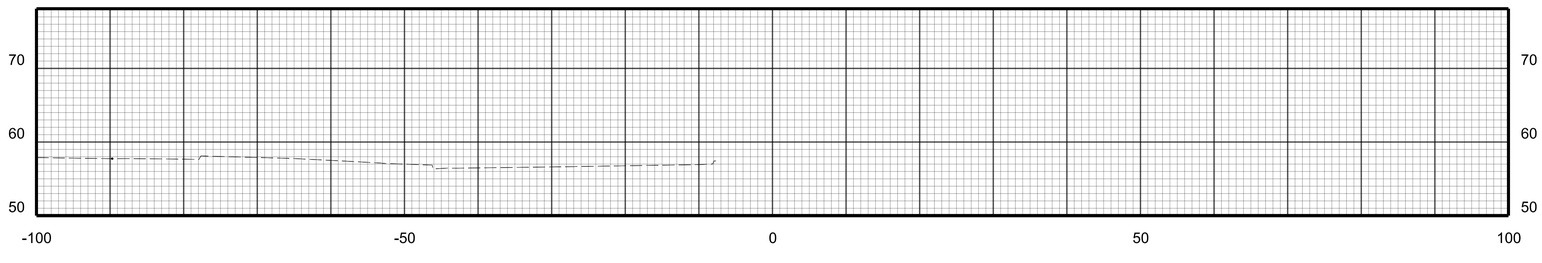
STA 110+75.00



STA 110+50.00



STA 110+25.00



STA 110+00.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS13

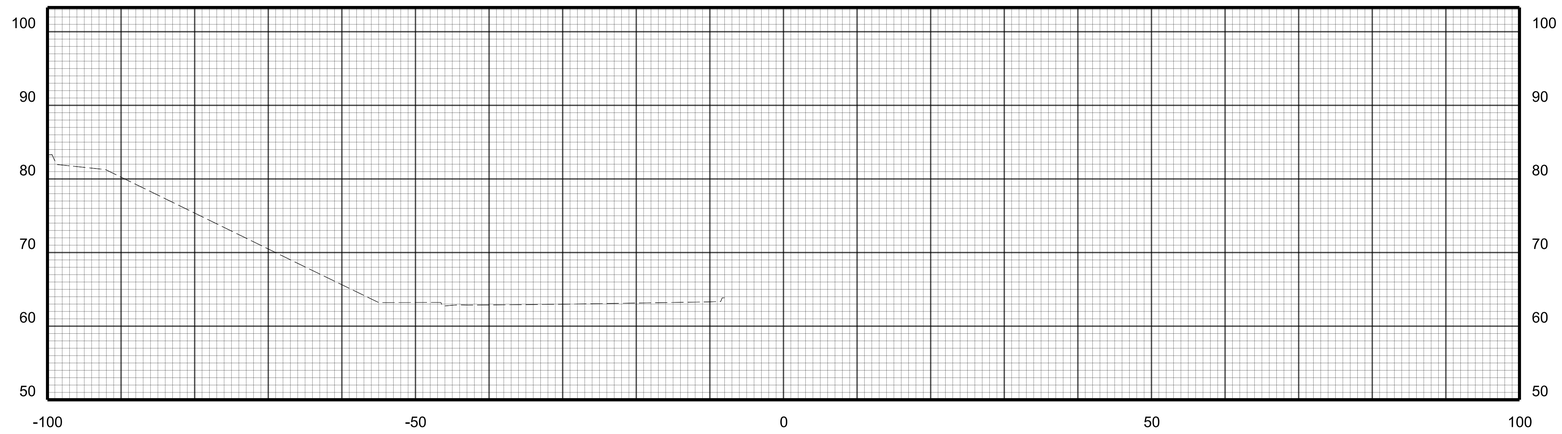
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

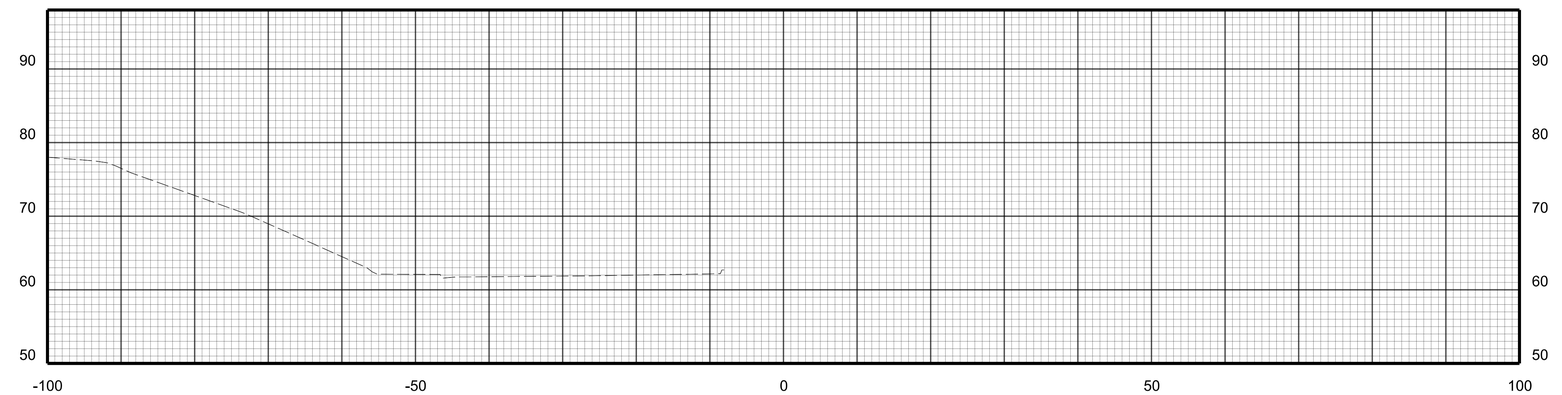
SCALE 1 IN. = 10 FT

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

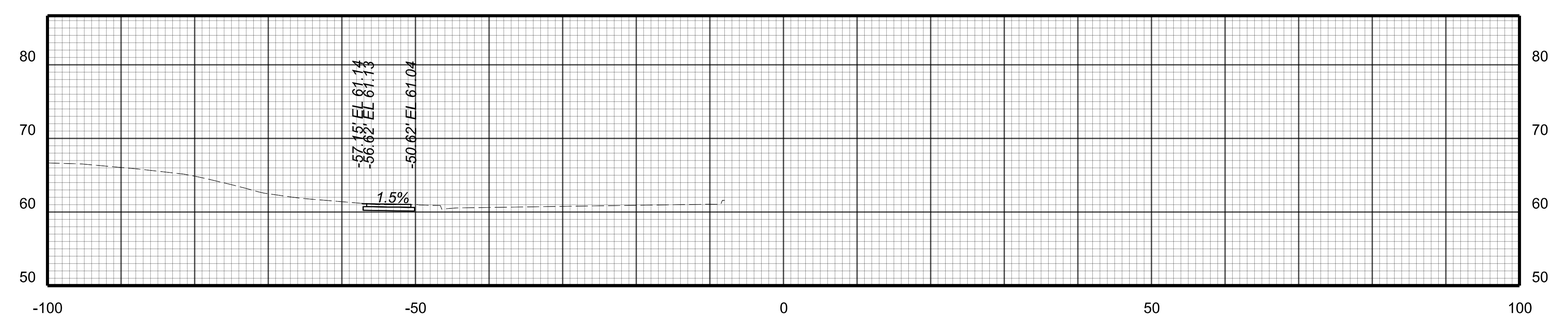
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS14



STA 111+50.00



STA 111+25.00



STA 111+00.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS14

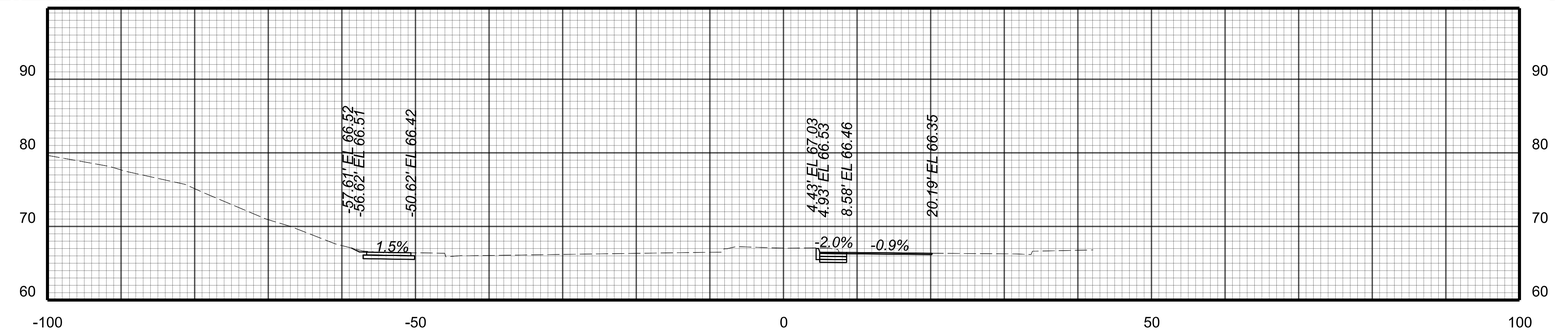
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

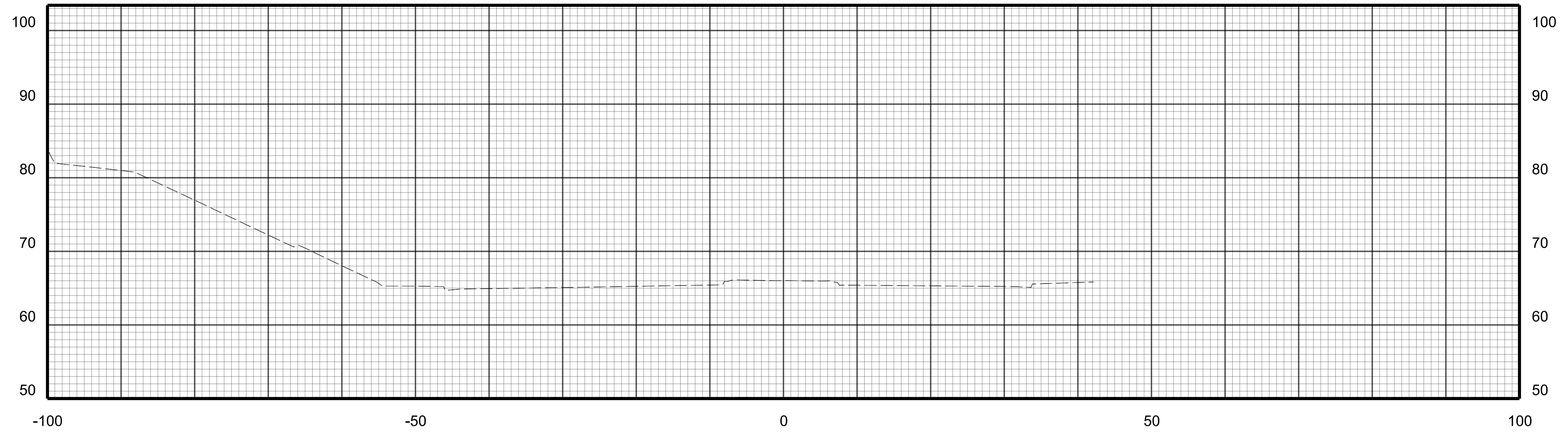
SCALE 1 IN. = 10 FT

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

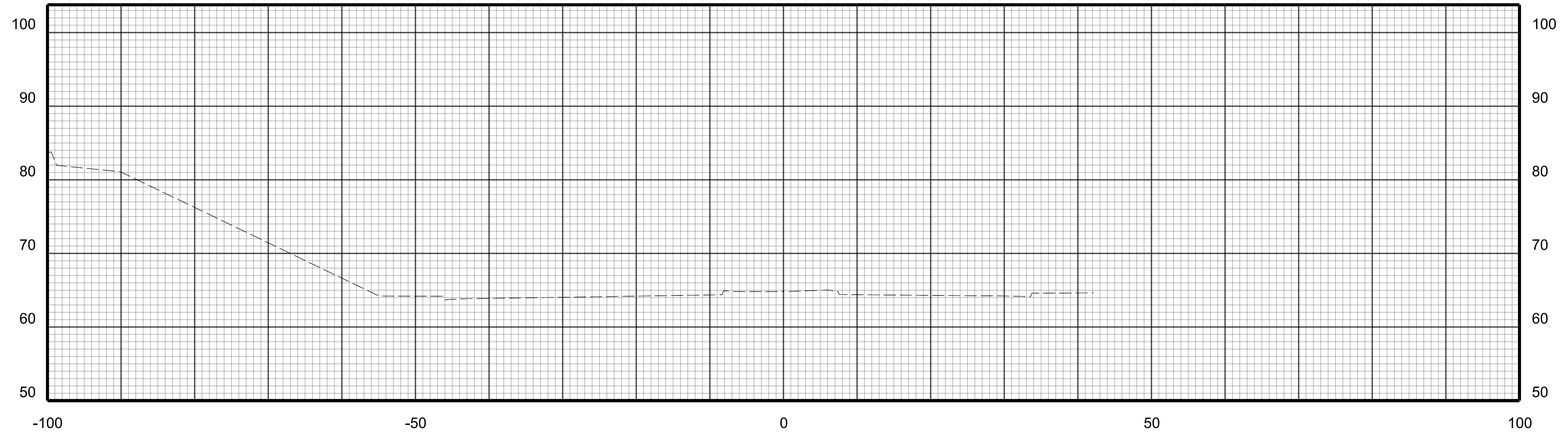
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS15



STA 112+25.00



STA 112+00.00



STA 111+75.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS15

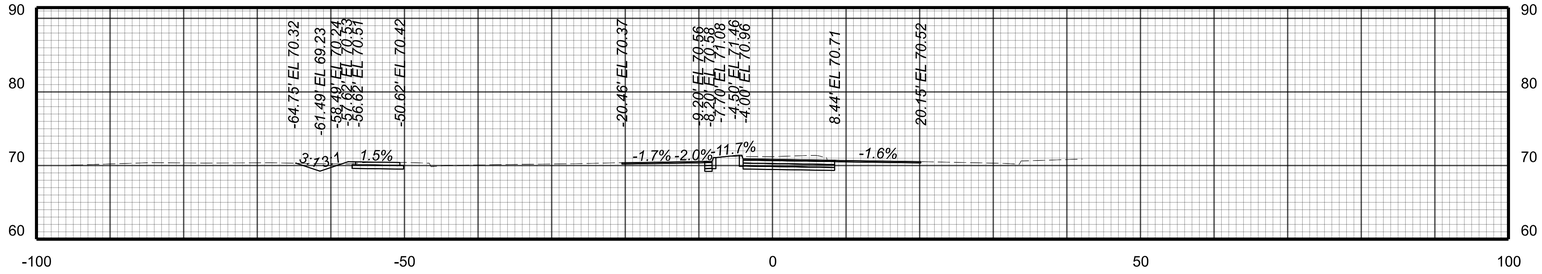
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

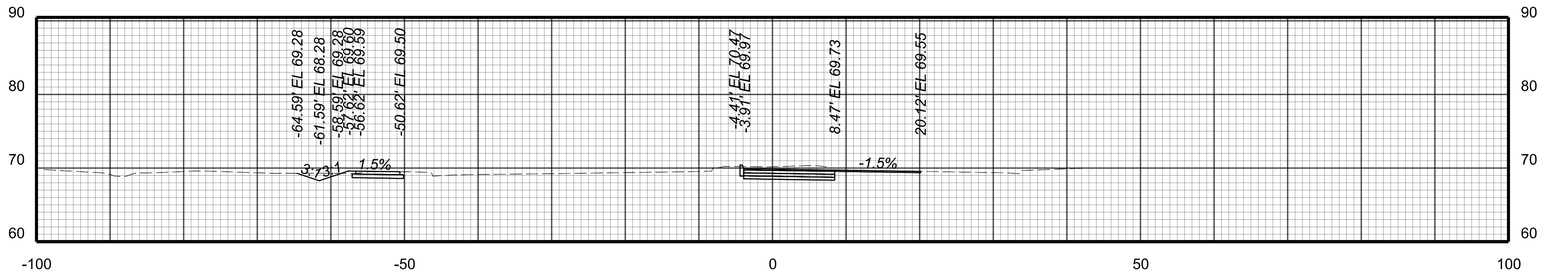
SCALE 1 IN. = 10 FT

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

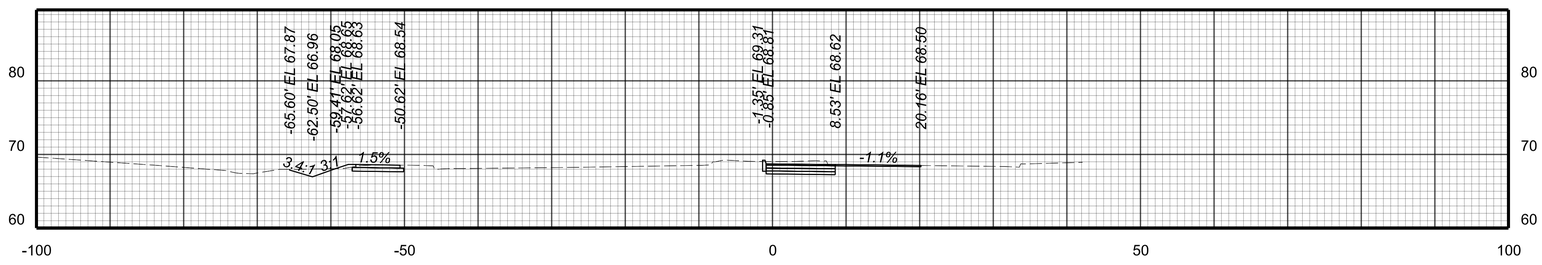
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS16



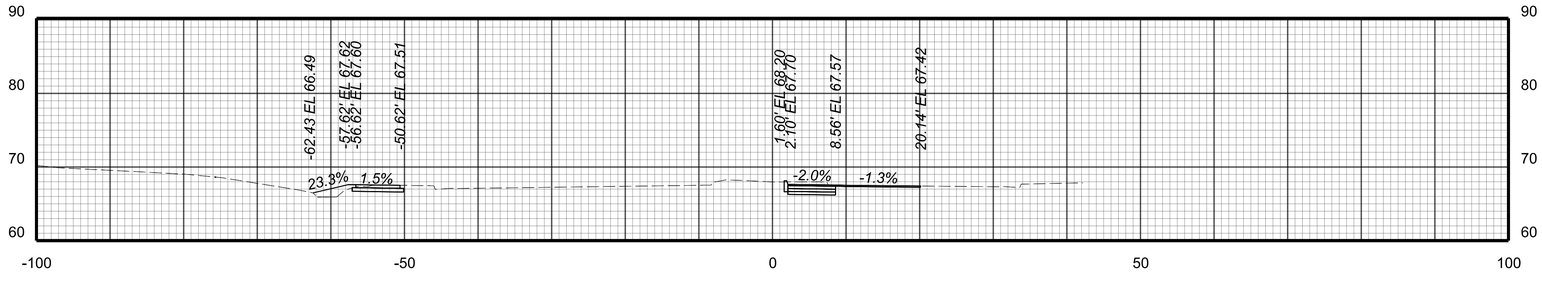
STA 113+25.00



STA 113+00.00



STA 112+75.00



STA 112+50.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS16

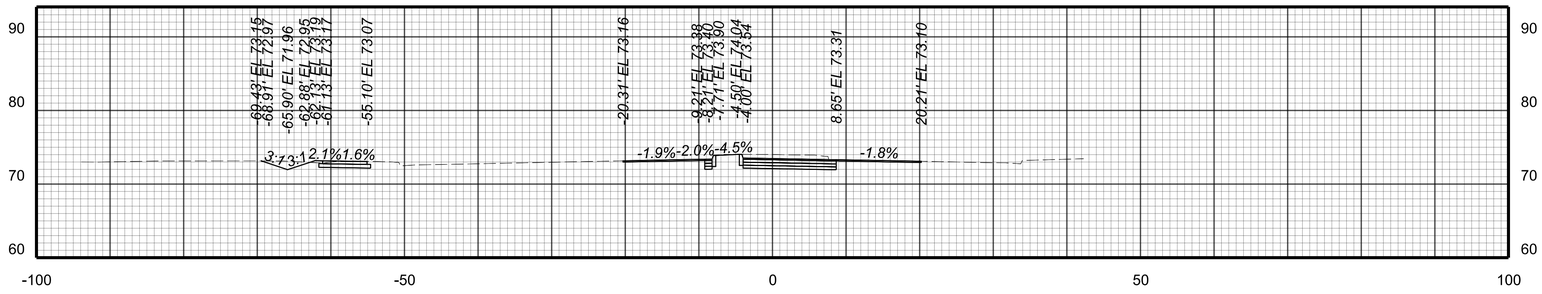
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

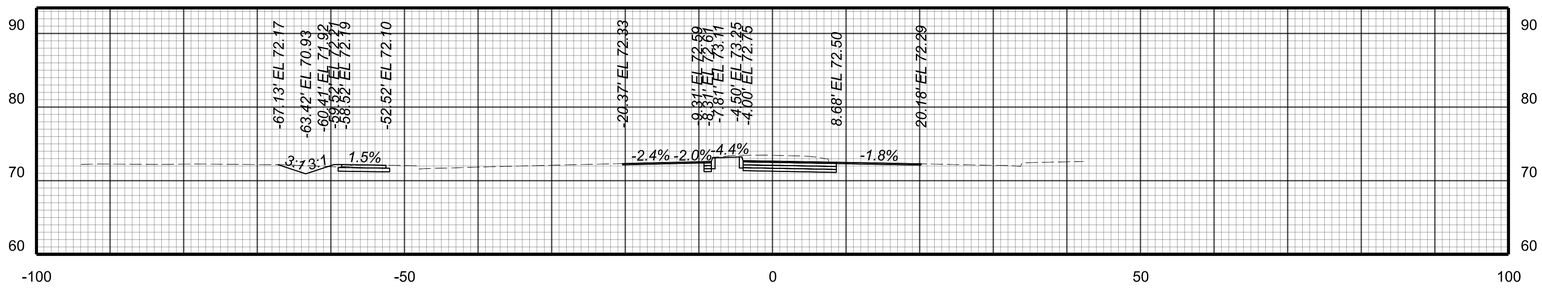
SCALE 1 IN. = 10 FT

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

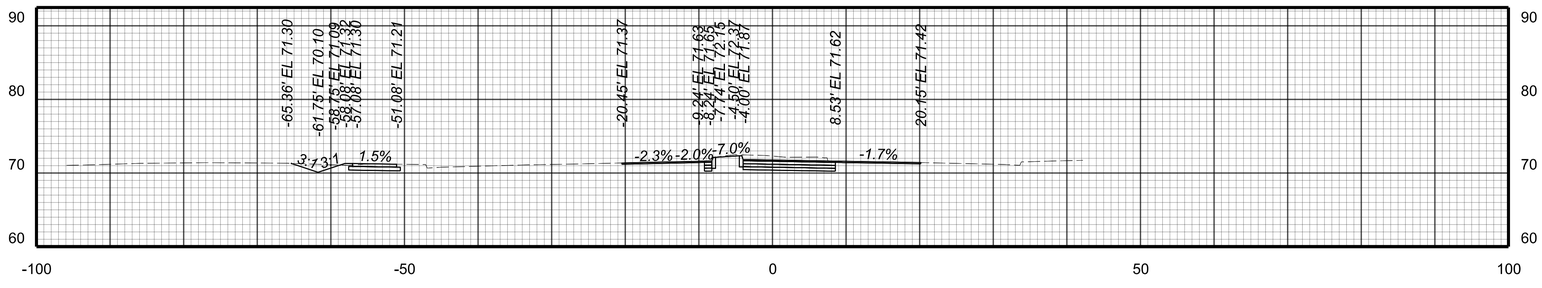
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XSI7



STA 114+00.00



STA 113+75.00



STA 113+50.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XSI7

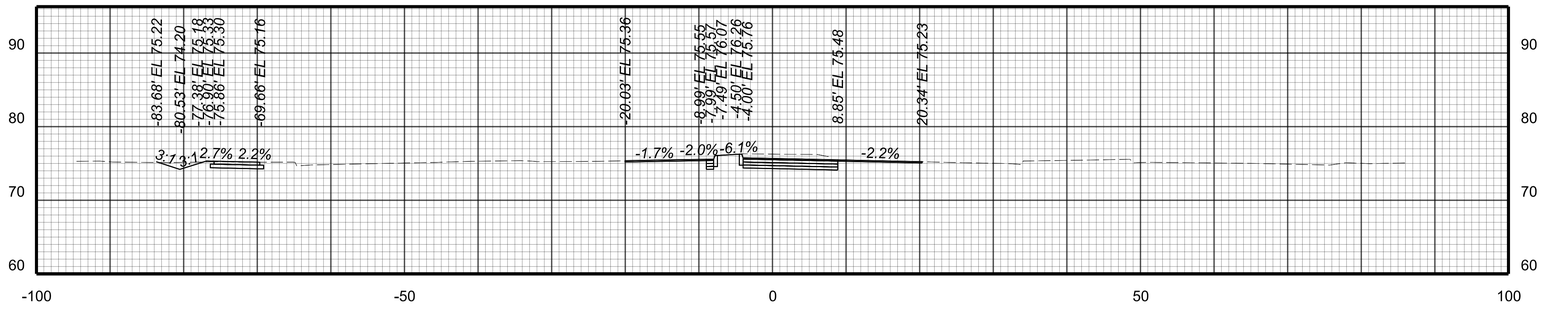
PROJECT MANAGER ANUP_GAUTAM,PE,PMP,CCM,(703)746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES,INC.,(703)968-3200,DECEMBER 2024
DESIGN BY MATTHEW MARTIN,PE,(703)318-3903 (WSP USA,INC)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES,INC.,(703)968-3200,DECEMBER 2022

CROSS SECTIONS

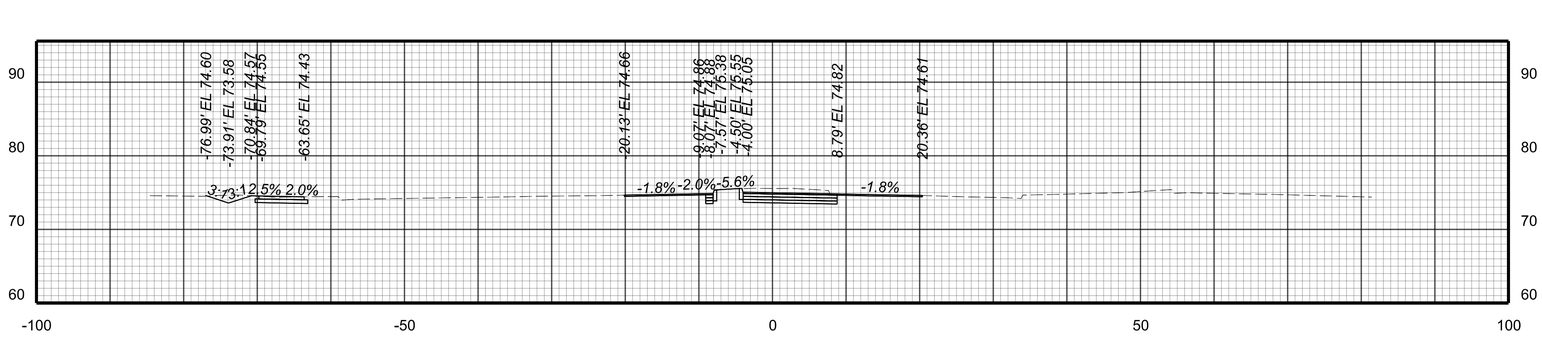
SCALE 1 IN. = 10 FT

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

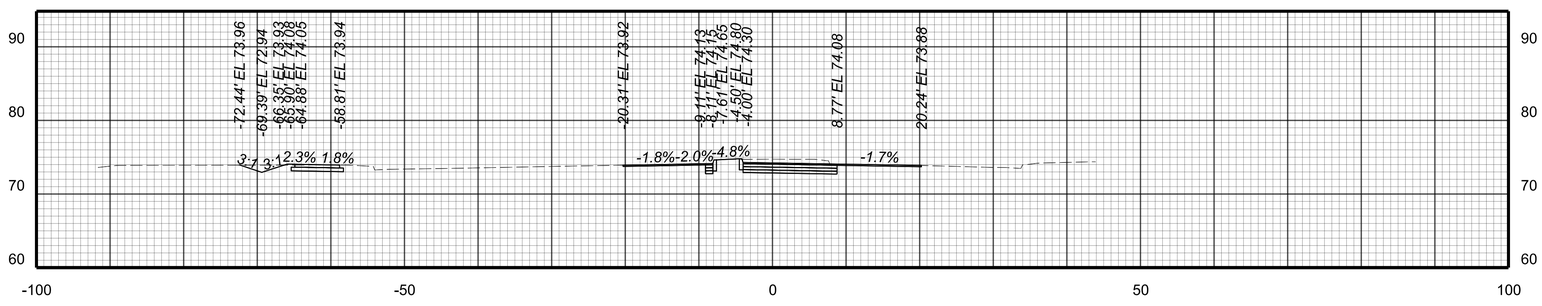
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XSI8



STA 114+75.00



STA 114+50.00



STA 114+25.00

CROSS SECTIONS
DUKE STREET

	PROJECT	SHEET NO.
	0236-100-888	XSI8

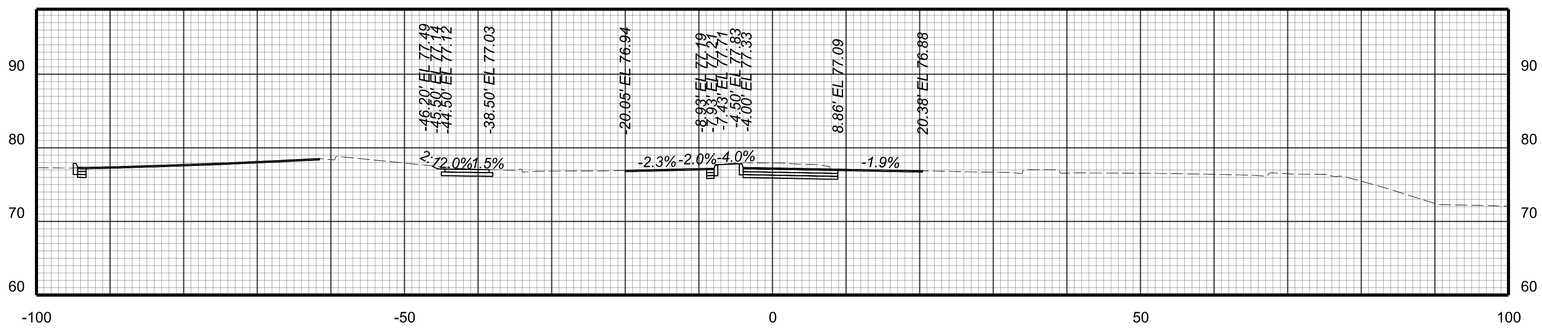
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

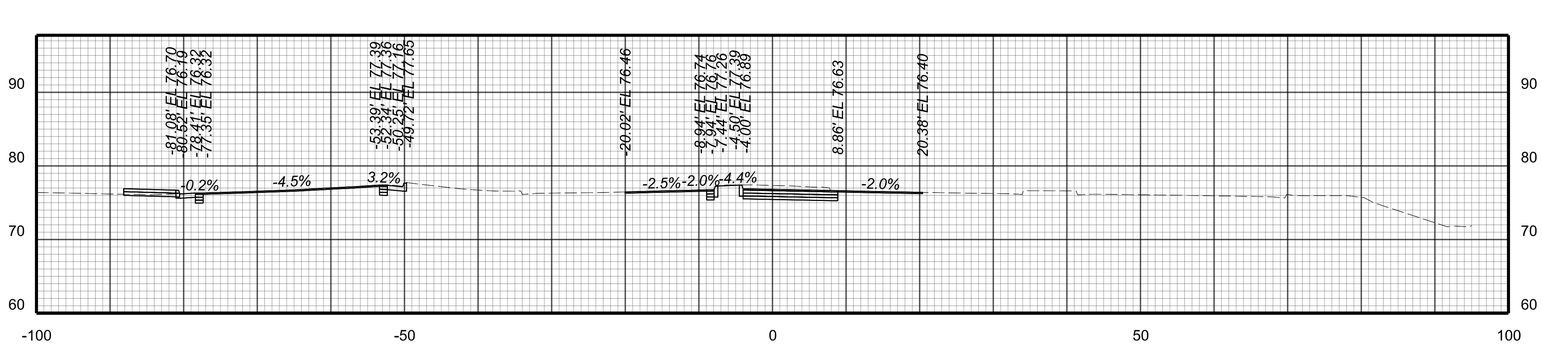
SCALE 1 IN. = 10 FT

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

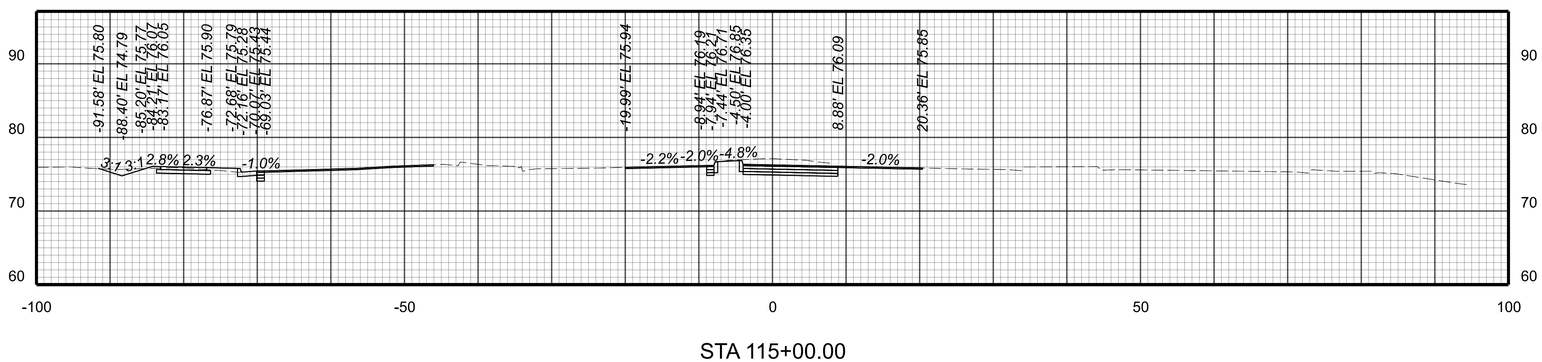
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS19



STA 115+50.00



STA 115+25.00



STA 115+00.00

CROSS SECTIONS
DUKE STREET

	PROJECT	SHEET NO.
	0236-100-888	XS19

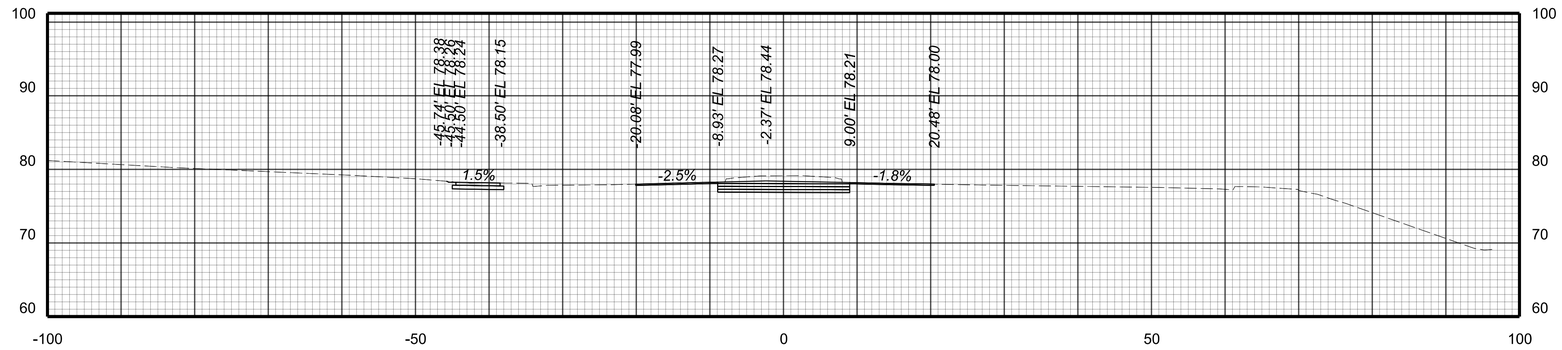
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

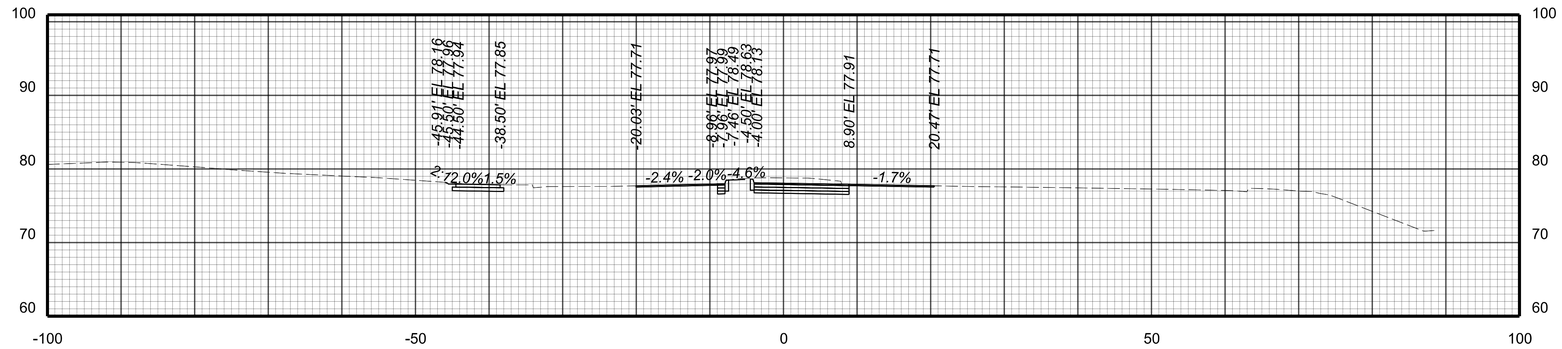
SCALE 1 IN. = 10 FT

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

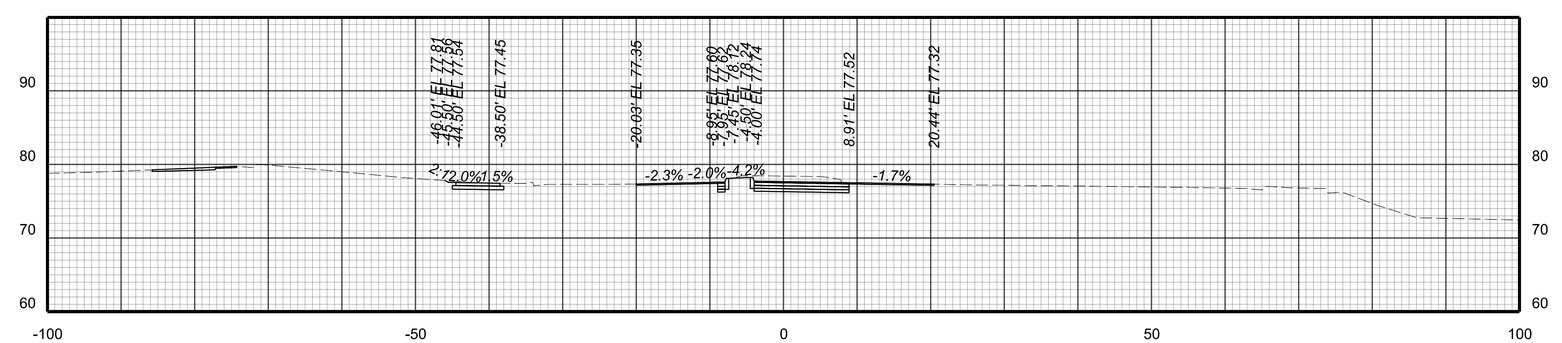
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS20



STA 116+25.00



STA 116+00.00



STA 115+75.00

CROSS SECTIONS
DUKE STREET

	PROJECT	SHEET NO.
	0236-100-888	XS20

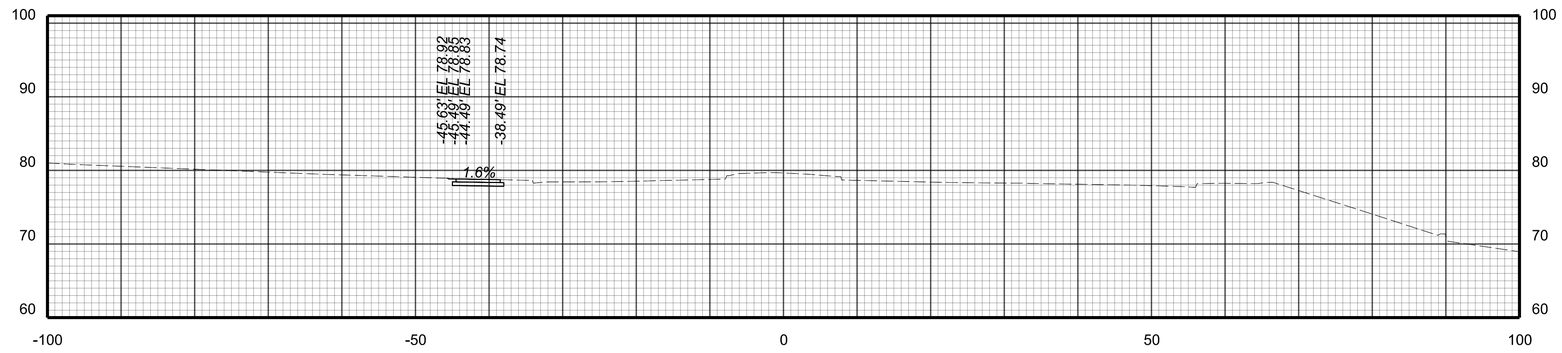
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

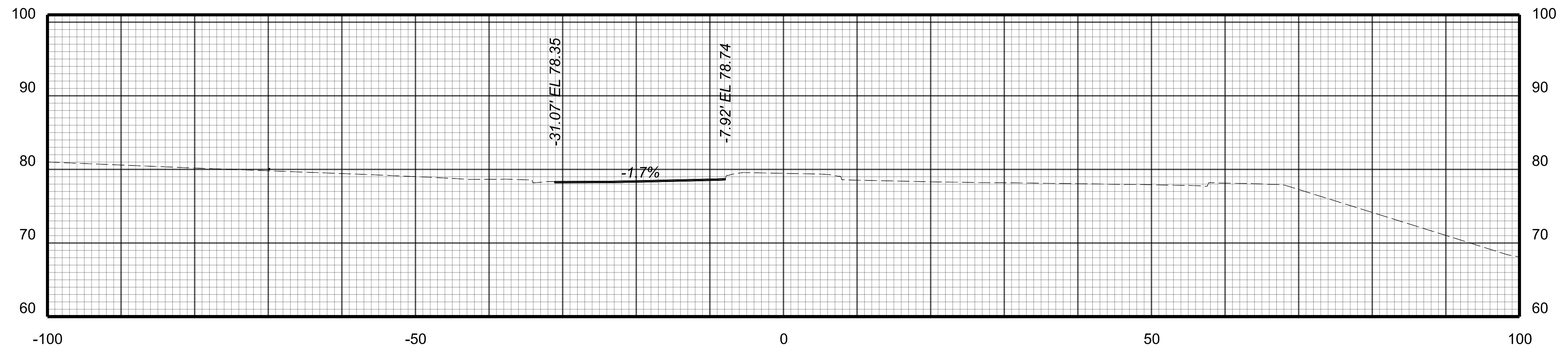
SCALE 1 IN. = 10 FT

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

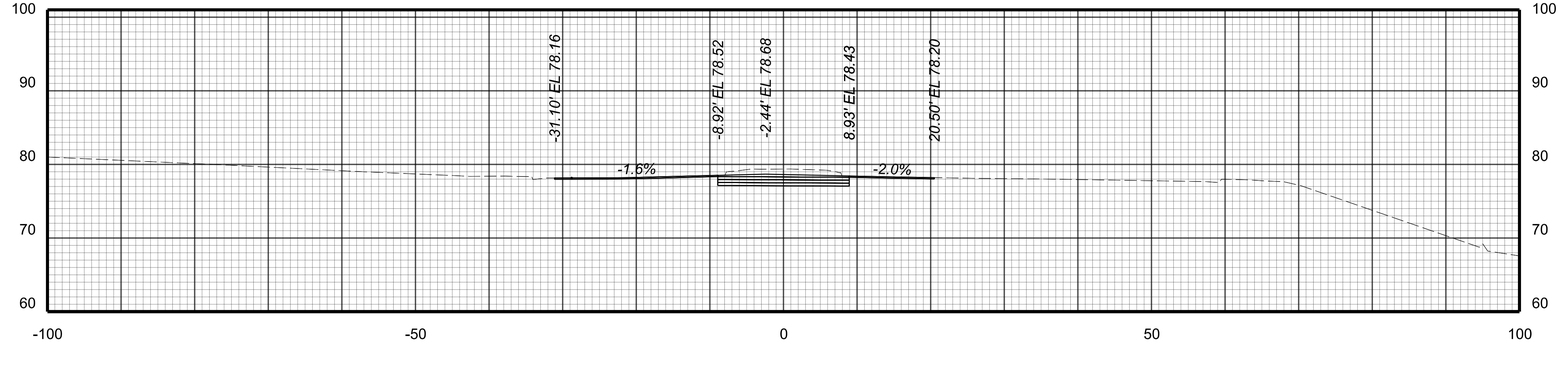
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS21



STA 117+00.00



STA 116+75.00



STA 116+50.00

CROSS SECTIONS
DUKE STREET

PROJECT	SHEET NO.
0236-100-888	XS21

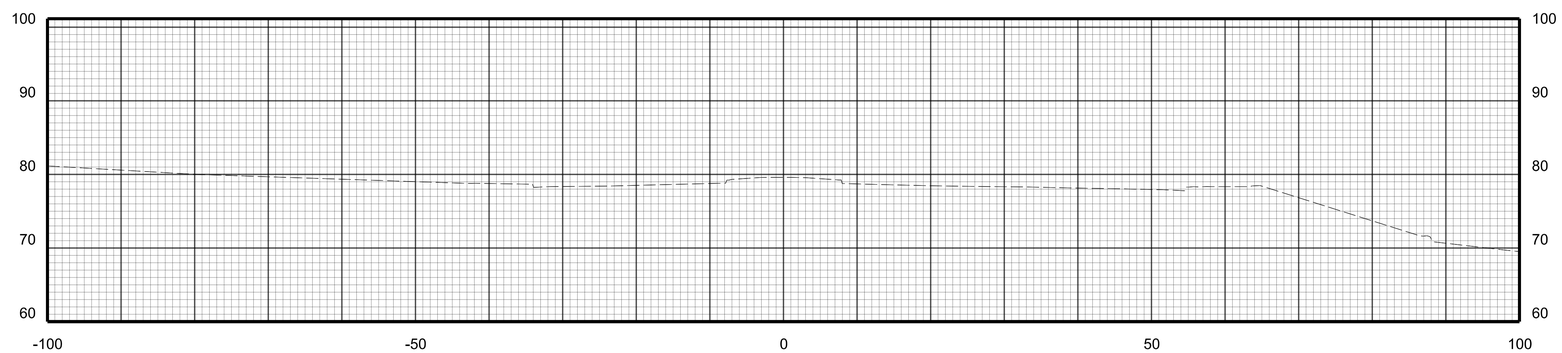
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

SCALE 1 IN. = 10 FT

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

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	236	0236-100-888	XS22



STA 117+25.00

CROSS SECTIONS
DUKE STREET

	PROJECT	SHEET NO.
	0236-100-888	XS22

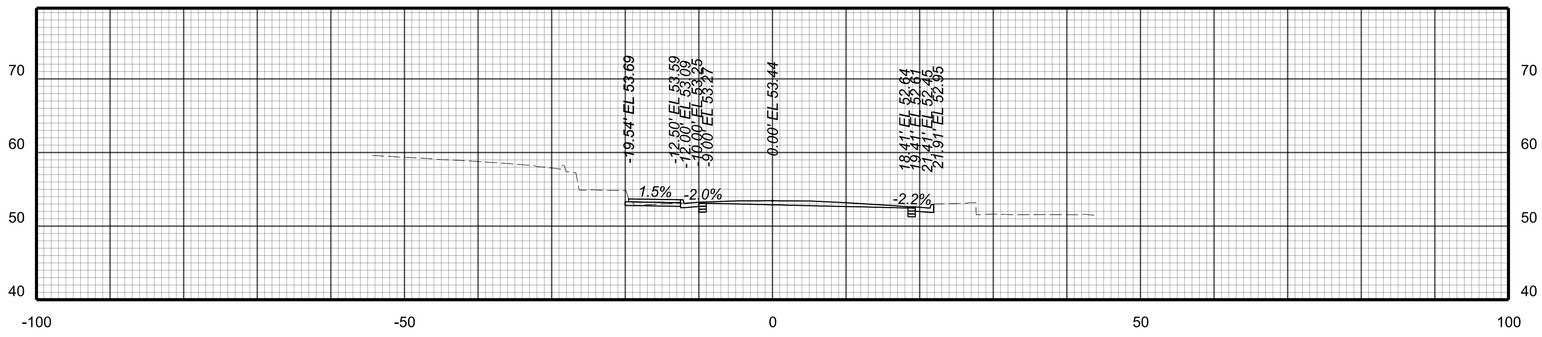
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

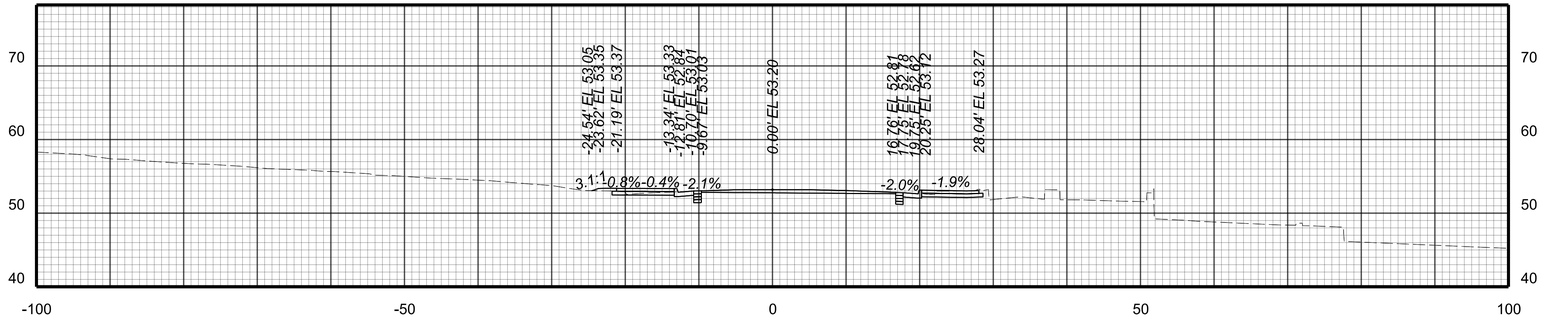
SCALE 1 IN. = 10 FT

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

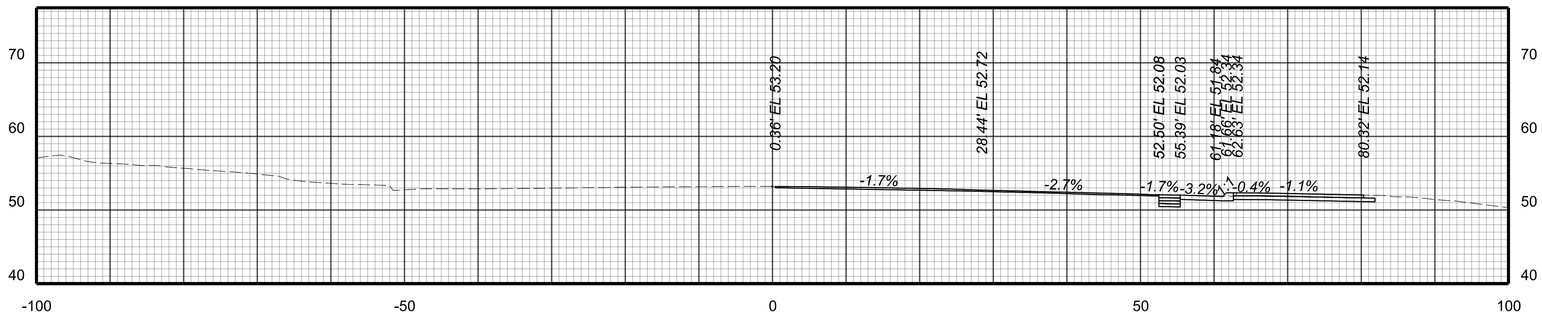
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS23



STA 11+75.00



STA 11+50.00



STA 11+25.00

CROSS SECTIONS
W TAYLOR RUN PARKWAY

	PROJECT	SHEET NO.
	0236-100-888	XS23

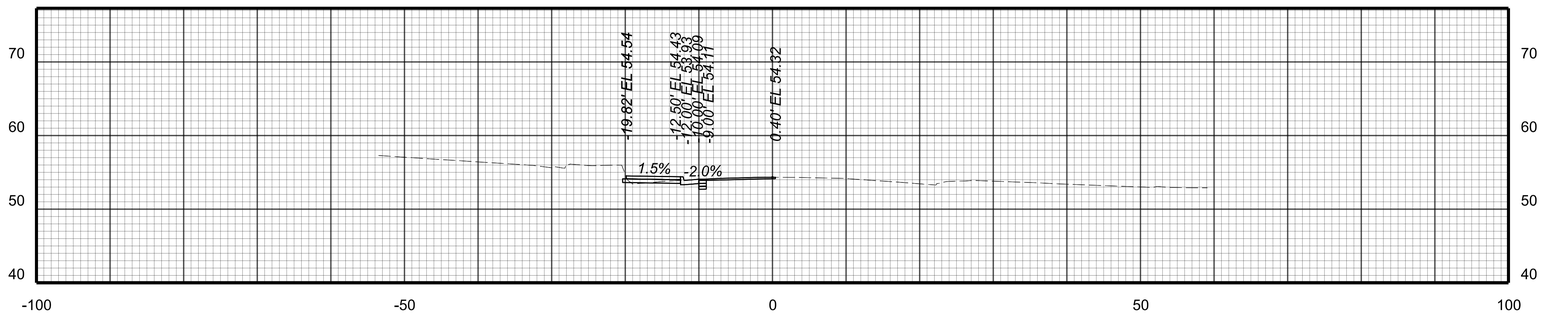
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

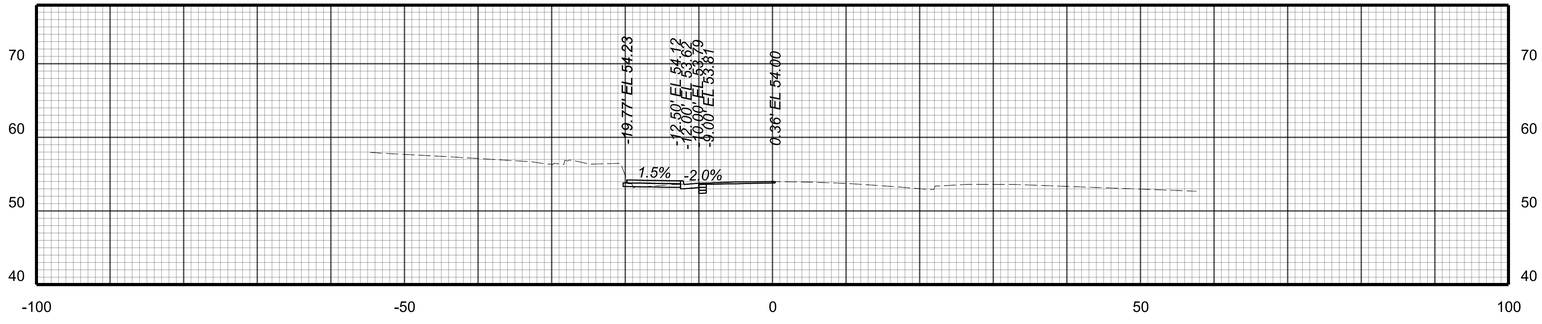
SCALE 1 IN. = 10 FT

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

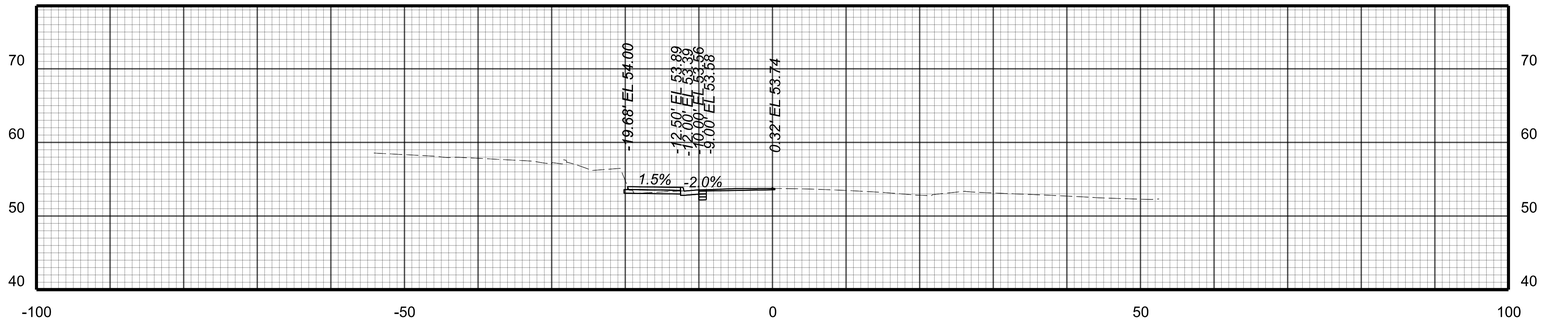
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS24



STA 12+50.00



STA 12+25.00



STA 12+00.00

CROSS SECTIONS
W TAYLOR RUN PARKWAY

PROJECT	SHEET NO.
0236-100-888	XS24

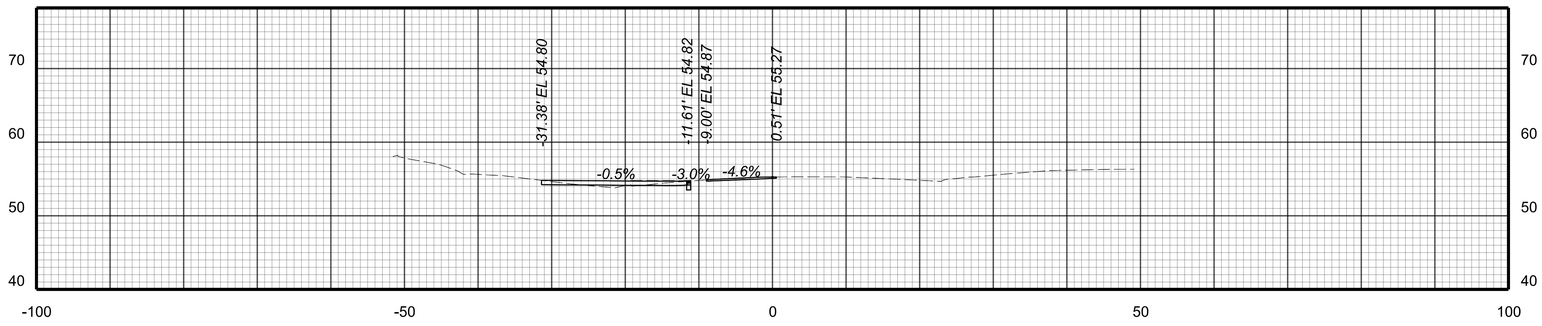
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

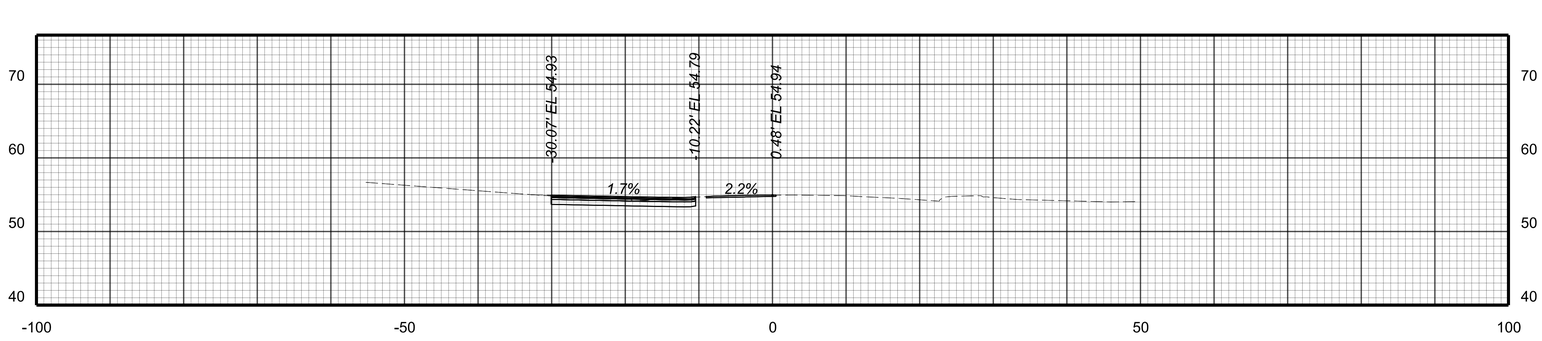
SCALE 1 IN. = 10 FT

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

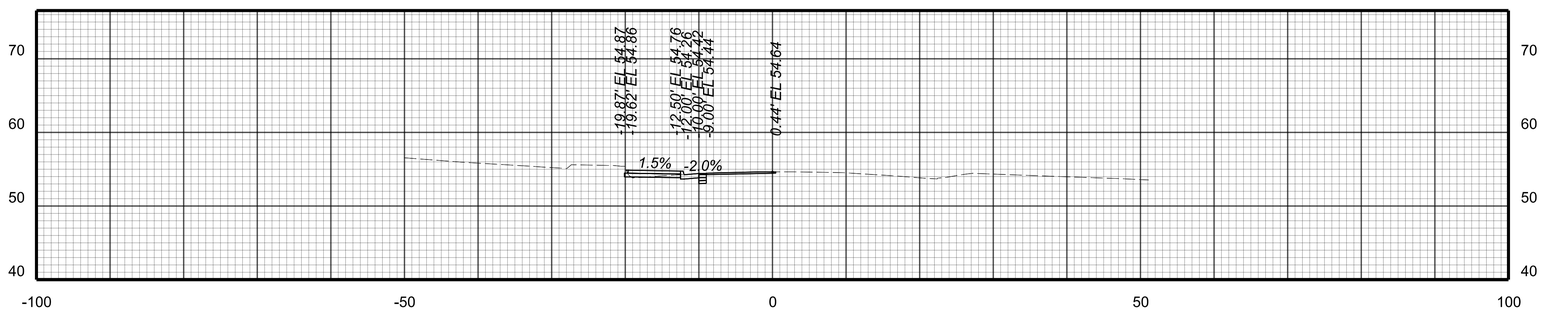
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS25



STA 13+25.00



STA 13+00.00



STA 12+75.00

CROSS SECTIONS
W TAYLOR RUN PARKWAY

	PROJECT	SHEET NO.
	0236-100-888	XS25

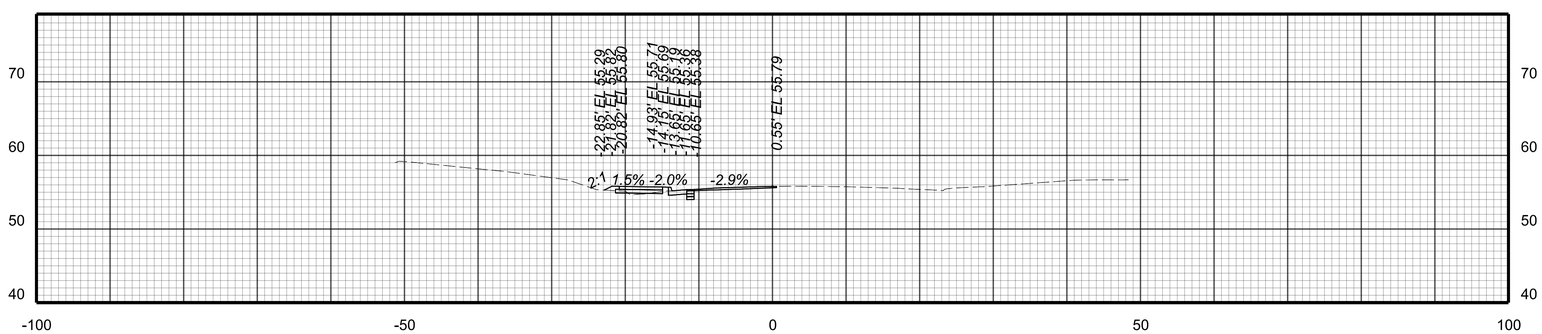
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

SCALE 1 IN. = 10 FT

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

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	236	0236-100-888	XS26



STA 13+50.00

CROSS SECTIONS
W TAYLOR RUN PARKWAY

	PROJECT	SHEET NO.
	0236-100-888	XS26

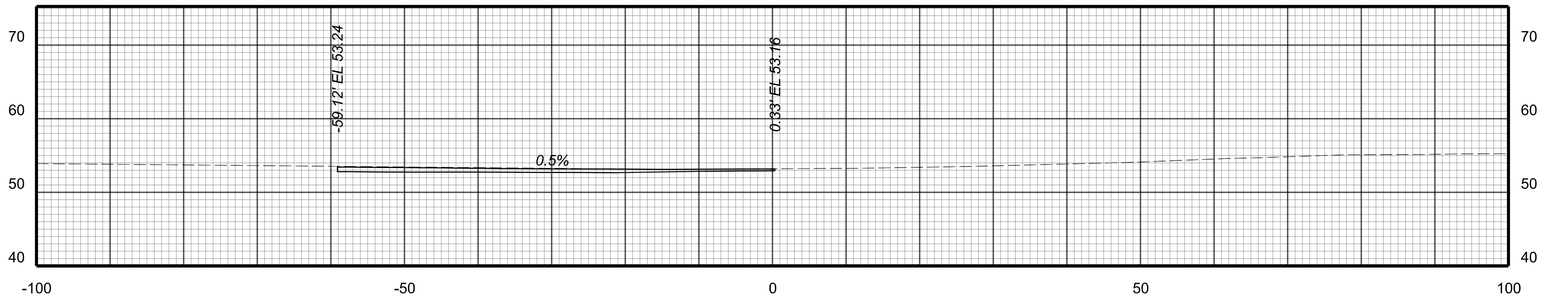
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

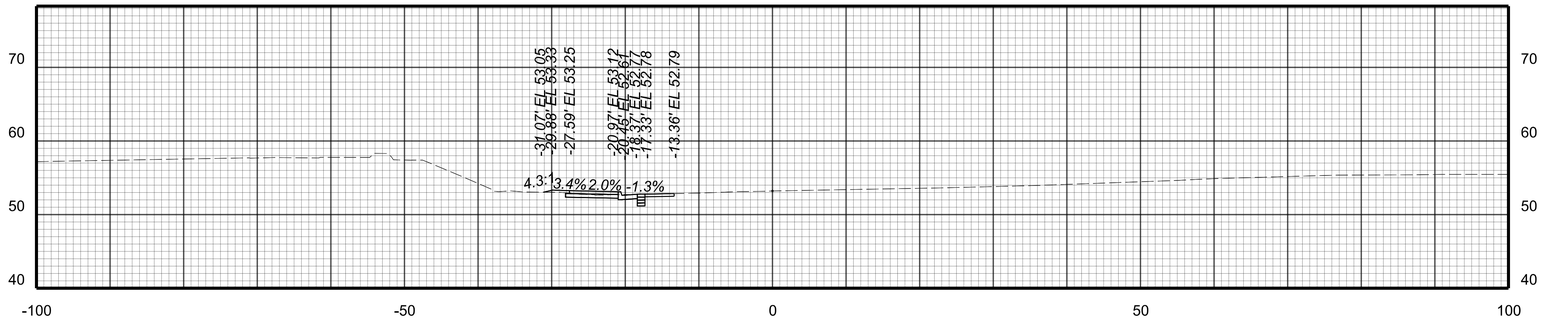
SCALE 1 IN. = 10 FT

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

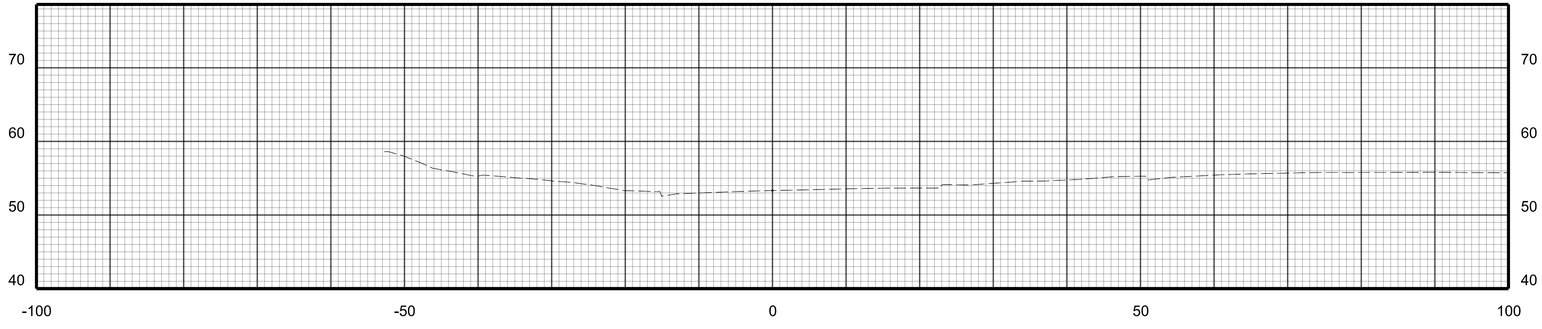
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS27



STA 202+75.00



STA 202+50.00



STA 202+25.00

CROSS SECTIONS
DUKE STREET SERVICE ROAD

	PROJECT	SHEET NO.
	0236-100-888	XS27

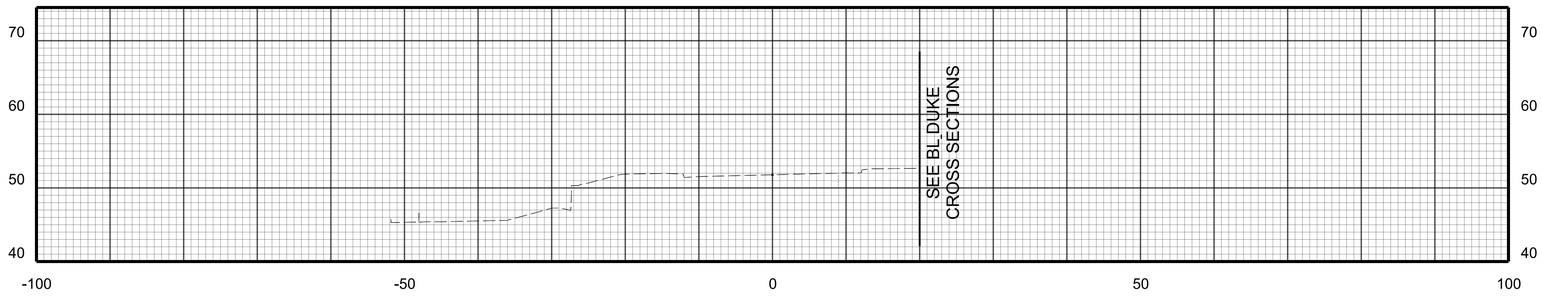
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

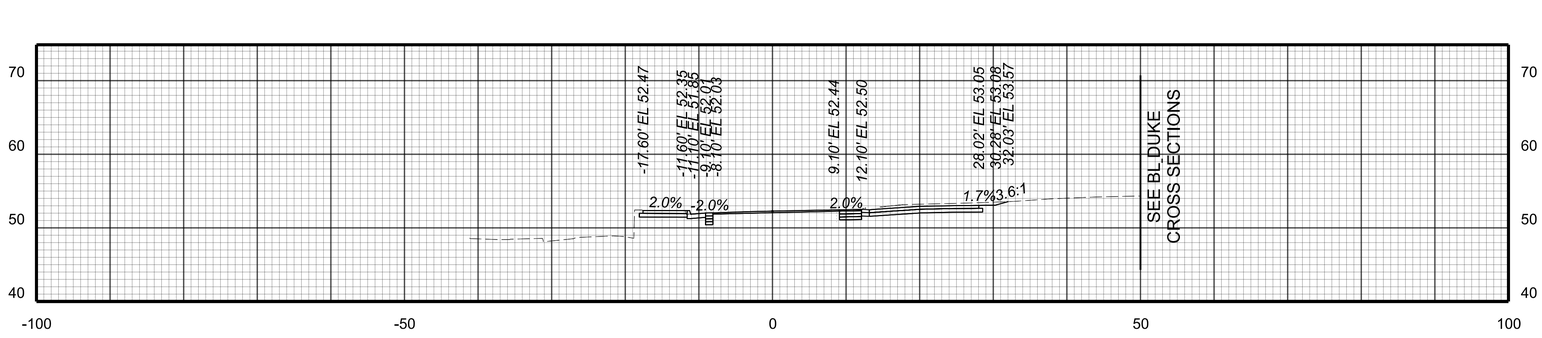
SCALE 1 IN. = 10 FT

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

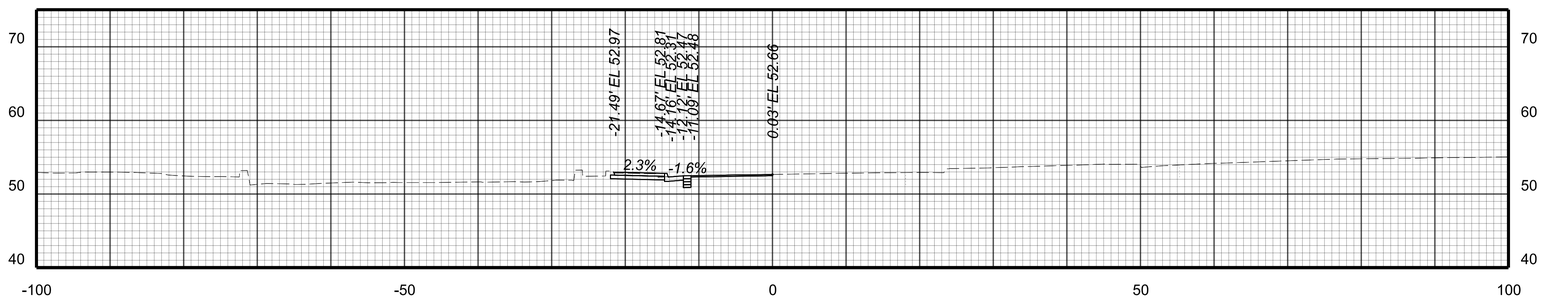
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS28



STA 203+50.00



STA 203+25.00



STA 203+00.00

CROSS SECTIONS
DUKE STREET SERVICE ROAD

PROJECT	SHEET NO.
0236-100-888	XS28

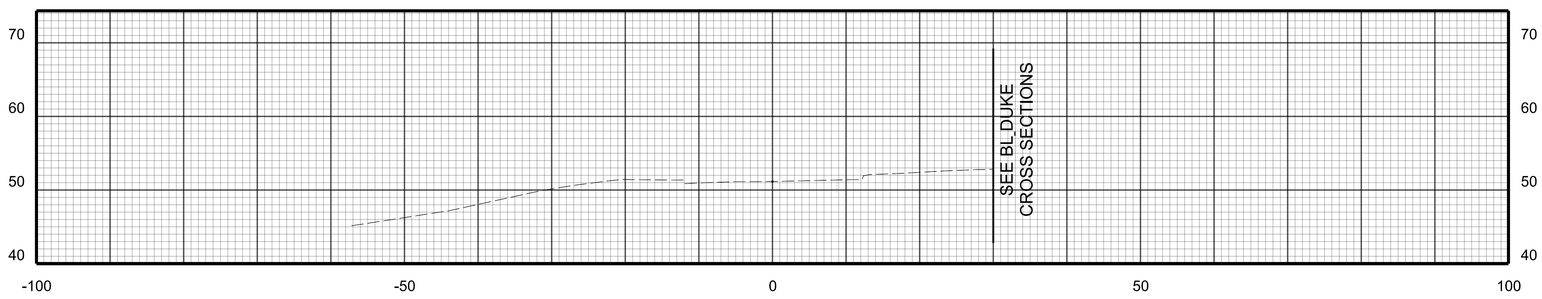
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

SCALE 1 IN. = 10 FT

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

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	236	0236-100-888	XS29



STA 203+75.00

CROSS SECTIONS
DUKE STREET SERVICE ROAD

	PROJECT	SHEET NO.
	0236-100-888	XS29

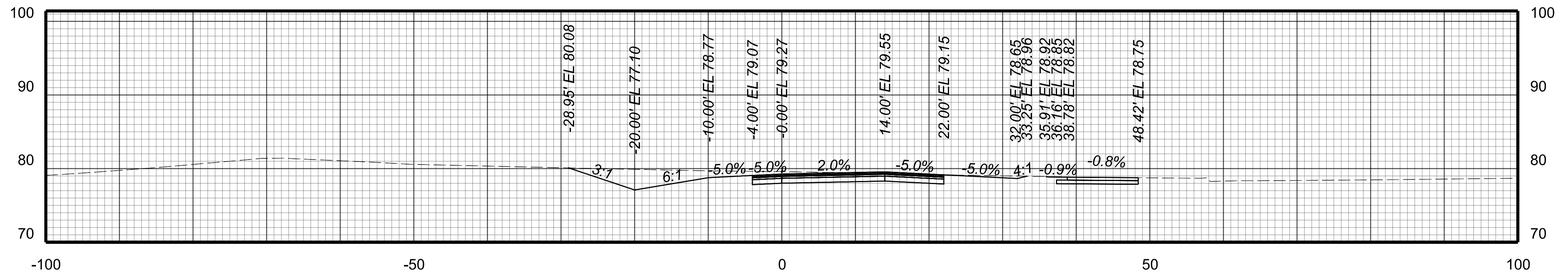
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

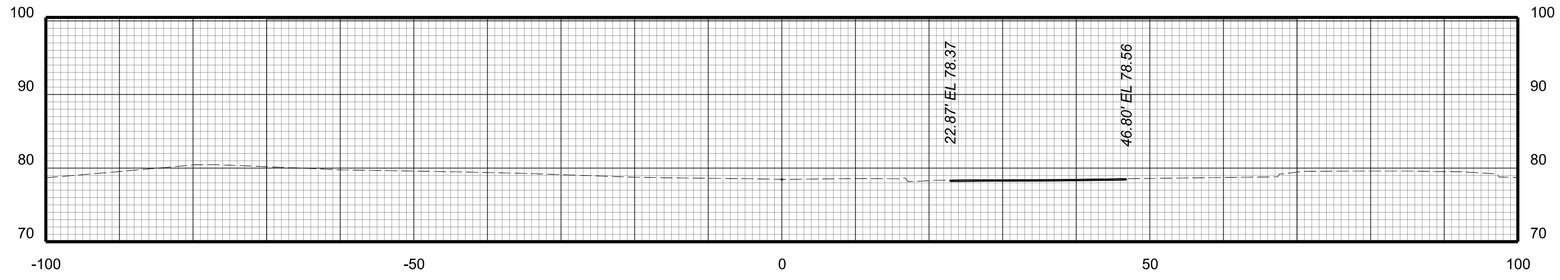
SCALE 1 IN. = 10 FT

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

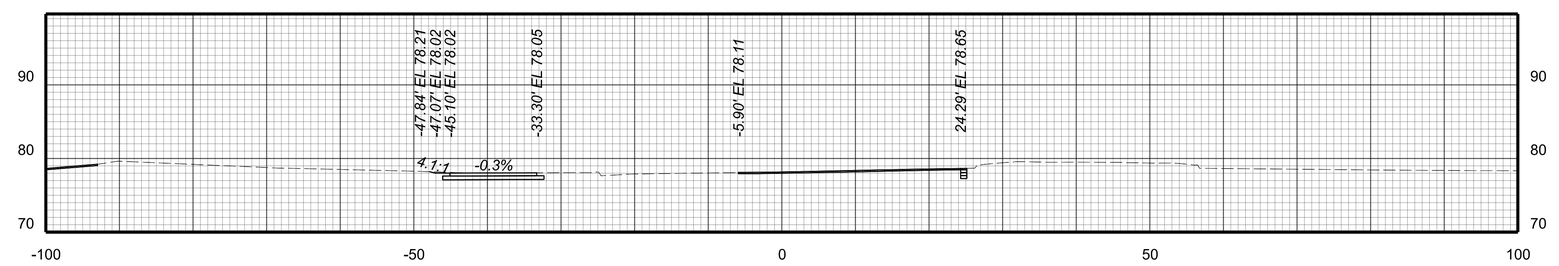
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS30



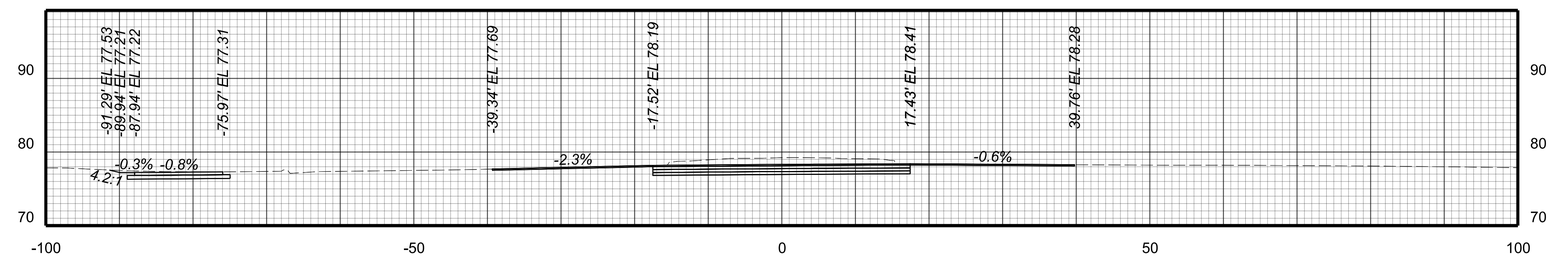
STA 30+75.00



STA 30+50.00



STA 30+25.00



STA 30+00.00

CROSS SECTIONS
EB DUKE TO SB TELEGRAPH RAMP

PROJECT	SHEET NO.
0236-100-888	XS30

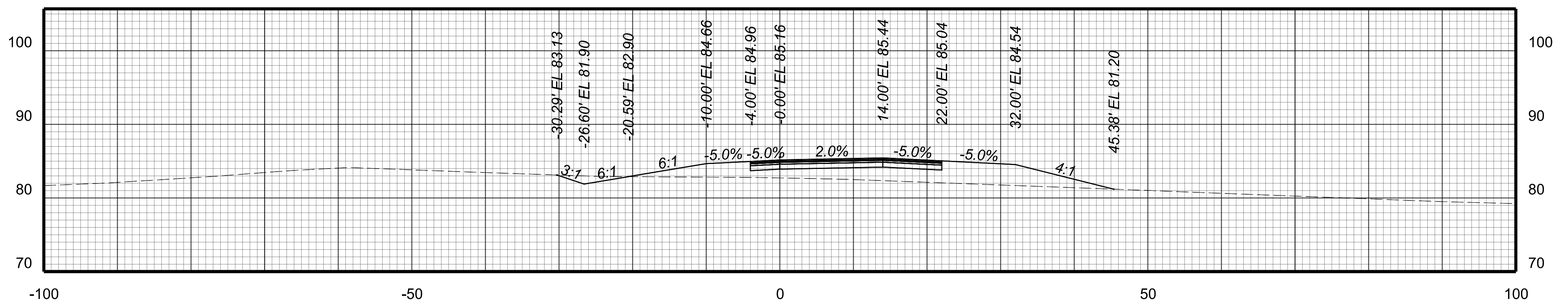
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

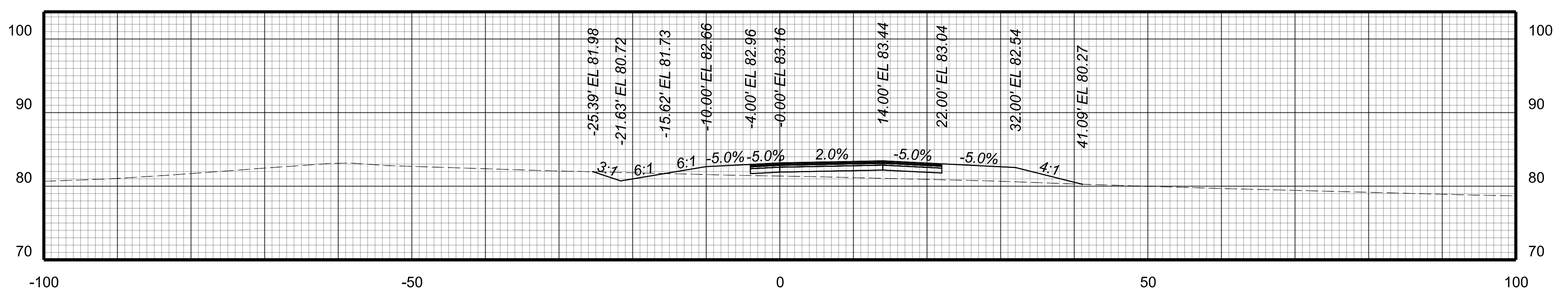
SCALE 1 IN. = 10 FT

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

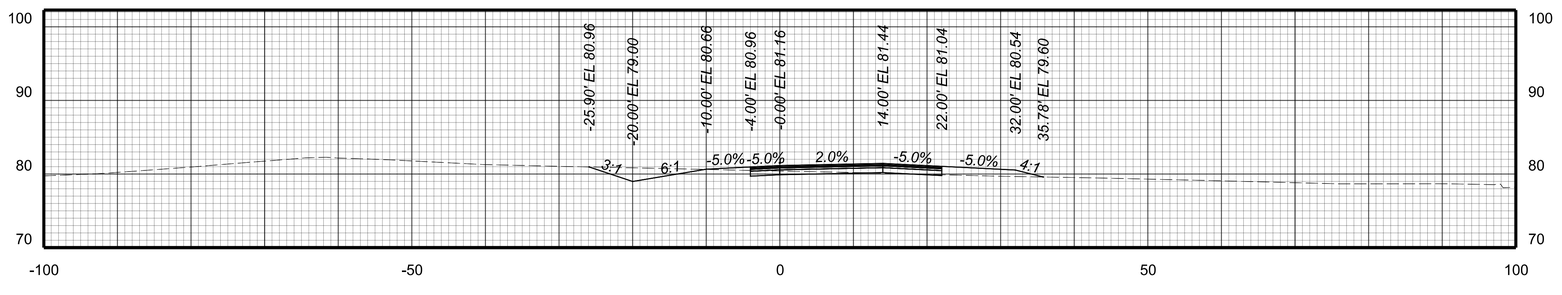
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS31



STA 31+50.00



STA 31+25.00



STA 31+00.00

CROSS SECTIONS
EB DUKE TO SB TELEGRAPH RAMP

PROJECT	SHEET NO.
0236-100-888	XS31

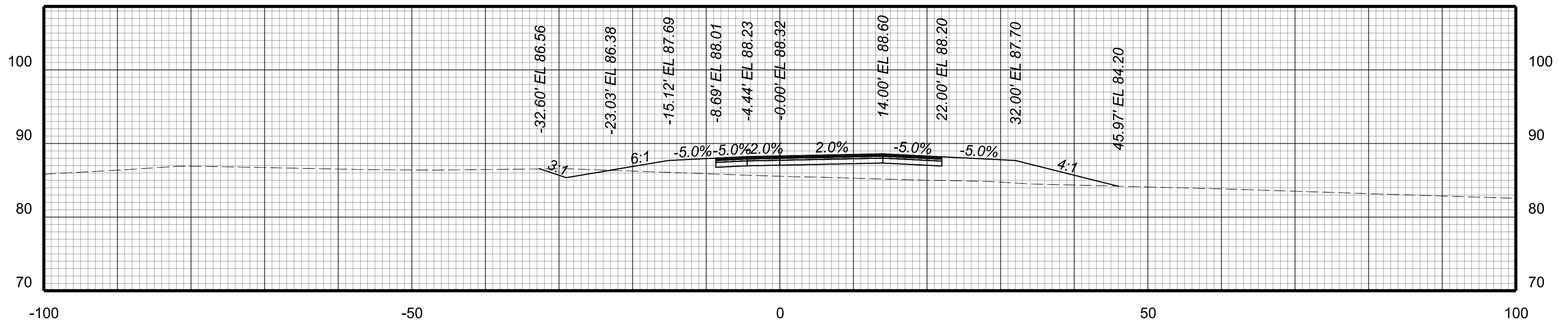
PROJECT MANAGER ANUP GAUTAM, PE, PMP, CCM, (703) 746-4155 (CITY OF ALEXANDRIA)
SURVEYED BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2024
DESIGN BY MATTHEW MARTIN, PE, (703) 318-3903 (WSP USA, INC.)
SUBSURFACE UTILITY BY, DATE RICE ASSOCIATES, INC., (703) 968-3200, DECEMBER 2022

CROSS SECTIONS

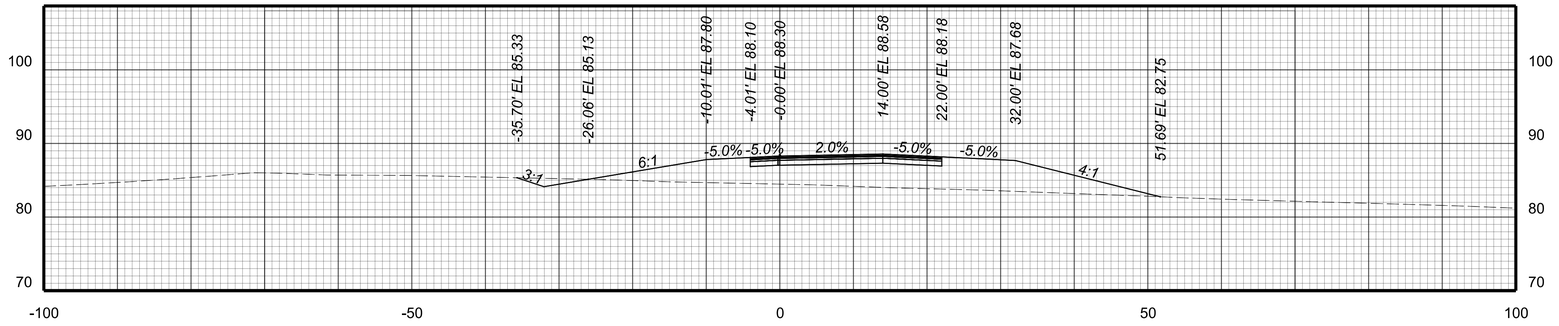
SCALE 1 IN. = 10 FT

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

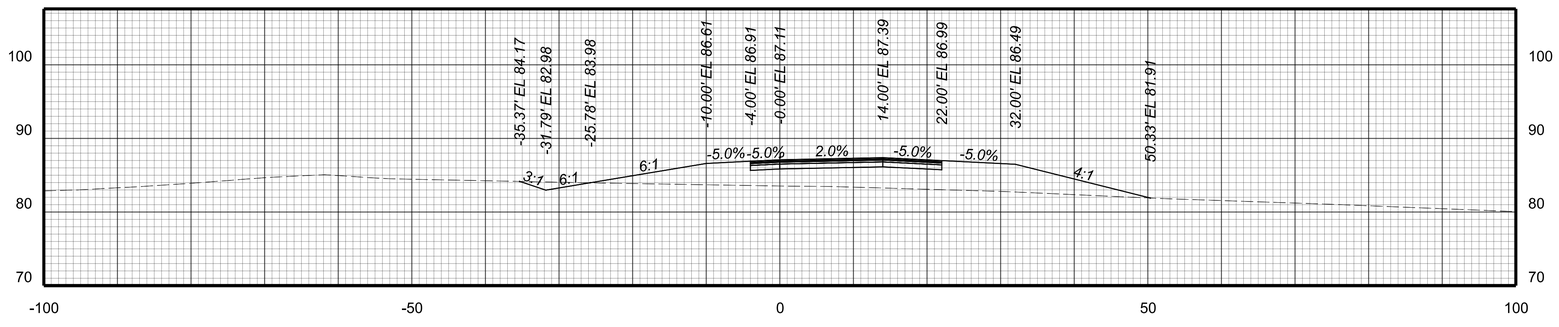
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	236	0236-100-888	XS32



STA 32+25.00



STA 32+00.00



STA 31+75.00

CROSS SECTIONS
EB DUKE TO SB TELEGRAPH RAMP

PROJECT	SHEET NO.
0236-100-888	XS32