CITY OF FAIRFAX
DEPARTMENT OF PUBLIC WORKS

PLAN AND PROFILE OF PROPOSED
BLENHEIM BOULEVARD
MULTIMODAL IMPROVEMENTS

COVER SHEET FOR VOLUME 1

PROJECT INFORMATION
THRU
DRAINAGE DETAILS

FINAL PLANS
JANUARY 2026

VOLUME KEY

VOLUME 1
(Pages 1 thru 213)

I	Title Sheet
IA	Project Location Map
IB Series	Project Index of Sheets
IC - ID Series	Not Used
IE Series	Right of Way Data and Demolition Summary
IF	Survey Control and Traverse Information
IG Series	Geometric Information
IH Series	Intersection,Curb Ramp,and Bus Stop Details
II Series	Not Used
IJ - IN Series	TMP/SOC Plan
IO Series	Not Used
IP - IR Series	Erosion and Sediment Control Plan
IS Series	Not Used
IT Series	Underground Utility Test Hole Information
2	General Notes
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2B Series	Curb Return Profiles
2C - 2E Series	Not Used
2F - 2J Series	Stormwater and Drainage Plan

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(Pages 214 thru 350)

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I5 Series	Pavement Marking and Signing Plan
I6 Series	Traffic Signal Plan
I7 Series	Retaining Wall Plan
I8 Series	Roadway Lighting Plan
I9 Series	Landscape Plan (Bid Alternate 1)
20 Series	Existing Tree Plan

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(Pages 351 thru 481)

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22 Series	Sanitary Sewer Plan
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Vol. 1 Total Pages: 213

PROJECT MANAGER: City of Fairfax; Wendy Sanford (703) 385-7899
SURVEYED BY, DATE: Rinker Design Associates; Nick Kougalis, LS (703) 368-7373, 08/2020
DESIGN BY: Rinker Design Associates; Mark Gunn, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE: Accumark (703) 635-3060, 2015

FOR INDEX OF SHEETS SEE SHEET 1B

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (OPENROADS).
GEOPAK Computer Identification No. UPC 107013

CONVENTIONAL SIGNS

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

FAIRFAX CITY

CITY OF FAIRFAX
DEPARTMENT OF PUBLIC WORKS

FHWA REGION	STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
3	VA.		6628	U000-151-R94 See Tabulation Below For Section Numbers	1

FHWA 534 DATA 44003

NOTE: SEE SHEET IA FOR FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA

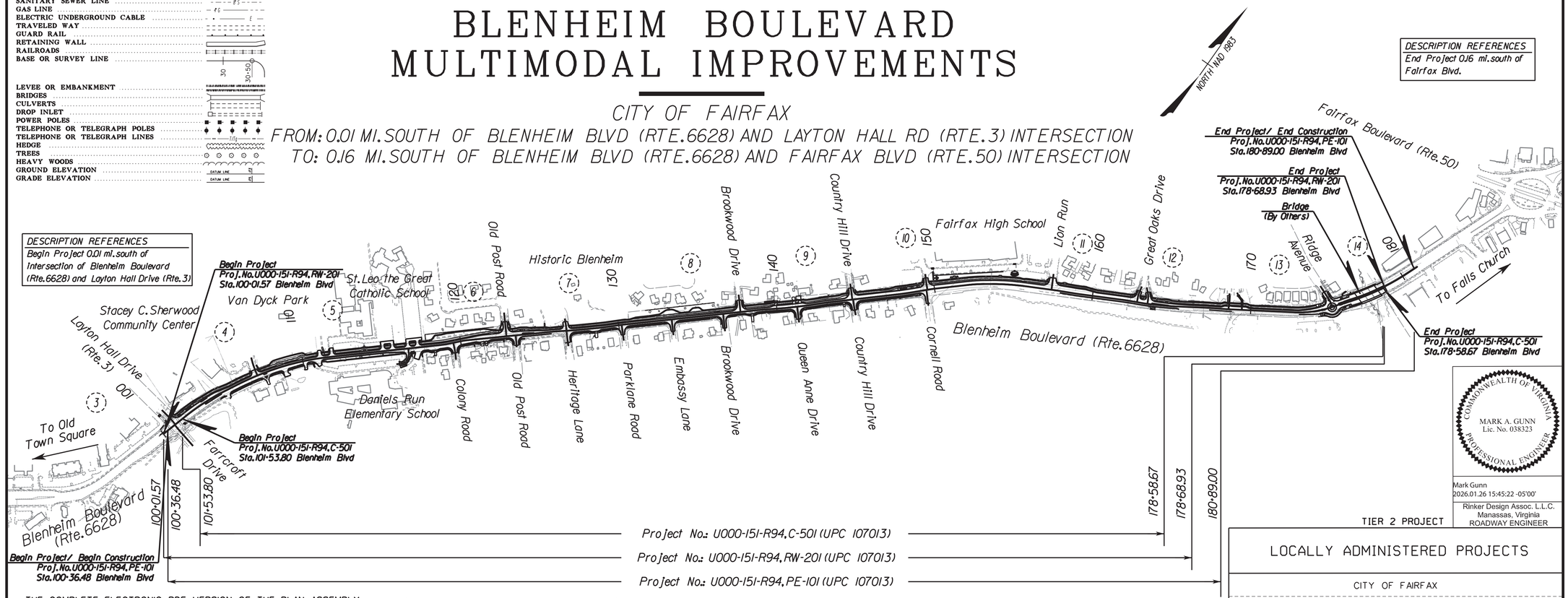
PLAN AND PROFILE OF PROPOSED
BLENHEIM BOULEVARD MULTIMODAL IMPROVEMENTS

CITY OF FAIRFAX

FROM: 0.01 MI. SOUTH OF BLENHEIM BLVD (RTE.6628) AND LAYTON HALL RD (RTE.3) INTERSECTION
TO: 0.16 MI. SOUTH OF BLENHEIM BLVD (RTE.6628) AND FAIRFAX BLVD (RTE.50) INTERSECTION

DESCRIPTION REFERENCES
Begin Project 0.01 mi. south of Intersection of Blenheim Boulevard (Rte.6628) and Layton Hall Drive (Rte.3)

DESCRIPTION REFERENCES
End Project 0.16 mi. south of Fairfax Blvd.



Project No.: U000-151-R94, C-501 (UPC 107013)
Project No.: U000-151-R94, RW-201 (UPC 107013)
Project No.: U000-151-R94, PE-101 (UPC 107013)

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THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH VDOT'S 2020 ROAD AND BRIDGE SPECIFICATIONS (REVISED JULY 2022), 2016 ROAD AND BRIDGE STANDARDS (REVISED SEPTEMBER 2020), 2026 VIRGINIA MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL REVISION 2, 2019 AND AS AMENDED BY CONTRACT PROVISIONS, THE MOST RECENT REVISION OF THE CITY OF FAIRFAX PUBLIC FACILITIES MANUAL, AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

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FINAL PLANS
JANUARY 2026

Project Lengths are based on the Blenheim Boulevard Constr.

SCALE 0' 325' 650'

City of Fairfax Population 24,146 (Est. 2020 Census)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	EQUALITIES	LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		BRIDGE PLAN NO.	TYPE PROJECT	DESCRIPTION
					FEET	FEET	MILES	FEET	MILES			
U000-151-R94	PE-101	····	PENG	107013	N/A	8052.52	1.525	7919.77	1.500	N/A	PRELIM. ENGR.	FROM: 0.01 MI. S. OF LAYTON HALL RD. TO 0.16 MI. S. OF FAIRFAX BLVD.
	RW-201	····	ROWA	107013	N/A	7867.36	1.490	7734.61	1.465	N/A	RIGHT OF WAY	FROM: 0.01 MI. N. OF LAYTON HALL RD. TO 0.17 MI. S. OF FAIRFAX BLVD.
	C-501	····	1000	107013	N/A	7704.87	1.459	7572.12	1.434	N/A	CONSTRUCTION	FROM: 0.01 MI. N. OF LAYTON HALL RD. TO 0.21 MI. S. OF FAIRFAX BLVD.

REVISED

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2026.01.26 15:45:22 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

TIER 2 PROJECT

LOCALLY ADMINISTERED PROJECTS

CITY OF FAIRFAX	
NAME OF LOCALITY	
DAVID SUMMERS	
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	
2/28/2024	DIRECTOR OF PUBLIC WORKS
DATE	TITLE OF POSITION
DAVID SUMMERS	
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
1/27/2026	DIRECTOR OF PUBLIC WORKS
DATE	TITLE OF POSITION

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1/23/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Project Location Map

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1A

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

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

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA URBAN MINOR ARTERIAL (STD GS-6) 30 MPH MINIMUM DESIGN SPEED	
Blenheim Boulevard	From: Layton Hall Drive To: Heritage Lane
ADT (2023)	13,000
ADT (2045)	19,900
DHV	971
D (%) (design hour)	61.7
T (%) (design hour)	1
V (MPH)	30
Terrain	Rolling

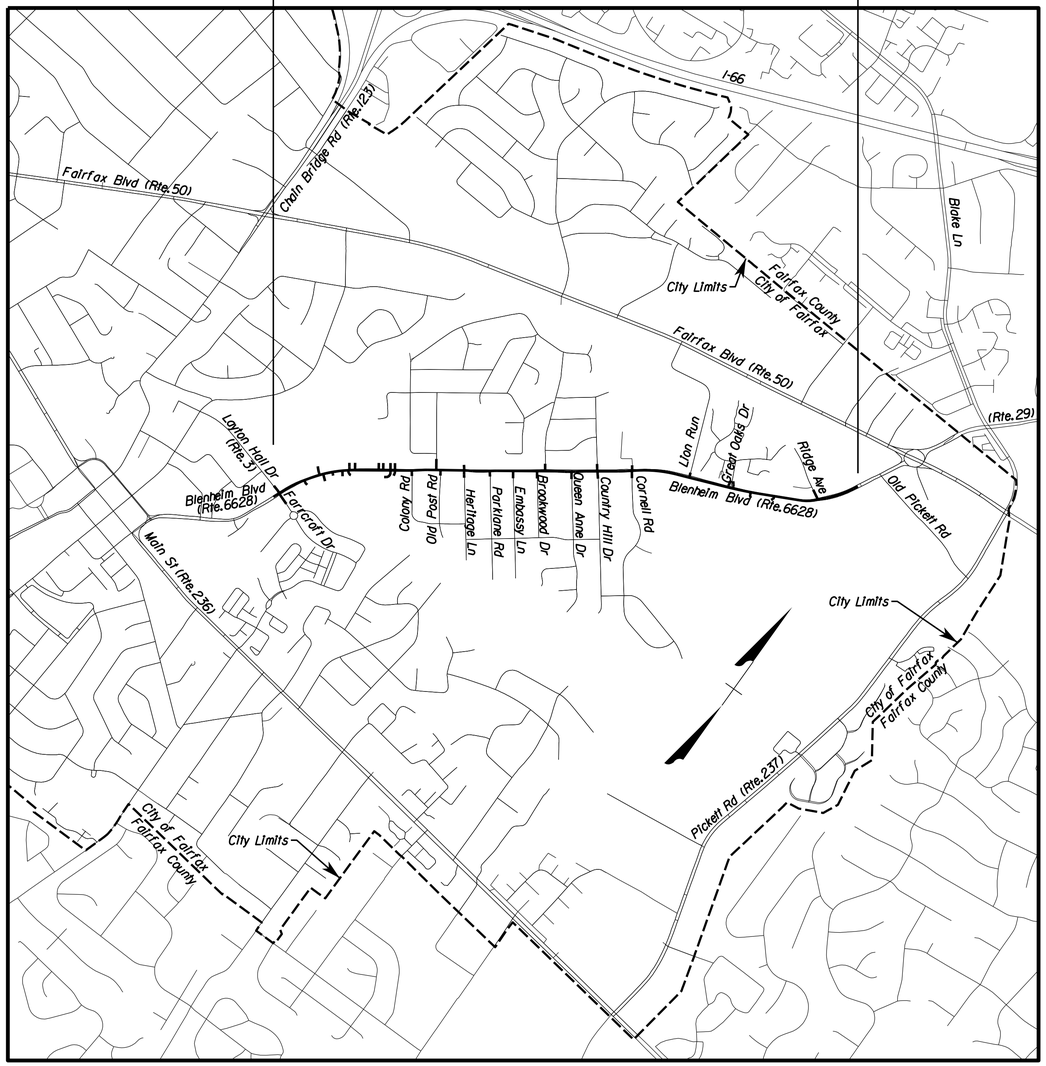
FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA URBAN MINOR ARTERIAL (STD GS-6) 30 MPH MINIMUM DESIGN SPEED	
Blenheim Boulevard	From: Heritage Lane To: Brookwood Drive
ADT (2023)	12,000
ADT (2045)	16,000
DHV	871
D (%) (design hour)	50.2
T (%) (design hour)	1
V (MPH)	30
Terrain	Rolling

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA URBAN MINOR ARTERIAL (STD GS-6) 30 MPH MINIMUM DESIGN SPEED	
Blenheim Boulevard	From: Brookwood Drive To: Cornell Road
ADT (2023)	13,000
ADT (2045)	15,100
DHV	928
D (%) (design hour)	50.9
T (%) (design hour)	1
V (MPH)	30
Terrain	Rolling

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA URBAN MINOR ARTERIAL (STD GS-6) 30 MPH MINIMUM DESIGN SPEED	
Blenheim Boulevard	From: Cornell Road To: Lion Run
ADT (2023)	13,000
ADT (2045)	19,300
DHV	940
D (%) (design hour)	51.8
T (%) (design hour)	1
V (MPH)	30
Terrain	Rolling

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA URBAN MINOR ARTERIAL (STD GS-6) 30 MPH MINIMUM DESIGN SPEED	
Blenheim Boulevard	From: Lion Run To: Fairfax Boulevard
ADT (2023)	12,000
ADT (2045)	14,200
DHV	882
D (%) (design hour)	54.1
T (%) (design hour)	1
V (MPH)	30
Terrain	Rolling

Proposed Project: U000-151-R94
(See Title Sheet for Section Info.)



SCALE	PROJECT	SHEET NO.
0 1000' 2000'	U000-151-R94	1A

12/12/2025

FINAL PLANS

PROJECT MANAGER *Wendy Block Sanford, (703) 385-7889*
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DESIGN BY *Mark A. Gunn, P.E., (703) 368-7373*
SUBSURFACE UTILITY BY, DATE *Accumark, (800) 542-2990 (2015)*

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1B

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

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	PROJECT	SHEET NO.
	U000-151-R94	1B

2/3/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1B(1)

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

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Sheet No.	25(23)	Tree Preservation Schedule
Sheet No.	25(24)	Tree Preservation Schedule
Sheet No.	25(25)	Tree Preservation Schedule
Sheet No.	25(26)	Tree Preservation Schedule
Sheet No.	25(27)	Tree Preservation Schedule
Sheet No.	25(28)	Tree Preservation Schedule
	26 Series	Wayfinding Sign Plan (Bid Alternate 2)
**	26	Not Used
Sheet No.	26(1)	General Notes (Bid Alternate 2)
Sheet No.	26(2)	Signage Overview (Bid Alternate 2)
Sheet No.	26(3)	Sign Location Plan Detail (Bid Alternate 2)
Sheet No.	26(4)	Sign Location Plan Detail (Bid Alternate 2)
Sheet No.	26(5)	Sign Location Plan Detail (Bid Alternate 2)
Sheet No.	26(6)	Fingerpost Signs (Bid Alternate 2)
Sheet No.	26(7)	G1: Ridge Ave. Roundabout (Bid Alternate 2)
Sheet No.	26(8)	G2: Layton Hall Dr. (Bid Alternate 2)
**********		
CROSS SECTIONS		
Sheet No.	X1 thru X44	Blenheim Boulevard Cross Sections
**********		

INDEX PLAN SET NOTES:
437 Total plan and profile sheets in this set
44 Total cross section sheets
** Denotes plans not included in this submission

2/12/2026

PROJECT	SHEET NO.
U000-151-R94	1B(1)

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Right of Way Data

NOTE: All data shown here is for information and estimating purposes only. VDOT Proj. U000-151-R94, RW-201 is a locally administered project by the City of Fairfax and Final Acquisition Plats are required and shall be provided by a professional land surveyor.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1E

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

City/County: City of Fairfax, Virginia
UPC No.: 107013

PROJECT ASSIGNED PARCEL NO.	LANDOWNER	PLAN SHEET NO.	AREAS																PROFFERS YES / NO	REMARKS
			TOTAL AREA	FEE TAKING	PRESCRIPTIVE ROW	FEE REMAINDER	EASEMENTS									-	-	-		
							TEMP.	DRAIN.	WALL	LIGHTING	SIGNAL	STREET	UTILITY EASEMENTS VERIZON	UTILITY EASEMENTS DOMINION	UTILITY EASEMENTS COX					
			SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.		
001	BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA	3	106,688	2,050		104,638	8,962	-	-	-	-	-	-	-	-					
002	FARRCROFT HOMEOWNERS ASSOCIATION, INC.	3,4	383,583	0		383,583	0	-	-	-	-	-	110	110	110					
003	CITY OF FAIRFAX, VIRGINIA	3,4	609,564	3,492		606,072	4,075	-	-	-	-	-	72	72	72					
004	TRUSTEES OF THE NORTHERN VIRGINIA MENNONITE CHURCH	3,4	147,211	0		147,211	5,280	-	-	-	-	-	-	-	-					
005	CITY OF FAIRFAX, VIRGINIA	4	575,449	6,638		568,811	2,407	-	-	-	-	-	-	-	-					
006	CHRISTIAN SCIENCE CHURCH OF FAIRFAX	4	47,244	402		46,842	6,529	-	-	-	-	-	-	-	-					
007	SCHOOL BOARD OF THE CITY OF FAIRFAX, VIRGINIA	4,5	594,965	5,028		589,937	17,213	-	-	148	-	-	-	130	130					
008	THE MOST REVEREND MICHAEL F BURBIDGE, BISHOP OF THE CATHOLIC DIOCESE OF ARLINGTON	4,5	538,839	3,883		534,956	10,774	579	-	-	-	-	-	294	294					
009	BARBARA ELLEN CAREY, TRUSTEE OF THE BARBARA ELLEN CAREY REVOCABLE LIVING TRUST, CREATED U/A/D AUGUST 18, 2010	5	9,921	415		9,506	941	-	-	-	-	-	-	-	-					
010	JOHN M APPLETON & PATRICIA A APPLETON	5,6	17,097	0		17,097	0	-	-	-	-	-	-	-	-					
011	RETT C.TRAN, VAN U.NGUYEN, ANNA NHA KHANH LE, AND CONNIE DIEM-KHANH LE	5,6	10,015	161		9,854	799	-	-	-	-	-	-	-	-					
012	SANDRA SLAPPEY & THOMAS BROWN	5,6	12,439	0		12,439	0	-	-	-	-	-	-	-	-					
013	CASEY D.DUFFY	6	18,802	0		18,802	494	-	-	-	-	-	-	-	-					
014	APRIL MARIE ERKENBRACK	6	10,560	0		10,560	0	-	-	-	-	-	-	-	-					
015	HENRY A GARCIA & AUGUSTO GARCIA	6	10,560	0		10,560	0	-	-	-	-	-	-	-	-					
016	DAVID ARONSON & MARTA ESTHER NASJLETI	6	10,000	0		10,000	382	-	-	-	-	-	-	-	-					
017	ELVA L.CARD	6	13,585	0		13,585	0	-	-	-	-	-	-	-	-					
018	JOHNATHAN LEBOON & MEGAN LEBOON	6	11,764	0		11,764	0	-	-	-	-	-	-	-	-					
019	KENNETH HOETH & ALICE HOETH	6	15,613	0		15,613	0	-	-	-	-	-	-	-	-					
020	ALONSO R CASTANO & CAROLINA HURTADO	6	9,154	0		9,154	0	-	-	-	-	-	-	-	-					
021	CITY OF FAIRFAX, VIRGINIA	6,7	523,234	2,746		520,488	6,039	294	-	91	-	-	-	-	-					
022	DANYLO K GASPAR & CHRISTINE T GASPAR	6,7	11,734	0		11,734	0	-	-	-	-	-	-	-	-					
023	YOUNG CHUL & DIANA D LEE & GINA LEE & MICHAEL ANNA FEE	6,7	11,894	0		11,894	0	-	-	-	-	-	-	-	-					
024	LEONARD R KOSTA & MARY L KOSTA	7	11,881	0		11,881	0	-	-	-	-	-	-	-	-					
025	STEVEN N.JOHNSON & JENNIFER M.JOHNSON	7	12,939	0		12,939	1,107	-	-	-	-	-	-	-	-					
026	HAN JOHN LIN & XIAO HUI XU LIN	7	15,501	0		15,501	304	-	-	-	-	-	-	-	-					
027	JOYCE YUN PARK	7	14,828	0		14,828	0	-	-	-	-	-	-	-	-					
028	JAMES FRANKLIN (TRS) LOCKWOOD & JEAN MARIE (TRS) LOCKWOOD & JAMES FRANKLIN & JEAN MARIE LOCKWOOD LIVING TRUST	7	18,127	0		18,127	0	-	-	-	-	-	-	-	-					
029	NICHOLAS PETER DEDHAM & TANIA DE LA FUENTE DEDHAM	7	11,423	0		11,423	0	-	-	-	-	-	-	-	-					
030	JAMIL AHMED & TAHMINA AHMED	7	14,372	0		14,372	0	-	-	-	-	-	-	-	-					
031	DAVID S MICHEK & JAN M MICHEK	7	10,560	0		10,560	0	-	-	-	-	-	-	-	-					
032	CLAUDE G JALKH & MAYA KWAN JALKH	7,8	13,695	0		13,695	0	-	-	-	-	-	-	-	-					
033	KESHAV NEUPANE & RAMITA UPRETY	7,8	10,522	0		10,522	0	-	-	-	-	-	-	-	-					
034	JOHN G MCNICHOL & SARAH E MCNICHOL	8	12,589	0		12,589	0	-	-	-	-	-	-	-	-					
035	AIDAN WEST-CREWS & CASSANDRA MICHELLE WEST-CREWS	8	15,087	0		15,087	0	-	-	-	-	-	-	-	-					
036	HECTOR PONCIANO & KAREN LEE PONCIANO	8	13,053	0		13,053	0	-	-	-	-	-	-	-	-					
037	DAVID READE & TAMMY READE	8	13,768	0		13,768	0	-	-	-	-	-	-	-	-					
038	WARREN R.CARMICHAEL & REBECCA HUX CARMICHAEL, TRUSTEES OF THE WARREN AND REBECCA CARMICHAEL JOINT TRUST, DATED SEPTEMBER 11, 2012	8	26,498	125		26,373	2,092	-	-	-	-	-	-	-	-					
039	ROGER MEZA	8	13,359	0		13,359	0	-	-	-	-	-	-	-	-					
040	ROBERT E.THOENSEN & DEBORAH A.THOENSEN	8	67,624	335		67,289	1,730	-	-	-	-	-	-	-	-					
041	DAVID M.BISHOP	8	8,999	0		8,999	1,440	-	-	-	-	-	-	-	-					
042	BEATRICE W.SITO	8,9	16,819	16		16,803	1,491	-	-	-	-	-	-	-	-					
043	JEFFREY C.DOVE & KIKI M.PRYBYLA	8,9	9,356	0		9,356	707	-	-	-	-	-	-	-	-					
044	OMAR E.CEREZO & LILIANA B.ORELLANA	9	13,792	0		13,792	311	-	-	-	-	-	-	-	-					
045	THOMAS ANTHONY BORK & YAN BAI	9	16,409	21		16,388	154	-	-	-	-	-	-	-	-					
046	MORRIS R JR FITZGERALD & ANN MARIE FITZGERALD	9	13,332	0		13,332	0	-	-	-	-	-	-	-	-					
047	ZHIJUN ZHANG & JIANLING LI	9	15,142	0		15,142	115	-	-	-	-	-	-	-	-					
048	AMY L.RENNER & JOEL R.RENNER	9	14,207	55		14,152	878	-	-	-	-	-	-	-	-					
049	OZAN CAN BUYUKMEREY	9	13,523	0		13,523	0	-	-	-	-	-	-	-	-					
050	SCHOOL BOARD OF THE CITY OF FAIRFAX, VIRGINIA	9,10,11	2,065,798	19,965		2,045,833	51,143	334	-	-	-	-	-	23,170	23,170					
051	JACOB THOMAS BALDWIN & SIYAO CHANG	9	22,136	0		22,136	0	-	-	-	-	-	-	-	-					
052	CHAD ROBERT BARRY & LINDSAY CASTEEL BARRY	9,10	24,305	0		24,305	0	-	-	-	-	-	-	-	-					
053	TIMOTHY W & CYNTHIA O HOPE REV LVG TRUST	10	44,248	0		44,248	0	-	-	-	-	-	-	-	-					
054	ARMY NAVY COUNTRY CLUB	10,11,12,13,14	10,063,807	1,554		10,062,253	2,114	1,778	-	-	-	-	207	207	207					
055	CHARLES E.CONLEY II & LINE STORGAARD-CONLEY	11	5,736	0		5,736	0	-	-	-	-	-	-	-	-					
056	BAKHTIYOR SAFAROV & NOZIRA N NAZURDINOVA	11	6,174	0		6,174	0	-	-	-	-	-	-	-	-					
057	ERICK FLETCHER & MEGAN FLETCHER	11	5,603	0		5,603	0	-	-	-	-	-	-	-	-					
058	DIANA E DOWELL & DIANA E DOWELL TRUST	11,12	5,291	0		5,291	0	-	-	-	-	-	-	-	-					
059	JORAM SHENHAR & ROMY SHENHAR	12	8,468	0		8,468	0	-	-	-	-	-	-	-	-					
060	AARON D CLAY & CYNTHIA R CRUMB	12	4,095	0		4,095	0	-	-	-	-	-	-	-	-					
061	STEVE S CHANG & JIE S CHANG	12	6,255	0		6,255	0	-	-	-	-	-	-	-	-					
062	KAREN WHEELER-SMITH & DAVID R SMITH	12	6,930	0		6,930	0	-	-	-	-	-	-	-	-					

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Right of Way Data

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1E(1)

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

City/County: City of Fairfax, Virginia
UPC No.: 107013

PROJECT ASSIGNED PARCEL NO.	LANDOWNER	PLAN SHEET NO.	AREAS																PROFFERS YES / NO	REMARKS
			TOTAL AREA	FEE TAKING	PRESCRIPTIVE ROW	FEE REMAINDER	EASEMENTS									-	-	-		
							TEMP.	DRAIN.	WALL	LIGHTING	SIGNAL	STREET	UTILITY EASEMENTS VERIZON	UTILITY EASEMENTS DOMINION	UTILITY EASEMENTS COX					
			SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.	SQ.FT.		
063	MICHAEL T SHADE & CYNTHIA A DECARLO	12	6,930	0	-	6,930	0													
064	FREDA S NUNN & DARRYL O NUNN	12	4,918	0	-	4,918	0	-	-	-	-	-	-	-	-					
065	PUSHPAM KUMAR & MANASI KUMAR	12	7,476	0	-	7,476	0	-	-	-	-	-	-	-	-					
066	CHERISSE MARSHALL & FABIAN MUNGAL	12	31,679	1,474	-	30,205	3,431	-	1,568	-	-	-	139	139	139					
067	CAROLYN CRAIG AS TRUSTEE OF THE CAROLYN CRAIG REVOCABLE TRUST DATED SEPTEMBER 9, 2024	12,13	31,679	1,135	-	30,544	3,008	-	-	-	-	-	1,556	2,011	2,011					
068	XIAOLU CUI	13	6,956	0	-	6,956	0	-	-	-	-	-	-	297	-					
069	SUSAN S (TRS) CONRAD & CHRISTINA T (TRS) RUPPERT & SUSAN S CONRAD TRUST	13	5,885	0	-	5,885	0	-	-	-	-	-	-	-	-					
070	TRENT HONE & LAUREN S H TAYLOR	13	5,962	0	-	5,962	0	-	-	-	-	-	-	-	-					
071	PANKAJ K MITTAL & ALKA GUPTA	13	6,090	0	-	6,090	0	-	-	-	-	-	-	-	-					
072	AMANDA K ALLEXON & KEVIN M ALLEXON	13,14	6,107	0	-	6,107	0	-	-	-	-	-	-	-	-					
073	KAREN M.CULLEN & JOHN A SELF	14	8,556	167	-	8,389	477	-	-	-	-	-	-	-	-					
074	ANGELA SCANLAN,TRUSTEE,OR SUCCESSOR TRUSTEE OF THE "ANGELA SCANLAN TRUST",DATED MAY 6,2019	14	4,577	30	-	4,547	1,965	-	-	-	-	-	-	-	-					
075	BEING I MICHAEL FOO & JAMIE C FOO	14	2,756	0	-	2,756	0	-	-	-	-	-	-	-	-					
076	THE CITY OF FAIRFAX,VIRGINIA	14	65,185	28	-	65,157	203	412	-	-	-	-	-	-	-					
077	GREAT OAKS HOMEOWNERS ASSOCATION	11,12	648,478	2,799	-	645,679	8,493		-	118	-	222	-	1,477	1,477					
078	PRECISION CIRCLE PROPERTIES LLC	14	397,778	144	-	397,634	131	-	-	-	-	-	-	-	-					
079	CITY OF FAIRFAX	14	201,877	0	-	201,877	0	-	-	-	-	-	-	-	-					
080	DOMINION DEVELOPMENT CORPORATION	14	163,548	16	-	163,532	70	-	-	-	-	-	-	-	-					
081	CITY OF FAIRFAX,VIRGINIA	13	5,704	53	-	5,651	389	-	-	-	-	-		-	-					
082	FAIRFAX OAKS HOMEOWNERS ASSOCIATION	14	59,501	5	-	59,496	224	-	-	-	-	-	-	-	-					
083	VIRGINIA ACQUISITION NOJ LLC	3	90,305	21	-	90,284	0	-	-	-	317	-	-	-	-					
084	THE CITY OF FAIRFAX,VIRGINIA	4	386,421	229	-	386,192	1,390	-	-	-	-	-	-	-	-					

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

DEMOLITION SUMMARY

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1E(2)

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

DEMOLITION SUMMARY

DEMO NO.	SHEET NO.	PARCEL NO.	LANDOWNER	STA.	LENGTH (FT)	RIGHT OR LEFT	BASELINE	DESCRIPTION
D-1	3	N/A	PUBLIC RIGHT OF WAY	102+00	220	LT	BLENHEIM BLVD.	FENCE & RETAINING WALL
D-2	4	003/005	THE CITY OF FAIRFAX,VIRGINIA	108+00	377	LT	BLENHEIM BLVD.	FENCE
D-3	4	006	CHRISTIAN SCIENCE CHURCH OF FAIRFAX	109+25	1 EA	RT	BLENHEIM BLVD.	SIGN
D-21	4	006	CHRISTIAN SCIENCE CHURCH OF FAIRFAX	108+55	1 EA	RT	BLENHEIM BLVD.	LIGHT
D-22	4	006	CHRISTIAN SCIENCE CHURCH OF FAIRFAX	109+00	1 EA	RT	BLENHEIM BLVD.	LIGHT
D-4	6	N/A	PUBLIC RIGHT OF WAY	120+50	268	LT	BLENHEIM BLVD.	FENCE
D-5	6	021	THE CITY OF FAIRFAX,VIRGINIA	124+75.00	29	LT	BLENHEIM BLVD.	FENCE
D-6	6	021	THE CITY OF FAIRFAX,VIRGINIA	125+00	67	LT	BLENHEIM BLVD.	FENCE
D-7	6,7	021	THE CITY OF FAIRFAX,VIRGINIA	126+00	173	LT	BLENHEIM BLVD.	FENCE
D-8	7	N/A	PUBLIC RIGHT OF WAY	129+00	71	RT	BLENHEIM BLVD.	FENCE
D-9	7	021	THE CITY OF FAIRFAX,VIRGINIA	130+00	216	LT	BLENHEIM BLVD.	FENCE
D-10	7,8	N/A	PUBLIC RIGHT OF WAY	132+00	625	LT	BLENHEIM BLVD.	FENCE
D-11	7	N/A	PUBLIC RIGHT OF WAY	132+00	1 EA	LT	BLENHEIM BLVD.	SHED
D-12	7	N/A	PUBLIC RIGHT OF WAY	132+50.00	1 EA	LT	BLENHEIM BLVD.	SHED
D-13	7	N/A	PUBLIC RIGHT OF WAY	133+25.00	1 EA	LT	BLENHEIM BLVD.	SHED
D-14	8	N/A	PUBLIC RIGHT OF WAY	134+25.00	1 EA	LT	BLENHEIM BLVD.	SHED
D-15	8	N/A	PUBLIC RIGHT OF WAY	136+00	1 EA	LT	BLENHEIM BLVD.	SHED
D-16	8	038	WARREN R (TRS) CARMICHAEL & REBECCA HUX (TRX) CARMICHAEL	138+00	176	RT	BLENHEIM BLVD.	FENCE
D-17	9	048	AMY L RENNER & JOEL R RENNER	146+00	76	LT	BLENHEIM BLVD.	FENCE
D-18	12	N/A	PUBLIC RIGHT OF WAY	168+75.00	1 EA	LT	BLENHEIM BLVD.	MAILBOX
D-19	12	067	JAMES GEORGE CRAIG & CAROLYN CRAIG	168+75.00	25	LT	BLENHEIM BLVD.	FENCE
D-20	14	054	ARMY NAVY COUNTRY CLUB/ PUBLIC RIGHT OF WAY	175+00	150	RT	BLENHEIM BLVD.	FENCE

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 1E(2)

12/12/2025

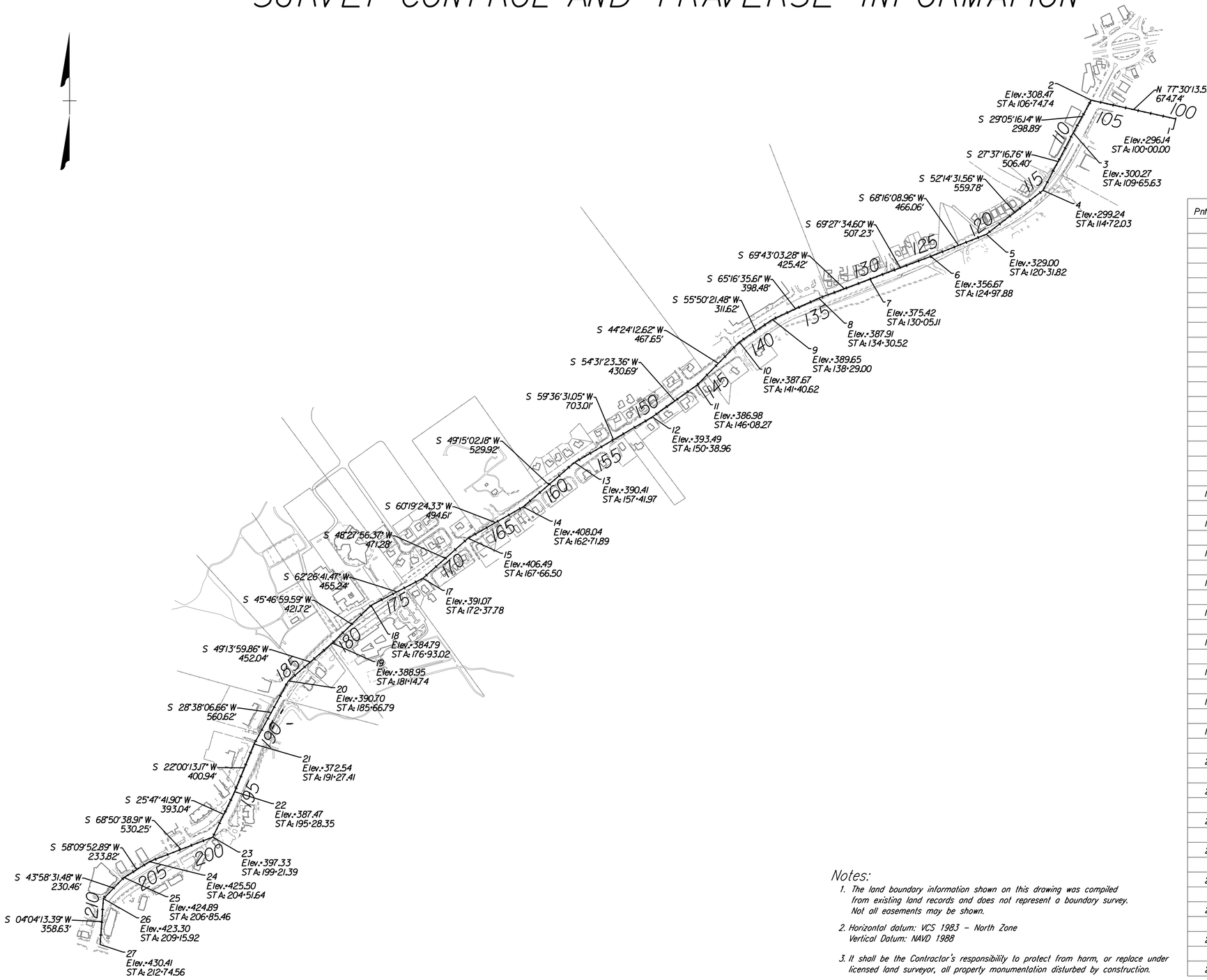
FINAL PLANS

PROJECT MANAGER *Wendy Block Sanford, (703) 385-7889*
SURVEYED BY, DATE *Nick Kougalis, L.S., (703) 368-7373 (2020)*
DESIGN BY *Mark A. Gunn, P.E., (703) 368-7373*
SUBSURFACE UTILITY BY, DATE *Accumark, (800) 542-2990 (2015)*

SURVEY CONTROL AND TRAVERSE INFORMATION

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1F

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



SURVEY CONTROL/TRAVERSE INFORMATION IS PROVIDED FOR INFORMATION ONLY

Traverse Tabulation by RDA

Pnt. No.	Bearing	Distance	Northing (Y)	Easting (X)	Elevation (Z)	Station
1			6999689.8217	11832001.5003	296.14	100+00.00
	N 77°30'13.51" W	67.474				
2			6999835.8195	11831342.7428	308.47	106+74.74
	S 29°05'16.14" W	290.89				
3			6999581.6164	11831201.3260	300.27	109+65.63
	S 27°37'16.76" W	506.4				
4			6999132.9292	11830966.5453	299.24	114+72.03
	S 52°14'31.56" W	559.78				
5			6998790.1583	11830523.9766	329.00	120+31.82
	S 68°16'08.96" W	466.06				
6			6998617.6005	11830091.0367	356.67	124+97.88
	S 69°27'34.60" W	507.23				
7			6998439.6312	11829616.0570	375.42	130+05.11
	S 69°43'03.28" W	425.42				
8			6998292.1612	11829217.0176	387.91	134+30.52
	S 65°16'35.61" W	398.48				
9			6998125.5032	11828855.0673	389.65	138+29.00
	S 55°50'21.48" W	311.62				
10			6997950.5234	11828597.2120	387.67	141+40.62
	S 44°24'12.62" W	467.65				
11			6997616.4213	11828269.9950	386.98	146+08.27
	S 54°31'23.36" W	430.69				
12			6997366.4613	11827919.2644	393.49	150+38.96
	S 59°36'31.05" W	703.01				
13			6997010.8040	11827312.8520	390.41	157+41.97
	S 49°15'02.18" W	529.92				
14			6996664.8992	11826911.4012	408.04	162+71.89
	S 60°19'24.33" W	494.61				
15			6996420.0160	11826481.6670	406.49	167+66.50
	S 48°27'56.37" W	471.28				
17			6996107.5233	11826128.8846	391.07	172+37.78
	S 62°26'41.47" W	455.24				
18			6995896.9280	11825725.2836	384.79	176+93.02
	S 45°46'59.59" W	421.72				
19			6995602.8304	11825423.0336	388.95	181+14.74
	S 49°13'59.86" W	452.04				
20			6995307.6540	11825080.6664	390.70	185+66.79
	S 28°38'06.66" W	560.62				
21			6994815.6046	11824812.0003	372.54	191+27.41
	S 22°00'13.17" W	400.94				
22			6994443.8683	11824661.7815	387.47	195+28.35
	S 25°47'41.90" W	393.04				
23			6994089.9897	11824490.7482	397.33	199+21.39
	S 68°50'38.91" W	530.25				
24			6993898.6180	11823996.2329	425.50	204+51.64
	S 58°09'52.89" W	233.82				
25			6993775.2834	11823797.5880	424.89	206+85.46
	S 43°58'31.48" W	230.46				
26			6993609.4339	11823637.5665	423.30	209+15.92
	S 04°04'13.39" W	358.63				
27			6993251.7045	11823612.1100	430.41	212+74.56

Notes:

1. *The land boundary information shown on this drawing was compiled from existing land records and does not represent a boundary survey. Not all easements may be shown.*
2. *Horizontal datum: VCS 1983 – North Zone*
   Vertical Datum: NAVD 1988
3. *It shall be the Contractor's responsibility to protect from harm, or replace under licensed land surveyor, all property monumentation disturbed by construction.*

SCALE	PROJECT	SHEET NO.
0 400' 800'	U000-151-R94	1F

12/12/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

PROPOSED BASELINES

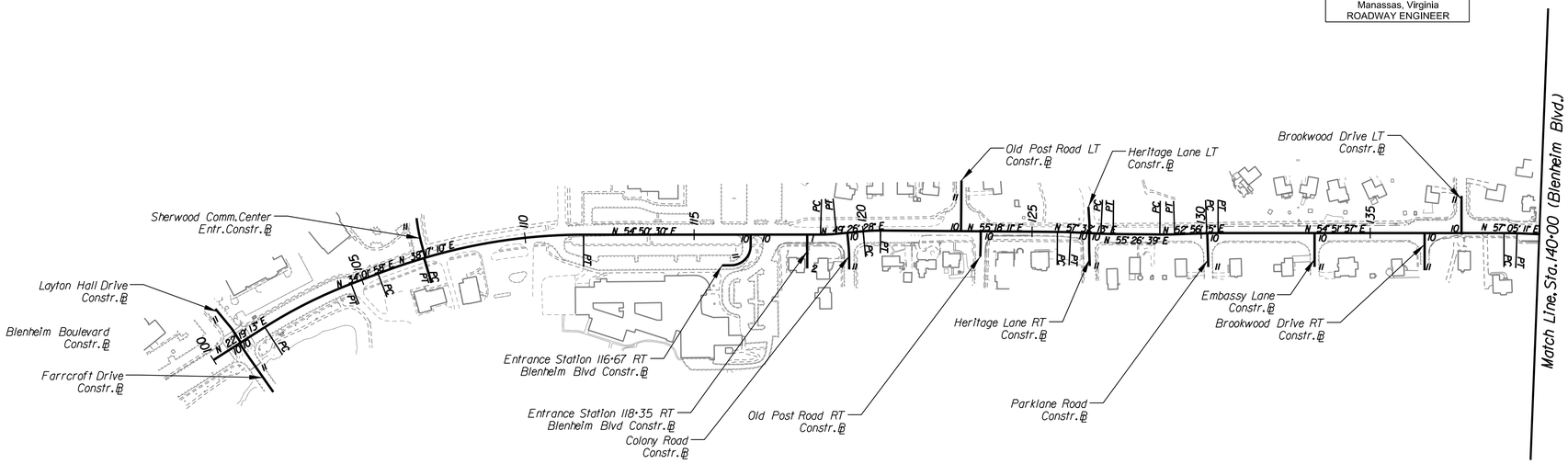
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

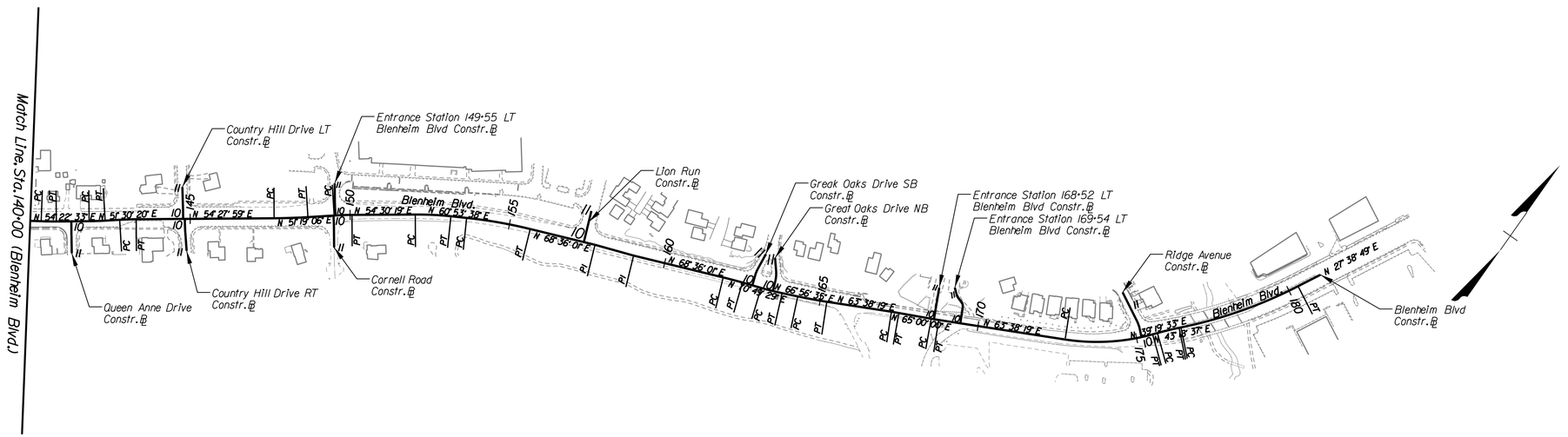
Mark Gunn
2025.12.11 20:39:22 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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





SCALE 0 400' 800' | PROJECT U000-151-R94 | SHEET NO. IG(1)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

HORIZONTAL CONSTRUCTION ALIGNMENT DATA SHEET

COMMONWEALTH OF VIRGINIA — MARK A. GUNN Lic. No. 038323 — PROFESSIONAL ENGINEER
Mark Gunn
2025.12.11 20:40:44 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1G(1A)

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

Blenheim Boulevard

From Sta.100+00.00 to Sta.181+10.40

Chain BLENHEIM contains:
BLENHEIM001 CUR BLENHEIM1 CUR BLENHEIM2 CUR BLENHEIM3 CUR BLENHEIM4 CUR BLENHE-
IM5 CUR BLENHEIM6 CUR BLENHEIM7 CUR BLENHEIM8 CUR BLENHEIM9 CUR BLENHEIM10 CUR -
BLENHEIM11 CUR BLENHEIM12 CUR BLENHEIM13 CUR BLENHEIM14 CUR BLENHEIM15 CUR BLEN-
HEIM16 CUR BLENHEIM17 BLENHEIM002 BLENHEIM003 CUR BLENHEIM18 CUR BLENHEIM19 CUR-
BLENHEIM20 CUR BLENHEIM21 CUR BLENHEIM22 CUR BLENHEIM23 CUR BLENHEIM24 CUR BLE-
NHEIM25 BLENHEIM004

Beginning chain BLENHEIM description

Point BLENHEIM001 N 6,994,766.8010 E 11,824,827.6357 Sta 100+00.00

Course from BLENHEIM001 to PC BLENHEIM1 N 22°33'00" E 19' 13.2646" E Dist 180.0000

Curve Data

Curve BLENHEIM1
P.I. Station 103+23.60 N 6,995,066.1518 E 11,824,950.5326
Delta = 11°33'00" 42' 45.1834" (RT)
Degree = 4°46'00" 05' 33.2004"
Tangent = 143.5962
Length = 286.1916
Radius = 1,400.0000
External = 7.3450
Long Chord = 285.6936
Mid.Ord. = 7.3066
P.C. Station 101+80.00 N 6,994,933.3145 E 11,824,895.9969
P.T. Station 104+66.19 N 6,995,185.1523 E 11,825,030.8989
C.C. N 6,994,401.6158 E 11,826,191.1017
Back = N 22°33'00" E 19' 13.2644" E
Ahead = N 34°33'00" E 01' 58.4478" E
Chord Bear = N 28°33'00" E 10' 35.8566" E

Course from PT BLENHEIM1 to PC BLENHEIM2 N 34°33'00" E 01' 58.4470" E Dist 84.9409

Curve Data

Curve BLENHEIM2
P.I. Station 106+22.24 N 6,995,314.4748 E 11,825,118.2361
Delta = 4°33'00" 15' 11.6632" (RT)
Degree = 2°46'00" 59' 31.0082"
Tangent = 71.1108
Length = 142.1563
Radius = 1,915.0000
External = 1.3198
Long Chord = 142.1236
Mid.Ord. = 1.3189
P.C. Station 105+51.13 N 6,995,255.5442 E 11,825,078.4376
P.T. Station 106+93.29 N 6,995,370.2916 E 11,825,162.2956
C.C. N 6,994,183.7782 E 11,826,665.4294
Back = N 34°33'00" E 01' 58.4478" E
Ahead = N 38°33'00" E 17' 10.1110" E
Chord Bear = N 36°33'00" E 09' 34.2794" E

Course from PT BLENHEIM2 to PC BLENHEIM3 N 38°33'00" E 17' 10.1128" E Dist 3.2660

Curve Data

Curve BLENHEIM3
P.I. Station 109+36.61 N 6,995,561.2793 E 11,825,313.0537
Delta = 16°33'00" 33' 19.4910" (RT)
Degree = 3°34'00" 28' 20.8973"
Tangent = 240.0534
Length = 476.7617
Radius = 1,650.0000
External = 17.3709
Long Chord = 475.1049
Mid.Ord. = 17.1899
P.C. Station 106+96.55 N 6,995,372.8551 E 11,825,164.3192
P.T. Station 111+73.32 N 6,995,699.5115 E 11,825,509.3124
C.C. N 6,994,350.5330 E 11,826,459.4475
Back = N 38°33'00" E 17' 10.1110" E
Ahead = N 54°33'00" E 50' 29.6020" E
Chord Bear = N 46°33'00" E 33' 49.8565" E

Course from PT BLENHEIM3 to PC BLENHEIM4 N 54°33'00" E 50' 29.6020" E Dist 700.6409

Curve Data

Curve BLENHEIM4
P.I. Station 118+97.54 N 6,996,116.5476 E 11,826,101.4099
Delta = 5°33'00" 24' 02.0029" (LT)
Degree = 11°46'00" 27' 32.9612"
Tangent = 23.5818
Length = 47.1287
Radius = 500.0000
External = 0.5558
Long Chord = 47.1113
Mid.Ord. = 0.5552
P.C. Station 118+73.96 N 6,996,102.9683 E 11,826,082.1303
P.T. Station 119+21.09 N 6,996,131.8812 E 11,826,119.3259
C.C. N 6,996,511.7496 E 11,825,794.2106
Back = N 54°33'00" E 50' 29.6020" E
Ahead = N 49°33'00" E 26' 27.5991" E
Chord Bear = N 52°33'00" E 08' 28.6005" E

Course from PT BLENHEIM4 to PC BLENHEIM5 N 49°33'00" E 26' 27.5989" E Dist 79.4085

Curve Data

Curve BLENHEIM5
P.I. Station 120+26.09 N 6,996,200.1610 E 11,826,199.1047
Delta = 5°33'00" 51' 43.0917" (RT)
Degree = 11°33'00" 27' 32.9612"
Tangent = 25.6000
Length = 51.1553
Radius = 500.0000
External = 0.6549
Long Chord = 51.1330
Mid.Ord. = 0.6541
P.C. Station 120+00.49 N 6,996,183.5151 E 11,826,179.6555
P.T. Station 120+51.65 N 6,996,214.7334 E 11,826,220.1524
C.C. N 6,995,803.6467 E 11,826,504.7708
Back = N 49°33'00" E 26' 27.5991" E
Ahead = N 55°33'00" E 18' 10.6908" E
Chord Bear = N 52°33'00" E 22' 19.1450" E

Course from PT BLENHEIM5 to PC BLENHEIM6 N 55°33'00" E 18' 10.6909" E Dist 523.3500

Curve Data

Curve BLENHEIM6
P.I. Station 125+94.50 N 6,996,523.7429 E 11,826,666.4681
Delta = 2°33'00" 14' 02.6948" (RT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 19.4985
Length = 38.9921
Radius = 1,000.0000
External = 0.1901
Long Chord = 38.9896
Mid.Ord. = 0.1900
P.C. Station 125+75.00 N 6,996,512.6436 E 11,826,650.4369
P.T. Station 126+13.99 N 6,996,534.2088 E 11,826,682.9198
C.C. N 6,995,690.4701 E 11,827,219.6739
Back = N 55°33'00" E 18' 10.6908" E
Ahead = N 57°33'00" E 32' 13.3857" E
Chord Bear = N 56°33'00" E 25' 12.0382" E

Course from PT BLENHEIM6 to PC BLENHEIM7 N 57°33'00" E 32' 13.3856" E Dist 89.4516

Curve Data

Curve BLENHEIM7
P.I. Station 127+21.71 N 6,996,592.0270 E 11,826,773.8059
Delta = 2°33'00" 05' 34.7431" (LT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 18.2668
Length = 36.5295
Radius = 1,000.0000
External = 0.1668
Long Chord = 36.5274
Mid.Ord. = 0.1668
P.C. Station 127+03.44 N 6,996,582.2223 E 11,826,758.3935
P.T. Station 127+39.97 N 6,996,602.3881 E 11,826,788.8499
C.C. N 6,997,425.9610 E 11,826,221.6394
Back = N 57°33'00" E 32' 13.3857" E
Ahead = N 55°33'00" E 26' 38.6426" E
Chord Bear = N 56°33'00" E 29' 26.0141" E

Course from PT BLENHEIM7 to PC BLENHEIM8 N 55°33'00" E 26' 38.6425" E Dist 137.9152

Curve Data

Curve BLENHEIM8
P.I. Station 128+99.76 N 6,996,693.0236 E 11,826,920.4499
Delta = 2°33'00" 30' 23.1966" (LT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 21.8763
Length = 43.7457
Radius = 1,000.0000
External = 0.2393
Long Chord = 43.7422
Mid.Ord. = 0.2392
P.C. Station 128+77.89 N 6,996,680.6151 E 11,826,902.4331
P.T. Station 129+21.63 N 6,996,706.2081 E 11,826,937.9068
C.C. N 6,997,504.1880 E 11,826,335.2226
Back = N 55°33'00" E 26' 38.6426" E
Ahead = N 53°33'00" E 56' 15.4459" E
Chord Bear = N 54°33'00" E 11' 27.0442" E

Course from PT BLENHEIM8 to PC BLENHEIM9 N 52°33'00" E 56' 15.4449" E Dist 94.9010

Curve Data

Curve BLENHEIM9
P.I. Station 130+33.36 N 6,996,773.5457 E 11,827,027.0647
Delta = 13°33'00" 55' 41.6232" (RT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 16.8286
Length = 33.6539
Radius = 1,000.0000
External = 0.1416
Long Chord = 33.6524
Mid.Ord. = 0.1416
P.C. Station 130+16.53 N 6,996,763.4034 E 11,827,013.6358
P.T. Station 130+50.19 N 6,996,783.2304 E 11,827,040.8272
C.C. N 6,995,965.4236 E 11,827,616.3199
Back = N 52°33'00" E 56' 15.4459" E
Ahead = N 54°33'00" E 51' 57.0692" E
Chord Bear = N 53°33'00" E 54' 06.2575" E

Course from PT BLENHEIM9 to PC BLENHEIM10 N 54°33'00" E 51' 57.0692" E Dist 845.3840

Curve Data

Curve BLENHEIM10
P.I. Station 139+14.95 N 6,997,280.8963 E 11,827,748.0378
Delta = 2°33'00" 13' 14.1347" (RT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 19.3808
Length = 38.7567
Radius = 1,000.0000
External = 0.1878
Long Chord = 38.7542
Mid.Ord. = 0.1878
P.C. Station 138+95.57 N 6,997,269.7428 E 11,827,732.1880
P.T. Station 139+34.33 N 6,997,291.4273 E 11,827,764.3077
C.C. N 6,996,451.9359 E 11,828,307.6808
Back = N 54°33'00" E 51' 57.0692" E
Ahead = N 57°33'00" E 05' 11.2039" E
Chord Bear = N 55°33'00" E 58' 34.1365" E

Course from PT BLENHEIM10 to PC BLENHEIM11 N 57°33'00" E 05' 11.2041" E Dist 99.8323

Curve Data

Curve BLENHEIM11
P.I. Station 140+57.82 N 6,997,358.5297 E 11,827,867.9785
Delta = 2°33'00" 42' 38.6576" (LT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 23.6601
Length = 47.3113
Radius = 1,000.0000
External = 0.2799
Long Chord = 47.3069
Mid.Ord. = 0.2798
P.C. Station 140+34.16 N 6,997,345.6735 E 11,827,848.1161
P.T. Station 140+81.47 N 6,997,372.3109 E 11,827,887.2107
C.C. N 6,998,185.1648 E 11,827,304.7430
Back = N 57°33'00" E 05' 11.2039" E
Ahead = N 54°33'00" E 22' 32.5463" E
Chord Bear = N 55°33'00" E 43' 51.8751" E

Course from PT BLENHEIM11 to PC BLENHEIM12 N 54°33'00" E 22' 32.5460" E Dist 102.5070

Curve Data

Curve BLENHEIM12
P.I. Station 142+09.03 N 6,997,446.6105 E 11,827,990.8984
Delta = 2°33'00" 52' 12.9609" (LT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 25.0530
Length = 50.0956
Radius = 1,000.0000
External = 0.3138
Long Chord = 50.0904
Mid.Ord. = 0.3137
P.C. Station 141+83.98 N 6,997,432.0179 E 11,827,970.5339
P.T. Station 142+34.08 N 6,997,462.2045 E 11,828,010.5066
C.C. N 6,998,244.8718 E 11,827,388.0662
Back = N 54°33'00" E 22' 32.5463" E
Ahead = N 51°33'00" E 30' 19.5855" E
Chord Bear = N 52°33'00" E 56' 26.0659" E

Course from PT BLENHEIM12 to PC BLENHEIM13 N 51°33'00" E 30' 19.5851" E Dist 45.5939

Curve Data

Curve BLENHEIM13
P.I. Station 143+05.52 N 6,997,506.6715 E 11,828,066.4200
Delta = 2°33'00" 57' 39.7740" (RT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 25.8458
Length = 51.6800
Radius = 1,000.0000
External = 0.3339
Long Chord = 51.6743
Mid.Ord. = 0.3338
P.C. Station 142+79.67 N 6,997,490.5840 E 11,828,046.1914
P.T. Station 143+31.35 N 6,997,521.6925 E 11,828,087.4527
C.C. N 6,996,707.9168 E 11,828,668.6317
Back = N 51°33'00" E 30' 19.5855" E
Ahead = N 54°33'00" E 27' 59.3595" E
Chord Bear = N 53°33'00" E 09' 09.4725" E

Course from PT BLENHEIM13 to PC BLENHEIM14 N 54°33'00" E 27' 59.3597" E Dist 431.0580

Curve Data

Curve BLENHEIM14
P.I. Station 148+15.31 N 6,997,802.9573 E 11,828,481.2840
Delta = 3°33'00" 08' 53.1477" (LT)
Degree = 2°33'00" 58' 35.0549"
Tangent = 52.8975
Length = 105.7685
Radius = 1,925.0000
External = 0.7267
Long Chord = 105.7551
Mid.Ord. = 0.7264
P.C. Station 147+62.41 N 6,997,772.2144 E 11,828,438.2372
P.T. Station 148+68.18 N 6,997,836.0178 E 11,828,522.5774
C.C. N 6,999,338.7326 E 11,827,319.4676
Back = N 54°33'00" E 27' 59.3595" E
Ahead = N 51°33'00" E 09' 06.2118" E
Chord Bear = N 52°33'00" E 32' 7.857" E

Course from PT BLENHEIM14 to PC BLENHEIM15 N 51°33'00" E 09' 06.2105" E Dist 82.0127

Curve Data

Curve BLENHEIM15
P.I. Station 149+78.01 N 6,997,904.6608 E 11,828,608.3142
Delta = 3°33'00" 11' 12.5525" (RT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 27.8174
Length = 55.6205
Radius = 1,000.0000
External = 0.3868
Long Chord = 55.6133
Mid.Ord. = 0.3867
P.C. Station 149+50.19 N 6,997,887.2751 E 11,828,586.5991
P.T. Station 150+05.81 N 6,997,920.8124 E 11,828,630.9623
C.C. N 6,997,106.6441 E 11,829,211.5912
Back = N 51°33'00" E 09' 06.2118" E
Ahead = N 54°33'00" E 30' 18.7643" E
Chord Bear = N 52°33'00" E 54' 42.4881" E

Course from PT BLENHEIM15 to PC BLENHEIM16 N 54°33'00" E 30' 18.7645" E Dist 197.9920

Curve Data

Curve BLENHEIM16
P.I. Station 152+59.61 N 6,998,068.1767 E 11,828,837.5991
Delta = 6°33'00" 23' 19.0463" (RT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 55.8091
Length = 111.5025
Radius = 1,000.0000
External = 1.5561
Long Chord = 111.4448
Mid.Ord. = 1.5537
P.C. Station 152+03.80 N 6,998,035.7723 E 11,828,792.1611
P.T. Station 153+15.30 N 6,998,095.3238 E 11,828,886.3607
C.C. N 6,997,221.6039 E 11,829,372.7900
Back = N 54°33'00" E 30' 18.7643" E
Ahead = N 60°33'00" E 53' 37.8107" E
Chord Bear = N 57°33'00" E 41' 58.2875" E

Course from PT BLENHEIM16 to PC BLENHEIM17 N 60°33'00" E 53' 37.8116" E Dist 49.3614

Curve Data

Curve BLENHEIM17
P.I. Station 154+65.69 N 6,998,168.4783 E 11,829,017.7600
Delta = 7°33'00" 42' 23.1639" (RT)
Degree = 5°33'00" 49' 10.9871"
Tangent = 101.0293
Length = 201.7540
Radius = 1,150.0000
External = 3.3985
Long Chord = 201.6019
Mid.Ord. = 3.3908
P.C. Station 153+64.67 N 6,998,119.3347 E 11,828,929.4887
P.T. Station 155+66.42 N 6,998,205.3411 E 11,829,111.8242
C.C. N 6,996,808.7548 E 11,829,659.1328
Back = N 60°33'00" E 53' 37.8107" E
Ahead = N 68°33'00" E 36' 00.9745" E
Chord Bear = N 64°33'00" E 44' 49.3926" E

Course from PT BLENHEIM17 to BLENHEIM002 N 68°33'00" E 36' 00.9747" E Dist 208.5807

Point BLENHEIM002 N 6,998,281.4465 E 11,829,306.0248 Sta 157+75.00

Course from BLENHEIM002 to BLENHEIM003 N 70°33'00" E 25' 59.1968" E Dist 125.0640

Point BLENHEIM003 N 6,998,323.3313 E 11,829,423.8665 Sta 159+00.06

Course from BLENHEIM003 to PC BLENHEIM18 N 68°33'00" E 36' 00.9745" E Dist 288.3516

Curve Data

Curve BLENHEIM18
P.I. Station 162+19.48 N 6,998,439.8766 E 11,829,721.2592
Delta = 2°33'00" 13' 27.8237" (RT)
Degree = 3°33'00" 34' 51.5504"
Tangent = 31.0623
Length = 62.1168
Radius = 1,600.0000
External = 0.3015
Long Chord = 62.1129
Mid.Ord. = 0.3014
P.C. Station 161+88.42 N 6,998,428.5428 E 11,829,692.3384
P.T. Station 162+50.53 N 6,998,450.0793 E 11,829,750.5981
C.C. N 6,996,938.8508 E 11,830,276.1342
Back = N 68°33'00" E 36' 00.9745" E
Ahead = N 70°33'00" E 49' 28.7982" E
Chord Bear = N 69°33'00" E 42' 44.8864" E

Course from PT BLENHEIM18 to PC BLENHEIM19 N 70°33'00" E 49' 28.7976" E Dist 60.8678

Curve Data

Curve BLENHEIM19
P.I. Station 163+45.29 N 6,998,481.2024 E 11,829,840.0954
Delta = 3°33'00" 52' 53.8918" (LT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 33.8866
Length = 67.7473
Radius = 1,000.0000
External = 0.5740
Long Chord = 67.7344
Mid.Ord. = 0.5737
P.C. Station 163+11.40 N 6,998,470.0720 E 11,829,808.0889
P.T. Station 163+79.15 N 6,998,494.4740 E 11,829,871.2750
C.C. N 6,999,414.5898 E 11,829,479.6288
Back = N 70°33'00" E 49' 28.7982" E
Ahead = N 66°33'00" E 56' 34.9064" E
Chord Bear = N 68°33'00" E 53' 01.8523" E

Course from PT BLENHEIM19 to PC BLENHEIM20 N 66°33'00" E 56' 34.9071" E Dist 50.0000

Curve Data

Curve BLENHEIM20
P.I. Station 164+75.30 N 6,998,532.1311 E 11,829,959.7451
Delta = 3°33'00" 18' 15.8529" (LT)
Degree = 3°33'00" 34' 51.5504"
Tangent = 46.1510
Length = 92.2764
Radius = 1,600.0000
External = 0.6655
Long Chord = 92.2636
Mid.Ord. = 0.6652
P.C. Station 164+29.15 N 6,998,514.0563 E 11,829,917.2808
P.T. Station 165+21.42 N 6,998,552.6236 E 11,830,001.0969
C.C. N 6,999,986.2417 E 11,829,290.6469
Back = N 66°33'00" E 56' 34.9064" E
Ahead = N 63°33'00" E 38' 19.0535" E
Chord Bear = N 65°33'00" E 17' 26.9799" E

Course from PT BLENHEIM20 to PC BLENHEIM21 N 63°33'00" E 38' 19.0536" E Dist 204.1697

Curve Data

Curve BLENHEIM21
P.I. Station 167+37.47 N 6,998,648.5567 E 11,830,194.6803
Delta = 13°33'00" 21' 40.8466" (RT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 11.8805
Length = 23.7600
Radius = 1,000.0000
External = 0.0706
Long Chord = 23.7594
Mid.Ord. = 0.0706
P.C. Station 167+25.59 N 6,998,643.2813 E 11,830,184.0352
P.T. Station 167+49.35 N 6,998,653.5776 E 11,830,205.4478
C.C. N 6,997,747.2700 E 11,830,628.0665
Back = N 63°33'00" E 38' 19.0535" E
Ahead = N 50°33'00" E 59' 59.9000" E
Chord Bear = N 63°33'00" E 19' 09.4767" E

Course from PT BLENHEIM21 to PC BLENHEIM22 N 63°33'00" E 59' 59.8998" E Dist 102.5134

Curve Data

Curve BLENHEIM22
P.I. Station 168+63.75 N 6,998,701.9226 E 11,830,309.1239
Delta = 13°33'00" 21' 40.8513" (LT)
Degree = 5°33'00" 43' 46.4806"
Tangent = 11.8806
Length = 23.7600
Radius = 1,000.0000
External = 0.0706
Long Chord = 23.7594
Mid.Ord. = 0.0706
P.C. Station 168+51.87 N 6,998,696.9017 E 11,830,298.3564
P.T. Station 168+75.63 N 6,998,707.1980 E 11,830,319.7690
C.C. N 6,999,603.2093 E 11,829,875.7377
Back = N 63°33'00" E 59' 59.8998" E
Ahead = N 63°33'00" E 38' 19.0487" E
Chord Bear = N 63°33'00" E 19' 09.4744" E

Course from PT BLENHEIM22 to PC BLENHEIM23 N 63°33'00" E 38' 19.0487" E Dist 399.8466

PROJECT	SHEET NO.
U000-151-R94	1G(1A)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

HORIZONTAL CONSTRUCTION ALIGNMENT DATA SHEET

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:41:17 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IG(1B)

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

Farrcroft Dr. Sta. 100+92 RT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 11+75.00

Chain FARRCROFT contains:

FARRCROFT001 CUR FARRCROFT1 FARRCROFT002

Beginning chain FARRCROFT description

Point FARRCROFT001 N 6,994,851.5449 E 11,824,862.4268 Sta 10+00.00

Course from FARRCROFT001 to PC FARRCROFT1 S 67° 40' 46.7706" E Dist 1.8803

Curve Data

Curve FARRCROFT1
P.I. Station 10+36.22 N 6,994,837.7873 E 11,824,895.9374
Delta = 2° 39' 24.0945" (LT)
Degree = 3° 52' 06.2844"
Tangent = 34.3444
Length = 68.6766
Radius = 1,481.1187
External = 0.3981
Long Chord = 68.6704
Mid.Ord. = 0.3980
P.C. Station 10+01.88 N 6,994,850.8308 E 11,824,864.1662
P.T. Station 10+70.56 N 6,994,826.2305 E 11,824,928.2790
C.C. N 6,996,220.9766 E 11,825,426.6724
Back = S 67° 40' 46.7492" E
Ahead = S 70° 20' 10.8437" E
Chord Bear = S 69° 00' 28.7964" E

Course from PT FARRCROFT1 to FARRCROFT002 S 70° 20' 10.8433" E Dist 104.4431

Point FARRCROFT002 N 6,994,791.0856 E 11,825,026.6314 Sta 11+75.00

Ending chain FARRCROFT description

Layton Hall Dr. Sta. 100+96 LT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 11+25.00

Chain LAYTONHALL contains:

LAYTONHALL001 CUR LAYTONHALL1 LAYTONHALL002

Beginning chain LAYTONHALL description

Point LAYTONHALL001 N 6,994,855.0815 E 11,824,863.8787 Sta 10+00.00

Course from LAYTONHALL001 to PC LAYTONHALL1 N 67° 40' 46.7351" W Dist 38.3755

Curve Data

Curve LAYTONHALL1
P.I. Station 10+45.69 N 6,994,872.4325 E 11,824,821.6151
Delta = 6° 48' 24.1900" (LT)
Degree = 46° 36' 18.241"
Tangent = 7.3112
Length = 14.6051
Radius = 122.9389
External = 0.2172
Long Chord = 14.5965
Mid.Ord. = 0.2168
P.C. Station 10+38.38 N 6,994,869.6559 E 11,824,828.3785
P.T. Station 10+52.98 N 6,994,874.3880 E 11,824,814.5704
C.C. N 6,994,755.9281 E 11,824,781.6882
Back = N 67° 40' 46.7350" W
Ahead = N 74° 29' 10.9250" W
Chord Bear = N 71° 04' 58.8300" W

Course from PT LAYTONHALL1 to LAYTONHALL002 N 74° 29' 10.9250" W Dist 72.0194

Point LAYTONHALL002 N 6,994,893.6509 E 11,824,745.1749 Sta 11+25.00

Ending chain LAYTONHALL description

Colony Rd. Sta. 119+57 RT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 11+08.64

Chain COLONY contains:

COLONY001 CUR COLONY1 COLONY002

Beginning chain COLONY description

Point COLONY001 N 6,996,152.8458 E 11,826,143.8212 Sta 10+00.00

Course from COLONY001 to PC COLONY1 S 40° 33' 32.3993" E Dist 38.5784

Curve Data

Curve COLONY1
P.I. Station 10+56.38 N 6,996,110.0130 E 11,826,180.4803
Delta = 5° 05' 45.6362" (RT)
Degree = 14° 19' 26.2016"
Tangent = 17.8002
Length = 35.5769
Radius = 400.0000
External = 0.3959
Long Chord = 35.5651
Mid.Ord. = 0.3955
P.C. Station 10+38.58 N 6,996,123.5364 E 11,826,168.9060
P.T. Station 10+74.16 N 6,996,095.5149 E 11,826,190.8075
C.C. N 6,995,863.4441 E 11,825,865.0113
Back = S 40° 33' 32.3986" E
Ahead = S 35° 27' 46.7624" E
Chord Bear = S 38° 00' 39.5805" E

Course from PT COLONY1 to COLONY002 S 35° 27' 46.7616" E Dist 34.4799

Point COLONY002 N 6,996,067.4313 E 11,826,210.8120 Sta 11+08.64

Ending chain COLONY description

Old Post Rd. Sta. 122+90 LT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 11+50.00

Chain OLDPOST_LT contains:
OLDPOST_LT001 OLDPOST_LT002

Beginning chain OLDPOST_LT description

Point OLDPOST_LT001 N 6,996,350.3968 E 11,826,416.0969 Sta 10+00.00

Course from OLDPOST_LT001 to OLDPOST_LT002 N 34° 41' 49.3097" W Dist 150.0000

Point OLDPOST_LT002 N 6,996,473.7229 E 11,826,330.7114 Sta 11+50.00

Ending chain OLDPOST_LT description

Old Post Rd. Sta. 123+48 RT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 10+75.00

Chain OLDPOST_RT contains:

OLDPOST_RT001 CUR OLDPOST_RT1 OLDPOST_RT002

Beginning chain OLDPOST_RT description

Point OLDPOST_RT001 N 6,996,383.6175 E 11,826,464.0789 Sta 10+00.00

Course from OLDPOST_RT001 to PC OLDPOST_RT1 S 34° 41' 49.3085" E Dist 29.3091

Curve Data

Curve OLDPOST_RT1
P.I. Station 10+33.91 N 6,996,355.7399 E 11,826,483.3801
Delta = 1° 19' 01.9111" (RT)
Degree = 14° 19' 26.2016"
Tangent = 4.5981
Length = 9.1958
Radius = 400.0000
External = 0.0264
Long Chord = 9.1956
Mid.Ord. = 0.0264
P.C. Station 10+29.31 N 6,996,359.5204 E 11,826,480.7627
P.T. Station 10+38.50 N 6,996,351.9003 E 11,826,485.9100
C.C. N 6,996,131.8256 E 11,826,151.8933
Back = S 34° 41' 49.3094" E
Ahead = S 33° 22' 47.3983" E
Chord Bear = S 34° 02' 18.3538" E

Course from PT OLDPOST_RT1 to OLDPOST_RT002 S 33° 22' 47.3990" E Dist 36.4952

Point OLDPOST_RT002 N 6,996,321.4254 E 11,826,505.9891 Sta 10+75.00

Ending chain OLDPOST_RT description

Heritage Ln. Sta. 126+69 RT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 10+97.18

Chain HERITAGE_RT contains:

HERITAGERT001 CUR HERITAGE_RT1 HERITAGERT002

Beginning chain HERITAGE_RT description

Point HERITAGERT01 N 6,996,563.9049 E 11,826,729.5999 Sta 10+00.00

Course from HERITAGERT01 to PC HERITAGE_RT1 S 33° 53' 36.2147" E Dist 16.4620

Curve Data

Curve HERITAGE_RT1
P.I. Station 10+36.25 N 6,996,533.8132 E 11,826,749.8157
Delta = 3° 14' 19.5547" (LT)
Degree = 8° 11' 06.4009"
Tangent = 19.7898
Length = 39.5690
Radius = 700.0000
External = 0.2797
Long Chord = 39.5637
Mid.Ord. = 0.2796
P.C. Station 10+16.46 N 6,996,550.2402 E 11,826,738.7799
P.T. Station 10+56.03 N 6,996,518.0359 E 11,826,761.7619
C.C. N 6,996,940.5948 E 11,827,319.8335
Back = S 33° 53' 36.2113" E
Ahead = S 37° 07' 55.7659" E
Chord Bear = S 35° 30' 45.9886" E

Course from PT HERITAGE_RT1 to HERITAGERT02 S 37° 07' 55.7658" E Dist 41.1503

Point HERITAGERT02 N 6,996,485.2290 E 11,826,786.6025 Sta 10+97.18

Ending chain HERITAGE_RT description

Heritage Ln. Sta. 126+69 LT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 10+74.90

Chain HERITAGE_LT contains:

HERITAGELT001 CUR HERITAGE_LT1 HERITAGELT002

Beginning chain HERITAGE_LT description

Point HERITAGELT01 N 6,996,563.9049 E 11,826,729.5998 Sta 10+00.00

Course from HERITAGELT01 to PC HERITAGE_LT1 N 33° 53' 31.5226" W Dist 18.0909

Curve Data

Curve HERITAGE_LT1
P.I. Station 10+26.42 N 6,996,585.8347 E 11,826,714.8680
Delta = 4° 46' 07.0988" (LT)
Degree = 28° 38' 52.4031"
Tangent = 8.3277
Length = 16.6457
Radius = 200.0000
External = 0.1733
Long Chord = 16.6409
Mid.Ord. = 0.1731
P.C. Station 10+18.09 N 6,996,578.9220 E 11,826,719.5118
P.T. Station 10+34.74 N 6,996,592.3374 E 11,826,709.6657
C.C. N 6,996,467.3959 E 11,826,553.4939
Back = N 33° 53' 31.5265" W
Ahead = N 38° 39' 38.6253" W
Chord Bear = N 36° 16' 35.0759" W

Course from PT HERITAGE_LT1 to HERITAGELT02 N 38° 39' 38.6253" W Dist 43.0821

Point HERITAGELT02 N 6,996,625.9784 E 11,826,682.7520 Sta 10+77.82

Ending chain HERITAGE_LT description

Parklane Rd. Sta. 130+17 RT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 11+00.00

Chain PARKLANE contains:

PARKLANE001 CUR PARKLANE1 PARKLANE002

Beginning chain PARKLANE description

Point PARKLANE001 N 6,996,764.3933 E 11,827,014.9487 Sta 10+00.00

Course from PARKLANE001 to PARKLANE002 S 36° 58' 05.4074" E Dist 100.0000

Point PARKLANE002 N 6,996,684.4963 E 11,827,075.0858 Sta 11+00.00

Ending chain PARKLANE description

Embassy Ln. Sta. 133+36 RT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 11+00.00

Chain EMBASSY contains:

EMBASSY001 EMBASSY002

Beginning chain EMBASSY description

Point EMBASSY001 N 6,996,947.3554 E 11,827,274.0578 Sta 10+00.00

Course from EMBASSY001 to EMBASSY002 S 35° 08' 02.9317" E Dist 100.0000

Point EMBASSY002 N 6,996,865.5747 E 11,827,331.6070 Sta 11+00.00

Ending chain EMBASSY description

Brookwood Dr. Sta. 137+70 LT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 11+10.00

Chain BROOKWOOD_LT contains:

BROOKWOODLT001 BROOKWOODLT002

Beginning chain BROOKWOOD_LT description

Point BROOKWOODLT001 N 6,997,197.5489 E 11,827,629.5965 Sta 10+00.00

Course from BROOKWOODLT001 to BROOKWOODLT002 N 35° 08' 02.9309" W Dist 110.0000

Point BROOKWOODLT002 N 6,997,287.5076 E 11,827,566.2923 Sta 11+10.00

Ending chain BROOKWOOD_LT description

Queen Anne Dr. Sta. 141+29 RT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 11+00.00

Chain QUEENANNE contains:

QUEENANNE001 CUR QUEENANNE1 QUEENANNE002

Beginning chain QUEENANNE description

Point QUEENANNE001 N 6,997,399.6948 E 11,827,925.4259 Sta 10+00.00

Course from QUEENANNE001 to PC QUEENANNE1 S 35° 37' 27.4517" E Dist 42.5207

Curve Data

Curve QUEENANNE1
P.I. Station 10+47.63 N 6,997,361.0368 E 11,827,953.2539
Delta = 0° 35' 09.0527" (RT)
Degree = 5° 43' 46.4806"
Tangent = 12.9426
Length = 25.8837
Radius = 1,000.0000
External = 0.0131
Long Chord = 25.8830
Mid.Ord. = 0.0131
P.C. Station 10+34.70 N 6,997,350.1317 E 11,827,940.1928
P.T. Station 10+60.58 N 6,997,325.2479 E 11,827,947.2729
C.C. N 6,996,766.3948 E 11,827,149.2470
Back = S 36° 46' 46.1501" E
Ahead = S 36° 11' 37.0974" E
Chord Bear = S 36° 29' 11.6237" E

Course from PT QUEENANNE1 to QUEENANNE002 S 36° 11' 37.0973" E Dist 47.2543

Point QUEENANNE002 N 6,997,318.7755 E 11,827,984,177.3 Sta 11+00.00

Ending chain QUEENANNE description

Country Hill Dr. Sta. 144+78 LT (BLENHEIM BL)

From Sta. 10+00.00 to Sta. 11+00.00

Chain COUNTRY_LT contains:

COUNTRYLT001 CUR COUNTRY_LT1 COUNTRYLT002

Beginning chain COUNTRY_LT description

Point COUNTRYLT001 N 6,997,606.9194 E 11,828,206.7888 Sta 10+00.00

Course from COUNTRYLT001 to PC COUNTRY_LT1 N 35° 32' 00.6348" W Dist 18.1541

Curve Data

Curve COUNTRY_LT1
P.I. Station 10+31.10 N 6,997,632.2252 E 11,828,188.7160
Delta = 1° 28' 58.9061" (LT)
Degree = 5° 43' 46.4806"
Tangent = 12.9426
Length = 25.8837
Radius = 1,000.0000
External = 0.0838
Long Chord = 25.8830
Mid.Ord. = 0.0837
P.C. Station 10+18.15 N 6,997,621.6928 E 11,828,196.2380
P.T. Station 10+44.04 N 6,997,642.5593 E 11,828,180.9240
C.C. N 6,997,040.5138 E 11,827,382.4622
Back = N 35° 32' 00.6353" W
Ahead = N 37° 00' 59.5414" W
Chord Bear = N 36° 16' 30.0884" W

Course from PT COUNTRY_LT1 to COUNTRYLT002 N 37° 00' 59.5416" W Dist 55.9622

Point COUNTRYLT002 N 6,997,687.2430 E 11,828,147.2322 Sta 11+00.00

Ending chain COUNTRY_LT description

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

HORIZONTAL CONSTRUCTION ALIGNMENT DATA SHEET

COMMONWEALTH OF VIRGINIA — MARK A. GUNN Lic. No. 038323 — PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:42:25 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IG(1C)

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

Blenheim Boulevard Continued

From Sta.100+00.00 to Sta.181+10.40

Chain BLENHEIM contains:
BLENHEIM001 CUR BLENHEIM1 CUR BLENHEIM2 CUR BLENHEIM3 CUR BLENHEIM4 CUR BLENHE-
IM5 CUR BLENHEIM6 CUR BLENHEIM7 CUR BLENHEIM8 CUR BLENHEIM9 CUR BLENHEIM10 CUR -
BLENHEIM11 CUR BLENHEIM12 CUR BLENHEIM13 CUR BLENHEIM14 CUR BLENHEIM15 CUR BLEN-
HEIM16 CUR BLENHEIM17 BLENHEIM002 BLENHEIM003 CUR BLENHEIM18 CUR BLENHEIM19 CUR-
BLENHEIM20 CUR BLENHEIM21 CUR BLENHEIM22 CUR BLENHEIM23 CUR BLENHEIM24 CUR BLE-
NHEIM25 BLENHEIM004

Beginning chain BLENHEIM description

Point BLENHEIM001 N 6,994,766.8010 E 11,824,827.6357 Sta 100+00.00

Course from BLENHEIM001 to PC BLENHEIM1 N 22°¾ 19' 13.2646" E Dist 180.0000

Curve Data

Curve BLENHEIM23
P.I. Station 174+15.49 N 6,998,946.9145 E 11,830,803.4933
Delta = 2433°64 18' 46.2030" (LT)
Degree = 833°64 48' 53.0471"
Tangent = 140.0175
Length = 275.8204
Radius = 650.0000
External = 14.9097
Long Chord = 273.7556
Mid.Ord. = 14.5754
P.C. Station 172+75.47 N 6,998,884.7423 E 11,830,678.0360
P.T. Station 175+51.29 N 6,999,055.2257 E 11,830,892.2265
C.C. N 6,999,467.1497 E 11,830,389.4157
Back = N 6333°64 38' 19.0487" E
Ahead = N 3933°64 19' 32.8457" E
Chord Bear = N 5133°64 28' 55.9472" E

Course from PT BLENHEIM23 to PC BLENHEIM24 N 3933°64 19' 32.8462" E Dist 157.7872

Curve Data

Curve BLENHEIM24
P.I. Station 176+01.87 N 6,999,094.3472 E 11,830,924.2765
Delta = 333°64 59' 04.6355" (RT)
Degree = 533°64 43' 46.4806"
Tangent = 34.7864
Length = 69.5448
Radius = 1,000.0000
External = 0.6049
Long Chord = 69.5307
Mid.Ord. = 0.6045
P.C. Station 175+67.08 N 6,999,067.4380 E 11,830,902.2313
P.T. Station 176+36.63 N 6,999,119.6595 E 11,830,948.1382
C.C. N 6,998,433.7089 E 11,831,675.7863
Back = N 3933°64 19' 32.8457" E
Ahead = N 4333°64 18' 37.4812" E
Chord Bear = N 4133°64 19' 05.1634" E

Course from PT BLENHEIM24 to PC BLENHEIM25 N 4333°64 18' 37.4782" E Dist 5.8450

Curve Data

Curve BLENHEIM25
P.I. Station 178+38.34 N 6,999,266.4350 E 11,831,086.5028
Delta = 1533°64 39' 48.4561" (LT)
Degree = 433°64 01' 24.8881"
Tangent = 195.8672
Length = 389.2916
Radius = 1,424.0000
External = 13.4074
Long Chord = 388.0805
Mid.Ord. = 13.2823
P.C. Station 176+42.47 N 6,999,123.9126 E 11,830,952.1476
P.T. Station 180+31.76 N 6,999,439.9388 E 11,831,177.3895
C.C. N 7,000,100.7062 E 11,829,915.9767
Back = N 4333°64 18' 37.4812" E
Ahead = N 2733°64 38' 49.0251" E
Chord Bear = N 3533°64 28' 43.2531" E

Course from PT BLENHEIM25 to BLENHEIM004 N 2733°64 38' 49.0254" E Dist 78.6421

Point BLENHEIM004 N 6,999,509.6018 E 11,831,213.8812 Sta 181+10.40

Ending chain BLENHEIM description

Country Hill Dr. Sta.144+84 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain COUNTRY_RT contains:
COUNTRYRT001 CUR COUNTRY_RT1 COUNTRYRT002

Beginning chain COUNTRY_RT description

Point COUNTRYRT001 N 6,997,610.0497 E 11,828,211.7717 Sta 10+00.00

Course from COUNTRYRT001 to PC COUNTRY_RT1 S 35° 32' 00.6526" E Dist 10.2121

Curve Data

Curve COUNTRY_RT1
P.I. Station 10+26.23 N 6,997,588.7016 E 11,828,226.4180
Delta = 3°40' 13.9659" (LT)
Degree = 11°27' 32.9612"
Tangent = 16.0213
Length = 32.0316
Radius = 500.0000
External = 0.2566
Long Chord = 32.0261
Mid.Ord. = 0.2565
P.C. Station 10+10.21 N 6,997,601.7393 E 11,828,217.1068
P.T. Station 10+42.24 N 6,997,576.2867 E 11,828,236.5448
C.C. N 6,997,892.3288 E 11,828,623.9947
Back = S 35° 32' 00.6538" E
Ahead = S 39° 12' 14.6197" E
Chord Bear = S 37° 22' 07.6368" E

Course from PT COUNTRY_RT1 to COUNTRYRT002 S 39° 12' 14.6200" E Dist 57.7563

Point COUNTRYRT002 N 6,997,531.5314 E 11,828,273.0517 Sta 11+00.00

Ending chain COUNTRY_RT description

Cornell Rd. Sta.149+48 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain CORNELL contains:
CORNELL001 CUR CORNELL1 CORNELL002

Beginning chain CORNELL description

Point CORNELL001 N 6,997,885.9152 E 11,828,584.9005 Sta 10+00.00

Course from CORNELL001 to PC CORNELL1 S 38° 40' 53.7884" E Dist 11.0414

Curve Data

Curve CORNELL1
P.I. Station 10+24.78 N 6,997,866.5703 E 11,828,600.3884
Delta = 3°08' 53.1404" (RT)
Degree = 11°27' 32.9612"
Tangent = 13.7396
Length = 27.4723
Radius = 500.0000
External = 0.1887
Long Chord = 27.4689
Mid.Ord. = 0.1887
P.C. Station 10+11.04 N 6,997,877.2959 E 11,828,591.8012
P.T. Station 10+38.51 N 6,997,855.3894 E 11,828,608.3736
C.C. N 6,997,564.7999 E 11,828,201.4857
Back = S 38° 40' 53.7822" E
Ahead = S 35° 32' 00.6417" E
Chord Bear = S 37° 06' 27.2119" E

Course from PT CORNELL1 to CORNELL002 S 35° 32' 00.6405" E Dist 61.4863

Point CORNELL002 N 6,997,805.3534 E 11,828,644.1081 Sta 11+00.00

Ending chain CORNELL description

Lion Run Station 157+39 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain LIONRUN contains:
LIONRUN001 LIONRUN002

Beginning chain LIONRUN description

Point LIONRUN001 N 6,998,268.3268 E 11,829,272.5469 Sta 10+00.00

Course from LIONRUN001 to LIONRUN002 N 21° 23' 59.0241" W Dist 100.0000

Point LIONRUN002 N 6,998,361.4326 E 11,829,236.0597 Sta 11+00.00

Ending chain LIONRUN description

Great Oaks Dr. SB 162+84 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+03.84

Chain GREATOAKS_SB contains:
GREATOAKSSB001 CUR GREATOAKS_SB1 GREATOAKSSB002

Beginning chain GREATOAKS_SB description

Point GREATOAKSSS001 N 6,998,460.6983 E 11,829,781.1340 Sta 10+00.00

Course from GREATOAKSSS001 to PC GREATOAKS_SB1 N 19° 10' 31.2005" W Dist 32.9036

Curve Data

Curve GREATOAKS_SB1
P.I. Station 10+43.98 N 6,998,502.2393 E 11,829,766.6879
Delta = 12° 38' 32.5689" (RT)
Degree = 57° 17' 44.8062"
Tangent = 11.0775
Length = 22.0651
Radius = 100.0000
External = 0.6117
Long Chord = 22.0204
Mid.Ord. = 0.6080
P.C. Station 10+32.90 N 6,998,491.7763 E 11,829,770.3265
P.T. Station 10+54.97 N 6,998,513.2449 E 11,829,765.4276
C.C. N 6,998,524.6223 E 11,829,864.7783
Back = N 19° 10' 31.2018" W
Ahead = N 6° 31' 58.6329" W
Chord Bear = N 12° 51' 14.9173" W

Course from PT GREATOAKS_SB1 to GREATOAKSS002 N 6° 31' 58.6346" W Dist 48.8701

Point GREATOAKSS002 N 6,998,561.7976 E 11,829,759.8674 Sta 11+03.84

Ending chain GREATOAKS_SB description

Great Oaks Dr. NB 163+50 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+04.93

Chain GREATOAKS_NB contains:
GREATOAKSNB001 CUR GREATOAKS_NB1 GREATOAKSNB002

Beginning chain GREATOAKS_NB description

Point GREATOAKSN001 N 6,998,483.2396 E 11,829,843.7533 Sta 10+00.00

Course from GREATOAKSN001 to PC GREATOAKS_NB1 N 21° 21' 13.3719" W Dist 31.5559

Curve Data

Curve GREATOAKS_NB1
P.I. Station 10+47.82 N 6,998,527.7789 E 11,829,826.3401
Delta = 18° 28' 41.2025" (LT)
Degree = 57° 17' 44.8062"
Tangent = 16.2664
Length = 32.2504
Radius = 100.0000
External = 1.3143
Long Chord = 32.1108
Mid.Ord. = 1.2973
P.C. Station 10+31.56 N 6,998,512.6291 E 11,829,832.2631
P.T. Station 10+63.81 N 6,998,540.2703 E 11,829,815.9208
C.C. N 6,998,476.2167 E 11,829,739.1280
Back = N 21° 21' 13.3716" W
Ahead = N 39° 49' 54.5741" W
Chord Bear = N 30° 35' 33.9729" W

Course from PT GREATOAKS_NB1 to GREATOAKSN002 N 39° 49' 54.5745" W Dist 41.1250

Point GREATOAKSN002 N 6,998,571.8513 E 11,829,789.5788 Sta 11+04.93

Ending chain GREATOAKS_NB description

Ridge Avenue Sta.175+23 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+52.63

Chain RIDGEAVE contains:
RIDGEAVE001 RIDGEAVE002

Beginning chain RIDGEAVE description

Point RIDGEAVE001 N 6,999,028.2190 E 11,830,868.8319 Sta 10+00.00

Course from RIDGEAVE001 to PC CUR_RIDGEAVE001 N 47° 31' 27.3543" W Dist 27.7566

Curve Data

Curve CUR_RIDGEAVE001
P.I. Station 10+40.12 N 6,999,055.3111 E 11,830,839.2410
Delta = 14°05' 44.6426" (LT)
Degree = 57° 17' 44.8062"
Tangent = 12.3633
Length = 24.6017
Radius = 100.0000
External = 0.7614
Long Chord = 24.5397
Mid.Ord. = 0.7556
P.C. Station 10+27.76 N 6,999,046.9625 E 11,830,848.3597
P.T. Station 10+52.36 N 6,999,061.1876 E 11,830,828.3636
C.C. N 6,998,973.2061 E 11,830,780.8319
Back = N 47° 31' 27.3581" W
Ahead = N 61° 37' 12.0006" W
Chord Bear = N 54° 34' 19.6794" W

Course from PT CUR_RIDGEAVE001 to RIDGEAVE005 N 61° 37' 12.0000" W Dist 100.2764

Point RIDGEAVE005 N 6,999,108.8506 E 11,830,740.1390 Sta 11+52.63

Ending chain RIDGEAVE description

PROJECT	SHEET NO.
U000-151-R94	IG(1C)

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

HORIZONTAL CONSTRUCTION ALIGNMENT DATA SHEET

COMMONWEALTH OF VIRGINIA — MARK A. GUNN Lic. No. 038323 — PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:42:47 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IG(1D)

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

Entrance Station 105+06 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.10+75.00

Chain ENTR_10506RT contains:

ENTRI0506001 CUR ENTR_10506RT1 ENTRI0506002

Beginning chain ENTR_10506RT description

Point ENTRI0506001 N 6,995,197.0462 E 11,825,038.9314 Sta 10+00.00

Course from ENTRI0506001 to PC ENTR_10506RT1 S 55° 58' 01.5583" E Dist 32.4866

Curve Data

Curve ENTR_10506RT1
P.I. Station 10+42.27 N 6,995,173.3911 E 11,825,073.9580
Delta = 22° 08' 01.1619" (LT)
Degree = 114° 35' 29.6125"
Tangent = 9.7796
Length = 19.3153
Radius = 50.0000
External = 0.9474
Long Chord = 19.1954
Mid.Ord. = 0.9298
P.C. Station 10+32.49 N 6,995,178.8645 E 11,825,065.8535
P.T. Station 10+51.80 N 6,995,171.3747 E 11,825,083.5274
C.C. N 6,995,220.3003 E 11,825,093.8370
Back = S 55° 58' 01.5554" E
Ahead = S 78° 06' 02.7173" E
Chord Bear = S 67° 02' 02.1364" E

Course from PT ENTR_10506RT1 to ENTRI0506002 S 78° 06' 02.7156" E Dist 23.1982

Point ENTRI0506002 N 6,995,166.5914 E 11,825,106.2271 Sta 10+75.00

Ending chain ENTR_10506RT description

Entrance Station 106+99 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+20.00

Chain ENTR_10699LT contains:

ENTRI0699001 CUR ENTR_10699LT1 CUR ENTR_10699LT2

Beginning chain ENTR_10699LT description

Point ENTRI0699001 N 6,995,374.8093 E 11,825,165.8641 Sta 10+00.00

Course from ENTRI0699001 to PC ENTR_10699LT1 N 51° 37' 38.4880" W Dist 14.7192

Curve Data

Curve ENTR_10699LT1
P.I. Station 10+20.00 N 6,995,387.2247 E 11,825,150.1843
Delta = 1° 12' 36.7766" (RT)
Degree = 11° 27' 32.9612"
Tangent = 5.2808
Length = 10.5611
Radius = 500.0000
External = 0.0279
Long Chord = 10.5609
Mid.Ord. = 0.0279
P.C. Station 10+14.72 N 6,995,383.9466 E 11,825,154.3244
P.T. Station 10+25.28 N 6,995,390.5896 E 11,825,146.1144
C.C. N 6,995,775.9416 E 11,825,464.7111
Back = N 51° 37' 38.4855" W
Ahead = N 50° 25' 01.7089" W
Chord Bear = N 51° 01' 20.0972" W

Course from PT ENTR_10699LT1 to PC ENTR_10699LT2 N 50° 25' 01.7021" W Dist 13.8778

Curve Data

Curve ENTR_10699LT2
P.I. Station 10+79.65 N 6,995,425.2348 E 11,825,104.2100
Delta = 8° 25' 17.8730" (RT)
Degree = 10° 25' 02.6920"
Tangent = 40.4939
Length = 80.8419
Radius = 550.0000
External = 1.4887
Long Chord = 80.7691
Mid.Ord. = 1.4847
P.C. Station 10+39.16 N 6,995,399.4324 E 11,825,135.4188
P.T. Station 11+20.00 N 6,995,455.3298 E 11,825,077.1167
C.C. N 6,995,823.3196 E 11,825,485.8752
Back = N 50° 25' 01.7090" W
Ahead = N 41° 59' 43.8359" W
Chord Bear = N 46° 12' 22.7724" W

Ending chain ENTR_10699LT description

Entrance Station 107+50 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain ENTR_10750RT contains:

ENTRI0750001 ENTRI0750002

Beginning chain ENTR_10750RT description

Point ENTRI0750001 N 6,995,413.7835 E 11,825,197.7034 Sta 10+00.00

Course from ENTRI0750001 to ENTRI0750002 S 49° 52' 47.0164" E Dist 100.0000

Point ENTRI0750002 N 6,995,349.3440 E 11,825,274.1727 Sta 11+00.00

Ending chain ENTR_10750RT description

Entrance Station 108+78 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.10+85.75

Chain ENTR_10878RT contains:

ENTRI0878001 CUR ENTR_10878RT1 ENTRI0878002

Beginning chain ENTR_10878RT description

Point ENTRI0878001 N 6,995,508.9975 E 11,825,284.5177 Sta 10+00.00

Course from ENTRI0878001 to PC ENTR_10878RT1 S 45° 24' 15.4609" E Dist 26.0580

Curve Data

Curve ENTR_10878RT1
P.I. Station 10+30.91 N 6,995,487.2988 E 11,825,306.5248
Delta = 1° 06' 39.1781" (LT)
Degree = 11° 27' 32.9612"
Tangent = 4.8473
Length = 9.6943
Radius = 500.0000
External = 0.0235
Long Chord = 9.6941
Mid.Ord. = 0.0235
P.C. Station 10+26.06 N 6,995,490.7021 E 11,825,303.0731
P.T. Station 10+35.75 N 6,995,483.9631 E 11,825,310.0418
C.C. N 6,995,846.7414 E 11,825,654.1230
Back = S 45° 24' 15.4612" E
Ahead = S 46° 30' 54.6393" E
Chord Bear = S 45° 57' 35.0503" E

Course from PT ENTR_10878RT1 to ENTRI0878002 S 46° 30' 54.6397" E Dist 50.0000

Point ENTRI0878002 N 6,995,449.5550 E 11,825,346.3196 Sta 10+85.75

Ending chain ENTR_10878RT description

Entrance Station 110+13 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.10+75.00

Chain ENTR_11013RT contains:

ENTRI1013001 CUR ENTR_11013RT1 ENTRI1013002

Beginning chain ENTR_11013RT description

Point ENTRI1013001 N 6,995,600.9876 E 11,825,382.9424 Sta 10+00.00

Course from ENTRI1013001 to PC ENTR_11013RT1 S 40° 43' 29.5094" E Dist 12.8560

Curve Data

Curve ENTR_11013RT1
P.I. Station 10+29.65 N 6,995,578.5167 E 11,825,402.2874
Delta = 4° 48' 30.6846" (RT)
Degree = 14° 19' 26.2016"
Tangent = 16.7948
Length = 33.5698
Radius = 400.0000
External = 0.3524
Long Chord = 33.5600
Mid.Ord. = 0.3521
P.C. Station 10+12.86 N 6,995,591.2446 E 11,825,391.3301
P.T. Station 10+46.43 N 6,995,564.9150 E 11,825,412.1393
C.C. N 6,995,330.1273 E 11,825,088.1895
Back = S 40° 43' 29.5089" E
Ahead = S 35° 54' 58.8243" E
Chord Bear = S 38° 19' 14.1666" E

Course from PT ENTR_11013RT1 to ENTRI1013002 S 35° 54' 58.8240" E Dist 28.5742

Point ENTRI1013002 N 6,995,541.7735 E 11,825,428.9010 Sta 10+75.00

Ending chain ENTR_11013RT description

Entrance Station 110+95 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.10+80.00

Chain ENTR_11095RT contains:

ENTRI1095001 CUR ENTR_11095RT1 CUR ENTR_11095RT2 ENTRI1095002

Beginning chain ENTR_11095RT description

Point ENTRI1095001 N 6,995,652.6636 E 11,825,446.0592 Sta 10+00.00

Course from ENTRI1095001 to PC ENTR_11095RT1 S 37° 53' 31.1246" E Dist 11.4858

Curve Data

Curve ENTR_11095RT1
P.I. Station 10+22.97 N 6,995,634.5351 E 11,825,460.1678
Delta = 24° 00' 31.3846" (LT)
Degree = 106° 04' 16.6912"
Tangent = 11.4858
Length = 22.6345
Radius = 54.0163
External = 1.2076
Long Chord = 22.4693
Mid.Ord. = 1.1812
P.C. Station 10+11.49 N 6,995,643.5993 E 11,825,453.1135
P.T. Station 10+34.12 N 6,995,629.1252 E 11,825,470.2998
C.C. N 6,995,676.7748 E 11,825,495.7416
Back = S 37° 53' 31.1179" E
Ahead = S 61° 54' 02.5025" E
Chord Bear = S 49° 53' 46.8102" E

Course from PT ENTR_11095RT1 to PC ENTR_11095RT2 S 61° 54' 02.4975" E Dist 15.7710

Curve Data

Curve ENTR_11095RT2
P.I. Station 10+63.44 N 6,995,615.3149 E 11,825,496.1651
Delta = 45° 54' 00.4300" (LT)
Degree = 179° 02' 57.5195"
Tangent = 13.5503
Length = 25.6355
Radius = 32.0000
External = 2.7507
Long Chord = 24.9554
Mid.Ord. = 2.5330
P.C. Station 10+49.89 N 6,995,621.6971 E 11,825,484.2119
P.T. Station 10+75.53 N 6,995,619.4573 E 11,825,509.0666
C.C. N 6,995,649.9253 E 11,825,499.2840
Back = S 61° 54' 02.5025" E
Ahead = N 72° 11' 57.0675" E
Chord Bear = S 84° 51' 02.7175" E

Course from PT ENTR_11095RT2 to ENTRI1095002 N 72° 11' 57.0712" E Dist 4.4732

Point ENTRI1095002 N 6,995,620.8248 E 11,825,513.3257 Sta 10+80.00

Ending chain ENTR_11095RT description

Entrance Station 111+10 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain ENTR_11110LT contains:

ENTRI1110001 CUR ENTR_11110LT1 ENTRI1110002

Beginning chain ENTR_11110LT description

Point ENTRI1110001 N 6,995,662.3538 E 11,825,458.6349 Sta 10+00.00

Course from ENTRI1110001 to PC ENTR_11110LT1 N 37° 20' 26.4757" W Dist 35.7068

Curve Data

Curve ENTR_11110LT1
P.I. Station 10+42.52 N 6,995,696.1563 E 11,825,432.8464
Delta = 1° 33' 38.0260" (RT)
Degree = 11° 27' 32.9612"
Tangent = 6.8097
Length = 13.6185
Radius = 500.0000
External = 0.0464
Long Chord = 13.6181
Mid.Ord. = 0.0464
P.C. Station 10+35.71 N 6,995,690.7423 E 11,825,436.9768
P.T. Station 10+49.33 N 6,995,701.6807 E 11,825,428.8649
C.C. N 6,995,994.0188 E 11,825,834.4983
Back = N 37° 20' 26.4745" W
Ahead = N 35° 46' 48.4485" W
Chord Bear = N 36° 33' 37.4615" W

Course from PT ENTR_11110LT1 to ENTRI1110002 N 35° 46' 48.4477" W Dist 50.6747

Point ENTRI1110002 N 6,995,742.7914 E 11,825,399.2366 Sta 11+00.00

Ending chain ENTR_11110LT description

Entrance Station 111+86 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain ENTR_11186LT contains:

ENTRI1186001 ENTRI1186002

Beginning chain ENTR_11186LT description

Point ENTRI1186001 N 6,995,706.8108 E 11,825,519.6757 Sta 10+00.00

Course from ENTRI1186001 to ENTRI1186002 N 35° 09' 30.3985" W Dist 100.0000

Point ENTRI1186002 N 6,995,788.5671 E 11,825,462.0918 Sta 11+00.00

Ending chain ENTR_11186LT description

Entrance Station 115+09 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain ENTR_11509LT contains:

ENTRI1509001 ENTRI1509002

Beginning chain ENTR_11509LT description

Point ENTRI1509001 N 6,995,892.5434 E 11,825,783.3742 Sta 10+00.00

Course from ENTRI1509001 to ENTRI1509002 N 35° 09' 30.3986" W Dist 100.0000

Point ENTRI1509002 N 6,995,974.2996 E 11,825,725.7903 Sta 11+00.00

Ending chain ENTR_11509LT description

Entrance Station 115+69 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain ENTR_11569LT contains:

ENTRI1569001 ENTRI1569002

Beginning chain ENTR_11569LT description

Point ENTRI1569001 N 6,995,927.5603 E 11,825,833.0905 Sta 10+00.00

Course from ENTRI1569001 to ENTRI1569002 N 35° 09' 30.3969" W Dist 100.0000

Point ENTRI1569002 N 6,996,009.3166 E 11,825,775.5065 Sta 11+00.00

Ending chain ENTR_11569LT description

Entrance Station 116+67 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain ENTR_11667LT contains:

ENTRI1667001 ENTRI1667002

Beginning chain ENTR_11667LT description

Point ENTRI1667001 N 6,995,984.0241 E 11,825,913.2559 Sta 10+00.00

Course from ENTRI1667001 to ENTRI1667002 N 35° 09' 30.3984" W Dist 99.9997

Point ENTRI1667002 N 6,996,065.7802 E 11,825,855.6721 Sta 11+00.00

Ending chain ENTR_11667LT description

Entrance Station 116+67 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+50.47

Chain ENTR_11667RT contains:

ENTRI1667003 CUR ENTR_11667RT1 ENTRI1667004

Beginning chain ENTR_11667RT description

Point ENTRI1667003 N 6,995,984.0241 E 11,825,913.2559 Sta 10+00.00

Course from ENTRI1667003 to PC ENTR_11667RT1 S 35° 09' 30.3973" E Dist 32.6496

Curve Data

Curve ENTR_11667RT1
P.I. Station 10+90.27 N 6,995,910.2252 E 11,825,965.2351
Delta = 89° 37' 14.7573" (RT)
Degree = 98° 47' 08.9763"
Tangent = 57.6174
Length = 90.7223
Radius = 58.0000
External = 23.7543
Long Chord = 81.7525
Mid.Ord. = 16.8523
P.C. Station 10+32.65 N 6,995,957.3310 E 11,825,932.0568
P.T. Station 11+23.37 N 6,995,876.7358 E 11,825,918.3499
C.C. N 6,995,923.9323 E 11,825,884.6381
Back = S 35° 09' 30.3958" E
Ahead = S 54° 27' 44.3616" W
Chord Bear = S 9° 39' 06.9829" W

Course from PT ENTR_11667RT1 to ENTRI1667004 S 54° 27' 44.3627" W Dist 27.0959

Point ENTRI1667004 N 6,995,860.9866 E 11,825,896.3011 Sta 11+50.47

Ending chain ENTR_11667RT description

Entrance Station 117+28 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain ENTR_11728LT contains:

ENTRI1728001 ENTRI1728002

Beginning chain ENTR_11728LT description

Point ENTRI1728001 N 6,996,019.1500 E 11,825,963.1273 Sta 10+00.00

Course from ENTRI1728001 to ENTRI1728002 N 35° 09' 30.3986" W Dist 100.0000

Point ENTRI1728002 N 6,996,100.9063 E 11,825,905.5433 Sta 11+00.00

Ending chain ENTR_11728LT description

12/10/2025

PROJECT	SHEET NO.
U000-151-R94	IG(1D)

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

HORIZONTAL CONSTRUCTION ALIGNMENT DATA SHEET

COMMONWEALTH OF VIRGINIA — MARK A. GUNN Lic. No. 038323 — PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:43:11 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IG(1E)

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

Entrance Station 117+28 RT (BLENHEIM BL)

From Sta.1+00.00 to Sta.1+75.00

Chain ENTR_I1728RT contains:

ENTRI1728003 CUR ENTR_I1728RTI ENTRI1728004

Beginning chain ENTR_I1728RT description
****
Point ENTRI1728003 N 6,996,019.1500 E 11,825,963.1273 Sta 1+00.00

Course from ENTRI1728003 to PC ENTR_I1728RTI S 35° 09' 30.3975" E Dist 22.7426

Curve Data

Curve ENTR_I1728RTI
P.I. Station 1+33.22 N 6,995,991.9900 E 11,825,982.2570
Delta = 23° 40' 17.1643" (RT)
Degree = 114° 35' 29.6125"
Tangent = 10.4781
Length = 20.6572
Radius = 50.0000
External = 1.0861
Long Chord = 20.5106
Mid.Ord. = 1.0630
P.C. Station 1+22.74 N 6,996,000.5565 E 11,825,976.2233
P.T. Station 1+43.40 N 6,995,981.7218 E 11,825,984.3437
C.C. N 6,995,971.7645 E 11,825,935.3452
Back = S 35° 09' 30.3980" E
Ahead = S 11° 29' 13.2337" E
Chord Bear = S 23° 19' 21.8158" E

Course from PT ENTR_I1728RTI to ENTRI1728004 S 11° 29' 13.2341" E Dist 31.6002

Point ENTRI1728004 N 6,995,950.7546 E 11,825,990.6367 Sta 1+75.00

****
Ending chain ENTR_I1728RT description

Entrance Station 118+35 RT (BLENHEIM BL)

From Sta.1+00 to Sta.2+00

Chain ENT_I18+35_RT contains:

ENT01 ENT02

Beginning chain ENT_I18+35_RT description
****
Point ENT01 N 6,996,080.2471 E 11,826,049.8714 Sta 1+00.00

Course from ENT01 to ENT02 S 35° 09' 30.3986" E Dist 100.0000

Point ENT02 N 6,995,998.4909 E 11,826,107.4554 Sta 2+00.00

****
Ending chain ENT_I18+35_RT description

Entrance Station 121+33 RT (BLENHEIM BL)

From Sta.1+00.00 to Sta.2+00.00

Chain ENT_I21+33_RT contains:

ENT05 ENT06

Beginning chain ENT_I21+33_RT description
****
Point ENTRI2857001 N 6,996,668.2921 E 11,826,884.5404 Sta 1+00.00

Course from ENTRI2857001 to ENTRI2857002 S 34° 33' 21.3565" E Dist 75.0000

Point ENTRI2857002 N 6,996,606.5241 E 11,826,927.0812 Sta 1+75.00

****
Ending chain ENT_I28+57_RT description

Entrance Station 121+60 RT (BLENHEIM BL)

From Sta.1+00 to Sta.1+65.00
Chain ENT_I21+57_RT contains:
ENTRI21570001 CUR ENT_I21+57_RTI ENTRI21570002

Beginning chain ENT_I21+60_RT description
****
Point ENTRI21570001 N 6,996,276.6197 E 11,826,309.5374 Sta 1+00.00

Course from ENTRI21570001 to PC ENT_I21+57_RTI S 34° 41' 49.3118" E Dist 41.0000

Curve Data

Curve ENT_I21+57_RTI
P.I. Station 1+49.15 N 6,996,236.2137 E 11,826,337.5128
Delta = 30° 22' 50.8145" (LT)
Degree = 190° 59' 09.3542"
Tangent = 8.1454
Length = 15.9073
Radius = 30.0000
External = 1.0861
Long Chord = 15.7216
Mid.Ord. = 1.0482
P.C. Station 1+41.00 N 6,996,242.9106 E 11,826,332.8761
P.T. Station 1+56.91 N 6,996,232.7813 E 11,826,344.8997
C.C. N 6,996,259.9877 E 11,826,357.5413
Back = S 34° 41' 49.3094" E
Ahead = S 65° 04' 40.1239" E
Chord Bear = S 49° 53' 14.7167" E

Course from PT ENT_I21+57_RTI to ENTRI2157002 S 65° 04' 40.1169" E Dist 8.0927

Point ENTRI2157002 N 6,996,229.3711 E 11,826,352.2388 Sta 1+65.00

****
Ending chain ENT_I21+60_RT description

Entrance Station 169+54 LT (BLENHEIM BL)

From Sta.1+00.00 to Sta.2+27.11

Chain ENT_I69+54_LT contains:

ENT45 CUR ENT_I69+54_LTI CUR ENT_I69+54_LT2 ENT46

Beginning chain ENT_I69+54_LT description
****
Point ENTRI6954001 N 6,998,742.2907 E 11,830,390.5827 Sta 10+00.00

Course from ENTRI6954001 to PC ENTR_I6850LTI N 26° 21' 40.9517" W Dist 44.1314

Curve Data

Curve ENTR_I6850LTI
P.I. Station 10+53.63 N 6,998,790.3446 E 11,830,366.7689
Delta = 50° 48' 47.8011" (LT)
Degree = 286° 28' 44.0312"
Tangent = 9.4995
Length = 17.7372
Radius = 20.0000
External = 2.1414
Long Chord = 17.1616
Mid.Ord. = 1.9343
P.C. Station 10+44.13 N 6,998,781.8329 E 11,830,370.9870
P.T. Station 10+61.87 N 6,998,792.4533 E 11,830,357.5064
C.C. N 6,998,772.9523 E 11,830,353.0668
Back = N 26° 21' 40.9397" W
Ahead = N 77° 10' 28.7409" W
Chord Bear = N 51° 46' 04.8403" W

Course from PT ENTR_I6850LTI to PC ENTR_I6850LT2 N 77° 10' 28.7392" W Dist 19.5342

Curve Data

Curve ENTR_I6850LT2
P.I. Station 10+94.61 N 6,998,799.7213 E 11,830,325.5818
Delta = 27° 00' 20.6594" (RT)
Degree = 104° 10' 26.9204"
Tangent = 13.2072
Length = 25.9236
Radius = 55.0000
External = 1.5635
Long Chord = 25.6843
Mid.Ord. = 1.5203
P.C. Station 10+81.40 N 6,998,796.7895 E 11,830,338.4595
P.T. Station 11+07.33 N 6,998,808.1809 E 11,830,315.4395
C.C. N 6,998,850.4173 E 11,830,350.6684
Back = N 77° 10' 28.7428" W
Ahead = N 50° 10' 08.0834" W
Chord Bear = N 63° 40' 18.4131" W

Course from PT ENTR_I6850LT2 to ENTRI6954008 N 50° 10' 08.0947" W Dist 16.4417

Point ENTRI6954008 N 6,998,818.7122 E 11,830,302.8133 Sta 11+23.77

****
Ending chain ENTR_I6954LT description

Entrance Station 139+99 LT (BLENHEIM BL)

From Sta.1+00.00 to Sta.1+80.00

Chain ENT_I39+99_LT contains:

ENT19 ENT20

Beginning chain ENT_I39+99_LT description
****
Point ENTRI3999001 N 6,997,325.2941 E 11,827,816.6308 Sta 1+00.00

Course from ENTRI3999001 to ENTRI3999002 N 32° 54' 48.7954" W Dist 80.0000

Point ENTRI3999002 N 6,997,392.4535 E 11,827,773.1610 Sta 1+80.00

****
Ending chain ENT_I39+99_LT description

Entrance Station 141+12 LT (BLENHEIM BL)

From Sta.1+00.00 to Sta.1+70.00

Chain ENT_I41+12_LT contains:
ENTRI4112001 ENTRI4112002

Beginning chain ENT_I41+12_LT description
****
Point ENTRI4112001 N 6,997,390.1959 E 11,827,912.1698 Sta 1+00.00

Course from ENTRI4112001 to ENTRI4112002 N 35° 37' 27.4527" W Dist 70.0000

Point ENTRI4112002 N 6,997,447.0957 E 11,827,871.3970 Sta 1+70.00

****
Ending chain ENT_I41+12_LT description

Entrance Station 141+41 LT (BLENHEIM BL)

From Sta.1+00.00 to Sta.1+90.00

Chain ENT_I41+41_LT contains:

ENT31 ENT32

Beginning chain ENT_I41+41_LT description
****
Point ENTRI4141001 N 6,997,411.5025 E 11,827,941.9039 Sta 1+00.00

Course from ENTRI4141001 to ENTRI4141002 N 35° 37' 27.4524" W Dist 90.0000

Point ENTRI4141002 N 6,997,484.6593 E 11,827,889.4818 Sta 1+90.00

****
Ending chain ENT_I41+41_LT description

Entrance Station 144+24 RT (BLENHEIM BL)

From Sta.1+00.00 to Sta.1+80.00

Chain ENT_I44+24_RT contains:

ENT37 ENT38

Beginning chain ENT_I44+24_RT description
****
Point ENTRI4424003 N 6,997,575.4075 E 11,828,162.6653 Sta 1+00.00

Course from ENTRI4424003 to ENTRI4424004 S 35° 32' 00.6418" E Dist 80.0000

Point ENTRI4424004 N 6,997,510.3054 E 11,828,209.1596 Sta 1+80.00

****
Ending chain ENT_I44+24_RT description

Entrance Station 168+50 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.10+96.32

Chain ENTR_I6850LT contains:
ENTRI6850001 ENTRI6850002

Beginning chain ENTR_I6850LT description
****
Point ENTRI6850001 N 6,998,696.4823 E 11,830,297.4570 Sta 10+00.00

Course from ENTRI6850001 to ENTRI6850002 N 25° 00' 00.1001" W Dist 96.3166

Point ENTRI6850002 N 6,998,783.7748 E 11,830,256.7518 Sta 10+96.32

****
Ending chain ENTR_I6850LT description

Entrance Station 149+55 LT (BLENHEIM BL)

From Sta.10+00.00 to Sta.11+00.00

Chain ENTR_I4955LT contains:

ENTRI4955001 CUR ENTR_I4955LTI ENTRI4955002

Beginning chain ENTR_I4955LT description
****
Point ENTRI4955001 N 6,997,889.9734 E 11,828,589.9694 Sta 10+00.00

Course from ENTRI4955001 to PC ENTR_I4955LTI N 38° 40' 53.7861" W Dist 22.0414

Curve Data

Curve ENTR_I4955LTI
P.I. Station 10+35.78 N 6,997,917.9052 E 11,828,567.6065
Delta = 3° 08' 53.1512" (RT)
Degree = 11° 27' 32.9612"
Tangent = 13.7396
Length = 27.4723
Radius = 500.0000
External = 0.1887
Long Chord = 27.4689
Mid.Ord. = 0.1887
P.C. Station 10+22.04 N 6,997,907.1797 E 11,828,576.1936
P.T. Station 10+49.51 N 6,997,929.0862 E 11,828,559.6213
C.C. N 6,998,219.6757 E 11,828,966.5092
Back = N 38° 40' 53.7895" W
Ahead = N 35° 32' 00.6383" W
Chord Bear = N 37° 06' 27.2139" W

Course from PT ENTR_I4955LTI to ENTRI4955002 N 35° 32' 00.6405" W Dist 50.4873

Point ENTRI4955002 N 6,997,970.1716 E 11,828,530.2791 Sta 11+00.00

****
Ending chain ENTR_I4955LT description

Entrance Station 165+94 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.10+79.99

Chain ENTR_I6594RT contains:

ENTRI6594001 CUR ENTR_I6594RTI ENTRI6594002

Beginning chain ENTR_I6594RT description
****
Point ENTRI6594001 N 6,998,587.5839 E 11,830,069.0630 Sta 10+00.00

Course from ENTRI6594001 to PC ENTR_I6594RTI S 25° 05' 51.0071" E Dist 35.4340

Curve Data

Curve ENTR_I6594RTI
P.I. Station 10+52.27 N 6,998,540.2516 E 11,830,091.2326
Delta = 37° 12' 45.5062" (LT)
Degree = 114° 35' 29.6125"
Tangent = 16.8330
Length = 32.4742
Radius = 50.0000
External = 2.7575
Long Chord = 31.9064
Mid.Ord. = 2.6133
P.C. Station 10+35.43 N 6,998,555.4953 E 11,830,084.0927
P.T. Station 10+67.91 N 6,998,532.4295 E 11,830,106.1378
C.C. N 6,998,576.7033 E 11,830,129.3720
Back = S 25° 05' 51.0071" E
Ahead = S 62° 18' 36.5140" E
Chord Bear = S 43° 42' 13.7610" E

Course from PT ENTR_I6594RTI to ENTRI6594002 S 62° 18' 36.5142" E Dist 12.0838

Point ENTRI6594002 N 6,998,526.8144 E 11,830,116.8377 Sta 10+79.99

****
Ending chain ENTR_I6594RT description

Entrance Station 169+21 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.10+70.00

Chain ENTR_I6921RT contains:

ENTRI6921001 CUR ENTR_I6921RTI ENTRI6921002

Beginning chain ENTR_I6921RT description
****
Point ENTRI6921001 N 6,998,730.3778 E 11,830,359.7873 Sta 10+00.00

Course from ENTRI6921001 to PC ENTR_I6921RTI S 26° 21' 40.9433" E Dist 12.0000

Curve Data

Curve ENTR_I6921RTI
P.I. Station 10+28.42 N 6,998,704.9146 E 11,830,372.4060
Delta = 46° 44' 04.9836" (RT)
Degree = 150° 46' 42.1217"
Tangent = 16.4184
Length = 30.9956
Radius = 38.0000
External = 3.3952
Long Chord = 30.1435
Mid.Ord. = 3.1167
P.C. Station 10+12.00 N 6,998,719.6257 E 11,830,365.1157
P.T. Station 10+43.00 N 6,998,689.5233 E 11,830,366.6901
C.C. N 6,998,702.7525 E 11,830,331.0673
Back = S 26° 21' 40.9511" E
Ahead = S 20° 22' 24.0325" W
Chord Bear = S 2° 59' 38.4593" E

Course from PT ENTR_I6921RTI to ENTRI6921002 S 20° 22' 24.0305" W Dist 27.0066

Point ENTRI6921002 N 6,998,664.2061 E 11,830,357.2882 Sta 10+70.00

****
Ending chain ENTR_I6921RT description

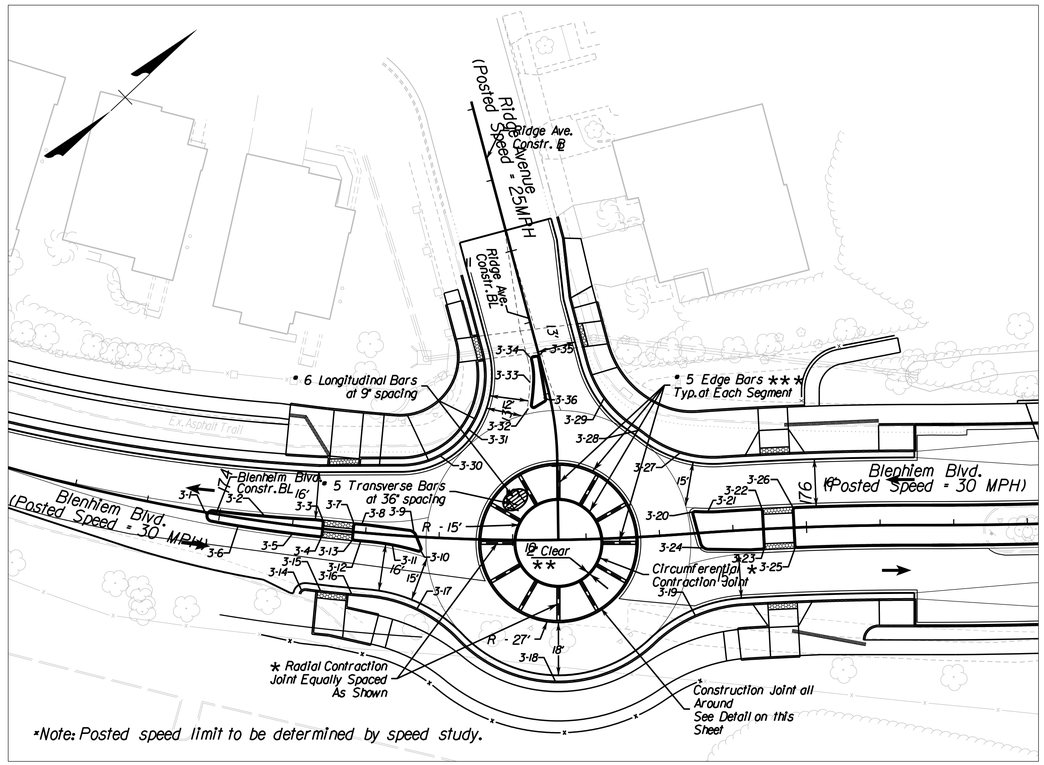
FINAL PLANS

PROJECT	SHEET NO.
U000-151-R94	IG(1E)

12/10/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

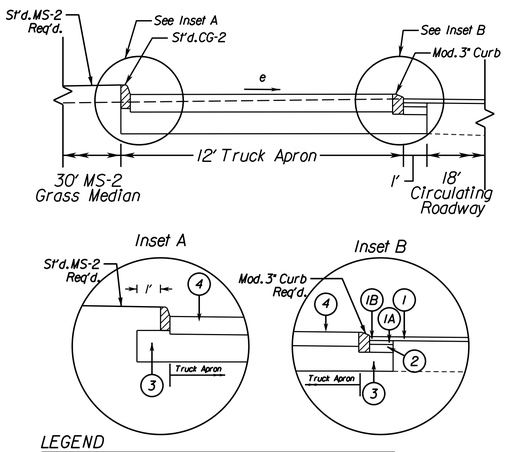
ROUNDABOUT DETAILS



REF. NO.	LOCATION				RADIUS	CHORD LENGTH	CURVE LENGTH
SHEET-ITEM	REFERENCE BASELINE	STATION	OFFSET	ELEVATION	FEET	FEET	FEET
3-1 (P.C.C.)	Blenheim Blvd.	173+97.58	2.86 RT	311.83	2.00	4.00	6.16
3-1 (P.R.C.)	Blenheim Blvd.	173+97.52	1.16 LT	311.86			
3-2 (P.R.C.)	Blenheim Blvd.	173+97.52	1.16 LT	311.86	501.00	34.96	35.00
3-2 (P.T)	Blenheim Blvd.	174+32.56	3.00 LT	309.59			
3-3 (P.C)	Blenheim Blvd.	174+34.50	3.00 LT	309.47	1.00	1.40	1.55
3-3 (P.T.)	Blenheim Blvd.	174+35.50	2.02 LT	309.91			
3-4 (P.C.)	Blenheim Blvd.	174+35.56	1.98 RT	309.92	1.00	1.43	1.59
3-4 (P.C.C.)	Blenheim Blvd.	174+34.56	3.00 RT	309.48			
3-5 (P.C.C.)	Blenheim Blvd.	174+34.56	3.00 RT	309.48	653.00	18.64	18.64
3-5 (P.C.C.)	Blenheim Blvd.	174+16.01	3.00 RT	310.64			
3-6 (P.C.C.)	Blenheim Blvd.	174+16.01	3.00 RT	310.64	399.00	18.51	18.52
3-6 (P.C.C.)	Blenheim Blvd.	173+97.58	2.86 RT	311.83			
3-7 (P.C.)	Blenheim Blvd.	174+45.53	2.00 LT	309.29	1.00	1.41	1.57
3-7 (P.R.C.)	Blenheim Blvd.	174+46.53	3.00 LT	308.72			
3-8 (P.R.C.)	Blenheim Blvd.	174+46.53	3.00 LT	308.72	647.00	4.00	4.00
3-8 (P.T.)	Blenheim Blvd.	174+50.55	3.00 LT	308.48			
3-9 (P.C.)	Blenheim Blvd.	174+64.82	2.21 LT	307.65	3.00	3.06	3.21
3-9 (P.T.)	Blenheim Blvd.	174+67.34	0.48 LT	308.00			
3-10 (P.C.)	Blenheim Blvd.	174+69.24	3.68 RT	307.39	1.00	1.80	2.23
3-10 (P.R.C.)	Blenheim Blvd.	174+68.10	5.06 RT	307.45			
3-11 (P.R.C.)	Blenheim Blvd.	174+68.10	5.06 RT	307.45	86.00	17.73	17.76
3-11 (P.R.C.)	Blenheim Blvd.	174+50.61	3.00 RT	308.51			
3-12 (P.R.C.)	Blenheim Blvd.	174+50.61	3.00 RT	308.51	653.00	4.10	4.10
3-12 (P.C.C.)	Blenheim Blvd.	174+46.53	3.00 RT	308.75			
3-13 (P.C.C.)	Blenheim Blvd.	174+46.53	3.00 RT	308.75	1.00	1.42	1.57
3-13 (P.T.)	Blenheim Blvd.	174+45.53	2.00 RT	309.31			
3-14 (P.C.)	Blenheim Blvd.	174+30.03	22.91 RT	n/a	2.00	2.83	3.14
3-14 (P.R.C.)	Blenheim Blvd.	174+31.99	20.93 RT	n/a			
3-15 (P.R.C.)	Blenheim Blvd.	174+31.99	20.93 RT	n/a	352.00	10.06	10.06
3-15 (P.C.C.)	Blenheim Blvd.	174+41.73	21.00 RT	308.66			
3-16 (P.C.C.)	Blenheim Blvd.	174+41.73	21.00 RT	308.66	671.00	11.13	11.13
3-16 (P.R.C.)	Blenheim Blvd.	174+52.51	21.00 RT	308.07			
3-17 (P.R.C.)	Blenheim Blvd.	174+52.51	21.00 RT	308.07	48.00	34.08	34.84
3-17 (P.R.C.)	Blenheim Blvd.	174+82.80	33.84 RT	306.77			
3-18 (P.R.C.)	Blenheim Blvd.	174+82.80	33.84 RT	306.77	47.00	66.50	73.87
3-18 (P.R.C.)	Blenheim Blvd.	175+45.88	36.17 RT	304.07			
3-19 (P.R.C.)	Blenheim Blvd.	175+45.88	36.17 RT	304.07	48.00	33.09	33.79
3-19 (P.C.C.)	Blenheim Blvd.	175+77.01	25.00 RT	302.35			

REF. NO.	LOCATION				RADIUS	CHORD LENGTH	CURVE LENGTH
SHEET-ITEM	REFERENCE BASELINE	STATION	OFFSET	ELEVATION	FEET	FEET	FEET
3-20 (P.C.)	Blenheim Blvd.	175+61.58	6.40 LT	302.63	1.00	1.62	1.90
3-20 (P.R.C.)	Blenheim Blvd.	175+62.69	7.58 LT	302.56			
3-21 (P.R.C.)	Blenheim Blvd.	175+62.69	7.58 LT	302.56	66.00	8.56	8.56
3-21 (P.T)	Blenheim Blvd.	175+71.20	7.00 LT	302.22			
3-22 (P.C.)	Blenheim Blvd.	175+84.54	7.00 LT	301.61	1.00	1.41	1.57
3-22 (P.T.)	Blenheim Blvd.	175+85.53	6.00 LT	302.08			
3-23 (P.C.)	Blenheim Blvd.	175+85.53	6.00 RT	302.34	1.00	1.41	1.57
3-23 (P.T.)	Blenheim Blvd.	175+84.53	7.00 RT	301.89			
3-24 (P.C.)	Blenheim Blvd.	175+66.19	5.94 RT	302.62	3.00	3.63	3.90
3-24 (P.T.)	Blenheim Blvd.	175+63.49	3.52 RT	302.69			
3-25 (P.C.)	Blenheim Blvd.	175+96.60	7.00 RT	301.41	1.00	1.41	1.56
3-25 (P.T.)	Blenheim Blvd.	175+95.59	6.01 RT	301.94			
3-26 (P.C.)	Blenheim Blvd.	175+95.47	5.99 LT	301.69	1.00	1.42	1.58
3-26 (P.T.)	Blenheim Blvd.	175+96.47	7.00 LT	301.14			
3-27 (P.C.)	Blenheim Blvd.	175+72.26	25.00 LT	301.66	38.00	27.16	27.77
3-27 (P.R.C.)	Blenheim Blvd.	175+46.83	34.81 LT	302.96			
3-28 (P.R.C.)	Blenheim Blvd.	175+46.83	34.81 LT	302.96	47.00	4.32	4.32
3-28 (P.R.C.)	Ridge Avenue	10+35.92	26.53 LT	303.13			
3-29 (P.R.C.)	Ridge Avenue	10+35.92	26.53 LT	303.13	38.00	27.33	27.96
3-29 (P.T.)	Ridge Avenue	10+57.16	15.00 RT	304.76			
3-30 (P.C.)	Blenheim Blvd.	174+60.59	23.67 LT	n/a	28.00	26.50	27.61
3-30 (P.C.C.)	Blenheim Blvd.	174+84.32	37.50 LT	n/a			
3-31 (P.C.C.)	Ridge Avenue	10+39.23	30.87 LT	307.81	33.00	29.81	30.93
3-31 (P.T.)	Ridge Avenue	10+69.90	18.00 LT	305.24			
3-32 (P.C.)	Ridge Avenue	10+46.19	6.81 LT	305.17	1.00	1.88	2.43
3-32 (P.R.C.)	Ridge Avenue	10+47.60	8.16 LT	305.18			
3-33 (P.R.C.)	Ridge Avenue	10+47.60	8.16 LT	305.18	48.00	15.59	15.66
3-33 (P.R.C)	Ridge Avenue	10+62.84	3.49 LT	304.82			
3-34 (P.R.C.)	Ridge Avenue	10+62.84	3.49 LT	304.82	1.00	1.41	1.56
3-34 (P.T.)	Ridge Avenue	10+63.68	2.37 LT	304.83			
3-35 (P.C.)	Ridge Avenue	10+63.47	0.84 LT	304.84	1.00	1.42	1.57
3-35 (P.T.)	Ridge Avenue	10+62.34	0.02 RT	304.83			
3-36 (P.C.)	Ridge Avenue	10+50.38	1.63 LT	304.87	3.00	2.80	2.91
3-36 (P.T.)	Ridge Avenue	10+48.00	3.20 LT	304.96			

TRUCK APRON TYPICAL

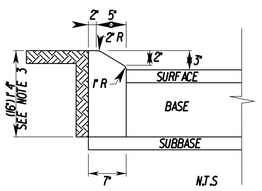


LEGEND

1. Surface Course - (2") Asph. Conc., Type SM-9.5D estimated @ 238 lbs/ sq.yd.
1A. Intermediate Course - (2") Asph. Conc., Type IM-19.0A
1B. Existing Pavement - Mln. 2" Mill req'd., replace with 2" SM-9.5D, estimated @ 238 lbs/sq.yd.
2. Base Course - (8") Asph. Conc., Type BM-25.0A
3. Subbase Course - (8") Aggr. Base Material, Type I, Size No. 21B
4. (10.0") Plain Jointed Concrete Pavement Standard PR-2 with max. 15' joint spacing

MODIFIED 3" CURB

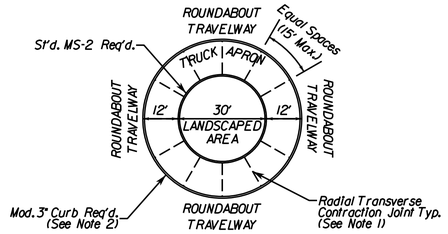
FOR USE ON ROUNDABOUT TRUCK APRONS ONLY



NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (13" DEPTH) OR INCREASED AS MUCH AS 3" (19" DEPTH) IN ORDER THAT THE BOTTOM OF THE CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENTS SUBSTRUCTURE. OTHERWISE, THE DEPTH IS TO BE 16" AS SHOWN. NO ADJUSTMENT IN THE PRICE BID IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.
4. THIS MODIFICATION IS TO REDUCE THE EXPOSED HEIGHT OF THE CURB AS SHOWN.

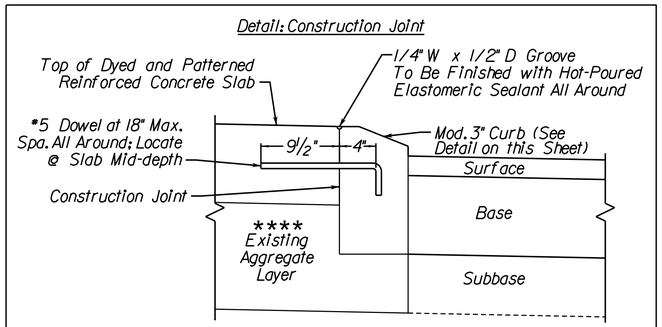
12' TRUCK APRON JOINT DETAIL



NOTES:

1. Truck apron contraction joints shall have the load transfer device and shall be per VDOT Road and Bridge Standard Detail PR-2.
2. See this sheet for Modified CG-3 details and load transfer device between Modified CG-3 and truck apron.

Detail: Construction Joint



* See VDOT St'd. PR-2 for Contraction Joint detail. Provide dowels, groove, and sealant per the standard detail. The dowels shall be installed normal to the joint.

** 10" Reinforced Hydraulic Cement Concrete Slab Dyed and Stamped. The Concrete Slab shall be reinforced with steel bars as shown on the detail matching the plan shape of the slab between the joints with 2" clearance from the joints.

*** The specified edge bars are only required for the roundabout median slab, and they shall be deformed and conform to ASTM A615 Grade 60. Place the edge bars at mid-depth of the slab.

**** Contractor shall mill the entire existing asphalt pavement depth within the limits of the truck apron of the Roundabout, up to the existing subbase, and shall construct 10" of concrete apron as shown in this detail and on Inset "G" sheet 2A(4) on top of the existing subbase. Contractor shall ensure that a minimum of 5" existing subbase has been maintained. The cost, labor, materials, equipment and disposal of materails to perform this milling shall be included in cost of regular milling/overlaying of this project and shall be incidental and not paid for separately.

Note :
All items associated with construction of the roundabout concrete slab including but not limited to the concrete slab appron, *5, *6 bars shall be included in the unit cost for SY of REINFORCED HYDR. CEMENT CONC. APRON PAVEMENT 10"

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.12 12:09:02 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	1G(2)

12/12/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data

COMMONWEALTH OF VIRGINIA
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Mark Gunn
2026.01.23 08:26:59 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1G(3)

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

NOTE: Asterisk Indicates use of Layton Hall Dr. construction baseline.

Begin Project/ Begin Construction
Proj. No. U000-151-R94, PE-101
Sta. 100+36.48

Begin Project
Proj. No. U000-151-R94, RW-201
Sta. 100+01.57

Begin Project
Proj. No. U000-151-R94, C-501
Sta. 101+53.80

Layton Hall Dr.
Layton Hall Dr. Constr. ℄
Blenheim Blvd
Blenheim Blvd Constr. ℄
Farrcroft Dr.
Farrcroft Dr. Constr. ℄

See Bus Stop Detail I on Sheet IH(39)
See Intersection Detail I on Sheet IH
See Bus Stop Detail I on Sheet IH(39)

Match Line, Sta. 104+75.00 (Blenheim Blvd.) - See Sheet 1G(4)

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

Radial Offset & Bullet Nose Data	1G(15)
Intersection Details	IH - IH(1)
Bus Stop Details	IH(39) - IH(40)
Roadway Design Plans	3

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	1G(3)

1/20/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

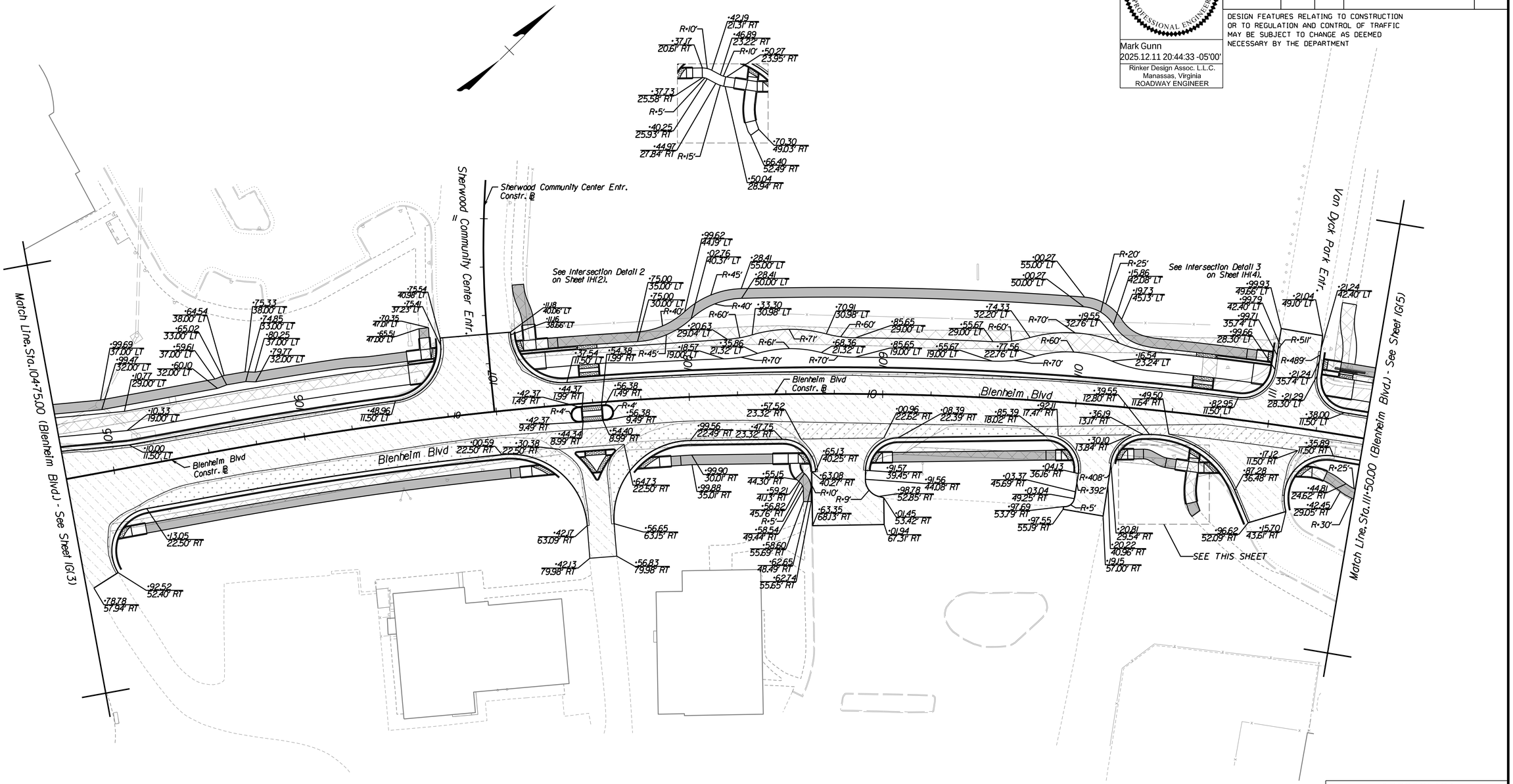
Geometric Data

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:44:33 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1G(4)

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



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

Radial Offset & Bullet Nose Data	1G(5)
Intersection Details	1H(2) - 1H(5)
Roadway Design Plans	4

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	1G(4)

FINAL PLANS

12/10/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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Mark Gunn
2025.12.11 20:45:05 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1G(5)

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

Saint Leo the Great Catholic Church
Saint Leo the Great Catholic School
Daniels Run Elementary School
Blenheim Blvd
Blenheim Blvd Constr. @
Match Line, Sta. 111+50.00 (Blenheim Blvd.) - See Sheet 1G(4)
Match Line, Sta. 119+00.00 (Blenheim Blvd.) - See Sheet 1G(6)
See Intersection Detail 4 on Sheet 1H(6).
See Bus Stop Detail 2 on Sheet 1H(41).
See Intersection Detail 5 on Sheet 1H(8).
See Intersection Detail 6 on Sheet 1H(10).
See Sidewalk Detail on Sheet 2A(10).
Entr. at Daniels Run E.S. Constr. @
Entr. at Daniels Run E.S. Constr. @
NOTE: Asterisk indicates use of Daniels Run E.S. construction baseline.

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

Radial Offset & Bullet Nose Data	1G(5)
Intersection Details	1H(6) - 1H(11)
Bus Stop Details	1H(41)
Sidewalk Details	2A(10)
Roadway Design Plans	5

SCALE 0 25' 50' | PROJECT U000-151-R94 | SHEET NO. 1G(5)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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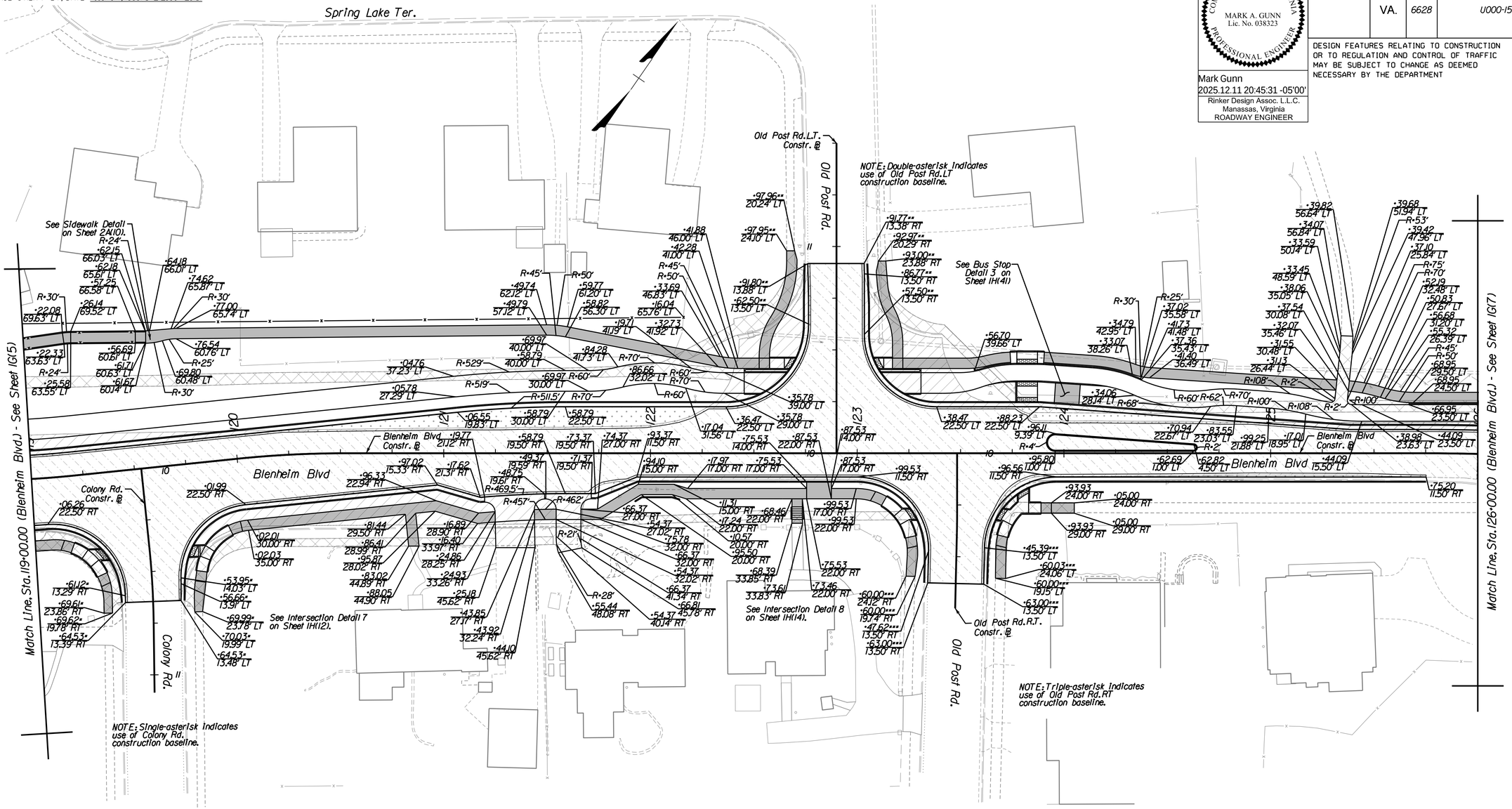
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:45:31 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1G(6)

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



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

Radial Offset & Bullet Nose Data	1G(15)
Intersection Details	1H(12) - 1H(15)
Bus Stop Details	1H(41)
Sidewalk Details	2A(10)
Roadway Design Plans	6

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-151-R94	1G(6)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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Mark Gunn
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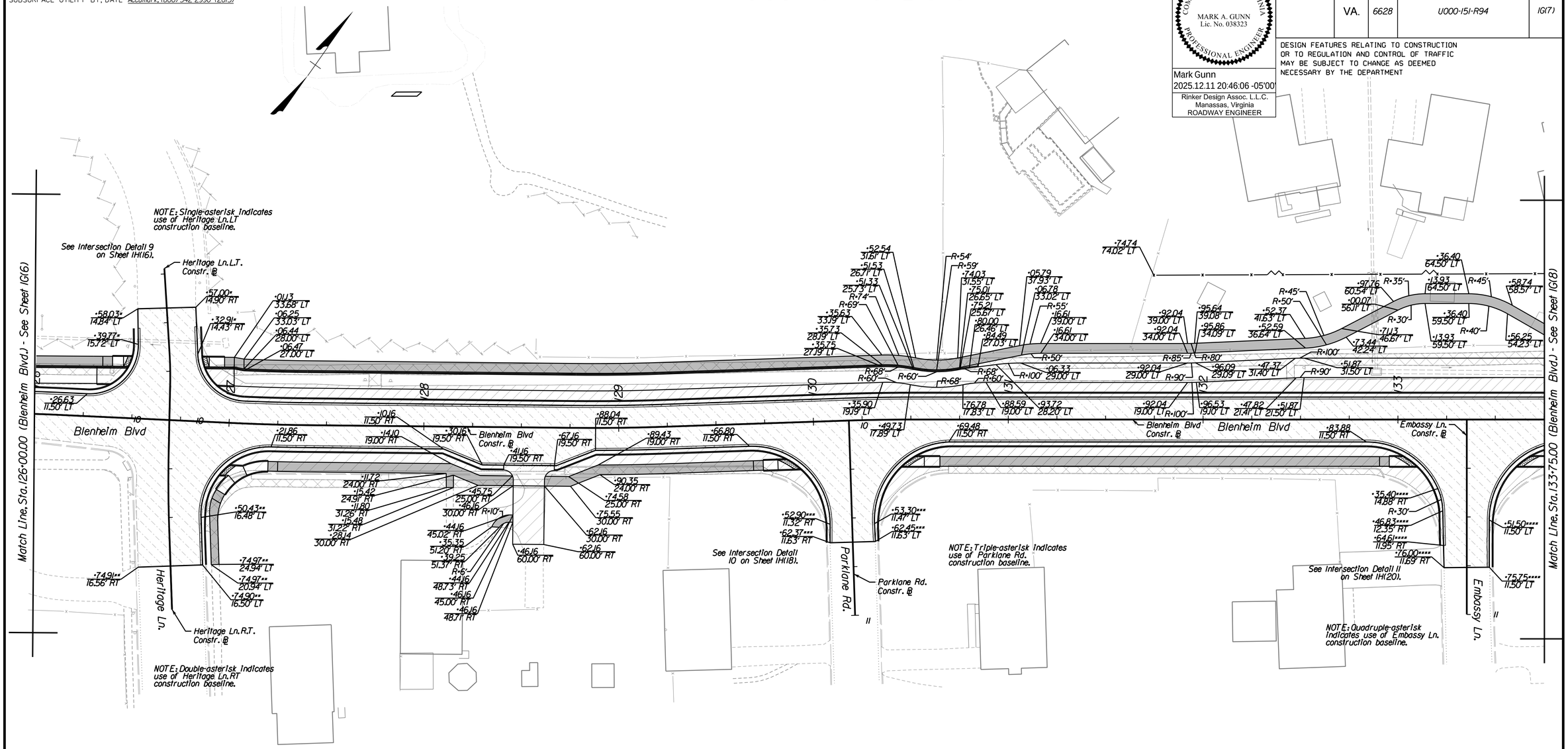
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1G(7)

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



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

Radial Offset & Bullet Nose Data	1G(15)
Intersection Details	1H(16) - 1H(21)
Roadway Design Plans	7

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	1G(7)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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Mark Gunn
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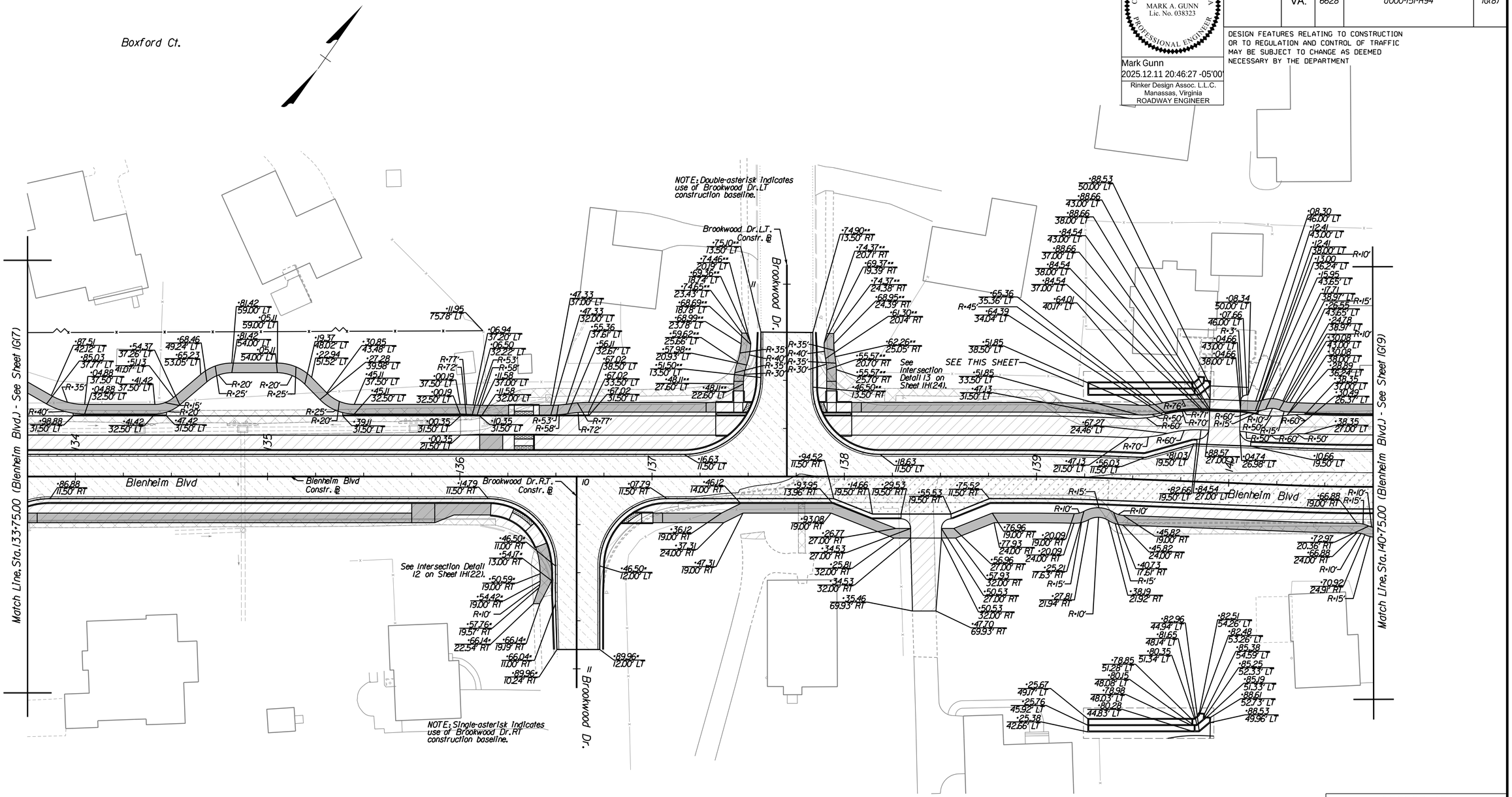
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IG(8)

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



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

Radial Offset & Bullet Nose Data	IG(15)
Intersection Details	IH(22) - IH(25)
Roadway Design Plans	8

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	IG(8)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data

COMMONWEALTH OF VIRGINIA
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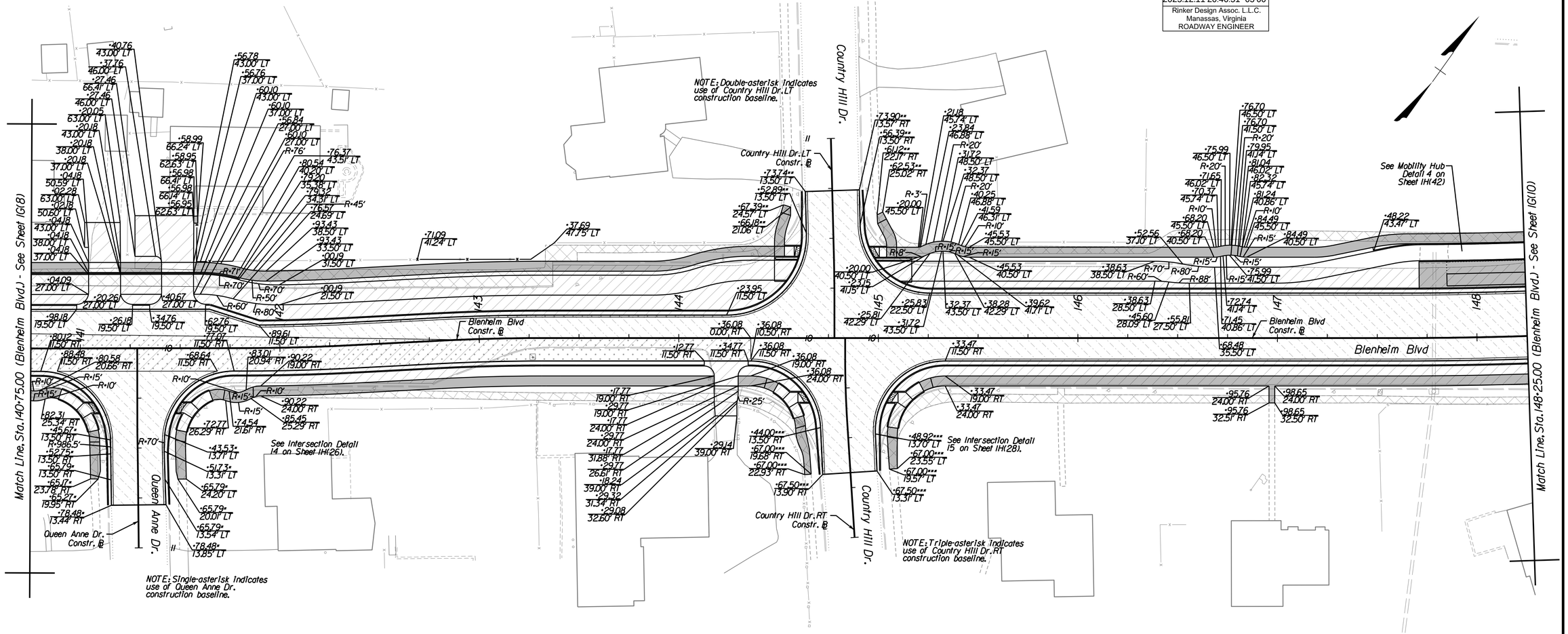
Mark Gunn
2025.12.11 20:46:51 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1G(9)

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



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

Radial Offset & Bullet Nose Data	1G(15)
Intersection Details	1H(26) - 1H(29)
Mobility Hub Details	1H(42)
Roadway Design Plans	9

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	1G(9)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data

COMMONWEALTH OF VIRGINIA
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PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:47:23 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IG(10)

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

NOTE: Double-asterisk Indicates use of Cornell Rd. LT construction baseline.

NOTE: Single-asterisk Indicates use of Cornell Rd. RT construction baseline.

See Mobility Hub Detail 4 on Sheet IH(43)

See Outdoor Classroom Detail on Sheet 2A(9).

See Intersection Detail 16 on Sheet IH(30).

SEE THIS SHEET

SEE THIS SHEET

Match Line, Sta. 148+25.00 (Blenheim Blvd.) - See Sheet IG(9)

Match Line, Sta. 155+00.00 (Blenheim Blvd.) - See Sheet IG(11)

Blenheim Blvd

Blenheim Blvd Constr. ℄

Cornell Rd. LT Constr. ℄

Cornell Rd. RT Constr. ℄

Cornell Rd.

149 150 151 152 153 154 155

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

Radial Offset & Bullet Nose Data	IG(15)
Intersection Details	IH(30) - IH(31)
Mobility Hub Details	IH(42) - IH(43)
Outdoor Classroom Details	2A(9)
Roadway Design Plans	10

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-151-R94	IG(10)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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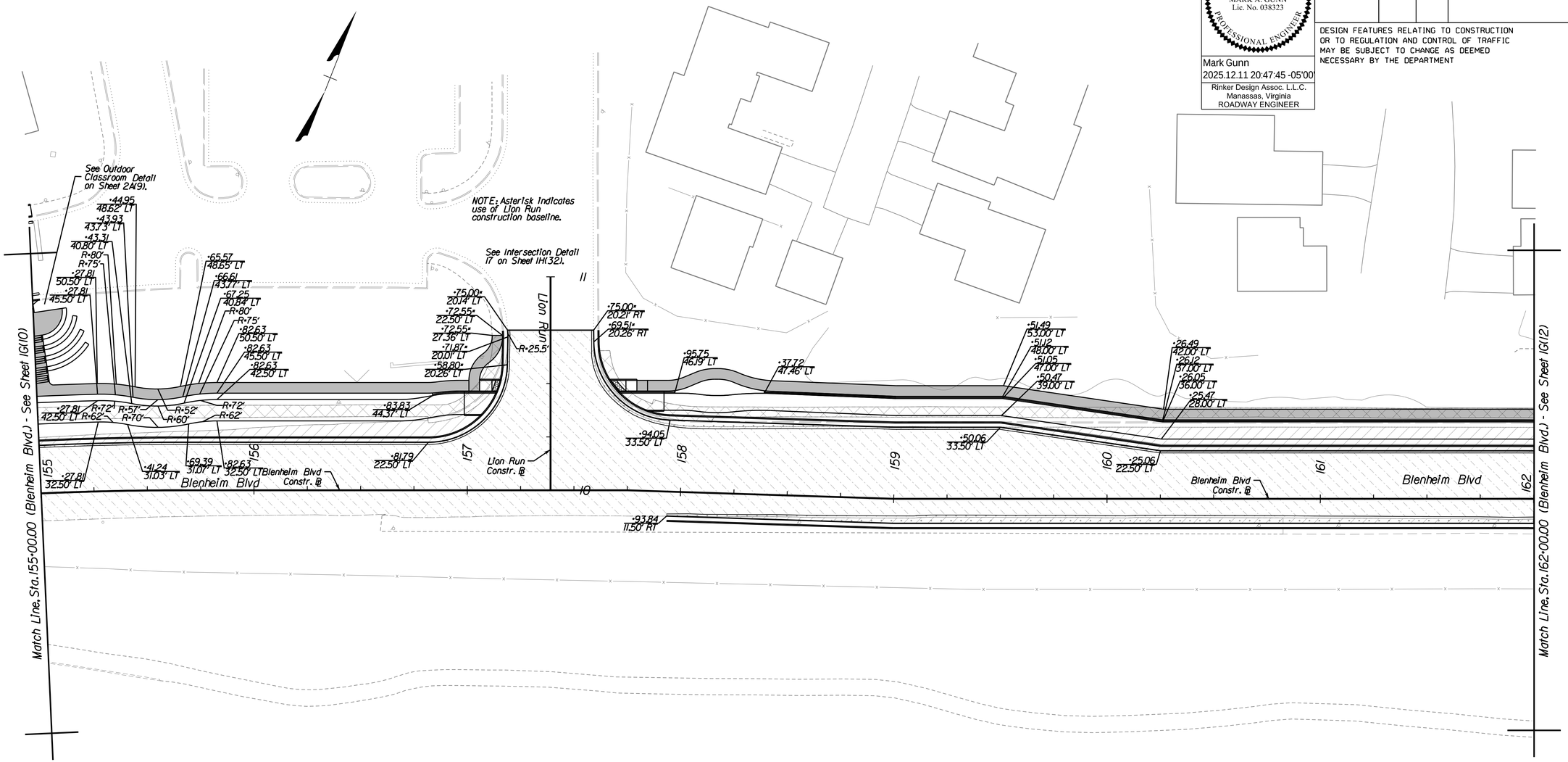
Mark Gunn
2025.12.11 20:47:45 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IG(11)

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



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

Radial Offset & Bullet Nose Data	IG(15)
Intersection Details	1H(32) - 1H(33)
Outdoor Classroom Details	2A(9)
Roadway Design Plans	11

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-151-R94	IG(11)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
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Mark Gunn
2025.12.11 20:48:09 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IG(12)

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

NOTE: Single-asterisk Indicates use of Great Oaks Dr.SB construction baseline.

NOTE: Double-asterisk Indicates use of Great Oaks Dr.NB construction baseline.

Great Oaks Dr.

Great Oaks Dr.SB Constr. ℄

Great Oaks Dr.NB Constr. ℄

Blenheim Blvd

Blenheim Blvd Constr. ℄

Asphalt Sidewalk

See Bus Stop Detail 5 on Sheet IH(44)

See Intersection Detail 18 on Sheet IH(34).

See Bus Stop Detail 6 on Sheet IH(44)

Match Line, Sta. 162+00.00 (Blenheim Blvd.) - See Sheet IG(11)

Match Line, Sta. 169+25.00 (Blenheim Blvd.) - See Sheet IG(13)

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

Radial Offset & Bullet Nose Data	IG(15)
Intersection Details	IH(34) - IH(35)
Bus Stop Details	IH(44)
Roadway Design Plans	12

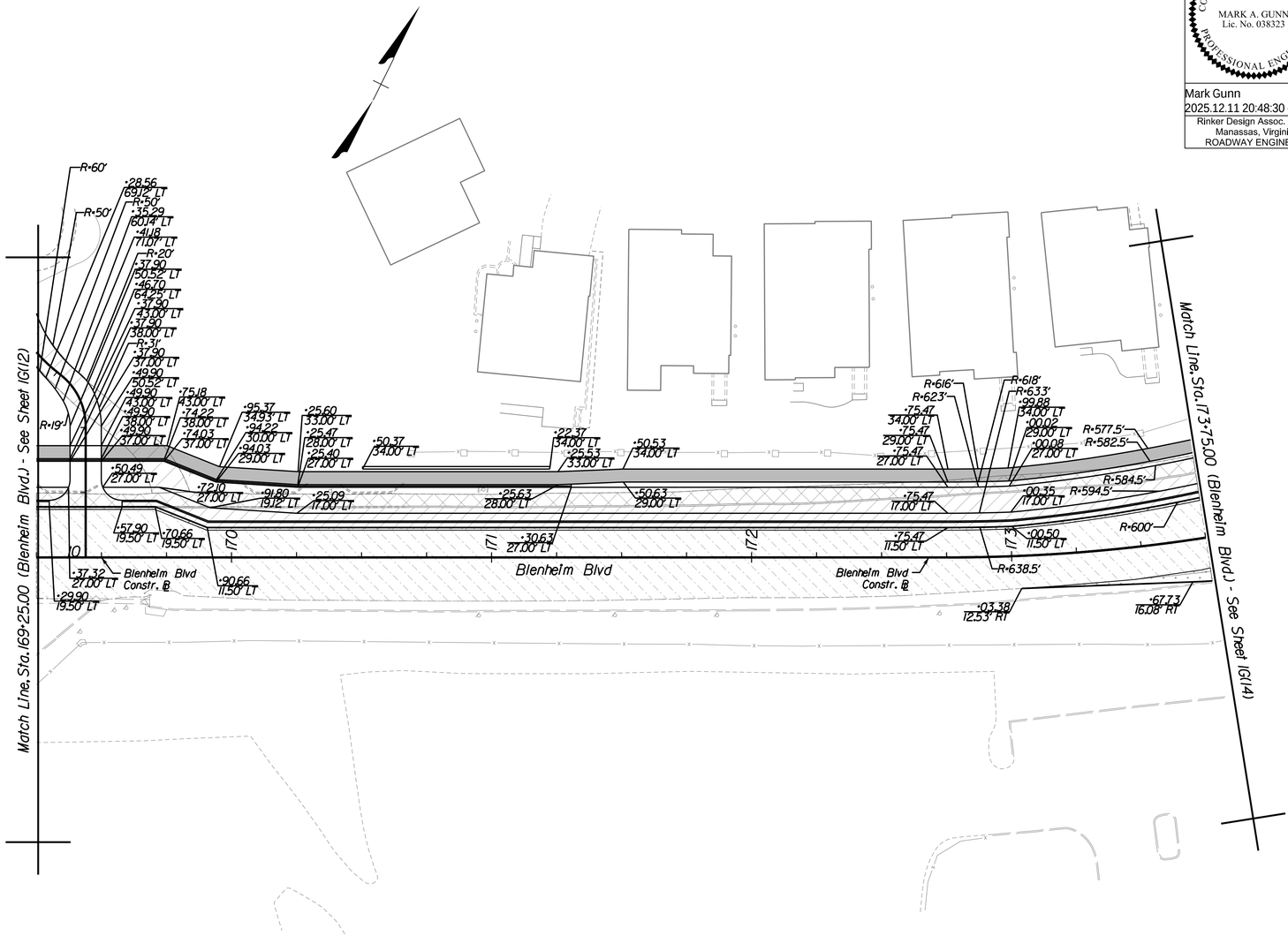
SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	IG(12)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data



REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IG(13)

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:48:30 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

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

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

Roadway Design Plans	13

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-151-R94	IG(13)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Geometric Data

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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Mark Gunn
2025.12.11 20:48:50 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IG(14)

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

NOTE: Asterisk indicates use of Ridge Ave. construction baseline.

Ridge Ave.
Constr. ℄
Ridge Ave.
Blenheim Blvd
Constr. ℄
Blenheim Blvd
Old Lee Highway
Match Line, Sta. 173+75.00 (Blenheim Blvd.) - See Sheet IG(13)
See Intersection Detail 19 on Sheet IH(36).

End Project
Proj. No. U000-151-R94, C-201
Sta. 178+58.67

End Project
Proj. No. U000-151-R94, RW-201
Sta. 178+68.93

End Project/ End Construction
Proj. No. U000-151-R94, PE-101
Sta. 180+89.00

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

Roundabout Details	IG(2)
Radial Offset & Bullet Nose Data	IG(5)
Intersection Details	IH(36) - IH(38)
Roadway Design Plans	14

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-151-R94	IG(14)

12/10/2025

FINAL PLANS

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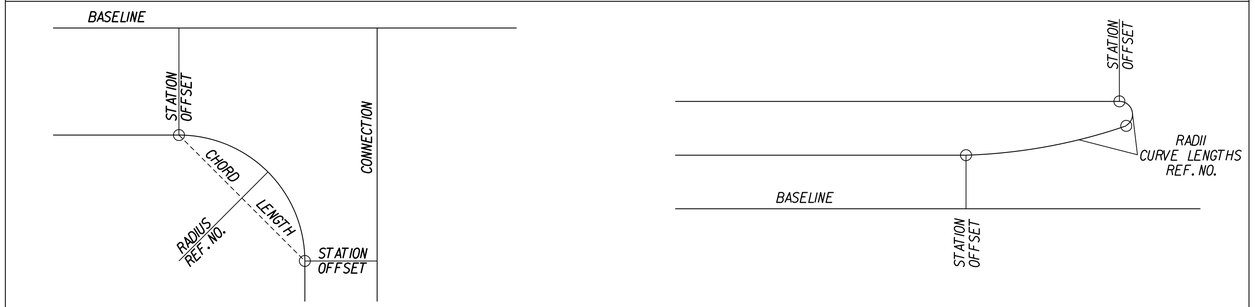
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

RADIAL OFFSETS & BULLET NOSE DATA

BULLET NOSE & RADIAL OFFSETS DATA



LOCATION (REF. NO.)	BASELINE			CONNECTION			RADIUS LENGTH	CHORD LENGTH	CURVE LENGTH
SHEET - ITEM	STATION	OFFSET	ALIGNMENT	STATION	OFFSET	ALIGNMENT	FEET	FEET	FEET
3-1	100+46.14	26.43' LT	Blenheim Blvd	101+58.07	25.62' LT	Layton Hall Dr	36.50	36.27	37.95
3-2	101+47.23	18.37' RT	Layton Hall Dr	101+68.03	21.04' RT	Layton Hall Dr	18.67	21.84	23.33
3-3	101+53.80	21.50' LT	Blenheim Blvd	101+40.26	23.18' RT	Layton Hall Dr	42.00	40.07	41.77
4-1	106+13.05	22.50' RT	Blenheim Blvd	104+92.34	51.90' RT	Blenheim Blvd	22.00	35.97	42.10
4-2	106+48.96	11.50' LT	Blenheim Blvd	106+75.41	37.24' LT	Blenheim Blvd	27.00	37.15	40.97
4-3	107+37.54	11.50' LT	Blenheim Blvd	107+11.16	38.66' LT	Blenheim Blvd	27.00	38.14	42.35
4-4	107+00.59	22.50' RT	Blenheim Blvd	107+42.17	63.09' RT	Blenheim Blvd	40.00	57.33	63.92
4-5	107+99.56	22.49' RT	Blenheim Blvd	107+56.65	63.15' RT	Blenheim Blvd	40.00	58.31	65.33
4-6	108+23.32	23.32' RT	Blenheim Blvd	108+65.13	40.25' RT	Blenheim Blvd	17.00	24.02	26.67
4-7	109+08.39	22.39' RT	Blenheim Blvd	108+91.57	39.45' RT	Blenheim Blvd	17.00	23.74	26.28
4-8	109+85.39	18.02' RT	Blenheim Blvd	110+04.13	36.16' RT	Blenheim Blvd	17.00	25.85	29.37
4-9	110+36.19	13.17' RT	Blenheim Blvd	110+20.81	29.54' RT	Blenheim Blvd	17.00	22.32	24.35
4-10	110+39.55	12.80' RT	Blenheim Blvd	110+87.28	36.48' RT	Blenheim Blvd	47.00	52.65	55.88
4-11	110+82.95	11.50' LT	Blenheim Blvd	110+99.66	28.30' LT	Blenheim Blvd	17.00	23.84	26.42
4-12	111+38.00	11.50' LT	Blenheim Blvd	111+21.29	28.30' LT	Blenheim Blvd	17.00	23.84	26.42
4-13	111+35.89	11.50' RT	Blenheim Blvd	111+13.49	35.28' RT	Blenheim Blvd	22.00	32.45	36.49
5-1	111+58.72	11.50' LT	Blenheim Blvd	111+75.47	28.40' LT	Blenheim Blvd	17.00	23.91	26.52
5-2	112+13.47	11.50' LT	Blenheim Blvd	111+96.47	28.54' LT	Blenheim Blvd	17.00	24.07	26.74
5-3	114+81.53	11.50' LT	Blenheim Blvd	114+98.53	28.50' LT	Blenheim Blvd	17.00	24.04	26.70
5-4	115+35.53	11.50' LT	Blenheim Blvd	115+18.53	28.50' LT	Blenheim Blvd	17.00	24.04	26.70
5-5	115+42.34	11.50' LT	Blenheim Blvd	115+59.34	28.50' LT	Blenheim Blvd	17.00	24.04	26.70
5-6	115+96.34	11.50' LT	Blenheim Blvd	115+79.34	28.50' LT	Blenheim Blvd	17.00	24.04	26.70
5-7	116+40.40	11.50' LT	Blenheim Blvd	116+57.40	28.50' LT	Blenheim Blvd	17.00	24.04	26.70
5-8	116+94.40	11.50' LT	Blenheim Blvd	116+77.40	28.50' LT	Blenheim Blvd	17.00	24.04	26.70
5-9	116+28.12	17.99' RT	Blenheim Blvd	116+48.32	60.74' RT	Blenheim Blvd	27.00	47.28	57.59
5-10	116+90.14	21.90' RT	Blenheim Blvd	116+77.39	33.69' RT	Blenheim Blvd	12.00	17.37	19.42
5-11	117+01.40	11.50' LT	Blenheim Blvd	117+18.40	28.50' LT	Blenheim Blvd	17.00	24.04	26.70
5-12	117+55.40	11.50' LT	Blenheim Blvd	117+38.40	28.50' LT	Blenheim Blvd	17.00	24.04	26.70
5-13	116+98.08	22.40' RT	Blenheim Blvd	117+08.31	39.19' RT	Blenheim Blvd	12.00	19.67	23.05
5-14	117+67.36	22.50' RT	Blenheim Blvd	117+43.49	38.65' RT	Blenheim Blvd	27.00	28.81	30.39
6-1	119+06.26	22.50' RT	Blenheim Blvd	10+61.12	13.29' RT	Colony Rd	35.00	50.94	57.05
6-2	120+01.99	22.50' RT	Blenheim Blvd	10+53.95	14.03' LT	Colony Rd	35.00	47.32	51.96
6-3	122+36.47	22.50' LT	Blenheim Blvd	10+62.50	13.50' LT	Old Post Rd	40.00	56.57	62.83
6-4	123+38.47	22.50' LT	Blenheim Blvd	10+57.50	13.50' RT	Old Post Rd	35.00	49.50	54.98
6-5	122+99.53	11.50' RT	Blenheim Blvd	10+47.62	13.50' RT	Old Post Rd	35.00	50.06	55.78
6-6	123+96.56	11.50' RT	Blenheim Blvd	10+45.39	13.50' LT	Old Post Rd	35.00	48.93	54.17
7-1	126+26.63	11.50' LT	Blenheim Blvd	126+51.59	38.00' LT	Blenheim Blvd	25.00	36.40	40.77
7-2	127+07.35	11.50' LT	Blenheim Blvd	126+82.30	34.30' LT	Blenheim Blvd	25.00	33.83	37.16
7-3	127+21.86	11.50' RT	Blenheim Blvd	126+87.83	49.17' RT	Blenheim Blvd	35.00	51.03	57.19
7-4	129+66.80	11.50' RT	Blenheim Blvd	10+52.90	11.32' RT	Parklane Rd	40.00	57.54	64.22
7-5	130+69.48	11.50' RT	Blenheim Blvd	10+53.30	11.47' LT	Parklane Rd	40.00	56.66	62.96
7-6	132+83.88	11.50' RT	Blenheim Blvd	10+35.40	14.88' RT	Embassy Ln	40.00	43.72	46.26
7-7	133+86.88	11.50' RT	Blenheim Blvd	10+51.50	11.50' LT	Embassy Ln	40.00	56.57	62.83
8-1	136+14.79	11.50' RT	Blenheim Blvd	10+46.50	11.00' RT	Brookwood Dr	35.00	49.50	54.98
8-2	137+07.79	11.50' RT	Blenheim Blvd	10+46.50	12.00' LT	Brookwood Dr	35.00	49.50	54.98
8-3	137+16.63	11.50' LT	Blenheim Blvd	10+51.50	13.50' LT	Brookwood Dr	40.00	56.57	62.83
8-4	138+18.63	11.50' LT	Blenheim Blvd	10+46.50	13.50' RT	Brookwood Dr	35.00	49.50	54.98
9-1	140+80.12	11.50' RT	Blenheim Blvd	10+45.67	13.50' RT	Queen Anne Dr	35.00	49.04	54.34
9-2	141+77.07	11.50' RT	Blenheim Blvd	10+43.53	13.71' LT	Queen Anne Dr	35.00	47.15	51.74
9-3	144+23.95	11.50' LT	Blenheim Blvd	10+52.89	13.50' LT	Country Hill Dr	40.00	57.30	63.87
9-4	145+25.83	22.50' LT	Blenheim Blvd	10+56.39	13.50' RT	Country Hill Dr	35.00	48.95	54.21
9-5	144+36.08	11.50' RT	Blenheim Blvd	10+44.00	13.50' RT	Country Hill Dr	35.00	48.31	53.32
9-6	145+33.47	11.50' RT	Blenheim Blvd	10+48.92	13.70' LT	Country Hill Dr	35.00	50.55	56.48
10-1	149+07.63	22.50' LT	Blenheim Blvd	149+42.58	55.58' LT	Blenheim Blvd	35.00	48.12	53.05
10-2	150+00.81	22.50' LT	Blenheim Blvd	149+67.73	58.23' LT	Blenheim Blvd	35.00	49.60	55.13
10-3	148+99.75	11.50' RT	Blenheim Blvd	10+49.11	12.00' RT	Cornell Rd	35.00	50.84	56.90
11-1	156+81.79	22.50' LT	Blenheim Blvd	10+58.80	20.26' LT	Lion Run	37.00	51.83	57.42

LOCATION (REF. NO.)	BASELINE			CONNECTION			RADIUS LENGTH	CHORD LENGTH	CURVE LENGTH
SHEET - ITEM	STATION	OFFSET	ALIGNMENT	STATION	OFFSET	ALIGNMENT	FEET	FEET	FEET
11-2	157+94.05	33.50' LT	Blenheim Blvd	10+69.51	20.26' RT	Lion Run	37.00	51.23	56.59
12-1	162+36.57	22.50' LT	Blenheim Blvd	10+48.71	12.29' LT	Great Oak Dr	37.00	45.37	48.85
12-2	163+11.85	22.50' LT	Blenheim Blvd	10+44.23	11.75' RT	Great Oak Dr	17.00	26.32	30.10
12-3	163+19.26	22.47' LT	Blenheim Blvd	10+46.61	11.56' LT	Great Oak Dr	17.00	27.68	32.34
12-4	163+97.87	19.61' LT	Blenheim Blvd	10+44.02	14.24' RT	Great Oak Dr	37.00	42.70	45.51
14-1	174+60.74	21.67' LT	Blenheim Blvd	174+86.13	36.45' LT	Blenheim Blvd	30.00	28.40	29.58
14-2	10+40.60	27.17' LT	Ridge Ave	10+69.90	16.00' LT	Ridge Ave	35.00	28.58	29.45
14-3	10+34.67	25.30' RT	Ridge Ave	10+57.16	13.00' RT	Ridge Ave	40.00	28.77	29.43
14-4	175+72.26	23.00' LT	Blenheim Blvd	175+45.43	33.31' LT	Blenheim Blvd	40.00	28.58	29.23
14-5	174+52.51	19.00' RT	Blenheim Blvd	174+84.13	32.41' RT	Blenheim Blvd	50.00	35.50	36.29
14-6	175+77.01	23.00' RT	Blenheim Blvd	175+44.66	34.64' LT	Blenheim Blvd	50.00	34.45	35.19

LOCATION (REF. NO.)	BASELINE			CONNECTION			RADIUS LENGTH	CHORD LENGTH	CURVE LENGTH
SHEET - ITEM	STATION	OFFSET	ALIGNMENT	STATION	OFFSET	ALIGNMENT	FEET	FEET	FEET
3-4	103+27.11	8.04' RT	Blenheim Blvd	104+42.90	3.83' RT	Blenheim Blvd	2.00	3.97	5.83
3-5	103+27.58	11.98' RT	Blenheim Blvd	104+42.93	7.82' RT	Blenheim Blvd	2.00	4.00	6.09
6-7	123+95.80	1.00' LT	Blenheim Blvd	123+96.11	9.39' LT	Blenheim Blvd	4.20	8.39	13.50
6-8	124+62.69	1.00' LT	Blenheim Blvd	124+62.82	4.50' LT	Blenheim Blvd	1.75	3.50	5.37
12-5	163+79.18	1.00' LT	Blenheim Blvd	163+79.36	8.00' LT	Blenheim Blvd	3.50	7.00	11.18
12-6	164+80.77	1.00' LT	Blenheim Blvd	164+80.83	4.00' LT	Blenheim Blvd	1.50	3.00	4.65
14-7	173+97.58	2.83' RT	Blenheim Blvd	173+97.52	1.16' LT	Blenheim Blvd	2.00	4.00	6.16
14-8	174+67.34	0.48' LT	Blenheim Blvd	174+64.82	2.21' LT	Blenheim Blvd	3.00	3.06	3.21
14-9	174+69.24	3.68' RT	Blenheim Blvd	174+68.10	5.06' RT	Blenheim Blvd	1.00	1.80	2.23
14-10	10+46.14	5.62' LT	Ridge Ave	10+47.51	6.89' LT	Ridge Ave	1.00	1.88	2.43
14-11	10+47.46	2.00' LT	Ridge Ave	10+48.37	1.32' LT	Ridge Ave	1.00	2.80	2.91
14-12	10+62.40	0.09' LT	Ridge Ave	10+63.49	0.95' LT	Ridge Ave	1.00	1.42	1.57
14-13	10+63.61	1.87' LT	Ridge Ave	10+62.64	3.01' LT	Ridge Ave	1.00	1.41	1.56
14-14	175+61.58	6.40' LT	Blenheim Blvd	175+62.69	7.58' LT	Blenheim Blvd	1.00	1.62	1.90
14-15	175+63.49	3.52' RT	Blenheim Blvd	175+66.19	5.94' RT	Blenheim Blvd	3.00	3.63	3.90

MARK A. GUNN
Lic. No. 038323
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:49:18 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1G(15)

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

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 1G(15)

12/10/2025

FINAL PLANS

1/15/2026
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Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
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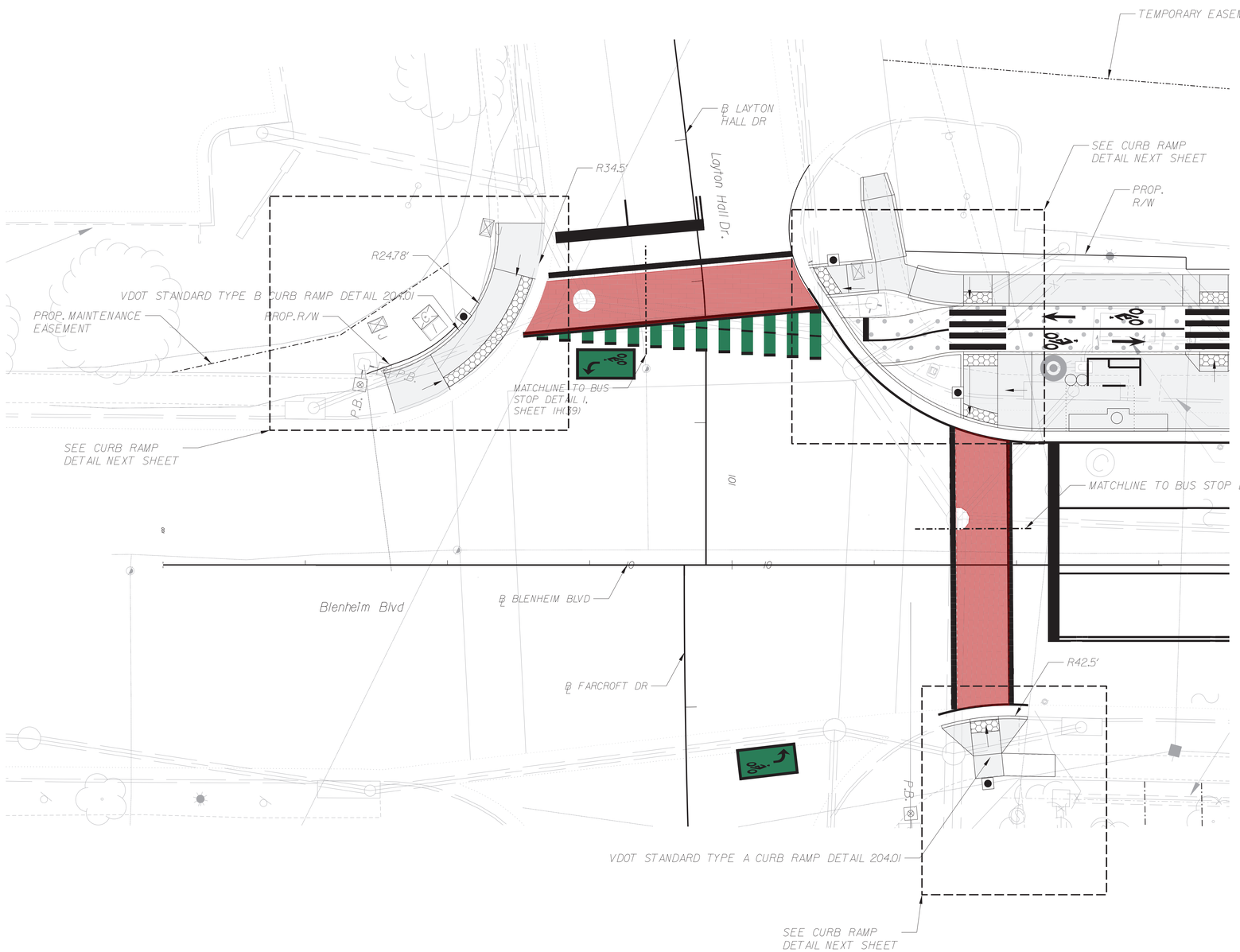
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN



INTERSECTION DETAIL I

SCALE
0 10' 20'

LEGEND
- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

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JEREMY ANDREW CHRZAN
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PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH

PROJECT	SHEET NO.
U000-151-R94	IH

FINAL PLANS

1/15/2026
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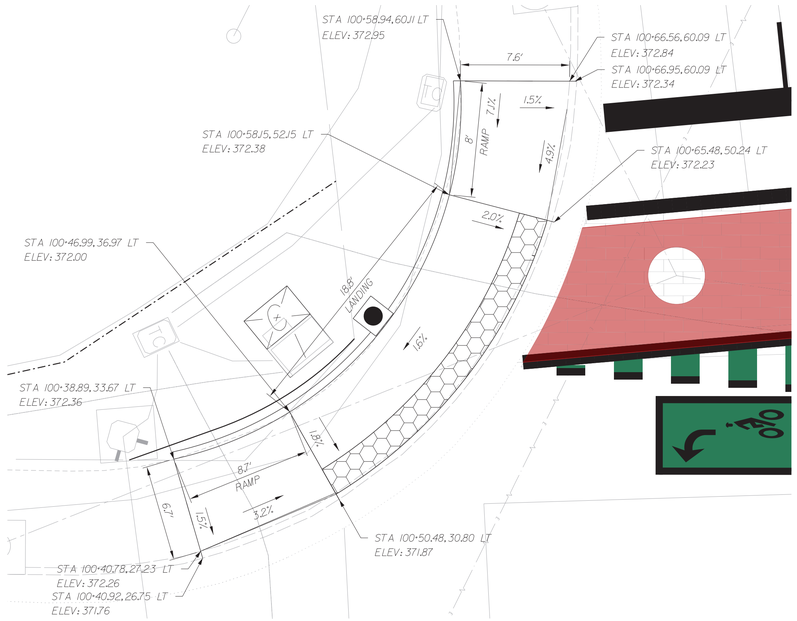
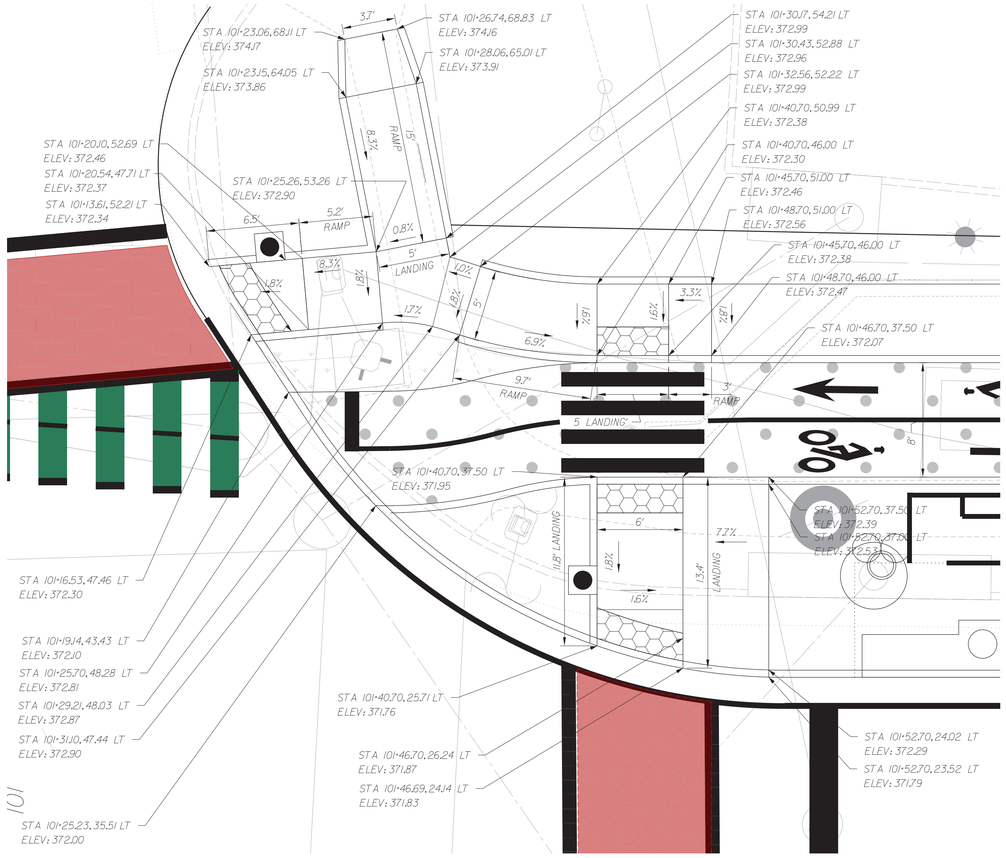
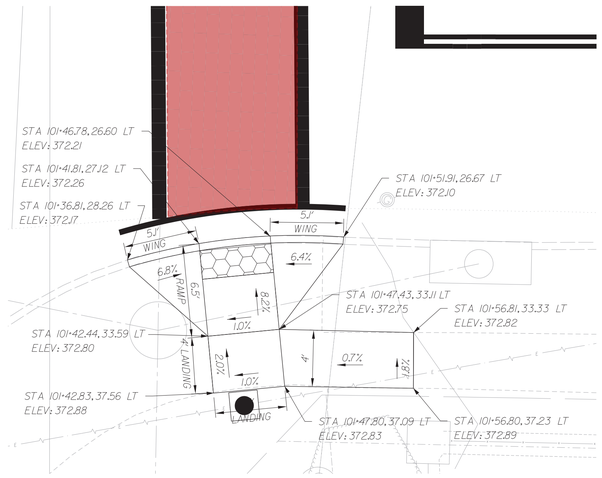
CURB RAMP DETAIL PLAN



LAYTON HALL DR



BLENHEIM BLVD



CURB RAMP DETAIL I

SCALE
0 5' 10'

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
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PROFESSIONAL ENGINEER
1.22.26

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ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(1)

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(1)

FINAL PLANS

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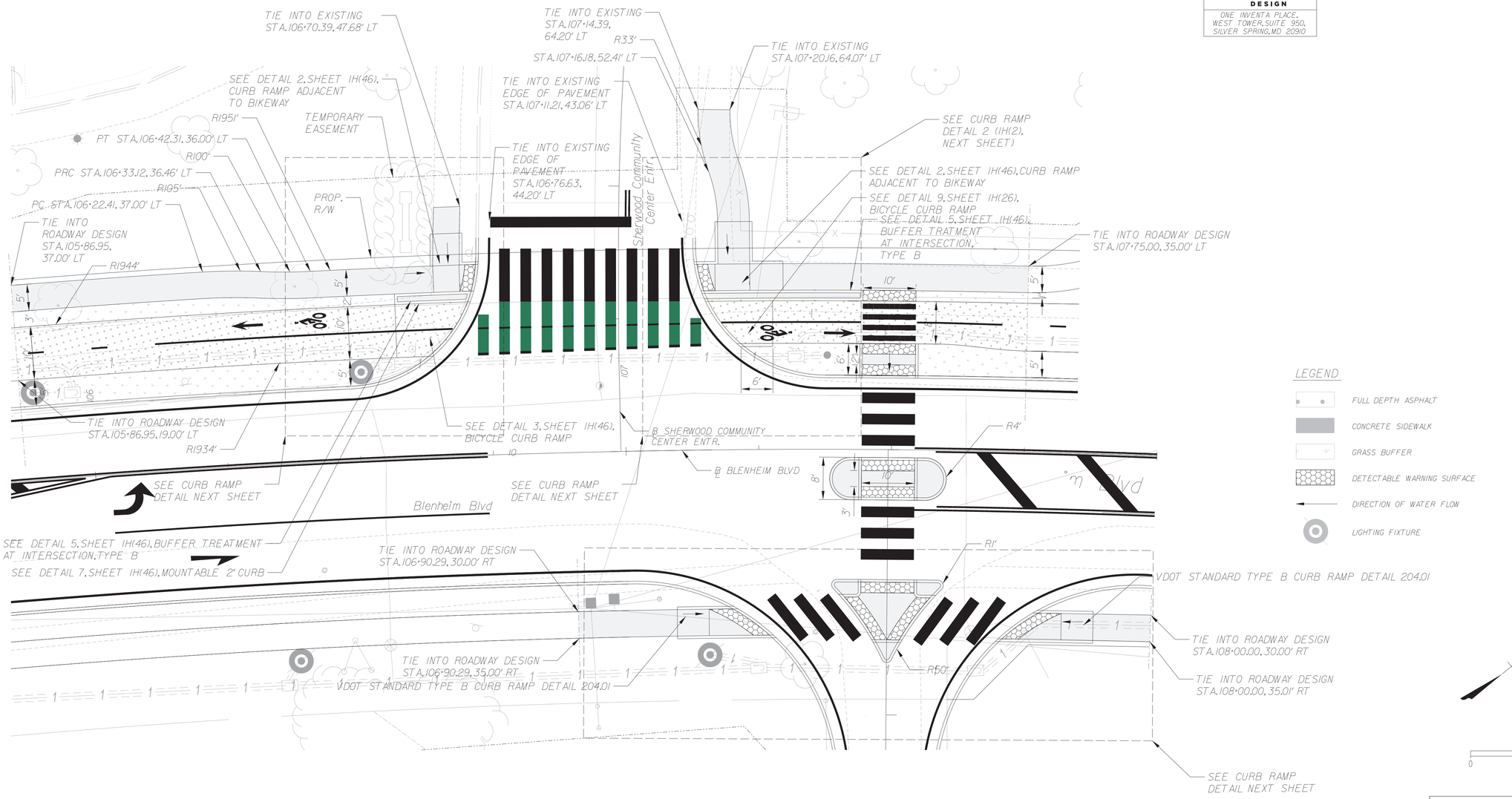
INTERSECTION DETAIL PLAN



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

INTERSECTION DETAIL 2

COMMONWEALTH OF VIRGINIA
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1.22.26

TOOLE DESIGN
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SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(6)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(2)

FINAL PLANS

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
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1/15/2026
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Plotted By: ClaySublett

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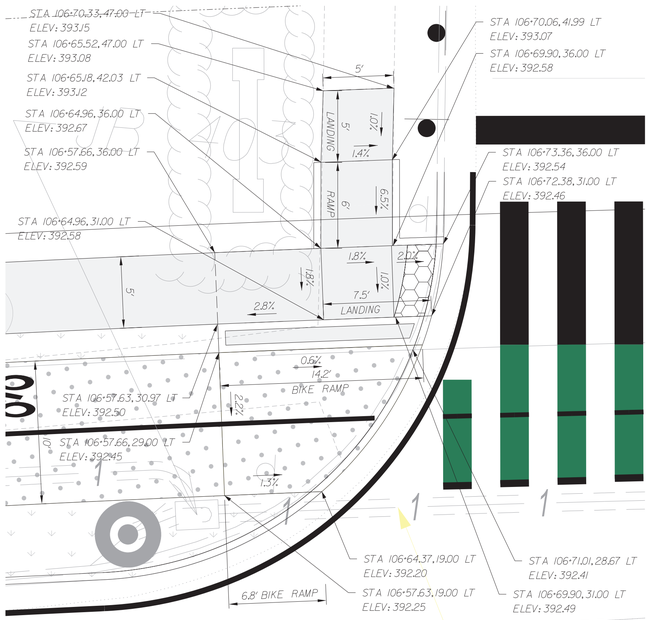
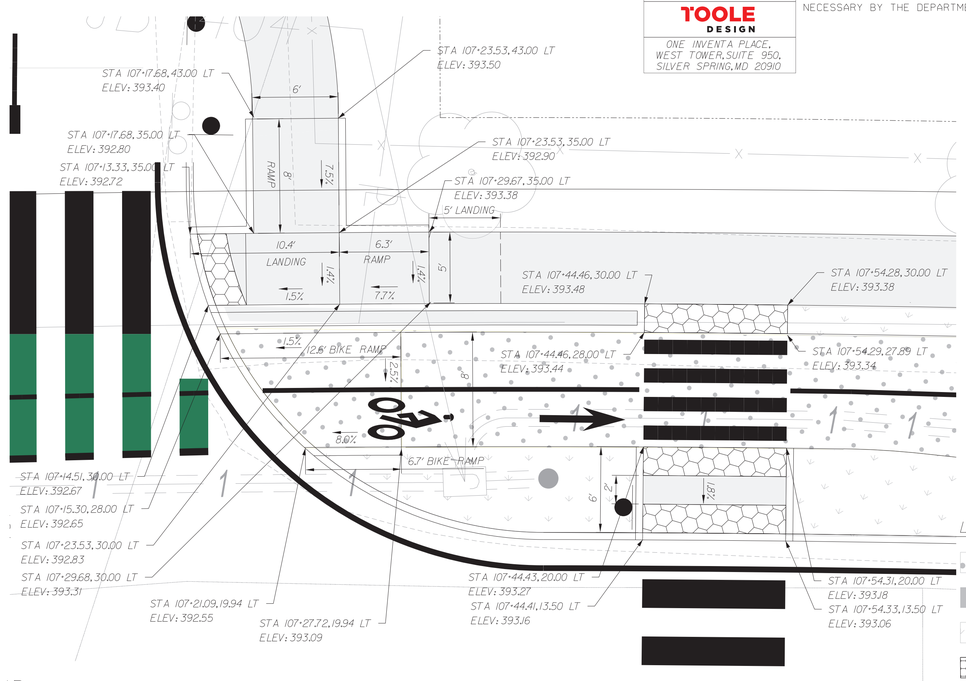
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

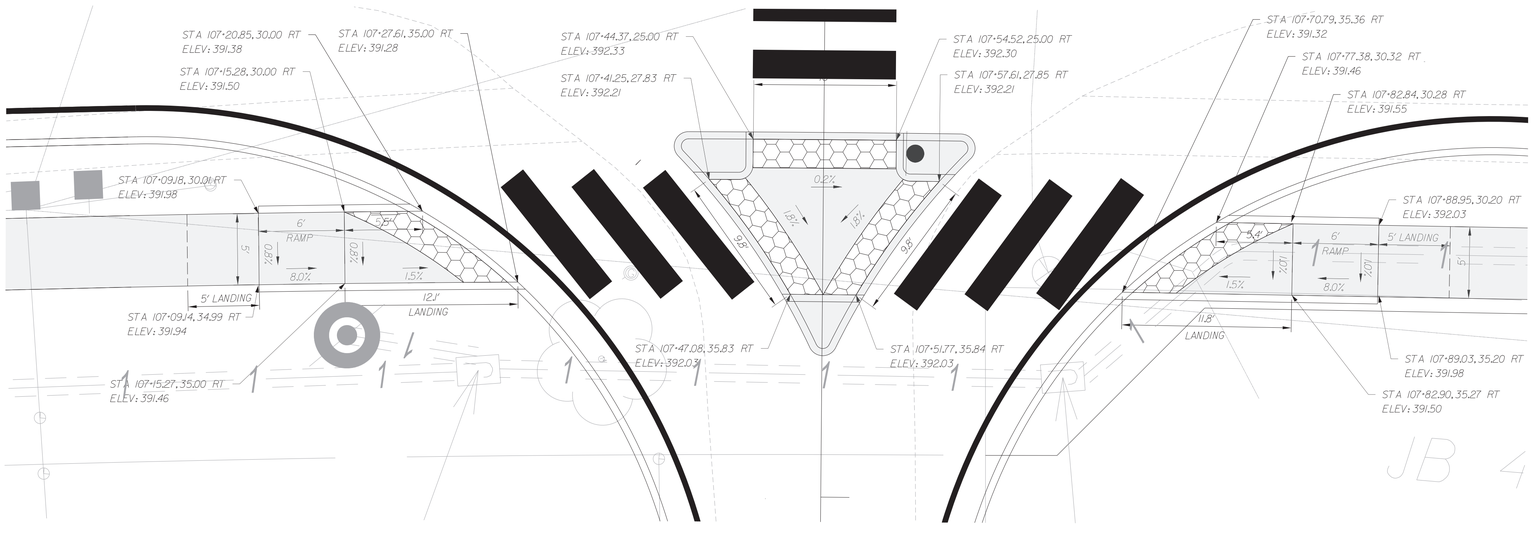
CURB RAMP DETAIL PLAN

SHERWOOD COMMUNITY CENTER ENTRANCE





BLENHEIM BLVD



CURB RAMP DETAIL 2

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

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1.22.26

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SILVER SPRING, MD 20910

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.	6228	U000-151-R94	1H(3)

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	1H(39) - 1H(47)

	PROJECT	SHEET NO.
	U000-151-R94	1H(3)

FINAL PLANS

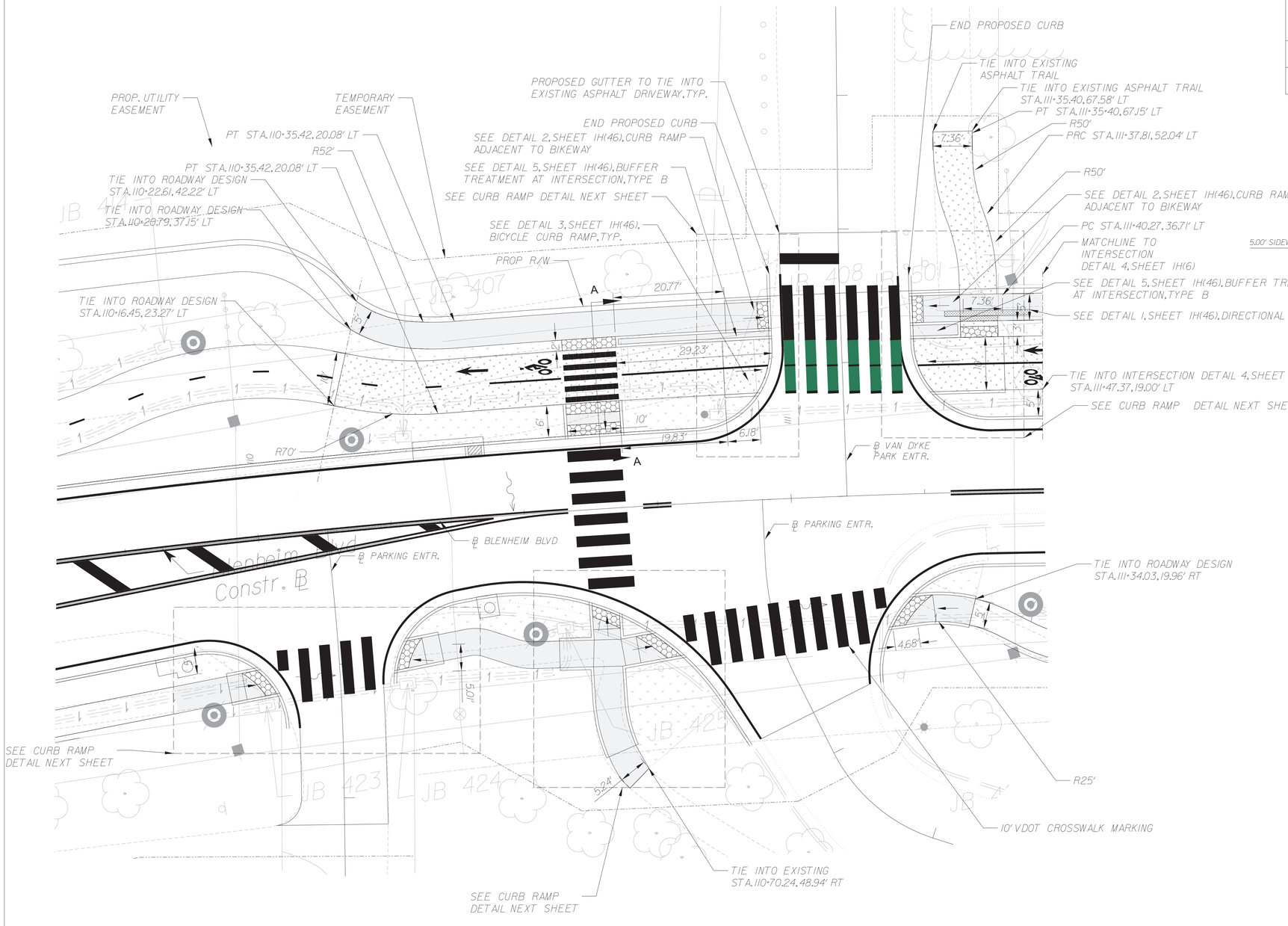
1/12/2026
10:10:53 AM

d107013_017(2).dgn
Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN



SECTION A-A

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

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.	6228	U000-151-R94	IH(4)

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(4)

INTERSECTION DETAIL 3

FINAL PLANS

1/9/2026
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Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
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PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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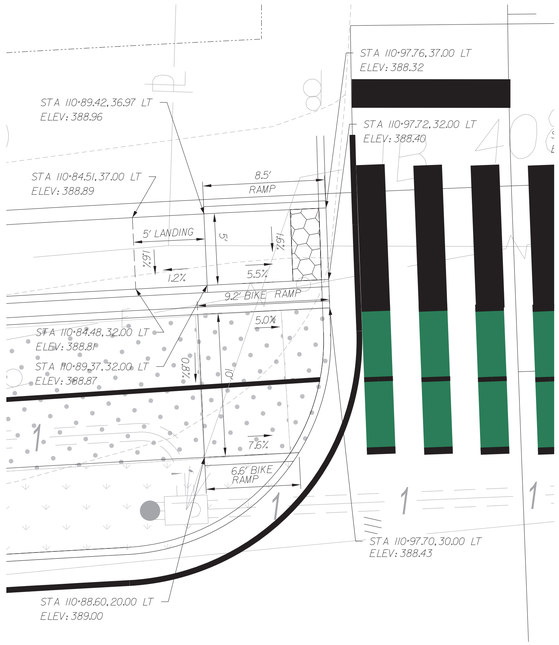
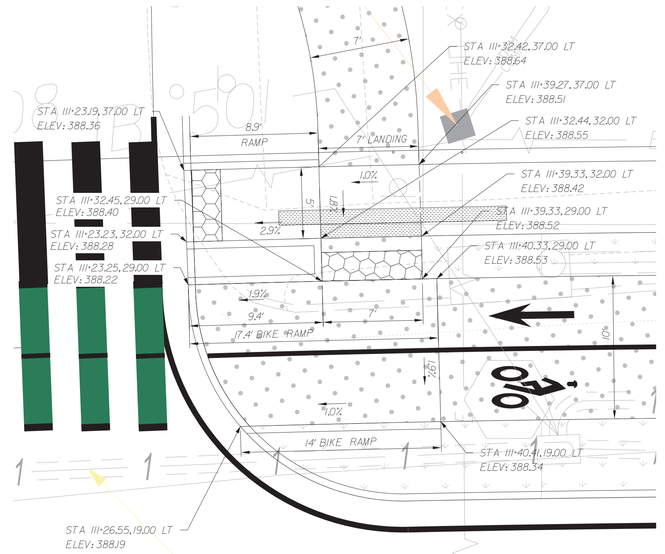
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

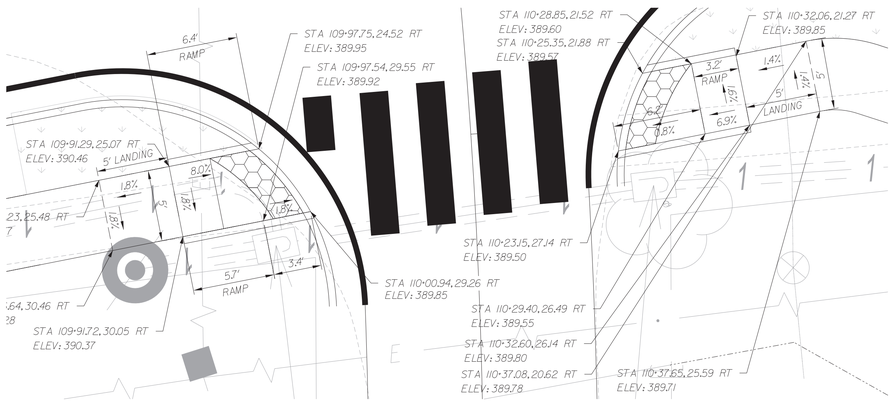
CURB RAMP DETAIL PLAN

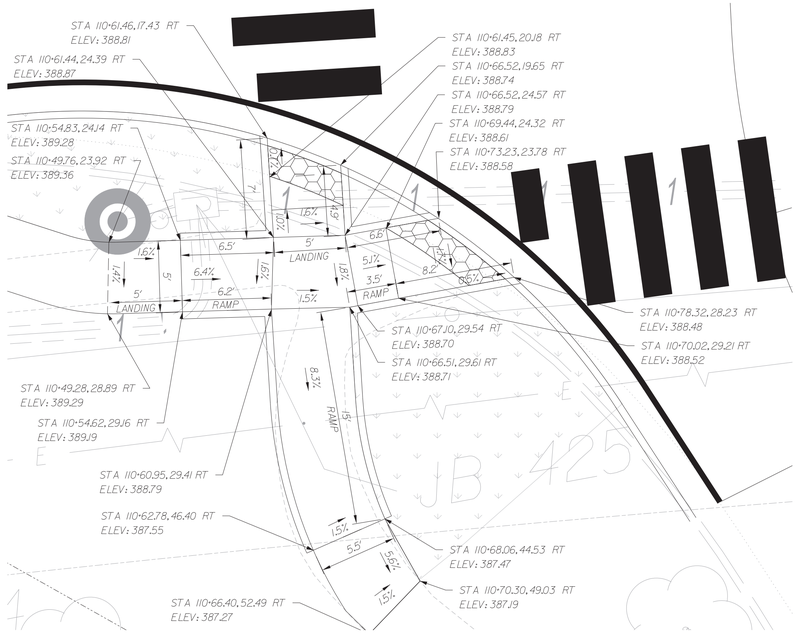
VAN DYCK PARK ENTRANCE





BLENHEIM BLVD





CURB RAMP DETAIL 3

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	1H(39) - 1H(47)

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
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PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

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.	6228	U000-151-R94	1H(5)

PROJECT	SHEET NO.
U000-151-R94	1H(5)

FINAL PLANS

1/9/2026
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Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
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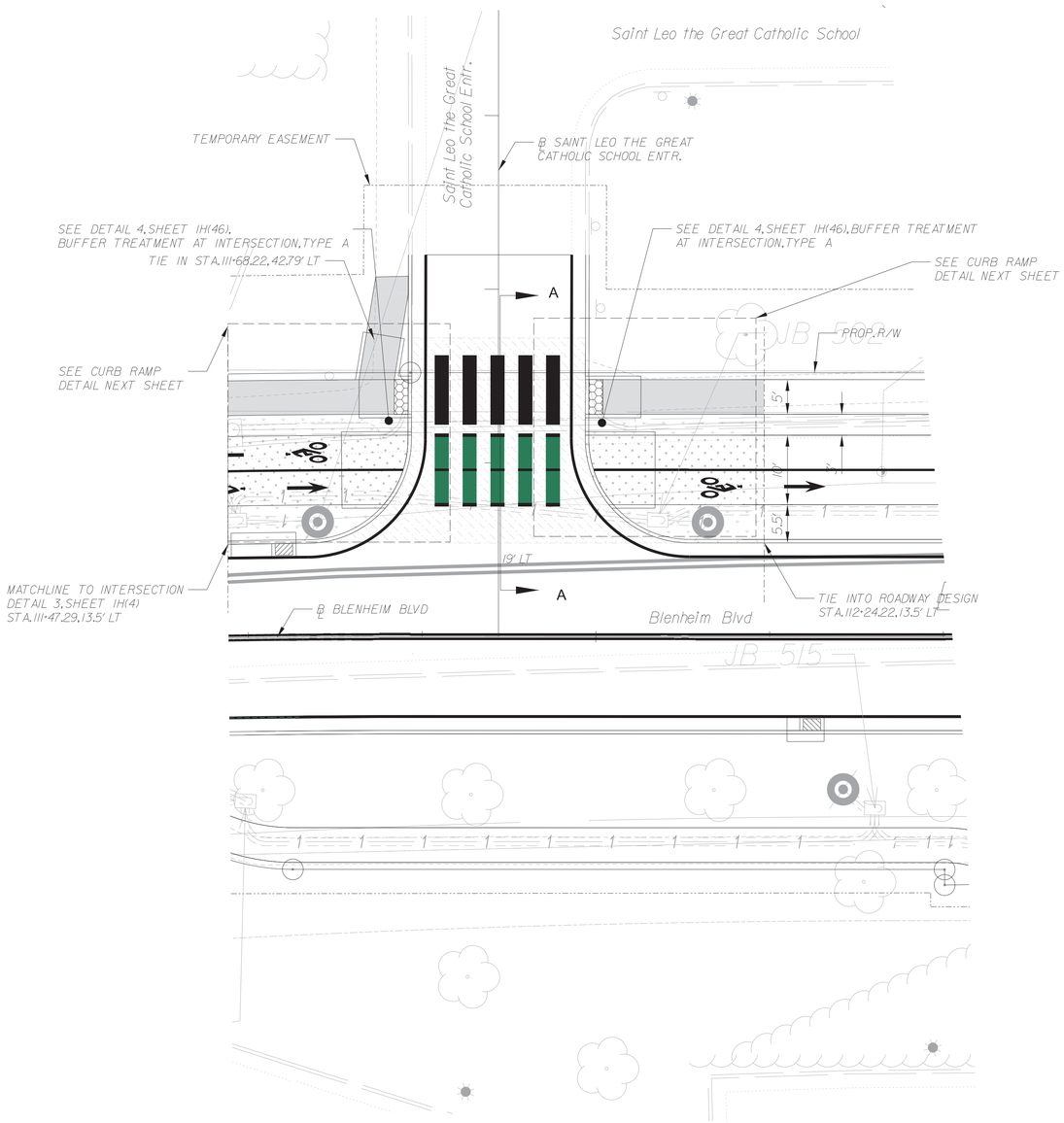
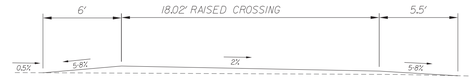
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN





SECTION A-A

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- MILL & OVERLAY FOR RAISED INTERSECTION
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
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PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(6)

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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(6)

INTERSECTION DETAIL 4

FINAL PLANS

1/9/2026
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Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

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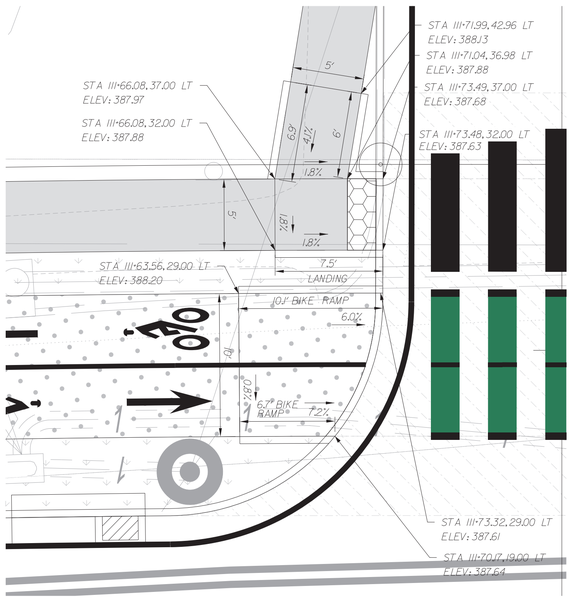
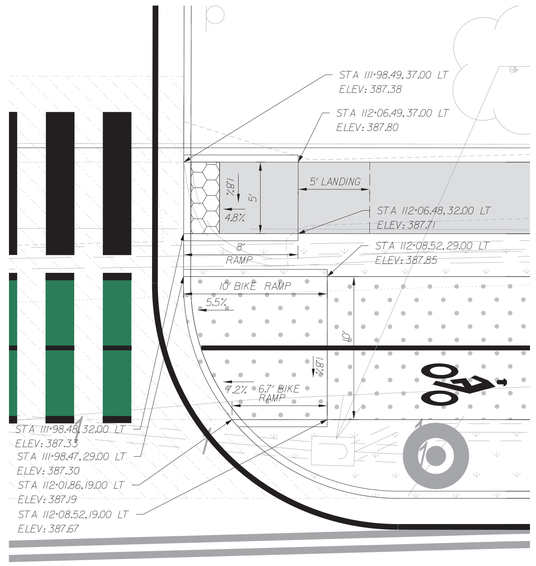
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RAMP DETAIL PLAN

SAINT LEO THE GREAT CATHOLIC SCHOOL ENTRANCE





BLENHEIM BLVD

CURB RAMP DETAIL 4

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- MILL & OVERLAY FOR RAISED INTERSECTION
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

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.	6228	U000-151-R94	1H(7)

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	1H(39) - 1H(47)

PROJECT	SHEET NO.
U000-151-R94	1H(7)

FINAL PLANS

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Plotted By: ClaySublett

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN

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COMMONWEALTH OF VIRGINIA
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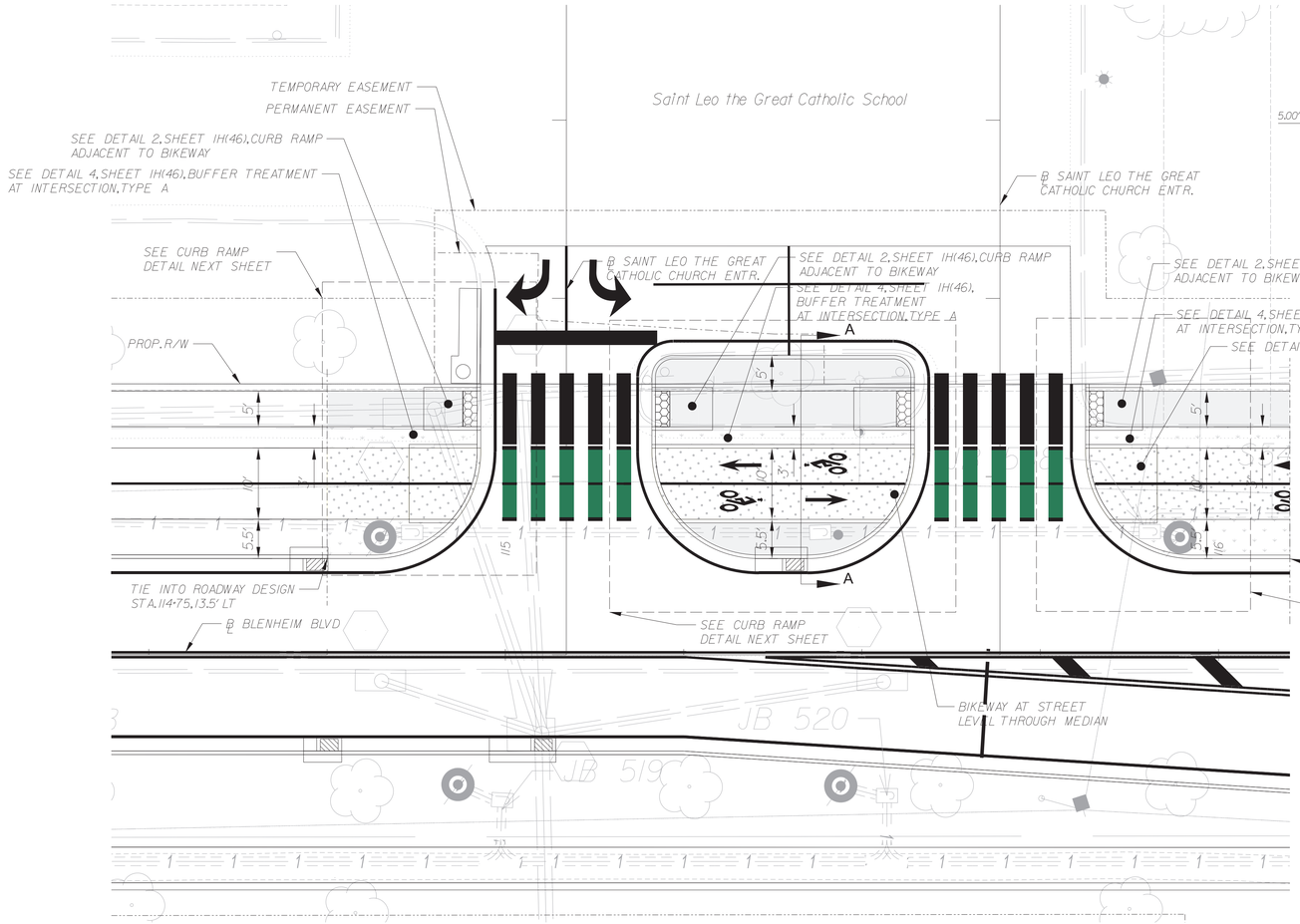
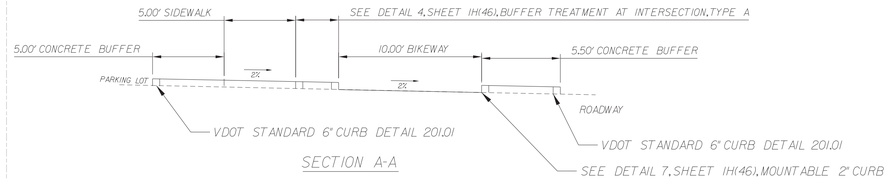
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(8)

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





SECTION A-A

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(8)

INTERSECTION DETAIL 5

FINAL PLANS

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
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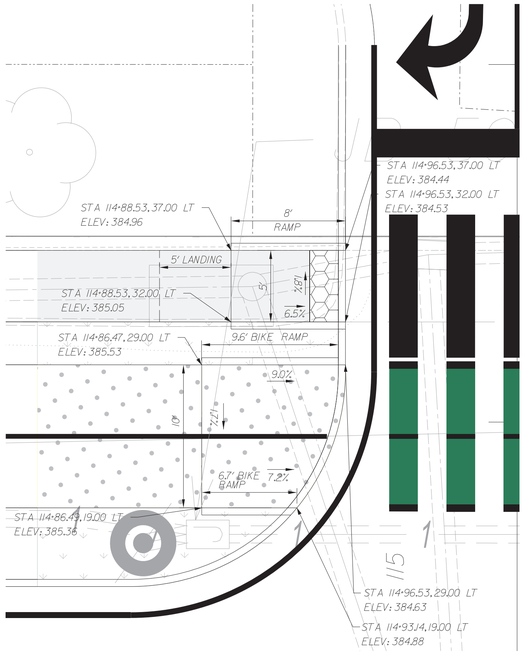
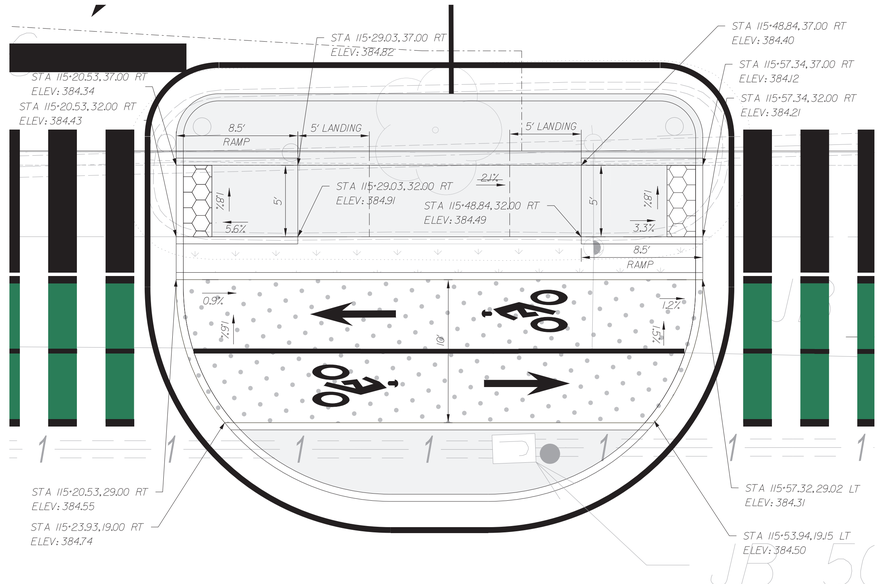
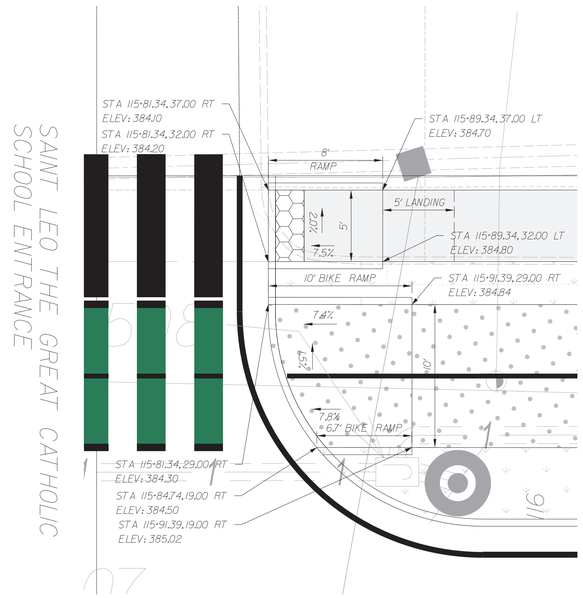
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RAMP DETAIL PLAN







CURB RAMP DETAIL 5

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(9)

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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(9)

FINAL PLANS

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
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FAX: 301.927.2800
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PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

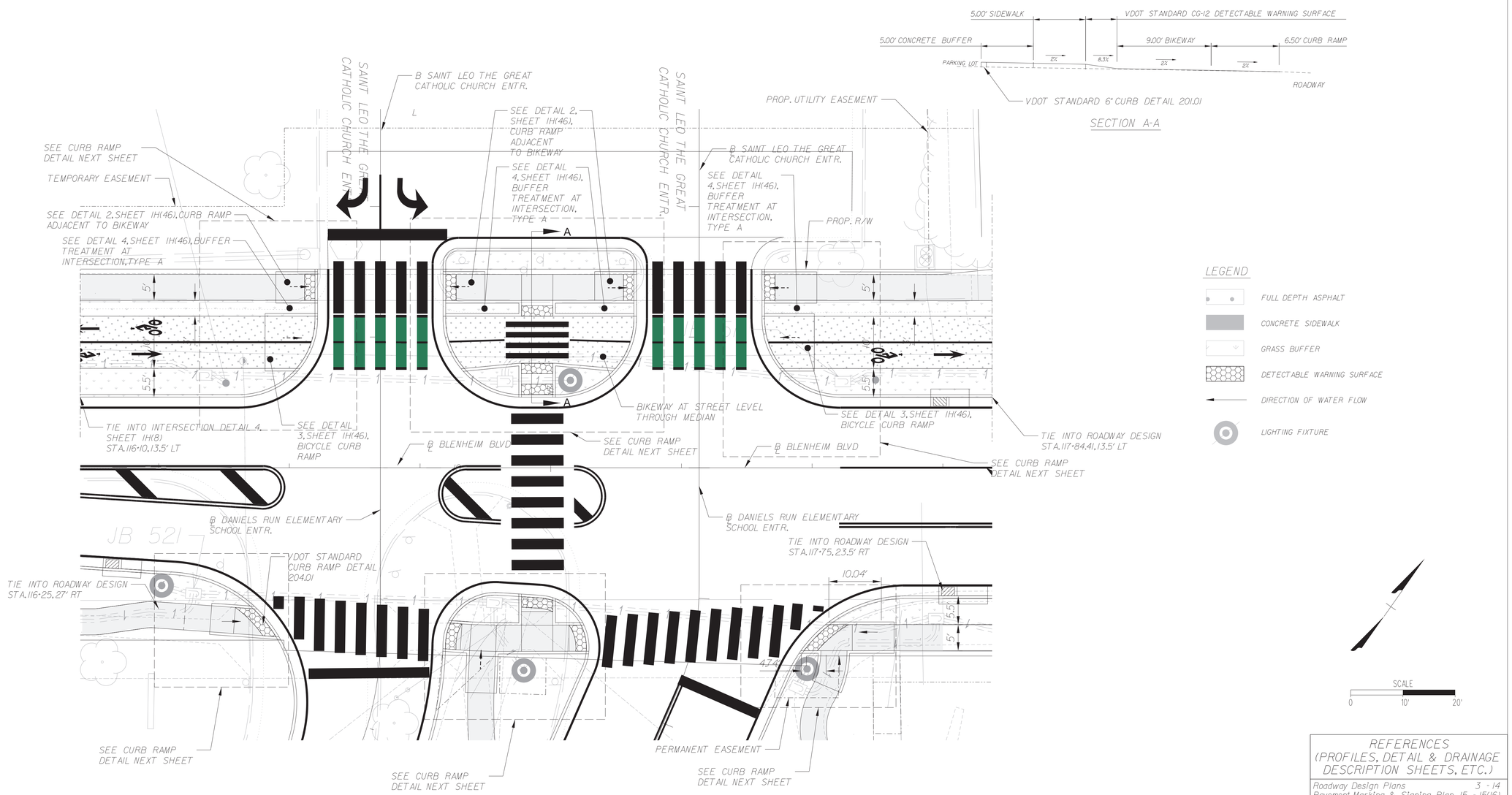
INTERSECTION DETAIL PLAN

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(10)

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



INTERSECTION DETAIL 6

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(10)

FINAL PLANS

1/9/2026
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Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
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CURB RAMP DETAIL PLAN

COMMONWEALTH OF VIRGINIA
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ONE INVENTA PLACE,
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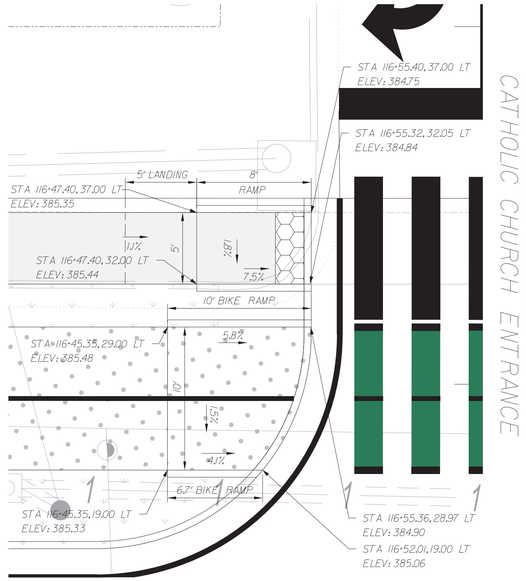
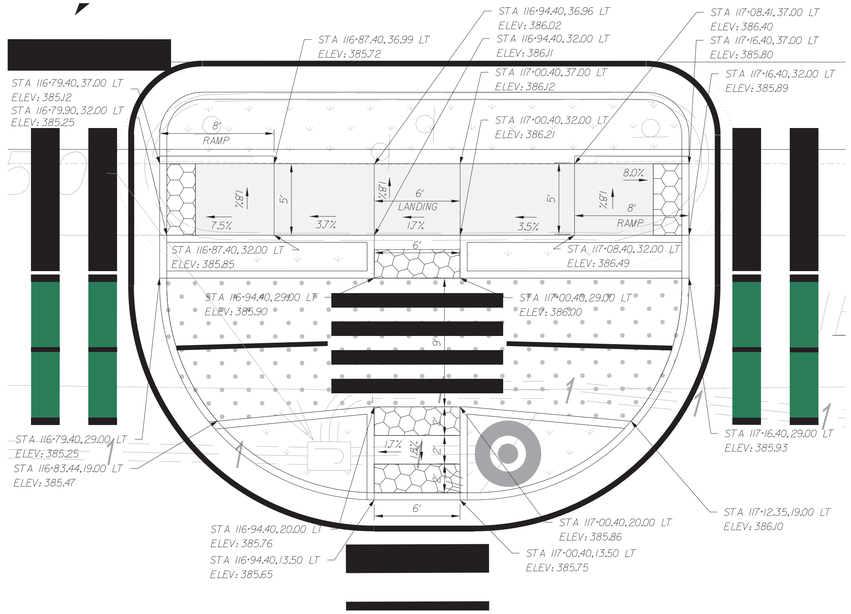
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(11)

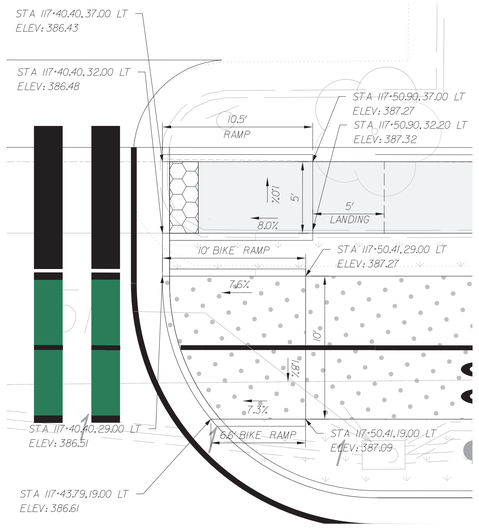
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



SAINT LEO THE GREAT CATHOLIC CHURCH ENTRANCE



SAINT LEO THE GREAT CATHOLIC CHURCH ENTRANCE

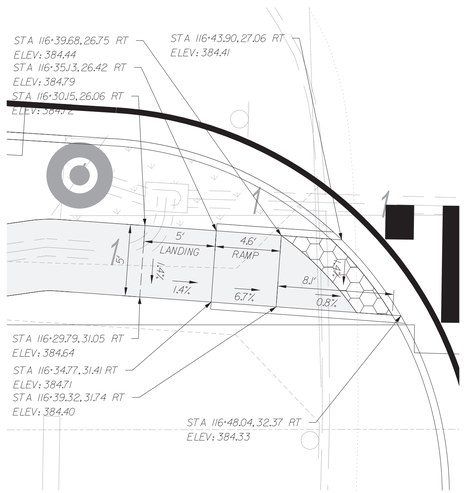


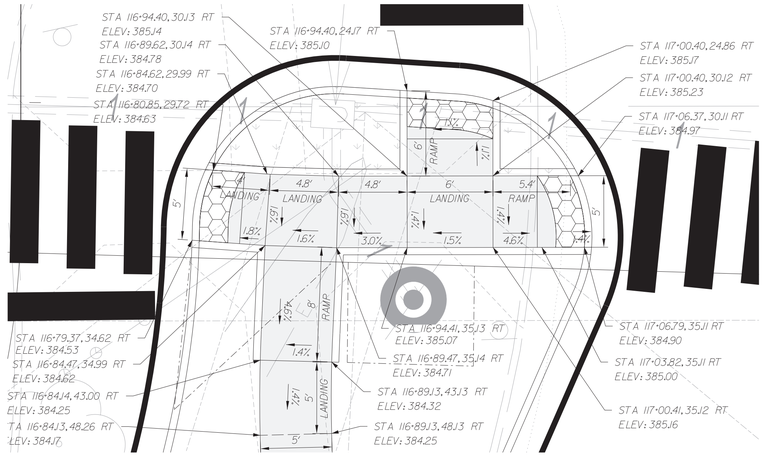
LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

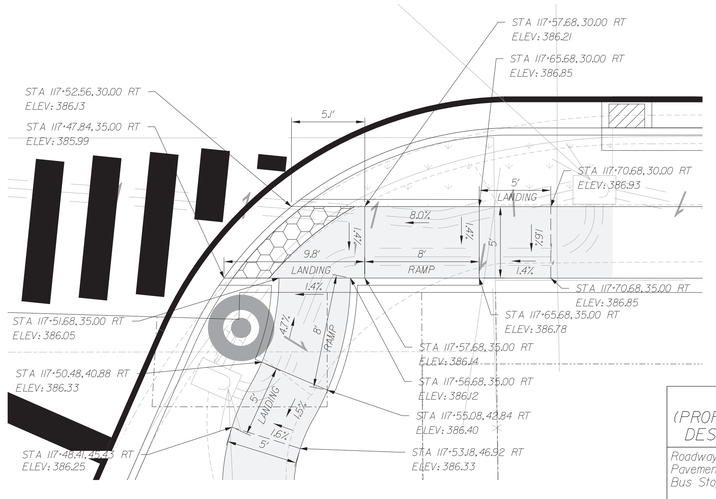
BLENHEIM BLVD

DANIELS RUN ELEMENTARY ENTRANCE





DANIELS RUN ELEMENTARY ENTRANCE



SCALE
0 5' 10'

CURB RAMP DETAIL 6

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(11)

FINAL PLANS

1/9/2026
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Plotted By: ClaySublett

INTERSECTION DETAIL PLAN

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

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PHONE: 301.927.1900
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COMMONWEALTH OF VIRGINIA
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Lic. No. 0402055387
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1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
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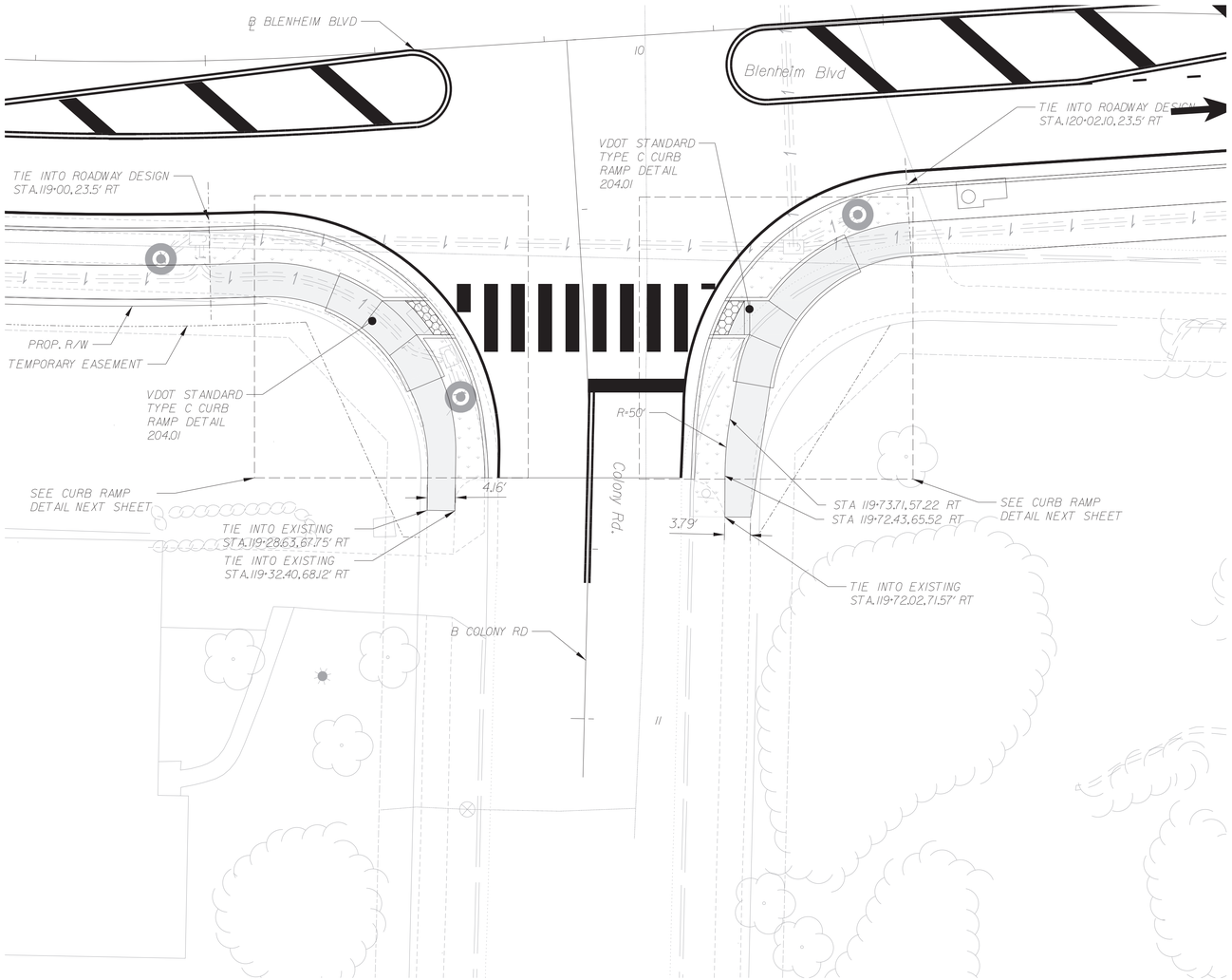
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(12)

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



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(12)

INTERSECTION DETAIL 7

FINAL PLANS

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RAMP DETAIL PLAN

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

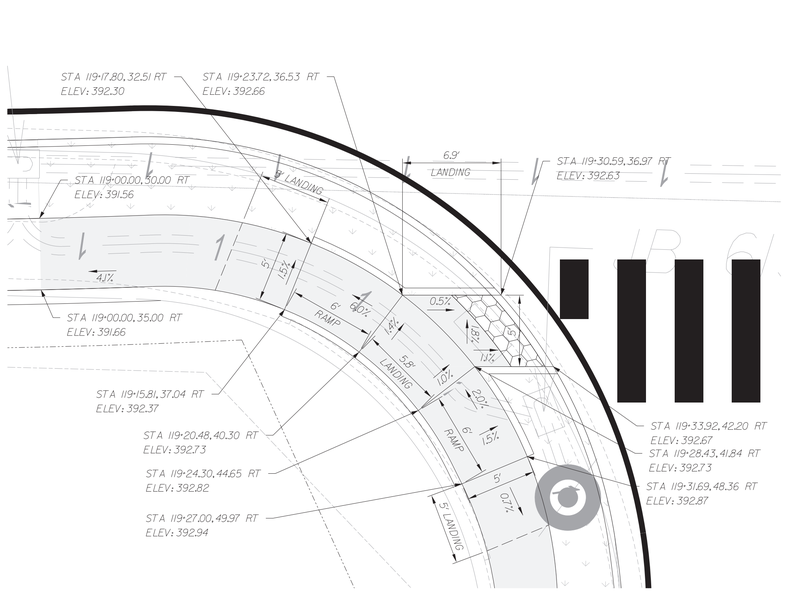
TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

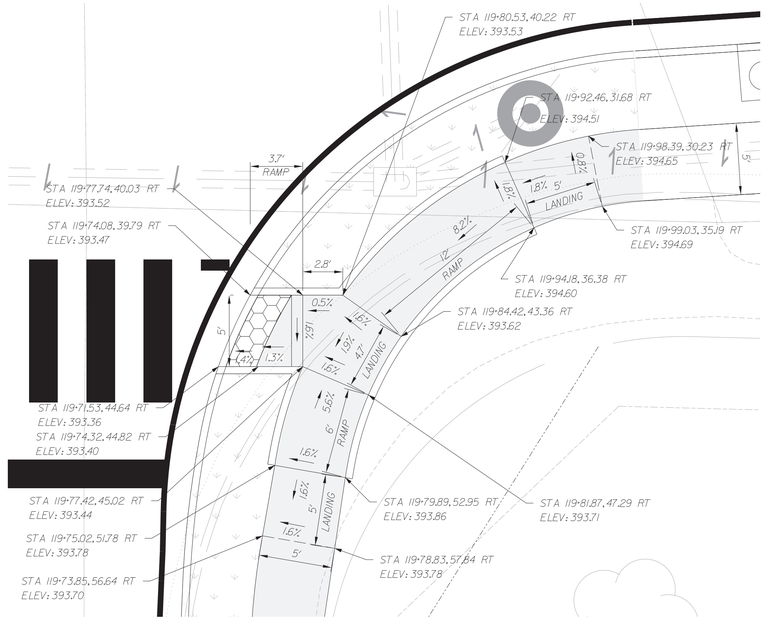
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(13)

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

BLENHEIM BLVD

COLONY RD





LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(13)

CURB RAMP DETAIL 7

FINAL PLANS

1/9/2026
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Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
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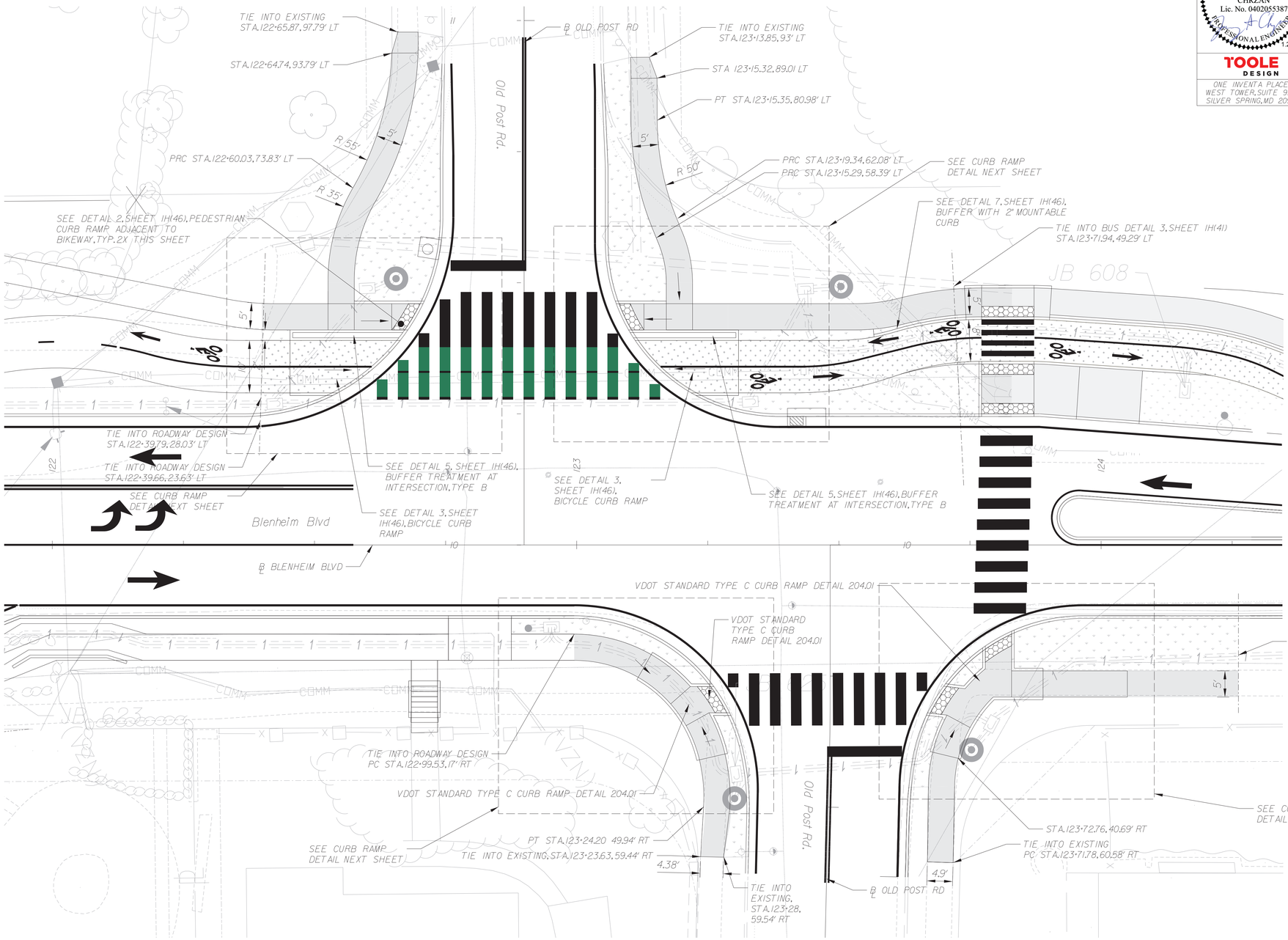
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(14)

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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(14)

INTERSECTION DETAIL 8

FINAL PLANS

1/9/2026
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Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
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SILVER SPRING, MD 20910
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PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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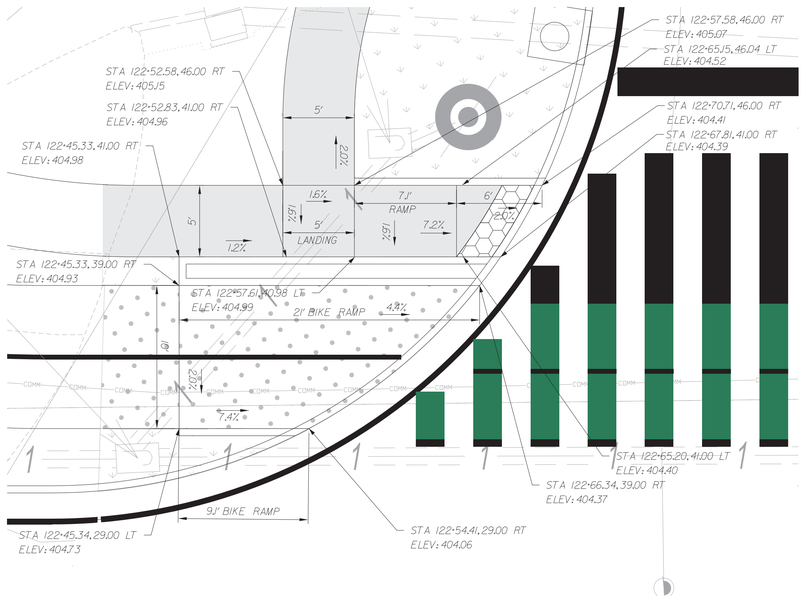
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RAMP DETAIL PLAN



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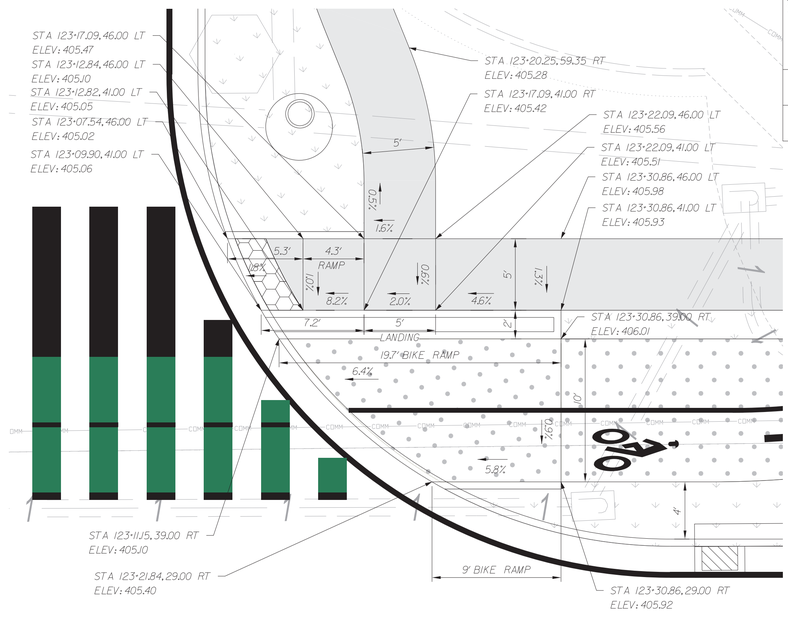

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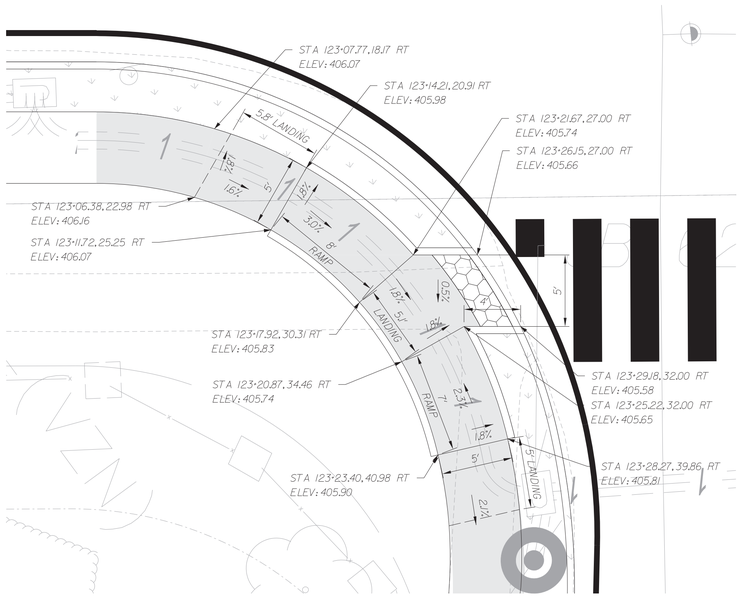

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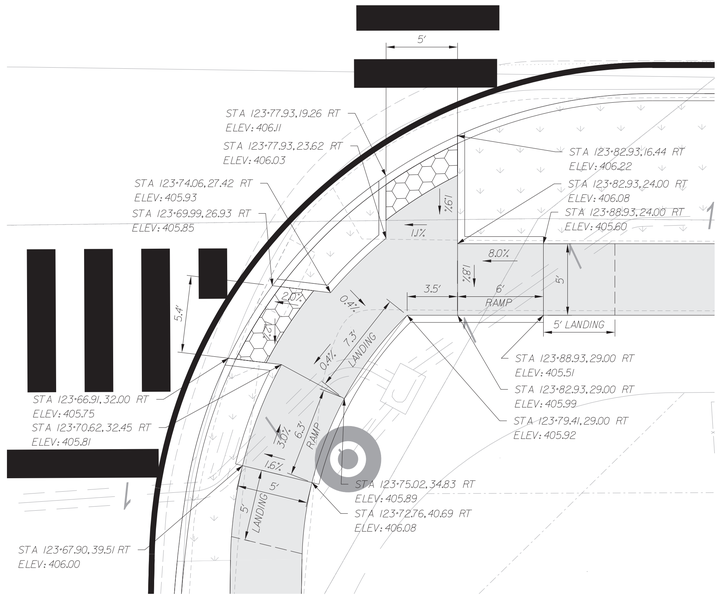

CURB RAMP DETAIL 8

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(15)

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

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(15)

FINAL PLANS

1/9/2026
3:20:00 PM

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Plotted By: ClaySublett

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN

TOOLE DESIGN
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COMMONWEALTH OF VIRGINIA
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1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
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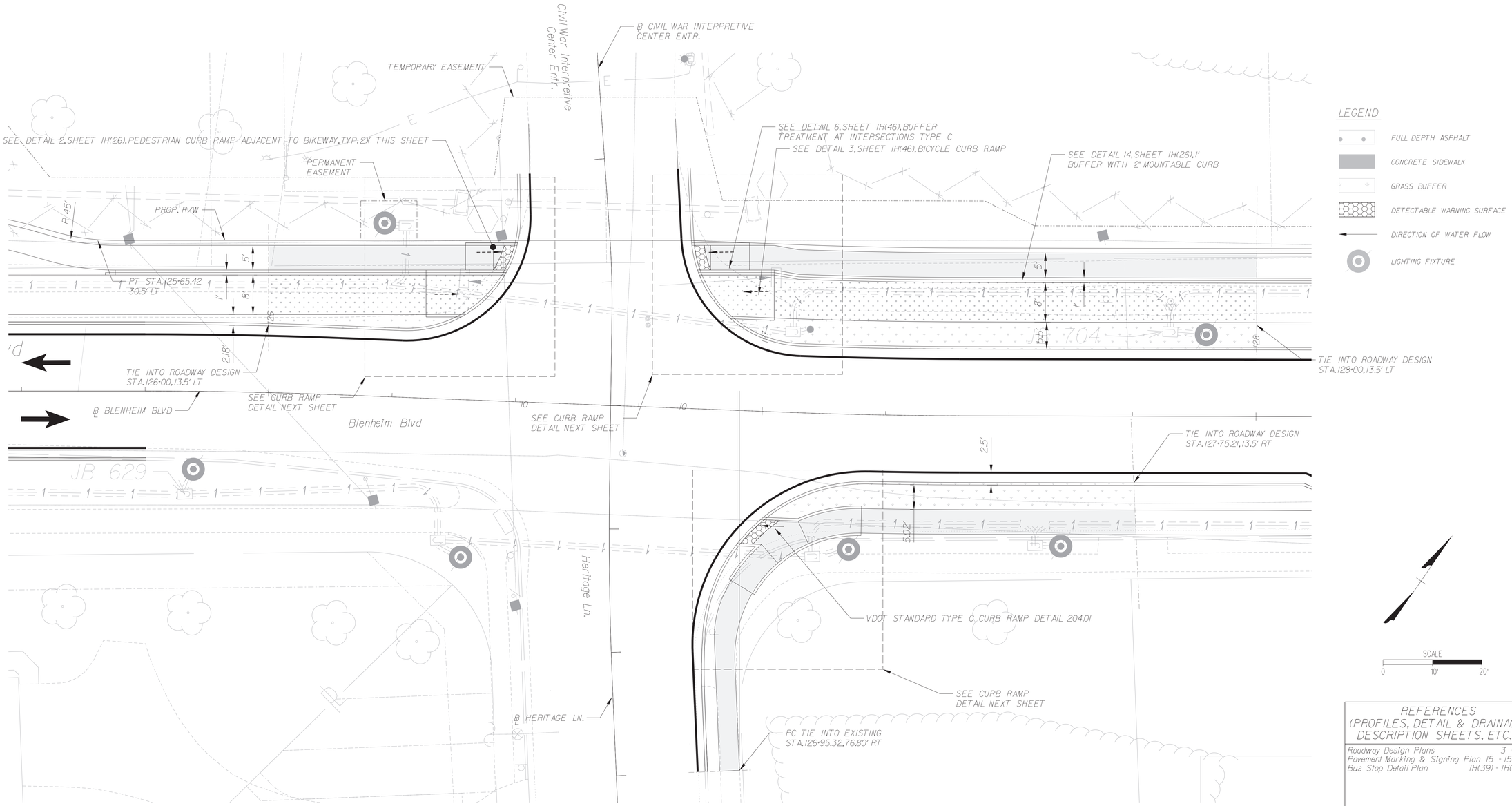
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(16)

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



INTERSECTION DETAIL 9

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(16)

FINAL PLANS

1/9/2026
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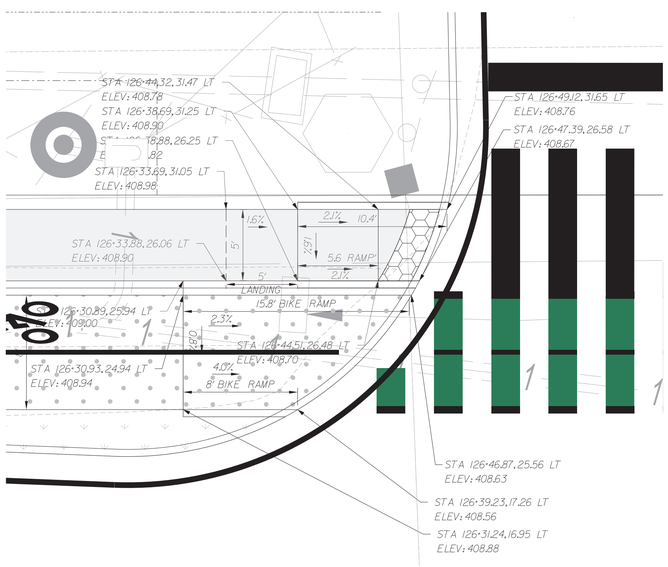
CURB RAMP DETAIL PLAN



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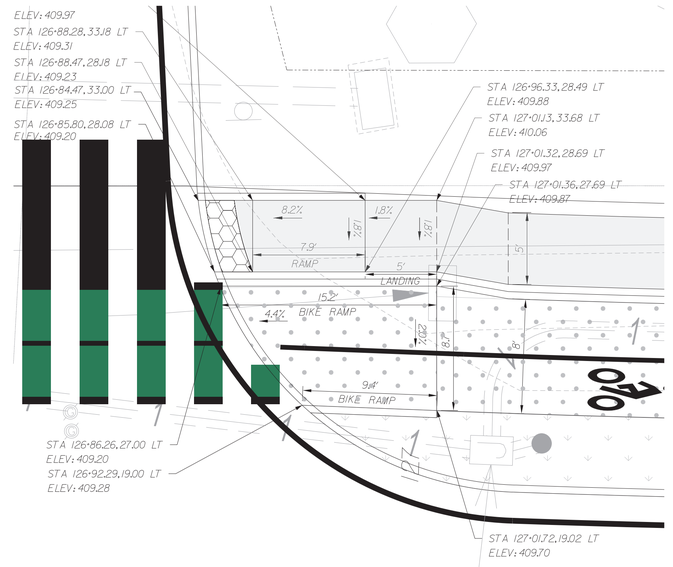
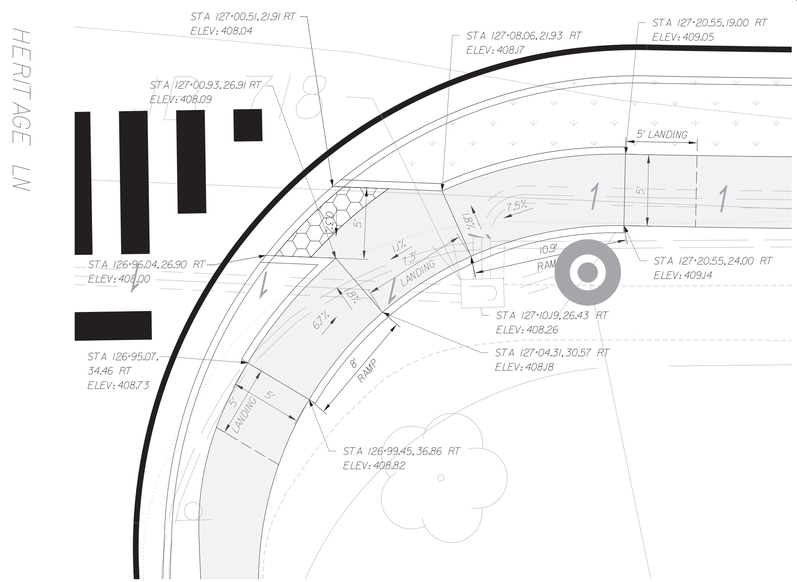


BLENHEIM BLVD

HERITAGE LN



CURB RAMP DETAIL 9

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(17)

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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(17)

FINAL PLANS

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
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FAX: 301.927.2800
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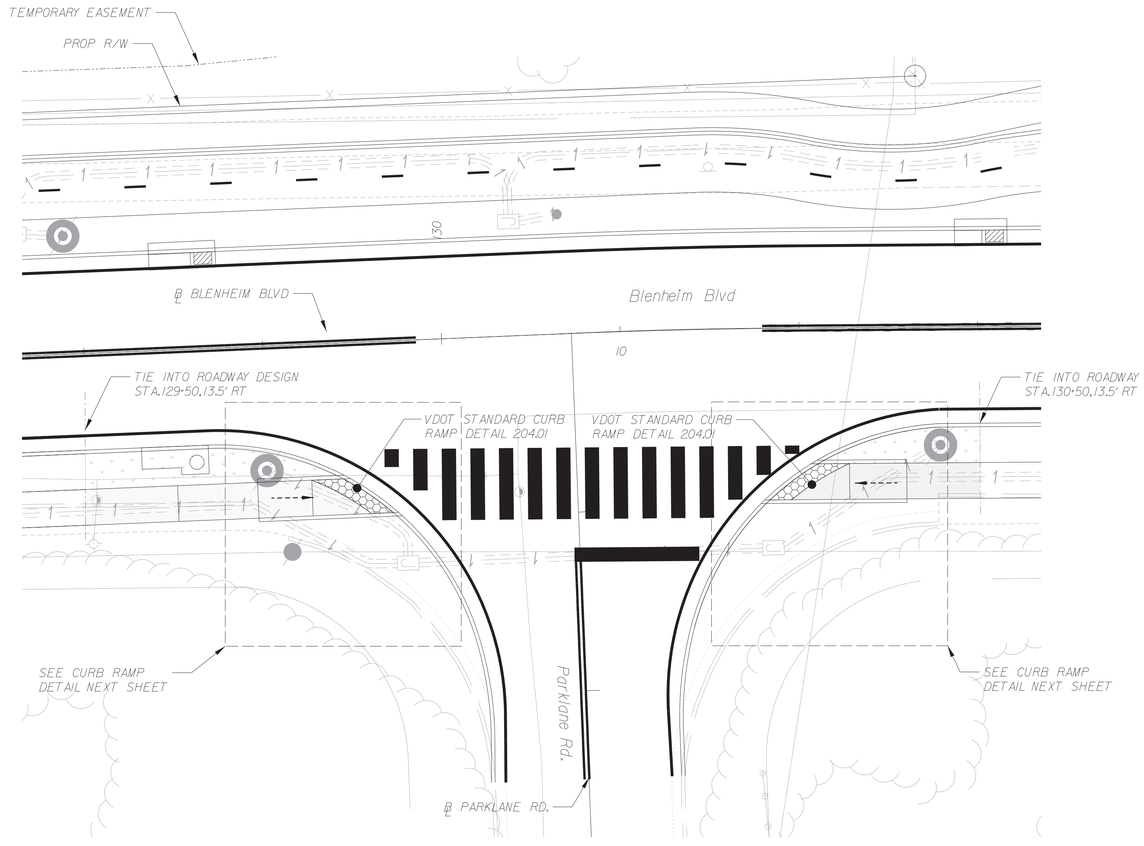
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26
TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	6228	U000-151-R94	IH(18)

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



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(18)

INTERSECTION DETAIL 10

FINAL PLANS

1/9/2026
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TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
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PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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CURB RAMP DETAIL PLAN

COMMONWEALTH OF VIRGINIA
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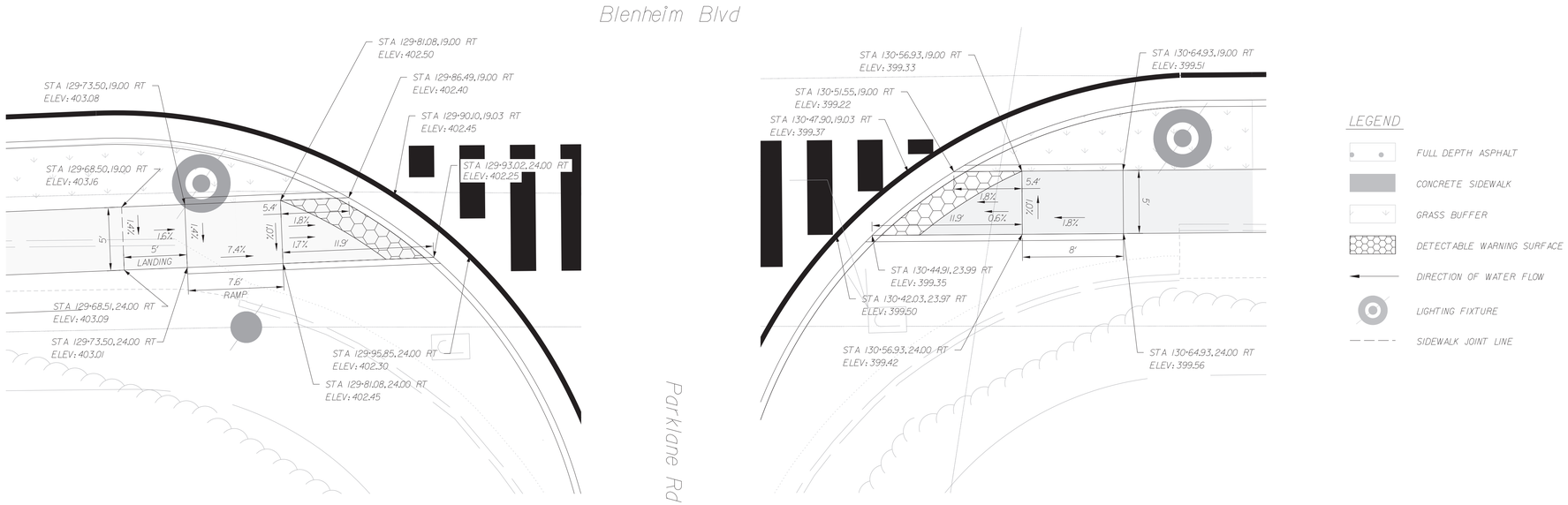
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
	VA.	6228	U000-151-R94	IH(19)

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



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

CURB RAMP DETAIL 10

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(6)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(19)

FINAL PLANS

1/15/2026
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WEST TOWER, SUITE 950
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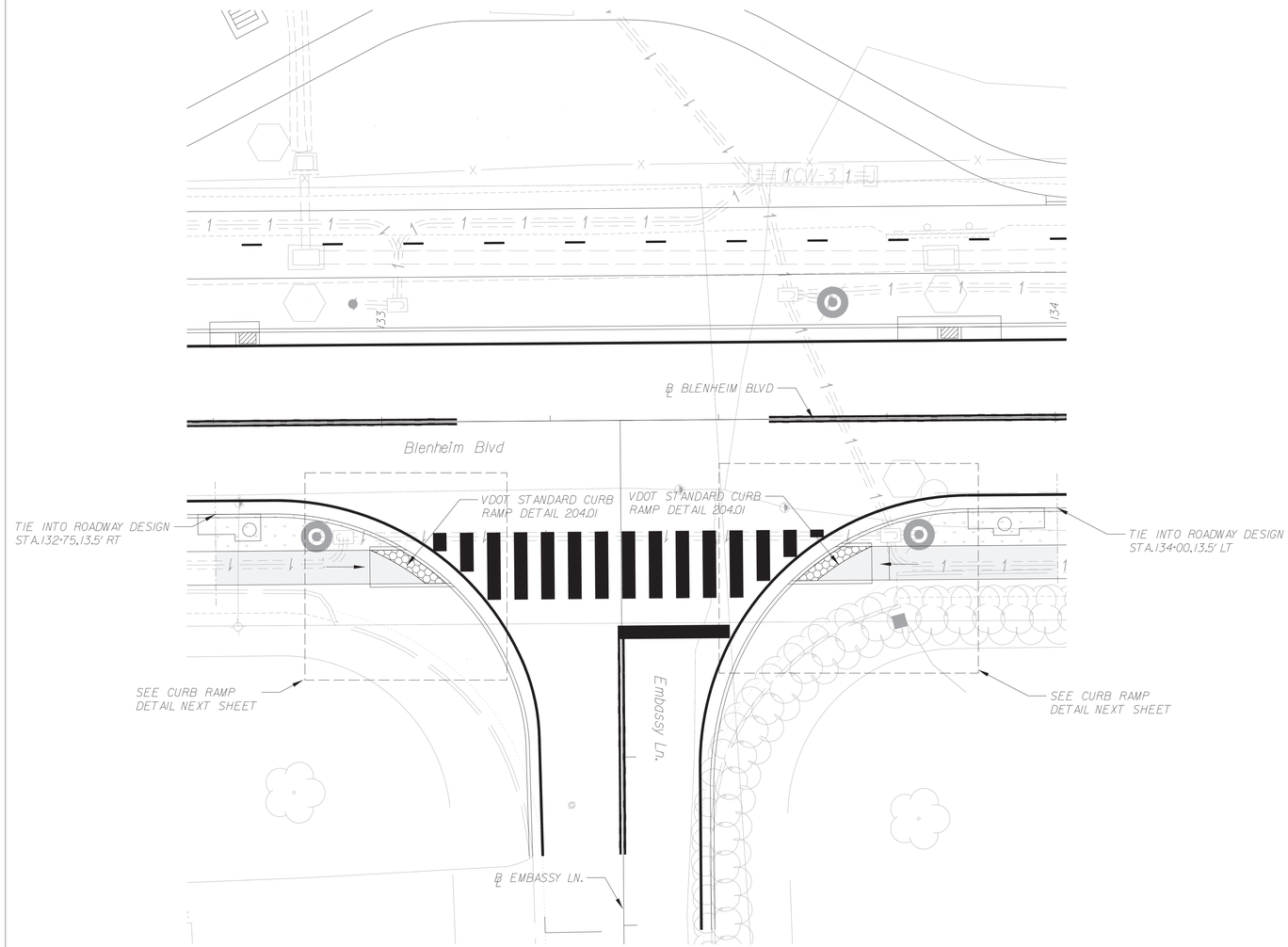
INTERSECTION DETAIL PLAN



INTERSECTION DETAIL II

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(20)

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

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(20)

FINAL PLANS

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
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FAX: 301.927.2800
www.tooledesign.com

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Plotted By: ClaySublett

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RAMP DETAIL PLAN

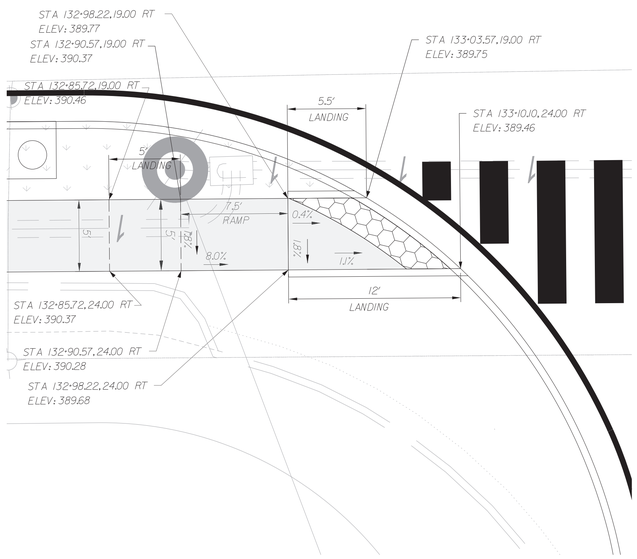
COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

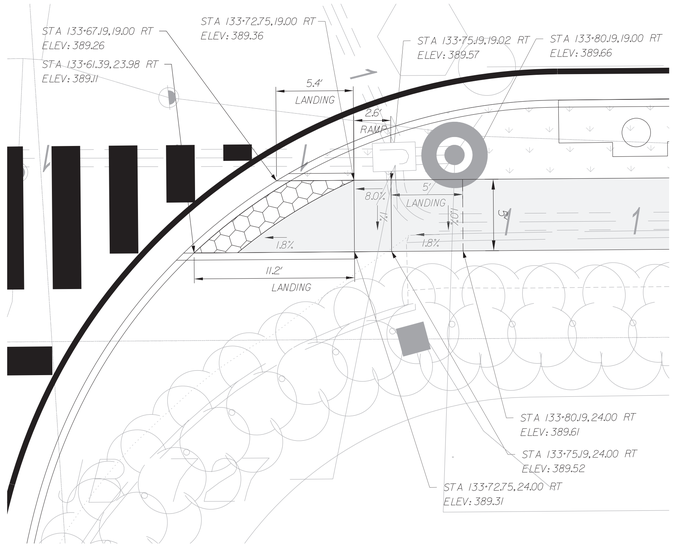
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	1H(21)

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

BLENHEIM BLVD



EMBASSY LN



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

CURB RAMP DETAIL II

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	1H(39) - 1H(47)

PROJECT	SHEET NO.
U000-151-R94	1H(21)

FINAL PLANS

1/9/2026
3:25:18 PM

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Plotted By: ClaySublett

TOOLE DESIGN
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INTERSECTION DETAIL PLAN

COMMONWEALTH OF VIRGINIA
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TOOLE DESIGN
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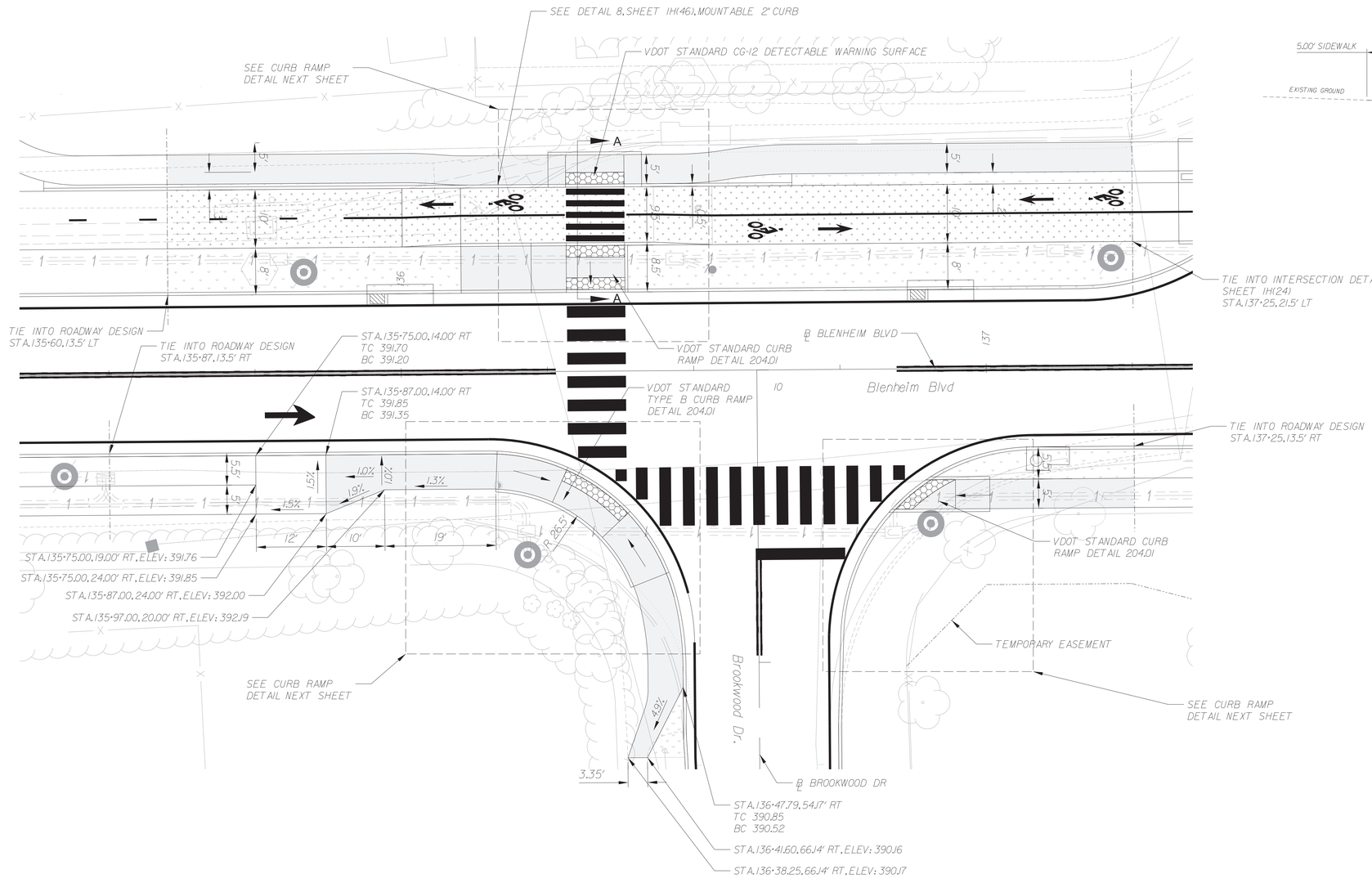
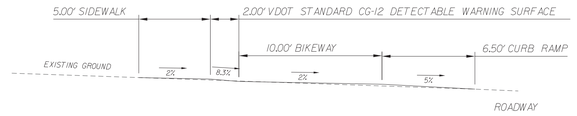
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(22)

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





SECTION A-A

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

INTERSECTION DETAIL 12

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

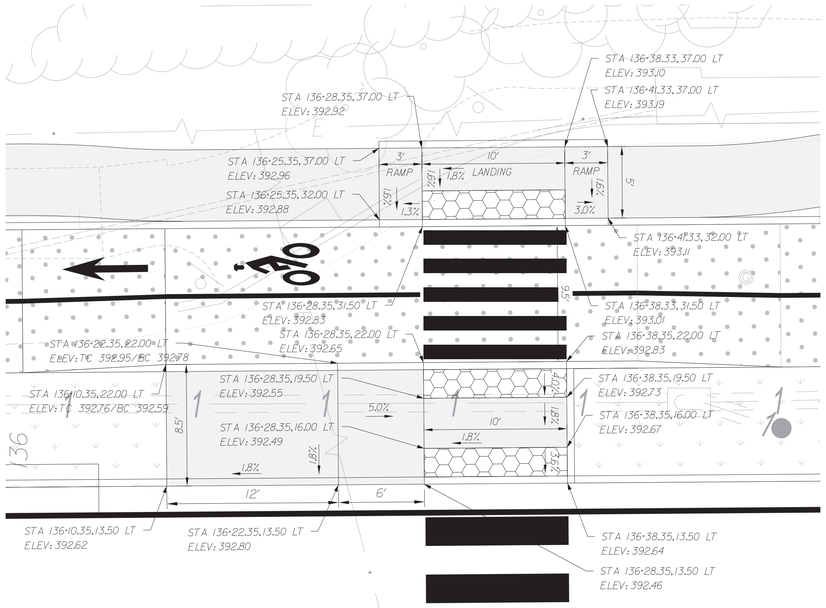
Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(22)

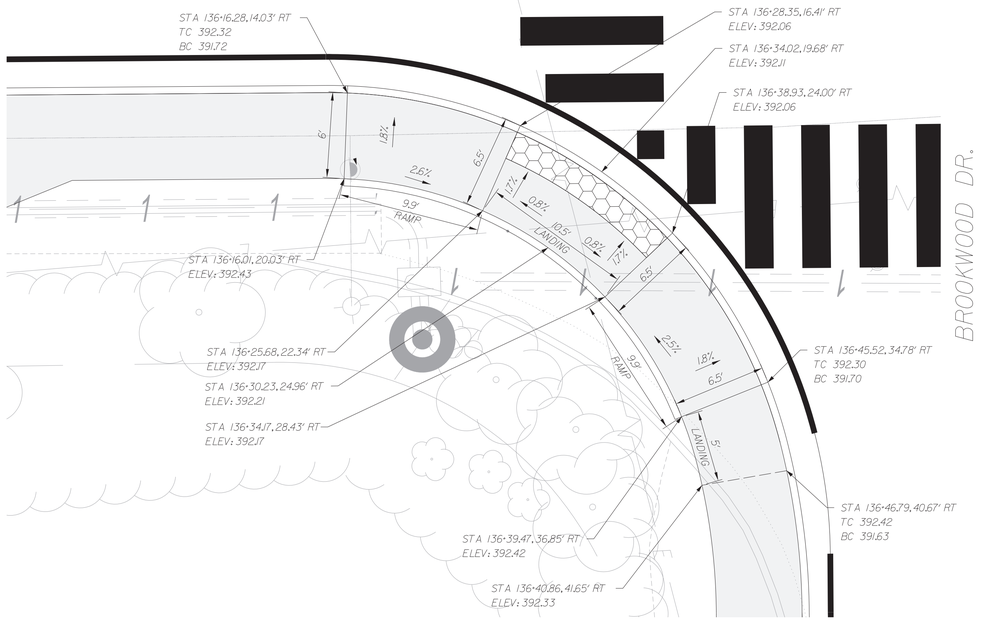
FINAL PLANS

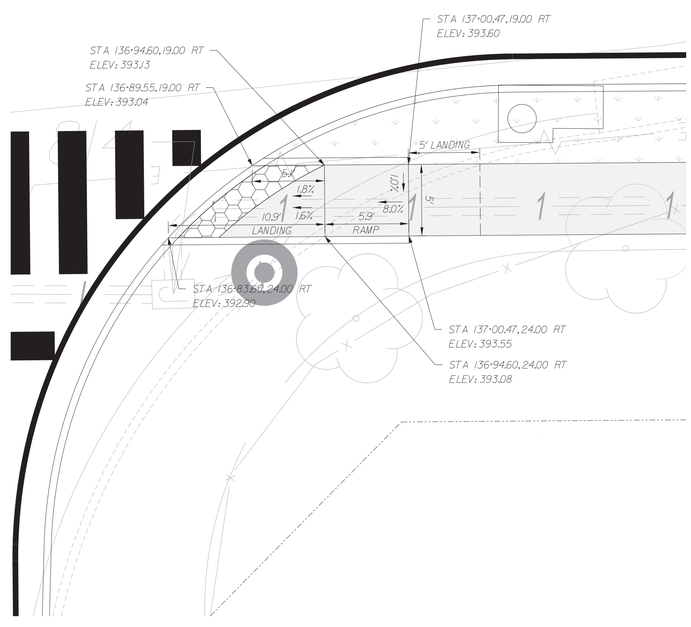
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RAMP DETAIL PLAN



BLENHEIM BLVD





CURB RAMP DETAIL 12

SECTION A-A

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(23)

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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(23)

FINAL PLANS

TOOLE DESIGN
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WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
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PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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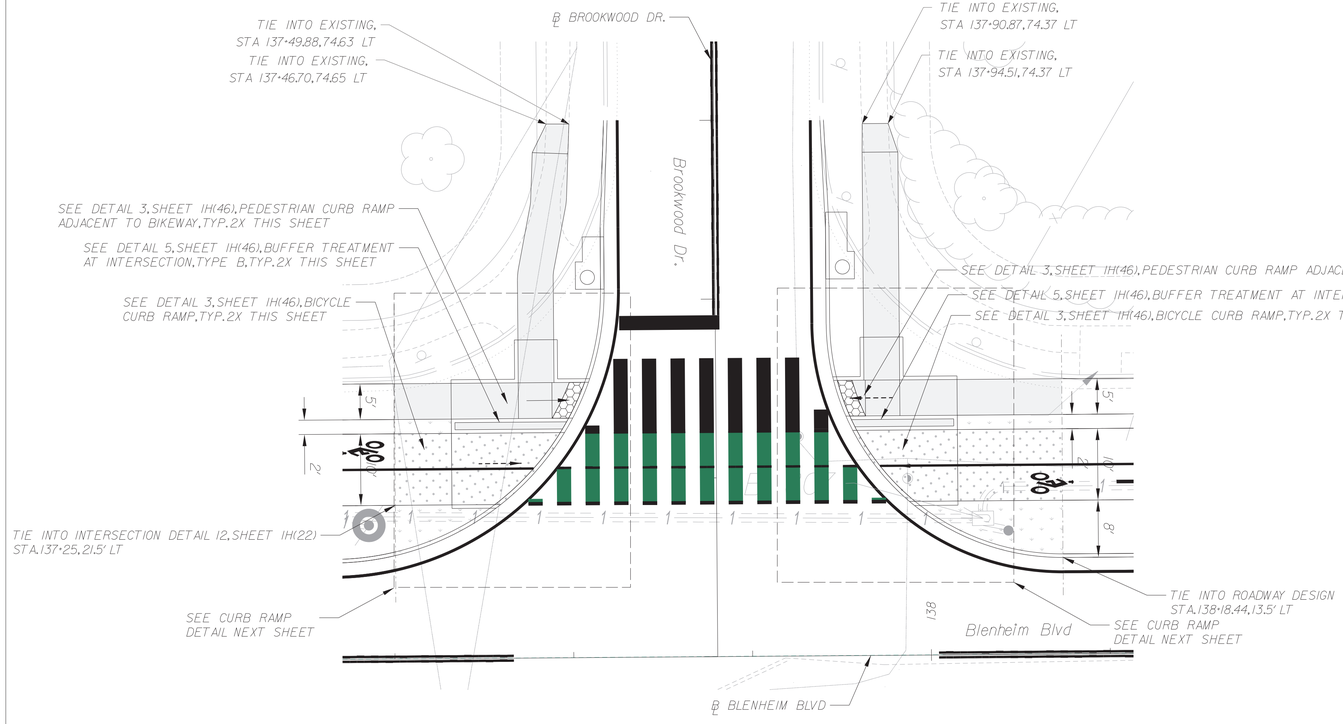
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(24)

COMMONWEALTH OF VIRGINIA
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1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(24)

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

INTERSECTION DETAIL 13

FINAL PLANS

TOOLE DESIGN
ONE INVENTA PLACE,
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SILVER SPRING, MD 20910
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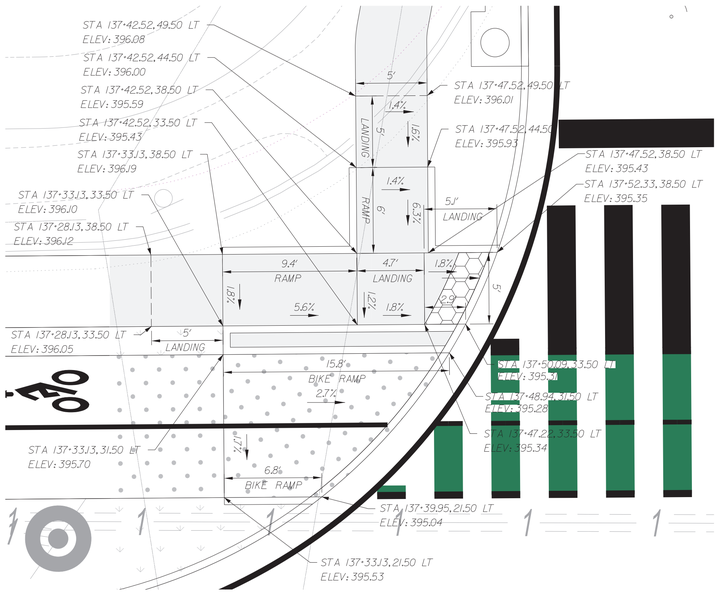
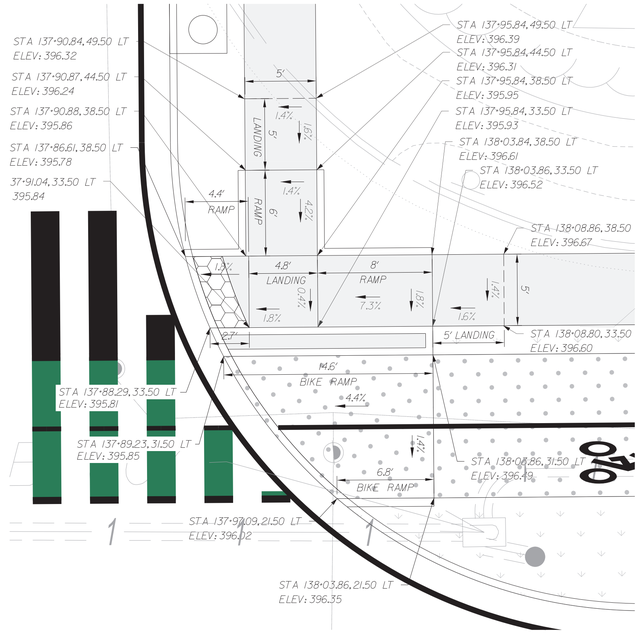
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RAMP DETAIL PLAN





BROOKWOOD DR.

BLENHEIM BLVD

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

CURB RAMP DETAIL 13

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
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1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(25)

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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(25)

FINAL PLANS

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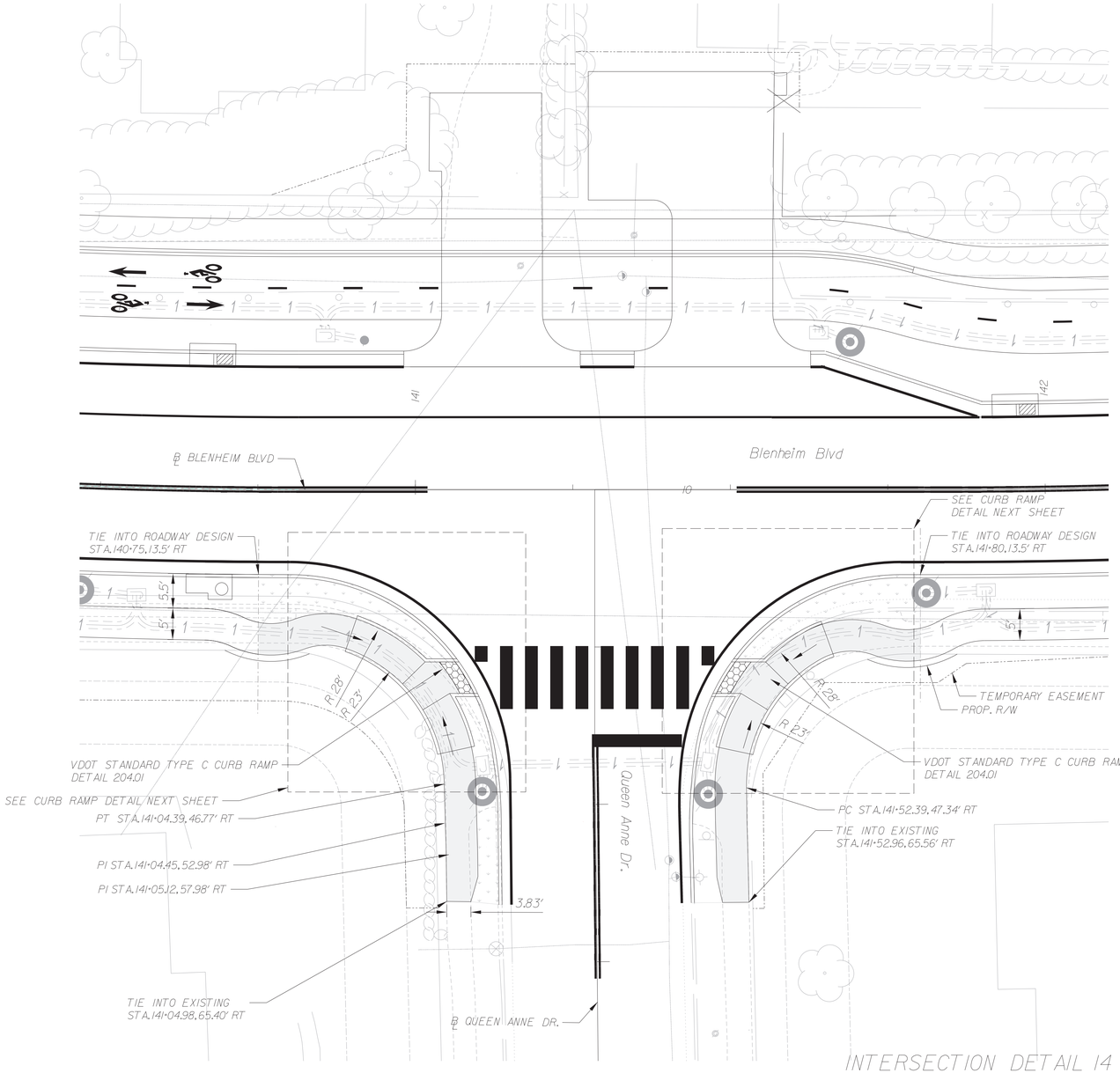
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN



INTERSECTION DETAIL 14

COMMONWEALTH OF VIRGINIA
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PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(26)

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

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 151(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(26)

FINAL PLANS

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PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RAMP DETAIL PLAN

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
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1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
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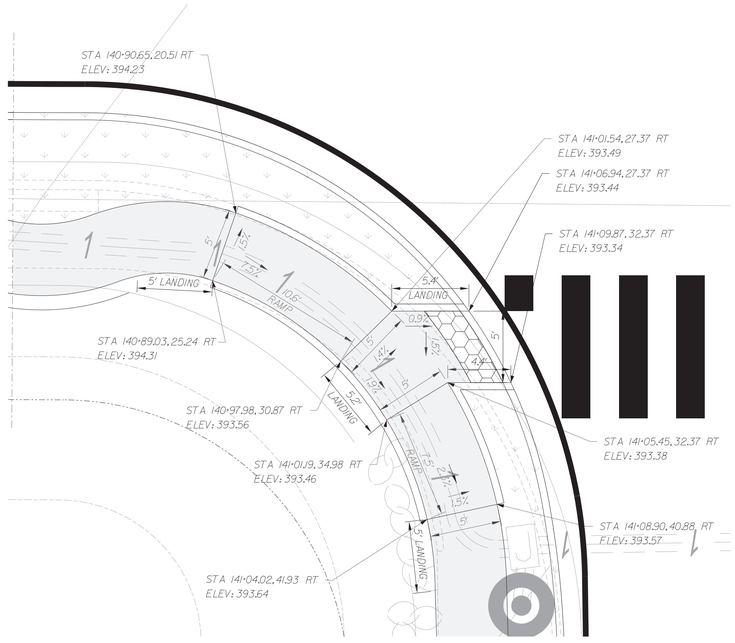
SILVER SPRING, MD 20910

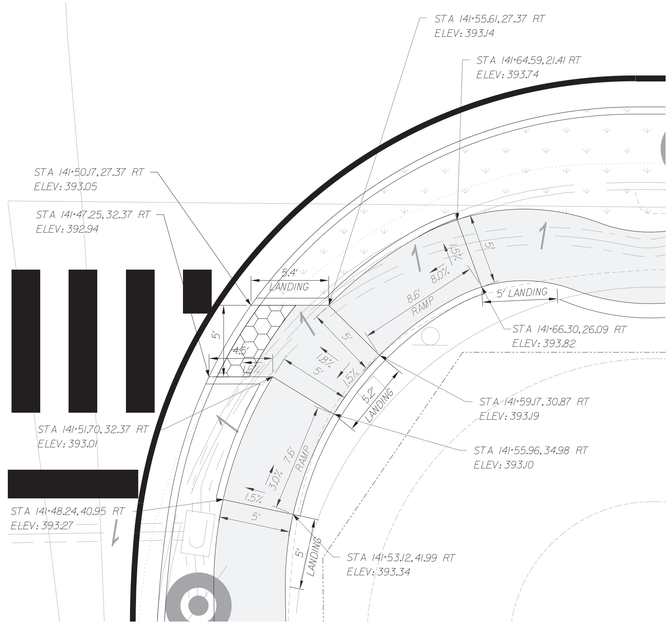
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(27)

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

BLENHEIM BLVD



QUEEN ANNE DR.



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan 15 - 151(16)	
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(27)

CURB RAMP DETAIL 14

FINAL PLANS

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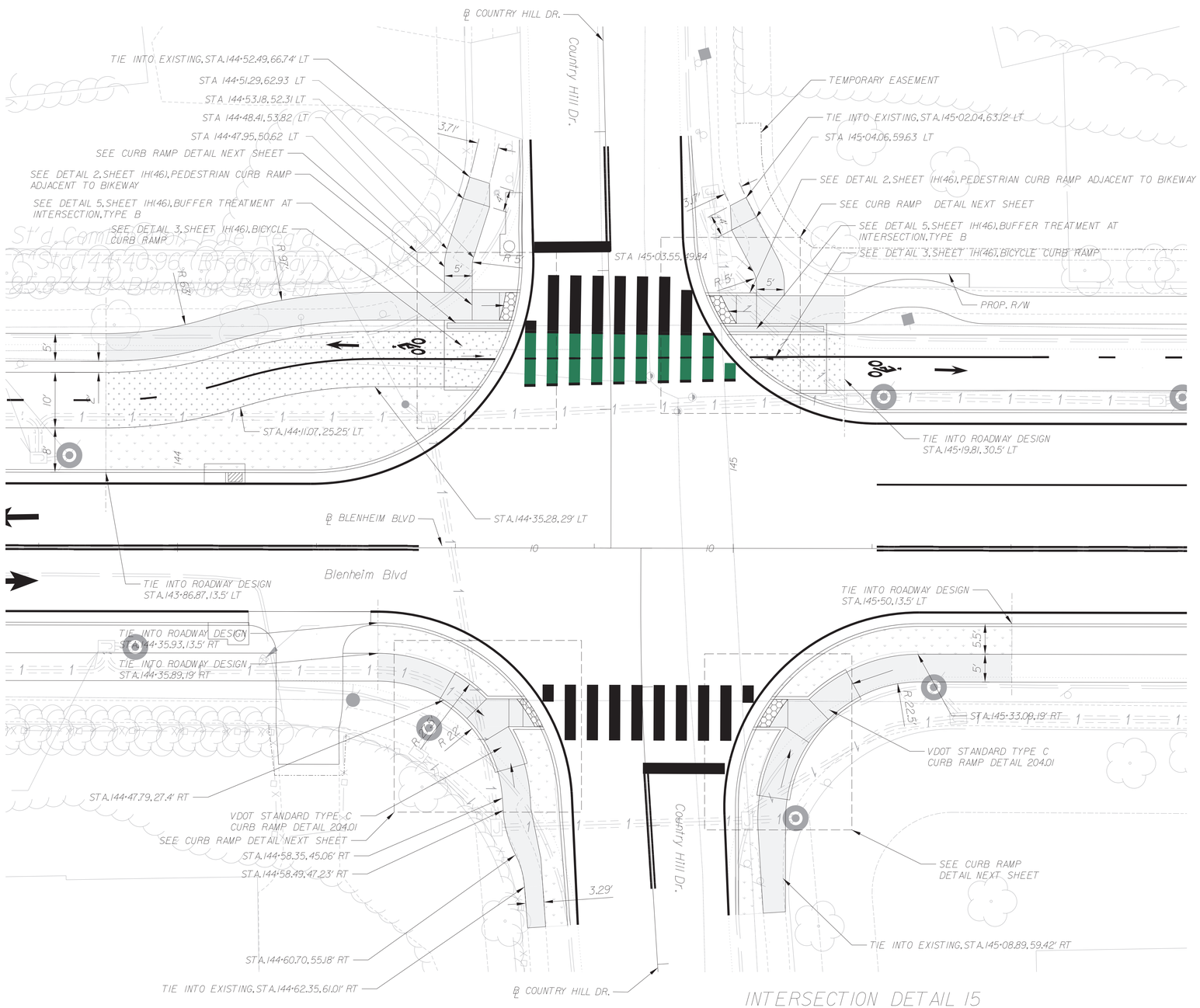
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN



INTERSECTION DETAIL 15

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(28)

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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

	PROJECT	SHEET NO.
	U000-151-R94	IH(28)

FINAL PLANS

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TOOLE DESIGN
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WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
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FAX: 301.927.2800
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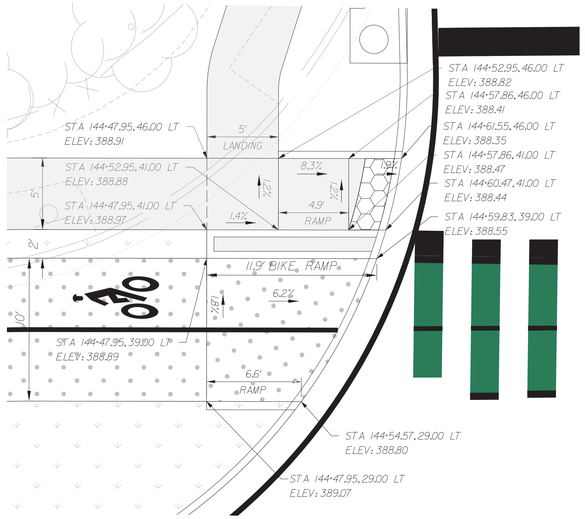
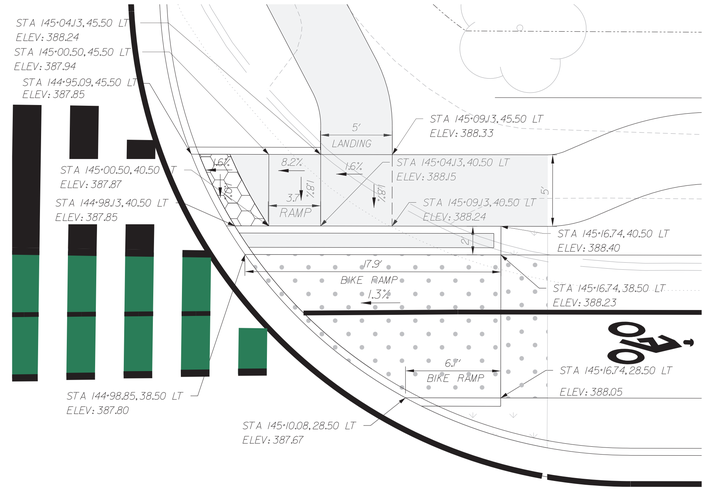
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

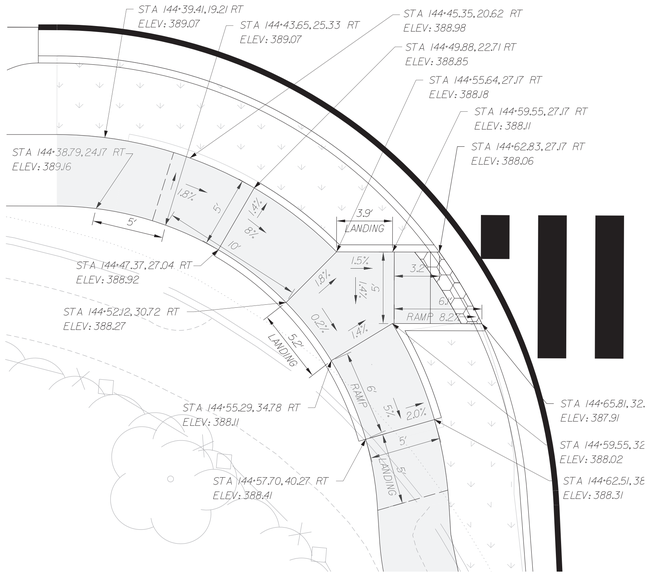
CURB RAMP DETAIL PLAN

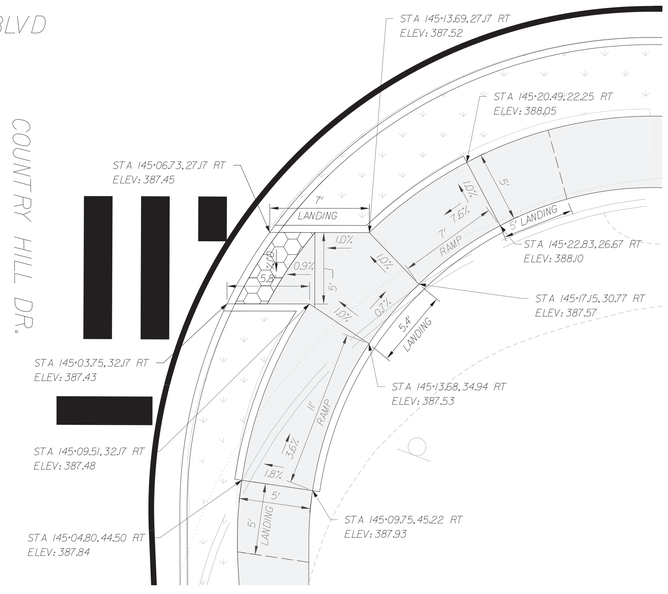




COUNTRY HILL DR.

BLENHEIM BLVD





COUNTRY HILL DR.

CURB RAMP DETAIL 15

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan 15 - 15(16)	
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(29)

COMMONWEALTH OF VIRGINIA
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TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(29)

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

FINAL PLANS

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WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
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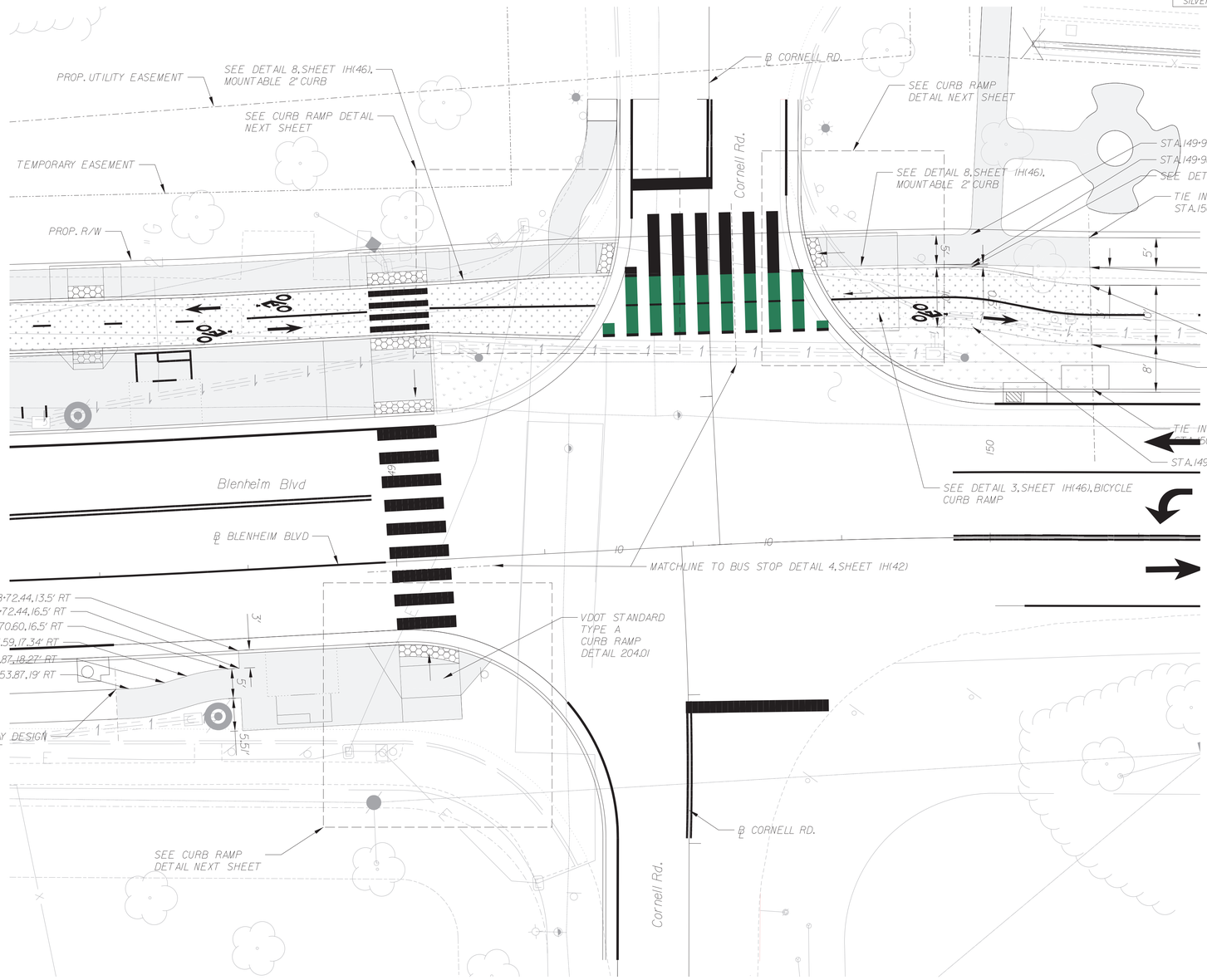
INTERSECTION DETAIL PLAN

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(30)

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



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

INTERSECTION DETAIL 16

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(26)

	PROJECT	SHEET NO.
	U000-151-R94	IH(30)

FINAL PLANS

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Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
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FAX: 301.927.2800
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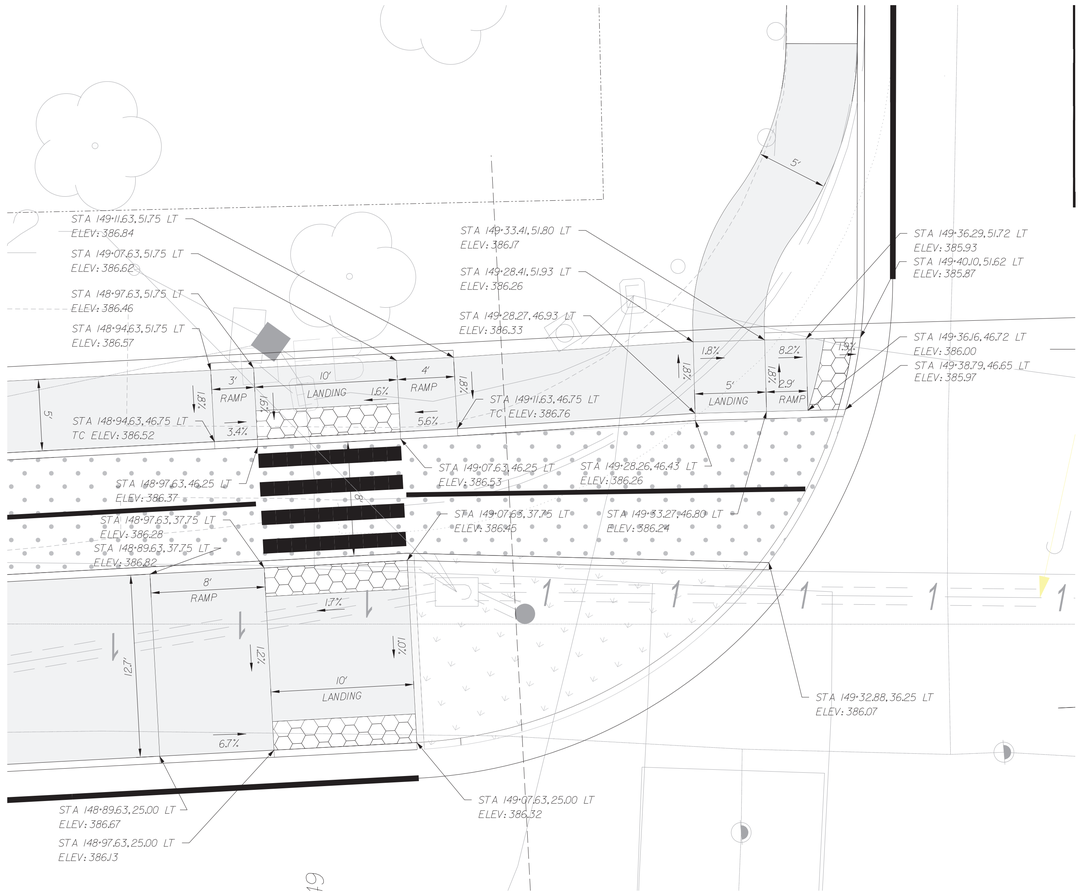
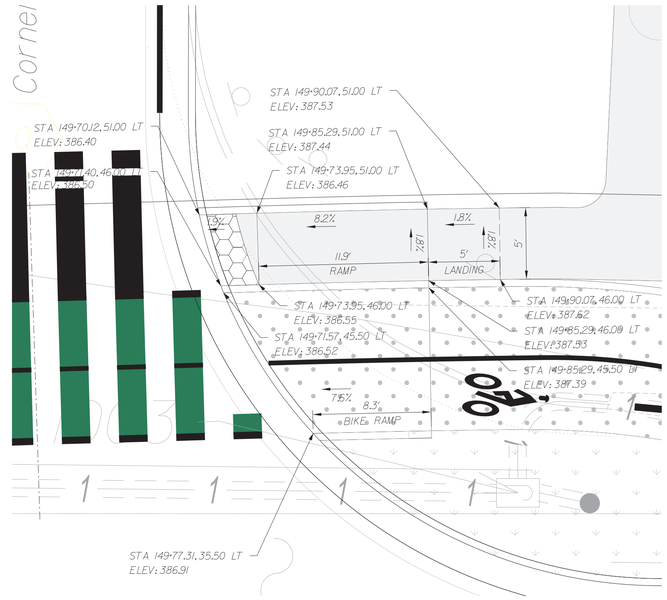
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

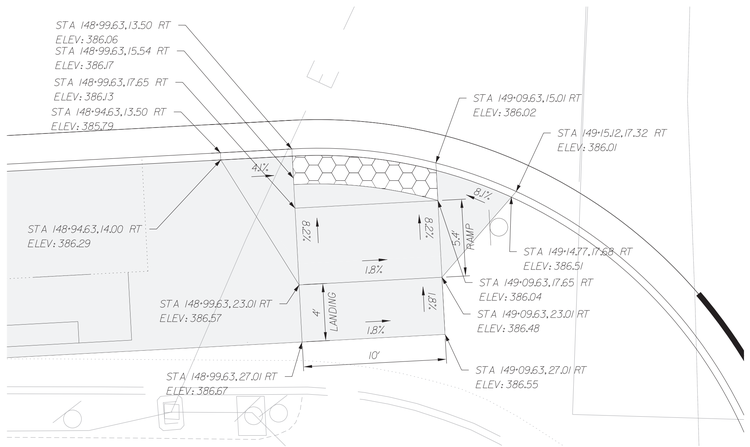
CURB RAMP DETAIL PLAN





CORNELL ROAD

BLENHEIM BOULEVARD



CURB RAMP DETAIL 16

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(31)

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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(26)

PROJECT	SHEET NO.
U000-151-R94	IH(31)

FINAL PLANS

1/9/2026
3:28:43 PM

d107013_017(16).dgn
Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

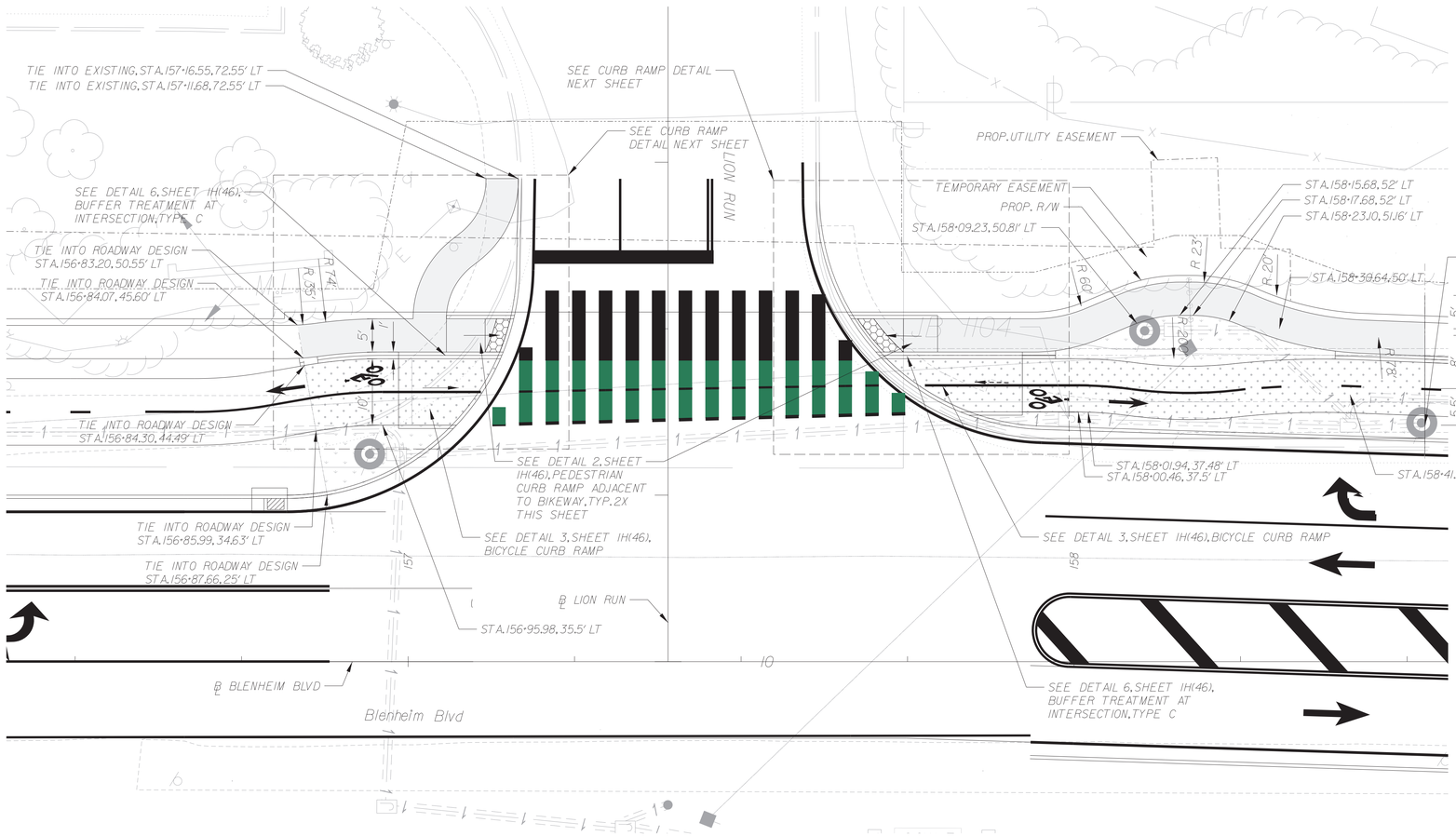
INTERSECTION DETAIL PLAN

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(32)

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



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(39) - IH(26)

	PROJECT	SHEET NO.
	U000-151-R94	IH(32)

INTERSECTION DETAIL 17

FINAL PLANS

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
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www.tooledesign.com

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d107013_017(16)_RAMPS.dgn
Plotted By: ClaySublett

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

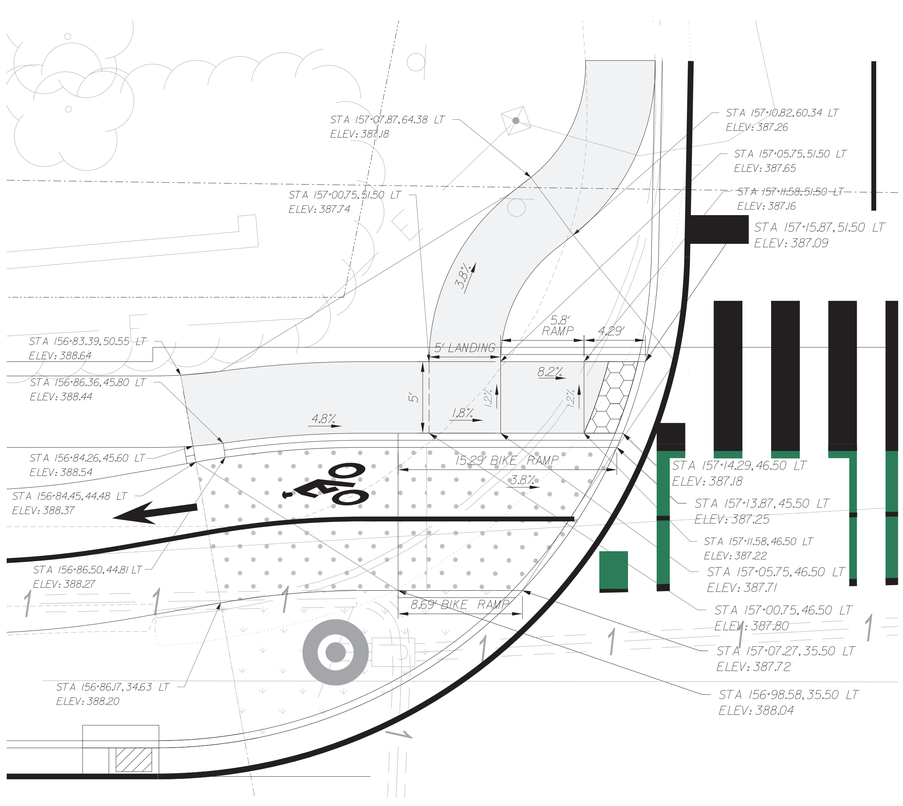
CURB RAMP DETAIL PLAN

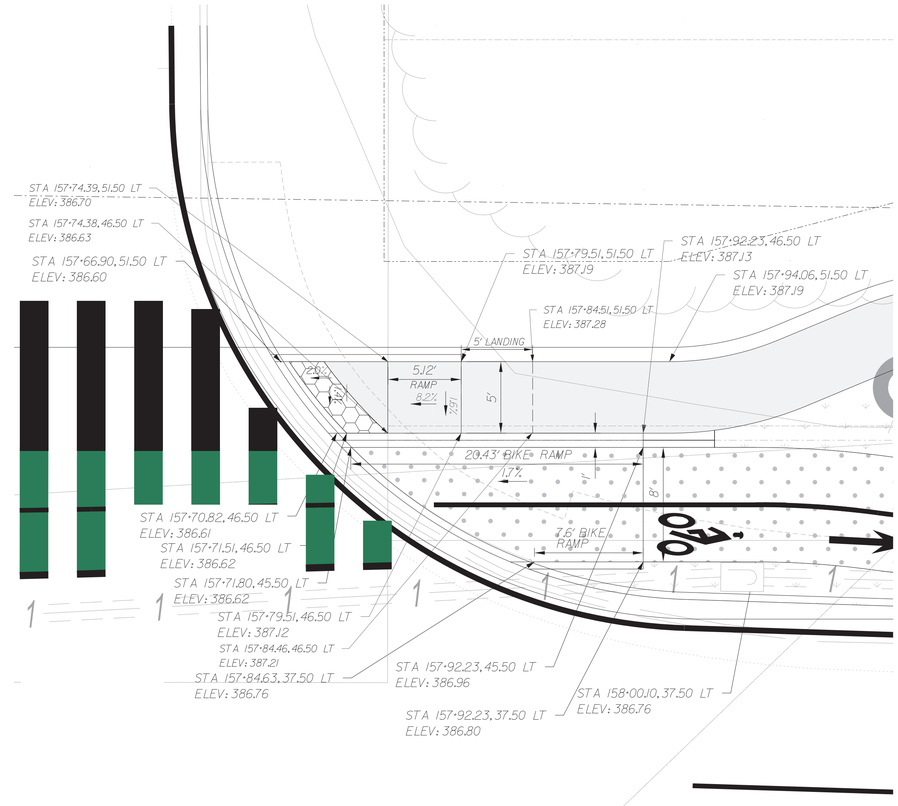
COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(33)

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





LION RUN

BLENHEIM BLVD

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE
0 5' 10'

CURB RAMP DETAIL 17

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(26)

PROJECT	SHEET NO.
U000-151-R94	IH(33)

FINAL PLANS

1/15/2026
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d107013_017(17).dgn
Plotted By: ClaySublett

TOOLE DESIGN
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WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
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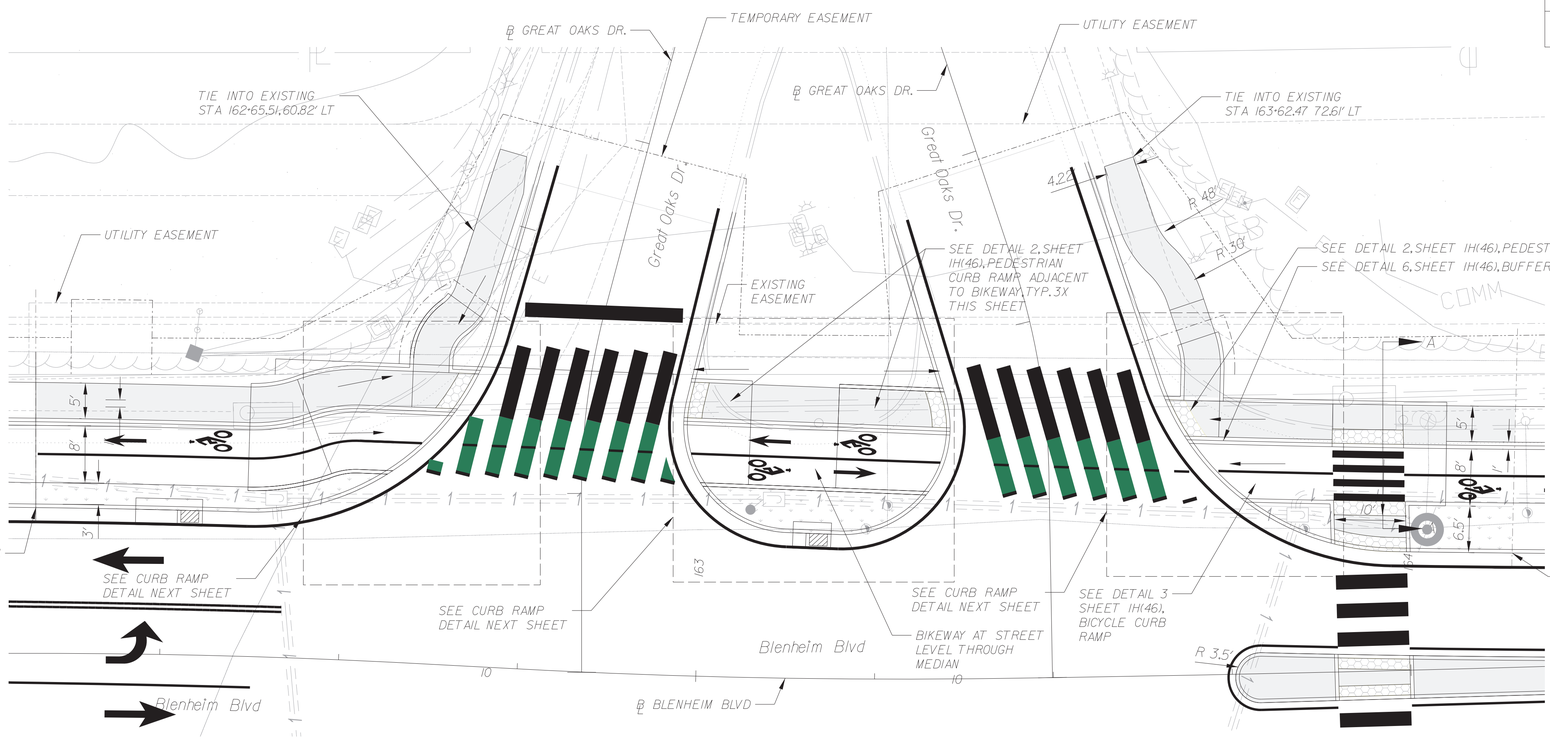
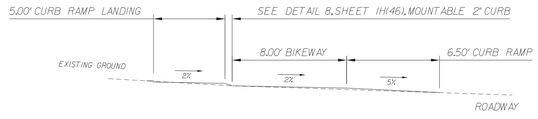
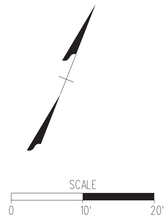
INTERSECTION DETAIL PLAN





SECTION A-A



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

INTERSECTION DETAIL 18

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(34)

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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(39) - IH(42)

PROJECT	SHEET NO.
U000-151-R94	IH(34)

FINAL PLANS

1/15/2026
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Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
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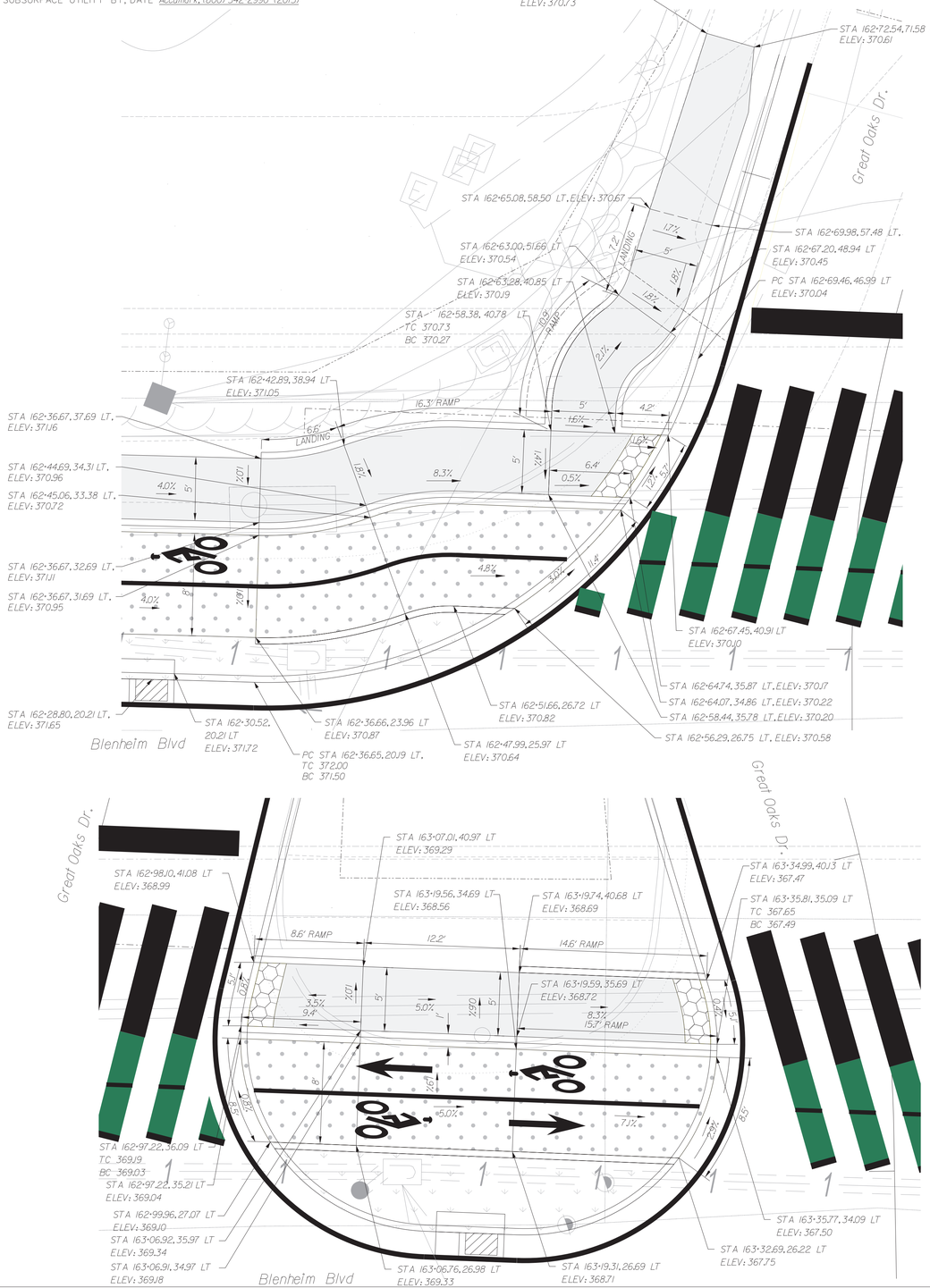
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RAMP DETAIL PLAN



REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(35)

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
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PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

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

LEGEND
- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

SCALE 0 5' 10'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(26)

PROJECT	SHEET NO.
U000-151-R94	IH(35)

CURB RAMP DETAIL 18

FINAL PLANS

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TOOLE DESIGN
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INTERSECTION DETAIL PLAN

COMMONWEALTH OF VIRGINIA
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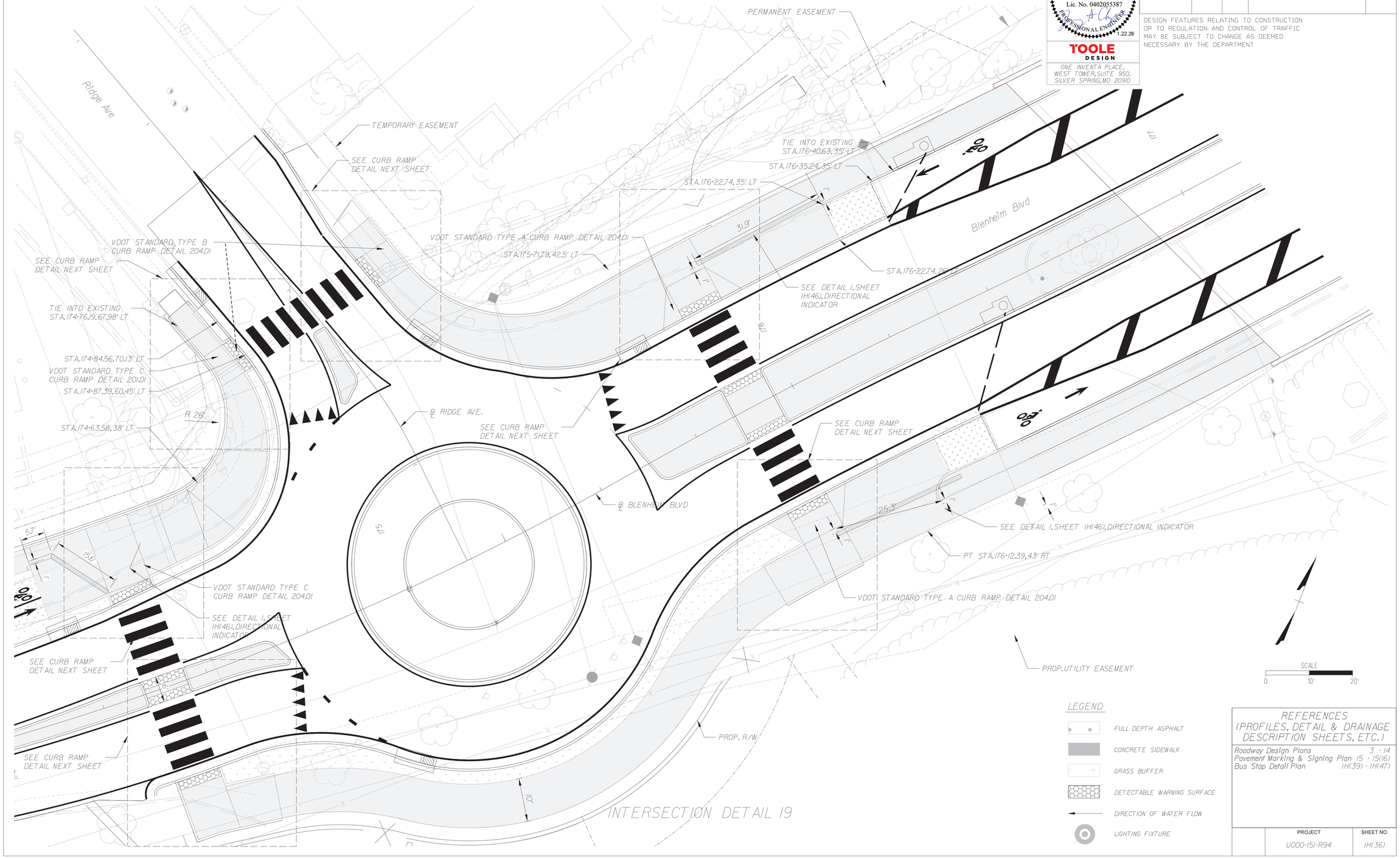
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(36)

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



INTERSECTION DETAIL 19

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(36)

FINAL PLANS

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WEST TOWER, SUITE 950
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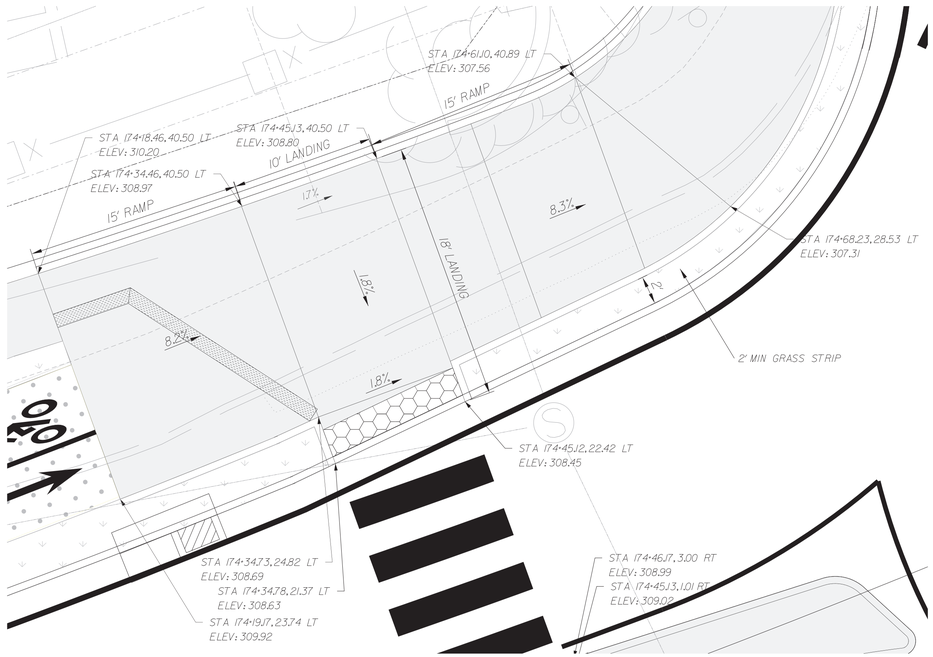
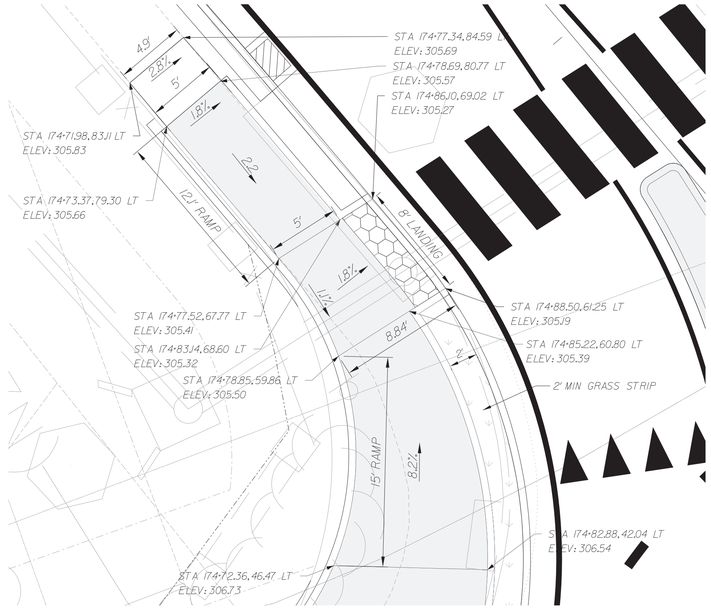
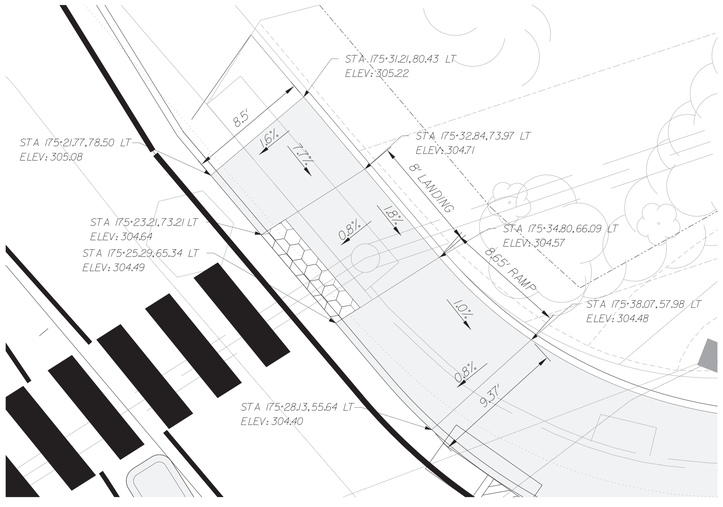
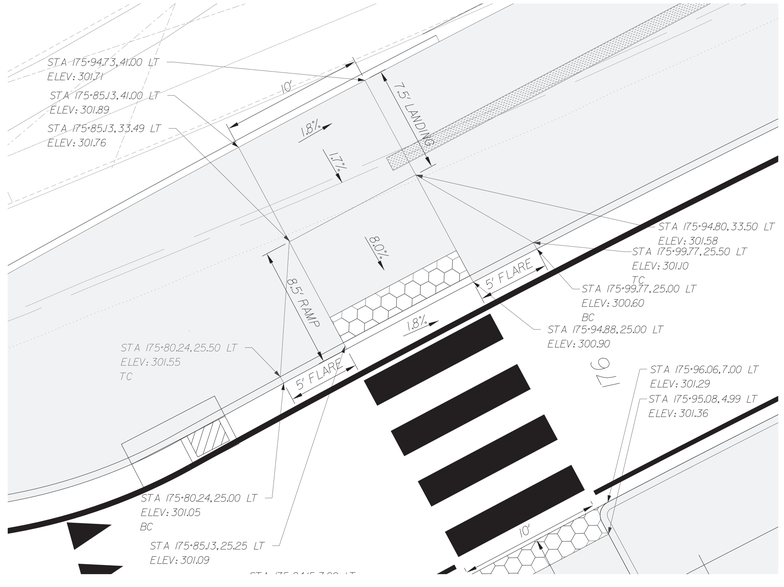
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RAMP DETAIL PLAN

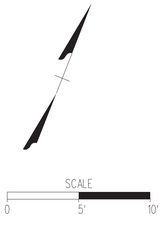








CURB RAMP DETAIL 19



LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(37)

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

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(47)

PROJECT	SHEET NO.
U000-151-R94	IH(37)

FINAL PLANS

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WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
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www.tooledesign.com

1/15/2026
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Plotted By: ClaySublett

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SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
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CURB RAMP DETAIL PLAN

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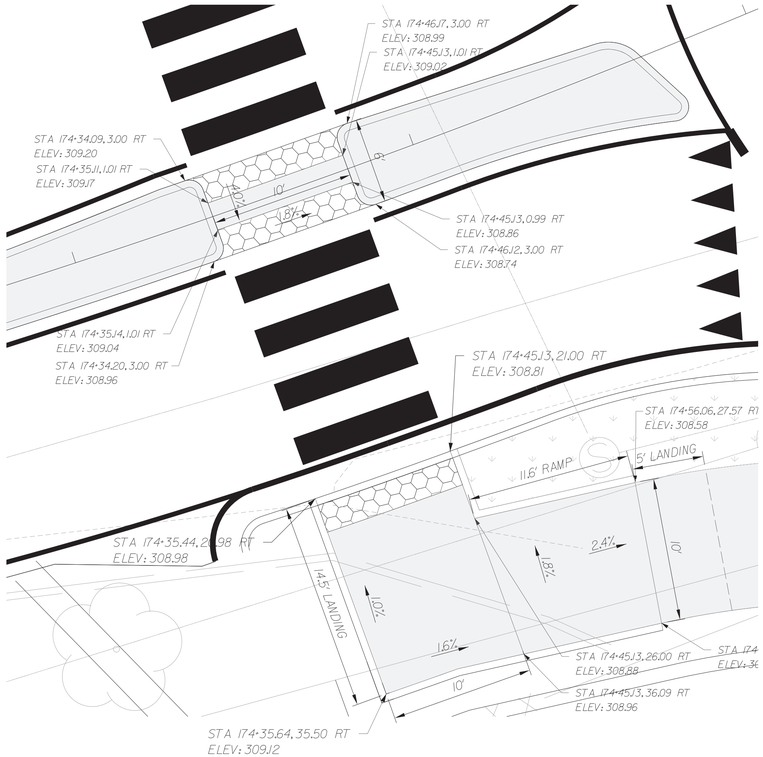
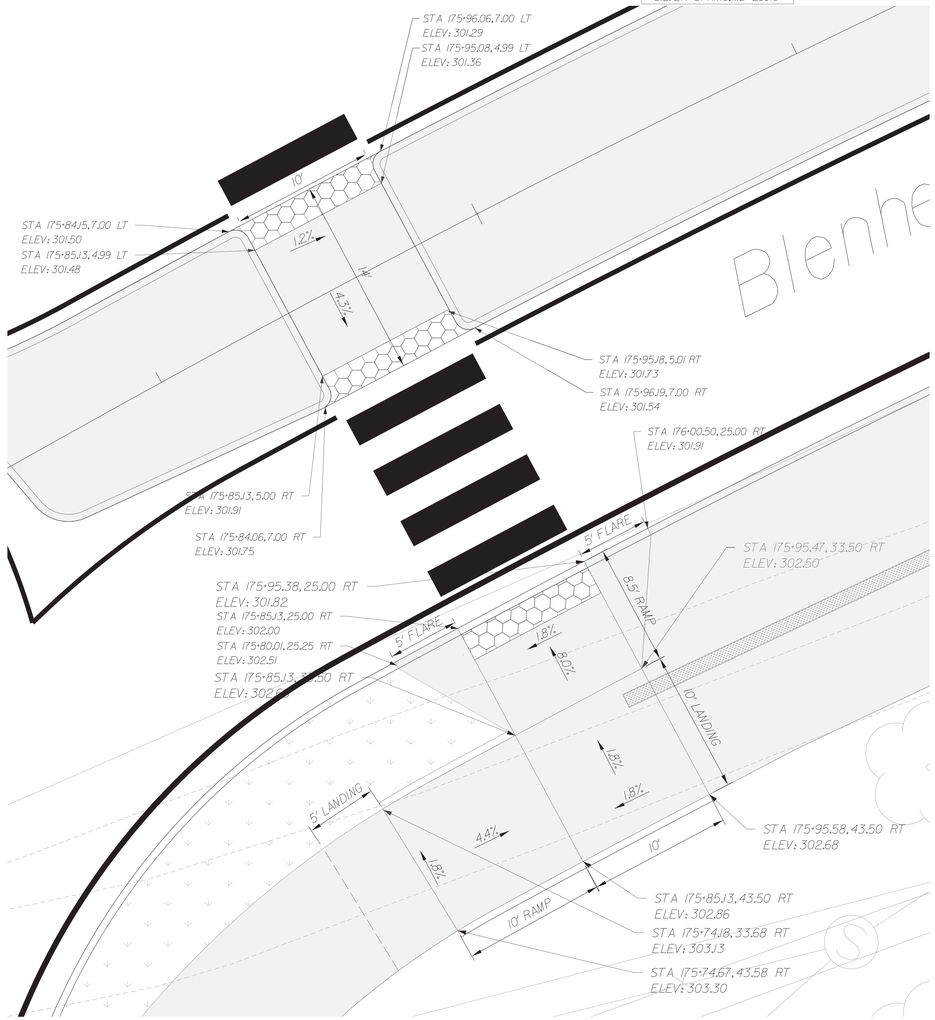
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(38)

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





SCALE
0 5' 10'

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE
- SIDEWALK JOINT LINE

CURB RAMP DETAIL 20

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(16)
Bus Stop Detail Plan	IH(39) - IH(26)

PROJECT	SHEET NO.
U000-151-R94	IH(38)

FINAL PLANS

1/12/2026
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Plotted By: ClaySublett

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
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BUS STOP DETAIL PLAN

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
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ONE INVENTA PLACE, WEST TOWER, SUITE 950, SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(39)

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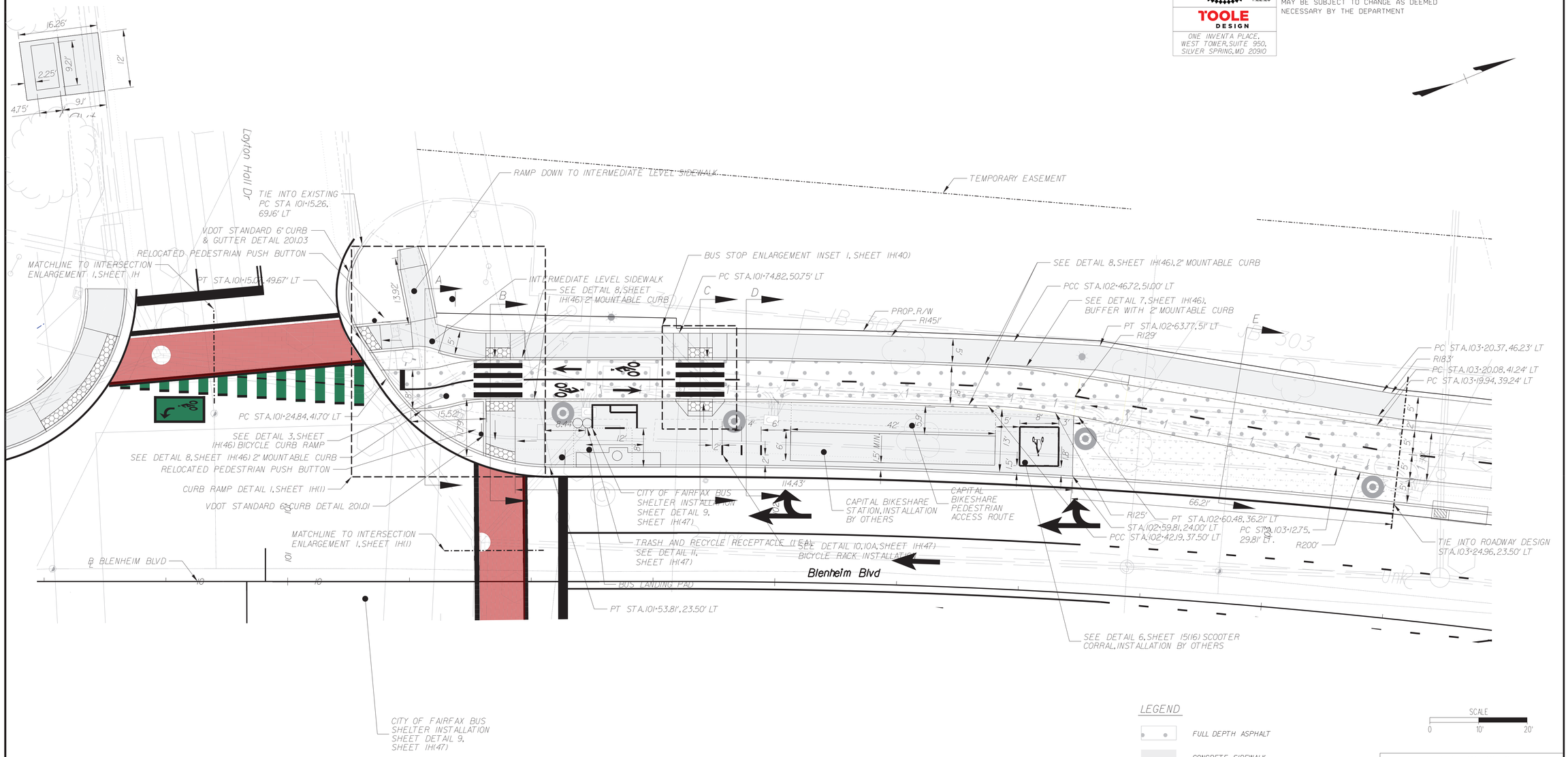

BUS STOP DETAIL 1

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE (DWS)
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

NOTE: FOR BUS STOP SECTION VIEWS SEE SHEET IH(45)

SCALE
0 10' 20'

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

Roadway Design Plans	3 - 14
Pavement Marking and Signing Plan	151-151(15)
Intersection Detail Plan	IH-IH(18)

PROJECT	SHEET NO.
U000-151-R94	IH(39)

FINAL PLANS

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Plotted By: ClaySublett

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SILVER SPRING, MD 20910
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BUS STOP DETAIL PLAN

COMMONWEALTH OF VIRGINIA
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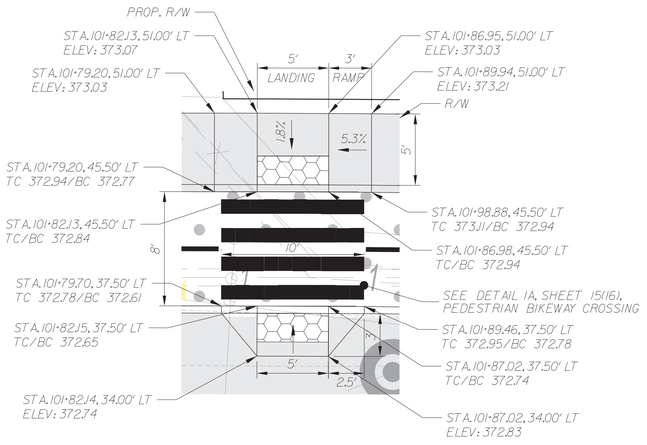
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER,SUITE 950,
SILVER SPRING,MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	1H(40)

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



BUS STOP DETAIL INSET 1

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE (DWS)
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 5' 10'

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

Roadway Design Plans	3 - 14
Pavement Marking and Signing Plan	15-151(15)
Intersection Detail Plan	1H-1H(18)

	PROJECT	SHEET NO.
	U000-151-R94	1H(40)

FINAL PLANS

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BUS STOP DETAIL PLAN

COMMONWEALTH OF VIRGINIA
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1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
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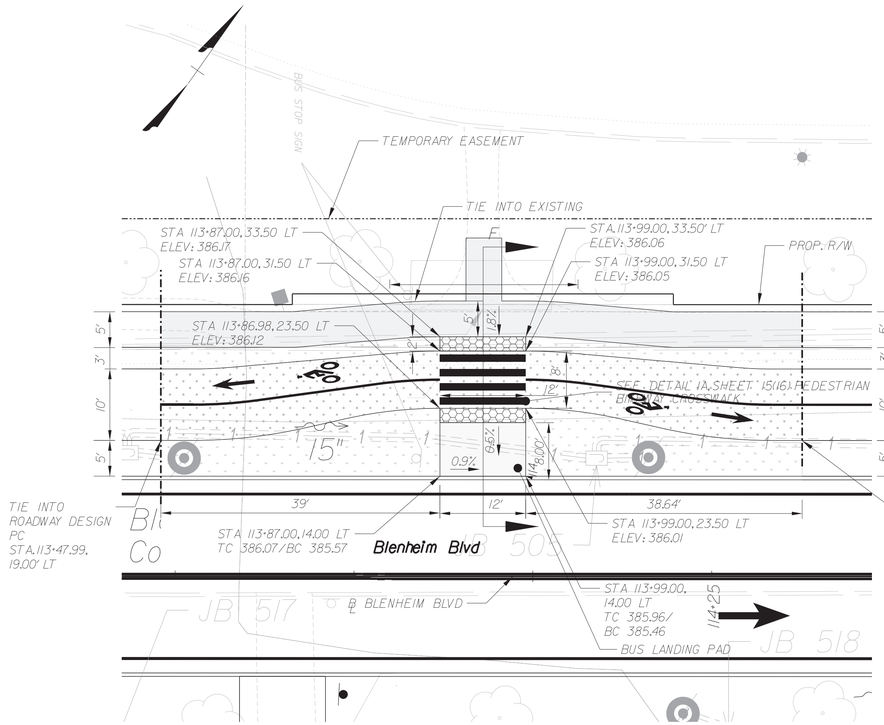
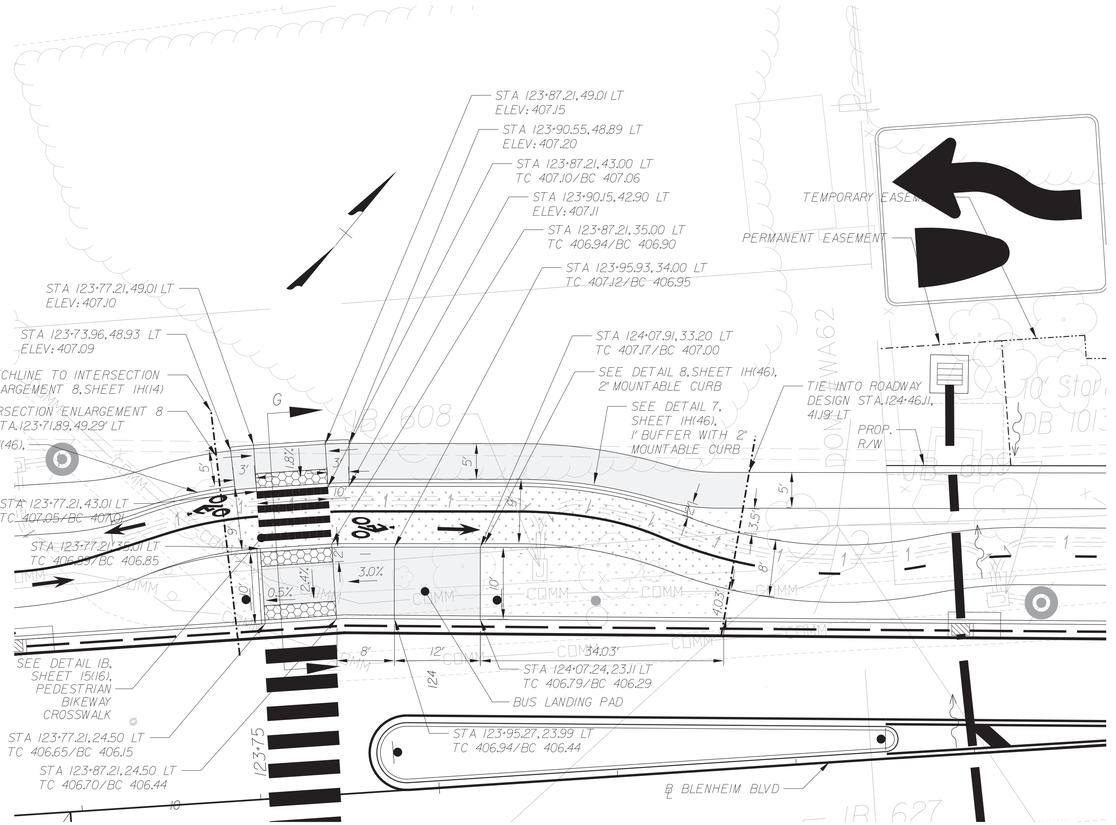
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	1H(41)

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



BUS STOP DETAIL 2



BUS STOP DETAIL 3

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE (DWS)
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

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

Roadway Design Plans	3 - 14
Pavement Marking and Signing Plan	15-15(15)
Intersection Detail Plan	1H-1H(18)

	PROJECT	SHEET NO.
	U000-151-R94	1H(41)

FINAL PLANS

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

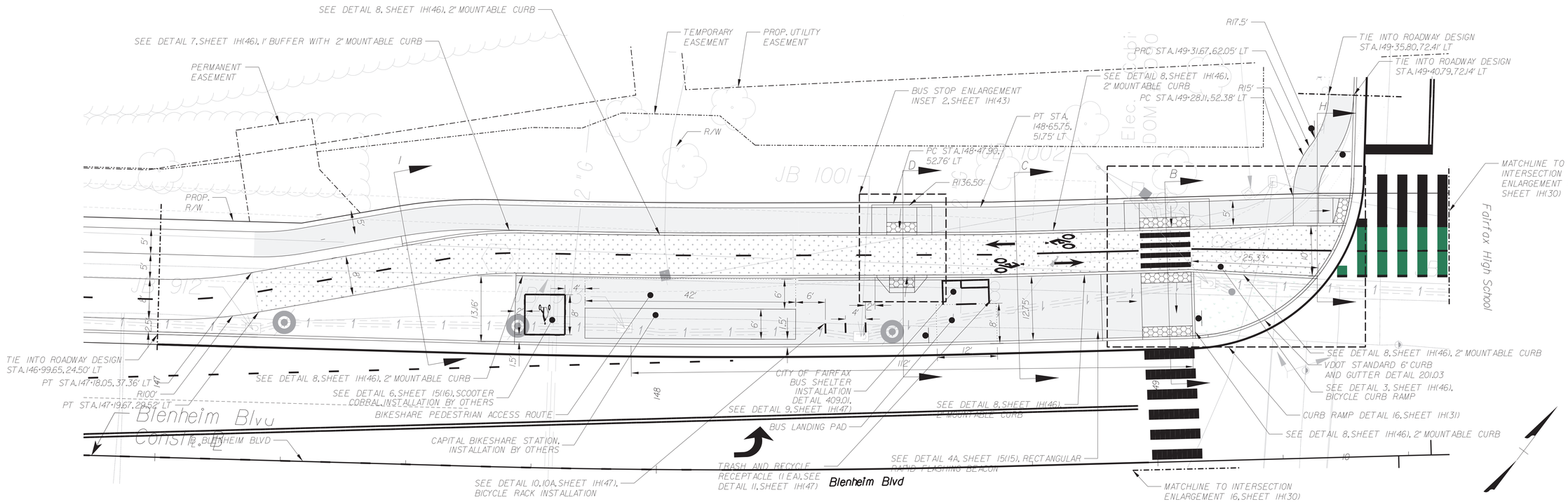
BUS STOP DETAIL PLAN

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

TOOLE DESIGN
ONE INVENTA PLACE,
WEST TOWER, SUITE 950,
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	1H(42)

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



BUS STOP DETAIL 4

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE (DWS)
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

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

Roadway Design Plans	3 - 14
Pavement Marking and Signing Plan	15-15(15)
Intersection Detail Plan	1H-1H(18)

	PROJECT	SHEET NO.
	U000-151-R94	1H(42)

FINAL PLANS

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Plotted By: ClaySublett

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BUS STOP DETAIL PLAN

COMMONWEALTH OF VIRGINIA
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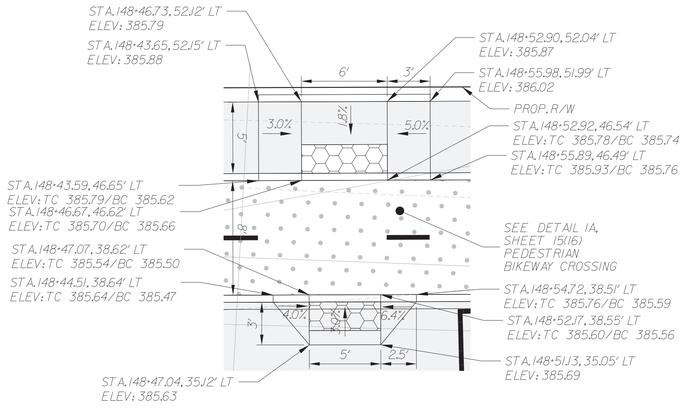
SILVER SPRING, MD 20910

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(43)

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



BUS STOP DETAIL INSET 2

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE (DWS)
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 5' 10'

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

Roadway Design Plans	3 - 14
Pavement Marking and Signing Plan	15-15(15)
Intersection Detail Plan	IH-IH(18)

	PROJECT	SHEET NO.
	U000-151-R94	IH(43)

FINAL PLANS

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Plotted By: ClaySublett

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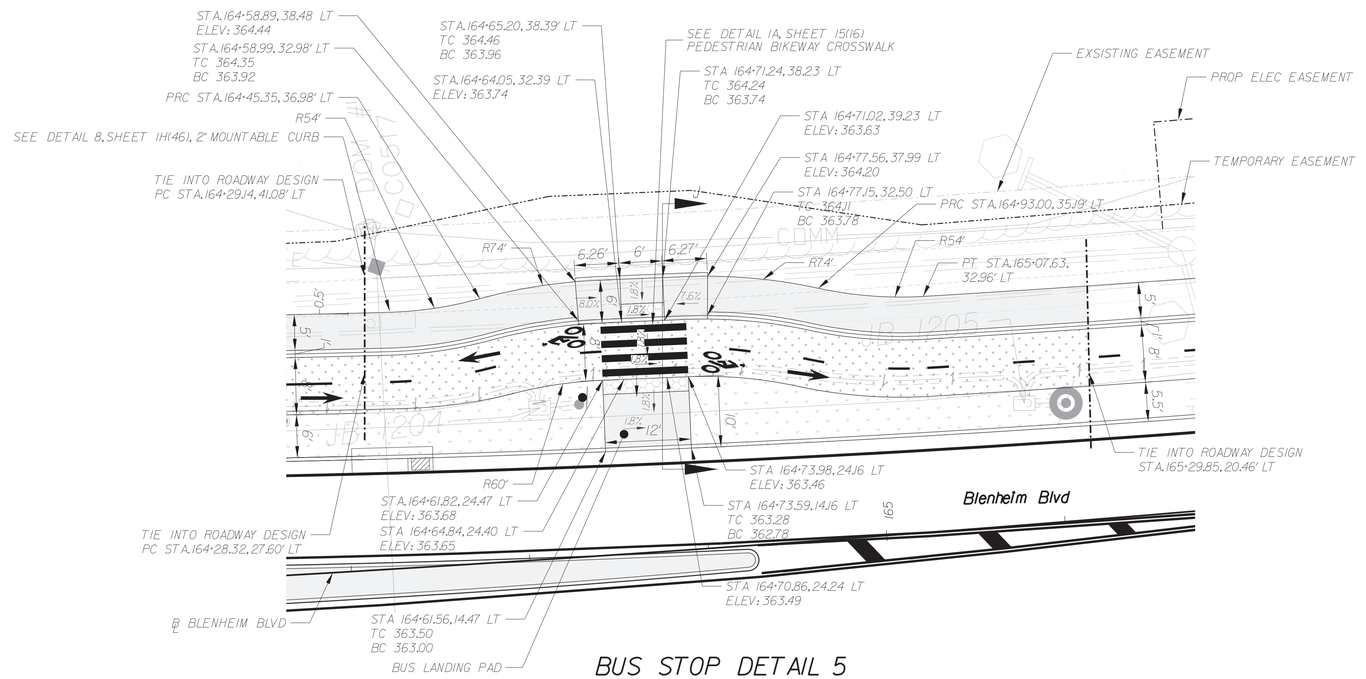
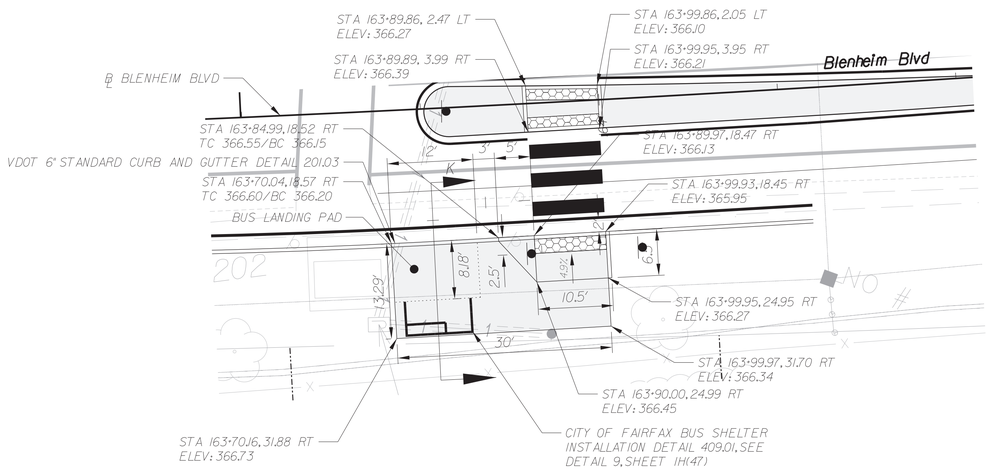
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BUS STOP DETAIL PLAN



BUS STOP DETAIL 5



BUS STOP DETAIL 6

LEGEND

- FULL DEPTH ASPHALT
- CONCRETE SIDEWALK
- GRASS BUFFER
- DETECTABLE WARNING SURFACE (DWS)
- DIRECTION OF WATER FLOW
- LIGHTING FIXTURE

SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JEREMY ANDREW CHRZAN
Lic. No. 0402055387
PROFESSIONAL ENGINEER
1.22.26

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(44)

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

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

Roadway Design Plans	3 - 14
Pavement Marking and Signing Plan	15-151(15)
Intersection Detail Plan	IH-IH(18)

	PROJECT	SHEET NO.
	U000-151-R94	IH(44)

FINAL PLANS

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Plotted By: ClaySublett

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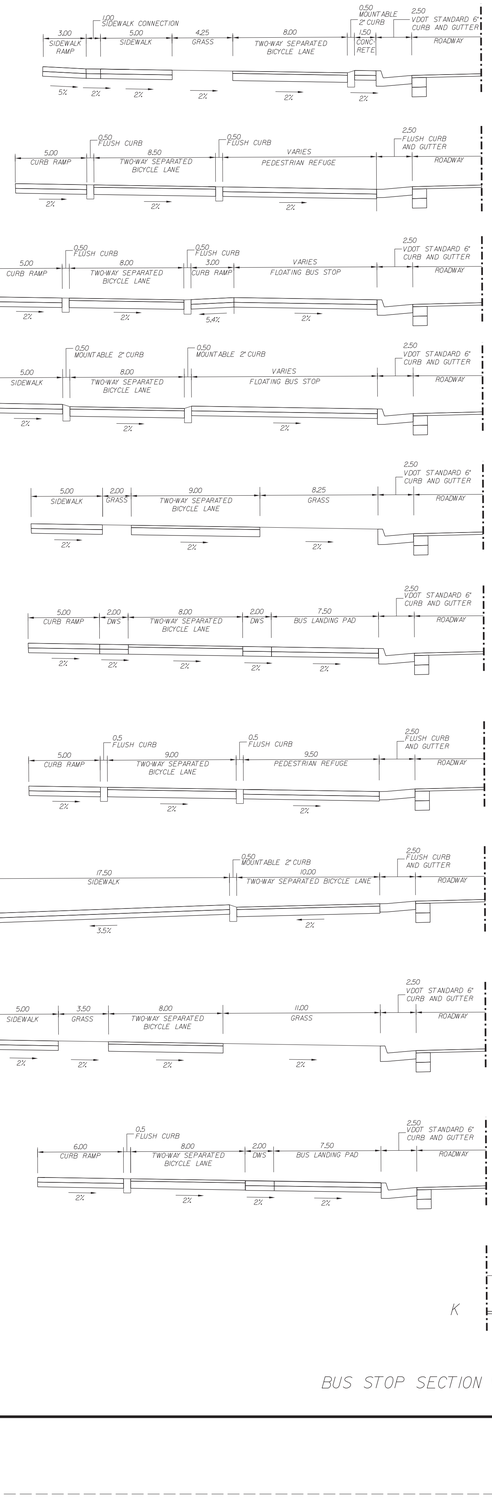
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BUS STOP DETAIL PLAN



BUS STOP SECTION VIEWS

SCALE
0 5' 10'

COMMONWEALTH OF VIRGINIA
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(45)

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

	PROJECT	SHEET NO.
	U000-151-R94	IH(45)

FINAL PLANS

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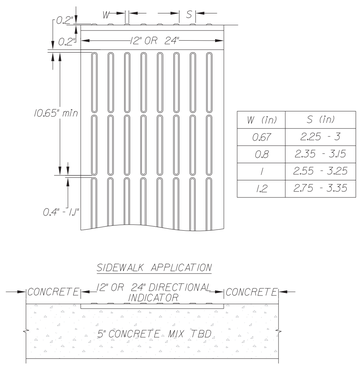
www.tooledesign.com

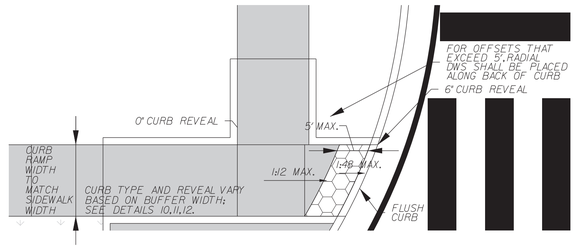
PROJECT MANAGER: Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE: Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY: Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE: Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL SHEET

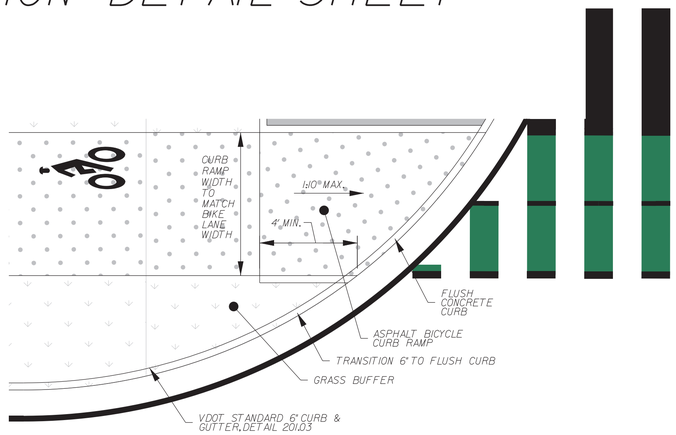


W (in)	S (in)
0.67	2.25 - 3
0.8	2.35 - 3.15
1	2.55 - 3.25
1.2	2.75 - 3.35

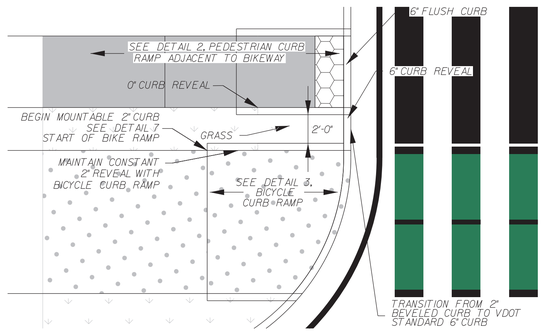
DETAIL 1: DIRECTIONAL INDICATOR
NOT TO SCALE



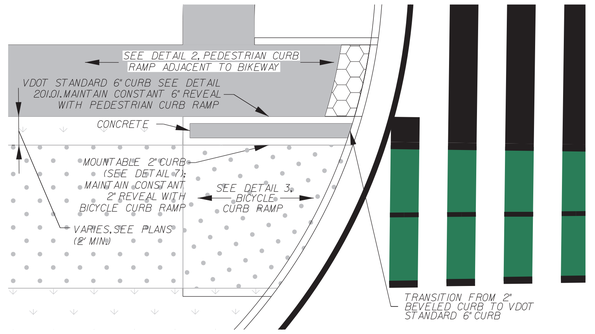
DETAIL 2: CURB RAMP ADJACENT TO BIKEWAY
SCALE: 1"=5'



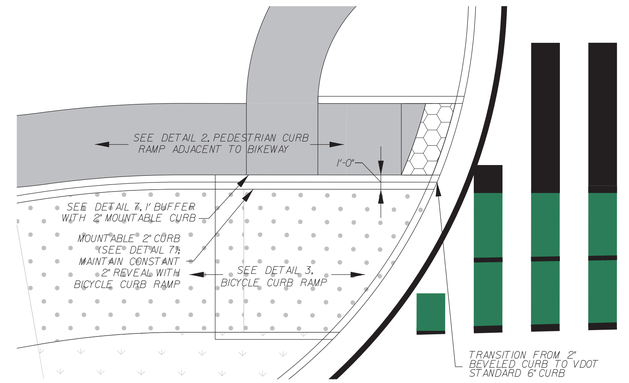
DETAIL 3: BICYCLE CURB RAMP
SCALE: 1"=5'



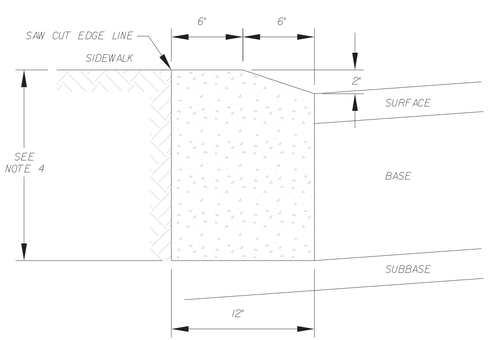
DETAIL 4: TYPICAL BUFFER TREATMENT AT INTERSECTIONS
TYPE A
SCALE: 1"=5'



DETAIL 5: TYPICAL BUFFER TREATMENT AT INTERSECTIONS
TYPE B:
SCALE: 1"=5'



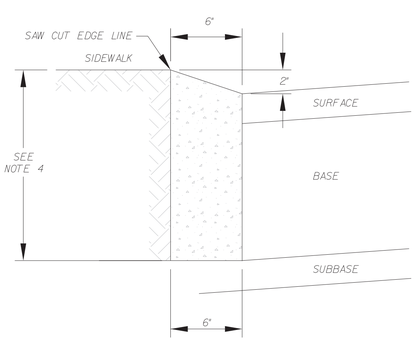
DETAIL 6: TYPICAL BUFFER TREATMENT AT INTERSECTIONS
TYPE C:
SCALE: 1"=5'



NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE 4000 PSI IF PRECAST.
3. CURB HAVING A RADIUS OF 300 FEET OF LESS (ALONG FACE OF CURB) WILL BE PAID FOR AS RADIAL CURB
4. THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (13" DEPTH) OR INCREASED AS MUCH AS 3" (19" DEPTH) IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENT SUBSTRUCTURE. OTHERWISE THE DEPTH IS TO BE 16" AS SHOWN. NO ADJUSTMENT IN THE BID PRICE IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.

DETAIL 7: 1' BUFFER WITH 2" MOUNTABLE CURB
SCALE: 1/2"=1'



DETAIL 8: 2" MOUNTABLE CURB
SCALE: 1/2"=1'

INTERSECTION DETAILS GENERAL NOTES:

1. WHERE FULL HEIGHT CURBS INTERSECT AT A 90-DEGREE ANGLE OR LESS, CURBS SHALL HAVE A 1-FOOT MIN. RADIUS UNLESS OTHERWISE NOTED.

COMMONWEALTH OF VIRGINIA
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SILVER SPRING, MD 20910

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.	6228	U000-151-R94	1H(46)

	PROJECT	SHEET NO.
	U000-151-R94	1H(46)

FINAL PLANS

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BUS STOP DETAIL SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-151-R94	IH(47)

COMMONWEALTH OF VIRGINIA
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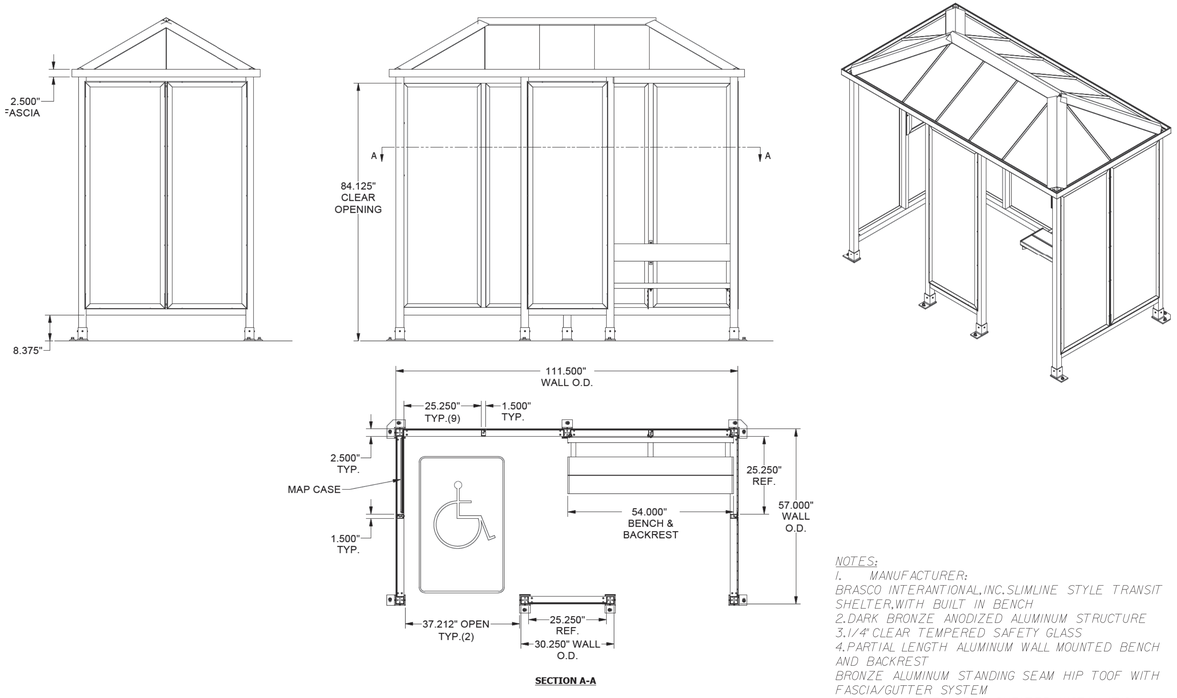
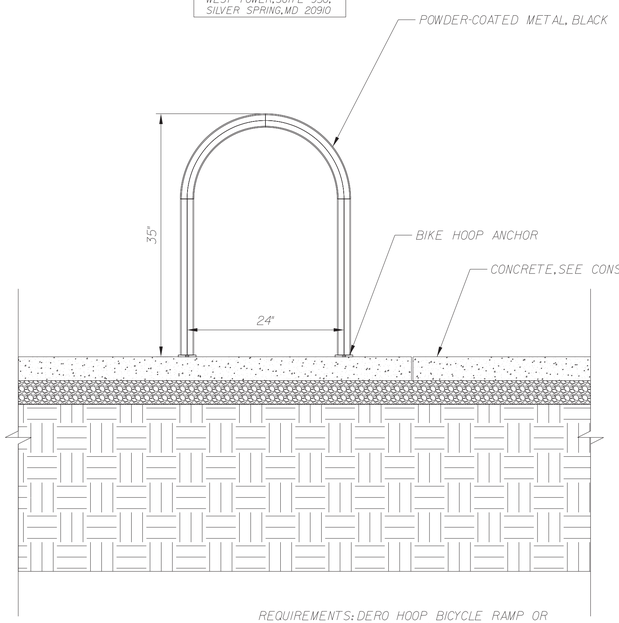


SECTION A-A

DETAIL 9: BUS SHELTER
N.T.S.

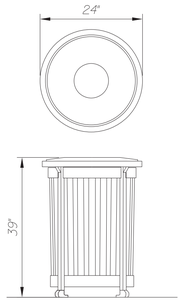
NOTES:
1. MANUFACTURER:
BRASCO INTERANTIONAL, INC. SLIMLINE STYLE TRANSIT SHELTER, WITH BUILT IN BENCH
2. DARK BRONZE ANODIZED ALUMINUM STRUCTURE
3. 1/4" CLEAR TEMPERED SAFETY GLASS
4. PARTIAL LENGTH ALUMINUM WALL MOUNTED BENCH AND BACKREST
BRONZE ALUMINUM STANDING SEAM HIP TOOF WITH FASCIA/GUTTER SYSTEM
5. CITY OF FAIRFAX BUS SHELTER INSTALLATION DETAIL 409.01
6. BUS SHELTER NEEDS TO BE PRE APPROVED BY CITY OF FAIRFAX PRIOR TO PURCHASE AND INSTALLATION



REQUIREMENTS: DERO HOOP BICYCLE RAMP OR EQUAL; EMBEDDED MOUNTING

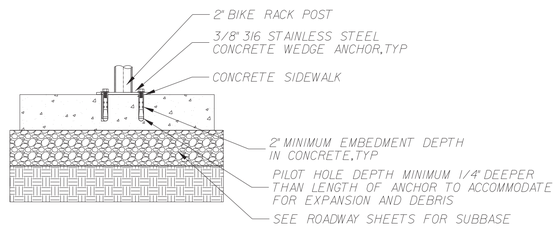
DETAIL 10: HOOP BIKE RACK EMBEDDED IN CONCRETE
N.T.S.

NOTES:
1. ALL ANCHORS TO BE 316 STAINLESS STEEL.
2. ANCHOR MUST BE EMBEDDED A MINIMUM OF 2" IN CONCRETE BASE.
3. CONTRACTOR TO VERIFY DISTANCE BETWEEN ANCHORS ONCE BIKE RACK ARRIVES ON SITE.
4. ENGINEER TO APPROVE ANY ANCHOR SUBSTITUTIONS.
5. FOLLOW ALL MANUFACTURER INSTALLATION INSTRUCTIONS.
6. WITHIN 24 HOURS OF INSTALLATION CONCRETE ANCHOR MUST BE PAINTED BLACK WITH INDUSTRIAL GRADE PAINT.



NOTES:
1. COORDINATE WITH CITY OF FAIRFAX FOR OPTIMAL LOGO BANDING
2. MATERIAL: CAST ALUMINUM, SPUN ALUMINUM TOP; CAST IRON BASE; STAINLESS STEEL FASTENERS
3. COLOR: MATTE BLACK, POLYESTER POWDER COAT
4. MANUFACTURER: LANDSCAPE FORMS CHASE PARK LITTER, OR EQUAL
5. RECEPTACLE SHALL BE SURFACE MOUNTED PER MANUFACTURER RECOMMENDATION.
6. ADD RECYCLE LOGO AS NOTED ON PLAN.

DETAIL 11: TRASH AND RECYCLE RECEPTACLE
N.T.S.



DETAIL 10A: HOOP BIKE RACK ANCHOR
N.T.S.

	PROJECT	SHEET NO.
	U000-151-R94	IH(47)

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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Temporary Traffic Control General Notes

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2026.01.23 16:11:50 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1J

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

Temporary Traffic Control Plan

General Notes:

1 Transportation Management Plan/Sequence of Construction Type B Project Information:

a Identify the project's TMP Type:
This project's TMP/SOC has been designed in conformance with a Type B TMP/SOC.

b Identify the work zone location, length, and widths:
The project location is as shown on Sheet 1A. The work zone areas have been delineated as shown on the TMP/SOC Sheet 1K series. The work zone lengths and widths vary by location as shown in these plans.

c Note the hours the Construction Area will be active:
Construction Area shall be considered active when any impact to traffic occurs (1st Cone in Road). Construction Area hours have the following limitations, unless otherwise approved or directed by the engineer and City of Fairfax:

One-lane closures will be restricted to the hours of 9:00am to 2:00pm, Monday through Friday. No lane closures will be allowed from noon on the day before a holiday until noon on the workday following the holiday. Holidays include all State and Federal holidays.

Designation of Night Time Hours and Peak Hour Times:
Night time hours shall be designated as hours between 9:30pm through 4:30am.
Peak hours are 6:00am through 9:00am & 2:00pm through 7:00pm.

d The TMP/SOC, during construction, shall be in accordance with the Virginia Department of Transportation Road and Bridge Specifications, dated 2020; the 2011 Virginia Work Area Protection Manual, revised 2020; the Manual on Uniform Traffic Control Devices (MUTCD), Revision 1 & 2, 2009 Edition; and the Virginia Supplement to the MUTCD, dated 2011.

e Note any existing entrances, existing intersections, or existing pedestrian access points that will be affected by the Construction Area or by the traffic control devices:

Existing Entrances:
All existing commercial or private entrances shall remain open for the duration of construction. The Contractor shall ensure that all entrance accessibility is maintained during construction.

Existing Intersections:
There are 13 existing intersections within the project limits:
A signalized intersection of Blenheim Boulevard and Layton Hall Drive/Farrcroft Drive at approximate station 101+00.
An unsignalized intersection of Blenheim Boulevard & and Colony Road at approximate station 119+50.
An unsignalized intersection of Blenheim Boulevard & and Old Post Road at approximate station 123+00.
An unsignalized intersection of Blenheim Boulevard & and Heritage Lane at approximate station 126+75.
An unsignalized intersection of Blenheim Boulevard & and Parklane Road at approximate station 130+25.
An unsignalized intersection of Blenheim Boulevard & and Embassy Lane at approximate station 133+25.
An unsignalized intersection of Blenheim Boulevard & and Brookwood Drive at approximate station 136+50 and 137+75..
An unsignalized intersection of Blenheim Boulevard & and Queen Anne Drive at approximate station 141+25.
An unsignalized intersection of Blenheim Boulevard & and Country Hill Drive at approximate station 144+75.
An unsignalized intersection of Blenheim Boulevard & and Cornell Road at approximate station 149+50.
An unsignalized intersection of Blenheim Boulevard & and Lion Run at approximate station 157+25.
An unsignalized intersection of Blenheim Boulevard & and Great Oaks Drive at approximate station 163+00.
An unsignalized intersection of Blenheim Boulevard & and Ridge Avenue at approximate station 175+00.
All intersections shall remain operational during the duration of the project.

Existing Pedestrian Access Points:
There are existing crosswalks at the signalized intersection with Layton Hall Drive/Farrcroft Drive and unsignalized intersections with Old Post Road, Heritage Lane, Brookwood Drive, Cornell Road, Lion Run, and Ridge Avenue. The contractor shall ensure safe access to pedestrians.

Existing Bus Stops:
There are sixteen existing bus stops within this project, located along Blenheim Blvd.

f Identify the major types of travelers:
The roadway carries diverse types of travelers. In the peak hours however, daily commuters are the prevailing traveler type for this roadway.

g The Contractor, at no additional cost to the project and which shall be considered incidental to the cost of the project, shall:

Designate a person assigned to the project who will have the primary responsibility, with sufficient authority, for implementing the TMP/SOC and other safety and mobility aspects of the permit work. This person shall be designated the "Project Safety Officer."

Ensure that personnel assigned to the project are trained in traffic control to a level commensurate with their responsibilities in accordance with VDOT's work zone traffic control training guidelines.

Inform the City of Fairfax, and/or the Engineer of any work requiring lane shifts, lane closures, and/or phase changes a minimum of one week prior to implementing this activity. City of Fairfax may use various media publications to announce changes in traffic conditions for which the Contractor shall provide information as needed at no additional cost to the project.

Perform reviews of the Construction Area to ensure compliance with contract documents at regularly scheduled intervals at the direction of the Engineer. Contractor shall maintain a copy of the temporary traffic control plan at the work site at all times.

Coordinate with the City of Fairfax Police Department, City of Fairfax Fire/Rescue Department, and Virginia State Police for any lane closures and any detours of any nature at no additional cost to the project.

Notify the Lane Closure Advisory Management System (LCAMS) 48 hours in advance in order to place lane closure information on the 511 System and VA-Traffic.

Schedule all phases of construction in such a manner that water, sanitary sewer, cable, fiber cable/optic cable, any overhanging utilities, and any underground utilities services will not be interrupted.

h During non-working hours, all construction equipment is to stay outside of the construction area clear zone as designated in the VWAPM, Appendix A. Construction equipment (including temporary concrete traffic barrier service) is not to block or obstruct sight distance at any intersection or private entrance along the project when the construction work zone is active.

2 This TMP/SOC plan is intended as a guide. It is not to enumerate every detail which must be considered in the construction of each phase, but only to show the general handling of existing traffic. The distance requirements for the advance warning signs, the contractor may modify the TTC examples in the Virginia Work Area Protection Manual only slightly. Any significant deviation will require a signed and sealed plan to be submitted for approval PRIOR to work at the proposed location. It shall be the responsibility of the Contractor to present a formal TMP/SOC plans with construction signage.

3 Contractor shall follow the geotechnical recommendations for the project. Materials designated as unsuitable material as detailed in the geotechnical recommendations shall be disposed of off site and are not to be used for any part of construction.

4 Existing surface, aggregate base, and sub base material which will be demolished or obliterated during construction, and which are suitable for maintenance of traffic, should be utilized prior to the use of commercial material.

5 Each phase of construction shall be completed to the installation of intermediate course asphalt prior to the start of the next phase unless otherwise directed by the Engineer.

6 Contractor shall ensure positive drainage for the duration of the project. Contractor shall add any additional temporary measures necessary to facilitate proper, positive drainage for the duration of construction.

7 Where Group 1 or Group 2 Channelizing Devices are used to separate the Construction Area and traffic, a minimum clear zone area as defined in the VWAPM, Appendix A is to be maintained.

8 The Contractor is to coordinate with City of Fairfax for location(s) of the construction staging area(s). Contractor shall obtain all necessary permits and easements for the construction staging area and/or office to be located on site within the project limits. The Contractor is responsible for these costs (permits, easements), and they shall be incidental to the project and not paid for as a separate item.

9 All areas excavated below the existing pavement surface and within the clear zone at the conclusion of each workday, shall be backfilled to form an approximate 6:1 wedge against the existing pavement or newly constructed pavement surface for the safety and protection of vehicular traffic. All costs for placing, maintaining, and removing 6:1 wedge shall be included in the price bid for other items in the contract and no additional compensation shall be allowed.

10 The mill and overlay areas to be done in accordance with VWAPM, Rev. 2 and st'd ACOT-1, where appropriate, to ensure smooth transition.

11 PUBLIC COMMUNICATIONS PLAN
The Contractor shall be responsible for:

a Notifying the Project Manager/Residency Administrator two weeks in advance of any scheduled work plans and traffic delays.

b Notifying the Project Manager/Residency Administrator, Regional Operations Manager, and the Public Affairs Staff of any unscheduled traffic delays.

12 TRANSPORTATION OPERATIONS
The Contractor shall be responsible for implementing and providing the following:

a Post a list of local emergency response agencies inside the project's construction office/trailer.

b Immediately report any traffic incidents that may occur in the work zone.

c Notify the project's Maintenance of Traffic Coordinator, Project Manager, Resident Administrator, District Work Zone Safety Coordinator, District Traffic Engineer, the City Operations Manager, and Public Affairs Manager of any incidents and expected traffic delays.

d Within 24 hours of any incidents within the construction work zone, a review of the traffic controls shall be completed and necessary adjustments made to reduce the frequency and severity of any future incidents.

GENERAL SEQUENCE OF CONSTRUCTION (SOC) NOTES

Note: VWAPM - Virginia Work Area Protection Manual

1. Contractor is responsible for ensuring proper positive drainage for the duration of all phases and installing any necessary measures to facilitate proper drainage.

2. Contractor shall make any necessary adjustments during both work and non-work hours to ensure the protection and safety of the adjacent property owners, pedestrians, vehicular traffic, and the general public from any construction related activity, construction equipment, and the construction site itself.

CONTACT NUMBERS

Project Manager	Sunny Sarna	(703) 273-3067
Construction Manager	TBD	TBD
Construction Safety Manager	TBD	TBD
Public Relations	TBD	TBD
Emergency Call		911
Non-Emergency Numbers:		
City of Fairfax Police		(703) 246-2253
City of Fairfax Fire & Rescue		(703) 246-2126

TMP/SOC Designer:
Adam Welschenbach
Advance Work Zone Traffic Control Training, VDOT Certificate No. 011024126, Expires 1/31/2028

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

This is to verify that Adam Welschenbach 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: 1/31/2028
Verification Number: 011024126

State Traffic Ops Eng

1/23/2026

	PROJECT	SHEET NO.
	U000-151-R94	1J

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

TMP-SOC: GENERAL SEQUENCE OF CONSTRUCTION NARRATIVE

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2026.01.23 08:27:31 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1J(1)

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

Phase 1 Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 1 is completed, unless directed by the Engineer. Contractor shall install the reduced speed signs of 25 mph as shown on plans.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 1, within the existing Right of Way and/or Easements

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 1 and install all traffic control measures and devices, including signs, and channelizing devices per VWAPM TTC-4.2, TTC-5.2, TTC-7.1, and TTC-23.2, including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. The Contractor shall implement additional lane closures and flagging operation during non-peak hours by implementing TTC 23.2, as necessary, to allow for construction of areas built under traffic, as specified on plans.

E. Contractor shall install storm drainage structures in Phase 1 work areas and the storm pipe runs between these structures. Contractor shall install temporary manhole frame for structures, as shown on plans, and cover flush with pavement.

F. Contractor shall construct Permanent Full Depth Pavement up to Prop. Edge of Pavement and construct temporary pavement widening beyond the Prop. Edge of Pavement, as shown in TMP/SOC Phase 1.

G. Contractor shall implement detour route for pedestrians (see Sheets 1K(7) thru 1K(8)).

Phase 1A Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 1A is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 1A, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas built under traffic designated for construction in TMP/SOC Phase 1A and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-23.2, including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. The Contractor shall implement lane closures and flagging operation during non-peak hours by implementing TTC 23.2, as necessary, to allow for the construction of full depth pavement built under traffic, as specified on plans.

E. Contractor shall close the crosswalk as shown on plans and reroute pedestrians crossing Blenheim Blvd. to use the existing crosswalks, at Sta. 106+75 and / or Sta. 116+85.

Phase 2 Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 2 is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 2, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 2 and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-4.2, TTC-5.2, TTC-7.1, and TTC-23.2 including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. The Contractor shall implement lane closures and flagging operation during non-peak hours by implementing TTC 23.2, as necessary, to allow for the construction of full depth pavement built under traffic, as specified on plans.

E. Contractor shall implement TTC-4.2 and TTC-7.1 on Blenheim Blvd. and utilize group II channelizing devices to close the Eastbound shoulder, as necessary, to allow for the construction of the roadway, as shown on plans.

F. Contractor shall install storm structures and storm pipe runs on Blenheim Blvd., as shown on plans, by implementing TTC-23.2 and applying daily lane closures with flagger operations during non-peak hours, as necessary.

G. Contractor shall construct the areas designated for construction in this phase so that no more than ONE bus stop is non-operational at a time. Contractor shall coordinate bus stop closures with Fairfax County Connector (local bus system) and ensure that the next and previous bus stops are operational.

H. Contractor shall implement detour route for pedestrians (see Sheets 1L(2) thru 1L(4)). For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

Phase 2A Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 2A is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 2A, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 2A and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-4.2, TTC-5.2, TTC-7.1, TTC-16.2, TTC-17.2, and TTC-23.2 including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. The Contractor shall implement lane closures and flagging operation during non-peak hours by implementing TTC 23.2, as necessary, to allow for the construction of full depth pavement built under traffic, as specified on plans.

E. Contractor shall implement TTC-16.2 and TTC-17.2 and alternate lane closures on Ridge Avenue during non-peak hours and sequence construction to maintain traffic flow. Contractor shall mill and overlay existing pavement and construct proposed roadway.

F. Contractor shall implement TTC-4.2 and TTC-7.1 on Blenheim Blvd. and utilize group II channelizing devices to close the Westbound shoulder, as necessary, to allow for construction of the Westbound Corridor, as shown on plans.

G. Contractor shall install storm structures and storm pipe run on the north side of Blenheim Blvd., as shown on plans.

H. Contractor shall implement TTC-23.2 on Blenheim Blvd. and apply daily lane closures with flagger operations during non-peak hours to trench and install storm pipe crossing at Sta. 117+70 and Sta. 144+10, as shown on plans.

I. Contractor to implement alternating one way traffic under flagging operation (TTC-23.2) and / or TTC-5.2 during non-peak hours to trench proposed culvert at Ridge Avenue prior to pavement work in the area.

J. Contractor shall plan accordingly to perform construction activities from Cornell Road to Ridge Avenue during Fairfax County Public Schools summer break to avoid additional pedestrian movements at this area during construction.

K. Contractor shall construct the areas designated for construction in this phase so that no more than ONE bus stop is non-operational at a time. Contractor shall coordinate bus stop closures with Fairfax County Connector (local bus system) and ensure that the next and previous bus stops are operational.

L. Contractor shall implement detour route for pedestrians (see Sheets 1L(12) thru 1L(15)). For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

M. Contractor shall implement the detour plan shown on Sheet 1L(16) to construct the area between Lion Run and Ridge Avenue. Contractor shall coordinate with the City of Fairfax to provide residents and transit providers information and updates regarding the detour. Access to to all connecting roads / entrances shall be maintained at all times.

N. After completing Phase 2A work, Contractor shall remove all temporary traffic control devices including detour signage and eradicate all temporary pavement markings needed to transition to the TMP/SOC Phase 3 traffic pattern.

Phase 3 Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 3 is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 3, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 3 and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-4.2, TTC-5.2, TTC-7.1, TTC-23.2, and TTC-24.2 including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. The Contractor shall implement lane closures and flagging operation during non-peak hours by implementing TTC 23.2, as necessary, to allow for the construction of full depth pavement built under traffic, as specified on plans.

E. Contractor shall implement TTC-4.2 and TTC-7.1 on Blenheim Blvd. and utilize group II channelizing devices to close the Westbound and Eastbound shoulders, as necessary, to allow for construction of the roadway, as shown on plans.

F. Contractor shall implement TTC-24.2 on Blenheim Blvd. to implement alternating one way traffic under flagger operations, as necessary, to allow for the construction of the roadway, as shown on plans. When implementing lane closures, Contractor shall construct the corridor ONE segment at a time, implementing alternating one way traffic under flagger operations for each respective segment accordingly. Contractor shall segment construction so that no more than 500' of traffic on Blenheim Blvd. is under flagger operation at a time.

G. Contractor shall implement TTC-16.2 and close the Eastbound lane on Blenheim Blvd. to allow for the construction of the Proposed Roadway Widening and Curb & Gutter from Sta. 157+50 to Sta. 165+50, and Proposed Bus Stop at Sta. 164+00, as shown on plans.

H. Contractor shall install storm structures and storm pipe runs on Blenheim Blvd., as shown on plans, by implementing TTC-23.2 and applying daily lane closures with flagger operations during non-peak hours, as necessary.

I. Contractor shall construct the areas designated for construction in this phase so that no more than ONE bus stop is non-operational at a time. Contractor shall coordinate bus stop closures with Fairfax County Connector (local bus system) and ensure that the next and previous bus stops are operational.

J. Prior to beginning construction for Phase 3, Contractor shall perform milling / overlaying on Blenheim Blvd. and connecting roads / entrances from Sta. 150+00 to Sta. 170+00, install permanent pavement markings on Blenheim Blvd. from Sta. 150+00 to Sta. 157+50 and Sta. 166+50 to Sta. 170+00 and install permanent pavement markings for connecting roads / entrances from Sta. 150+00 to Sta. 170+00 as shown in TMP/SOC Phase 3 plans. See Sheets 15(2) thru 15(15) for Pavement Marking Plans.

K. Contractor shall implement detour route for pedestrians (see Sheets 1M(7) thru 1M(13)). For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

Phase 4 Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 4 is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 4, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 4 and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-21.1, TTC-23.2, TTC-33.2, and TTC-40.2, including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. Contractor shall implement TTC-40.2 on Layton Hall Drive and shift EB lanes of traffic to allow for construction of the Bus Stop and Curb Ramp, as shown on plans. Contractor shall close the sidewalk as shown on plans and reroute the pedestrian traffic on the north side of Layton Hall Drive sidewalk.

E. Contractor shall implement TTC-21.1 on Blenheim Blvd. and utilize group I channelizing devices to close the Westbound thru lane and allow for construction of the median at Sta. 103+50, as shown on plans.

F. Contractor shall implement TTC-21.1 on Blenheim Blvd. and utilize group I channelizing devices to close the center lane and allow for construction of the median at Sta. 107+50, as shown on plans.

G. Contractor shall implement TTC-23.2 on Blenheim Blvd. and utilize group I channelizing devices and run alternating one way traffic under flagger operations on the Eastbound lane to allow for construction of the medians at Sta. 124+00 and Sta. 164+00, as shown on plans.

H. Contractor shall implement TTC-33.2 on Blenheim Blvd. and utilize group 2 channelizing devices and run alternating one way traffic under flagger operations in the Eastbound lane to allow for construction of the Center Island of the roundabout at Ridge Ave., as shown on plans.

I. Prior to beginning construction for Phase 4, Contractor shall perform milling / overlaying on Blenheim Road and connecting roads / entrances from Sta. 101+30 to Sta. 150+00 and Sta. 157+50 to Sta. 166+50 and install permanent pavement markings from Sta. 101+30 to Sta. 102+65, Sta. 105+00 to Sta. 150+00 and Sta. 157+50 to Sta. 163+50 as shown in TMP/SOC Phase 4 plans. See Sheets 15(2) thru 15(15) for Pavement Marking Plans.

Phase 4A Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 4A is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 4A, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 4A and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-5.2 and TTC-23.2, including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. Contractor shall implement TTC-5.2 on Blenheim Blvd. and utilize group I channelizing devices to close the center of the lane as necessary to allow for construction of the median, as shown on plans.

E. Contractor shall implement TTC-23.2 on Blenheim Blvd. and apply daily lane closures with flagger operations during non-peak hours to trench and install storm pipe crossing at Sta. 176+50, as shown on plans.

F. At the end of Phase 4A construction, Contractor shall ensure ALL milling and overlaying is performed and ALL permanent proposed pavement markings are installed throughout the project. See Sheets 15(2) thru 15(15) for Pavement Marking Plans.

PROJECT	SHEET NO.
U000-151-R94	1J(1)

1/21/2026

FINAL PLANS

PROJECT MANAGER *Wendy Block Sanford, (703) 385-7889*
SURVEYED BY, DATE *Nick Kougalis, L.S., (703) 368-7373 (2020)*
DESIGN BY *Mark A. Gunn, P.E., (703) 368-7373*
SUBSURFACE UTILITY BY, DATE *Accumark, (800) 542-2990 (2015)*

Temporary Traffic Control TTC Notes and Figures

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1J(2)

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

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

Standard

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

Guidance

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

Option:

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

Standard:

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

Taper Length L

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

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

Shoulder Taper = ½ L Minimum

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

Channelizing Device Spacing

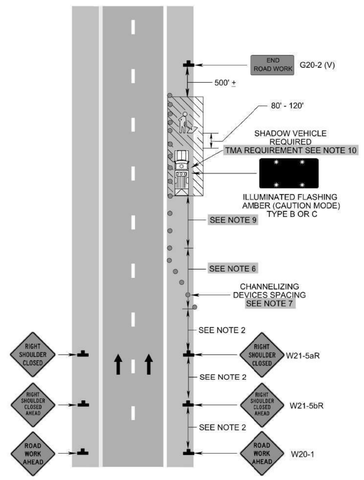
Location Spacing	Speed Limit (mph) 0-35	36+	Location Spacing	Speed Limit (mph) 0-35	36+	Location Spacing	Speed Limit (mph) 0-35	36+
Transition	20'	40'	Traveway	40'	60'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ½ mile.

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

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

Stationary Operation on a Shoulder
(Figure TTC-4.2)



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

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

Standard

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

Guidance

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

Option:

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

Standard:

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

Taper Length L

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

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

Shoulder Taper = ½ L Minimum

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

Channelizing Device Spacing

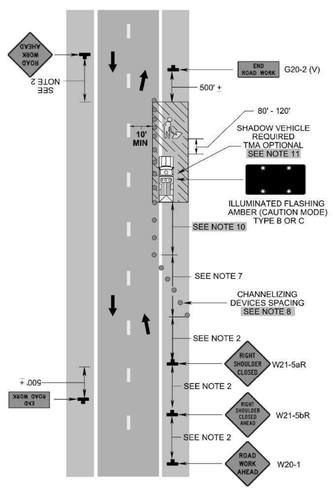
Location Spacing	Speed Limit (mph) 0-35	36+	Location Spacing	Speed Limit (mph) 0-35	36+	Location Spacing	Speed Limit (mph) 0-35	36+
Transition	20'	40'	Traveway	40'	60'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ½ mile.

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

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

Shoulder Operation with Minor Encroachment
(Figure TTC-5.2)



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

Typical Traffic Control
Shoulder Closure with Barrier and Lane Shift Operation
(Figure TTC-7.1)
NOTES

Guidance:

1. *The lane shift should be used when the work space extends into either the right or left lane of a divided highway and it is not practical, for capacity reasons, to reduce the number of available lanes.*
2. *When a lane shift is accomplished by using: (1) geometry that meets the design speed at which the permanent highway was designed, (2) full normal cross-section (full lane width and full shoulders), and (3) complete pavement markings, then the Reverse Curve signs are not required.*
3. *Sign spacing distance should be 1300-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*

Standard:

4. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
5. **Length of pavement marking transition (L) is equal to posted speed (S) times the width of transition (W) (Example: 55 mph x 2' = 110').**
6. **Group 2 Channelizing device spacing shall be at the following:**

Group 2 Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0-35	36+	Location Spacing	Speed Limit (mph) 0-35	36+	Location Spacing	Speed Limit (mph) 0-35	36+
Transition	20'	40'	Traveway	40'	60'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ½ mile.

7. **For end treatment of the barrier in order of preference see Note 6 of TTC-6.**
8. **Barrier panels 8 inches in width and 12 inches in height shall be placed on top of the concrete barrier and spaced on 40' centers along the transition or taper sections and spaced on 80' centers along the parallel or tangent sections. Reflectorized surface shall be fluorescent orange prismatic lens sheeting. The light at the beginning of the barrier run and at the breakpoint where the barrier becomes parallel to the roadway shall be a Type B flashing light. Barrier delineators shall be installed along the traffic side of the concrete barriers. Barrier delineators shall be spaced on 20' centers along the transition or taper sections and spaced on 80' centers and centered[3] in-between the barrier panels along the parallel or tangent sections[3] approximately 24 inches up from the roadway surface.**
9. **Unless approved by the District[2] Traffic Engineer, the minimum width of the travel lanes shall be 11 feet.**
10. **For long-term work zones existing conflicting pavement markings and markers shall be removed and temporary pavement markings and markers shall be installed per TTC-60.**

Option:

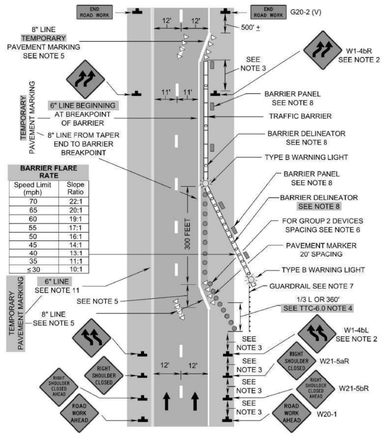
11. Temporary pavement may be needed to maintain traffic with 11' minimum width lanes.

Guidance:

12. *Eradication of existing pavement markings should be as shown in Typical Traffic Control Figure TTC-55.*
13. *If drivers cannot see a pull-off area beyond the closed shoulder, information regarding the length of the shoulder closure should be provided in feet or miles, as appropriate.*
14. *An emergency pull-off area should be provided per Section 6G.18 and Temporary Traffic Control Figure TTC-8.*

2: Revision 2 – 9/1/2019

Shoulder Closure with Barrier and Lane Shift Operation
(Figure TTC-7.1)



2: Revision 2 – 9/1/2019

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

Standard:

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

Guidance:

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

Standard:

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

Taper Length L

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

Limited Access highways shall use a 1000' merging taper regardless of the posted speed.

Shifting Tapers see Table 6H-2[1] | Shoulder Taper = ½ L Minimum

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

Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0-35	36+	Location Spacing	Speed Limit (mph) 0-35	36+	Location Spacing	Speed Limit (mph) 0-35	36+
Transition	20'	40'	Traveway	40'	60'	* Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ½ mile.

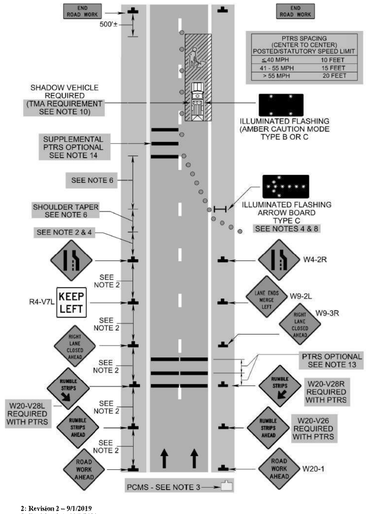
8. **An arrow board shall be used when a lane is closed. When more than one lane is closed, a separate arrow board shall be used for each closed lane (see Figure TTC-18).**
9. **The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
10. **A shadow vehicle with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

Option:[2]

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

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

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



2: Revision 2 – 9/1/2019
3: Revision 2.1 -11/1/2020

PROJECT	SHEET NO.
U000-151-R94	1J(2)

FINAL PLANS

12/11/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control TTC Notes and Figures

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1J(3)

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

Typical Traffic Control
Inside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-17.2)
NOTES

Standard:

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

Guidance:

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When closing a lane, a PCMS should be used in advance of the first warning sign if all of the left side signs cannot be installed.*[1]
4. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.*
5. *All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.*

Standard:

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

Taper Length L										
Speed Limit (mph)	Lane Width (Feet)				Remarks	Speed Limit (mph)	Lane Width (Feet)				Remarks
	9	10	11	12			9	10	11	12	
25	95	105	115	125	L=S/W60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S/W60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S/W60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S/W60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW
Limited Access highways shall use a 1000' merging taper regardless of the posted speed.											
Shifting Tapers see Table 6H-2[1]						Shoulder Taper = ½ L Minimum					

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

Location Spacing	Speed Limit (mph)		Location Spacing	Location Spacing	Speed Limit (mph)		Location Spacing	Speed Limit (mph)	
	0 -35	36 +			0 -35	36 +		0 -35	36 +
Transition	20'	40'	Travelway		40'	80'	*Construction Access	80'	120'
*Construction access spacing may be increased to this distance, but shall not exceed one access per ½ mile.									

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

Option:[2]

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

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

Typical Traffic Control
Center Turn Lane Closure Operation
(Figure TTC-21.1)
NOTES

Guidance:

1. *The distance between signs should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less. The distance of the beginning of channelizing device transition should be a minimum of 500' and a maximum of 800'.*
2. *The buffer space length should be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.*
3. *For locations with a high volume of left turning movements, the graphic NO LEFT TURN (R3-2) signs should be used within the closed lane.*

Option:

4. Where Right-of-Way or geometric conditions prevent use of 48" x 48" signs, 36"x 36" signs may be used.

Standard:

5. **To prevent vehicles from entering into the work zone, channelizing device spacing shall be a maximum of 20' on center.**
6. **A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one rotating amber light or high intensity amber flashing or oscillating[1] light shall be parked 80'-120' in advance of the work crew in both directions of travel. If multiple lanes are present (four or more lanes, excluding the center turn lane) and the posted speed limit is 45 mph or greater, the vehicles shall be equipped with a truck-mounted attenuator (TMA).**
7. **When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.**

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

Typical Traffic Control
Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph.*
2. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger.*
3. *To maintain efficient traffic flow in a flagging operation on a two-lane roadway, the maximum time motorists should be stopped at a flagger station is 8 minutes for high volume roadways (average daily traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than 500 vehicles per day). For additional information see Section 6E.07.*

Standard:

4. **Portable Temporary Rumble Strips (PTRS) shall be used as noted in Section 6F.99.**
5. **Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic (see Table 6H-3 on Page 6H-5).**
6. **All flaggers shall be state certified and have their certification card in their possession when performing flagging duties (see Section 6E.01, Qualifications for Flaggers).**
7. **Cone spacing shall be based on the posted speed and the values in Table 6H-4 on Page 6H-6.[1]**
8. **A shadow vehicle with at least one high intensity amber rotating, flashing, or[1] oscillating light shall be parked 80'-120' in advance of the first work crew.**

Option:

8. A SLOW (W21-V10) sign[2] may be required in this area to give advance warning of the operation ahead by slowing approaching traffic prior to reaching the flagger station or queued traffic.

Guidance:

9. *If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign then the signs, and if used the PTRS[2] should be readjusted at greater distances.*
10. *When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-56 for additional information on highway-rail crossings).*

Standard:

11. **At night, flagger stations shall be illuminated, except in emergencies (see Section 6E.08).**

Option:

12. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet or less.
13. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).

Standard:[1]

14. **When used[2], three portable temporary rumble (PTRS) strips shall be installed across the entire travel lane adjacent to the BE PREPARED TO STOP (W3-4) sign. The portable temporary rumble strips shall be monitored and adjusted as necessary during the work shift to ensure proper placement on the roadway. When the PTRS are installed, the RUMBLE STRIPS AHEAD (W20-V26) sign shall also be utilized.**

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

Typical Traffic Control
Non-Stationary Operation on a Two-Lane Roadway Using Flaggers
(Figure TTC-24.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph.*
2. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger.*
3. *To maintain efficient traffic flow in a flagging operation on a two-lane roadway the maximum time motorist should be stopped at a flagger station is 8 minutes for high volume roadways (average daily traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than 500 vehicles per day). For additional information see Section 6E.07.*

Standard:

4. **PTRS shall be used as noted in Section 6F.99.[2]**
5. **Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic (see Table 6H-3 on Page 6H-5).**
6. **The Flagger (W20-7) symbol sign shall stay within ½ mile of each flagger.**

Guidance:

7. *Additional Flagger symbol signs should be erected by the flagger or others at ½ mile intervals or taken down as the operation proceeds past this point.*[2]
8. *When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-56 for additional information on highway-rail crossings).*
9. *If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign, then the advance warning signs should be readjusted at greater distances*

Option:[2]

10. A SLOW (W21-V10) sign may be installed after the first FLAGGER symbol sign.[2]

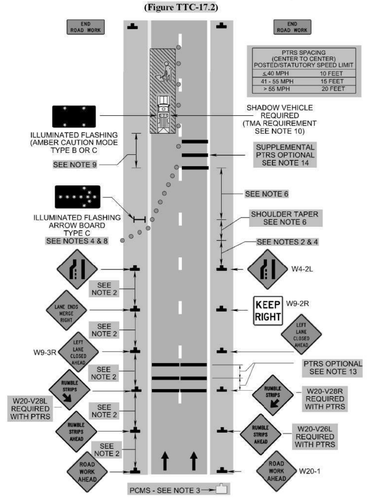
Standard:

11. **All flaggers shall be state certified and have their certification card in their possession when performing flagging duties (see Section 6E.01, Qualifications for Flaggers).**
12. **A shadow vehicle with at least one amber rotating, flashing or[1] oscillating lights shall be parked 80'-120' in advance of the first work crew.**
13. **The maximum length of the work area shall be two miles.**

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

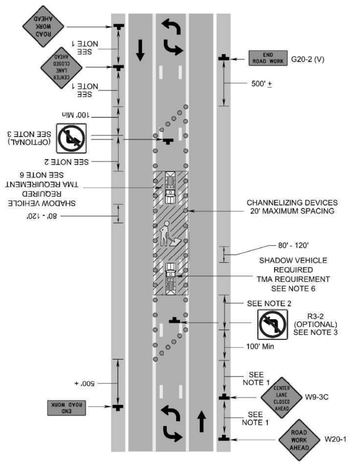
2: Revision 2 – 9/1/2019

Inside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-17.2)



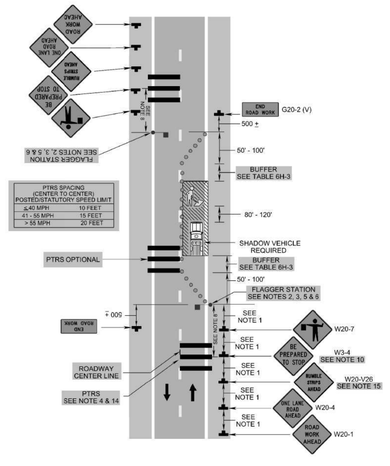
2: Revision 2 – 9/1/2019
3: Revision 2.1 – 11/1/2020

Center Turn Lane Closure Operation
(Figure TTC-21.1)



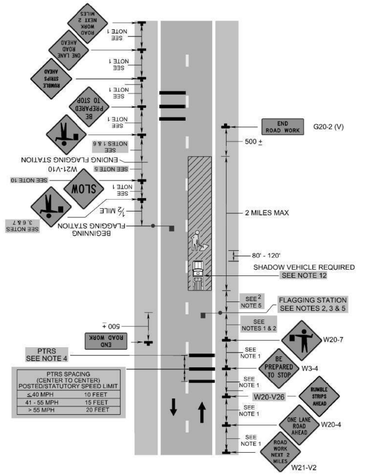
1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019
3: Revision 2.1 – 11/1/2020

Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019
3: Revision 2.1 – 11/1/2020

Non-Stationary Operation on a Two-Lane Roadway Using Flaggers
(Figure TTC-24.2)



2: Revision 2 – 9/1/2019

PROJECT MANAGER *Wendy Block Sanford, (703) 385-7889*
SURVEYED BY, DATE *Nick Kougalis, L.S., (703) 368-7373 (2020)*
DESIGN BY *Mark A. Gunn, P.E., (703) 368-7373*
SUBSURFACE UTILITY BY, DATE *Accumark, (800) 542-2990 (2015)*

Temporary Traffic Control TTC Notes and Figures

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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

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

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

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

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S·W/60
30	135	150	165	180	L=S·W/60
35	185	205	225	245	L=S·W/60
40	240	270	295	320	L=S·W/60
45	405	450	495	540	L=SW

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
50	450	500	550	600	L=SW
55	495	550	605	660	L= SW
60	540	600	660	720	L=SW
65	585	650	715	780	L=SW
70	630	700	770	840	L=SW

Shifting Tapers - full lane width shifts on Limited Access Highways shall use a 750' shifting taper for posted speeds less than 65 mph and a 1000' shifting taper for posted speeds equal to or greater than 65 mph. For all other roadways ¾ L should be used.[2]
Shoulder Taper = ¾ L Minimum

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

Channelizing Device Spacing

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

*Construction access spacing may be increased to this distance, but shall not exceed one access per ½ mile.

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

Standard:
6. **If the posted speed limit is 45 mph or greater, the shadow vehicle shall have a truck-mounted attenuator.**
7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or two high intensity amber flashing or oscillating[3] lights mounted on the vehicle and visible for 360º shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

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

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

Option:[5]
10. PTRS may be used as shown in Figure TTC-17 and in accordances with Section 6F-99.[2]
11. The supplemental PTRS may be eliminated.[2]

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

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

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

Standard:
2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **To prevent accidental intrusion into the work area, channelizing device spacing shall not exceed 10' on centers or as directed by the Engineer.[4]**

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

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

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S·W/60
30	135	150	165	180	L=S·W/60
35	185	205	225	245	L=S·W/60
40	240	270	295	320	L=S·W/60
45	405	450	495	540	L=SW

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
50	450	500	550	600	L=SW
55	495	550	605	660	L= SW
60	540	600	660	720	L=SW
65	585	650	715	780	L=SW
70	630	700	770	840	L=SW

Shoulder Taper = ¾ L Minimum

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

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

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

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

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

Typical Traffic Control
Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.2)
NOTES

Standard:
1. **When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.**
2. **Curb parking shall be prohibited for at least 50 feet in advance of the midblock crosswalk.**

Guidance:
3. *Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.*
4. *Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.*
5. *Temporary markings should be considered for operations exceeding three days in duration.*

Option:
6. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
7. For nighttime closures, Type A Flashing warning lights may be used on barricades supporting signs and closing sidewalks.

Standard:
8. **In order to maintain the systematic use of the fluorescent yellow-green background for school warning signs in a jurisdiction, the fluorescent yellow-green background for school warning signs shall be used in TTC zones.[2]**
9. **All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 Barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.[2]**

Support:
10. Refer to Sections 3B-16 through 3B-18 of the 2009MUTCD and the Virginia Supplement to the MUTCD[1] for crosswalk[2] lines, yield lines and other related TTC devices that may be used to control vehicular traffic at midblock crosswalks.

Standard:[2]
11. **The YIELD HERE TO PEDESTRIANS (R1-5) sign shall be placed at the Yield Line.**
12. **Fluorescent yellow-green PEDESTRIAN TRAFFIC (W11-2) symbol sign, AHEAD (W16-9p) plaque and ARROW (W16-7p) plaque shall be used to identify the work zone crosswalk.**

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

Typical Traffic Control
Outside Lane Closure Operation on a Multi-Lane Roundabout
(Figure TTC-33.2)
NOTES

Support:
1. Each roundabout is unique and the traffic control must be developed to meet the specific conditions of the location and the work operation. A detour could possibly better serve traffic movement and must be consider as an alternative to the flagger operation. This traffic control layout can be used on a traffic circle.

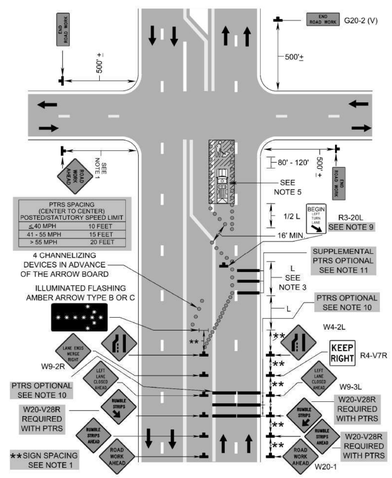
Standard:
2. **Multi-lane approaches to the roundabout shall be reduced to one lane and a flagger shall control traffic flow on each approach of the roundabout.**
3. **All flaggers shall be state certified and have their certification card in their possession when performing flagging duties. A lead flagger shall be designated and radio communication shall be used by the flaggers.**
4. **Only one quadrant of traffic shall be released at a time.**
5. **Taper length (L) and channelizing device spacing shall be as shown in Note 4 in TTC 32.0.**
6. **At night, flagger stations shall be illuminated, except in emergencies. Street lights and vehicle headlights shall not be used to illuminate the flagger station.**
7. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
8. **A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one amber high intensity rotating, oscillating, or flashing[3] light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck- mounted attenuator shall be used.**
9. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[3] oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or[3] oscillating lights.**
10. **A minimum of four (4) drum channelizing devices shall be placed on the shoulder in advance of the PCMS in a taper for delineation (see Figure 6F-6).**

Guidance:
11. *Sign spacing distance should be 350'- 500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph.*
12. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance to the flagger station, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger.*
13. *Time limits for stopping traffic by a flagger should be followed, see Section 6E.07.[2]*
14. *A PCMS should be used as part of the traffic control plan to provide clear guidance to motorist on all approaches of the roundabout that must reverse traffic flow.*
15. *When designing the traffic control and installing the channelizing devices for work activities at roundabouts, accommodations for the turning radius of tractor trailer vehicles and other large vehicles should be considered and the work zone designed accordingly.*

Option
16. Periodic adjustments to the channelizing devices may be allowed in an active work zone to accommodate the turning movements of tractor trailer vehicles and other large vehicles.
17. A supplemental flagger may be used in the roundabout island to help direct traffic and may be required on the approaches in advance warning of the flagging operation to slow traffic prior to reaching the flagger station or queued traffic.
18. A guide sign with road names may be used in lieu of the Double Arrow (W12-1) sign.
19. On the approaches where traffic flow will be split, two pilot vehicles may be used to guide traffic through the roundabout.
20. PTRS may be used on multi-lane roadways, see Section 6F-99, TTC-16 and TTC-23.[2]

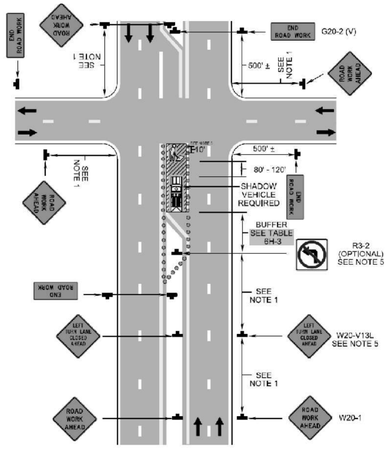
1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

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



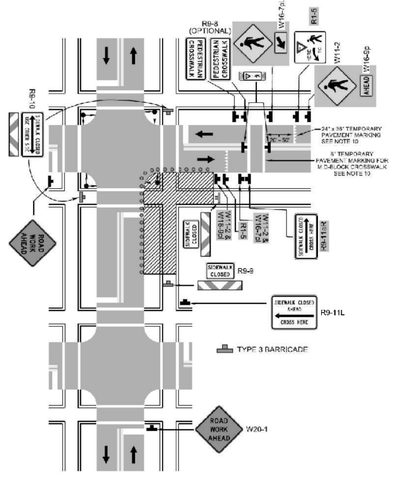
1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Turn Lane Closure Operation (Figure TTC-29.2)



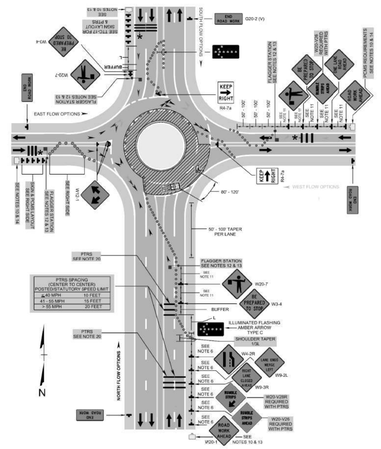
2: Revision 2 – 9/1/2019

Crosswalk Closure and Pedestrian Detour Operation (Figure TTC-36.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 7/1/2018

Outside Lane Closure Operation on a Multi-Lane Roundabout (Figure TTC-33.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019
3: Revision 2.1 – 11/1/2020

PROJECT	SHEET NO.
U000-151-R94	IJ(4)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control/TTC Notes and Figures

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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

Typical Traffic Control
Multi-Lane Shift Operation
(Figure TTC-40.2)
NOTES

Guidance:

1. *The lane shift should be used when the work area extends into either the right or left lane of a divided highway and it is not practical, for capacity reasons, to reduce the number of available lanes.*
2. *Sign spacing distance should be 1500'-1500' for Limited Access highways, and on all other roadways 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *If the STAY IN LANE (R4-9) sign is used, then solid 4 inch wide minimum white lines should be used.*

Standard:

4. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
5. **Shoulder and shifting taper lengths shall be as shown in Table 6II-25 Page 6II-5.[2]**
6. **Taper length (L) shall be at the following:**

Taper Length L

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

Shifting Tapers - full lane width shifts on Limited Access Highways shall use a 750' shifting taper for posted speeds less than 65 mph and a 1000' shifting taper for posted speeds equal to or greater than 65 mph. For all other roadways ½ L should be used.[2]

Shoulder Taper = ½ L Minimum

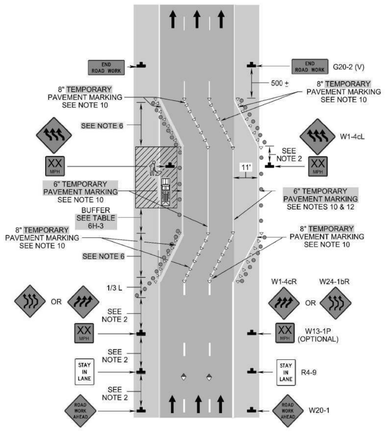
7. **The minimum width of the shoulder lane shall be 11'.**
8. **The buffer space length shall be as shown in Table 6II-3 on Page 6II-5 for the posted speed limit.**
9. **A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, oscillating, or flashing[1] light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-mounted attenuator shall be used.**
10. **For long-term work zones existing conflicting pavement markings and markers shall be removed and temporary pavement markings and markers shall be installed per Figure TTC-60.**

Option:

11. For short-term stationary work (less than 3 days duration), lanes may be delineated by channelizing devices or removable pavement markings instead of temporary pavement markings.
12. Temporary pavement markers, on a 40' center to center spacing, may be added to the tangent section between lane shifts as directed by the engineer.
13. Lane shift (W1-4 series) signs may be eliminated when geometric conditions straighten a curve or when tail L is used.[2]

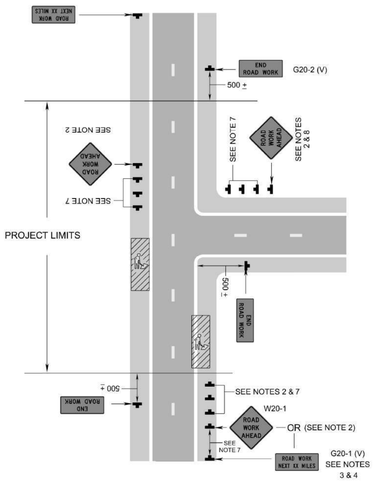
1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Multi-Lane Shift Operation
(Figure TTC-40.2)

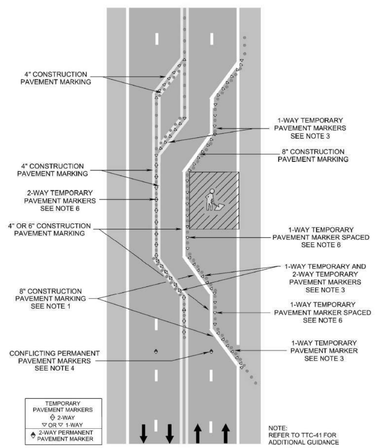


2: Revision 2 – 9/1/2019

Signing for Project Limits
(Figure TTC-53.0)



Temporary Pavement Marking and Marker Guidelines
(Figure TTC-60.0)



Typical Traffic Control
Lane Closure Operation through a Unsignalized[2] Intersection [1]
(Figure TTC-67.1)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*
2. *To maintain efficient traffic flow in a flagging operation on a two-lane roadway, the maximum time motorists should be stopped at a flagger station is 8 minutes for high volume roadways (average daily traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than 500 vehicles per day). For additional information see Section 6E.07.*

Standard:

3. **PTRS shall be used as per Section 6F.99.[2]**
4. **Channelizing device spacing shall be on 20' centers or less 100 feet in advance of the intersection.**

Guidance:

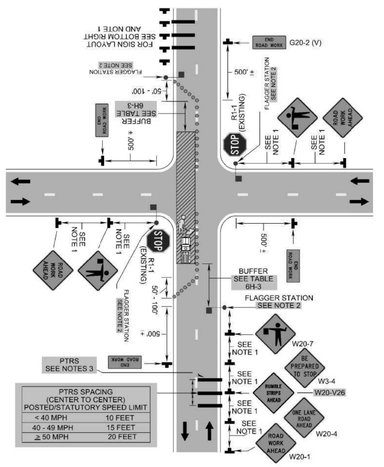
5. *If room permits, a shadow vehicle with at least one rotating, amber light or high intensity amber strobe light should be parked 80'-120' in advance of the first work crew.*
6. *If the posted speed limit is 45 mph or greater, the shadow vehicle should have a truck-mounted attenuator.*
7. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Option

8. At the stop condition intersecting roadway, additional flagger sign may be used (BE PREPARED TO STOP (W3-4)) between the ROAD WORK AHEAD and the flagger station in the proper sequence, as directed by the District[2] Traffic Engineer.
9. PTRS may be used on the intersecting roadway to enhance the work zone at the approaching intersection.[2]

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

Lane Closure Operation through a Unsignalized[2] Intersection [1]
(Figure TTC-67.1)



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

PROJECT	SHEET NO.
U000-151-R94	IJ(5)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Typical Sections Phase I & IA

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER
Mark Gunn
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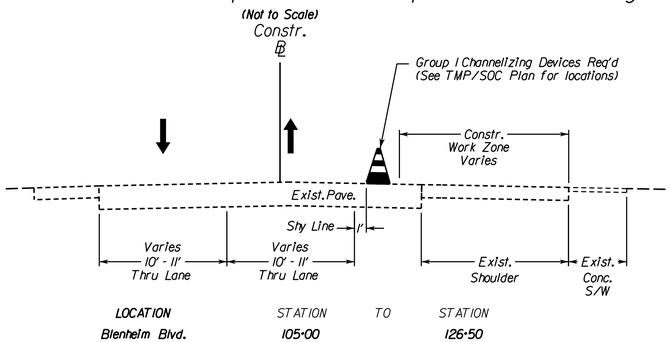
Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1J(6)

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

Phase I: Perm. Full Depth and Temp. Pave. Widening

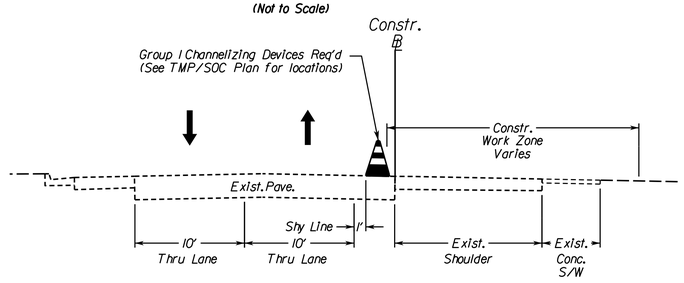
(Not to Scale)



LOCATION	STATION	TO	STATION
Blenheim Blvd.	105+00		126+50

Phase I: Perm. Full Depth and Temp. Pave. Widening

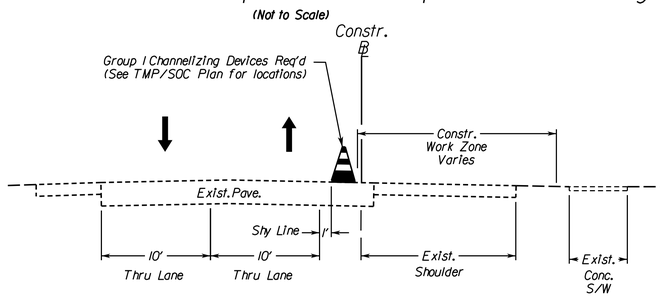
(Not to Scale)



LOCATION	STATION	TO	STATION
Blenheim Blvd.	137+00		141+50

Phase I: Perm. Full Depth and Temp. Pave. Widening

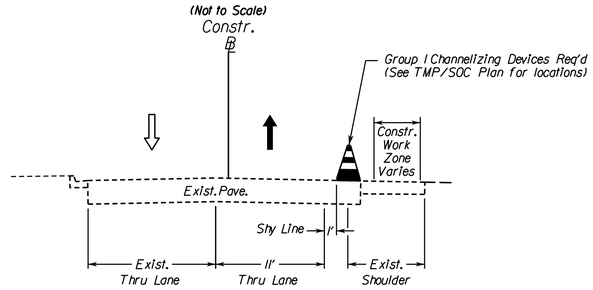
(Not to Scale)



LOCATION	STATION	TO	STATION
Blenheim Blvd.	141+50		149+00

Phase I: Perm. Full Depth and Temp. Pave. Widening

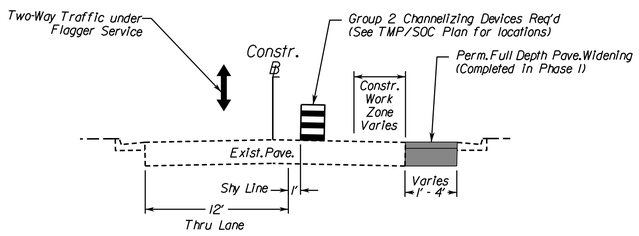
(Not to Scale)



LOCATION	STATION	TO	STATION
Blenheim Blvd.	164+75		174+00

Phase IA: Temp. Pave. Widening

(Not to Scale)



LOCATION	STATION	TO	STATION
Blenheim Blvd.	109+75		111+25

PROJECT	SHEET NO.
U000-151-R94	1J(6)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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Temporary Traffic Control Typical Sections Phase 2

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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PROFESSIONAL ENGINEER

Mark Gunn
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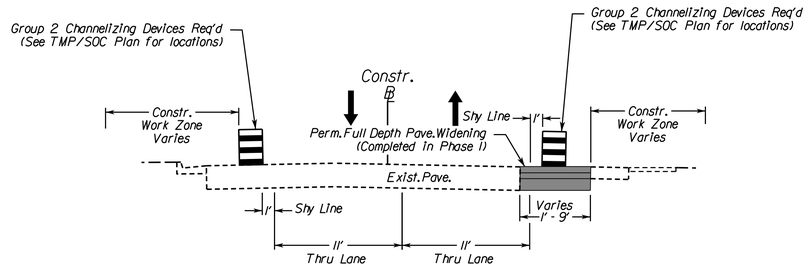
Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1J(7)

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

Phase 2: Construction

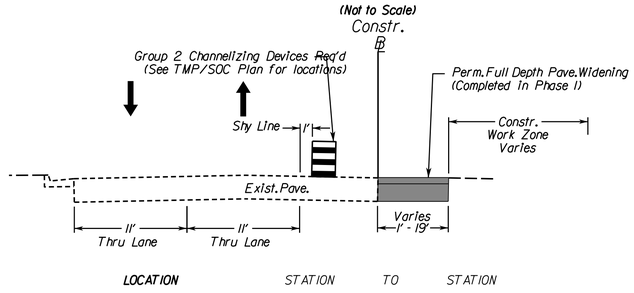
(Not to Scale)



LOCATION	STATION	TO	STATION
Blenheim Blvd.	104+50		106+00

Phase 2: Construction

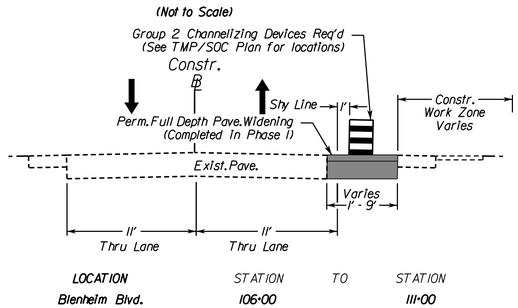
(Not to Scale)



LOCATION	STATION	TO	STATION
Blenheim Blvd.	111+00		117+50

Phase 2: Construction

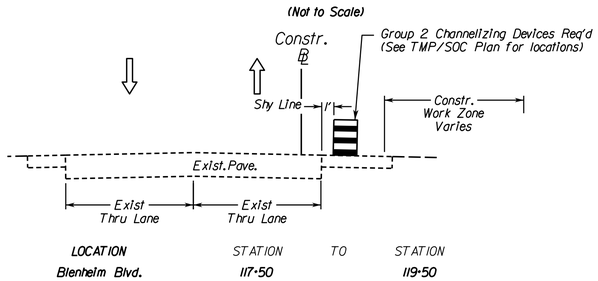
(Not to Scale)



LOCATION	STATION	TO	STATION
Blenheim Blvd.	106+00		111+00

Phase 2: Construction

(Not to Scale)



LOCATION	STATION	TO	STATION
Blenheim Blvd.	117+50		119+50

12/11/2025

PROJECT	SHEET NO.
U000-151-R94	1J(7)

FINAL PLANS

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Temporary Traffic Control Typical Sections Phase 2A

COMMONWEALTH OF VIRGINIA
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Mark Gunn
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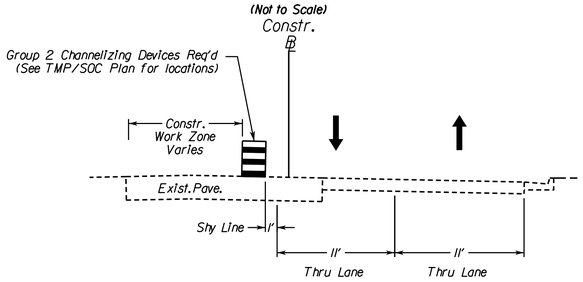
Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IJ(8)

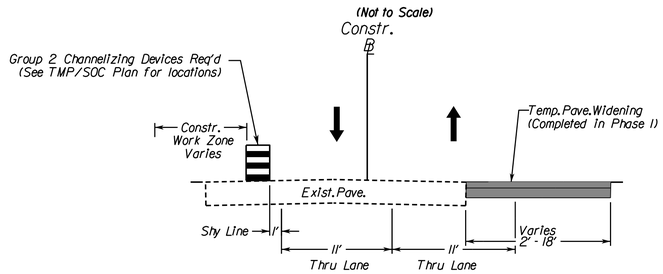
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Phase 2A: Construction



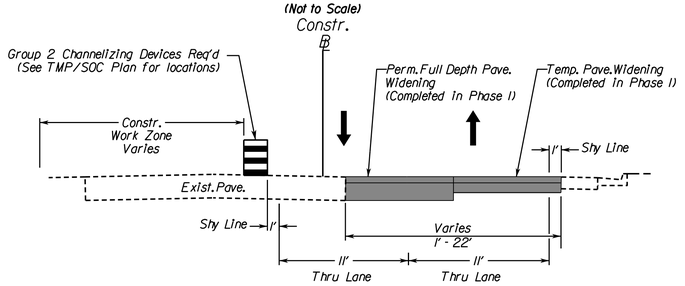
LOCATION	STATION	TO	STATION
Blenheim Blvd.	116+75		121+75
Blenheim Blvd.	127+00		137+00
Blenheim Blvd.	145+25		163+94

Phase 2A: Construction



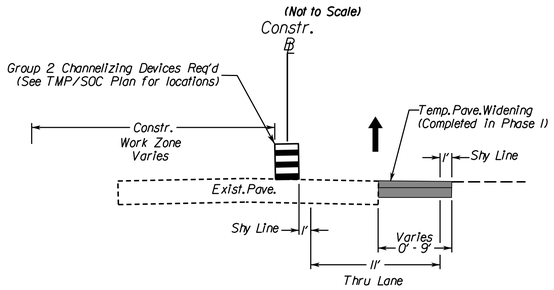
LOCATION	STATION	TO	STATION
Blenheim Blvd.	121+75		126+50

Phase 2A: Construction



LOCATION	STATION	TO	STATION
Blenheim Blvd.	137+00		144+25

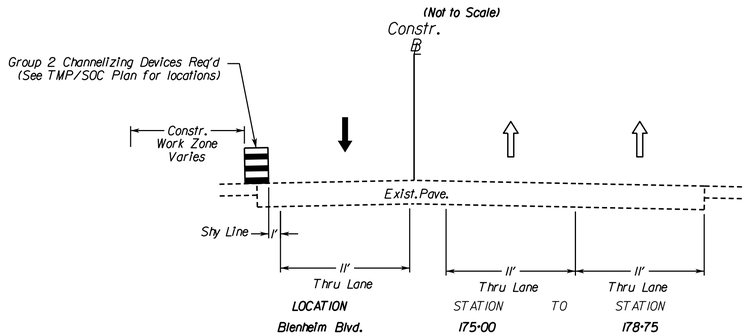
Phase 2A: Construction with Detour



LOCATION	STATION	TO	STATION
Blenheim Blvd.	163+94		175+00

Note: See Sheet IL(16) for detour plan

Phase 2A: Construction



LOCATION	STATION	TO	STATION
Blenheim Blvd.	175+00		178+75

12/11/2025

PROJECT	SHEET NO.
U000-151-R94	IJ(8)

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Typical Sections Phase 3

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

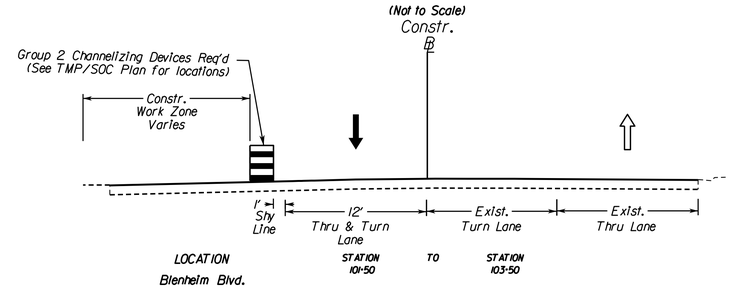
Mark Gunn
2025.12.11 20:53:21 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1J(9)

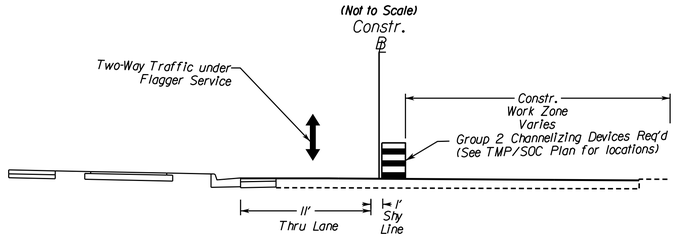
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Phase 3: Construction



LOCATION	STATION	TO	STATION
Blenheim Blvd.	101+50		103+50

Phase 3: Construction

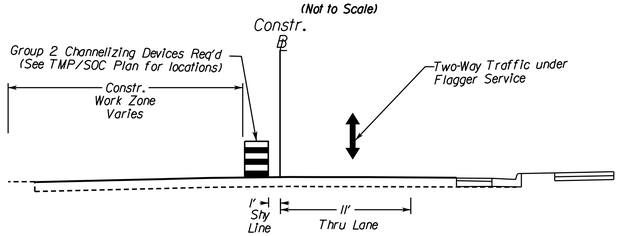


LOCATION	STATION	TO	STATION
Blenheim Blvd.	118+00		122+00
	124+50		144+25
	146+00		147+75

Phase 3: Construction

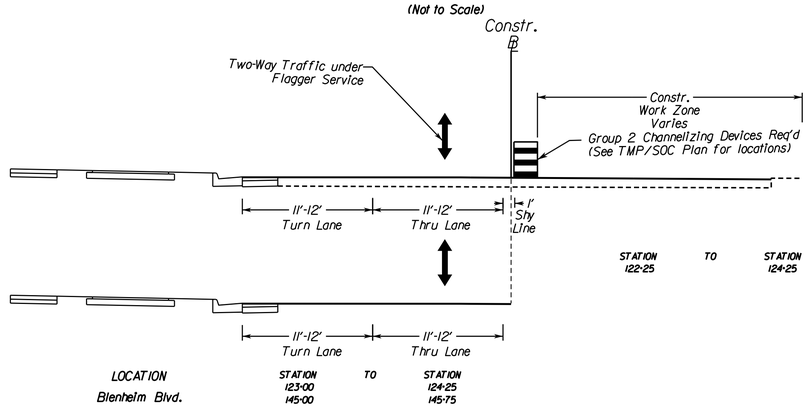
LOCATION	STATION	TO	STATION
Blenheim Blvd.	105+50		108+00

Phase 3: Construction



LOCATION	STATION	TO	STATION
Blenheim Blvd.	108+50		110+00
	110+00		117+75

Phase 3: Construction



LOCATION	STATION	TO	STATION
Blenheim Blvd.	123+00		124+25
	145+00		145+75

STATION 122+25 TO STATION 124+25

12/11/2025

PROJECT	SHEET NO.
U000-151-R94	1J(9)

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Typical Sections Phase 3

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

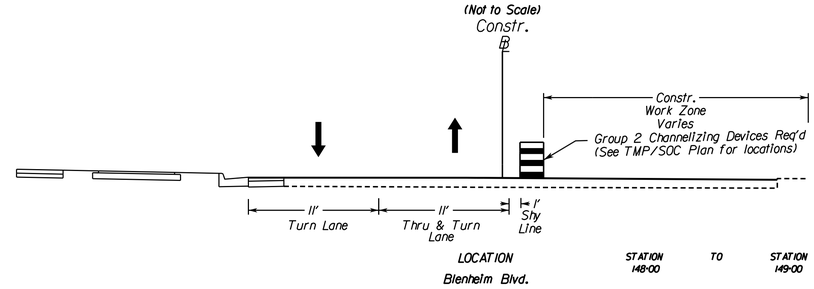
Mark Gunn
2025.12.11 20:53:42 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

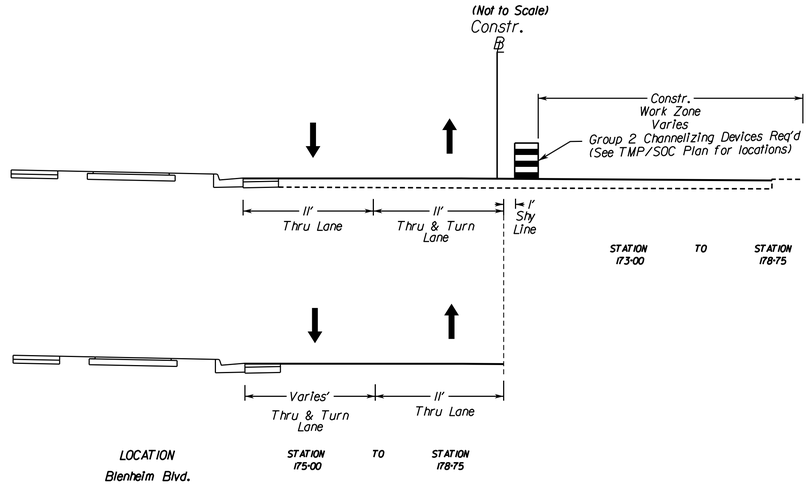
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1J(10)

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

Phase 3: Construction



Phase 3: Construction



PROJECT	SHEET NO.
U000-151-R94	1J(10)

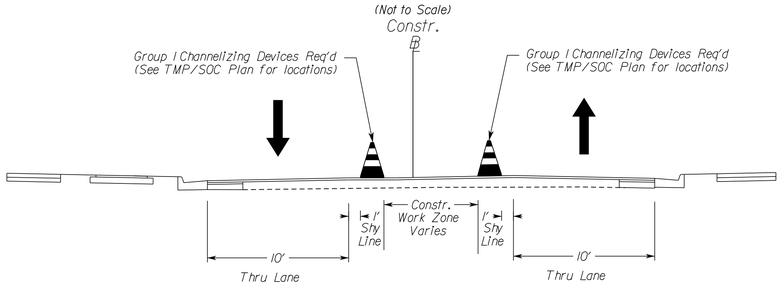
12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

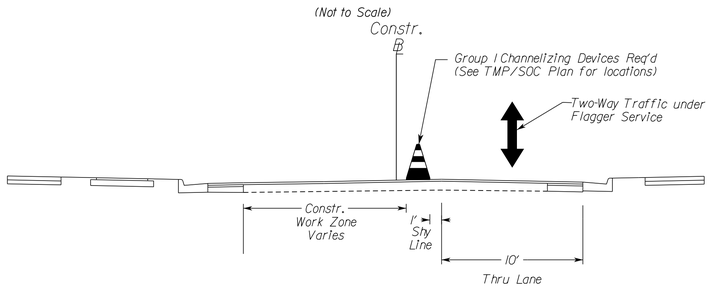
Temporary Traffic Control Typical Sections Phase 4 & 4A

Phase 4: Construction



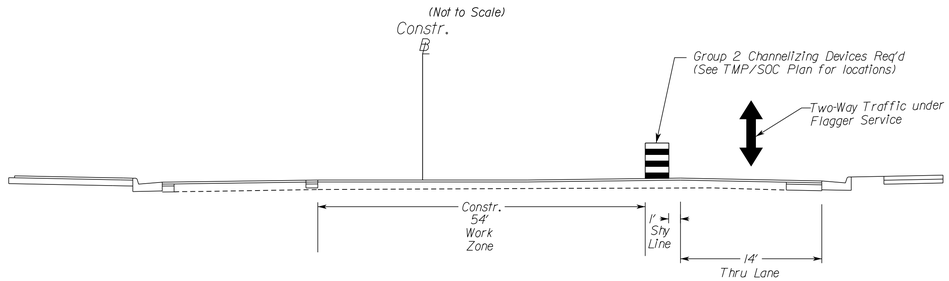
LOCATION	STATION	TO	STATION
Blenheim Blvd.	107+25		108+50

Phase 4: Construction



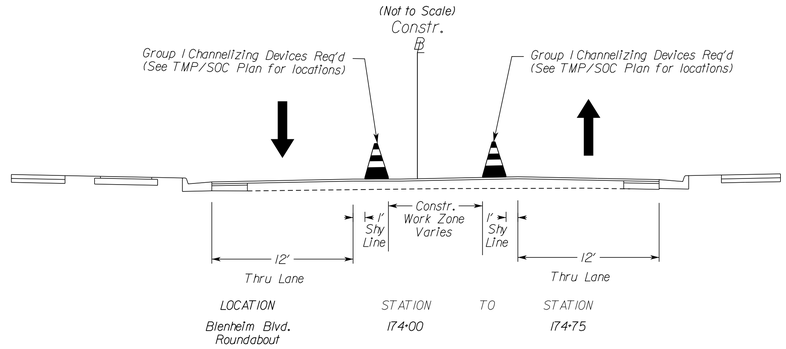
LOCATION	STATION	TO	STATION
Blenheim Blvd.	123+75 163+75		126+00 167+00

Phase 4: Construction



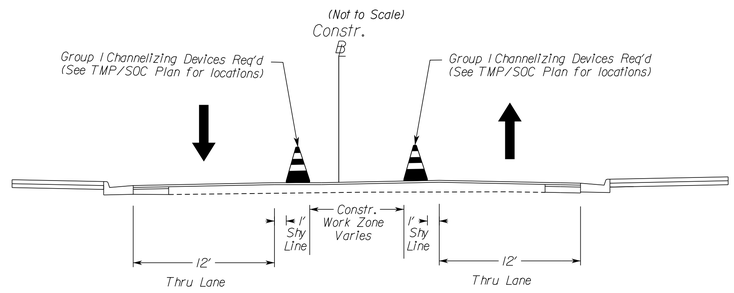
LOCATION	STATION	TO	STATION
Blenheim Blvd.	174+75		175+50

Phase 4A: Construction



LOCATION	STATION	TO	STATION
Blenheim Blvd. Roundabout	174+00		174+75

Phase 4A: Construction



LOCATION	STATION	TO	STATION
Blenheim Blvd. Roundabout	175+75		178+75

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:54:16 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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

PROJECT	SHEET NO.
U000-151-R94	IJ(II)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase I

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1K

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:54:38 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

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

Phase I Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase I is completed, unless directed by the Engineer. Contractor shall install the reduced speed signs of 25 mph as shown on plans.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase I, within the existing Right of Way and/or Easements

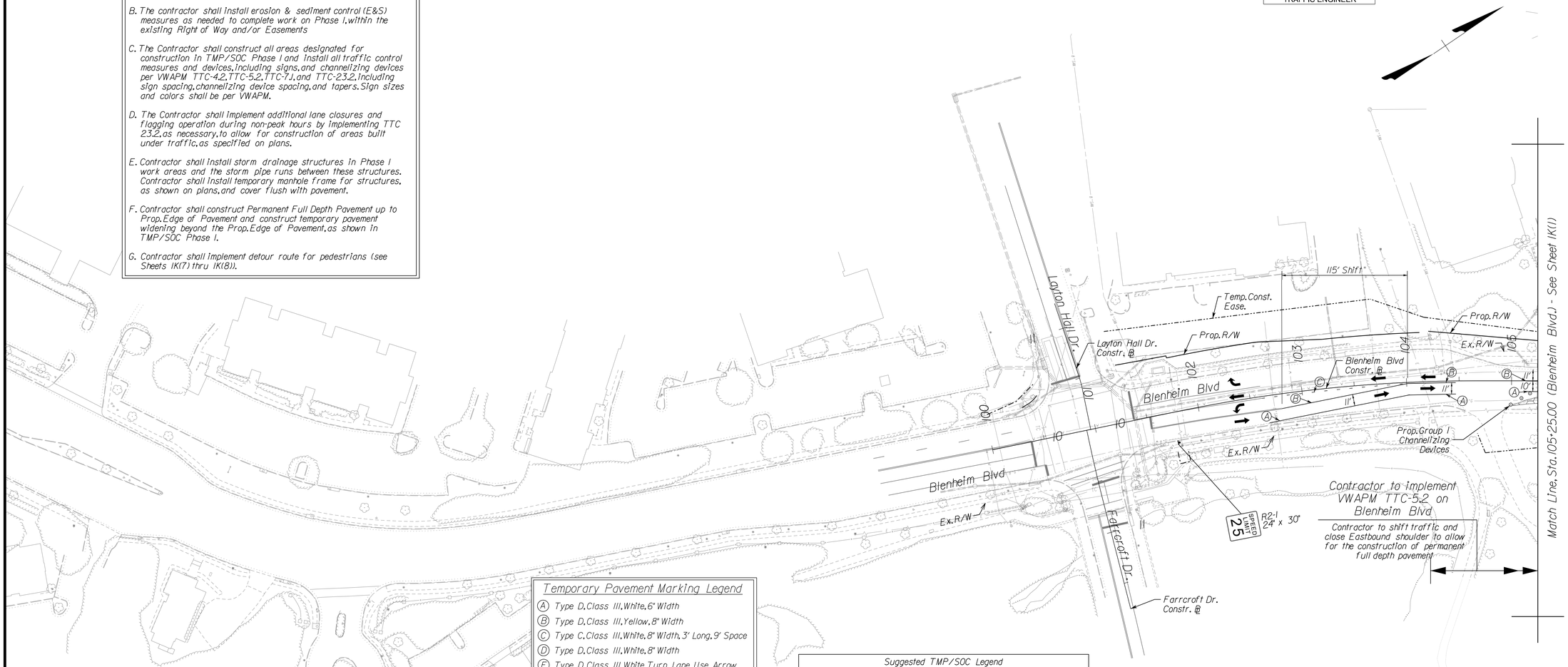
C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase I and install all traffic control measures and devices, including signs, and channelizing devices per VWAPM TTC-4.2, TTC-5.2, TTC-7.1, and TTC-23.2, including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. The Contractor shall implement additional lane closures and flagging operation during non-peak hours by implementing TTC 23.2, as necessary, to allow for construction of areas built under traffic, as specified on plans.

E. Contractor shall install storm drainage structures in Phase I work areas and the storm pipe runs between these structures. Contractor shall install temporary manhole frame for structures, as shown on plans, and cover flush with pavement.

F. Contractor shall construct Permanent Full Depth Pavement up to Prop. Edge of Pavement and construct temporary pavement widening beyond the Prop. Edge of Pavement, as shown in TMP/SOC Phase I.

G. Contractor shall implement detour route for pedestrians (see Sheets 1K(7) thru 1K(8)).



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be ergdicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet 1K)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet 1K)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	1K

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase I

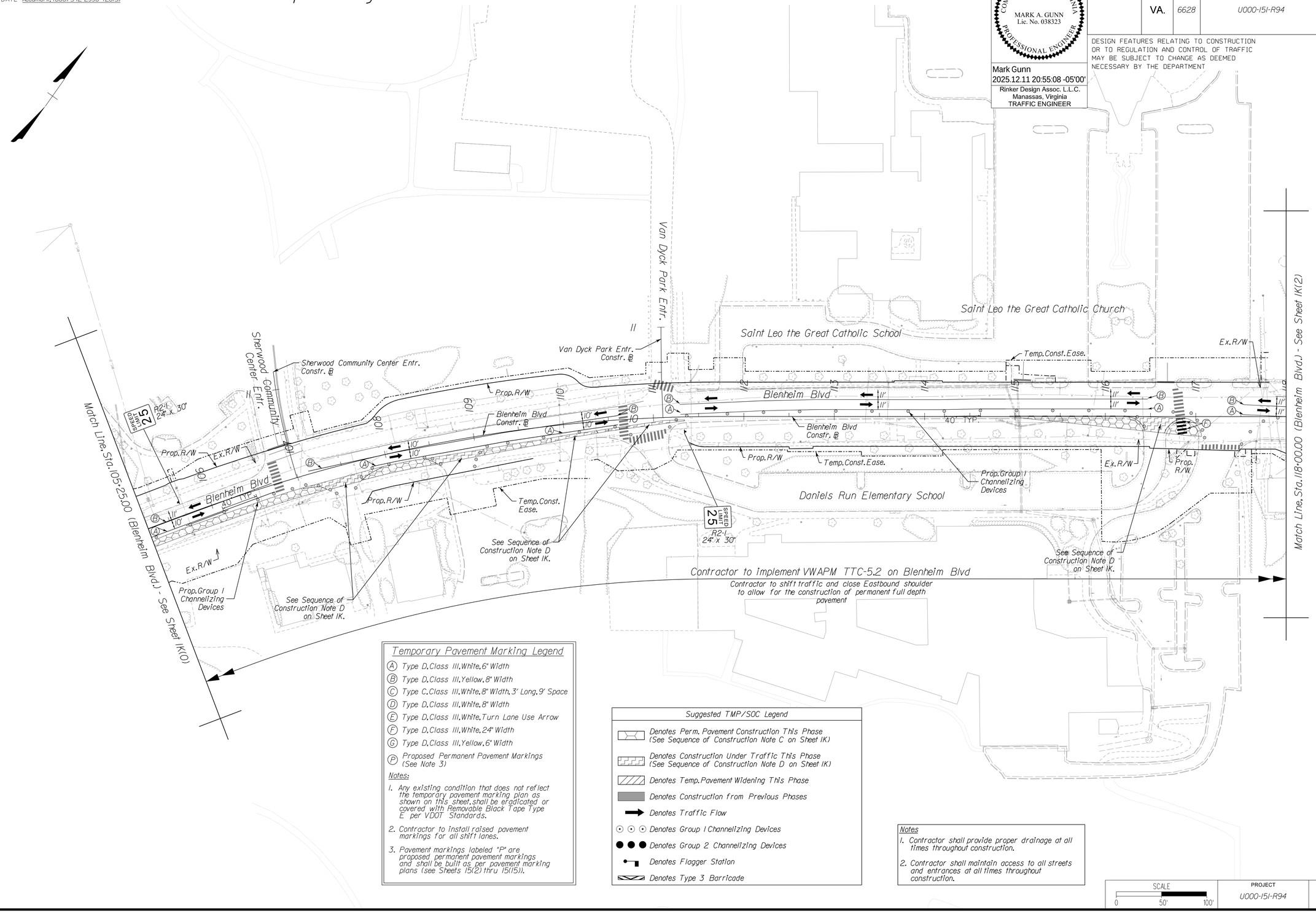
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:55:08 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1K(1)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
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Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet 1K)
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- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	1K(1)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase I

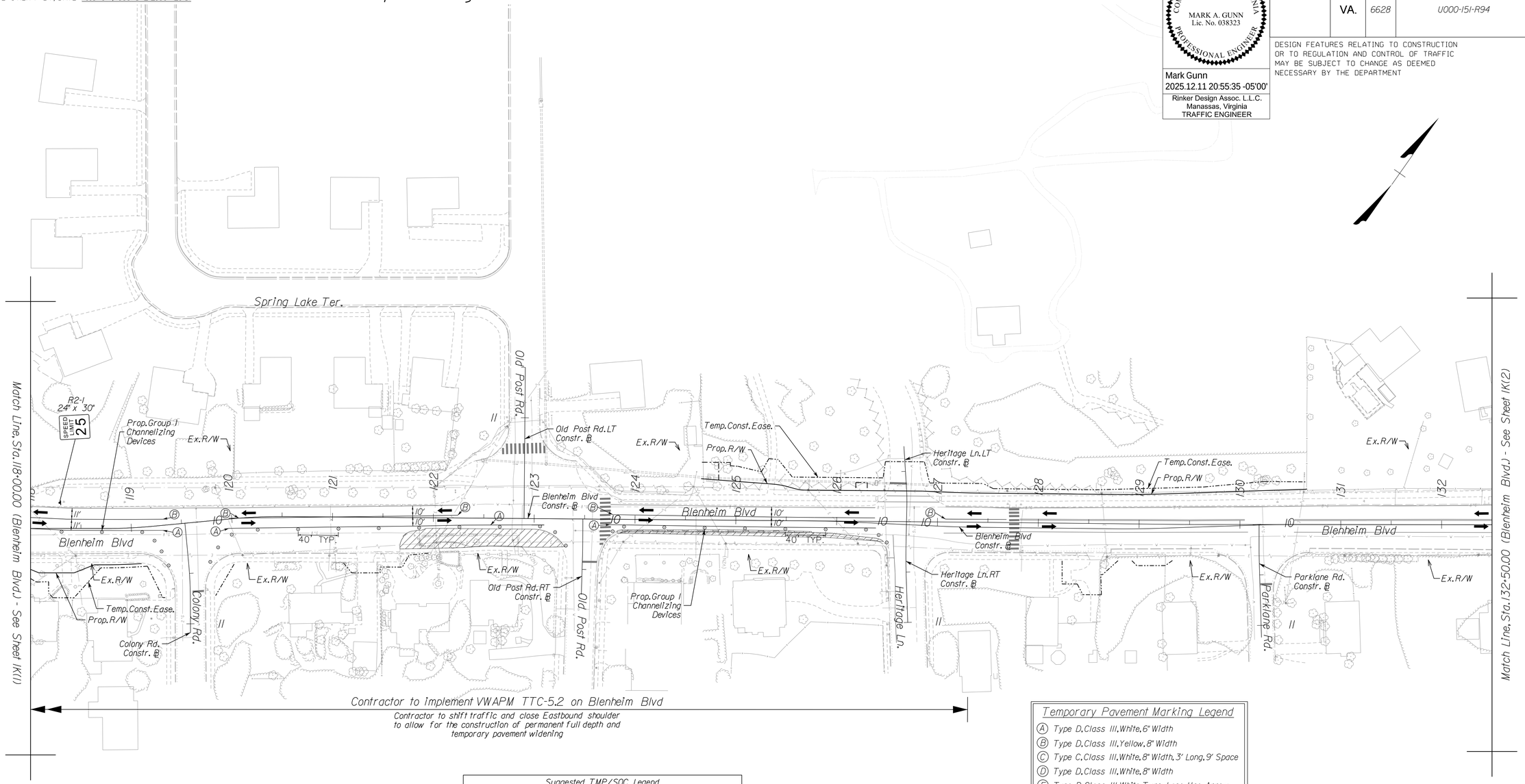
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:55:35 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IK(2)

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



Suggested TMP/SOC Legend

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- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
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Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
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3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IK(2)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase I

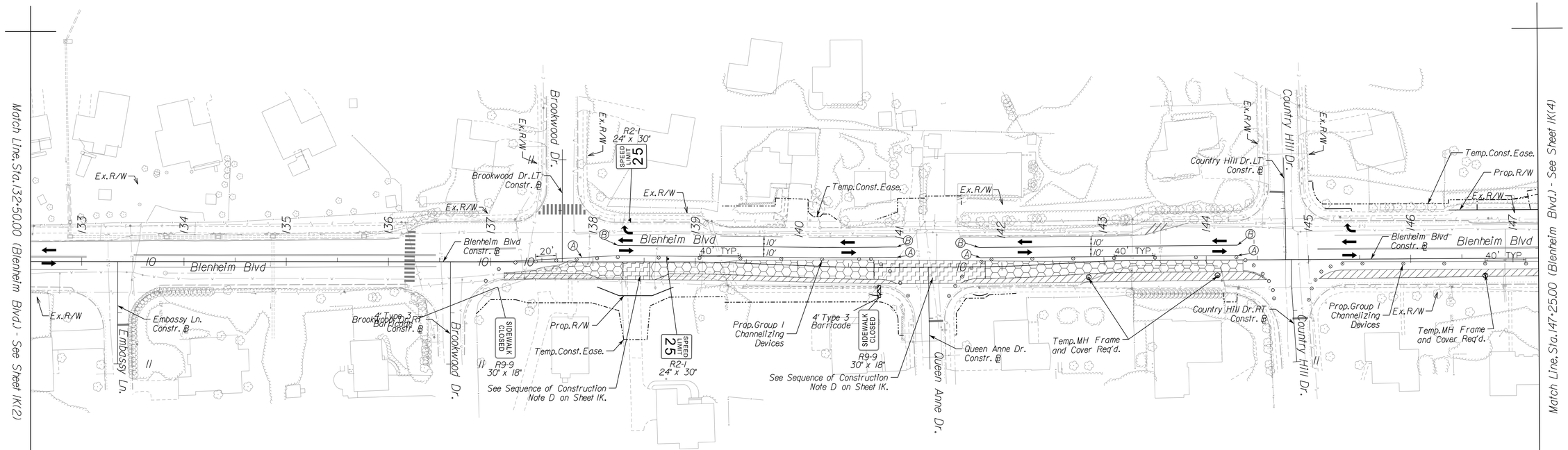
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:56:08 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IK(3)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

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Suggested TMP/SOC Legend

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- Denotes Type 3 Barricade

Contractor to implement VWAPM TTC-5.2 on Blenheim Blvd

Contractor to shift traffic and close Eastbound shoulder and construct permenant full depth and temporary pavement widening and Temp. MH Frame and Cover for Stormwater Structures

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IK(3)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase I

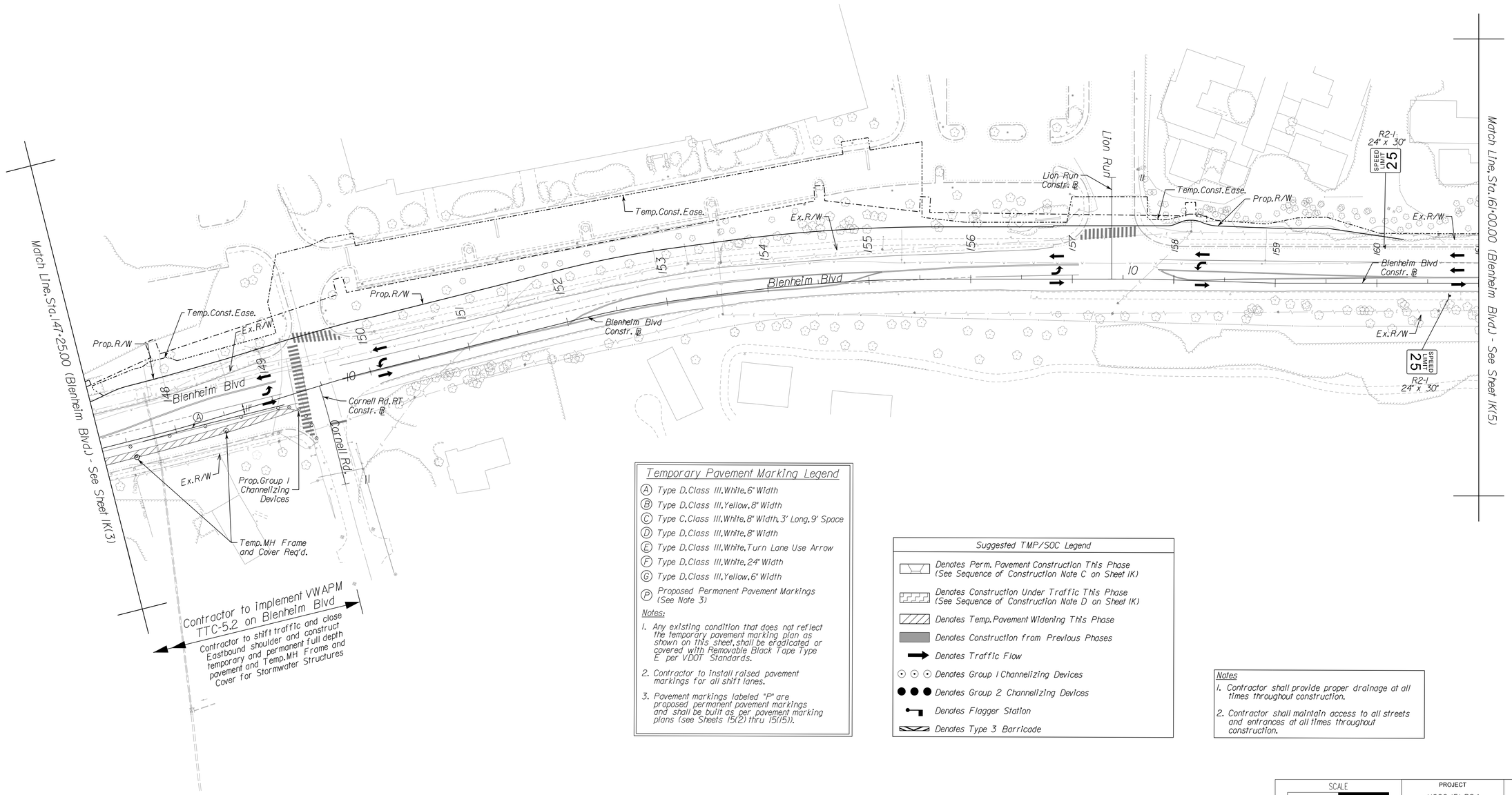
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:56:32 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1K(4)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

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- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE: 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	1K(4)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase I

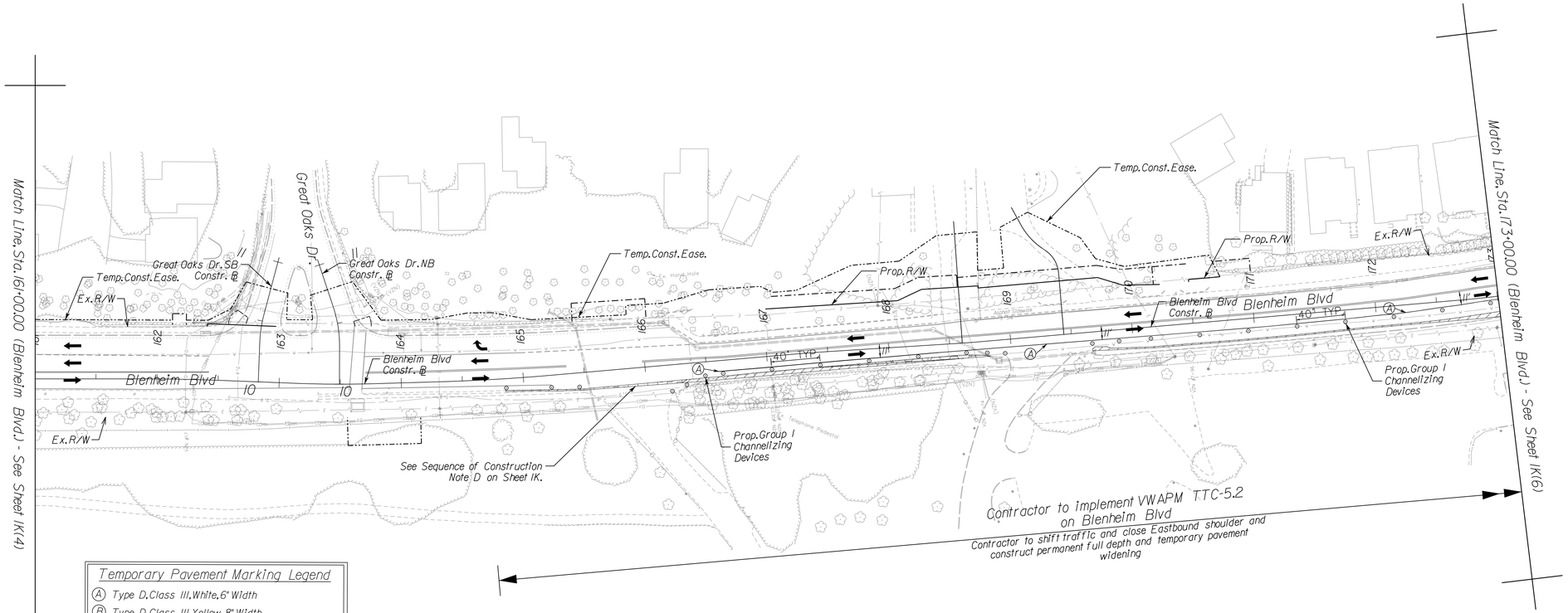
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:57:09 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1K(5)

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



Temporary Pavement Marking Legend

- Ⓐ Type D, Class III, White, 6" Width
- Ⓑ Type D, Class III, Yellow, 8" Width
- Ⓒ Type C, Class III, White, 8" Width, 3' Long, 9' Space
- Ⓓ Type D, Class III, White, 8" Width
- Ⓔ Type D, Class III, White, Turn Lane Use Arrow
- Ⓕ Type D, Class III, White, 24" Width
- Ⓖ Type D, Class III, Yellow, 6" Width
- Ⓟ Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet 1K)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet 1K)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	1K(5)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase I

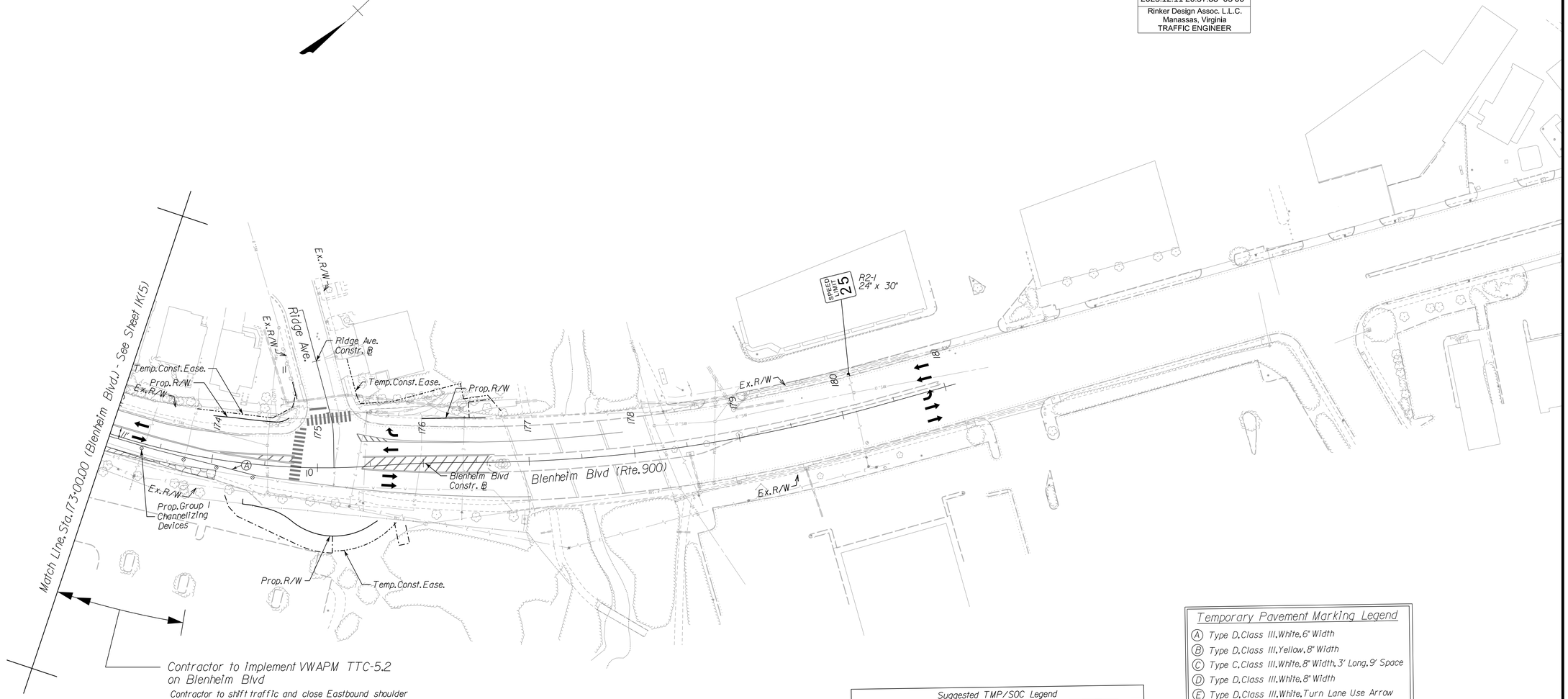
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:57:33 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IK(6)

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



Contractor to implement VWAPM TTC-5.2 on Blenheim Blvd

Contractor to shift traffic and close Eastbound shoulder and construct permanent full depth and temporary pavement widening

Notes
1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IK)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IK)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:
1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed, permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

SCALE: 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IK(6)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase I

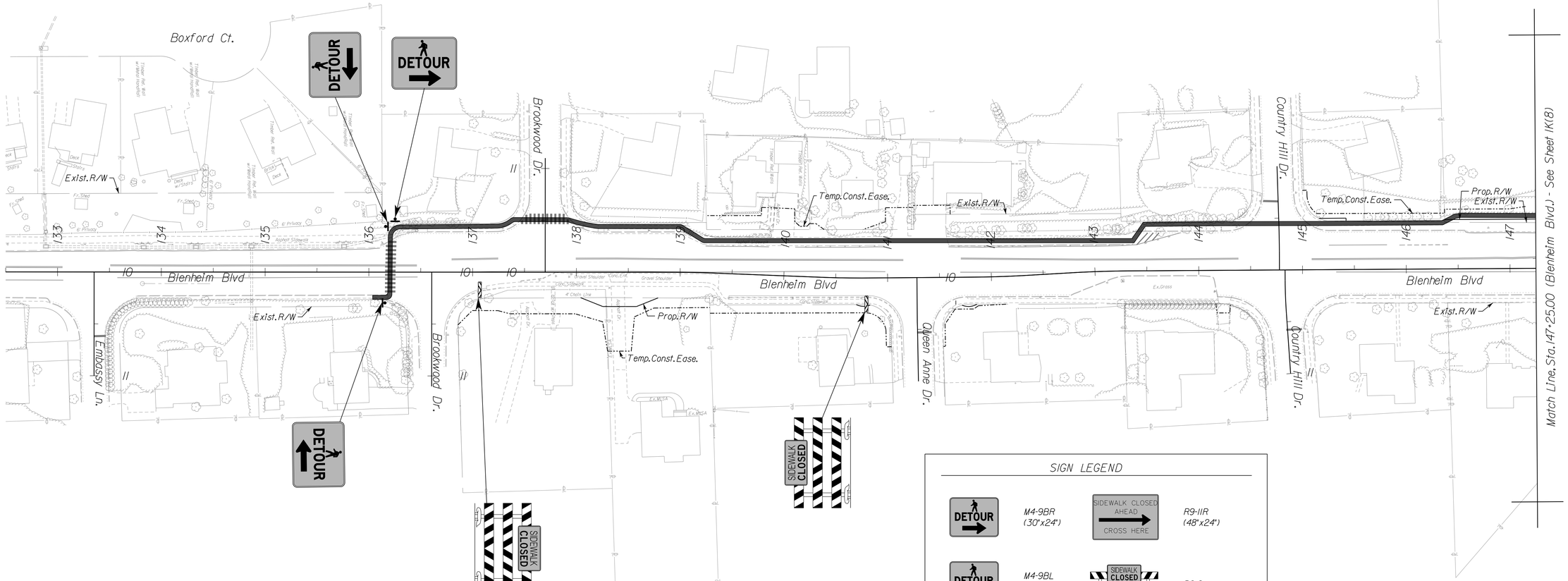
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:57:59 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IK(7)

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



Note to Contractor:
All signs SHALL BE placed within the Right of Way or Temporary Construction Easement. NO EXCEPTIONS.

SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IK(7)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

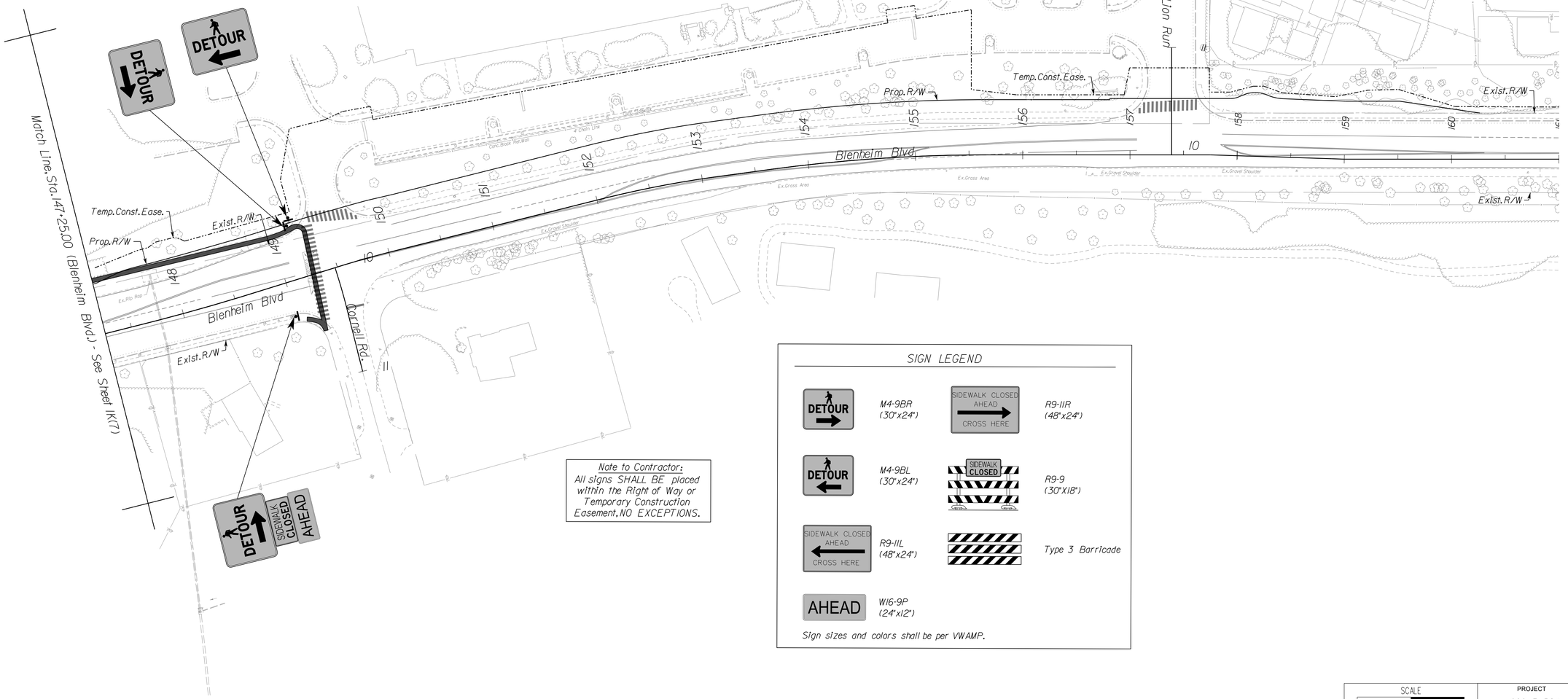
Pedestrian Detour Phase I

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:58:33 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IK(8)

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



SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IK(8)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase IA

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 20:58:51 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1K(9)

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

Phase IA Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase IA is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase IA, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas built under traffic designated for construction in TMP/SOC Phase IA and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-23.2, including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. The Contractor shall implement lane closures and flagging operation during non-peak hours by implementing TTC 23.2, as necessary, to allow for the construction of full depth pavement built under traffic, as specified on plans.

E. Contractor shall close the crosswalk as shown on plans and reroute pedestrians crossing Blenheim Blvd. to use the existing crosswalks at Sta. 106+75 and / or Sta. 116+85.

Van Dyck Park Entr.
Saint Leo the Great Catholic Church
Saint Leo the Great Catholic School
Van Dyck Park Entr. Constr. Ⓑ
See Sequence of Construction Note D
R9-9 30" x 18" SIDEWALK CLOSED
4' Type 3 Barricade
Temp.Const.Ease.
R2-1 24" x 30" SPEED LIMIT 25
Ex.R/W
Sherwood Community Center Entr.
Sherwood Community Center Entr. Constr. Ⓑ
Prop.R/W
Ex.R/W
12'
20'
40' TYP
Blenheim Blvd
Blenheim Blvd Constr. Ⓑ
Prop. Group 2 Channelizing Devices
SIDEWALK CLOSED
R9-9 30" x 18"
4' Type 3 Barricade
SPEED LIMIT 25
R2-1 24" x 30"
Daniels Run Elementary School
Prop. R/W
Temp. Const. Ease.
Temp.Const. Ease.
Ex.R/W
Blenheim Blvd
Temp.Const.Ease.
R2-1 24" x 30" SPEED LIMIT 25
Ex. Conservation Easement
Ex. Trail Easement
Ex. Storm Sewer Easement
Ex. Gravity Sanitary Sewer Easement
Ex. Water Line Easement
Ex. Gas Line Easement
Ex. Overhead Utility Line
Ex. Underground Utility Line
Ex. Gravity Storm Sewer
Ex. Gravity Sanitary Sewer
Ex. Water Line
Ex. Gas Line
Ex. Overhead Utility Line
Ex. Underground Utility Line
Ex. Curb Line
Ex. Sidewalk
Ex. Edge of Pavement
Ex. Building
Ex. Fence
Ex. Tree Line
Ex. Contour
Ex. Storm Sewer Manhole
Ex. Sanitary Sewer Manhole
Ex. Water Valve
Ex. Water Meter
Ex. Gas Valve
Ex. Gas Meter
Ex. Utility Pole
Ex. Light Pole
Ex. Fire Hydrant
Ex. Sign
Ex. Mailbox
Ex. Inlet
Ex. Curb Inlet
Ex. Flared End Section
Ex. Headwall
Ex. Drop Inlet
Ex. Junction Box
Ex. Telephone Pedestal
Ex. Cable TV Pedestal
Ex. Electric Pedestal
Ex. Electric Transformer
Ex. Electric Meter
Ex. Telephone Manhole
Ex. Cable TV Manhole
Ex. Electric Manhole
Ex. Telephone Riser
Ex. Cable TV Riser
Ex. Electric Riser
Ex. Telephone Booth
Ex. Cable TV Booth
Ex. Electric Booth
Ex. Telephone Vault
Ex. Cable TV Vault
Ex. Electric Vault
Ex. Telephone Handhole
Ex. Cable TV Handhole
Ex. Electric Handhole
Ex. Telephone Cabinet
Ex. Cable TV Cabinet
Ex. Electric Cabinet
Ex. Telephone Pole
Ex. Cable TV Pole
Ex. Electric Pole
Ex. Telephone Line
Ex. Cable TV Line
Ex. Electric Line
Ex. Telephone Conduit
Ex. Cable TV Conduit
Ex. Electric Conduit
Ex. Telephone Duct
Ex. Cable TV Duct
Ex. Electric Duct
Ex. Telephone Vault
Ex. Cable TV Vault
Ex. Electric Vault
Ex. Telephone Handhole
Ex. Cable TV Handhole
Ex. Electric Handhole
Ex. Telephone Cabinet
Ex. Cable TV Cabinet
Ex. Electric Cabinet
Ex. Telephone Pole
Ex. Cable TV Pole
Ex. Electric Pole
Ex. Telephone Line
Ex. Cable TV Line
Ex. Electric Line
Ex. Telephone Conduit
Ex. Cable TV Conduit
Ex. Electric Conduit
Ex. Telephone Duct
Ex. Cable TV Duct
Ex. Electric Duct

Contractor to Implement VWAPM TTC-23.2 on Blenheim Blvd

Contractor to close Eastbound Thru Lane and Implement Alternating One-Way Traffic on the Westbound Lane utilizing flagger operations to allow for construction of Permanent Full-Depth Pavement

Notes
1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

Suggested TMP/SOC Legend
- Denotes Perm. Pavement Construction This Phase
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet 1L(2))
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Temporary Pavement Marking Legend
- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:
1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	1K(9)

FINAL PLANS

12/11/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 2

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:00:09 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL

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

Phase 2 Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 2 is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 2, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 2 and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-4.2, TTC-5.2, TTC-7.1, and TTC-23.2 including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. The Contractor shall implement lane closures and flagging operation during non-peak hours by implementing TTC 23.2, as necessary, to allow for the construction of full depth pavement built under traffic, as specified on plans.

E. Contractor shall implement TTC-4.2 and TTC-7.1 on Blenheim Blvd. and utilize group II channelizing devices to close the Eastbound shoulder, as necessary, to allow for the construction of the roadway, as shown on plans.

F. Contractor shall install storm structures and storm pipe runs on Blenheim Blvd., as shown on plans, by implementing TTC-23.2 and applying daily lane closures with flagger operations during non-peak hours, as necessary.

G. Contractor shall construct the areas designated for construction in this phase so that no more than ONE bus stop is non-operational at a time. Contractor shall coordinate bus stop closures with Fairfax County Connector (local bus system) and ensure that the next and previous bus stops are operational.

H. Contractor shall implement detour route for pedestrians (see Sheets IL(2) thru IL(4)). For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

Contractor to Implement VWAPM TTC-5.2 on Blenheim Blvd
Contractor to shift traffic to allow for the construction of storm structure
Contractor to implement daily lane closures & flagging operation (TTC-23.2) during non-peak hours to trench proposed storm pipe.
Layton Hall Dr. Constr. Ⓑ
Temp. Const. Ease.
Prop. R/W
Prop. Group 2 Channelizing Devices
SPEED LIMIT 25
R2-1 24" x 30"
Sherwood Community Center Entr. Constr. Ⓑ
Sherwood Community Center Entr.
Temp. Const. Ease.
Ex. R/W
Prop. R/W
Blenheim Blvd Constr. Ⓑ
Blenheim Blvd
Ex. R/W
Farrcroft Dr. Constr. Ⓑ
Farrcroft Dr.
SIDEWALK CLOSED
4' Type 3 Barricade
R9-9 30" x 18"
SPEED LIMIT 25
R2-1 24" x 30"
Temp. Const. Ease.
Prop. Group 2 Channelizing Devices
SIDEWALK CLOSED
R9-9 30" x 18"
See Sequence of Construction Note D on Sheet IL.
4' Type 3 Barricade
Ex. R/W
Prop. R/W
Contractor to Implement VWAPM TTC-5.2 on Blenheim Blvd
Contractor to shift traffic and close Eastbound Shoulder to allow for the construction of the Eastbound Corridor
Contractor to Implement VWAPM TTC-5.2 on Blenheim Blvd
Contractor to close Eastbound shoulder and construct curb ramp
Match Line, Sta. 108+25.00 (Blenheim Blvd.) - See Sheet IL(1)

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IL)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IL)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IL

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 2

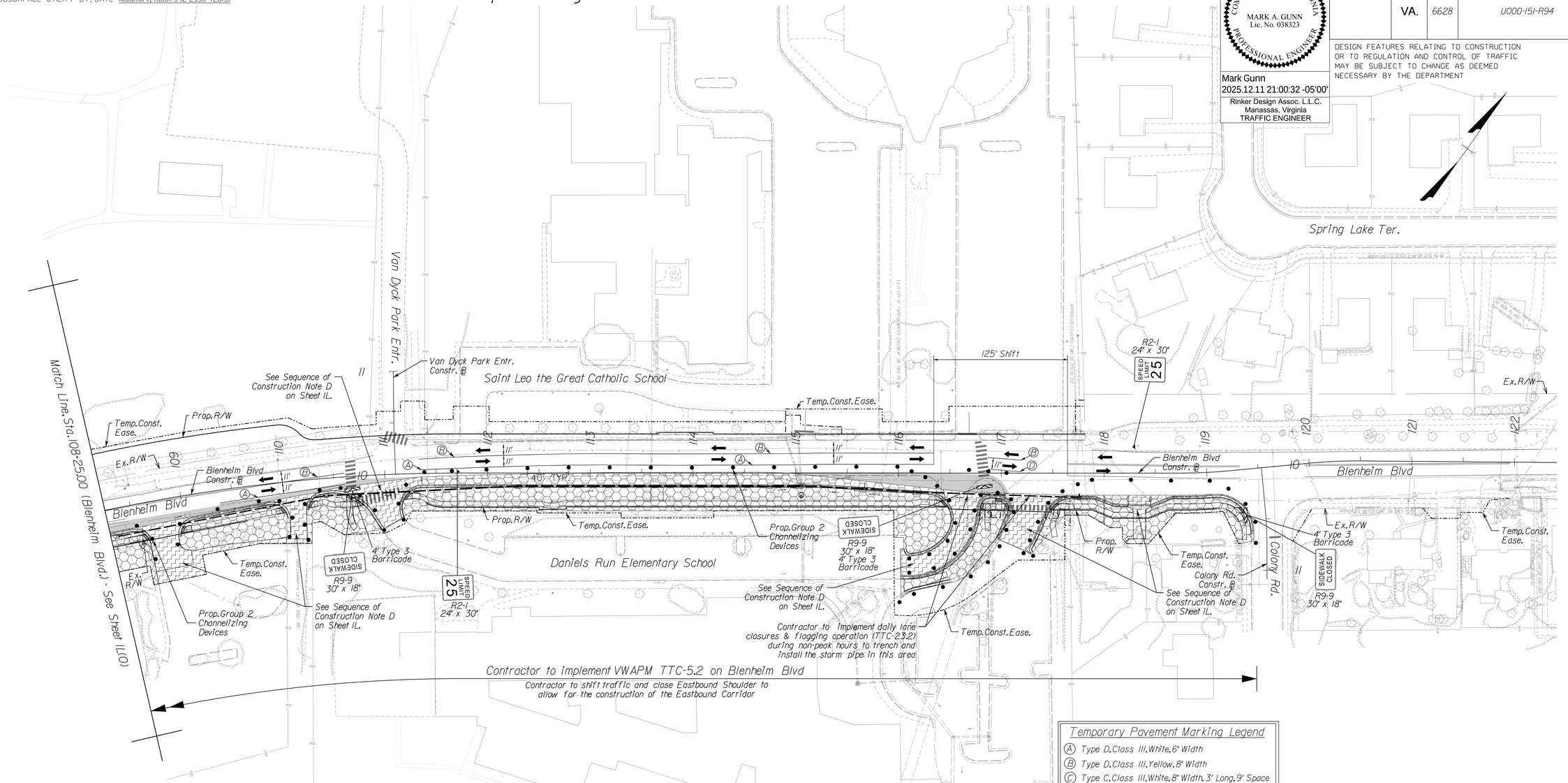
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:00:32 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(1)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be ergdicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IL)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IL)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(1)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 2

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:00:56 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(2)

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

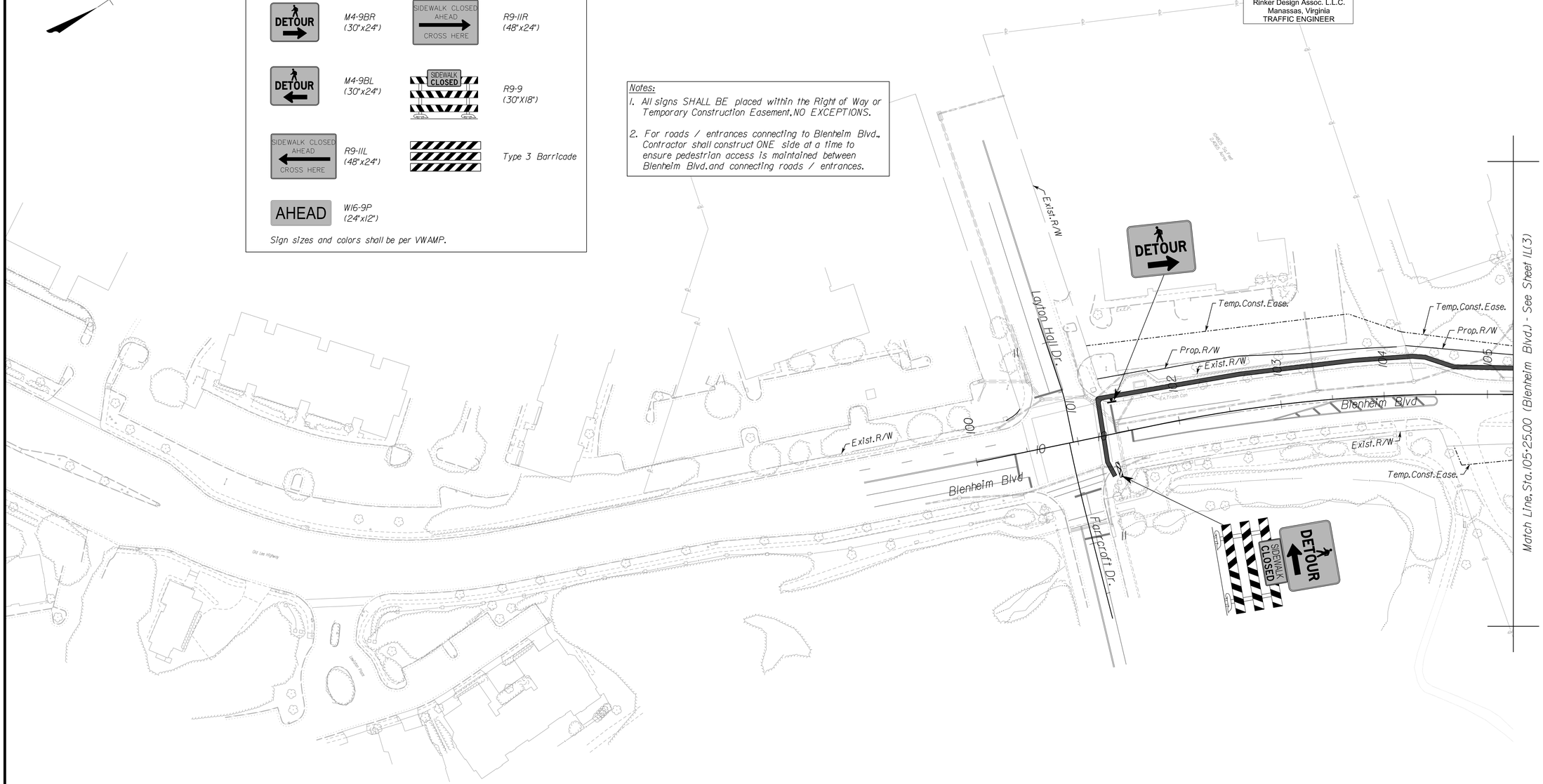
SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

Notes:

1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.



SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(2)

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 2

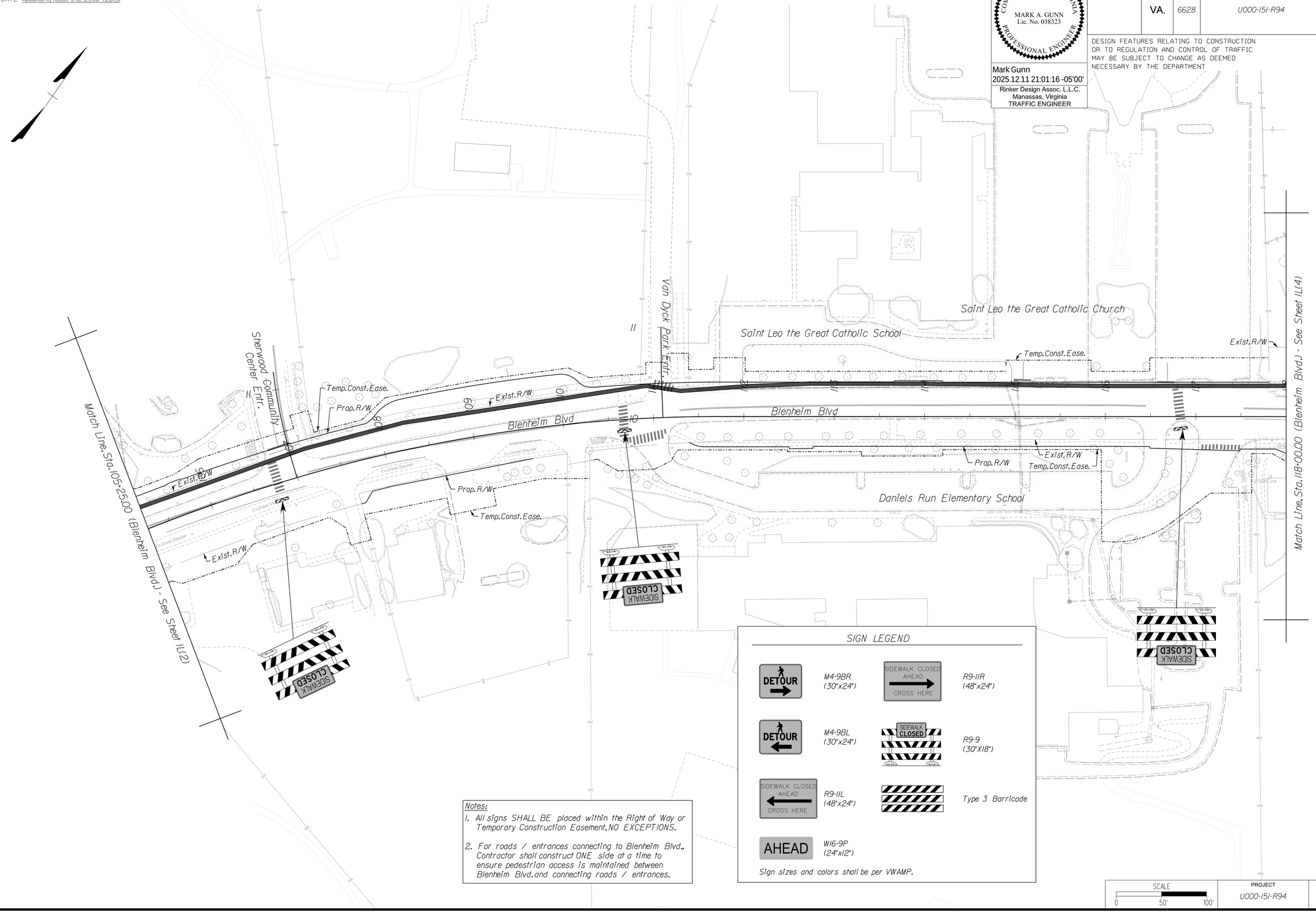
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:01:16 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(3)

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



SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

Notes:

1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(3)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 2

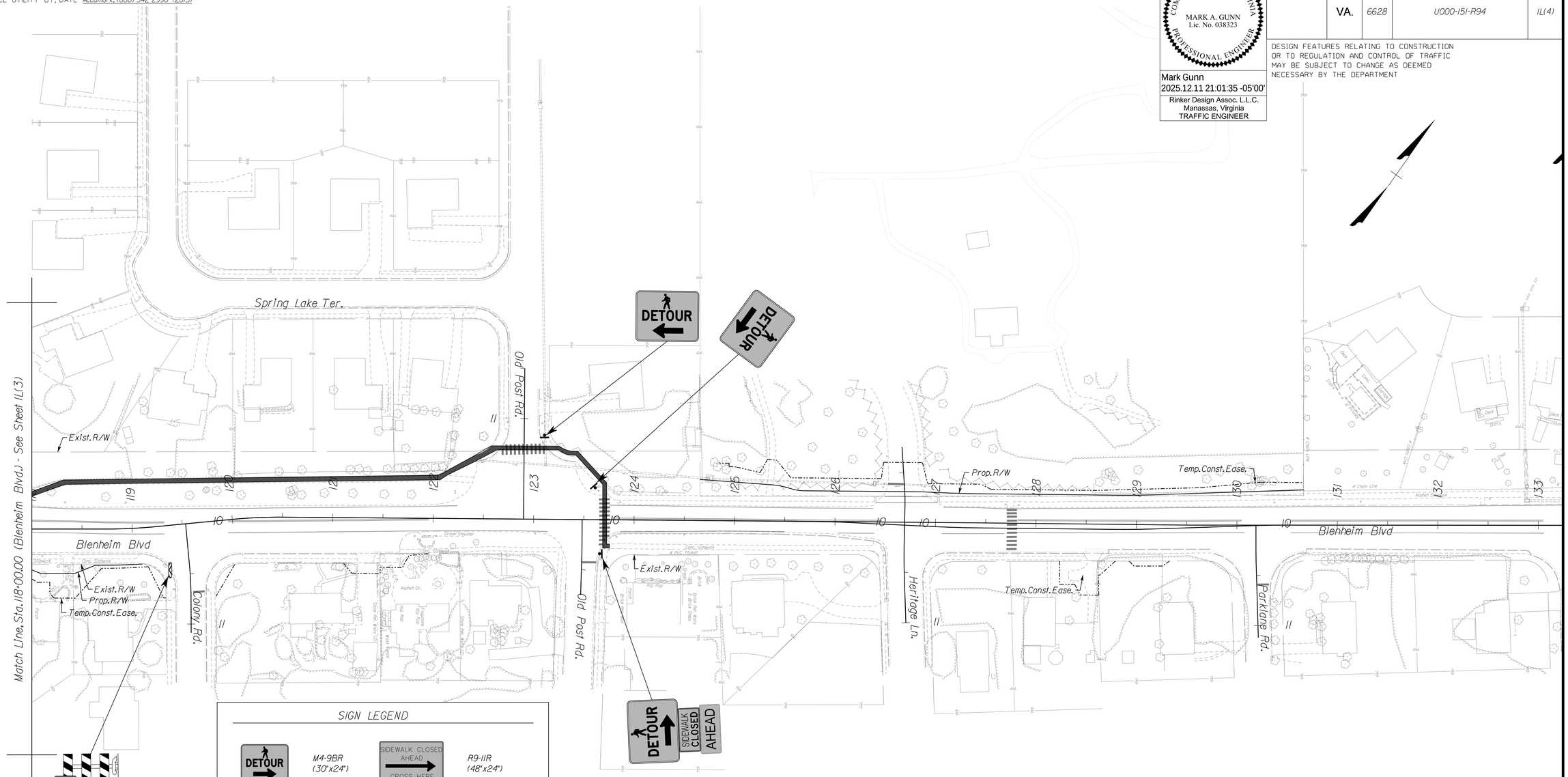
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:01:35 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(4)

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



SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

Notes:

1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(4)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 2A

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2026.01.23 08:27:50 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(5)

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

Phase 2A Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 2A is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 2A, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 2A and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-4.2, TTC-5.2, TC-7J, TTC-16.2, TTC-17.2, and TTC-23.2 including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. The Contractor shall implement lane closures and flagging operation during non-peak hours by implementing TTC 23.2, as necessary, to allow for the construction of full depth pavement built under traffic, as specified on plans.

E. Contractor shall implement TTC-16.2 and TTC-17.2 and alternate lane closures on Ridge Avenue during non-peak hours and sequence construction to maintain traffic flow. Contractor shall mill and overlay existing pavement and construct proposed roadway.

F. Contractor shall implement TTC-4.2 and TTC-7J on Blenheim Blvd. and utilize group II channelizing devices to close the Westbound shoulder, as necessary, to allow for construction of the Westbound Corridor, as shown on plans.

G. Contractor shall install storm structures and storm pipe run on the north side of Blenheim Blvd., as shown on plans.

H. Contractor shall implement TTC-23.2 on Blenheim Blvd. and apply daily lane closures with flagger operations during non-peak hours to trench and install storm pipe crossing at Sta. 117+70 and Sta. 144+10, as shown on plans.

I. Contractor to implement alternating one way traffic under flagging operation (TTC-23.2) and / or TTC-5.2 during non-peak hours to trench proposed culvert at Ridge Avenue prior to pavement work in the area.

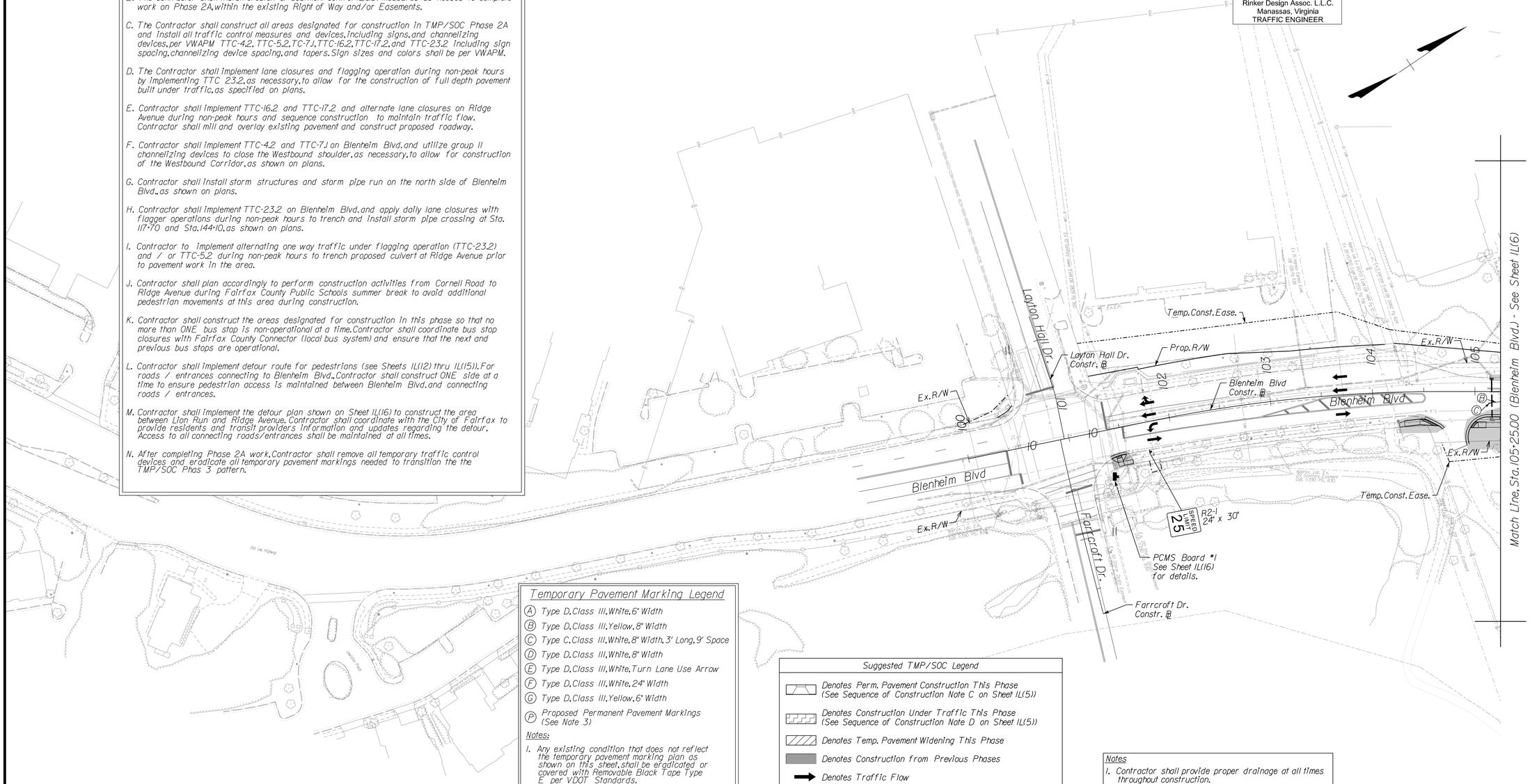
J. Contractor shall plan accordingly to perform construction activities from Cornell Road to Ridge Avenue during Fairfax County Public Schools summer break to avoid additional pedestrian movements at this area during construction.

K. Contractor shall construct the areas designated for construction in this phase so that no more than ONE bus stop is non-operational at a time. Contractor shall coordinate bus stop closures with Fairfax County Connector (local bus system) and ensure that the next and previous bus stops are operational.

L. Contractor shall implement detour route for pedestrians (see Sheets IL(12) thru IL(15)). For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

M. Contractor shall implement the detour plan shown on Sheet IL(16) to construct the area between Lion Run and Ridge Avenue. Contractor shall coordinate with the City of Fairfax to provide residents and transit providers information and updates regarding the detour. Access to all connecting roads/entrances shall be maintained at all times.

N. After completing Phase 2A work, Contractor shall remove all temporary traffic control devices and eradicate all temporary pavement markings needed to transition the the TMP/SOC Phas 3 pattern.



Temporary Pavement Marking Legend

- Ⓐ Type D, Class III, White, 6" Width
- Ⓑ Type D, Class III, Yellow, 8" Width
- Ⓒ Type C, Class III, White, 8" Width, 3' Long, 9' Space
- Ⓓ Type D, Class III, White, 8" Width
- Ⓔ Type D, Class III, White, Turn Lane Use Arrow
- Ⓕ Type D, Class III, White, 24" Width
- Ⓖ Type D, Class III, Yellow, 6" Width
- Ⓟ Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IL(5))
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IL(5))
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(5)

1/21/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 2A

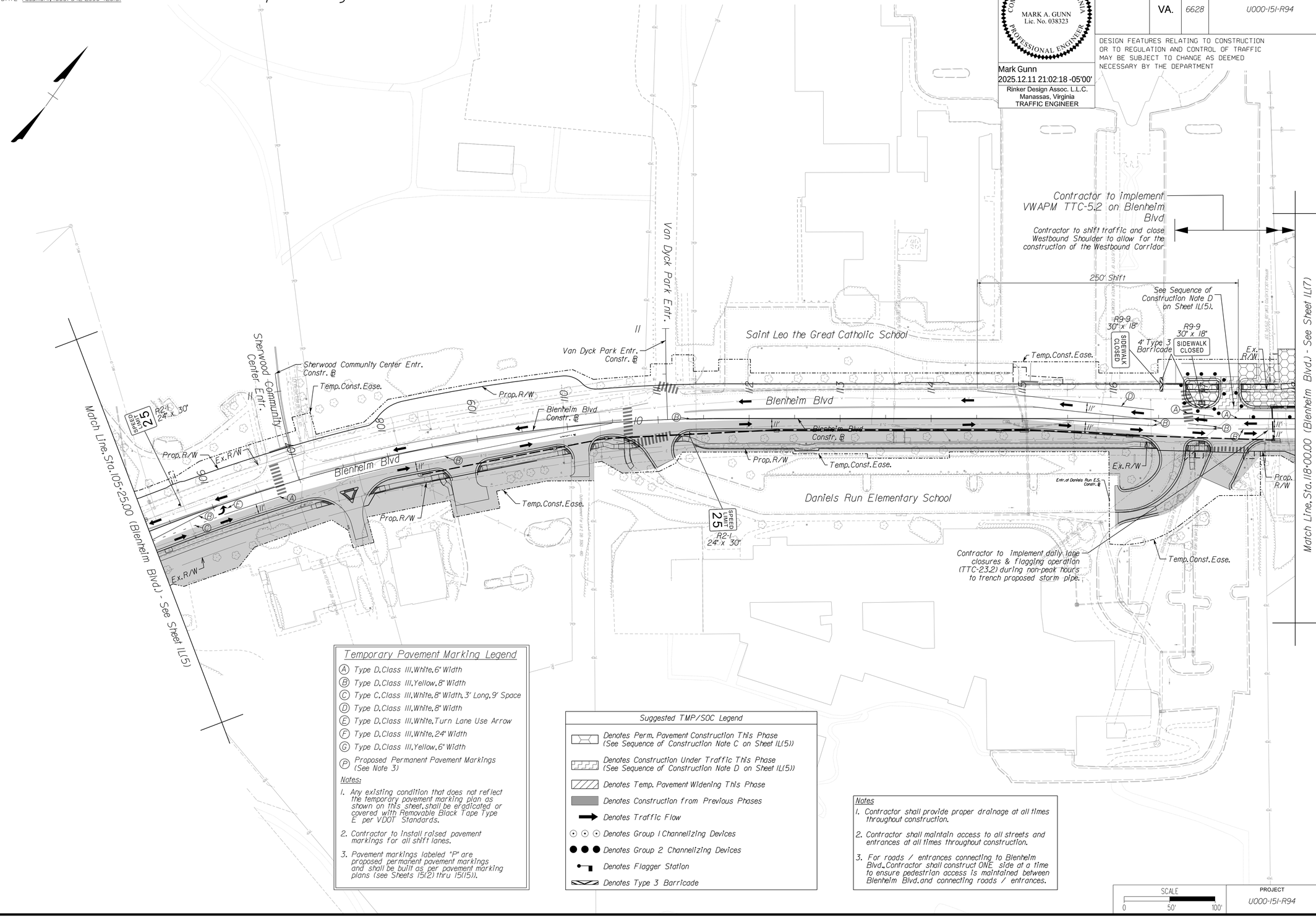
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:02:18 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(6)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IL(5))
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IL(5))
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(6)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 2A

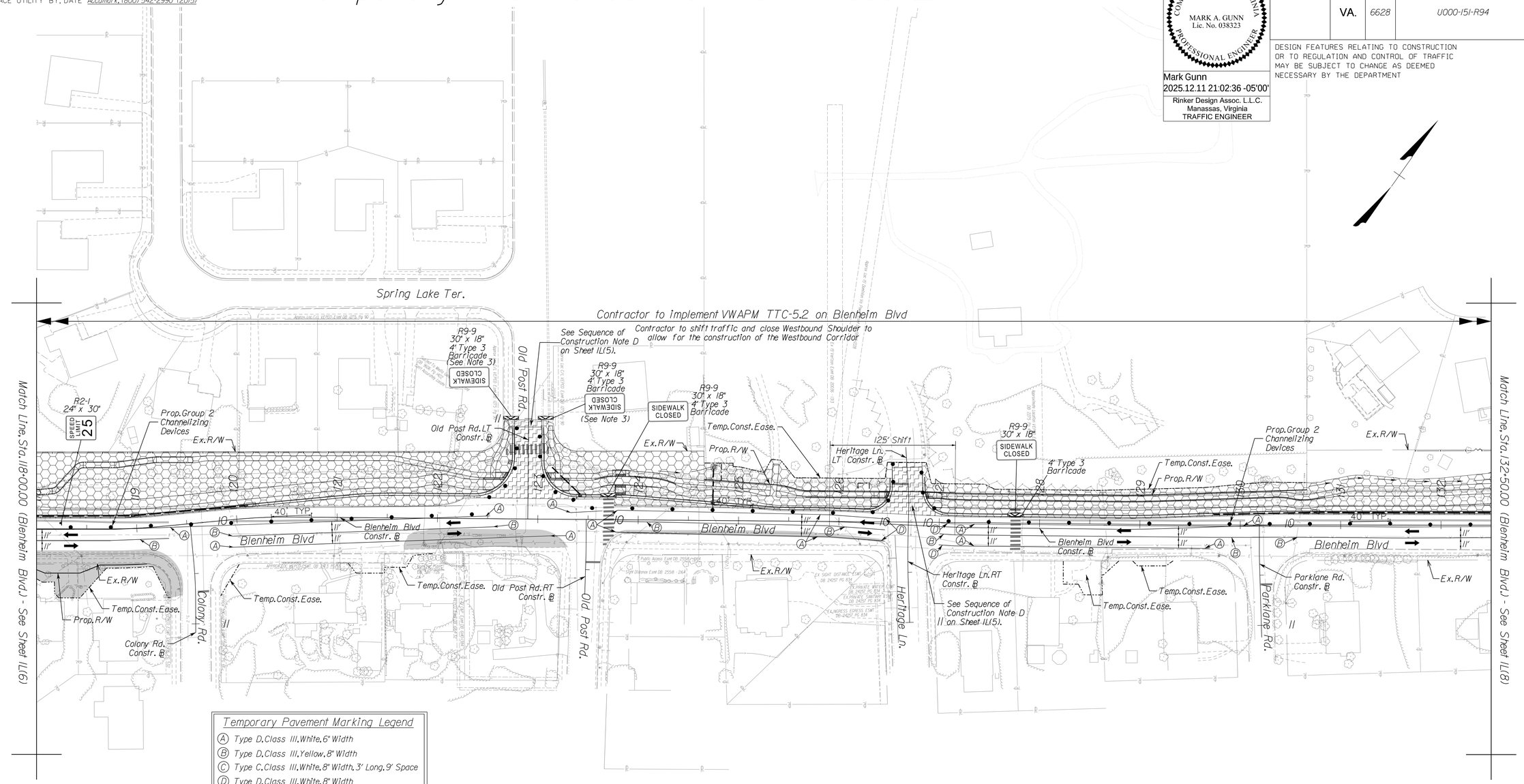
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:02:36 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(7)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be erradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IL(5))
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IL(5))
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- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IL(7)

FINAL PLANS

12/11/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 2A

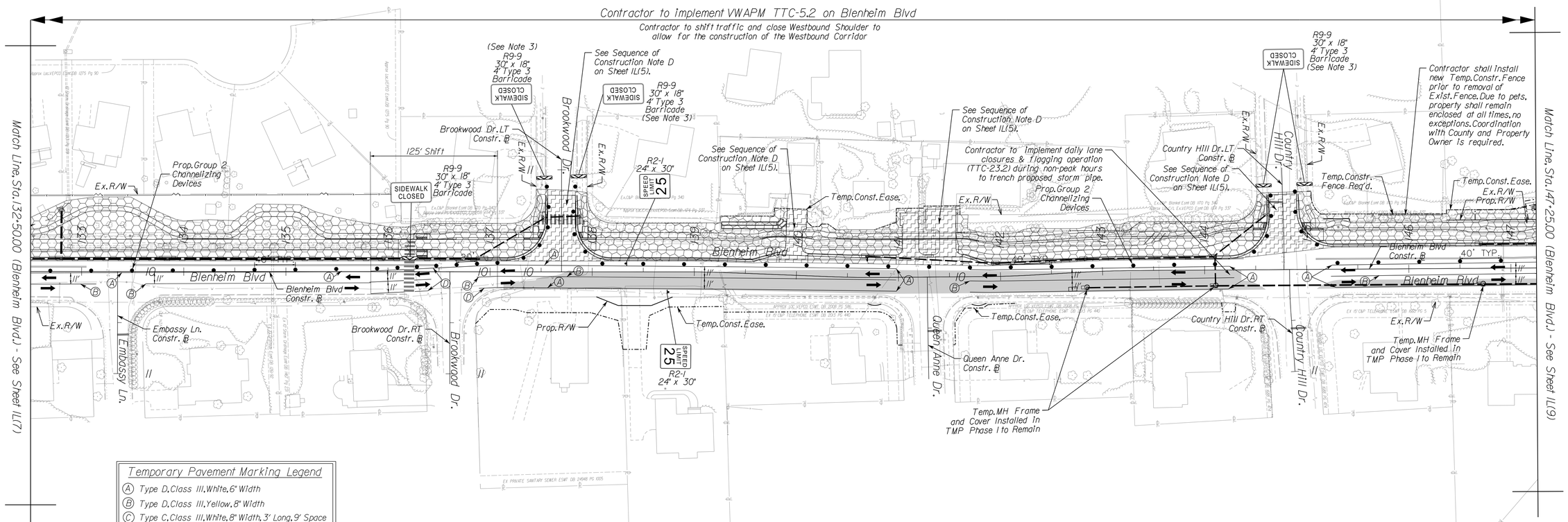
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:02:58 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(8)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IL(5))
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IL(5))
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- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE: 0 50' 100'	PROJECT	SHEET NO.
	U000-151-R94	IL(8)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 2A

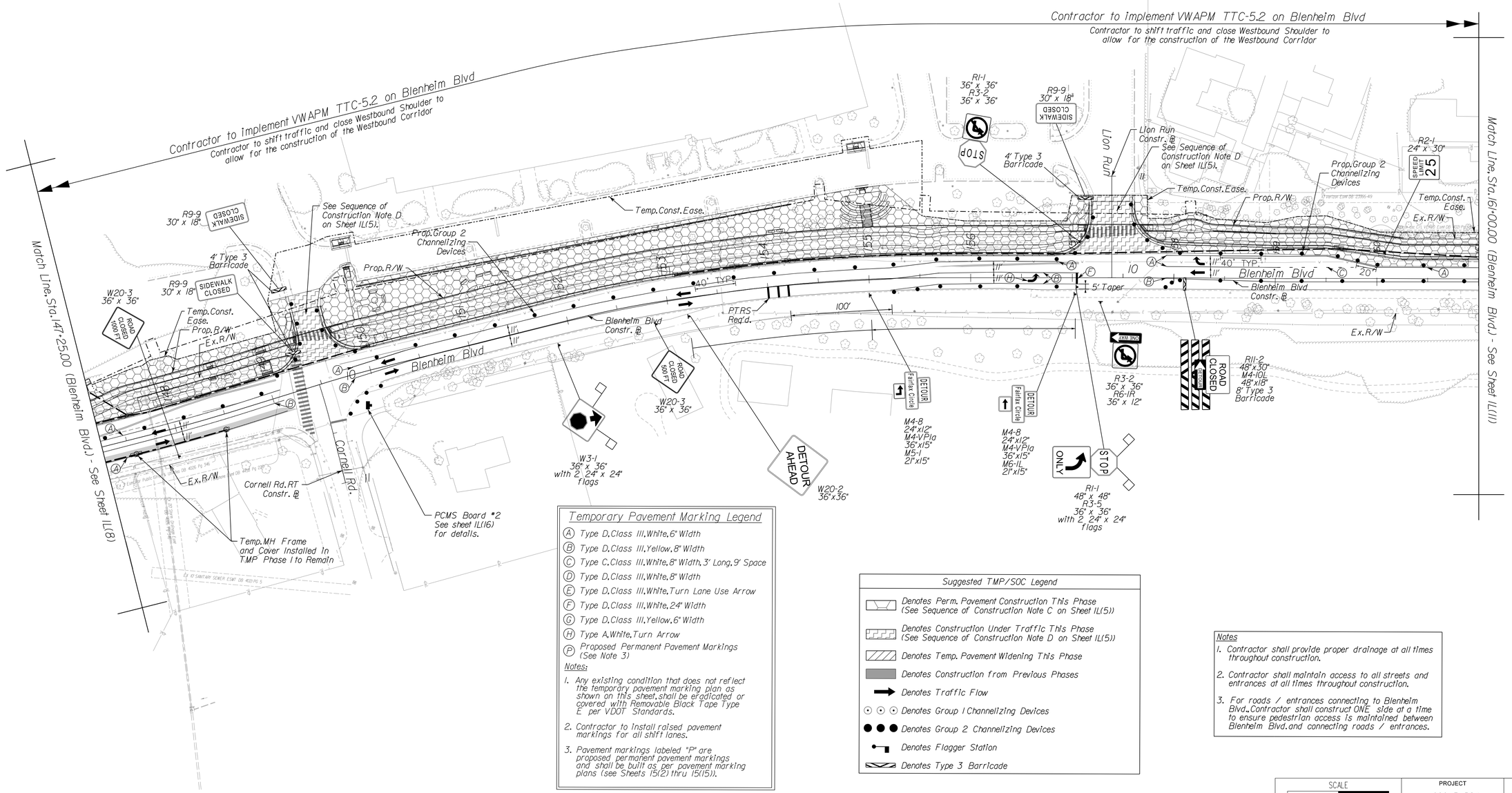
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2026.01.23 08:28:11 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(9)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (H) Type A, White, Turn Arrow
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed, permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

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Notes

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(9)

1/21/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 2A

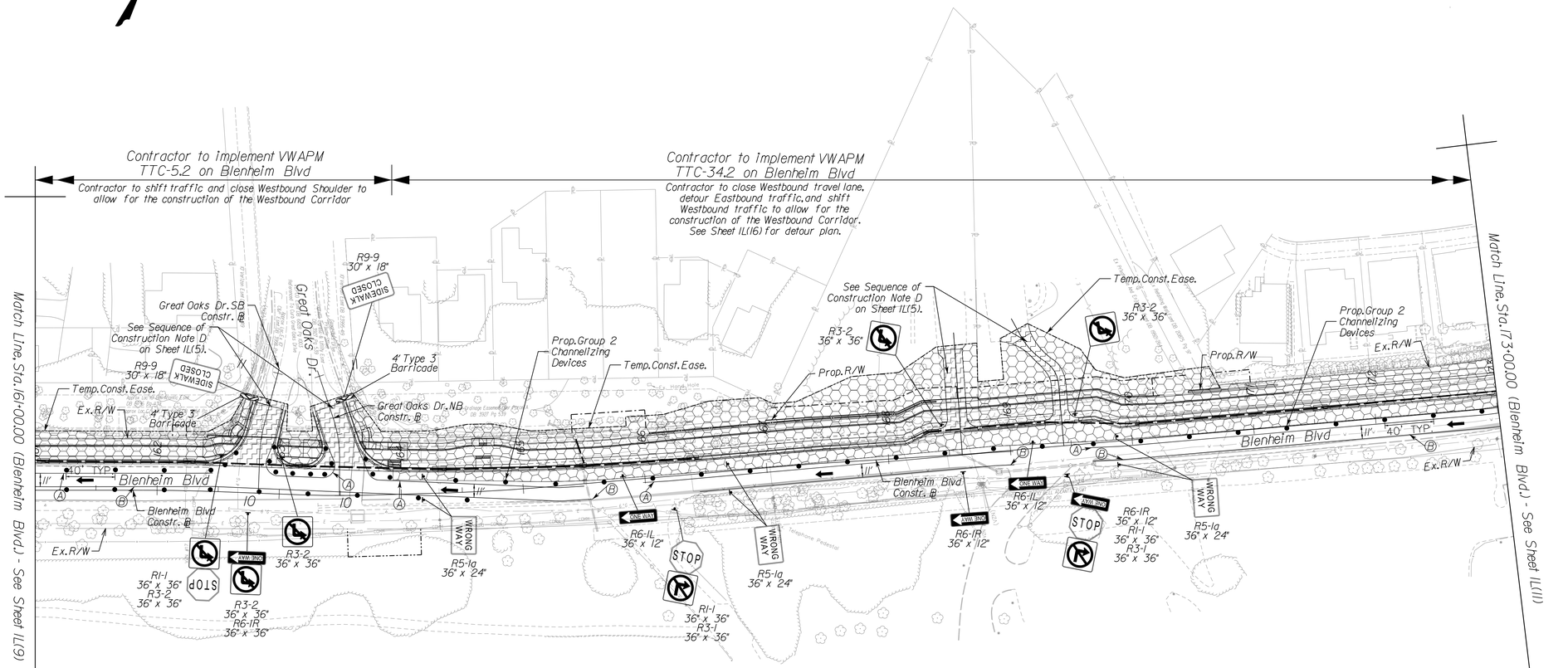
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2026.01.23 08:29:07 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(10)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be ergdicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
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Suggested TMP/SOC Legend

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- Denotes Construction from Previous Phases
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- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

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3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IL(10)

1/21/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 2A

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2026.01.23 08:29:36 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(11)

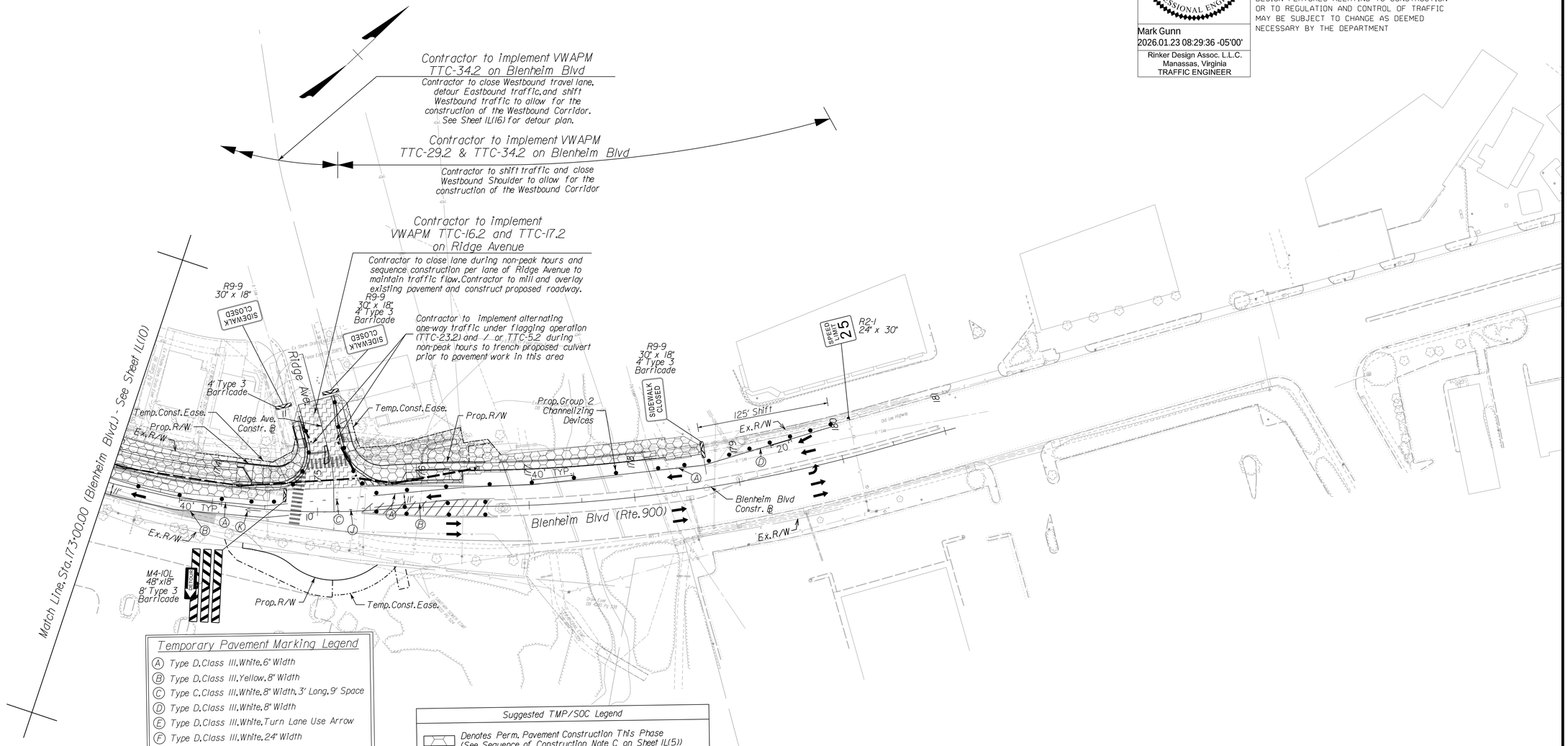
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Contractor to implement VWAPM TTC-34.2 on Blenheim Blvd
Contractor to close Westbound travel lane, detour Eastbound traffic, and shift Westbound traffic to allow for the construction of the Westbound Corridor. See Sheet IL(16) for detour plan.

Contractor to implement VWAPM TTC-29.2 & TTC-34.2 on Blenheim Blvd
Contractor to shift traffic and close Westbound Shoulder to allow for the construction of the Westbound Corridor

Contractor to implement VWAPM TTC-16.2 and TTC-17.2 on Ridge Avenue
Contractor to close lane during non-peak hours and sequence construction per lane of Ridge Avenue to maintain traffic flow. Contractor to mill and overlay existing pavement and construct proposed roadway.

Contractor to implement alternating one-way traffic under flagging operation (TTC-23.2) and / or TTC-5.2 during non-peak hours to trench proposed culvert prior to pavement work in this area



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (J) Type C, Class III, Yellow, 8" Width, 3' Long, 9' Space
- (K) Type A, White, Wrong-Way Arrow
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IL(5))
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IL(5))
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(11)

1/21/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 2A

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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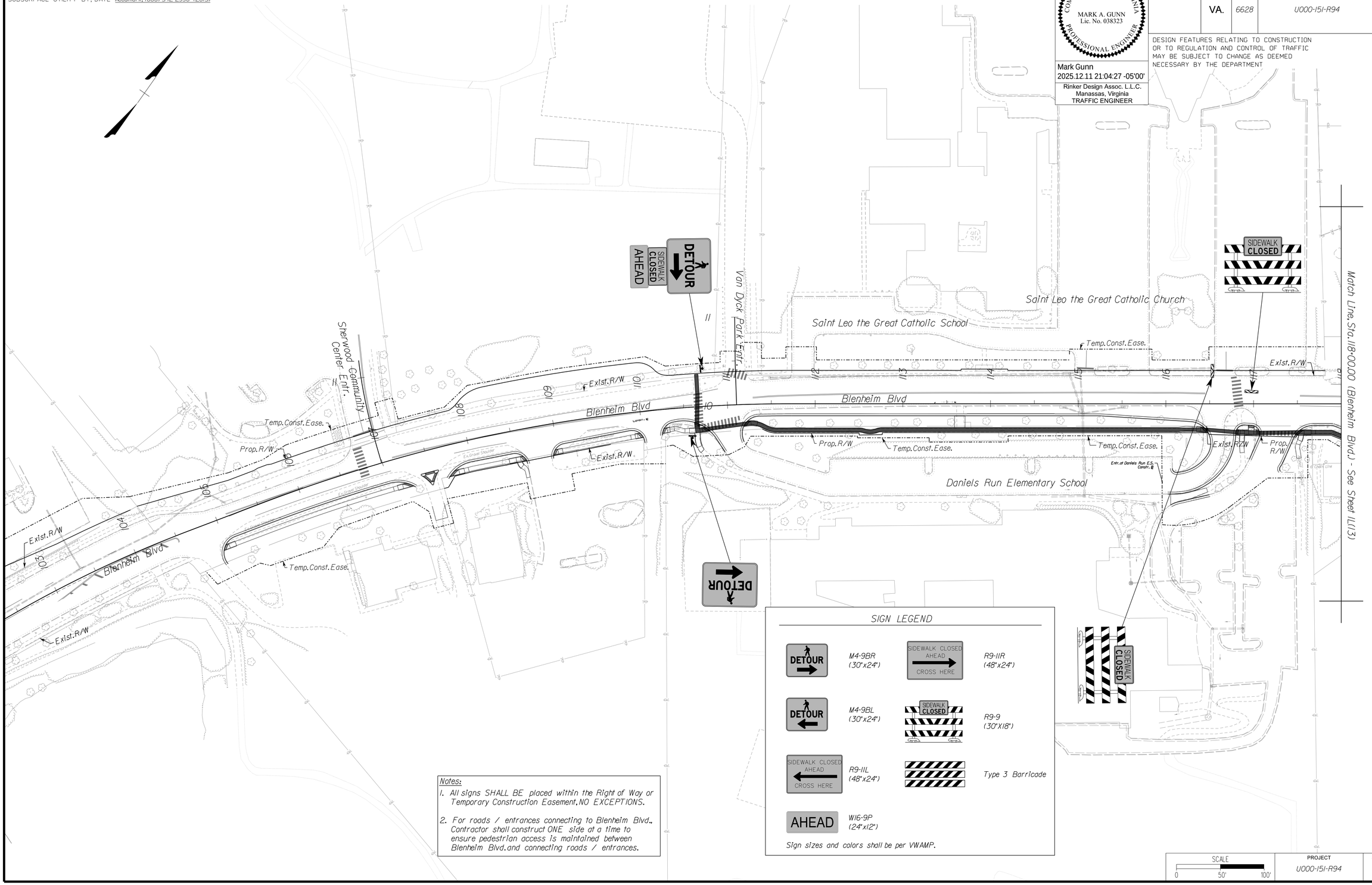
Mark Gunn
2025.12.11 21:04:27 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(12)

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



SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

Notes:

1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(12)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 2A

COMMONWEALTH OF VIRGINIA
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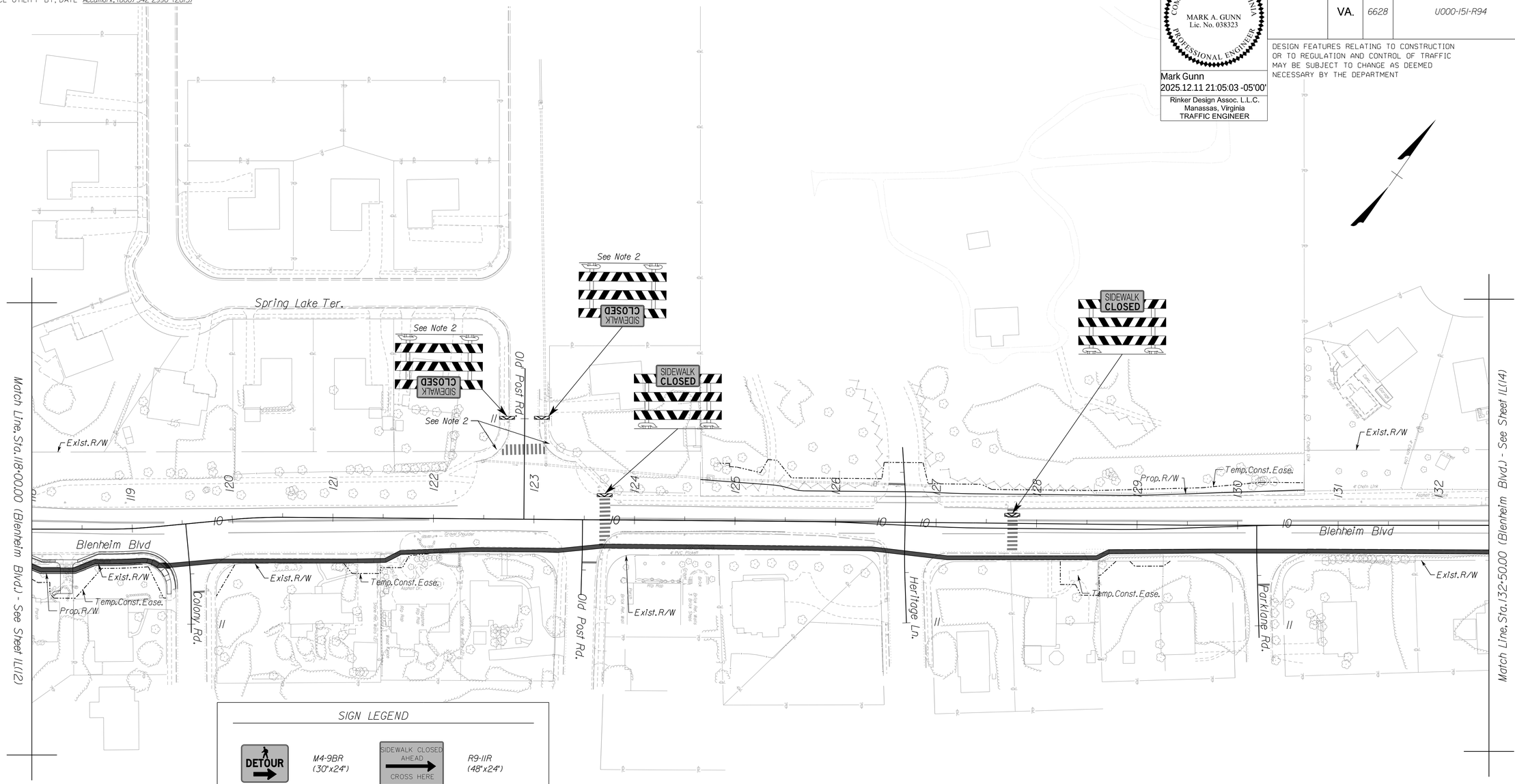
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:05:03 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(13)

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



SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

Notes:
1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(13)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 2A

COMMONWEALTH OF VIRGINIA
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Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(14)

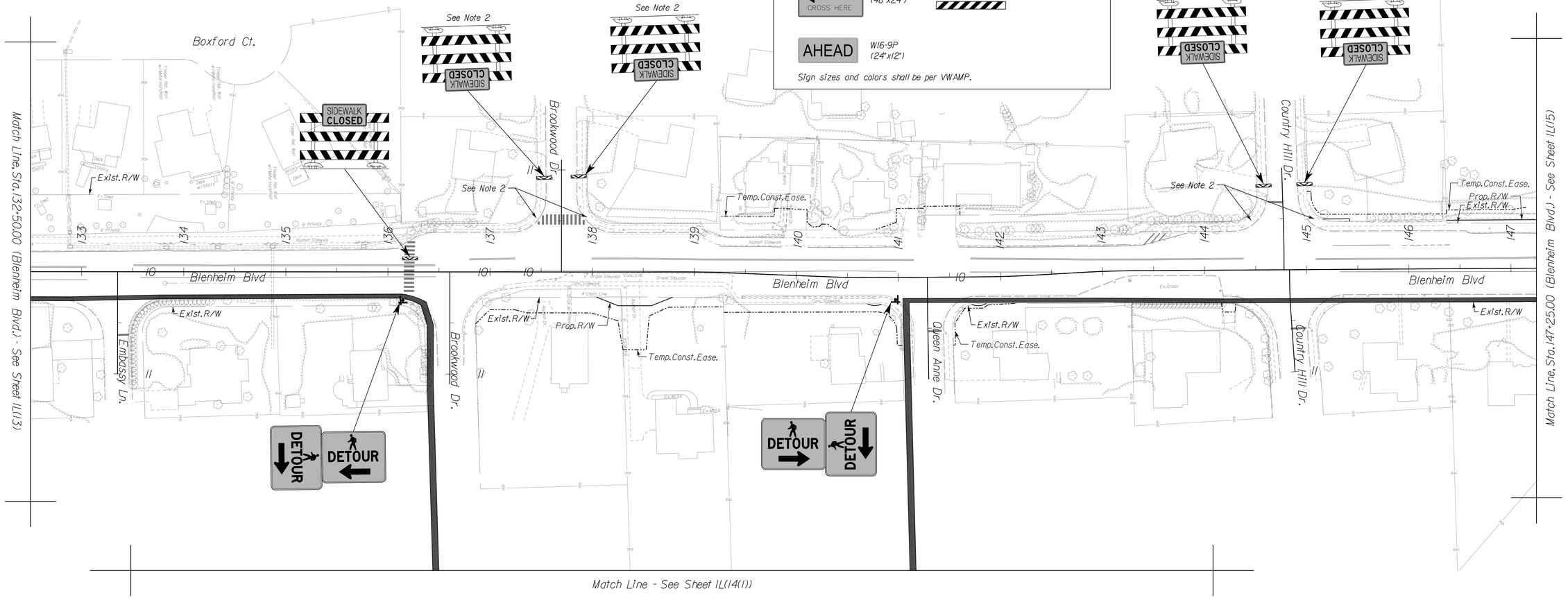
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Notes:
1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.



SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(14)

FINAL PLANS

12/11/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 2A

COMMONWEALTH OF VIRGINIA
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Mark Gunn
2025.12.11 21:06:12 -05'00'

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TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(14(1))

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

Match Line - See Sheet IL(14(0))

SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

Notes:
1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.

Embassy Ln.
Brookwood Dr.
Queen Anne Dr.
Country Hill Dr.
Colony Rd.
Colony Rd.
Colony Rd.
Cunningham Ln.
Embassy Ln.
Queen Anne Dr.
Country Hill Dr.

DETOUR
DETOUR
DETOUR
DETOUR

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(14(1))

FINAL PLANS

12/11/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 2A

COMMONWEALTH OF VIRGINIA
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Mark Gunn
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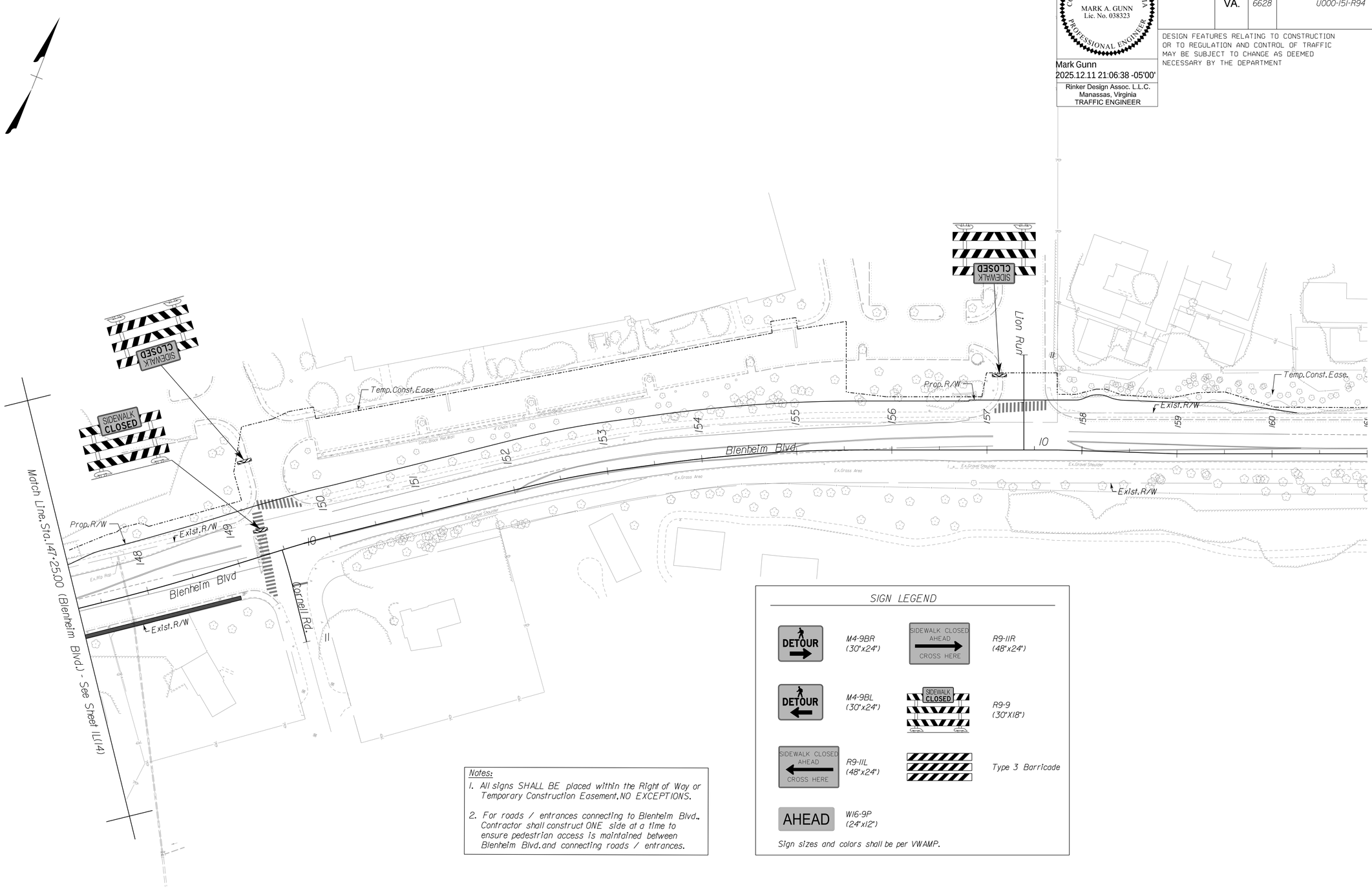
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(15)

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 signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

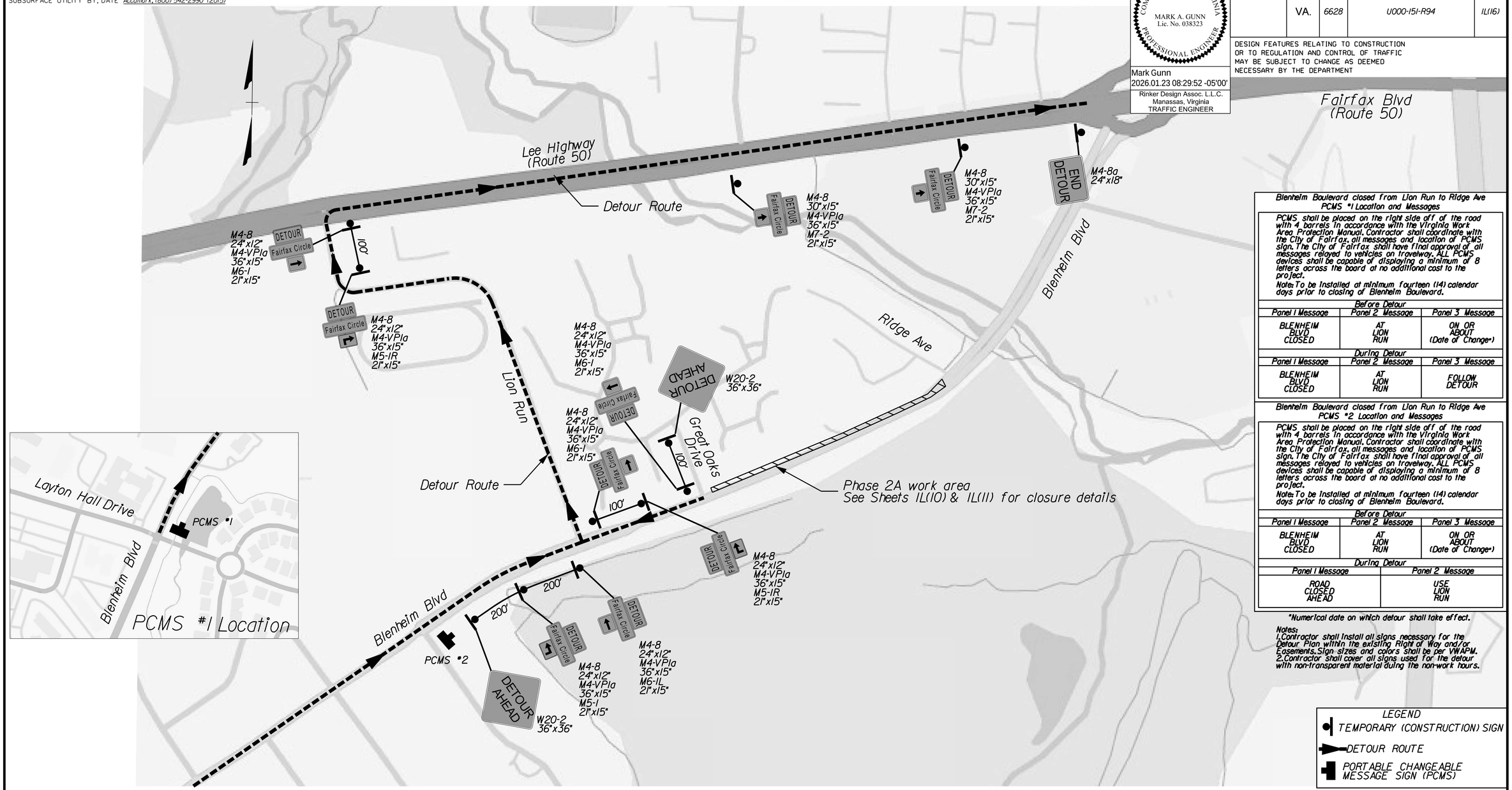
SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IL(15)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Phase 2A Detour



COMMONWEALTH OF VIRGINIA
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Mark Gunn
2026.01.23 08:29:52 -05'00'

Rinker Design Assoc. L.L.C.
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TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IL(16)

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

Blenheim Boulevard closed from Lion Run to Ridge Ave
PCMS #1 Location and Messages

PCMS shall be placed on the right side off of the road with 4 barrels in accordance with the Virginia Work Area Protection Manual. Contractor shall coordinate with the City of Fairfax, all messages and location of PCMS sign. The City of Fairfax shall have final approval of all messages relayed to vehicles on traveway. ALL PCMS devices shall be capable of displaying a minimum of 8 letters across the board at no additional cost to the project.
Note: To be installed at minimum fourteen (14) calendar days prior to closing of Blenheim Boulevard.

Before Detour		
Panel 1 Message	Panel 2 Message	Panel 3 Message
BLENHEIM BLVD CLOSED	AT LION RUN	ON OR ABOUT (Date of Change*)
During Detour		
Panel 1 Message	Panel 2 Message	Panel 3 Message
BLENHEIM BLVD CLOSED	AT LION RUN	FOLLOW DETOUR

Blenheim Boulevard closed from Lion Run to Ridge Ave
PCMS #2 Location and Messages

PCMS shall be placed on the right side off of the road with 4 barrels in accordance with the Virginia Work Area Protection Manual. Contractor shall coordinate with the City of Fairfax, all messages and location of PCMS sign. The City of Fairfax shall have final approval of all messages relayed to vehicles on traveway. ALL PCMS devices shall be capable of displaying a minimum of 8 letters across the board at no additional cost to the project.
Note: To be installed at minimum fourteen (14) calendar days prior to closing of Blenheim Boulevard.

Before Detour		
Panel 1 Message	Panel 2 Message	Panel 3 Message
BLENHEIM BLVD CLOSED	AT LION RUN	ON OR ABOUT (Date of Change*)
During Detour		
Panel 1 Message	Panel 2 Message	
ROAD CLOSED AHEAD	USE LION RUN	

*Numerical date on which detour shall take effect.

Notes:
1. Contractor shall install all signs necessary for the Detour Plan within the existing Right of Way and/or Easements. Sign sizes and colors shall be per VWAPM.
2. Contractor shall cover all signs used for the detour with non-transparent material during the non-work hours.

LEGEND
- TEMPORARY (CONSTRUCTION) SIGN
- DETOUR ROUTE
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

DETOUR NOTES:

1. CONTRACTOR SHALL PROVIDE A WORKPLAN TO CITY OF FAIRFAX DETAILING EXPEDITED CONSTRUCTION PLANS SUCH AS NIGHTTIME WORK, WEEKEND WORK, OR OTHER METHODS PRIOR TO BEGINNING THIS PHASE.
2. CONTRACTOR TO COORDINATE WITH CITY OF FAIRFAX FIRE/RESCUE & POLICE PRIOR TO THE START OF THE DETOUR. ANY COSTS FOR TEMPORARY STATIONING OF POLICE OR FIRE/RESCUE VEHICLES IS THE RESPONSIBILITY OF THE CONTRACTOR. WRITTEN NOTIFICATION AND RECEIPT/CONFIRMATION FROM CITY OF FAIRFAX FIRE & RESCUE CHIEF IS REQUIRED PRIOR TO START/IMPLEMENTATION OF DETOUR.
3. ALL ROADWAY CLOSURES SHALL BE SCHEDULED AND APPROVED IN ADVANCE BY THE CITY OF FAIRFAX PROJECT MANAGEMENT & INSPECTION TEAM PRIOR TO IMPLEMENTATION OF ANY ROADWAY CLOSURE.
4. DETOUR SHALL BE COORDINATED WITH CITY OF FAIRFAX SCHOOLS AND ANY LOCAL BUS SERVICE ROUTES.
5. THE CONTRACTOR SHALL SATISFY ANY AND ALL PUBLIC OUTREACH CITY OF FAIRFAX DETERMINES NECESSARY FOR IMPLEMENTATION OF THIS DETOUR, INCLUDING INSTALLATION OF ADDITIONAL PCMS SIGNS AT ANY LOCATION FAIRFAX COUNTY DETERMINES NECESSARY.
6. ALL SIGNS & PCMS SHALL BE PLACED WITHIN RIGHT OF WAY, NO EXCEPTIONS. ALL SIGN POSTS FOR DETOUR SIGNAGE SHALL COMPLY WITH VDOT ST'D WSP-1 REQUIREMENTS (SQUARE TUBE POSTS ONLY).
7. ALL DETOUR SIGN PANELS SHALL BE COVERED OR REMOVED WHEN THE DETOUR IS NOT ACTIVE.
8. CONTRACTOR SHALL IMPLEMENT VWAPM TTC-35.1 AND TTC 36.2 AT THE LIMITS OF THE WORK ZONE AS NECESSARY TO CLOSE SIDEWALK AND DIVERT PEDESTRIANS AWAY FROM THE CONSTRUCTION ZONE. SEE SHEETS IL(12)-IL(15)

SCALE	PROJECT	SHEET NO.
0 200' 400'	U000-151-R94	IL(16)

1/21/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 3

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:08:02 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM

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

Phase 3 Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 3 is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 3, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 3 and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-4.2, TTC-5.2, TTC-7.1, TTC-23.2, and TTC-24.2 including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. The Contractor shall implement lane closures and flagging operation during non-peak hours by implementing TTC 23.2, as necessary, to allow for the construction of full depth pavement built under traffic, as specified on plans.

E. Contractor shall implement TTC-4.2 and TTC-7.1 on Blenheim Blvd. and utilize group II channelizing devices to close the Westbound and Eastbound shoulders, as necessary, to allow for construction of the roadway, as shown on plans.

F. Contractor shall implement TTC-24.2 on Blenheim Blvd. to implement alternating one way traffic under flagger operations, as necessary, to allow for the construction of the roadway, as shown on plans. When implementing lane closures, Contractor shall construct the corridor ONE segment at a time, implementing alternating one way traffic under flagger operations for each respective segment accordingly. Contractor shall segment construction so that no more than 500' of traffic on Blenheim Blvd. is under flagger operation at a time.

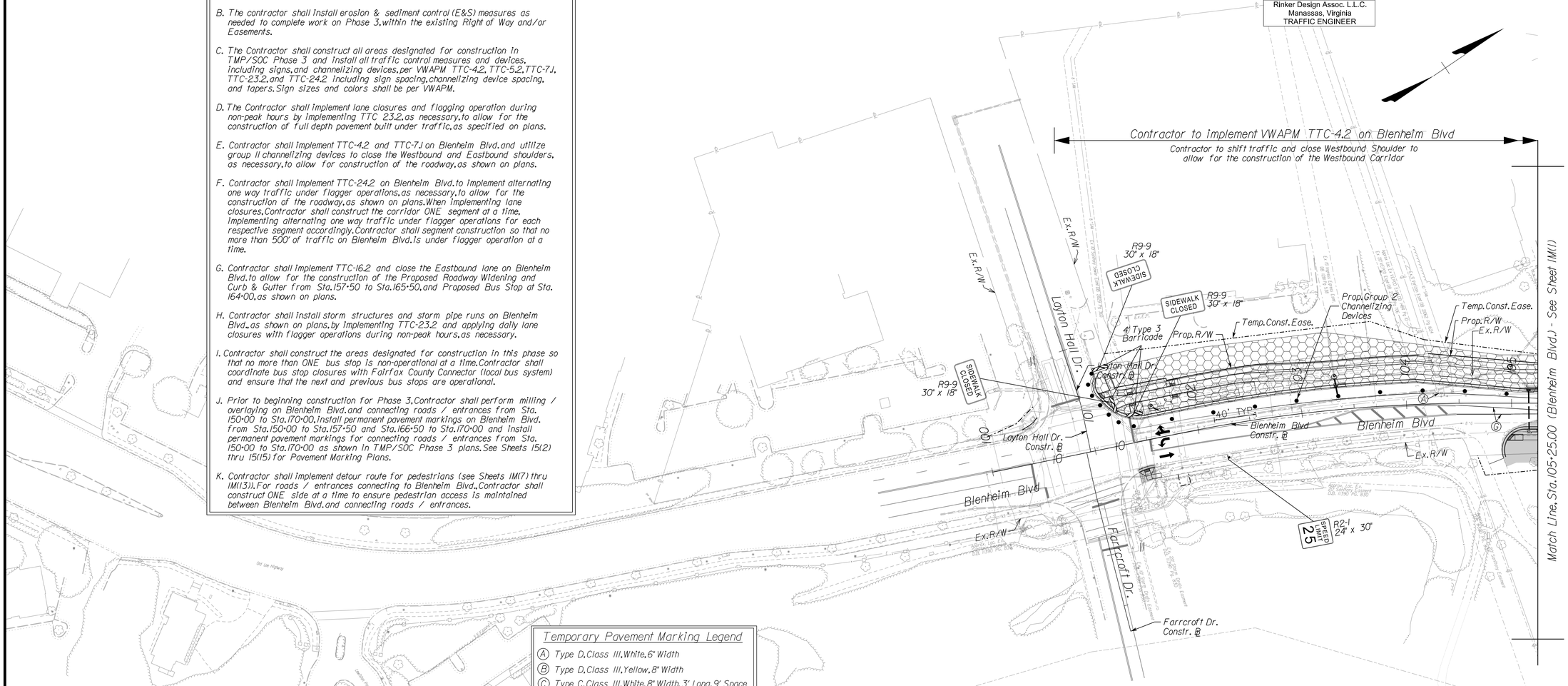
G. Contractor shall implement TTC-16.2 and close the Eastbound lane on Blenheim Blvd. to allow for the construction of the Proposed Roadway Widening and Curb & Gutter from Sta. 157+50 to Sta. 165+50, and Proposed Bus Stop at Sta. 164+00, as shown on plans.

H. Contractor shall install storm structures and storm pipe runs on Blenheim Blvd., as shown on plans, by implementing TTC-23.2 and applying daily lane closures with flagger operations during non-peak hours, as necessary.

I. Contractor shall construct the areas designated for construction in this phase so that no more than ONE bus stop is non-operational at a time. Contractor shall coordinate bus stop closures with Fairfax County Connector (local bus system) and ensure that the next and previous bus stops are operational.

J. Prior to beginning construction for Phase 3, Contractor shall perform milling / overlaying on Blenheim Blvd. and connecting roads / entrances from Sta. 150+00 to Sta. 170+00. Install permanent pavement markings on Blenheim Blvd. from Sta. 150+00 to Sta. 157+50 and Sta. 166+50 to Sta. 170+00 and install permanent pavement markings for connecting roads / entrances from Sta. 150+00 to Sta. 170+00 as shown in TMP/SOC Phase 3 plans. See Sheets 15(2) thru 15(15) for Pavement Marking Plans.

K. Contractor shall implement detour route for pedestrians (see Sheets IM(7) thru IM(13)). For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IM)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IM)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IM

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 3

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
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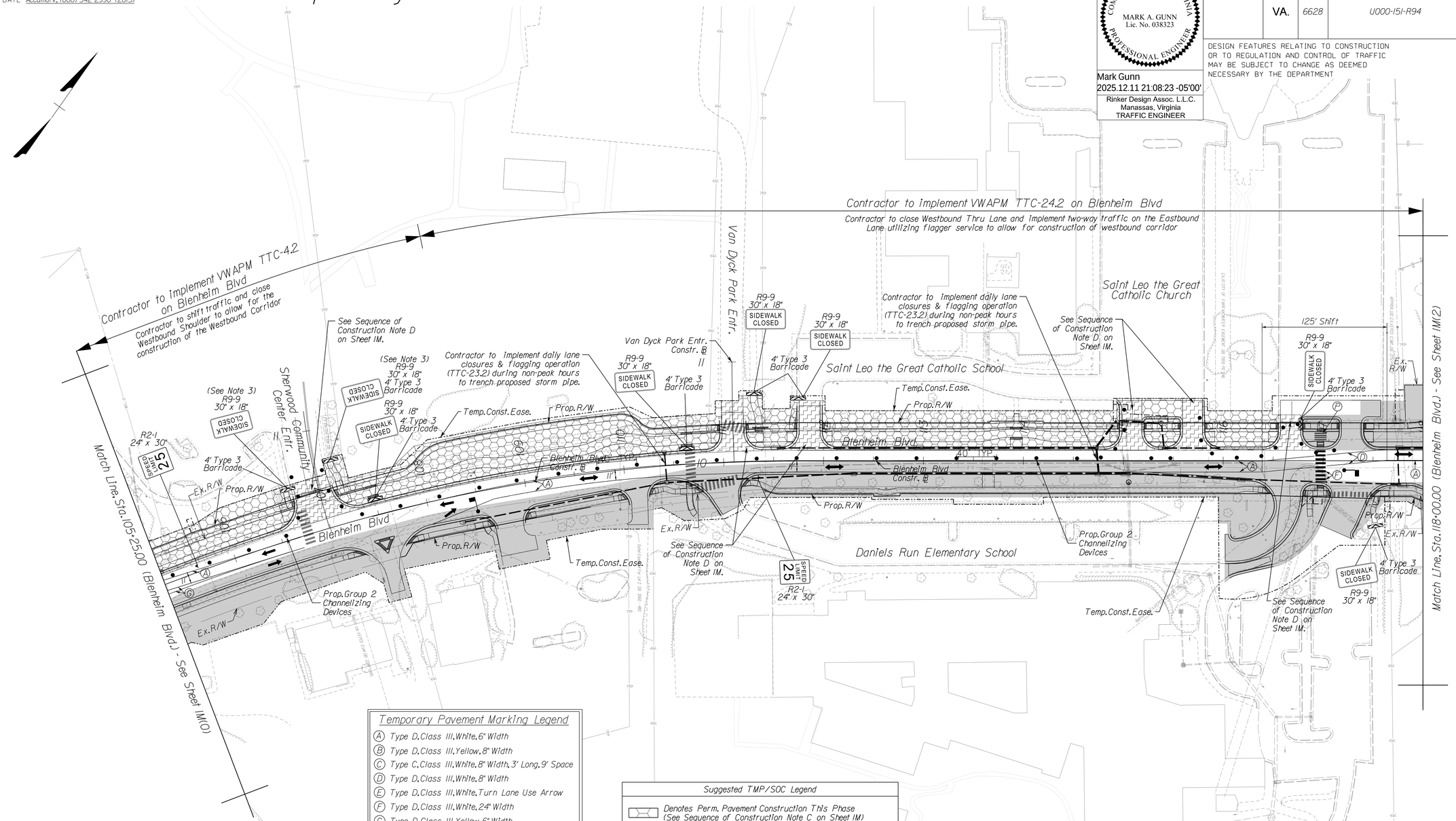
Mark Gunn
2025.12.11 21:08:23 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(1)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IM)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IM)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IM(1)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 3

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:08:43 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(2)

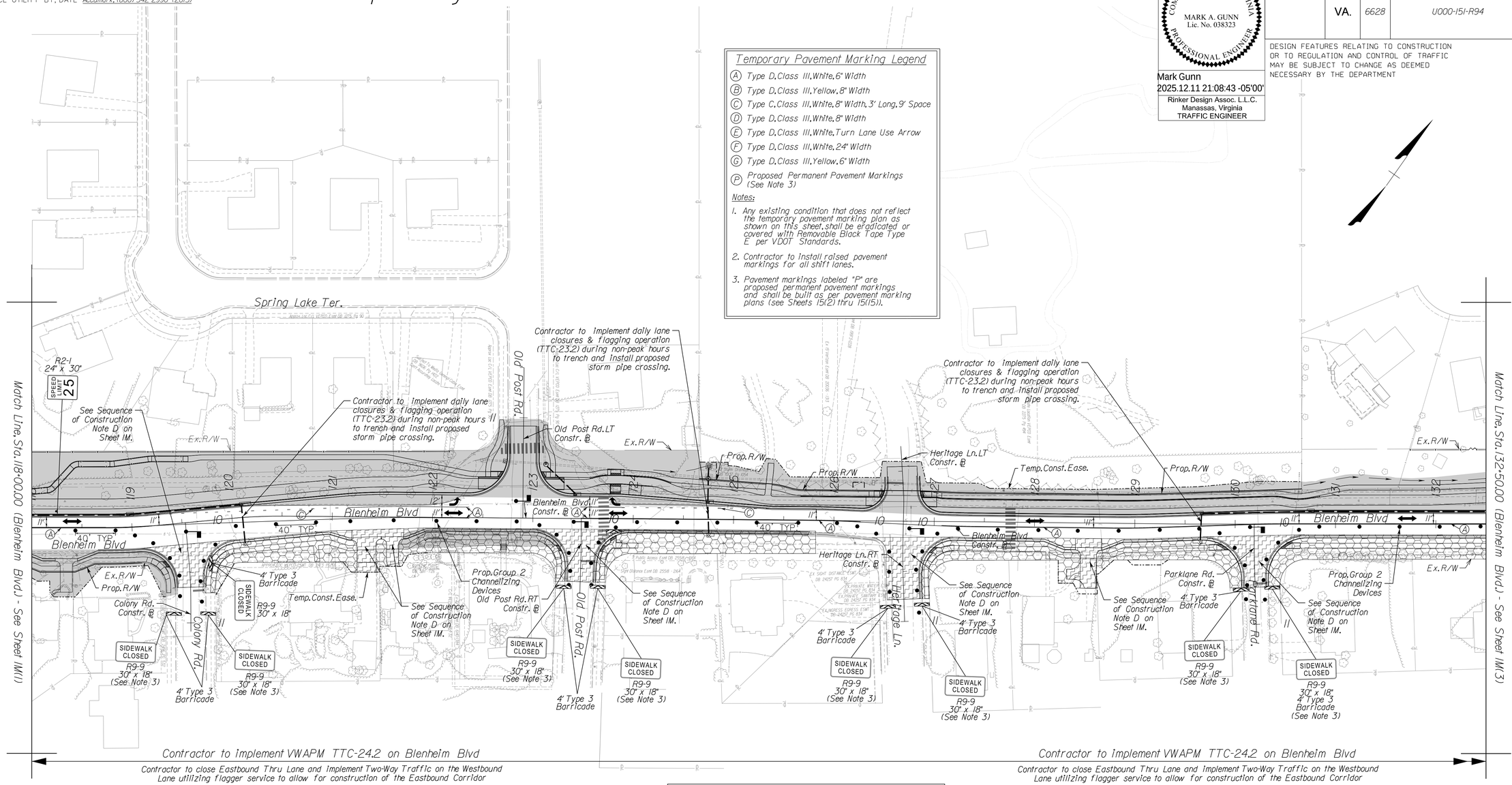
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).



Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IM)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IM)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IM(2)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 3

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:09:15 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(3)

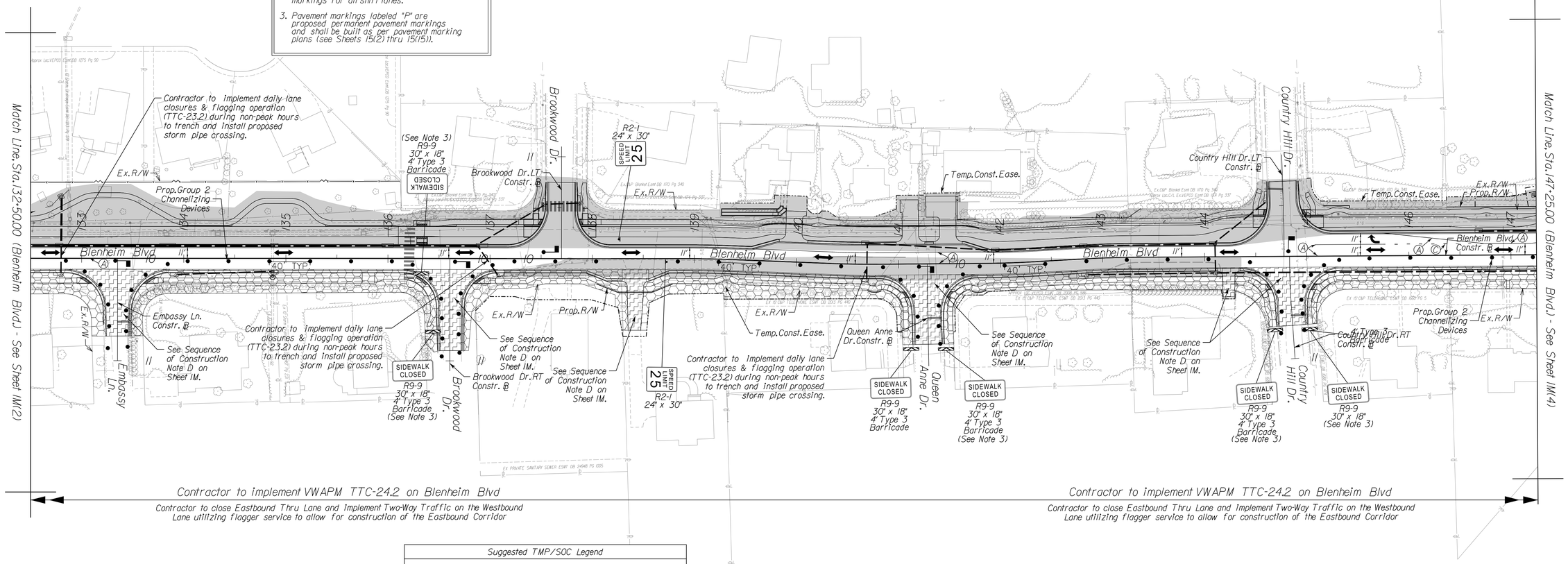
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be ergdicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).



Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IM)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IM)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IM(3)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 3

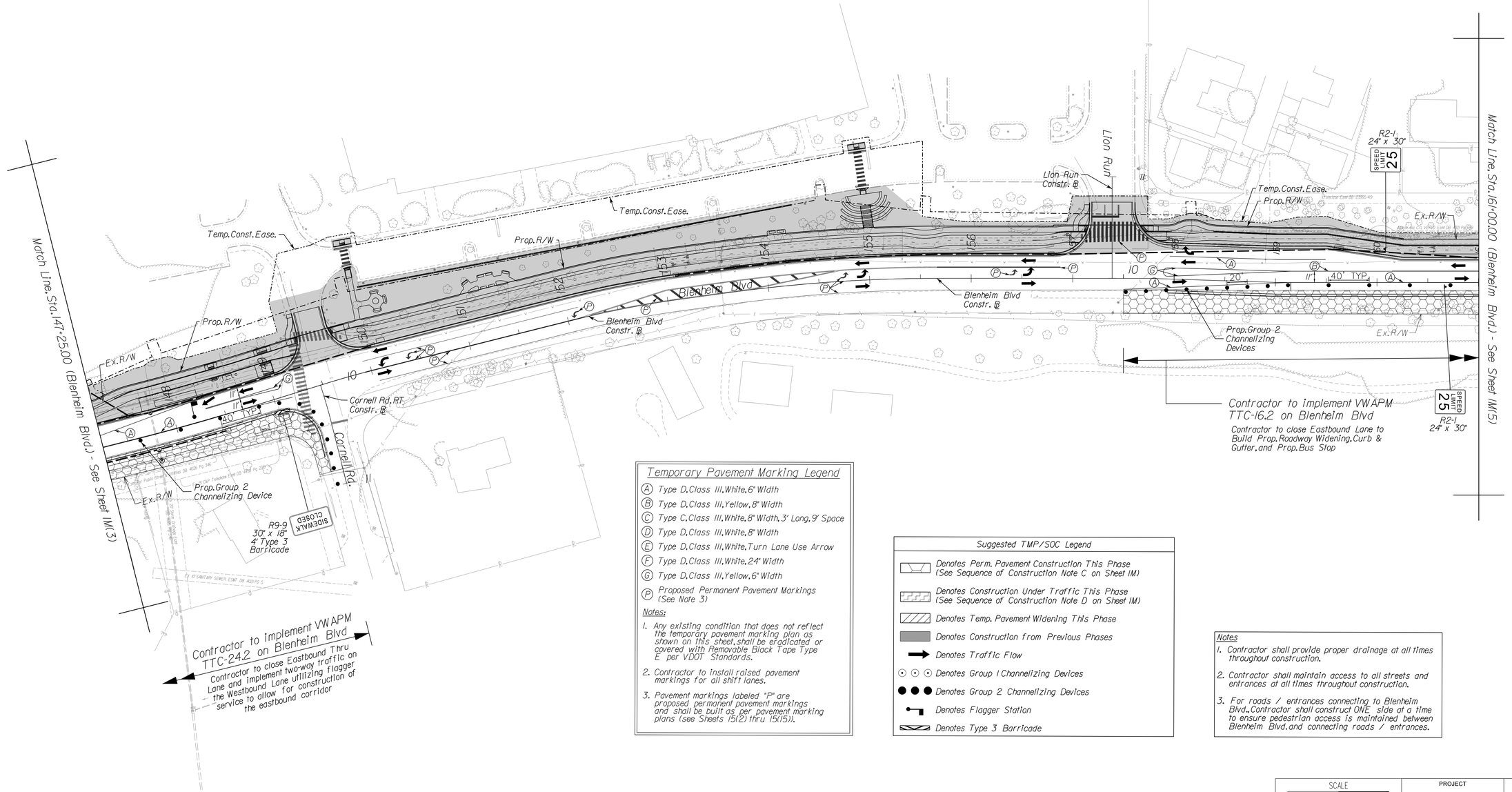
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:09:39 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(4)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IM)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IM)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE: 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IM(4)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 3

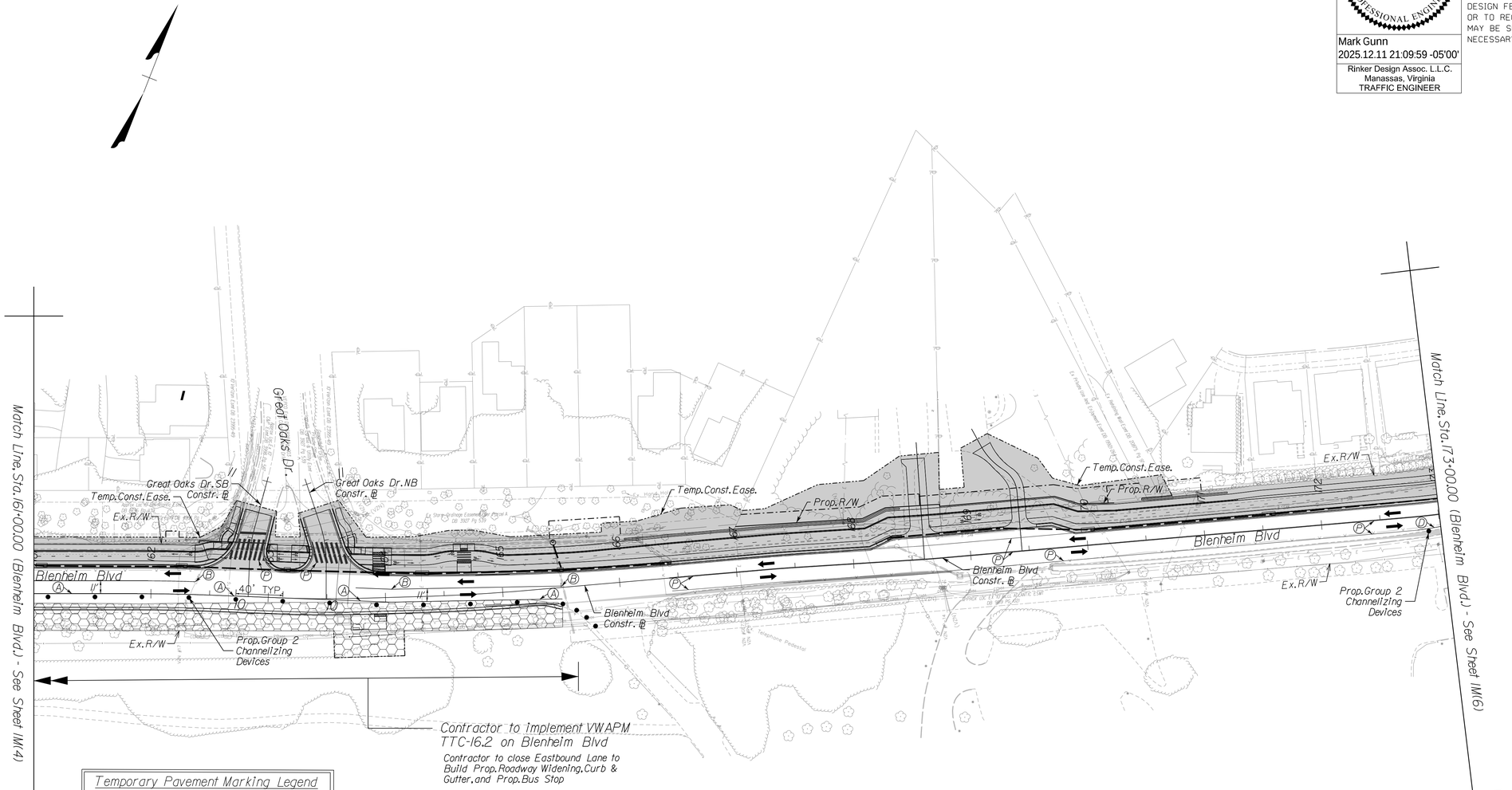
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:09:59 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(5)

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



Temporary Pavement Marking Legend

- (A) Type D,Class III,White,6" Width
- (B) Type D,Class III,Yellow,8" Width
- (C) Type C,Class III,White,8" Width,3' Long,9' Space
- (D) Type D,Class III,White,8" Width
- (E) Type D,Class III,White,Turn Lane Use Arrow
- (F) Type D,Class III,White,24" Width
- (G) Type D,Class III,Yellow,6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet,shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IM)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IM)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd.,Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd.and connecting roads / entrances.

SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IM(5)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 3

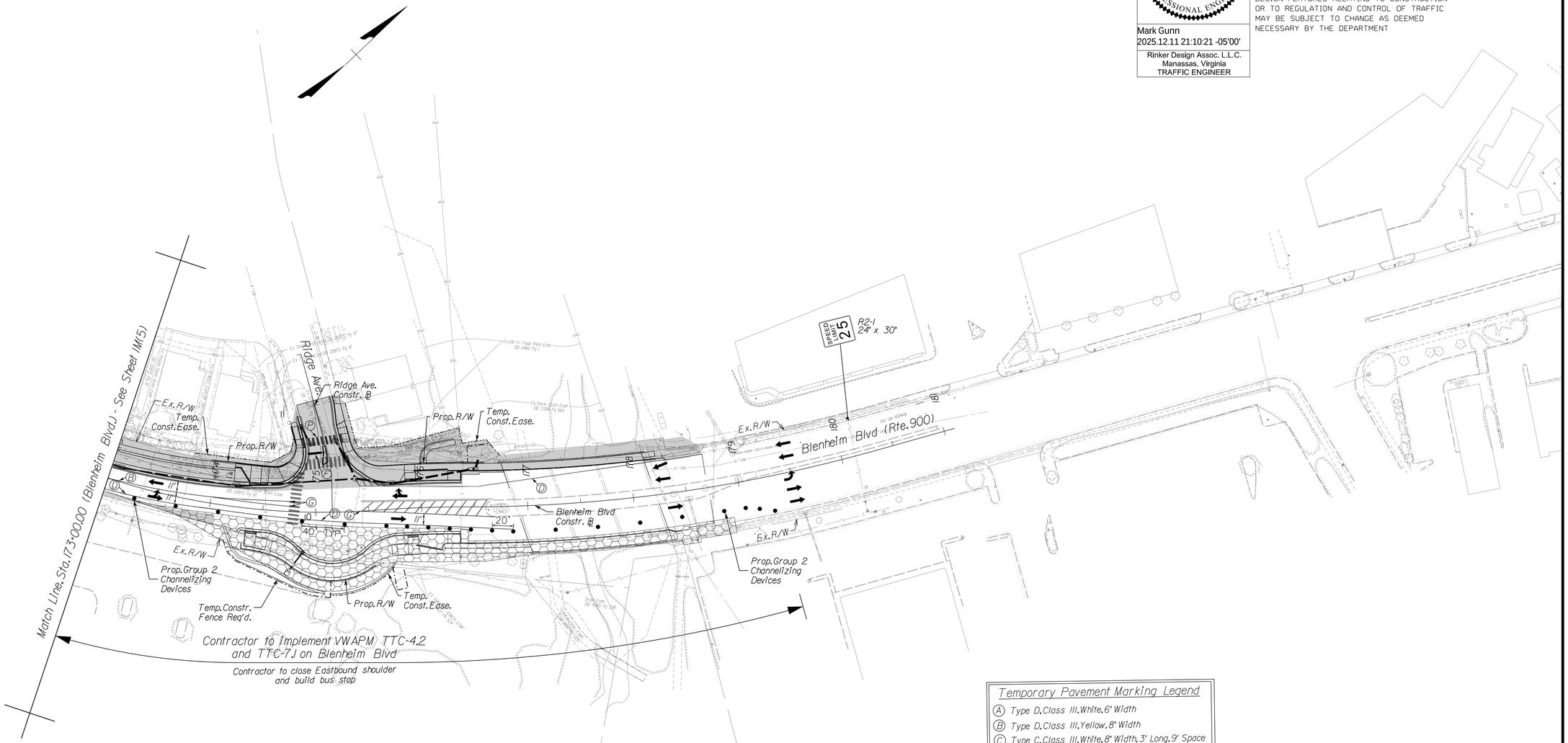
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:10:21 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(6)

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



Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IM)
- Denotes Construction Under Traffic This Phase (See Sequence of Construction Note D on Sheet IM)
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.
3. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IM(6)

FINAL PLANS

12/11/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 3

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:10:46 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(7)

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

SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"x18")
SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

Notes:
1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

Layton Hall Dr.
Democracy Ln
Blenheim Blvd
Old Lee Highway
Fairfax Dr.
Exist. R/W
Prop. R/W
Temp. Const. Ease.
100
101
102
103
104
105
DETOUR
SIDEWALK CLOSED AHEAD
SIDEWALK CLOSED
Match Line, Sta. 105+25.00 (Blenheim Blvd.) - See Sheet IM(8)

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IM(7)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 3

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(8)

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:11:18 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

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

SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

Notes:
1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

Match Line, Sta. 105+25.00 (Blenheim Blvd.) - See Sheet IM(7)

Match Line, Sta. 118+00.00 (Blenheim Blvd.) - See Sheet IM(9)

Van Dyck Park Entr.

Sherwood Community Center Entr.

Saint Leo the Great Catholic Church

Saint Leo the Great Catholic School

Daniels Run Elementary School

Entr. at Daniels Run E.S. Constr. E.

Blenheim Blvd

Exist. R/W

Prop. R/W

Temp. Const. Ease.

See Note 2

SIDEWALK CLOSED

DETOUR

AHEAD

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IM(8)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 3

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:11:50 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(9)

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

SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"x18")
SIDEWALK CLOSED AHEAD CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VMMP.

Notes:
1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

Match Line, Sta. 118+00.00 (Blenheim Blvd.) - See Sheet IM(8)

Match Line, Sta. 132+50.00 (Blenheim Blvd.) - See Sheet IM(10)

Spring Lake Ter.

Old Post Rd.

Blenheim Blvd

Colony Rd.

Heritage Ln.

Parklane Rd.

Exist. R/W

Prop. R/W

Temp. Const. Ease.

SIDEWALK CLOSED

See Note 2

SCALE
0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IM(9)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 3

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:12:08 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(10)

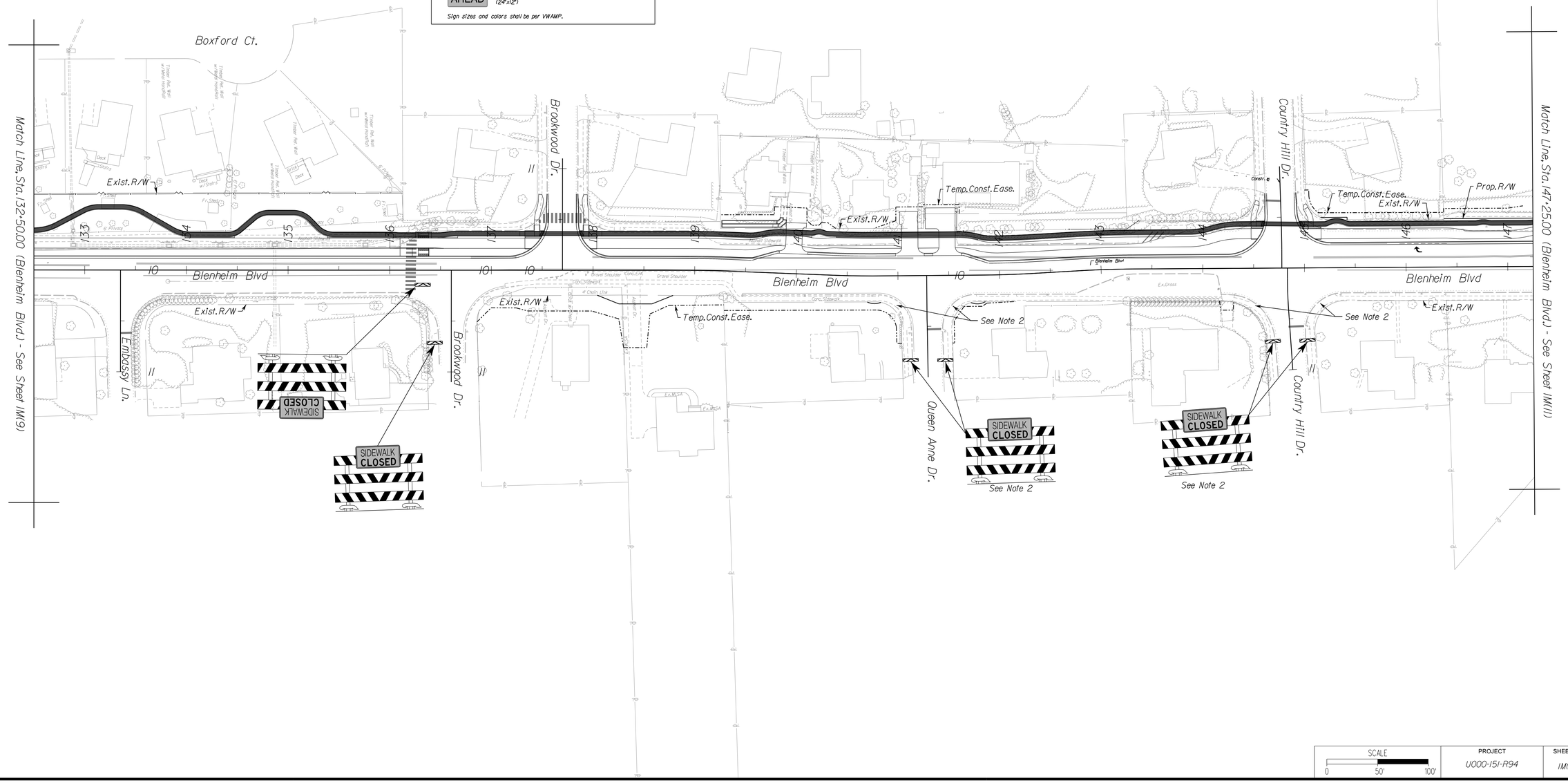
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"x18")
SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VMMP.

Notes:
1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement, NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.



SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IM(10)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 3

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(II)

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:12:25 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

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

SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"x18")
SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

Notes:
1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement. NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IM(II)

FINAL PLANS

12/11/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 3

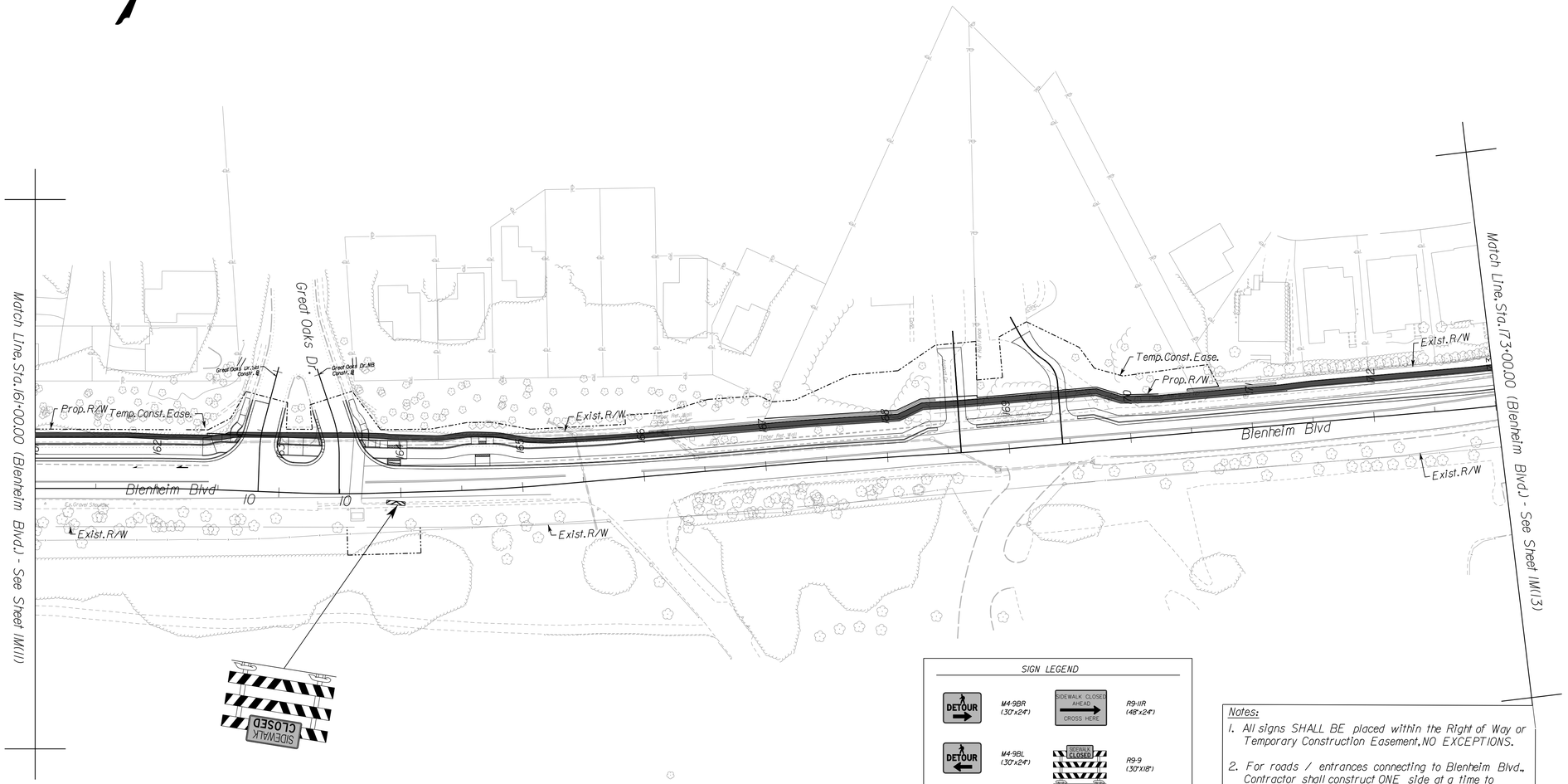
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:12:45 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(12)

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



SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"x18")
SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VWAMP.

Notes:
1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement. NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.

SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IM(12)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Pedestrian Detour Phase 3

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:13:06 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IM(13)

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

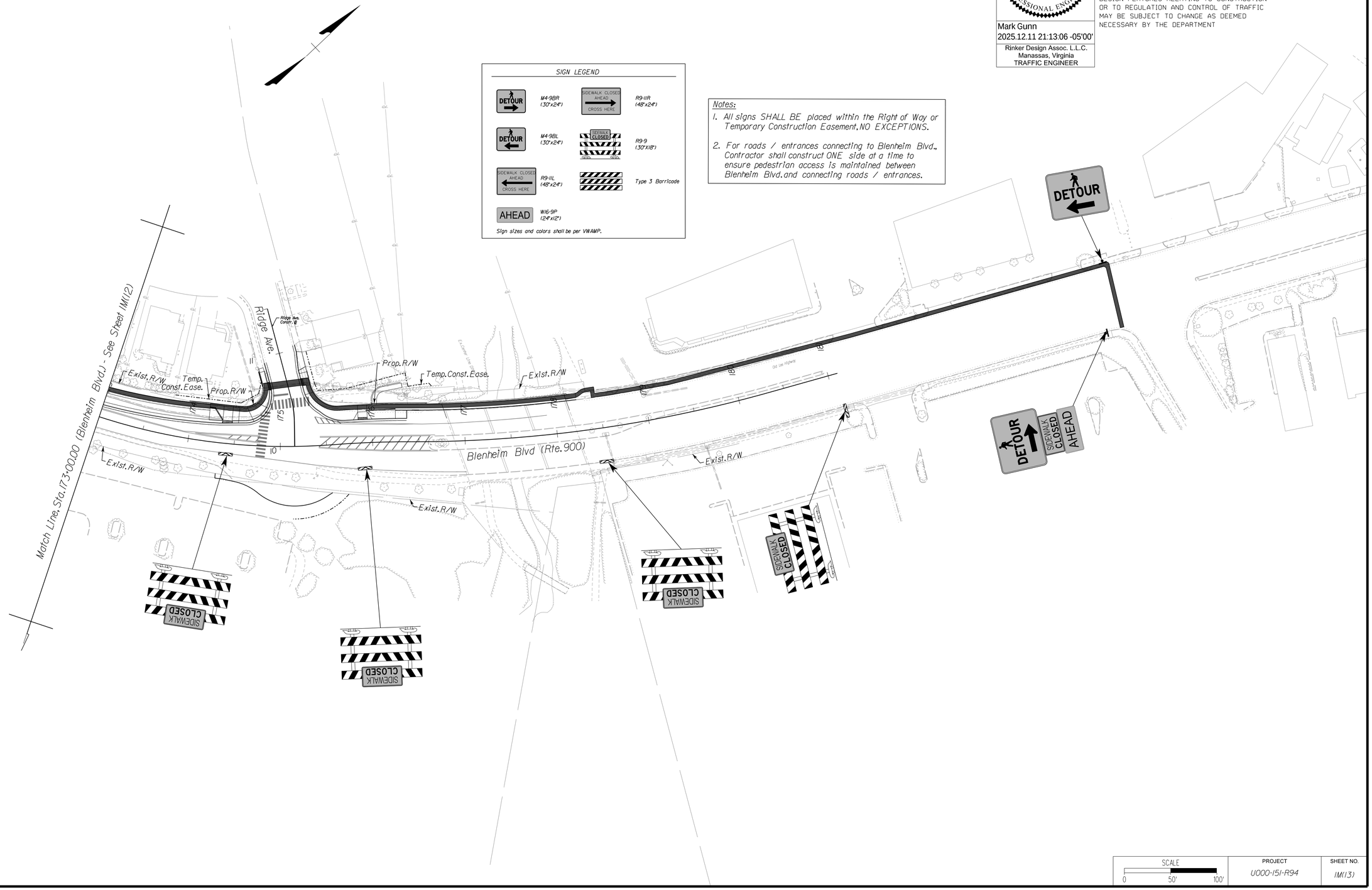
SIGN LEGEND

DETOUR	M4-9BR (30"x24")	SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11R (48"x24")
DETOUR	M4-9BL (30"x24")	SIDEWALK CLOSED	R9-9 (30"X18")
SIDEWALK CLOSED AHEAD / CROSS HERE	R9-11L (48"x24")		Type 3 Barricade
AHEAD	W16-9P (24"x12")		

Sign sizes and colors shall be per VMMP.

Notes:

1. All signs SHALL BE placed within the Right of Way or Temporary Construction Easement. NO EXCEPTIONS.
2. For roads / entrances connecting to Blenheim Blvd., Contractor shall construct ONE side at a time to ensure pedestrian access is maintained between Blenheim Blvd. and connecting roads / entrances.



SCALE 0 50' 100' | PROJECT U000-151-R94 | SHEET NO. IM(13)

FINAL PLANS

12/11/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 4

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IN

COMMONWEALTH OF VIRGINIA — MARK A. GUNN Lic. No. 038323 — PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:13:38 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

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

Phase 4 Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 4 is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 4, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 4 and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-21.1, TTC-23.2, TTC-33.2, and TTC-40.2, including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. Contractor shall implement TTC-40.2 on Layton Hall Drive and shift EB lanes of traffic to allow for construction of the Bus Stop and Curb Ramp, as shown on plans. Contractor shall close the sidewalk as shown on plans and reroute the pedestrian traffic on the north side of Layton Hall Drive sidewalk.

E. Contractor shall implement TTC-21J on Blenheim Blvd. and utilize group I channelizing devices to close the Westbound thru lane and allow for construction of the median at Sta. 103+50, as shown on plans.

F. Contractor shall implement TTC-21J on Blenheim Blvd. and utilize group I channelizing devices to close the center lane and allow for construction of the median at Sta. 107+50, as shown on plans.

G. Contractor shall implement TTC-23.2 on Blenheim Blvd. and utilize group I channelizing devices and run alternating one way traffic under flagger operations on the Eastbound lane to allow for construction of the medians at Sta. 124+00 and Sta. 164+00, as shown on plans.

H. Contractor shall implement TTC-33.2 on Blenheim Blvd. and utilize group 2 channelizing devices and run alternating one way traffic under flagger operations in the Eastbound lane to allow for construction of the Center Island of the roundabout at Ridge Ave., as shown on plans.

I. Prior to beginning construction for Phase 4, Contractor shall perform milling / overlaying on Blenheim Road and connecting roads / entrances from Sta. 101+30 to Sta. 150+00 and Sta. 157+50 to Sta. 166+50 and install permanent pavement markings from Sta. 101+30 to Sta. 102+65, Sta. 105+00 to Sta. 150+00 and Sta. 157+50 to Sta. 163+50 as shown in TMP/SOC Phase 4 plans. See Sheets 15(2) thru 15(15) for Pavement Marking Plans.

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IN)
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IN

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 4

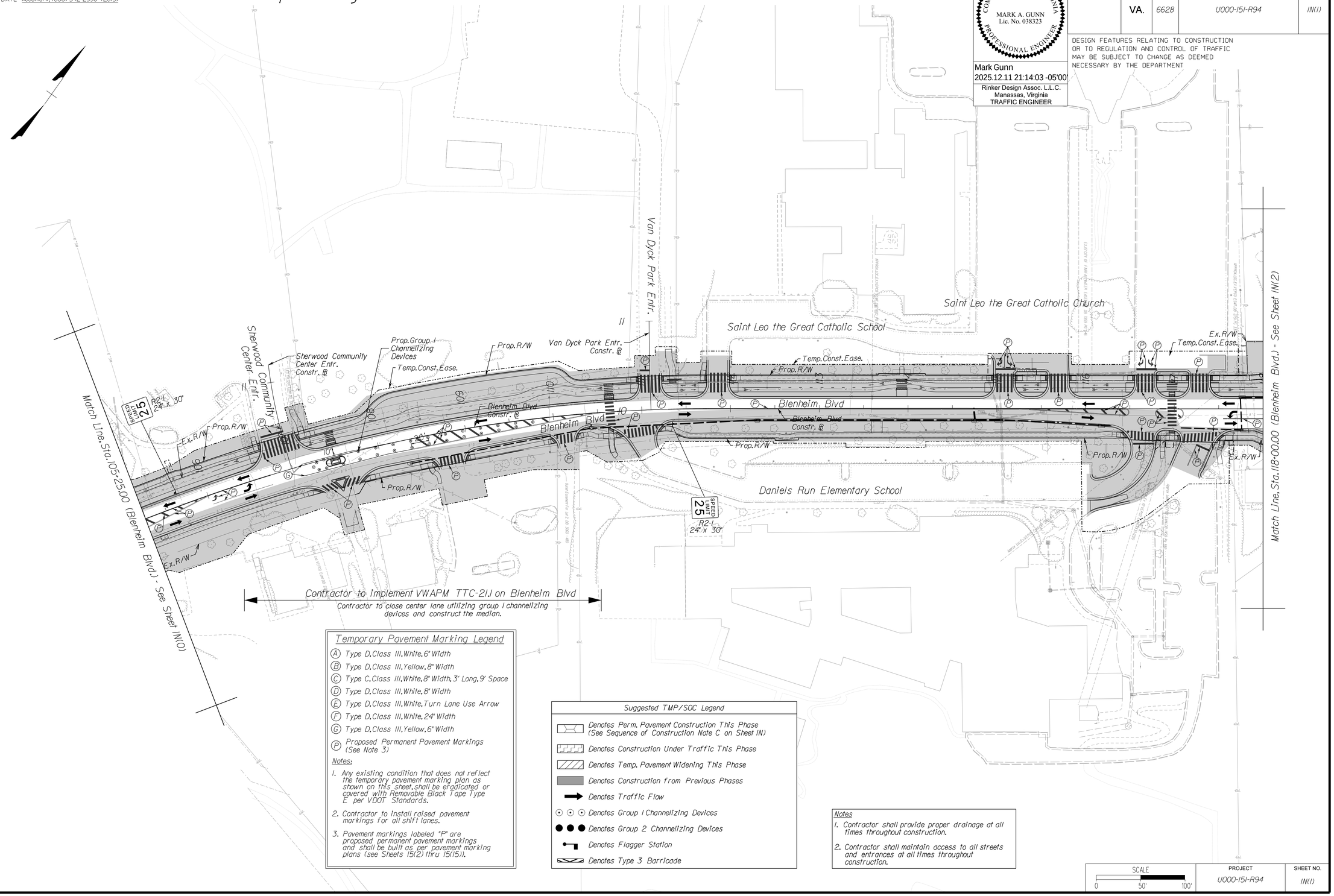
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:14:03 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IN(1)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151.21 thru 151.51).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IN)
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IN(1)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 4

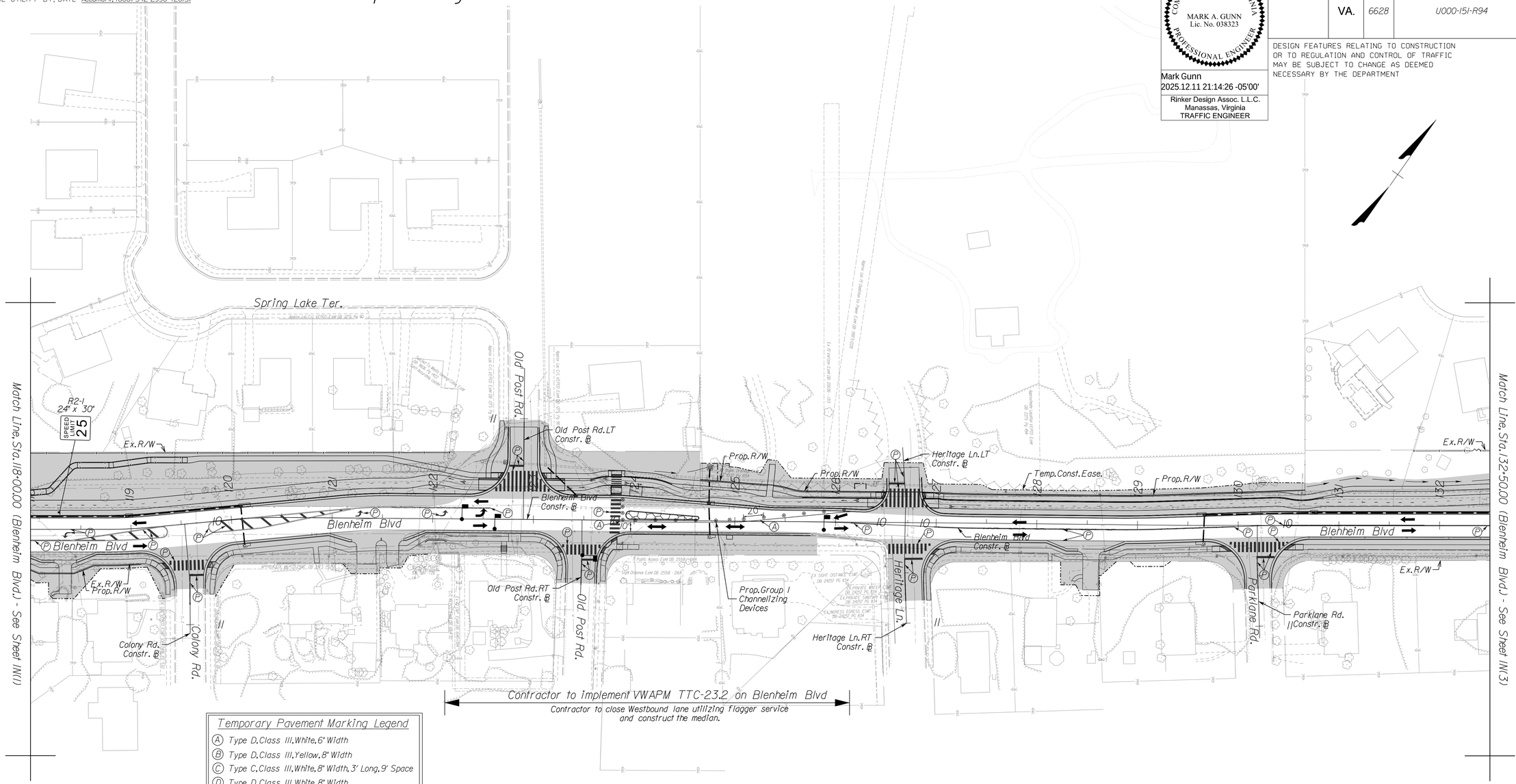
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:14:26 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IN(2)

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



Temporary Pavement Marking Legend

- Ⓐ Type D,Class III,White,6" Width
- Ⓑ Type D,Class III,Yellow,8" Width
- Ⓒ Type C,Class III,White,8" Width,3' Long,9' Space
- Ⓓ Type D,Class III,White,8" Width
- Ⓔ Type D,Class III,White,Turn Lane Use Arrow
- Ⓕ Type D,Class III,White,24" Width
- Ⓖ Type D,Class III,Yellow,6" Width
- Ⓟ Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet,shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IN)
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IN(2)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 4

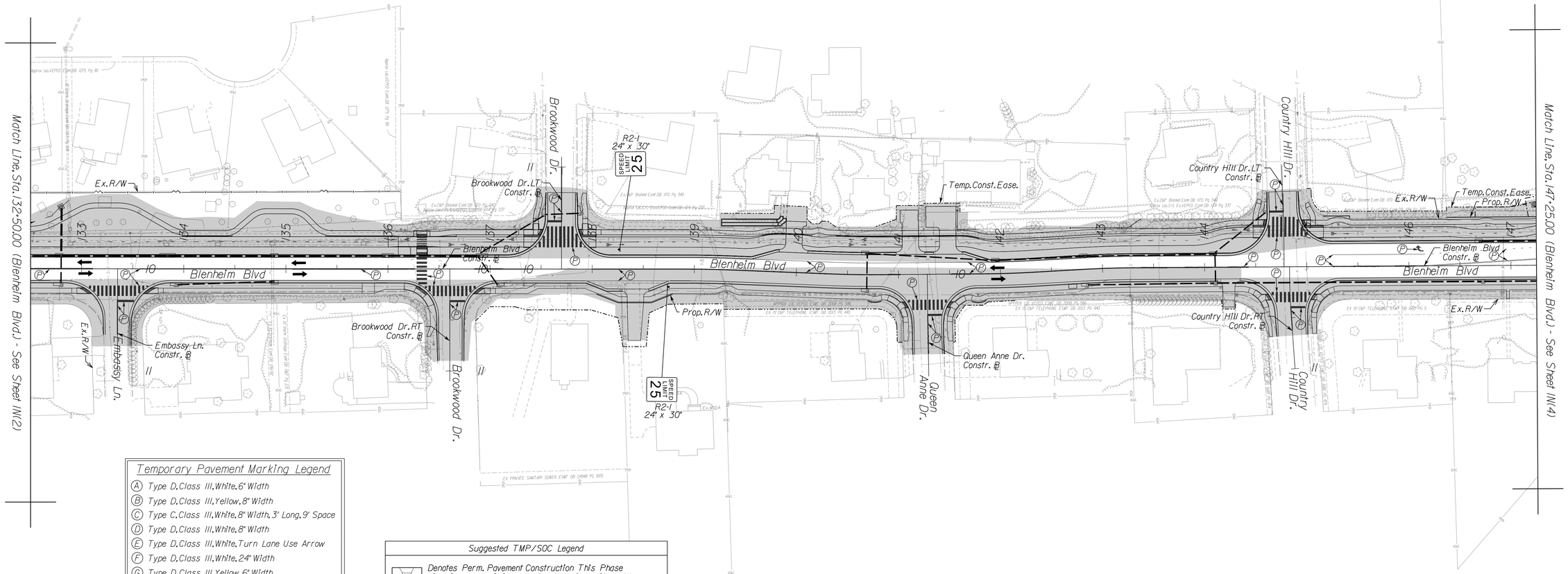
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:14:53 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IN(3)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IN)
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IN(3)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 4

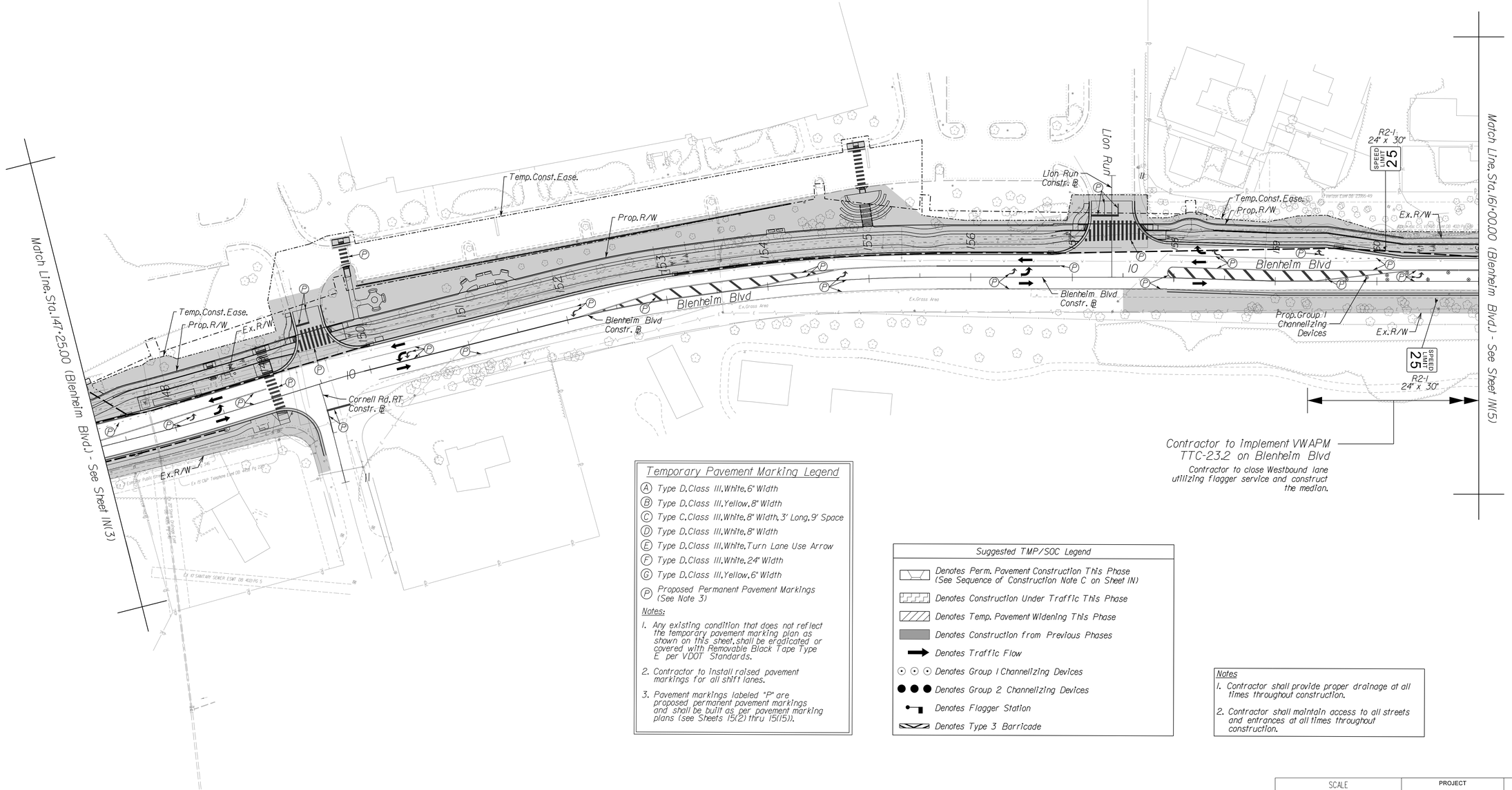
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:15:22 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IN(4)

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



Contractor to implement VWAPM TTC-23.2 on Blenheim Blvd
Contractor to close Westbound lane utilizing flagger service and construct the median.

Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 151(2) thru 151(5)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IN)
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IN(4)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 4

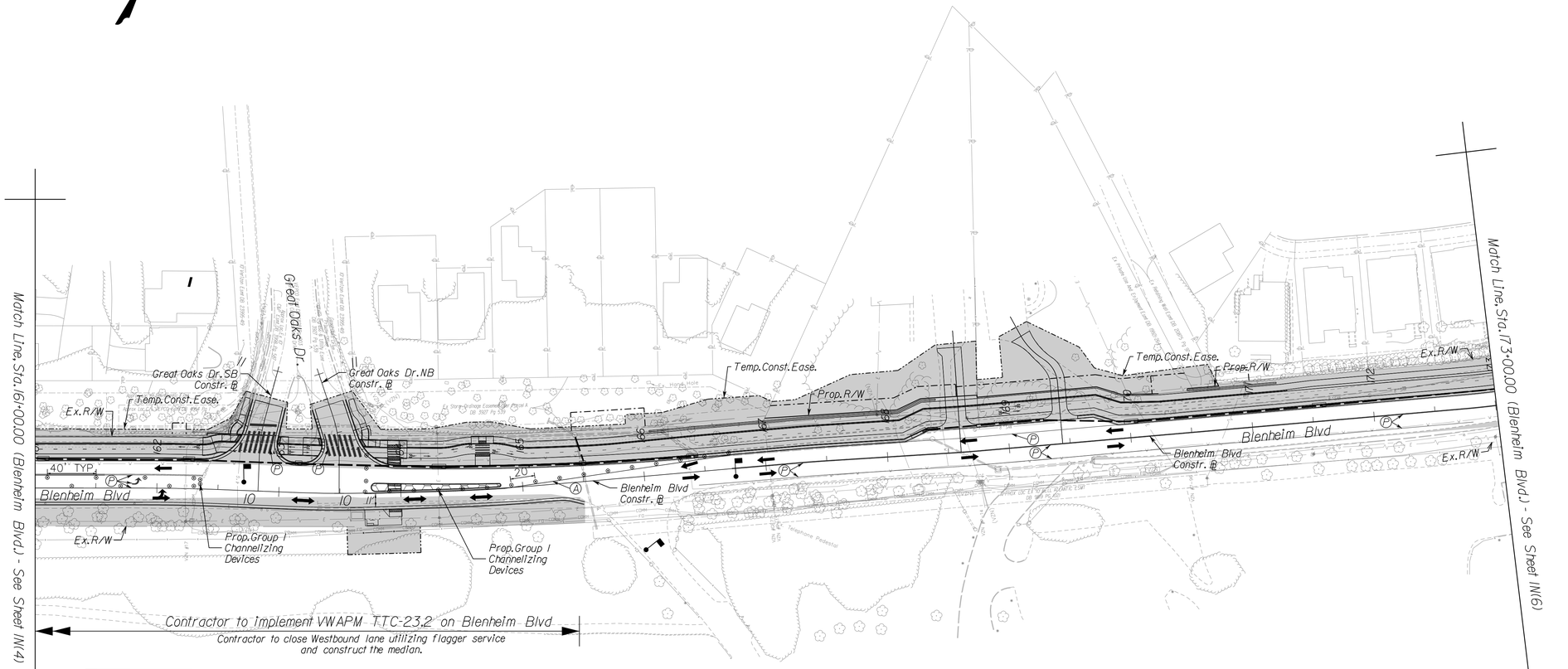
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:15:42 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IN(5)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IN)
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IN(5)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 4

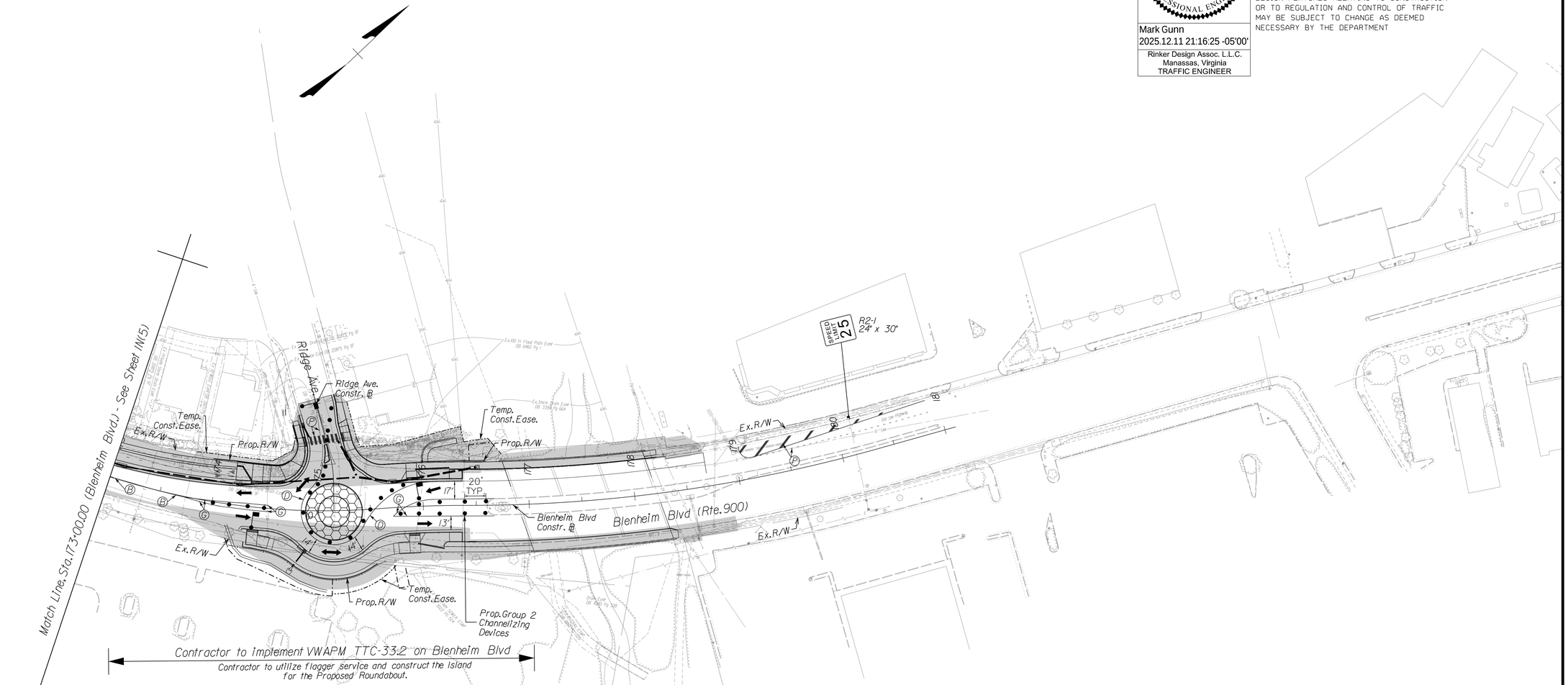
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:16:25 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IN(6)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be erdicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IN)
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group I Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IN(6)

12/11/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Plan Phase 4A

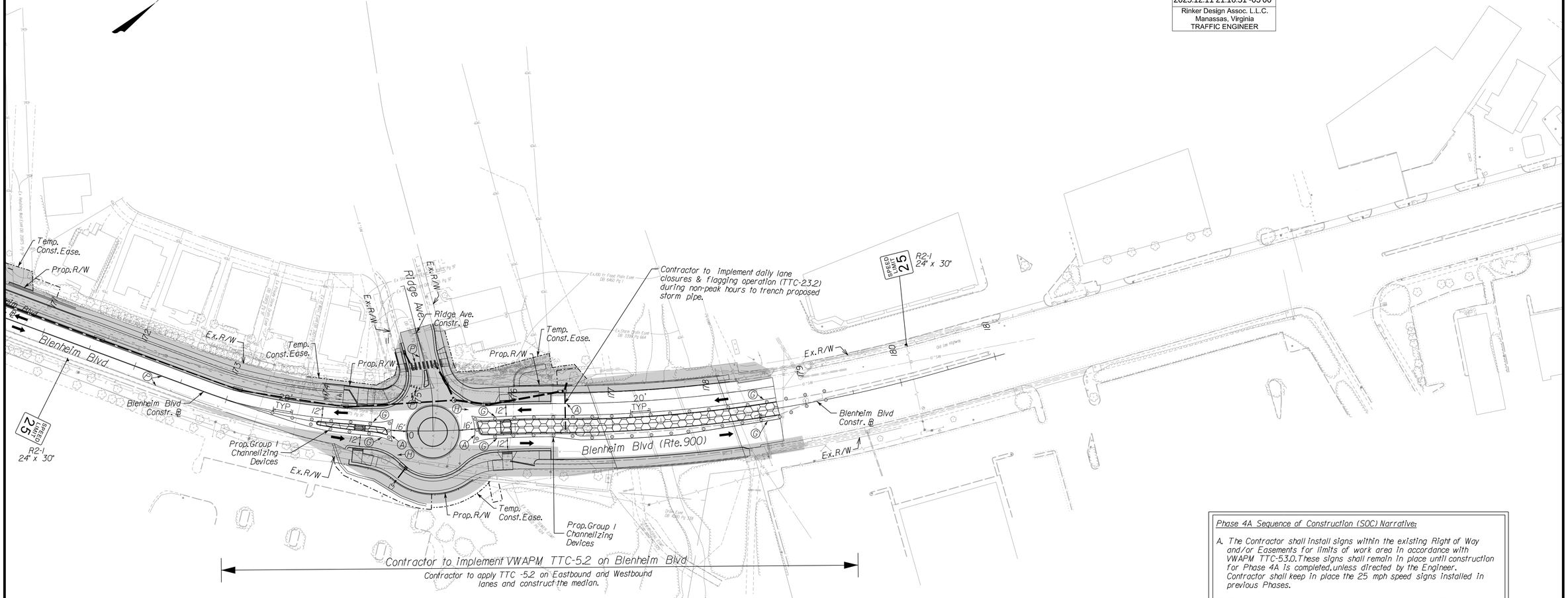
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:16:51 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IN(7)

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



Temporary Pavement Marking Legend

- (A) Type D, Class III, White, 6" Width
- (B) Type D, Class III, Yellow, 8" Width
- (C) Type C, Class III, White, 8" Width, 3' Long, 9' Space
- (D) Type D, Class III, White, 8" Width
- (E) Type D, Class III, White, Turn Lane Use Arrow
- (F) Type D, Class III, White, 24" Width
- (G) Type D, Class III, Yellow, 6" Width
- (H) Type C, Class III, White, 8" Width, 2' Long, 6' Space
- (P) Proposed Permanent Pavement Markings (See Note 3)

Notes:

1. Any existing condition that does not reflect the temporary pavement marking plan as shown on this sheet, shall be eradicated or covered with Removable Black Tape Type E per VDOT Standards.
2. Contractor to install raised pavement markings for all shift lanes.
3. Pavement markings labeled "P" are proposed permanent pavement markings and shall be built as per pavement marking plans (see Sheets 15(2) thru 15(15)).

Suggested TMP/SOC Legend

- Denotes Perm. Pavement Construction This Phase (See Sequence of Construction Note C on Sheet IN(7))
- Denotes Construction Under Traffic This Phase
- Denotes Temp. Pavement Widening This Phase
- Denotes Construction from Previous Phases
- Denotes Traffic Flow
- Denotes Group 1 Channelizing Devices
- Denotes Group 2 Channelizing Devices
- Denotes Flagger Station
- Denotes Type 3 Barricade

Notes

1. Contractor shall provide proper drainage at all times throughout construction.
2. Contractor shall maintain access to all streets and entrances at all times throughout construction.

Phase 4A Sequence of Construction (SOC) Narrative:

A. The Contractor shall install signs within the existing Right of Way and/or Easements for limits of work area in accordance with VWAPM TTC-53.0. These signs shall remain in place until construction for Phase 4A is completed, unless directed by the Engineer. Contractor shall keep in place the 25 mph speed signs installed in previous Phases.

B. The contractor shall install erosion & sediment control (E&S) measures as needed to complete work on Phase 4A, within the existing Right of Way and/or Easements.

C. The Contractor shall construct all areas designated for construction in TMP/SOC Phase 4A and install all traffic control measures and devices, including signs, and channelizing devices, per VWAPM TTC-5.2 and TTC-23.2, including sign spacing, channelizing device spacing, and tapers. Sign sizes and colors shall be per VWAPM.

D. Contractor shall implement TTC-5.2 on Blenheim Blvd. and utilize group I channelizing devices to close the center of the lane as necessary to allow for construction of the median, as shown on plans.

E. Contractor shall implement TTC-23.2 on Blenheim Blvd. and apply daily lane closures with flagger operations during non-peak hours to trench and install storm pipe crossing at Sta. 176+50, as shown on plans.

F. At the end of Phase 4A construction, Contractor shall ensure ALL milling and overlaying is performed and ALL permanent proposed pavement markings are installed throughout the project. See Sheets 15(2) thru 15(15) for Pavement Marking Plans.

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IN(7)

FINAL PLANS

12/11/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Erosion & Sediment Control Notes

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2025.12.12 08:45:27-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IP

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 MINIMUM STANDARDS (9VAC25-840-40):

X 1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. (SHEETS 1R-1R(6))

X 2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE. (SHEETS 10-1R(6))

X 3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION. (SHEETS 10-1R(6))

X 4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. (SHEETS 10-1D(6))

N/A 5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

N/A 6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

N/A a. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.

N/A b. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

X 7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED. (SHEETS 10-1R(6))

X 8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE. (SHEETS 1R-1R(6))

X 9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED. (SHEETS 10-1R(6))

X 10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT. (SHEETS 10-1R(6))

X 11. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE AND RECEIVING CHANNEL. (SHEETS 1R-1R(6))

N/A 12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.

N/A 13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.

N/A 14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

N/A 15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

X 16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA: (SHEET SERIES 15-22)

X a. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.

X b. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

X c. 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.

X d. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.

X e. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.

X f. APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.

X 17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

X 18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

X 19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS: (SEE DRAINAGE REPORT)

X a. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

X b. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:

X (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS 100 TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION;

X (2) (a) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.

(b) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND

(c) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.

X c. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:

X (1) IMPROVE THE CHANNELS TO A CONDITION WHERE A 10-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR THE BANKS;

X (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE 10-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;

X (3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A 10-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR

X (4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.

X d. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.

X e. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.

X f. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.

X g. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.

X h. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.

X i. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.

X j. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.

X k. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

N/A 1. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15:54 OR 62.1-44.15:65 OF THE ACT.

X m. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15:24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES (I) ARE IN ACCORDANCE WITH PROVISIONS FOR TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA IN 9VAC25-870-47 OR GRANDFATHERING IN 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION, IN WHICH CASE THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 A OF THE ACT SHALL APPLY, OR (II) ARE EXEMPT PURSUANT TO § 62.1-44.15:34 C 7 OF THE ACT.

N/A n. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF THIS SUBDIVISION 19.

X o. TEMPORARY STONE CONSTRUCTION ENTRANCE:
A STABILIZED STONE PAD WITH A FILTER FABRIC UNDERLINER LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE. (PER VDOT STANDARD EC-1I AND STD & SPEC 3.02 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK)

N/A p. SAFETY FENCE TO BE INSTALLED AROUND ALL SEDIMENT BASINS AND WHERE DEEMED NECESSARY (STD & SPEC. 3.01 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK).

X = Applicable to This Project
N/A = Not Applicable to This Project

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. IP

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

EROSION AND SEDIMENT CONTROL PLAN
VESCH NARRATIVE AND CHECKLIST

NIKHIL V. DESHPANDE Lic. No. 045430 COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER

Nikhil V Deshpande
2026.01.23 14:06:34-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IP(1)

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

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF ADDING A BIKE PATH ALONG THE NORTH SIDE OF THE ROAD AND MULTIMODAL IMPROVEMENTS ALONG THE REST OF THE PROJECT.THE PROJECT STRECHES FROM LAYTON HALL DRIVE TO RIDGE DRIVE.THE TOTAL DISTURBED AREA OF THE PROJECT ALONG BLENHEIM BOULEVARD IS 10.96 ACRES.

EXISTING SITE CONDITIONS

TOPOGRAPHY FOR THE MAJORITY OF THE PROJECT AREA IS ROLLING HILLS WITH A MIXTURE OF RESIDENTIAL AND COMMERCIAL AREAS.THERE ARE NO DEFINED WETLANDS WITHIN THE PROJECT LIMITS.THE PROJECT IS WITHIN THE LIMITS OF ONE WATERSHED - PL-30.HUC12 *020700100402. ACCOTINK CREEK.

THE PROJECT IS WITHIN THE LIMITS OF A SINGLE WATERSHED:VAHU6 - PL30.HUC12 *020700100402.ACCOTINK CREEK -

ADJACENT AREAS:

AREAS ADJACENT TO THE PROJECT LIMITS ARE COMMERCIAL.AND RESIDENTIAL USES.

OFFSITE AREAS:

THERE IS NO ANTICIPATION THAT BORROW MATERIAL WILL BE NECESSARY FOR THIS PROJECT.IF DURING CONSTRUCTION THE CONTRACTOR REQUIRES OFFSITE BORROW MATERIAL,THIS EROSION CONTROL PLAN DOES NOT ADDRESS THESE AREAS AND THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING INDEPENDENT EROSION AND SEDIMENT CONTROL PLANS TO COVER OFFSITE.

SOILS:

THE SOILS ON THE SITE ARE PRIMARILY VARIATIES OF SILT LOAM.C AND D SOILS.

CRITICAL AREAS:

THERE ARE NO CRITICAL EROSION AREAS WITHIN THE PROJECT.THE CONTRACTOR IS TO BE EXTRA DILIGENT WITH EROSION AND SEDIMENT CONTROL MEASURES AROUND STOCKPILES AND THE EXISTING STORMWATER MANAGEMENT FACILITES LOCATED ON ADJACENT PROPERTIES,PROPOSED FACILITIES.AND ADJACENT PROPERTIES.THE CONTRACTOR IS TO INSPECT AFTER EVERY RAIN AND RESTORE TO PROPOSED CONDITIONS.

EROSION AND SEDIMENT CONTROL MEASURES:

UNLESS OTHERWISE DIRECTED,ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MOST CURRENT MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION.DIVERSION DIKES,FILTER BARRIER,AND SILT FENCE FOR EXISTING STORM DRAINAGE STRUCTURES SHALL BE PLACED PRIOR TO EARTH MOVING OPERATIONS.THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

MAINTENANCE PROGRAM:

THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREAS (IE.SEEDED,MULCHED, OR SODDED AREAS)ON A DAILY BASIS AND AFTER EACH RAINFALL EVENT TO ENSURE THAT ALL CONTROLS ARE FUNCTIONING PROPERLY.THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR;INLET PROTECTION,SEDIMENT TRAPS,SILT FENCE AND CHECK DAMS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE,AND IF THE GRAVEL IS CLOGGED BY SEDIMENT,IT SHALL BE REMOVED AND CLEANED OR REPLACED.THE SITE FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC, AND SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALFWAY TO THE TOP OF THE BARRIER,AND THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED,AND AREAS SHALL BE FERTILIZED AND RESEEDED AS NEEDED.ANY DAMAGED CONTROLS SHALL BE REPAIRED BY THE END OF THE WORK DAY,INCLUDING RESEEDING AND MULCHING IF NECESSARY AT THE INSPECTOR'S APPROVAL.

TEMPORARY AND PERMANENT STABILIZATION:

TEMPORARY AND PERMANENT STABILIZATION SHALL BE APPLIED TO ALL DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADING IS REACHED ON ANY PORTION OF THE SITE.TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS.PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS LEFT DORMANT FOR MORE THAN ONE YEAR.

STORMWATER RUNOFF CONSIDERATIONS:

THE PROJECT PROPOSES SIX NEW STORMWATER MANAGEMENT FACILITIES (5-15,8-10,9-14,4-2A,6-3A,AND 10-4A) FOR WATER QUANTITY AND QUALITY PURPOSES.PROPOSED RUNOFF TO THESE FACILITIES WILL MEET THE MS-19 AND VDOT REGULATIONS.

CALCULATIONS

ALL PERMANENT FACILITY CALCULATIONS,AS WELL AS OUTFALL AND RUNOFF CALCULATIONS HAVE BEEN PROVIDED IN THE DRAINAGE REPORT. TEMPORARY SEDIMENT BASIN CALCULATIONS HAVE BEEN PROVIDED IN THE IR SERIES.

PHASE I LAND DISTURBING/ CONSTRUCTION SEQUENCE:

1. THE CONTRACTOR MUST GIVE THE CITY INSPECTOR 48 HOURS NOTIFICATION TO SCHEDULE AN ON-SITE PRE-CONSTRUCTION MEETING FOR THE ISSUANCE OF A LAND DISTURBANCE PERMIT.THE CERTIFIED RESPONSIBLE LAND DISTURBER (CRLD) AND THE STORMWATER QUALIFIED PERSON MUST ATTEND THE PRE-CONSTRUCTION MEETING.
2. FLAG LIMITS OF CLEARING AND CONSTRUCT CONSTRUCTION ENTRANCES.
3. INSTALL TEMPORARY CONTROLS INCLUDING SILT FENCE.DIVERSION,SEDIMENT TRAPs,INLET PROTECTION ,AND ROCK CHECK DAMS.
4. CLEAR AND GRUB REMAINDER OF THE SITE AS NECESSARY.
5. CONSTRUCT PERIMETER EROSION AND SEDIMENT CONTROLS.
6. STABILIZE ALL DENUDED AREAS ACCORDING TO THE SECTION TEMPORARY AND PERMANENT STABILIZATION.
7. THE CRLD AND THE ENVIRONMENTAL ENGINEERING INSPECTOR MUST MEET PRIOR TO PROCEEDING TO PHASE II OF THE EROSION CONTROL PLAN.

PHASE II LAND DISTURBING SEQUENCE:

1. CONSTRUCT PROPOSED STORM SEWER SYSTEM,PROPOSED DITCHES AND PROPOSED CULVERTS,AND CULVERT EXTENSIONS.
2. CONSTRUCT INLET AND OUTLET PROTECTION AT ALL APPLICABLE LOCATIONS.
3. ROUGH GRADE THE REMAINDER OF THE SITE INCLUDING THE BANKS AND ADJACENT AREAS TO THE STREAM.
4. INSTALL ALL CURB AND GUTTER AND PLACE BASE STONE PAVEMENT.
5. FINE GRADE SITE AND INSTALL ALL PERMANENT SEEDING AND FERTILIZE ALL GRASSED AREAS.
6. REMOVE ALL EROSION CONTROL MEASURES.
7. CLEAN SITE OF ALL TRASH AND DEBRIS.
8. HAVE THE INSPECTOR INSPECT ALL AREAS TO DETERMINE IF THE AREA IS ADEQUATELY STABILIZED.

STORAGE YARD/LAY DOWN YARD

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF THE EQUIPMENT STORAGE AREA.THIS AREA MUST STAY WITHIN THE PROJECT'S LIMITS OF CONSTRUCTION.UNLESS AN OFF-SITE AREA IS COORINATED AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING INDEPENDENT E&S CONTROL PERMITS TO COVER ANY OFF-SITE IMPACTS.

1992

CHECKLIST

FOR EROSION AND SEDIMENT CONTROL PLANS

✓ Minimum Standards - All applicable Minimum Standards must be addressed.

NARRATIVE

✓ Project description - Briefly describes the nature and purpose of the land-disturbing activity, and the area (acres) to be disturbed.

✓ Existing site conditions - A description of the existing topography, vegetation and drainage.

✓ Adjacent areas - A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.

✓ Off-site areas - Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Will any other areas be disturbed?

✓ Soils - A brief description of the soils on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure.

✓ Critical areas - A description of areas on the site which have potentially serious erosion problems (e.g., steep slopes, channels, wet weather/ underground springs, etc.).

✓ Erosion and sediment control measures - A description of the methods which will be used to control erosion and sedimentation on the site. (Controls should meet the specifications in Chapter 3.)

✓ Permanent stabilization - A brief description, including specifications, of how the site will be stabilized after construction is completed.

✓ Stormwater runoff considerations - Will the development site cause an increase in peak runoff rates? Will the increase in runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff.

✓ Calculations - Detailed calculations for the design of temporary sediment basins, permanent stormwater detention basins, diversions, channels, etc. Include calculations for pre- and post-development runoff.

VI - 13

1992

Checklist (continued)

SITE PLAN

✓ Vicinity map - A small map locating the site in relation to the surrounding area. Include any landmarks which might assist in locating the site.

✓ Indicate north - The direction of north in relation to the site.

✓ Limits of clearing and grading - Areas which are to be cleared and graded.

✓ Existing contours - The existing contours of the site.

✓ Final contours - Changes to the existing contours, including final drainage patterns.

✓ Existing vegetation - The existing tree lines, grassed areas, or unique vegetation.

✓ Soils - The boundaries of different soil types.

✓ Existing drainage patterns - The dividing lines and the direction of flow for the different drainage areas. Include the size (acreage) of each drainage area.

N/A Critical erosion areas - Areas with potentially serious erosion problems. (See Chapter 6 for criteria.)

✓ Site Development - Show all improvements such as buildings, parking lots, access roads, utility construction, etc.

✓ Location of practices - The locations of erosion and sediment controls and stormwater management practices used on the site. Use the standard symbols and abbreviations in Chapter 3 of this handbook.

N/A Off-site areas - Identify any off-site land-disturbing activities (e.g., borrow sites, waste areas, etc.). Show location of erosion controls. (Is there sufficient information to assure adequate protection and stabilization?)

N/A Detail drawings - Any structural practices used that are not referenced to the E&S handbook or local handbooks should be explained and illustrated with detail drawings.

✓ Maintenance - A schedule of regular inspections and repair of erosion and sediment control structures should be set forth.

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EROSION AND SEDIMENT CONTROL STRUCTURES

- SAFETY FENCE (3.01):
A protective barrier installed to prevent access to an erosion control measure.

- TEMPORARY STONE CONSTRUCTION ENTRANCE (3.02):
A stabilized stone pad with a filter fabric underliner located at points of vehicular ingress and egress on a construction site.(Per VDOT Standard EC-11)

- CONSTRUCTION ROAD STABILIZATION (3.03):
The temporary stabilization of access roads,subdivision roads,parking areas,and other on-site vehicle transportation routes with stone immediately after grading.(Per VDOT Standard EC-11)

- TEMPORARY SILT FENCE (3.05):
A temporary sediment barrier consisting of a synthetic filter fabric stretched across and attached to supporting posts and entrenched.(Per VDOT Standard EC-5)

- STORM DRAIN INLET PROTECTION (3.07):
A sediment filter or an excavated impounding area around a storm drain drop inlet or curb inlet.(Per VDOT Standard EC-6 Type A and B)

- CULVERT INLET PROTECTION (3.08):
A sediment filter located at the inlet to storm sewer culverts.(Per VDOT Standard EC-6 Type C)

- TEMPORARY DIVERSION DIKE (3.09):
A temporary ridge of compacted soil constructed at the top or base of a sloping disturbed area.(Per VDOT Standard EC-9)

- DIVERSION (3.12):
A channel constructed across a slope with a supporting earthen ridge on the lower side.(Per VDOT Standard EC-12)

- TEMPORARY SEDIMENT TRAP (3.13):
A temporary ponding area formed by constructing an earthen embankment with a stone outlet.(Per VDOT Standard EC-7)

EROSION AND SEDIMENT CONTROL STRUCTURES CONT.

- TEMPORARY SEDIMENT BASIN (3.14):
A temporary barrier or dam with a controlled stormwater release structure formed by constructing an embankment of compacted soil across a drainway.

- STORMWATER CONVEYANCE CHANNEL (3.17):
A permanent,designed waterway,shaped,sized,and lined with appropriate vegetation or structural material used to safely convey stormwater runoff within or away from a developing area.

- OUTLET PROTECTION (3.18):
Structurally lined aprons or other acceptable energy dissipating devices placed at the outlets of pipes or paved channel sections.(Per VDOT Standard EC-1)

- ROCK CHECK DAMS (3.20):
Small temporary stone dams constructed across a swale or drainage ditch.(Per VDOT Standard EC-4)

-TEMPORARY VEHICULAR STREAM CROSSING (3.24):
A temporary structural span installed across a flowing watercourse for use by construction traffic. (Per VDOT standard EC-14)

- TEMPORARY SEEDING (3.31):
The establishment of a temporary vegetative cover on disturbed areas by seeding with appropriate rapidly growing annual plants.Temporary seeding shall be done in accordance with Virginia Erosion and Sediment Control Handbook standard and specification 3.31.

- PERMANENT SEEDING (3.32):
All areas disturbed by construction shall be stabilized with permanent seeding immediately following finished grading.Seeding shall be done according to Virginia Erosion and Sediment Control Handbook standard and specification 3.32,PERMANENT SEEDING.

PROJECT	SHEET NO.
U000-151-R94	IP(1)

1/23/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

EROSION CONTROL PHASE I

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
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PROFESSIONAL ENGINEER

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Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IQ

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

Erosion & Sediment Legend

- TSF-A — Denotes Temporary Silt Fence Type A; St'd EC-5
- F|C — Denotes Limits of Cut/Fill
- LOD — Denotes Limits of Disturbance
- IP-_ — Denotes Inlet Protection Type A/B; St'd. EC-6
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Right of Way Legend

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IQ

FINAL PLANS

1/22/2026

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EROSION CONTROL PHASE I

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IQ(1)

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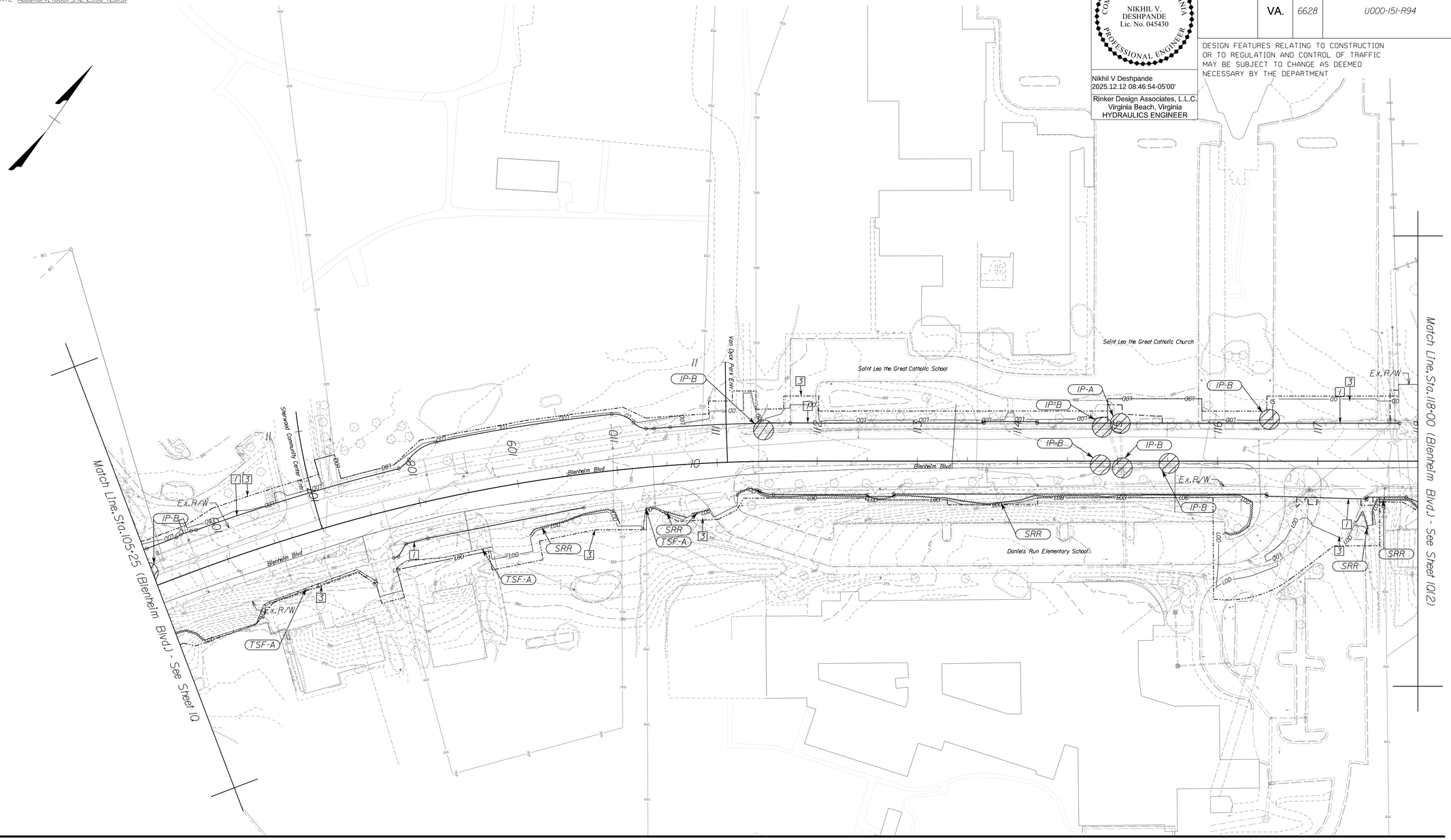

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IQ(1)

FINAL PLANS

12/11/2025

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IQ(2)

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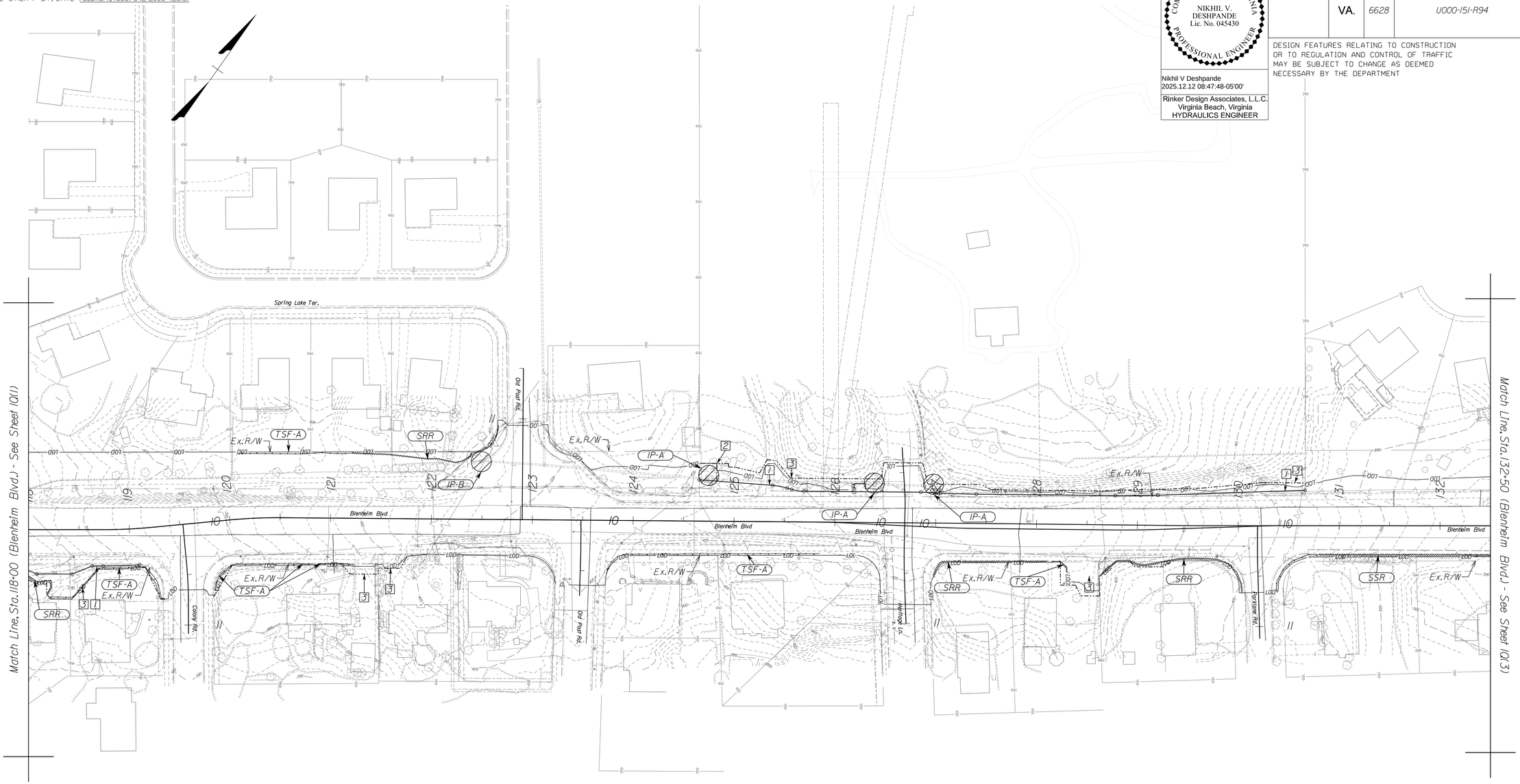

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SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	IQ(2)

12/11/2025

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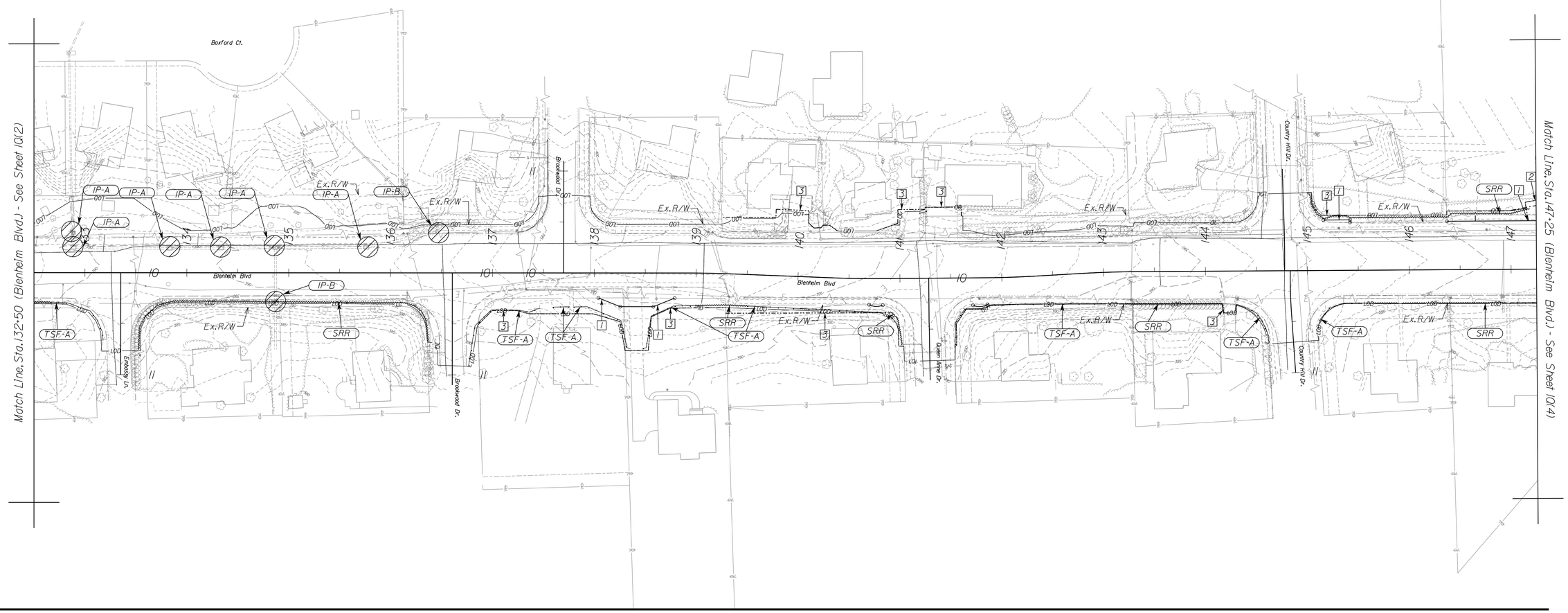
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1Q(3)

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



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SCALE 0 50' 100'

PROJECT	SHEET NO.
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	VA.	6628	U000-151-R94	1Q(4)

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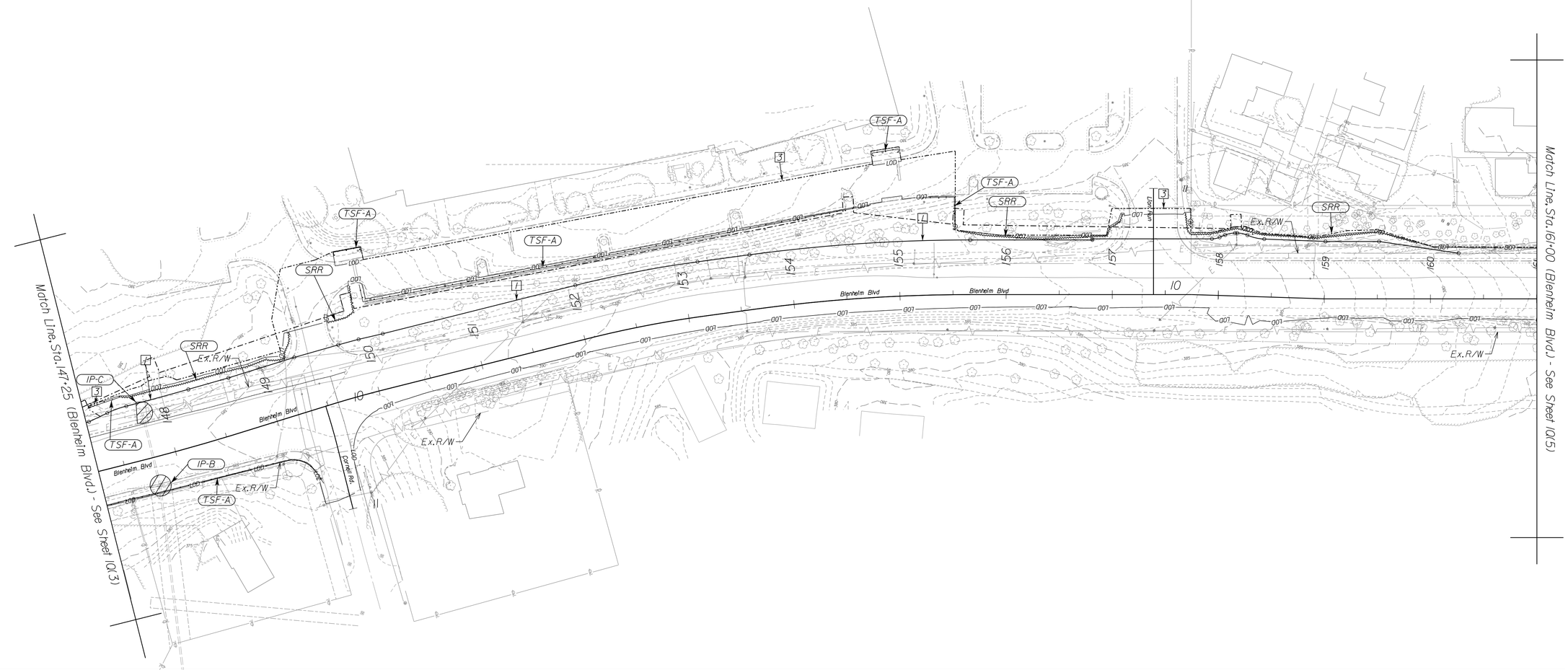

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Prop. Right of Way Monument RM-2

SCALE	PROJECT	SHEET NO.
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EROSION CONTROL PHASE I

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1Q(5)

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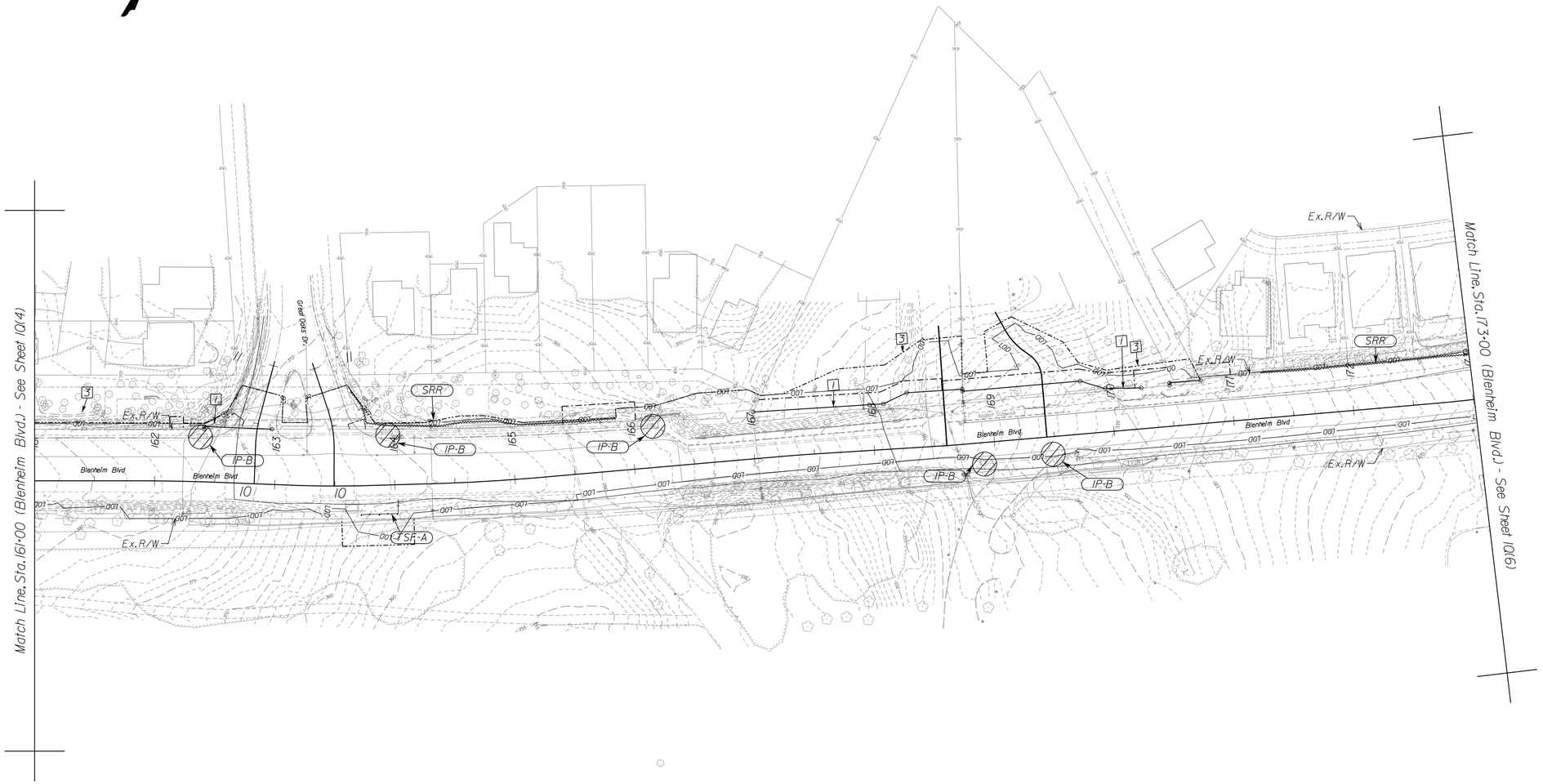

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SCALE: 0 50' 100'

PROJECT	SHEET NO.
U000-151-R94	1Q(5)

FINAL PLANS

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EROSION CONTROL PHASE I

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HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	1Q(6)

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SCALE	PROJECT	SHEET NO.
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FINAL PLANS

12/11/2025

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EROSION CONTROL PHASE 2

COMMONWEALTH OF VIRGINIA
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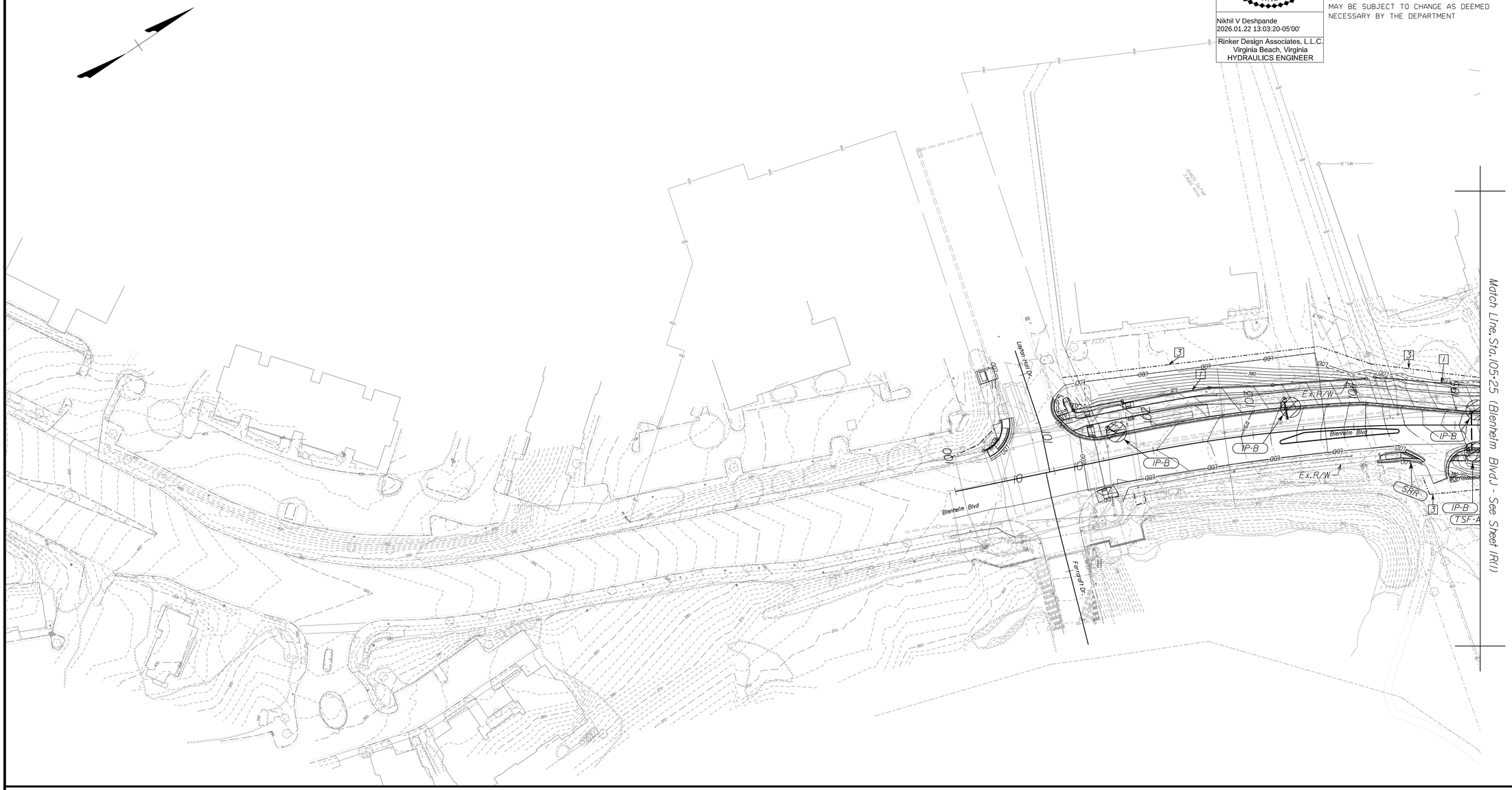
Nikhil V Deshpande
2026.01.22 13:03:20-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IR

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



Erosion & Sediment Legend

- TSF-A — Denotes Temporary Silt Fence Type A; St'd EC-5
- F|C — Denotes Limits of Cut/Fill
- LOD — Denotes Limits of Disturbance
- IP-_ — Denotes Inlet Protection Type A/B; St'd. EC-6
- IP-C — Denotes Inlet Protection Type C; St'd. EC-6
- SRR — Denotes Sediment Retention Roll; SRR

Right of Way Legend

- # → Key Legend
- Prop. Right of Way
- 1 — Prop. Permanent Drainage Ease. (Dot-Dashed Lines)
- 2 — Prop. Temporary Construction Ease. (Dot-Dot-Dashed Lines)
- 3 — Prop. Permanent Lighting Ease. (Dot-Dashed Lines)
- 4 — Prop. Permanent Utility Ease. (Dot-Dashed Lines, See Label for Owner)
- 6 — Prop. Permanent Traffic Signal Ease. (Dot-Dashed Lines)
- 7 — Prop. Perpetual Street Ease. (Dot-Dashed Lines)
- Prop. Right of Way Monument RM-2

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IR

1/22/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

EROSION CONTROL PHASE 2

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2025.12.12 08:53:03-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IR(1)

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IR(1)

FINAL PLANS

12/11/2025

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Nikhil V Deshpande
2025.12.12 08:53:25-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IR(2)

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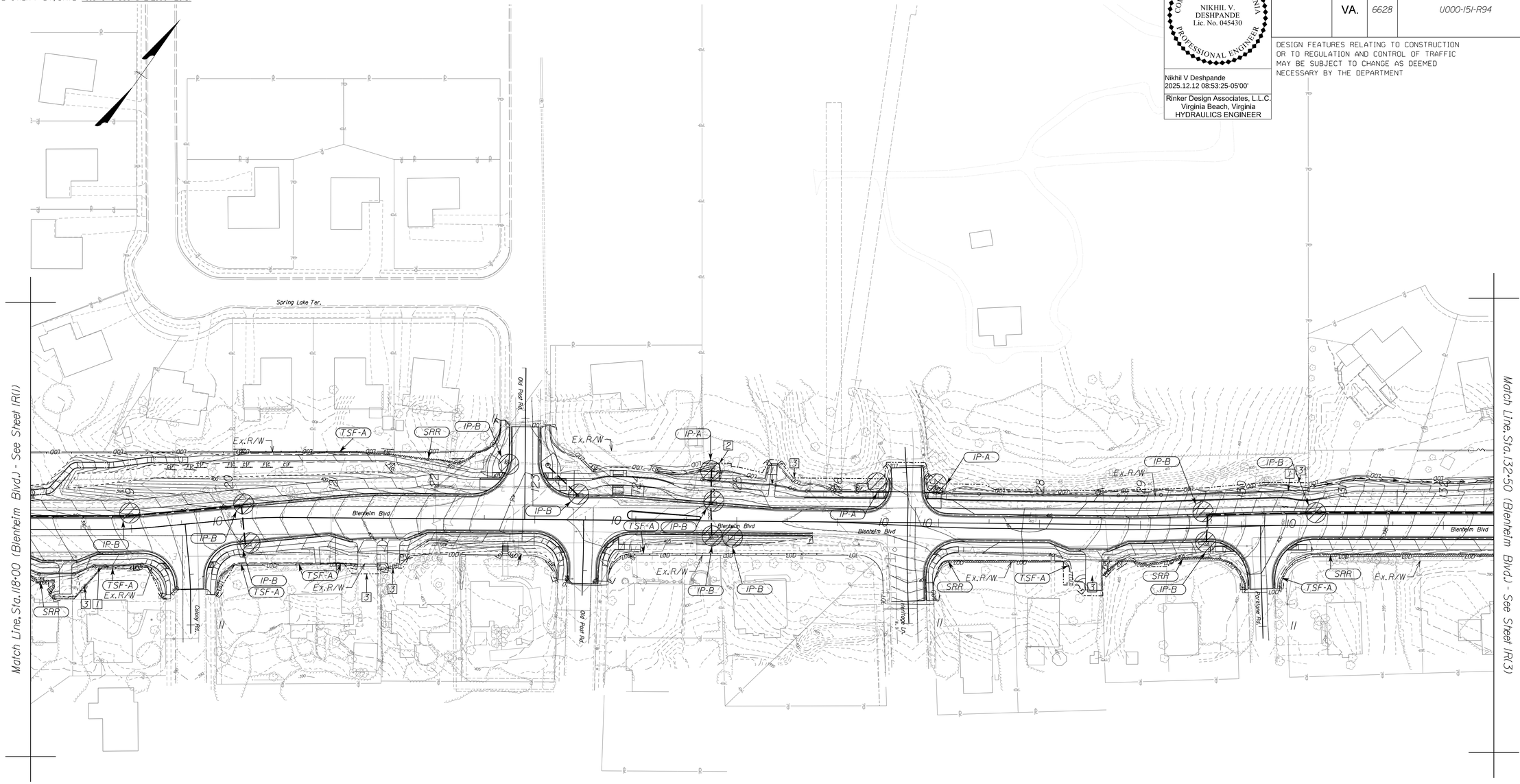

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IR(2)

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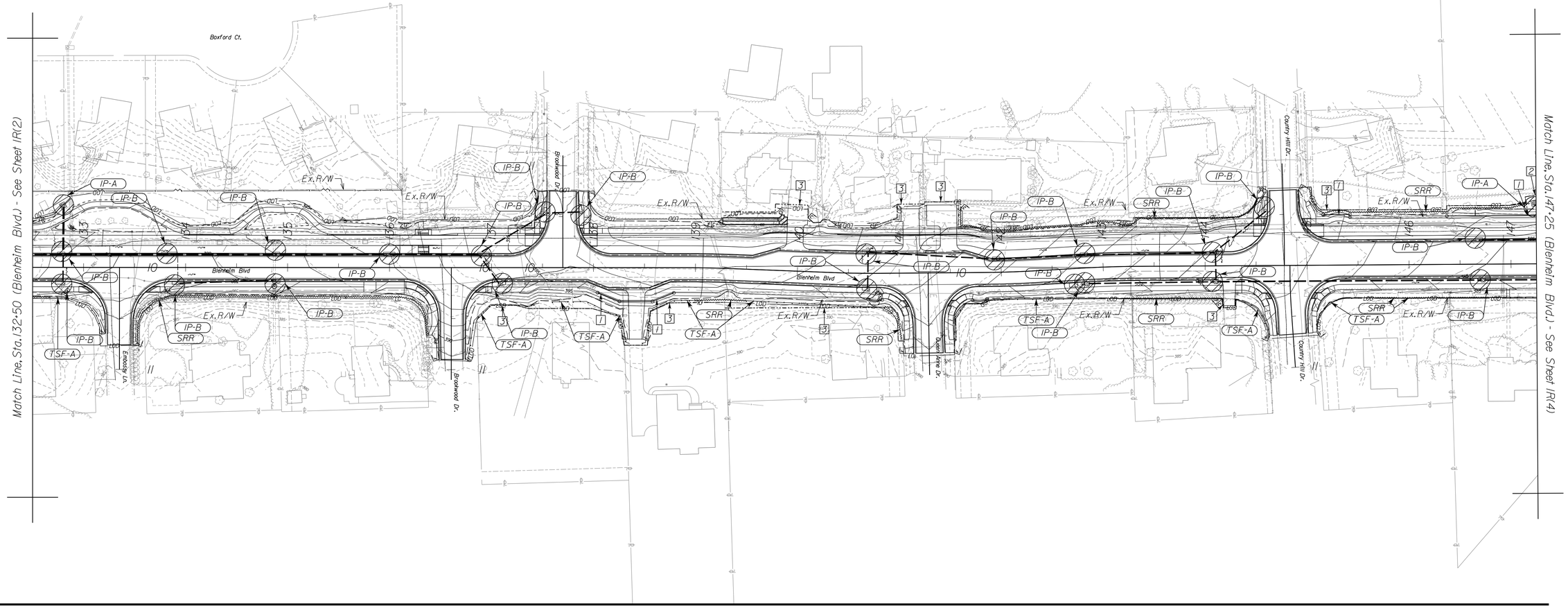
Nikhil V Deshpande
2025.12.12 08:53:46-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IR(3)

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



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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-151-R94	IR(3)

12/11/2025

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Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IR(4)

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

Match Line Sta.147+25 (Blenheim Blvd.) - See Sheet IR(3)
Match Line Sta.161+00 (Blenheim Blvd.) - See Sheet IR(5)
Blenheim Blvd
Ex.R/W
Ex.R/W
Ex.R/W
Ex.R/W
Ex.R/W
Ex.R/W
Cornell Rd.
TSF-A
SRR
IP-A
IP-B
IP-B
IP-B

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IR(5)

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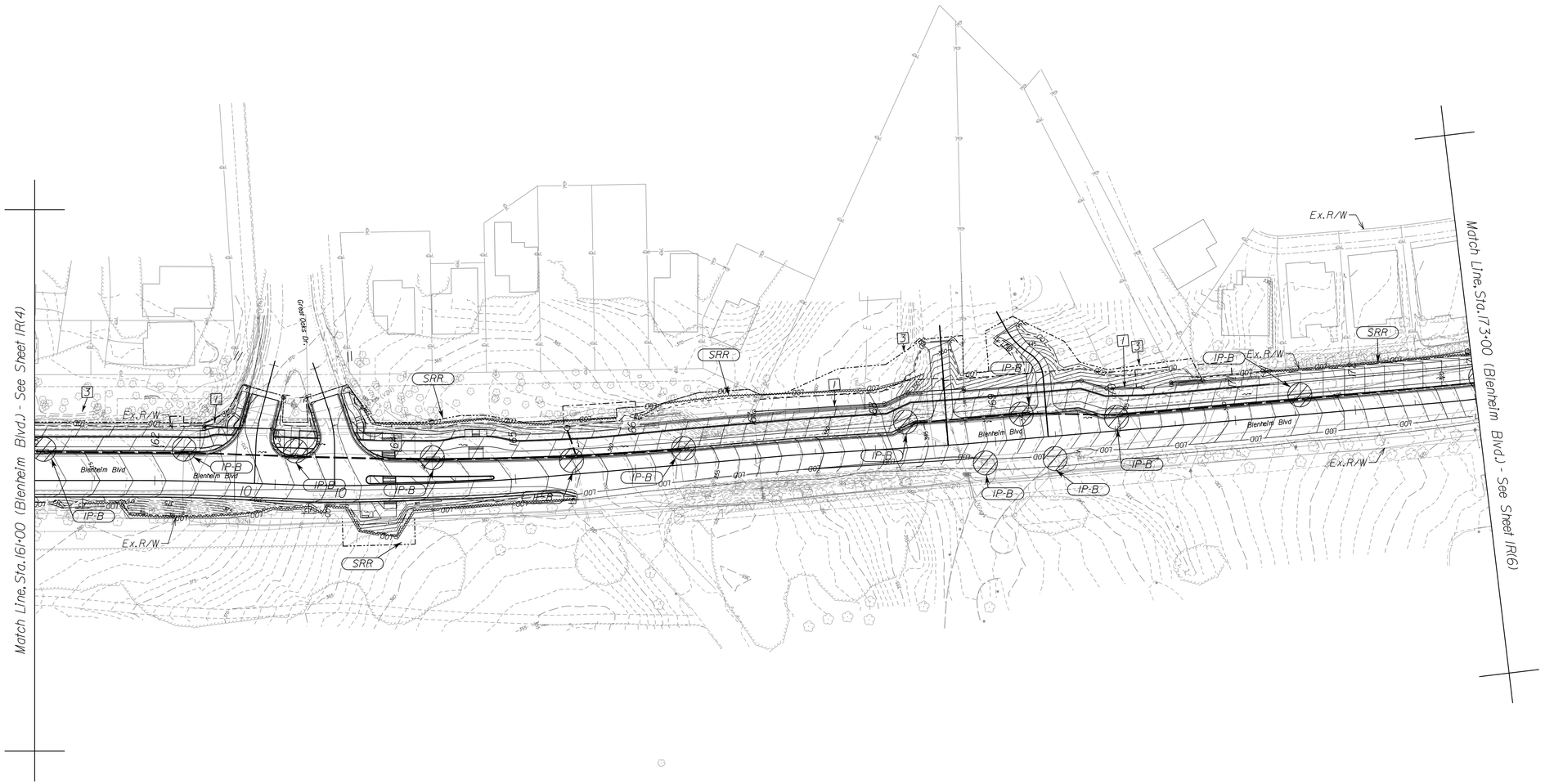

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SCALE 0 50' 100' | PROJECT U000-151-R94 | SHEET NO. IR(5)

12/11/2025

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IR(6)

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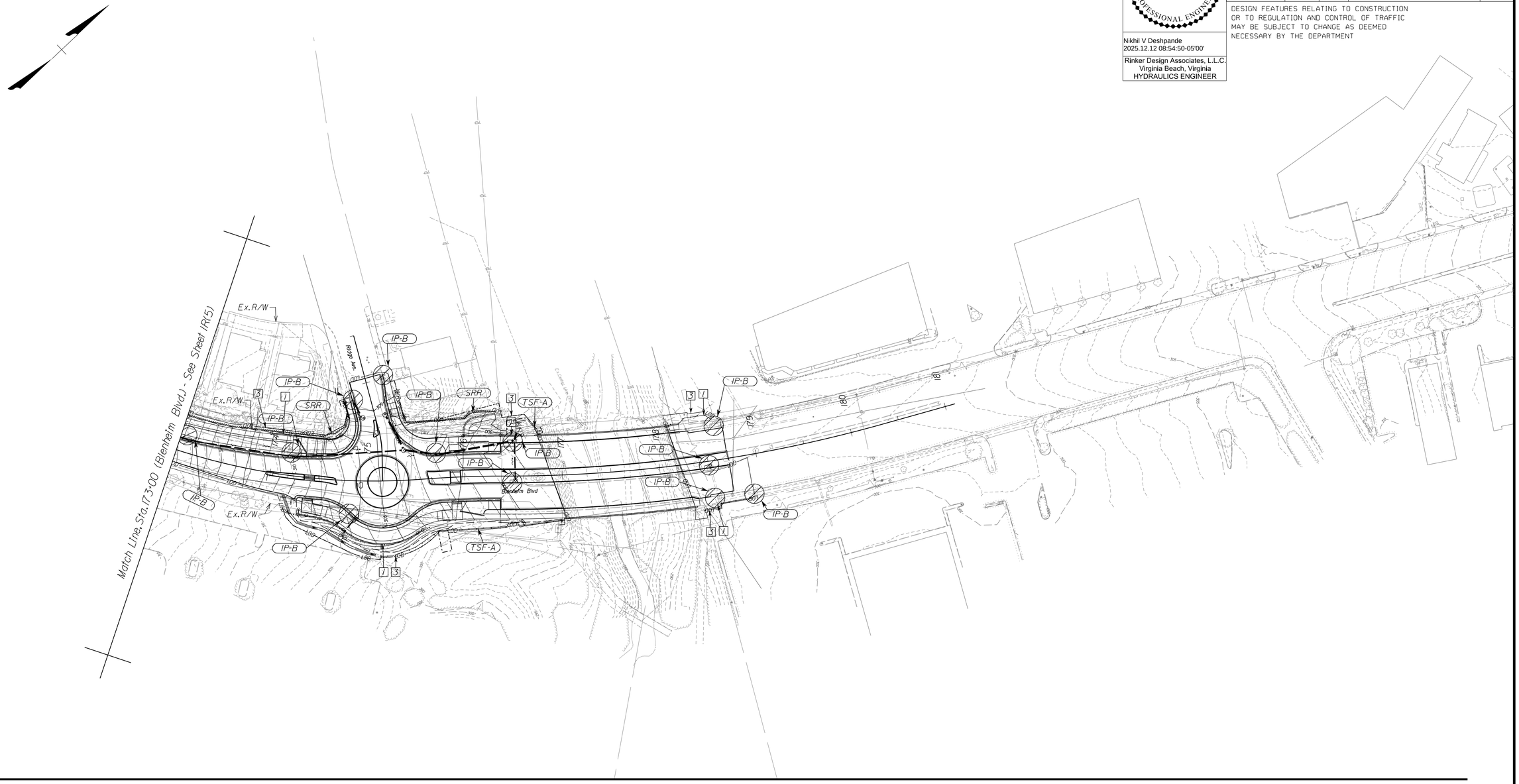

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0 50' 100'	U000-151-R94	IR(6)

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Underground Utilities Test Hole Information

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	IT

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	DISTANCE (FEET)	(1) STATION & ROADWAY SURVEY BASELINE	OWNER	TYPE OF FACILITY	(2) ELEV. (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	UTILITY (5) ADJUSTMENT REQUIRED
3	1A		101+45.49	WGL	GAS	369.27	NO	UTILITY TO REMAIN	NO
3	1B		101+45.49	WGL	GAS	369.62	NO	UTILITY TO REMAIN	NO
4	2		105+16.28	FFXWTR	WATER	382.58	YES	OFFSET INCLUDED IN WATER PLANS	YES
4	3		105+16.66	WGL	GAS	381.02	NO	1' SEPARATION FROM STORM	NO
4	4		106+96.55	WGL	GAS	388.29	NO	UTILITY TO REMAIN	NO
4	5		107+15.49	FFXWTR	WATER	389.31	NO	PROPOSED WATER TIE IN	NO
4	6		107+80.75	FFXWTR	WATER	384.27	NO	PROPOSED WATER TIE IN	NO
4	7		108+13.18	FFXWTR	WATER	390.41	NO	PROPOSED WATER TIE IN	NO
4	8		109+00.47	WGL	GAS	386.51	NO	UTILITY TO REMAIN	NO
4	9		110+41.68	WGL	GAS	385.13	YES	TO BE RELOCATED BY OTHERS	YES
5	10		111+86.13	WGL	GAS	383.58	YES	TO BE RELOCATED BY OTHERS	YES
5	11		112+30.19	FFXWTR	WATER	382.56	NO	PROPOSED WATER TIE IN	NO
5	12		114+73.55	WGL	GAS	379.59	NO	1' SEPARATION FROM STORM	NO
5	13		114+81.23	FFXWTR	WATER	380.18	YES	OFFSET INCLUDED IN WATER PLANS	YES
5	14		115+39.54	FFXWTR	WATER	379.09	NO	PROPOSED WATER TIE IN	NO
5	15		116+41.97	FFXWTR	WATER	378.69	NO	1.7' SEPARATION FROM STORM PIPE	NO
5	16		116+88.96	---	---	---	---	NO UTILITY FOUND	---
5	17		117+00.73	WGL	GAS	380.56	NO	UTILITY TO REMAIN	NO
5	18		117+70.04	WGL	GAS	383.06	YES	TO BE RELOCATED BY OTHERS	YES
5	19		117+89.15	FFXWTR	WATER	385.44	NO	1' SEPARATION FROM STORM	NO
6	20		119+15.54	FFXWTR	WATER	387.94	NO	PROPOSED WATER TIE IN	NO
6	21		119+38.83	FFXWTR	WATER	388.28	NO	PROPOSED WATER TIE IN	NO
6	22		120+11.09	WGL	GAS	291.26	YES	TO BE RELOCATED BY OTHERS	YES
6	23		120+58.10	FFXWTR	WATER	392.72	NO	PROPOSED WATER TIE IN	NO
6	24A		121+02.33	WGL	GAS	394.37	NO	UTILITY TO REMAIN	NO
6	24B		121+02.33	WGL	GAS	394.55	NO	UTILITY TO REMAIN	NO
6	25		121+49.82	FFXWTR	WATER	396.39	NO	UTILITY TO REMAIN	NO
6	26		122+18.71	COX	CATV	403.73	YES	TO BE RELOCATED BY OTHERS	YES
6	27		123+70.83	FFXWTR	WATER	401.76	NO	PROPOSED WATER TIE IN	NO
6	28		123+70.56	COX	CATV	404.47	NO	UTILITY TO REMAIN	NO
6	29		124+42.39	COX	CATV	404.30	NO	UTILITY TO REMAIN	NO
6	30		124+60.56	WGL	GAS	404.62	NO	UTILITY TO REMAIN	NO
6	31		124+74.30	WGL	GAS	403.29	YES	TO BE RELOCATED BY OTHERS	YES
7	32		126+50.44	FFXWTR	WATER	404.71	NO	TO BE ABANDONED	NO
7	33		126+93.98	WGL	GAS	405.30	NO	UTILITY TO REMAIN	NO
7	34		130+23.10	WGL	GAS	397.84	NO	1' SEPARATION FROM STORM	NO
7	35		130+35.84	FFXWTR	WATER	395.83	NO	TO BE ABANDONED	NO
7	36		130+77.26	WGL	GAS	393.91	YES	TO BE RELOCATED BY OTHERS	YES
7	37		132+81.28	WGL	GAS	386.91	YES	TO BE RELOCATED BY OTHERS	YES
7	38		133+04.36	FFXWTR	WATER	384.27	NO	TO BE ABANDONED	NO
7	39		133+25.91	WGL	GAS	385.75	YES	TO BE RELOCATED BY OTHERS	YES
7	40		133+59.10	FFXWTR	WATER	383.26	NO	TO BE ABANDONED	NO
8	41		136+51.80	WGL	GAS	387.83	NO	UTILITY TO REMAIN	NO
8	42		136+71.69	FFXWTR	WATER	387.21	NO	PROPOSED WATER TIE IN	NO
8	43		137+09.62	WGL	GAS	389.78	YES	TO BE RELOCATED BY OTHERS	YES
8	44		137+27.56	WGL	GAS	---	---	NO UTILITY FOUND	---
8	45		137+47.51	WGL	GAS	390.55	NO	UTILITY TO REMAIN	NO
8	46		137+81.27	FFXWTR	WATER	391.76	NO	1' SEPARATION FROM STORM	NO
8	47		137+81.26	FFXWTR	WATER	392.17	NO	UTILITY TO REMAIN	NO
9	48		141+18.06	WGL	GAS	390.40	NO	1.26' SEPARATION FROM STORM	NO
9	49		141+36.36	FFXWTR	WATER	389.78	NO	1' SEPARATION FROM STORM	NO
9	50		143+55.49	WGL	GAS	386.87	YES	TO BE RELOCATED BY OTHERS	YES
9	51		144+33.09	WGL	GAS	384.64	NO	1' SEPARATION FROM STORM	NO
9	52		144+56.62	WGL	GAS	385.73	YES	TO BE RELOCATED BY OTHERS	YES
9	53		144+77.50	WGL	GAS	384.02	YES	TO BE RELOCATED BY OTHERS	YES
9	54		145+03.07	WGL	GAS	382.88	NO	UTILITY TO REMAIN	NO
9	55		147+43.66	WGL	GAS	378.98	NO	1' SEPARATION FROM STORM	NO
10	56		148+37.21	WGL	GAS	378.75	NO	UTILITY TO REMAIN	NO
10	57		149+60.49	WGL	GAS	381.51	NO	1' SEPARATION FROM STORM	NO
10	58		152+86.58	FFXWTR	WATER	385.04	NO	TO BE ABANDONED	NO
11	59		155+23.42	FFXWTR	WATER	383.91	NO	TO BE ABANDONED	NO
11	60		155+32.81	FFXWTR	WATER	383.67	NO	1' SEPARATION FROM STORM	NO
11	61		157+13.46	DOMINION	ELECTRIC	384.43	NO	UTILITY TO REMAIN	NO
11	62		157+89.72	DOMINION	ELECTRIC	385.99	NO	UTILITY TO REMAIN	NO
11	63		158+90.24	FFXWTR	WATER	379.57	YES	OFFSET INCLUDED IN WATER PLANS	YES
12	64		162+37.67	DOMINION	ELECTRIC	370.03	NO	UTILITY TO REMAIN	NO
12	65		162+50.22	FFXWTR	WATER	367.33	NO	PROPOSED WATER TIE IN	NO
12	66		162+51.93	VERIZON	TELEPHONE	368.17	NO	UTILITY TO REMAIN	NO

UTILITY OWNERS

WGL – Washington Gas Light Company
Mark Tajnai
(703) 750-5667
MTajnai@washgas.com
6801 Industrial Road
Springfield, VA 22151

FFXWTR – Fairfax County Water Authority
Pascal Arcese
(703) 289-6307
parcese@fairfaxwater.org

COX – Cox Communications
Rick Sothen
(703) 856-9213
Rick.Sothen@cox.com
7741 Southern Drive
Springfield, VA 22150

DOMINION – Dominion Energy
Lindsey Conrad
Lindsey.Conrad@dominionenergy.com

VERIZON – Verizon Communications
Julio Hernandez
julio.a.hernandez@verizon.com

ACCUMARK
9500 KING AIR COURT
ASHLAND, VA. 23005
(800) 542-2990 www.accumark.us

ACCUMARK #NV23-078
City of Fairfax
Blenheim Boulevard
TEST HOLE SUMMARY SHEET
DATE: 12/1/2023

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

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

(5) YES OR NO: INFORMATION TO BE PROVIDED BY THE VDOT DISTRICT UTILITY ENGINEER.

Miss Utility's Telephone Numbers
Miss Utility _____ 811 or 1-800-552-7001
Check Ticket Status _____ 1-800-552-3120

Miss Utility's Service Is Free
Miss Utility Provides Emergency Service
365 Days a Year, 24 Hours a Day

	PROJECT	SHEET NO.
	U000-151-R94	IT

12/9/2025

FINAL PLANS

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Underground Utilities Test Hole Information

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PLAN SHEET	TEST HOLE	DISTANCE (FEET)	(1) STATION & ROADWAY SURVEY BASELINE	OWNER	TYPE OF FACILITY	(2) ELEV. (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	UTILITY (5) ADJUSTMENT REQUIRED
12	67		162+58.05	DOMINION	ELECTRIC	368.46	YES	TO BE RELOCATED BY OTHERS	YES
12	68		162+66.32	WGL	GAS	---	---	NO UTILITY FOUND	---
12	69		162+66.79	WGL	GAS	---	---	NO UTILITY FOUND	---
12	70		163+00.23	VERIZON	FIBER OPTIC	365.92	NO	UTILITY TO REMAIN	NO
12	71		163+26.29	FFXWTR	WATER	364.50	NO	PROPOSED WATER TIE IN	NO
12	72		163+32.76	VERIZON	FIBER OPTIC	364.95	NO	UTILITY TO REMAIN	NO
12	73		163+30.98	DOMINION	ELECTRIC	367.34	YES	TO BE RELOCATED BY OTHERS	YES
12	74		163+61.39	VERIZON	FIBER OPTIC	364.29	YES	TO BE RELOCATED BY OTHERS	YES
12	75		163+58.02	DOMINION	ELECTRIC	366.56	YES	TO BE RELOCATED BY OTHERS	YES
12	76		163+88.71	WGL	GAS	360.81	NO	UTILITY TO REMAIN	NO
12	77		164+13.93	FFXWTR	WATER	360.49	NO	TO BE ABANDONED	NO
12	78		164+69.54	COX	CATV	362.24	NO	UTILITY TO REMAIN	NO
12	79		166+37.48	FFXWTR	WATER	---	---	NO UTILITY FOUND	---
14	80		173+74.72	WGL	GAS	309.59	NO	1.47' SEPARATION FROM STORM	NO
14	81		174+35.01	WGL	GAS	305.59	YES	TO BE RELOCATED BY OTHERS	YES
14	82		174+75.52	FFXWTR	WATER	301.78	NO	PROPOSED WATER TIE IN	NO
14	83		174+71.35	VERIZON	FIBER OPTIC	302.96	YES	TO BE RELOCATED BY OTHERS	YES
14	84		175+21.13	FFXWTR	WATER	298.26	NO	TO BE ABANDONED	NO
14	85		175+20.72	FFXWTR	WATER	---	NO	PROPOSED WATER TIE IN	NO
14	86		175+98.99	WGL	GAS	296.65	YES	TO BE RELOCATED BY OTHERS	YES
14	87A		176+03.87	COX	FIBER OPTIC	296.04	NO	UTILITY TO REMAIN	NO
14	87B		176+03.87	COX	FIBER OPTIC	296.04	NO	UTILITY TO REMAIN	NO
14	88		176.08.52	DOMINION	ELECTRIC	294.52	NO	UTILITY TO REMAIN	NO
14	89		176+09.42	COX	CATV	294.92	NO	UTILITY TO REMAIN	NO
14	90		176+68.45	FFXWTR	WATER	292.75	NO	PROPOSED WATER TIE IN	NO
3	91		103+63.06	WGL	GAS	379.58	NO	UTILITY TO REMAIN	NO
3	92		108+44.29	WGL	GAS	386.88	NO	1.22' SEPARATION FROM STORM	NO
5	93		113+35.02	WGL	GAS	381.88	YES	TO BE RELOCATED BY OTHERS	YES
5	94		115+64.32	WGL	GAS	---	---	NO UTILITY FOUND	---
7	95		128+78.45	WGL	GAS	404.05	NO	UTILITY TO REMAIN	NO
7	96		127+82.38	WGL	GAS	406.12	NO	UTILITY TO REMAIN	NO
8	97		136+51.66	WGL	GAS	386.94	NO	UTILITY TO REMAIN	NO
9	98		141+37.56	WGL	GAS	390.28	NO	UTILITY TO REMAIN	NO
12	99		162+66.57	WGL	GAS	---	---	NO UTILITY FOUND	---
12	100		168+11.45	WGL	GAS	343.63	NO	UTILITY TO REMAIN	NO
12	101A		168+47.32	FFXWTR	WATER	342.17	NO	UTILITY TO REMAIN	NO
12	101B		168+47.32	FFXPUBWRK	STORM	341.56	NO	UTILITY TO REMAIN	NO
12	102		168+46.02	FFXWTR	WATER	342.50	NO	2.8' SEPARATION FROM STORM	NO
12	103		168+65.67	VERIZON	FIBER OPTIC	340.11	NO	UTILITY TO REMAIN	NO
14	104		174+72.99	WGL	GAS	303.32	NO	UTILITY TO REMAIN	NO
14	105		175+47.90	WGL	GAS	299.11	NO	UTILITY TO REMAIN	NO
7	106		126+76.58	WGL	GAS	404.68	NO	UTILITY TO REMAIN	NO
7	107		133+26.08	WGL	GAS	385.97	no	UTILITY TO REMAIN	NO
7	108		133+52.78	FFXWTR	WATER	383.55	NO	TO BE ABANDONED	NO
6	109A		119+62.79	WGL	GAS	389.40	NO	UTILITY TO REMAIN	NO

PLAN SHEETS	TEST HOLES	DISTANCE (FEET)	(1) STATION & ROADWAY SURVEY CENTERLINE	OWNER	TYPE OF FACILITY	(2) ELEV. (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	UTILITY (5) ADJUSTMENT REQUIRED
6	109B		119+62.79	FFXWTR	WATER	388.51	NO	UTILITY TO REMAIN	NO

UTILITY OWNERS

WGL – Washington Gas Light Company
Mark Tajnai
(703) 750-5667
MTajnai@washgas.com
6801 Industrial Road
Springfield, VA 22151

FFXWTR – Fairfax County Water Authority
Pascal Arcese
(703) 289-6307
parcese@fairfaxwater.org

COX – Cox Communications
Rick Sothen
(703) 856-9213
Rick.Sothen@cox.com
7741 Southern Drive
Springfield, VA 22150

DOMINION – Dominion Energy
Lindsey Conrad
Lindsey.Conrad@dominionenergy.com

VERIZON – Verizon Communications
Julio Hernandez
julio.a.hernandez@verizon.com

FFXPUBWRK – Fairfax County Public Works
Sunny Sarna
(703) 273-3067
Sunny.Sarna@fairfaxva.gov

ACCUMARK
9500 KING AIR COURT
ASHLAND, VA. 23005
(800) 542-2990 www.accumark.us

ACCUMARK #NV23-078
City of Fairfax
Blenheim Boulevard
TEST HOLE SUMMARY SHEET
DATE: 12/1/2023

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

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

(5) YES OR NO; INFORMATION TO BE PROVIDED BY THE VDOT DISTRICT UTILITY ENGINEER.

Miss Utility's Telephone Numbers
Miss Utility ____ 811 or 1-800-552-7001
Check Ticket Status ____ 1-800-552-3120

Miss Utility's Service Is Free
Miss Utility Provides Emergency Service
365 Days a Year, 24 Hours a Day

	PROJECT	SHEET NO.
	U000-151-R94	IT(1)

12/9/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

GENERAL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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-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: Sign post foundation, sidewalk, steps, curb & gutter, paved ditch, small ret. walls, storm sewer pipe, storm structures and end sections.

G-5 The excavation of unsuitable material as specified on these plans is based on previously conducted subsurface soil investigation. If, during construction, it is deemed necessary to change the depth more than one foot, or the limits of such excavation, such change is to be made at the direction of the Engineer and measurement and payment shall be made in accordance with Section 303 of the applicable VDOT Road and Bridge Specifications.

G-6 The borrow material for this project shall be a minimum CBR 5 or as approved by the Materials Engineer.

DRAINAGE

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

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

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

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

D-11 The proposed granular filter blanket for the proposed riprap may be omitted by the Engineer if the slope on which it is to be placed is found to be comprised of material which is coarser than that specified for the proposed granular filter blanket.

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

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

PAVEMENT

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

INCIDENTALS

I-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.

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

I-14 Salvaged guardrail materials not used in the new construction shall become the property of the Contractor and shall be disposed of at a licensed landfill, recycled or be retained 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 N/A.

I-18 All pavement markings and traffic flow arrows shown on the roadway construction plans are schematic only. The actual location and application of pavement markings shall be in accordance with Section 704 of the applicable VDOT Road and Bridge Specifications, MUTCD, sequence of construction/traffic control plans, pavement marking plan sheet 15 series and as directed by the Engineer.

I-19 The following outside sources, under contract with the City of Fairfax, have provided information on this project.

Hydraulic Design	-	Rinker Design Associates
Roadway Design	-	Rinker Design Associates
Utility Design	-	Rinker Design Associates
Utility Designation	-	Accumark
Utility Location	-	Accumark
Survey	-	Rinker Design Associates
Bridge Design	-	N/A
Traffic Design	-	Toole Design
Landscape Design	-	Toole Design

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

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

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

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

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

Note: At no additional cost to the City and not paid for separately, all manhole and box covers shall be installed as such they are ADA/PROWAG compliant (to the satisfaction of the City Construction Engineer) within the proposed improvements for all sidewalk, cycle track, asphalt walkway, shared use path (i.e., all pedestrian and/or bicycle facilities) and in all existing pedestrian facilities to the next logical termini, no exceptions.

EROSION AND SEDIMENT CONTROL (ESC)

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

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

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

- EC-2 / EC-3A / EC-3B / EC-3C — Denotes Protective Covering, St'd. EC-2; Denotes Soil Stabilization Mat. St'd. EC-3 Type A, B or C
- TFB — Denotes Temporary Filter Barrier, St'd EC-5
- TSF — Denotes Temporary Silt Fence, St'd EC-5
- DD — 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
- SRR — Denotes Sediment Retention Roll; SRR

	PROJECT	SHEET NO.
	U000-151-R94	2

12/12/2025

FINAL PLANS

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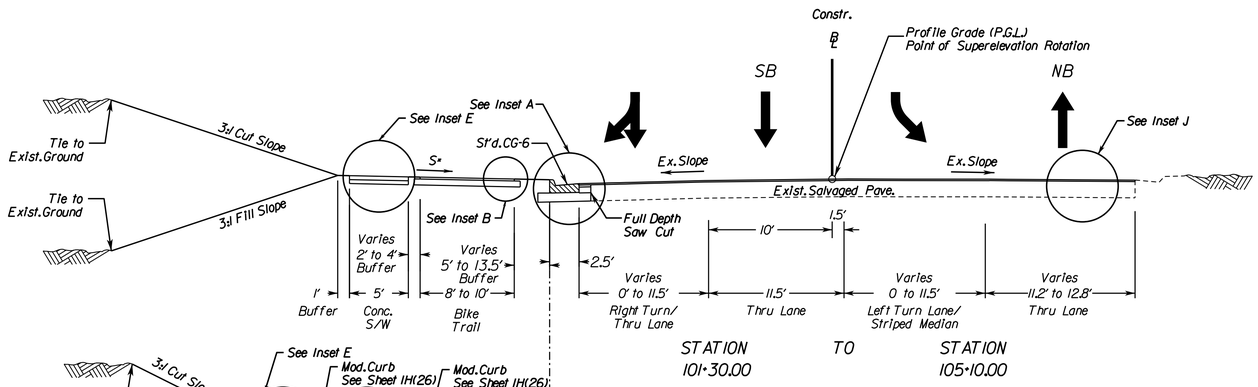
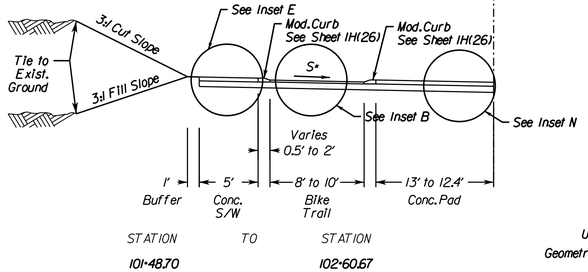
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

TYPICAL SECTIONS

Blenheim Boulevard, Rte. 6628

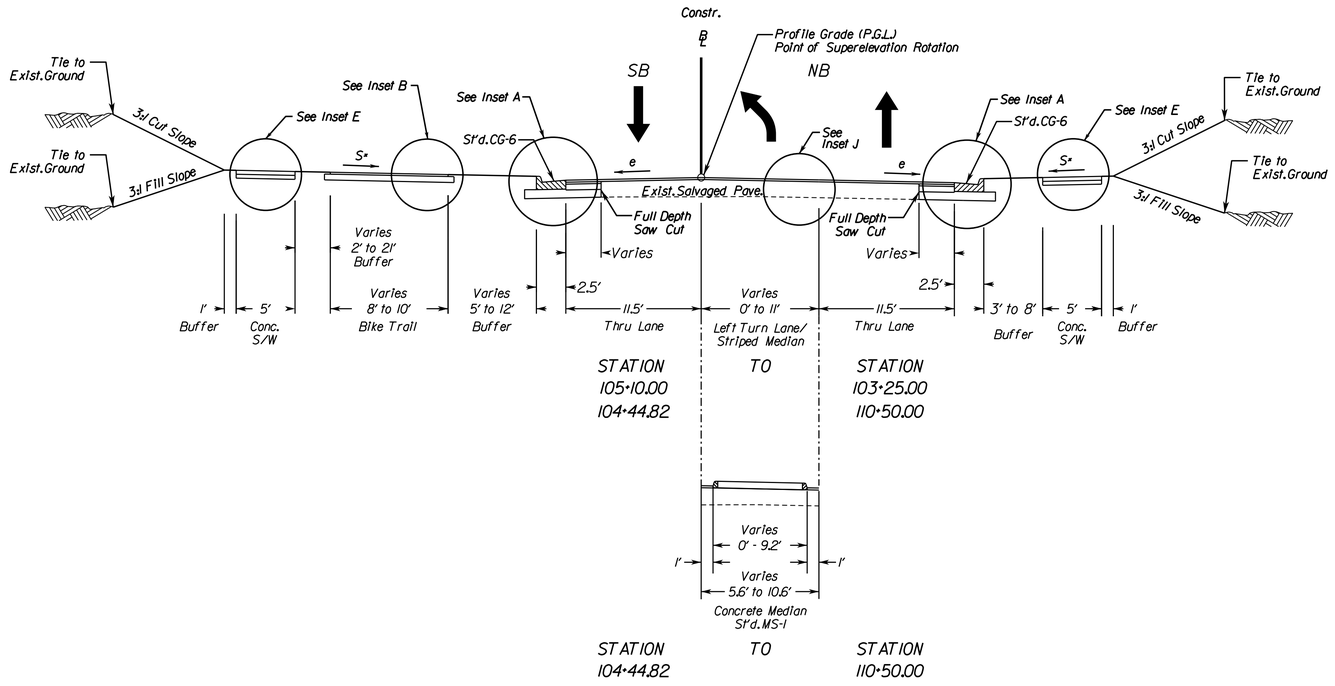
Undivided, 2 Lane Street with Curb & Gutter and SB Right & Left Turn Lanes
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)





Blenheim Boulevard, Rte. 6628

Undivided, 2 Lane Street with Curb & Gutter & NB Left Turn Lane
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)



*S= 2%, except where noted on Alternate Sidewalk/Trail Slope Table

Alternate Sidewalk/Trail Slope Table

Side	Sta.	To	Sta.	Slope (%)
Left	107+75.00		110+31.00	1
Left	108+00.00		110+00.00	0.5
Left	110+00.00		110+25.00	0.5
Left	107+75.00		108+00.00	1 to 0.5

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:21:05 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2A

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

TYPICAL SECTION NOTES

1. Pavement widening to be performed in accordance with VDOT Std. WP-2. Positive drainage between pavement layers shall be provided at all locations.
2. Std. UD-4 Req'd. see plan sheets for detailed locations.
3. Std. UD-3 Req'd. see plan sheets for detailed locations.
4. Std. UD-2 Req'd. see plan sheets for detailed locations.
5. See 17 series for retaining wall details.
6. Std. HR-1, Type II Req'd. see plan sheets for detailed locations.
7. See Sheet 2A(7) for Inset details.
8. See Profile Sheets for superelevation values.
9. When widening existing pavement, the pavement subgrade slope shall be designed such that the existing pavement subbase material can properly drain to a standard UD-4 edge drain.
10. The final surface course shall be placed in continuous operation across the full pavement width after all previous layers have been completed and shall include all areas where eradication of existing pavement markings have been performed for temporary tie-ins.
11. Where the existing pavement is to be widened, all existing pavement edgedrains (UD-4) shall be removed.
12. When liquid asphalt is used as a curing material for cement stabilization course, it shall be liquid asphalt CRS-1, CR-1h or CMS-2 applied at a rate of 0.2gal/sy. Where necessary for maintenance of traffic, cover material consisting of NO.10 Aggregate or Grading B Sand shall be applied at a rate of 10 lbs./sy.
13. In locations where the proposed grade will be more then 2.0" but less than 4.0" above the existing pavement surface, the existing pavement surface should be milled sufficiently to provide enough depth for the installation of the surface and intermediate courses provided in the pavement design. Where intermediate pavement is required for buildup it shall be place in a uniform layer across the full pavement width.
14. See Sheet 2A(8) for geotechnical recommendations and locations of unsuitable materials and undercut.

	PROJECT	SHEET NO.
	U000-151-R94	2A

12/10/2025

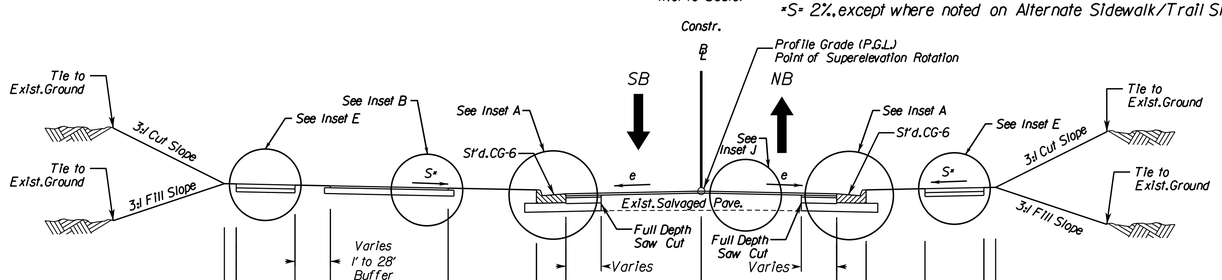
FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

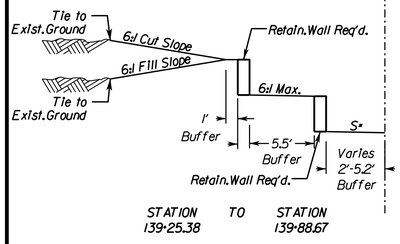
TYPICAL SECTIONS

Blenheim Boulevard, Rte. 6628

Undivided, 2 Lane Street with Curb & Gutter
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)
*S= 2%, except where noted on Alternate Sidewalk/Trail Slope Table



STATION TO STATION
110+50.00 115+25.31
125+37.27 144+83.38



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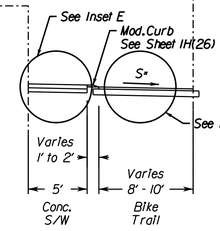
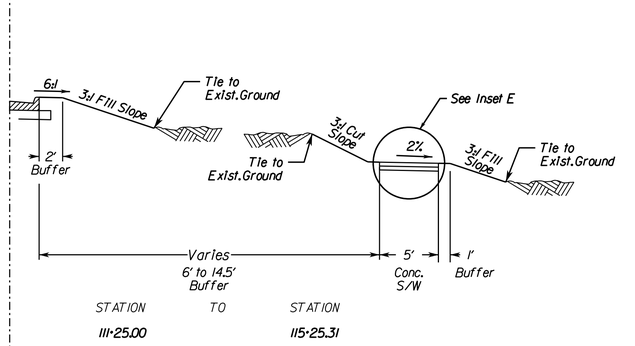


STATION TO STATION
125+68.95 127+03.44
133+98.88 134+47.42
135+39.11 136+67.02



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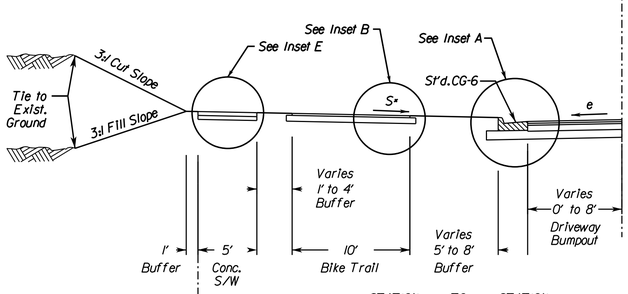
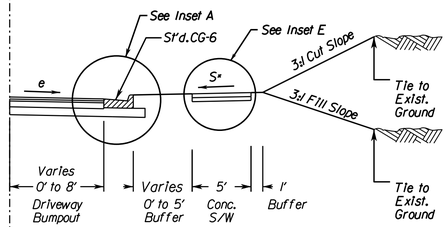
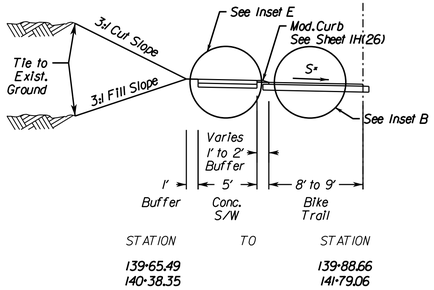
111+25.00 115+25.31



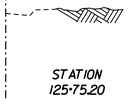
STATION TO STATION
139+56.03 141+89.61



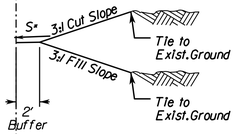
STATION TO STATION
128+10.06 128+88.04
137+94.52 138+75.52



STATION TO STATION
139+65.49 139+88.66
140+38.35 141+79.06



STATION TO STATION
125+75.20 127+21.86



STATION TO STATION
125+37.27 125+75.20

MARK A. GUNN
Lic. No. 038323
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:21:41 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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

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3. Std. UD-3 Req'd., see plan sheets for detailed locations.
4. Std. UD-2 Req'd., see plan sheets for detailed locations.
5. See I7 series for retaining wall details.
6. Std. HR-1, Type II Req'd. see plan sheets for detailed locations.
7. See Sheet 2A(7) for inset details.
8. See Profile Sheets for superelevation values.
9. When widening existing pavement, the pavement subgrade slope shall be designed such that the existing pavement subbase material can properly drain to a standard UD-4 edge drain.
10. The final surface course shall be placed in continuous operation across the full pavement width after all previous layers have been completed and shall include all areas where eradication of existing pavement markings have been performed for temporary tie-ins.
11. Where the existing pavement is to be widened, all existing pavement edgedrains (UD-4) shall be removed.
12. When liquid asphalt is used as a curing material for cement stabilization course, it shall be liquid asphalt CRS-1, CR-1h or CMS-2 applied at a rate of 0.2gal/sy. Where necessary for maintenance of traffic, cover material consisting of NoJO Aggregate or Grading B Sand shall be applied at a rate of 10 lbs./sy.
13. In locations where the proposed grade will be more then 2.0" but less than 4.0" above the existing pavement surface, the existing pavement surface should be milled sufficiently to provide enough depth for the installation of the surface and intermediate courses provided in the pavement design. Where intermediate pavement is required for buildup it shall be place in a uniform layer across the full pavement width.
14. See Sheet 2A(8) for geotechnical recommendations and locations of unsuitable materials and undercut.

Alternate Sidewalk/Trail Slope Table

Side	Sta.	To	Sta.	Slope (%)
Left	111+25.00		117+25.00	0.5
Left	125+00.00		125+25.00	2 to 0.5
Left	125+25.00		126+50.00	0.5
Right	128+30.00		128+50.00	2 to -2
Right	128+50.00		128+65.00	-2
Right	128+65.00		128+75.00	-2 to 2
Left	136+00.00		136+25.00	2 to 0.5
Left	136+25.00		137+25.00	0.5
Right	138+20.00		138+30.00	2 to -2
Right	138+30.00		138+50.00	-2
Right	138+50.00		138+70.00	-2 to 2
Right	140+25.00		140+50.00	2 to 0.5
Right	140+50.00		141+00.00	0.5
Left	140+15.00		140+25.00	2 to 0.5
Left	140+25.00		141+20.00	0.5
Left	141+20.00		141+40.00	0.5 to 2
Left	143+75.00		144+00.00	2 to 0.5
Left	144+00.00		144+75.00	0.5

	PROJECT	SHEET NO.
	U000-151-R94	2A(1)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

TYPICAL SECTIONS

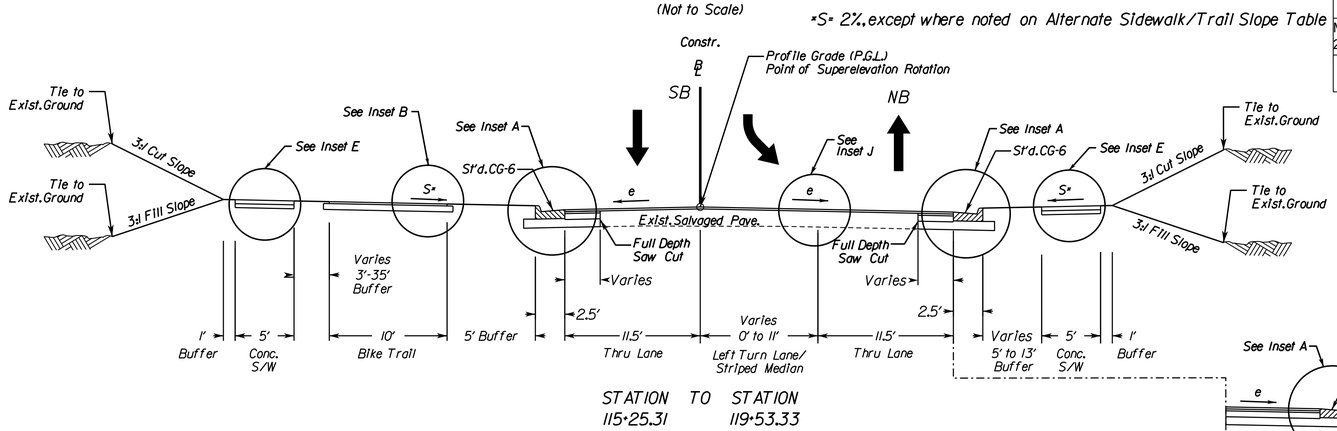
Blenheim Boulevard, Rte. 6628

Undivided, 2 Lane Street with Curb & Gutter & SB Left Turn Lane
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)

*S= 2%, except where noted on Alternate Sidewalk/Trail Slope Table

TYPICAL SECTION NOTES

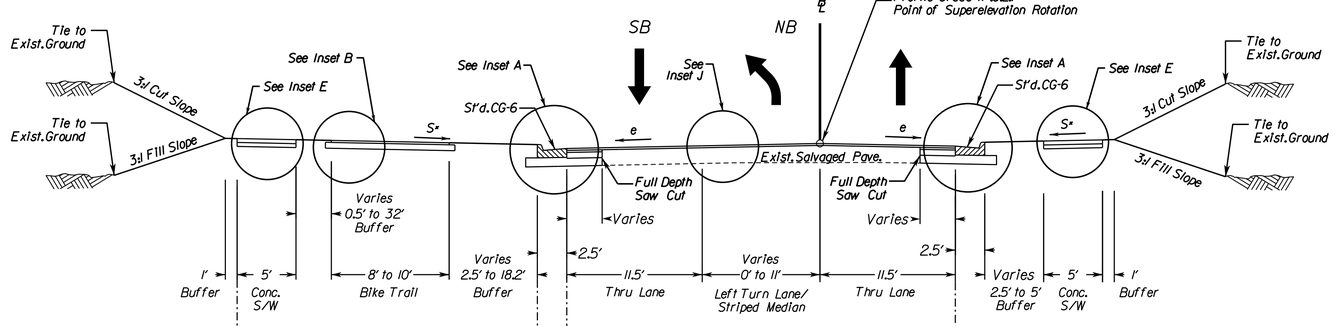
1. Pavement widening to be performed in accordance with VDOT Std. WP-2. Positive drainage between pavement layers shall be provided at all locations.
2. Std. UD-4 Req'd., see plan sheets for detailed locations.
3. Std. UD-3 Req'd., see plan sheets for detailed locations.
4. Std. UD-2 Req'd., see plan sheets for detailed locations.
5. See I7 series for retaining wall details.
6. Std. HR-1, Type II Req'd. see plan sheets for detailed locations.
7. See Sheet 2A(7) for Inset details.
8. See Profile Sheets for superelevation values.
9. When widening existing pavement, the pavement subgrade slope shall be designed such that the existing pavement subbase material can properly drain to a standard UD-4 edge drain.
10. The final surface course shall be placed in continuous operation across the full pavement width after all previous layers have been completed and shall include all areas where eradication of existing pavement markings have been performed for temporary tie-ins.
11. Where the existing pavement is to be widened, all existing pavement edgedrains (UD-4) shall be removed.
12. When liquid asphalt is used as a curing material for cement stabilization course, it shall be liquid asphalt CRS-1, CR-1h or CMS-2 applied at a rate of 0.2 gal/sy. Where necessary for maintenance of traffic, cover material consisting of No.10 Aggregate or Grading B Sand shall be applied at a rate of 10 lbs./sy.
13. In locations where the proposed grade will be more then 2.0" but less than 4.0" above the existing pavement surface, the existing pavement surface should be milled sufficiently to provide enough depth for the installation of the surface and intermediate courses provided in the pavement design. Where intermediate pavement is required for buildup it shall be place in a uniform layer across the full pavement width.
14. See Sheet 2A(8) for geotechnical recommendations and locations of unsuitable materials and undercut.



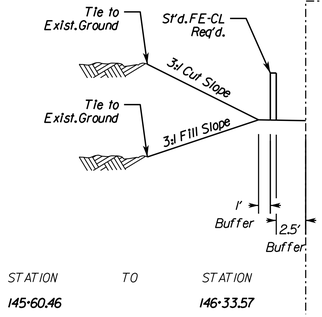
STATION TO STATION
115+25.31 119+53.33

Blenheim Boulevard, Rte. 6628

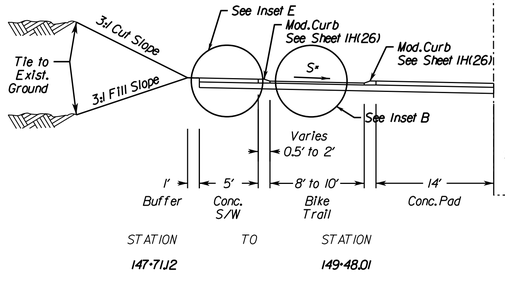
Undivided, 2 Lane Street with Curb & Gutter & SB Left Turn Lane
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)



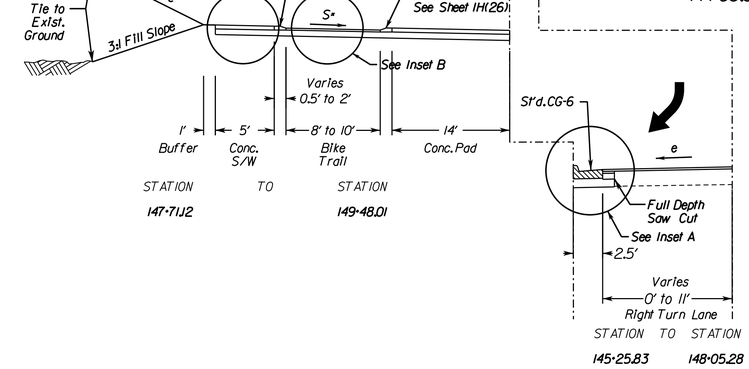
STATION TO STATION
119+53.33 123+90.61
144+83.38 149+48.01



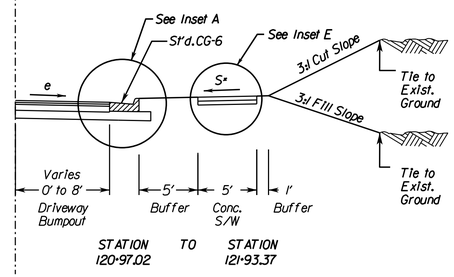
STATION TO STATION
145+60.46 146+33.57



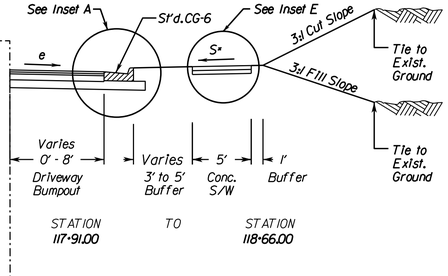
STATION TO STATION
147+71.12 149+48.01



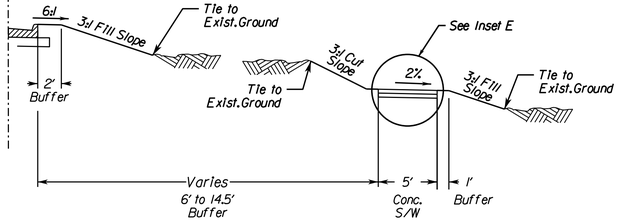
STATION TO STATION
145+25.83 148+05.28



STATION TO STATION
120+97.02 121+93.37



STATION TO STATION
117+91.00 118+66.00



STATION TO STATION
115+25.31 116+50.00

Alternate Sidewalk/Trail Slope Table

Side	Sta.	To	Sta.	Slope (%)
Left	111+25.00		117+25.00	0.5
Right	121+10.00		121+20.00	2 to -2
Right	121+20.00		121+35.00	-2
Right	121+35.00		121+55.00	-2 to 1
Right	121+55.00		121+70.00	1 to 2
Left	145+00.00		146+25.00	0.5
Left	146+25.00		146+50.00	0.5
Left	147+15.00		147+60.00	2 to 0.5
Left	147+60.00		147+71.00	0.5

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:22:02 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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

	PROJECT	SHEET NO.
	U000-151-R94	2A(2)

12/10/2025

FINAL PLANS

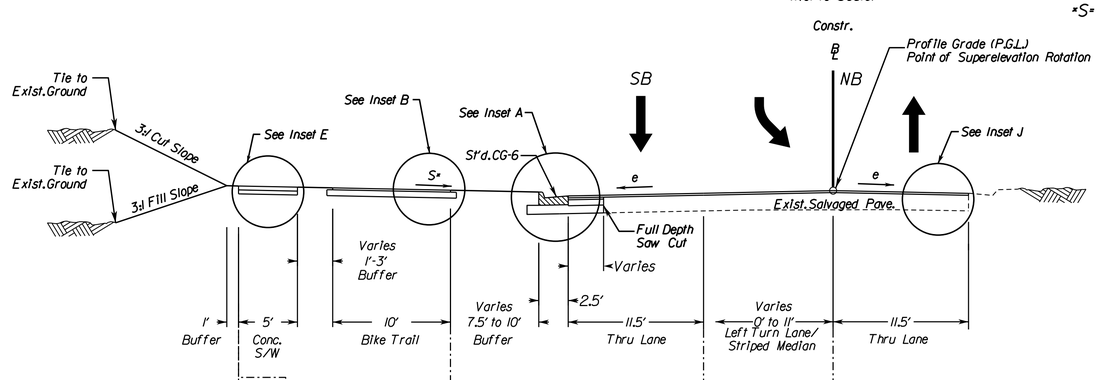
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

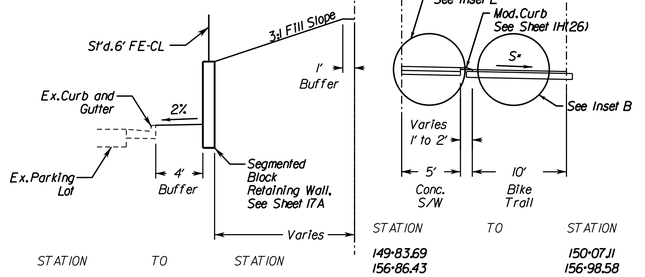
TYPICAL SECTIONS

Blenheim Boulevard, Rte. 6628

Undivided, 2 Lane Street with Curb & Gutter & NB Left Turn Lane
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)

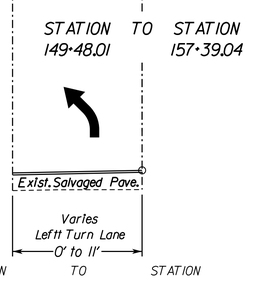
*S= 2%, except where noted on Alternate Sidewalk/Trail Slope Table



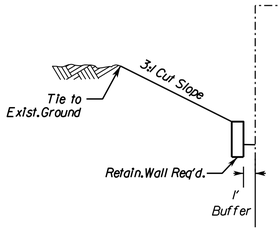


STATION	TO	STATION
150+06.98		154+25.15
149+83.69		150+07.11
156+86.43		156+98.58

STATION 149+48.01 TO STATION 157+39.04



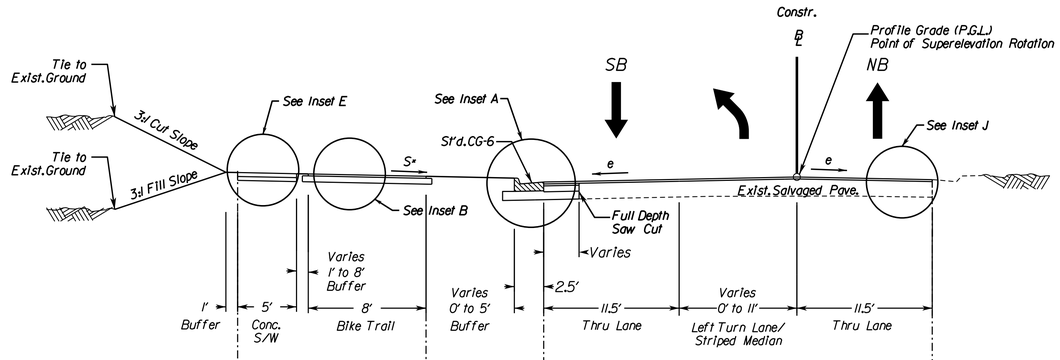
STATION	TO	STATION
153+81.79		157+39.04



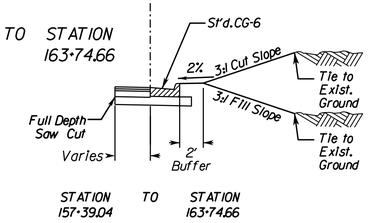
STATION	TO	STATION
160+31.40		160+55.00
160+65.00		162+25.00

Blenheim Boulevard, Rte. 6628

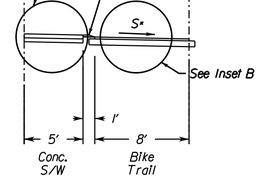
Undivided, 2 Lane Street with Curb & Gutter & SB Left Turn Lane
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)



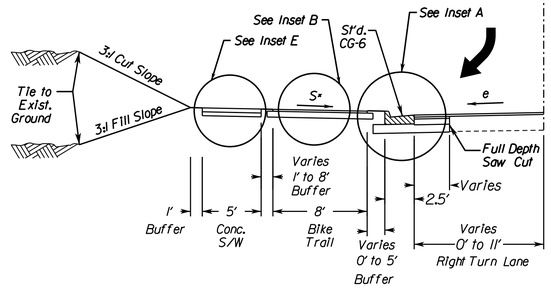
STATION 157+39.04 TO STATION 163+74.66



STATION	TO	STATION
157+39.04		163+74.66



STATION	TO	STATION
158+37.71		163+74.66
157+90.74		157+95.73



STATION	TO	STATION
157+94.05		160+25.21

Alternate Sidewalk/Trail Slope Table

Side	Sta.	To	Sta.	Slope (%)
Left	160+65.00		160+75.00	2 to 1
Left	160+75.00		161+25.00	1
Left	161+25.00		161+35.00	1 to 2

TYPICAL SECTION NOTES

1. Pavement widening to be performed in accordance with VDOT Std. WP-2. Positive drainage between pavement layers shall be provided at all locations.
2. Std. UD-4 Req'd., see plan sheets for detailed locations.
3. Std. UD-3 Req'd., see plan sheets for detailed locations.
4. Std. UD-2 Req'd., see plan sheets for detailed locations.
5. See 17 series for retaining wall details.
6. Std. HR-1, Type II Req'd. see plan sheets for detailed locations.
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COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:22:20 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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

	PROJECT	SHEET NO.
	U000-151-R94	2A(3)

12/10/2025

FINAL PLANS

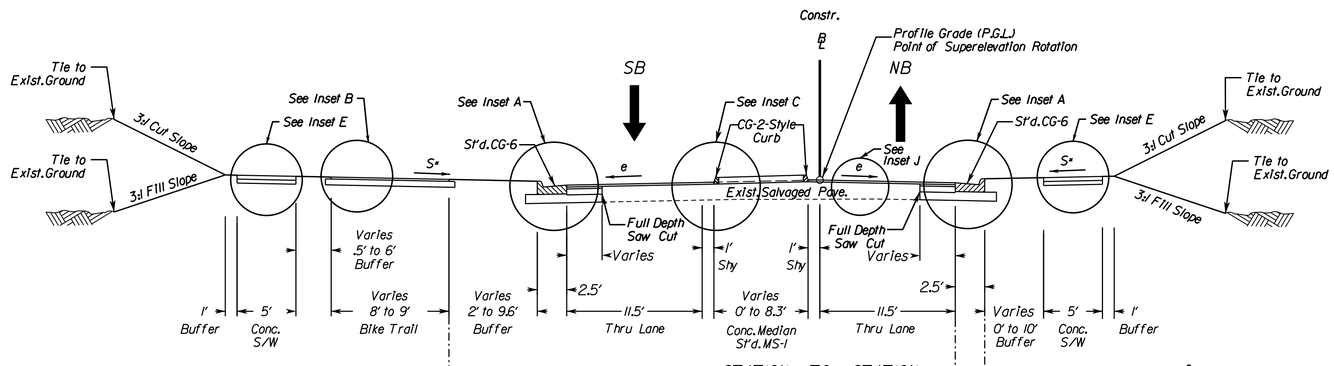
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

TYPICAL SECTIONS

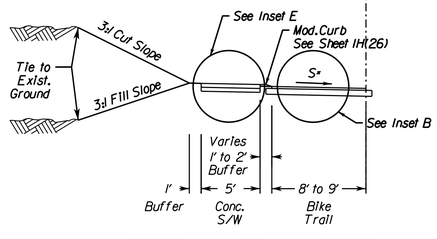
Blenheim Boulevard, Rte. 6628

Divided Section, 2 Lane Street with Curb & Gutter and Concrete Median
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)

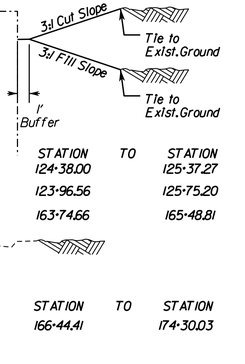
*S= 2%, except where noted on Alternate Sidewalk/Trail Slope Table



STATION	TO	STATION
123+90.61		125+37.27
163+74.66		166+00.00
173+39.94		174+70.18



STATION	TO	STATION
123+56.70		124+37.12
163+74.66		165+30.88



STATION	TO	STATION
124+38.00		125+37.27
123+96.56		125+75.20
163+74.66		165+48.81

STATION	TO	STATION
166+44.41		174+30.03

Alternate Sidewalk/Trail Slope Table

Side	Sta.	To	Sta.	Slope (%)
Left	125+00.00		125+25.00	2 to 0.5
Left	125+25.00		126+50.00	0.5
Left	171+25.00		173+25.00	0.5
Left	172+75.00		174+76.00	0.5
Left	172+75.00		174+57.00	0.5

TYPICAL SECTION NOTES

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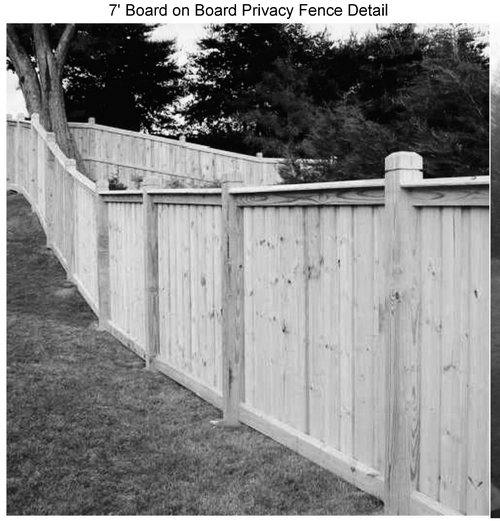
Mark Gunn
2026.01.23 16:12:07 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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

7' Board on Board Privacy Fence Detail



5' Rail and Crossbuck Board Fence with Wire Mesh Detail

FENCE NOTES

7' BOARD ON BOARD PRIVACY FENCE:
1. TO BE INSTALLED ON CITY ON CITY PROPERTY ALONG PARCELS 029, 031, 033, 034 PER PLAN SHEETS 7 AND 8.
2. FENCE TO BE VERTICAL BOARD ON BOARD AND FINISHED WITH A CAP RAIL.
3. WOOD TO BE PRESSURE TREATED.
4. GATES TO BE INSTALLED AS INDICATED ON THE PLANS. GATES SHALL MATCH THE GENERAL FENCING DESIGN AND BE EQUAL TO THE HEIGHT OF THE FENCE. LATCHING SHALL BE ACCESSIBLE FROM EACH SIDE OF THE GATE AND ABLE TO BE SECURED FROM THE INTERIOR ONLY (PROPERTY OWNER SIDE OF FENCE). GATES SHALL INCLUDE ANGLED STABILIZING BRACING TO PREVENT SAG AND ALLOW FOR SMOOTH OPERATION.
5. SHOP DRAWINGS FOR EACH FENCE LOCATION SHALL BE SUBMITTED TO THE CITY FOR REVIEW/APPROVAL PRIOR TO ORDERING OF MATERIALS. THE COST TO PREPARE SHOP DRAWING SHALL BE INCIDENTAL TO THE COST OF FENCE MATERIALS.
6. AT LOCATIONS WHERE EXISTING FENCING RUNS ALONG PROPERTY LINES (PERPENDICULAR TO BLENHEIM BOULEVARD) CONTRACTOR SHALL INSTALL A NEW FENCE POST AT THE PROPERTY CORNER AND CONNECT TO EXISTING PERPENDICULAR FENCING. EXISTING FENCING SHALL NOT TIE DIRECTLY TO THE FENCE ALONG THE CITY RIGHT OF WAY LINE. BUT SHALL TERMINATE AT A FENCE POST ABUTTING THE CITY FENCE.

5' RAIL AND CROSSBUCK BOARD FENCE WITH WIRE MESH:
1. TO BE INSTALLED ON CITY PROPERTY ALONG PARCELS 008, 010, 012, 014, 015, 017 PER PLAN SHEETS 5 AND 6.
2. FENCE TO BE 3 HORIZONTAL RAILS WITH CROSS RAILS BETWEEN THE TOP AND MIDDLE RAIL.
3. WOOD TO BE PRESSURE TREATED.
4. GATES TO BE INSTALLED AS INDICATED ON THE PLANS. GATES SHALL BE VERTICAL STYLES EQUAL TO THE HEIGHT OF THE FENCE. LATCHING SHALL BE ACCESSIBLE FROM EACH SIDE OF THE GATE AND ABLE TO BE SECURED FROM THE INTERIOR ONLY (PROPERTY OWNER SIDE OF FENCE). GATES SHALL INCLUDE ANGLED STABILIZING BRACE TO PREVENT SAG AND ALLOW FOR SMOOTH OPERATION.
5. WELDED WIRE MESH TO BE INSTALLED ON THE PROPERTY SIDE OF THE FENCE (INTERIOR AWAY FROM BLENHEIM BLVD) FROM THE GROUND TO THE CENTER OF THE TOP RAIL. NO SHARP EDGES SHALL BE PRESENT ALONG THE EDGES OF THE WELDED WIRE MESH. WIRE MESH SHALL BE SECURED TO EACH VIRTICAL POST.
6. SHOP DRAWINGS FOR EACH FENCE LOCATION SHALL BE SUBMITTED TO THE CITY FOR REVIEW/APPROVAL PRIOR TO ORDERING OF MATERIALS. THE COST TO PREPARE SHOP DRAWING SHALL BE INCIDENTAL TO THE COST OF FENCE MATERIALS.
7. AT LOCATIONS WHERE EXISTING FENCING RUNS ALONG PROPERTY LINES (PERPENDICULAR TO BLENHEIM BOULEVARD) CONTRACTOR SHALL INSTALL A NEW FENCE POST AT THE PROPERTY CORNER AND CONNECT TO EXISTING PERPENDICULAR FENCING. EXISTING FENCING SHALL NOT TIE DIRECTLY TO THE FENCE ALONG THE CITY RIGHT OF WAY LINE. BUT SHALL TERMINATE AT A FENCE POST ABUTTING THE CITY FENCE.

	PROJECT	SHEET NO.
	U000-151-R94	2A(4)

1/23/2026

FINAL PLANS

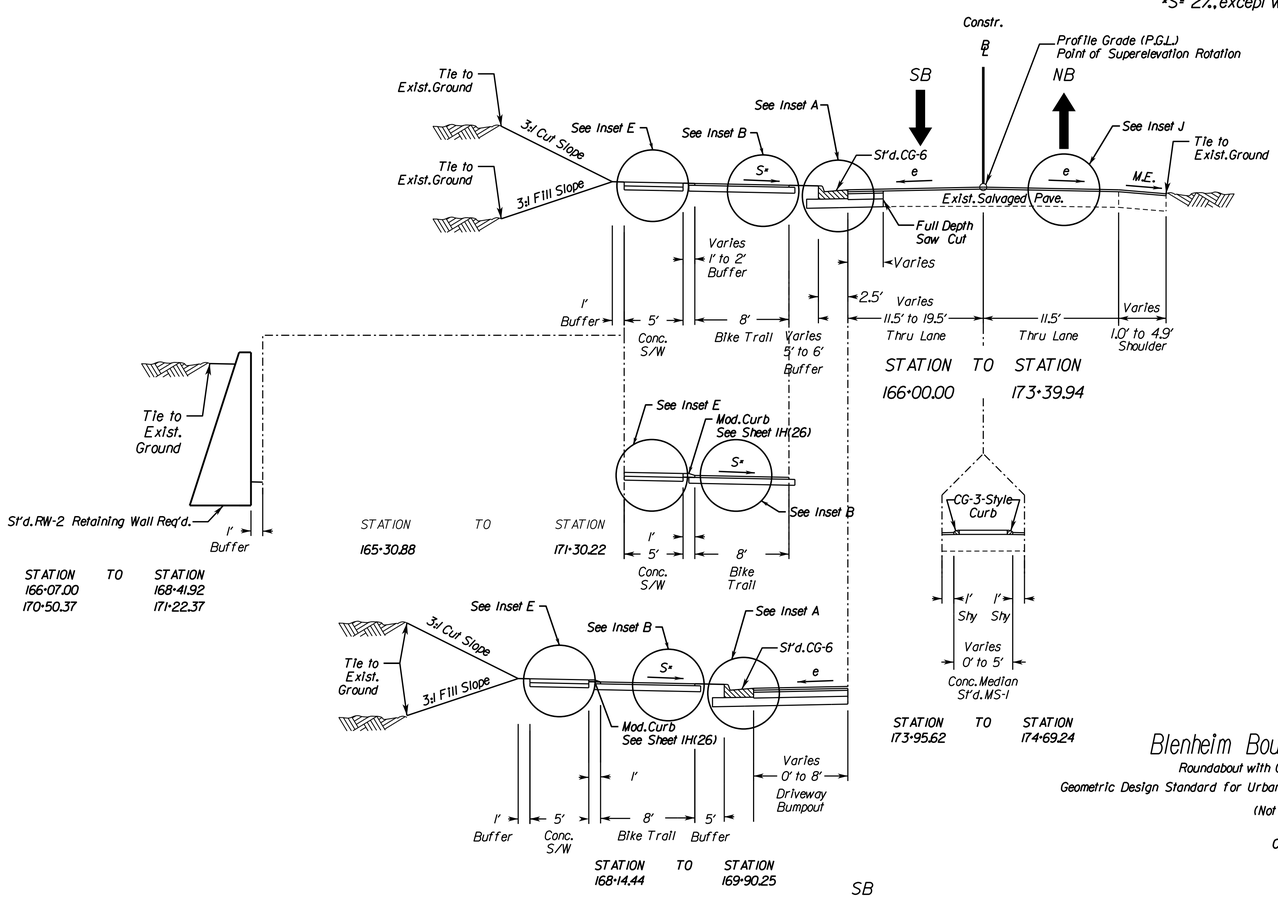
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

TYPICAL SECTIONS

Blenheim Boulevard, Rte. 6628

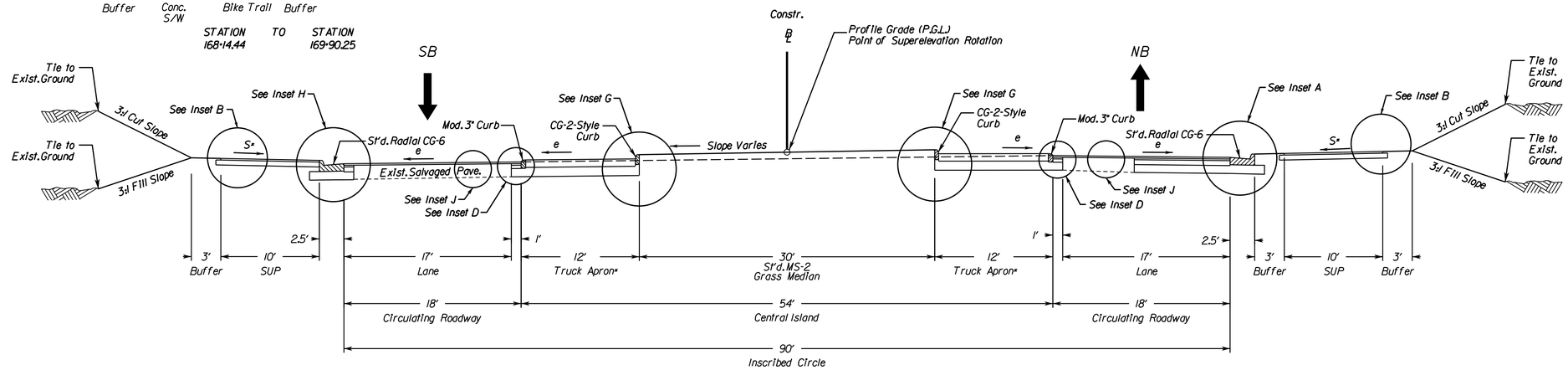
Undivided, 2 Lane Street with Curb & Gutter
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)

*S= 2%, except where noted on Alternate Sidewalk/Trail Slope Table



Blenheim Boulevard, Rte. 6628

Roundabout with Curb & Gutter Section
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)



* Truck apron shall be stamped and colored concrete with a conventional red brick pattern to be approved by VDOT and City of Fairfax

STATION TO STATION
174+70.18 175+60.12

TYPICAL SECTION NOTES

1. Pavement widening to be performed in accordance with VDOT St'd. WP-2. Positive drainage between pavement layers shall be provided at all locations.
2. St'd. UD-4 Req'd., see plan sheets for detailed locations.
3. St'd. UD-3 Req'd., see plan sheets for detailed locations.
4. St'd. UD-2 Req'd., see plan sheets for detailed locations.
5. See I7 series for retaining wall details.
6. St'd. HR-1, Type II Req'd. see plan sheets for detailed locations.
7. See Sheet 2A(7) for Inset details.
8. See Profile Sheets for superelevation values.
9. When widening existing pavement, the pavement subgrade slope shall be designed such that the existing pavement subbase material can properly drain to a standard UD-4 edge drain.
10. The final surface course shall be placed in continuous operation across the full pavement width after all previous layers have been completed and shall include all areas where eradication of existing pavement markings have been performed for temporary tie-ins.
11. Where the existing pavement is to be widened, all existing pavement edgedrains (UD-4) shall be removed.
12. When liquid asphalt is used as a curing material for cement stabilization course, it shall be liquid asphalt CRS-1, CR-1h or CMS-2 applied at a rate of 0.2 gal/sy. Where necessary for maintenance of traffic, cover material consisting of NoJO Aggregate or Grading B Sand shall be applied at a rate of 10 lbs./sy.
13. In locations where the proposed grade will be more then 2.0" but less than 4.0" above the existing pavement surface, the existing pavement surface should be milled sufficiently to provide enough depth for the installation of the surface and intermediate courses provided in the pavement design. Where intermediate pavement is required for buildup it shall be place in a uniform layer across the full pavement width.
14. See Sheet 2A(8) for geotechnical recommendations and locations of unsuitable materials and undercut.

Alternate Sidewalk/Trail Slope Table

Side	Sta.	To	Sta.	Slope (%)
Left	171+00.22		171+25.22	2 to 0.5
Left	171+00.00		171+25.00	2 to 0.5
Left	171+25.00		173+25.00	0.5
Left	172+75.00		174+76.00	0.5
Left	172+75.00		174+57.00	0.5

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2026.01.23 08:30:37 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

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.	6628	U000-151-R94	2A(5)

PROJECT	SHEET NO.
U000-151-R94	2A(5)

1/21/2026

FINAL PLANS

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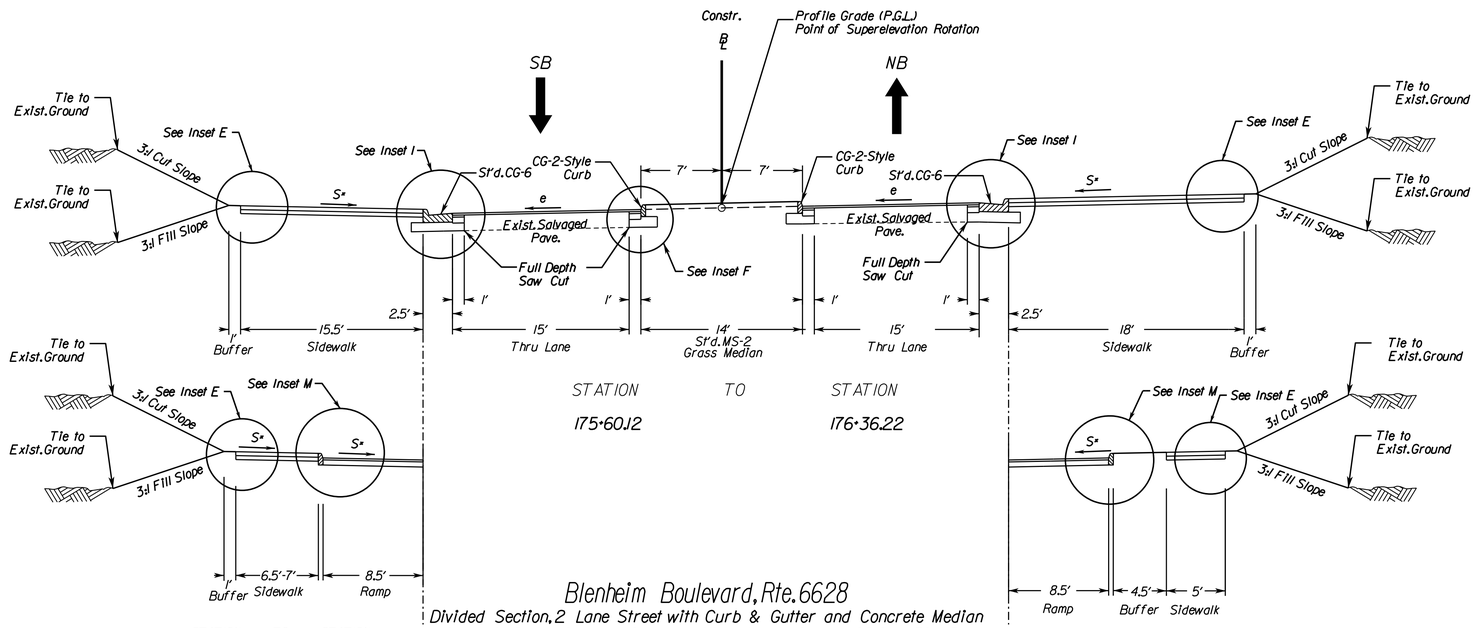
TYPICAL SECTIONS

Blenheim Boulevard, Rte. 6628

Divided Section, 2 Lane Street with Curb & Gutter and Grass Median
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)

*S= 2% except where noted on Alternate Sidewalk/Trail Slope Table



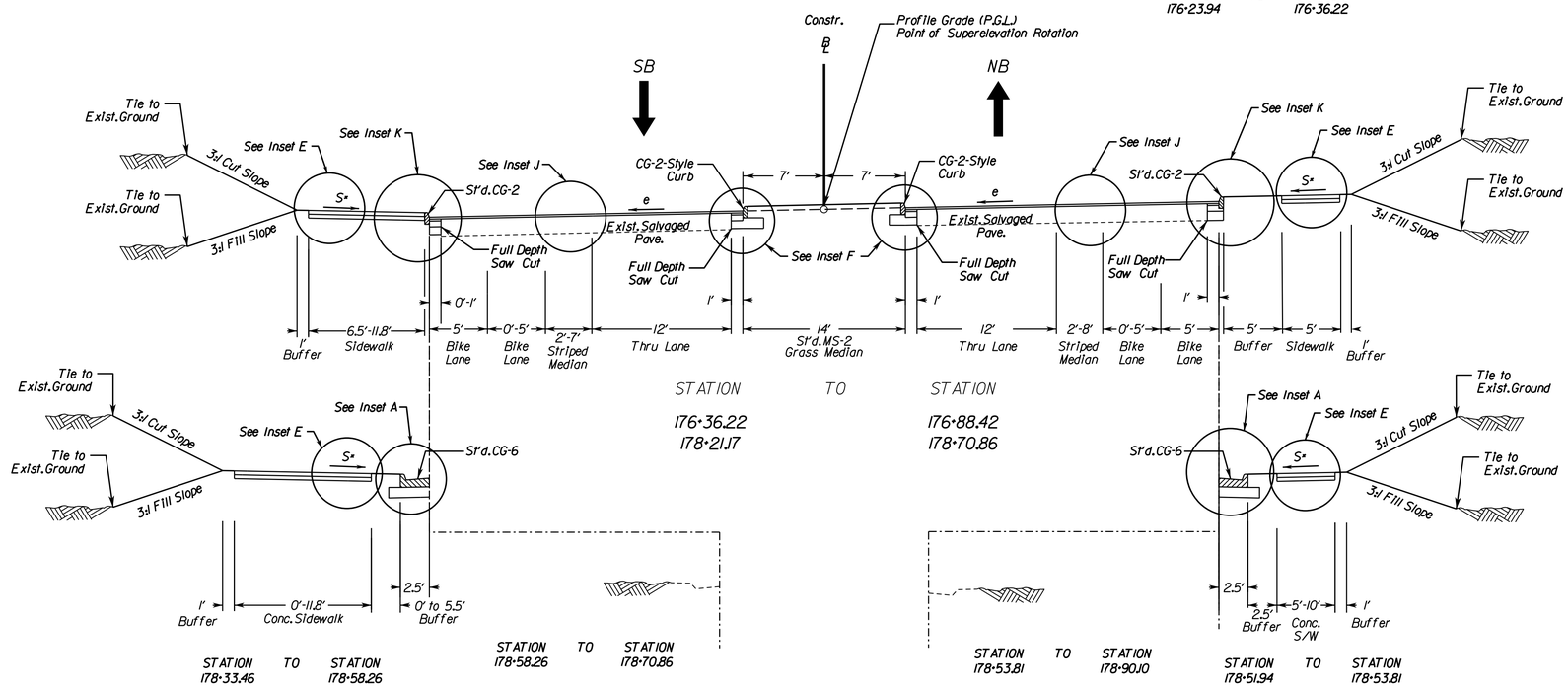
STATION 175+60.12 TO STATION 176+36.22

STATION 176+24.48 TO STATION 176+36.22

STATION 176+23.94 TO STATION 176+36.22

Blenheim Boulevard, Rte. 6628

Divided Section, 2 Lane Street with Curb & Gutter and Concrete Median
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)



STATION 176+36.22 TO STATION 176+88.42
STATION 178+21.17 TO STATION 178+70.86

STATION 178+33.46 TO STATION 178+58.26

STATION 178+58.26 TO STATION 178+70.86

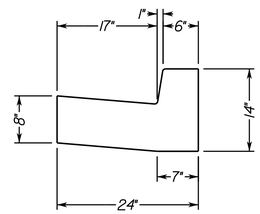
STATION 178+53.81 TO STATION 178+90.10

STATION 178+51.94 TO STATION 178+53.81

TYPICAL SECTION NOTES

1. Pavement widening to be performed in accordance with VDOT St'd. WP-2. Positive drainage between pavement layers shall be provided at all locations.
2. St'd. UD-4 Req'd., see plan sheets for detailed locations.
3. St'd. UD-3 Req'd., see plan sheets for detailed locations.
4. St'd. UD-2 Req'd., see plan sheets for detailed locations.
5. See I7 series for retaining wall details.
6. St'd. HR-1, Type II Req'd. see plan sheets for detailed locations.
7. See Sheet 2A(7) for Inset details.
8. See Profile Sheets for superelevation values.
9. When widening existing pavement, the pavement subgrade slope shall be designed such that the existing pavement subbase material can properly drain to a standard UD-4 edge drain.
10. The final surface course shall be placed in continuous operation across the full pavement width after all previous layers have been completed and shall include all areas where eradication of existing pavement markings have been performed for temporary tie-ins.
11. Where the existing pavement is to be widened, all existing pavement edgedrains (UD-4) shall be removed.
12. When liquid asphalt is used as a curing material for cement stabilization course, it shall be liquid asphalt CRS-1, CR-1h or CMS-2 applied at a rate of 0.2gal/sy. Where necessary for maintenance of traffic, cover material consisting of NO.10 Aggregate or Grading B Sand shall be applied at a rate of 10 lbs./sy.
13. In locations where the proposed grade will be more then 2.0" but less than 4.0" above the existing pavement surface, the existing pavement surface should be milled sufficiently to provide enough depth for the installation of the surface and intermediate courses provided in the pavement design. Where intermediate pavement is required for buildup it shall be place in a uniform layer across the full pavement width.
14. See Sheet 2A(8) for geotechnical recommendations and locations of unsuitable materials and undercut.

MODIFIED 6" CURB AND GUTTER



Notes:

1. Construction joints at 10' on curb.
2. All concrete shall be Class A4, air entrained.
3. Expansion joints in header curb, curb and gutter to be 40' apart and at all points at the P.C. & P.T. of curves.
4. Construction joints in sidewalk to be 5' apart. Expansion joints in sidewalk to be 40' apart. If sidewalk is at the curb, expansion joints to match joint in curb, also expansion joints between curb and sidewalk. Dowels and sleeves to be installed in C&G joints where sub-grade is unstable.
5. Expansion joints required where sidewalks meet driveway aprons.

COMMONWEALTH OF VIRGINIA
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2025.12.12 12:08:29 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2A(6)

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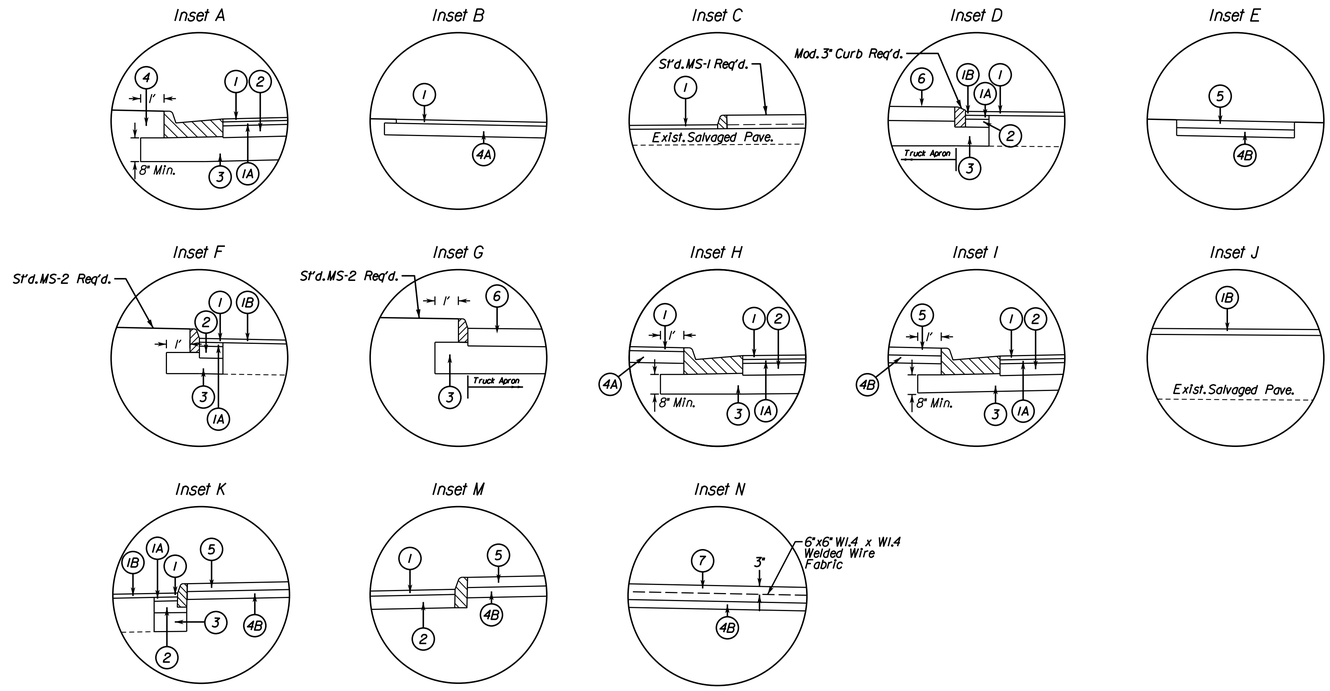
TYPICAL SECTIONS INSETS



INSET DESIGN LEGEND

(1) Surface Course - (2") Asph.Conc., Type SM-9.5D estimated @ 238 lbs/ sq.yd.
(1A) Intermediate Course - (2") Asph.Conc., Type IM-19.0A
(1B) Existing Pavement - 2" Mill req'd., replace with Min. 2" SM-9.5D, estimated @ 238 lbs/sq.yd.
(2) Base Course - (8") Asph.Conc., Type BM-25.0A
(3) Subbase Course - (8") Aggr. Base Material, Type I, Size No. 21B
(4) Regular Fill Material to be compacted in accordance with VDOT Road and Bridge Specifications.
(4A) (6") Aggr. Base Material, Type I, Size No. 21B extended 6" on either side of the surface
(4B) (4") Aggr. Base Material, Type I, Size No. 21B
(5) (4") Hydraulic Cement Conc. Class A4
(6) (10.0") Plain Jointed Concrete Pavement Standard PR-2 with max. 15' joint spacing
(7) (6") Hydraulic Cement Conc. Class A4 with 6"x6" W1.4 x W1.4 Welded Wire Fabric

PRIVATE AND COMMERCIAL ENTRANCES

TYPE I
Crusher Run Aggr.

6" Crusher Run
Aggr. 25 or 26

TYPE II
Concrete

Concrete Entrance Pavement
7" HES
4" Aggr. Base Mat'l. Ty. I
No. 21A or 21B

NOT TO SCALE

TYPE III
Asphalt

Asphalt Conc. Type
SM-9.5A or SM-9.5D @ 220 Lbs. per S.Y.
4" Aggr. Base Mat'l. Ty. I
No. 21A or 21B

TYPE IV
Asphalt Commercial

Asphalt Conc. Type
SM-9.5A or SM-9.5D @ 165 Lbs. per S.Y.
4" Asphalt Conc. Base Course
BM-25.0A
6" Aggr. Base Mat'l. Ty. I
No. 21A or 21B

The type of entrance (I, II, III, IV) to be constructed will be determined by the existing condition at the time of construction.

COMMONWEALTH OF VIRGINIA
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PROFESSIONAL ENGINEER

Mark Gunn
2025.12.12 12:08:15 -05'00'

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ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
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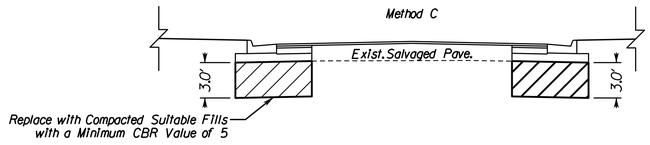
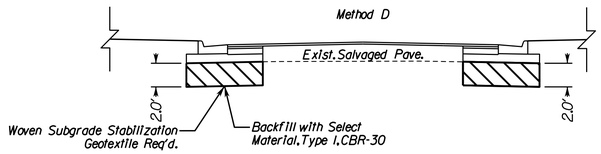
GEOTECHNICAL RECOMMENDATIONS

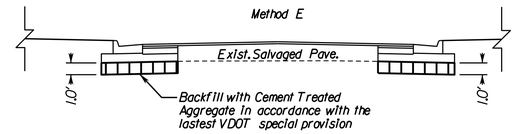
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2A(8)

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

Typical Examples of Unsuitable Subgrade Treatment







6.0 GEOTECHNICAL RECOMMENDATIONS

6.1. PAVEMENT

We have used the traffic data provided by RDA on April 7, 2021 and those included in the roadway plans dated January 24, 2023 to evaluate the pavement sections. The design traffic data are summarized in the following table.

Table 6-1: Design Traffic Data

	Blenheim Boulevard
Design Life (years)	30
Initial Design Year	2023
Two-way AADT (Initial)	11,000
Annual Growth Rate	1.9%
Directional Ratio (Pavement Design)	50%
Percent Cars/Passenger Vehicles	95%
Percent Single Unit Trucks/Buses	4%
Percent Tractor Trailer Trucks	1%
Total Calculated Design Lane ESALs	2,423,487

The CBR values along the project alignment varied from 0.6 to 3.6. These values are considered low and will require undercutting subgrade. We recommend where undercut of subgrade is needed, it be replaced with engineered fill with a minimum CBR of 5. A design subgrade CBR value of 3.3 was used for the design of the pavement. The pavement design was performed in general accordance with the VDOT MOI Chapter VI. The pavement design was also checked using the latest version of VDOT's "Pavement Design Guide for Subdivision and Secondary Roads in Virginia". Detailed pavement design including the traffic load information and calculations are attached to this report in Appendix E. The recommended full depth pavement and pavement mill and overlay sections are listed in Table 6-2 and Table 6-3, respectively.

performed in such a pattern that the entire subgrade areas are traversed with at least one pass. In areas where proofrolling is impractical, the subgrade should be probed.

If the subgrade exhibits excessive deflections or pumping when proof-rolled or soft subgrade is detected by probing, an appropriate remedial measure would be recommended by the Geotechnical Engineer of Record or an authorized representative at that time. Potential problem subgrade areas as identified by this soil investigation and the recommended remedial measures are detailed in the following paragraphs. The stabilized subgrade areas should be again evaluated and approved by the Geotechnical Engineer of Record or an authorized representative prior to fill placement or pavement construction.

6.4. UNSUITABLE SOILS

Unsuitable soils generally include soils that have excessive moisture, high plasticity (Liquid Limits greater than 50%), soils with low SPT N-values (less than 5 bpf), low CBR value (CBR < 3.3), high swell (swell >5%), and soils containing excessive debris and organics. The pavement subgrade soil conditions at the drilled boring locations are summarized in Table D1 in Appendix D. The types and recommended treatment methods of the unsuitable soils are discussed in detail in the following paragraphs.

Based on the subsurface conditions observed in our exploration, unsuitable soils were encountered throughout the project span. We recommend that the following subgrade treatment methods be implemented for the entire project. Any offsite borrow materials to be used within 3 feet of the proposed pavement subgrade shall have a CBR value of 5 or greater.

(Method C): Undercut the unsuitable soils in its entirety or 3 feet from the proposed pavement subgrade elevation, whichever is less, and replace with compacted suitable fills with a minimum CBR value of 5.

(Method D): Undercut the unsuitable soils in its entirety or 2 feet from the proposed pavement subgrade elevation, whichever is less, place a layer of woven subgrade stabilization geotextile, and then backfill with Select Material, Type I, min CBR-30.

(Method E): Undercut the unsuitable soils in its entirety or 1 foot from the proposed pavement subgrade elevation, whichever is less, and then backfill with Cement Treated Aggregate in accordance with the latest VDOT special provision.

6.5. RETAINING WALLS

A total of five retaining walls are proposed on this project. The information of the proposed retaining walls is summarized in the following table.

Table 6-2: Full Depth Pavement Recommendation

Location	Pavement Section
Blenheim Blvd – Widening and Reconstruction (entire project)	Surface – 2.0 inches Asphalt Concrete, Type SM-9.5D
	Intermediate – 2.0 inches Asphalt Concrete, Type IM-19.0A
	Base – 8.0 inches Asphalt Concrete, Type BM-25.0A
	Subbase – 8.0 inches Aggregate Base Material, Type I, Size No. 21B

All existing turn lanes, acceleration lanes, and driveways that will be under the future through lanes shall be reconstructed with the full depth pavement recommended in Table 6-2.

The pavement widening should be performed in accordance with VDOT standard detail WP-2 for asphalt pavement widening. VDOT standard UD-4 edge drains should be installed beneath the curb and gutter on the low side of new pavements and widening. The underdrain pipes should be either connected to existing underdrain or storm structures.

Table 6-3: Pavement Mill & Overlay Recommendation

Blenheim Blvd – Existing Pavement (entire project)	Mill 2.0 inches and replace with 2.0 inches SM 9.5D

The existing pavement does not meet the 30-year design standard based on the provided traffic data and the available pavement and subgrade data; however, it is our understanding that the current project scope only plans to mill and overlay the existing pavement without buildup. Regular maintenance should be expected to maintain the structural integrity and surface condition of the pavement.

6.2. SITE PREPARATION AND EARTHWORK

Site preparation, earthwork, and subgrade preparation should be performed in accordance with *Section 301 – Clearing and Grubbing*, *Section 303 – Earthwork*, *Section 305 – Subgrade and Shoulders,* and other applicable sections of the latest edition of the *VDOT Road and Bridge Specifications*. Additional site specific recommendations are discussed in the following sections.

6.3. SUBGRADE PREPARATION

The newly exposed roadway subgrade should be evaluated by the Geotechnical Engineer of Record or an authorized representative. During this evaluation, DMY recommends that all subgrade in the proposed roadway widening and reconstruction areas be proof-rolled using a fully loaded tandem axle dump truck (10-ton minimum) or similar rubber-tired vehicle. The proofrolling should be

Table 6-4: Summary of Retaining Walls

Retaining Wall ID	Retaining Wall Type	Location	Cut/Fill	Maximum Wall Height (ft)	Reference Borings
RW-A	RW-3	Sta. 127+06.25 to 128+99.20, Left	Cut	4.5	NA
RW-B1/2	Timber Wall	Sta. 139+25.19 to 139+88.86, Left	Cut	3	W-6
RW-C	RW-3	Sta. 150+06.77 to 154+25.00, Left	Fill	10	W-7 to W-11
RW-D	RW-2	Sta. 166+34.81 to 168+28.71, Left	Cut	13	W-22 to W-24
RW-E	RW-2	Sta. 170+54.74 to 171+21.74, Left	Cut	5.5	W-26 and W-27

Based on our subsurface exploration, foundation undercut will be required for at the wall location listed in the following table. The undercut should be backfilled with Select Material, Type I, min CBR-30.

Table 6-5: Summary of Foundation Undercut Recommendations

Retaining Wall ID	Estimated Areas Requiring Foundation Improvement	Reference Borings	Recommended Foundation Undercut Depth (ft)
RW-C	Sta. 152+50 to 154+25	W-10 and W-11	2

The RW-2/3 retaining wall construction shall be in accordance with the VDOT Standard RW-2/3 for concrete gravity retaining walls as shown in the VDOT Road and Bridge Standards, and applicable sections of the latest VDOT Road and Bridge Specifications. The timber retaining wall shall be constructed in accordance with the City of Fairfax's standard details.

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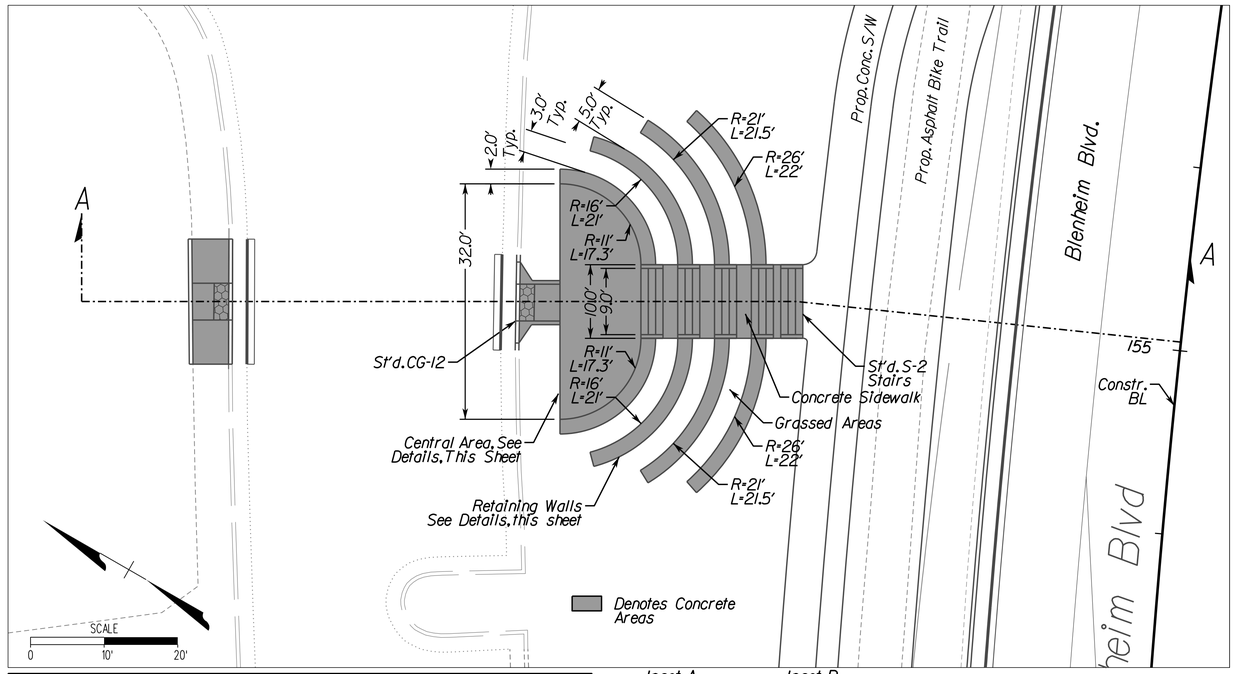
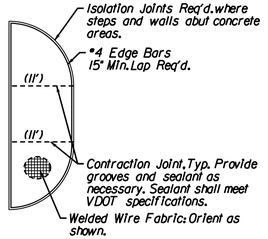
Fairfax High School Outdoor Seating Details (Bid Alternate 3)



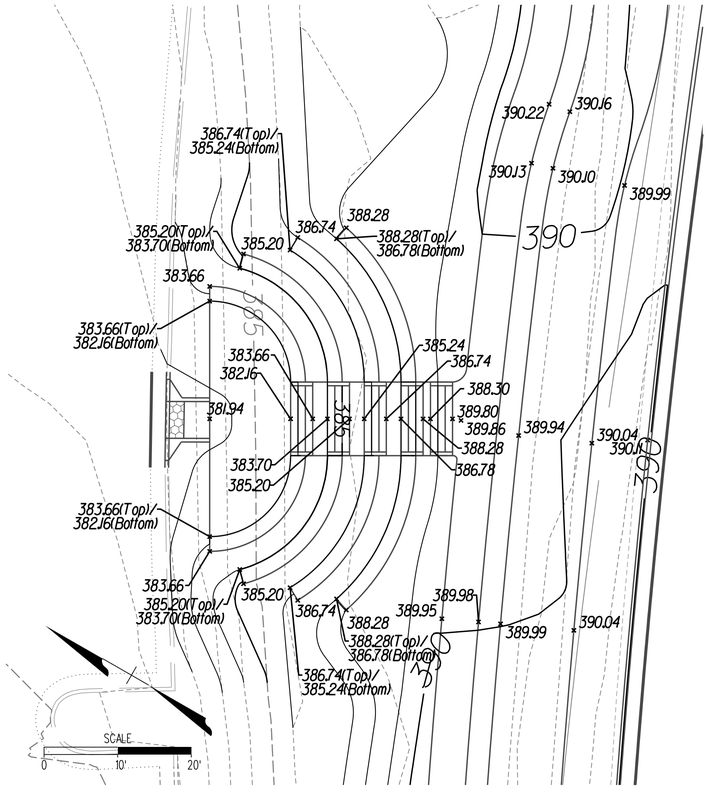
Central Area Details



Central Area Notes:

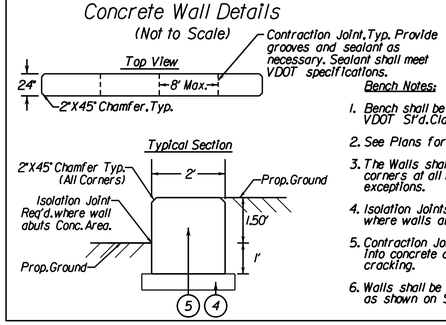
1. See VDOT St'd.PR-2 for Contraction Joint detail. Provide dowels, groove, and sealant per the standard detail. The dowels shall be installed normal to the joint.
2. Concrete slab shall be reinforced with welded wire fabric 6x6-W1.4xW1.4. Cut fabric to match the plan shape of the slab between the joints with 2" clearance from the joints. Vertically, locate the fabric at slab mid depth.
3. The specified edge bars shall be deformed and conform to ASTM A15 Grade 60. Place the edge bars at mid-depth of the slab above the welded wire fabric.

Grading Plan



Concrete Wall Details

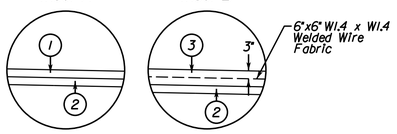
(Not to Scale)



Bench Notes:

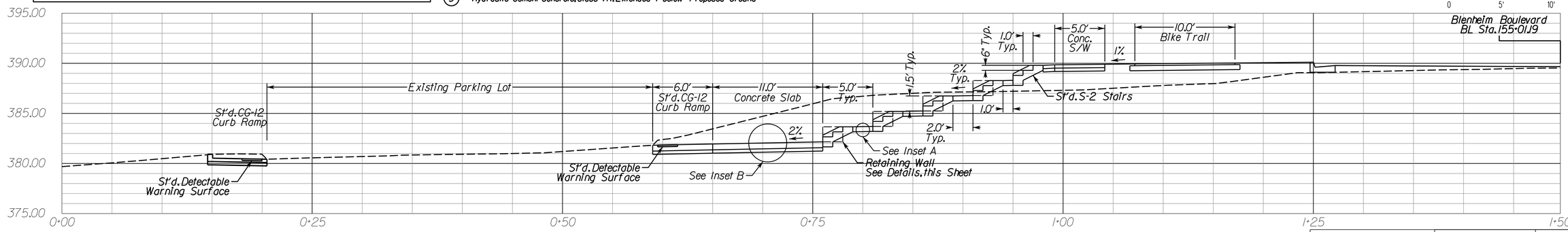
1. Bench shall be constructed with VDOT St'd.Class A4 Concrete.
2. See Plans for bench locations.
3. The Walls shall have chamfered corners at all locations, no exceptions.
4. Isolation Joints shall be placed where walls abut concrete areas.
5. Contraction Joints shall be placed into concrete as shown to reduce cracking.
6. Walls shall be stamped with pattern as shown on Sheet 17A.

Inset A / Inset B



INSET DESIGN LEGEND

1. (4") Hydraulic Cement Conc. Class A4
2. (4") Aggr. Base Material, Type I, Size No. 21B
3. (6") Hydraulic Cement Conc. Class A4 With 6"x6" W1.4 x W1.4 Welded Wire Fabric
4. 6" Aggr. Base Material, Ty. I, Size No. 21B, Extended 6" from Base of Wall
5. Hydraulic Cement Concrete, Class A4, Extended 1' below Proposed Ground



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2025.12.12 17:21:32 -05'00'

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ROADWAY ENGINEER

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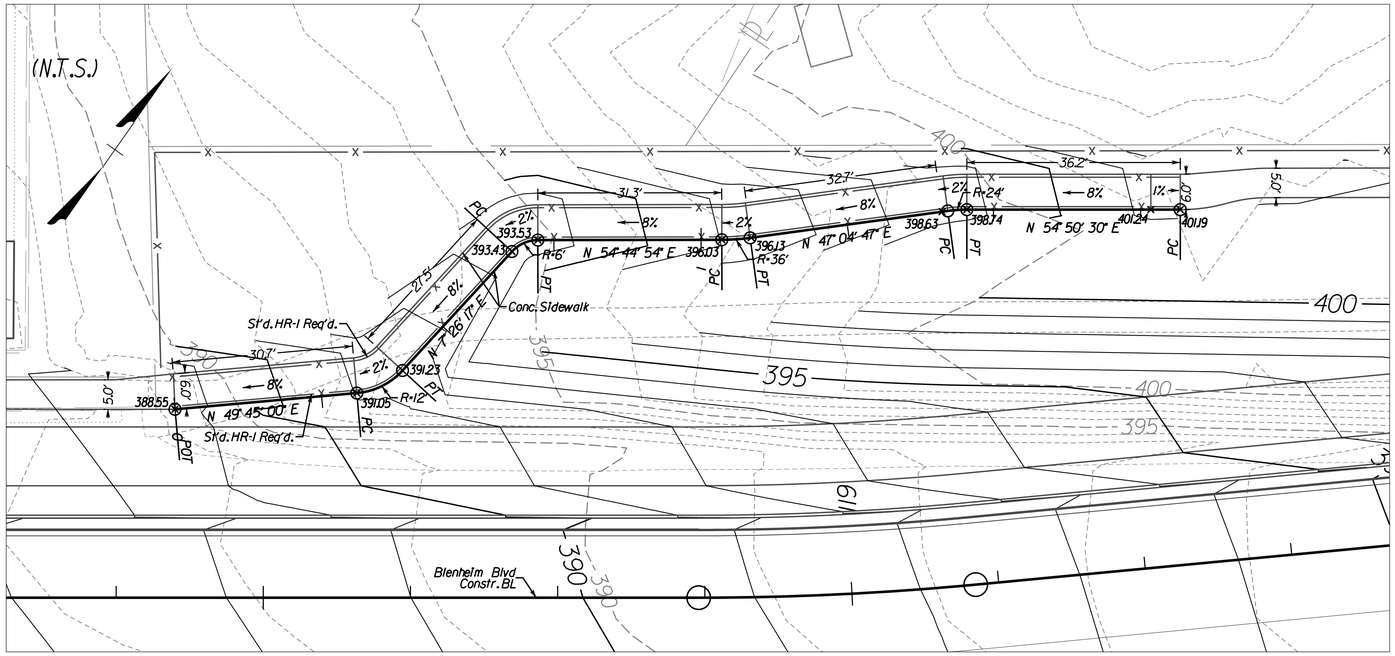
12/12/2025

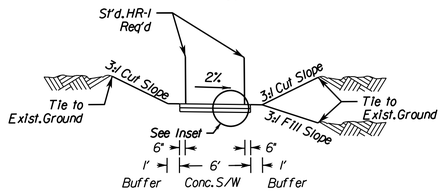
FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Sidewalk Details



Sidewalk Typical Section

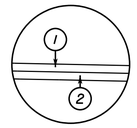


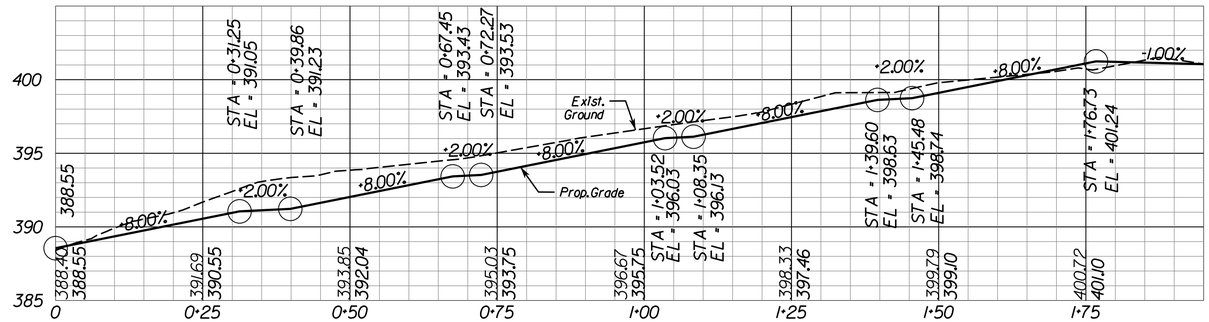
INSET DESIGN LEGEND

(1) (4") Hydraulic Cement Conc. Class A4

(2) (4") Aggr. Base Material, Type I, Size No. 21B

Inset





SCALE H= 25, V= 5
0 12.5' 25' | 0 2.5' 5'

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2A(10)

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:52:55 -05'00'

Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

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

PROJECT	SHEET NO.
U000-151-R94	2A(10)

FINAL PLANS

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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

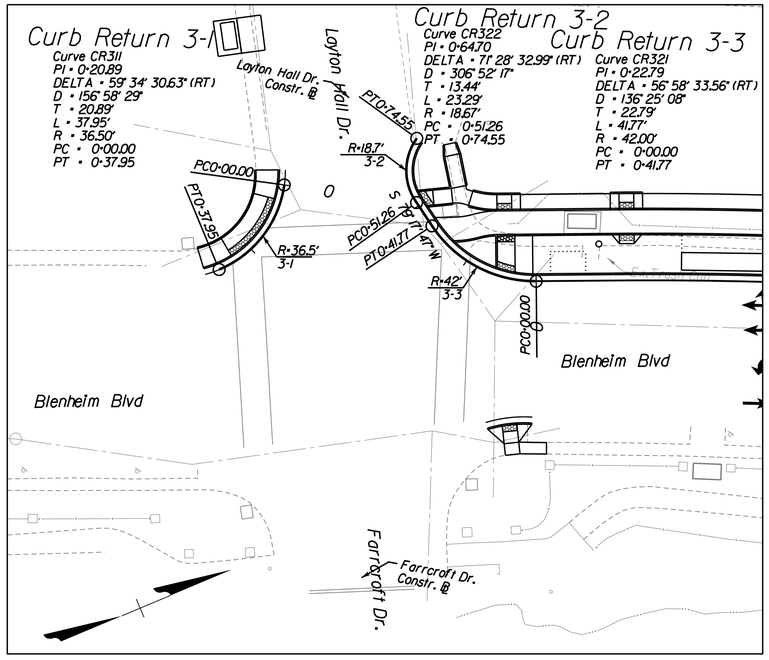
CURB RETURN PROFILES

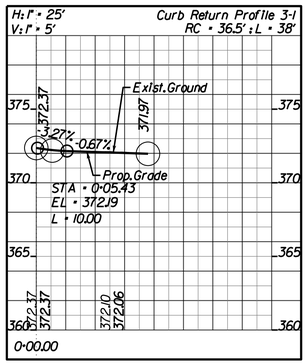
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

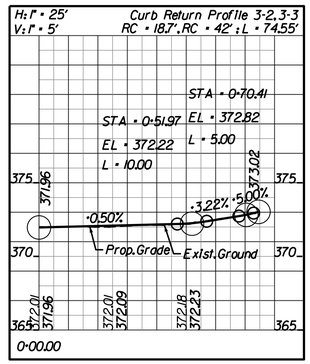
Mark Gunn
2025.12.11 21:53:22 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

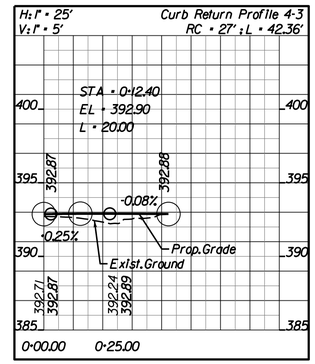
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2B

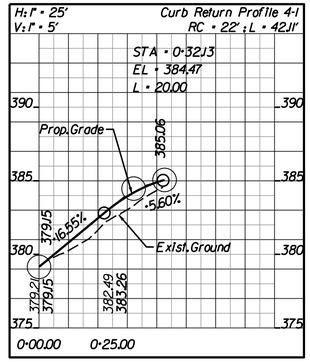
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

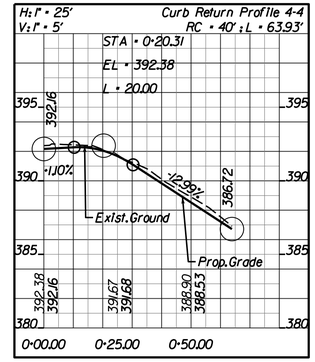


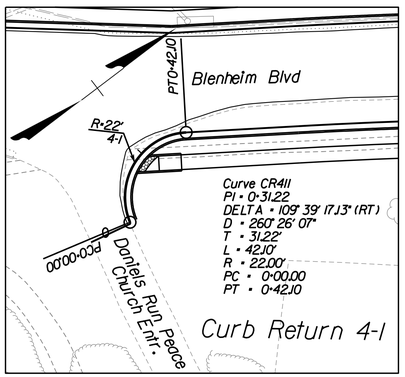


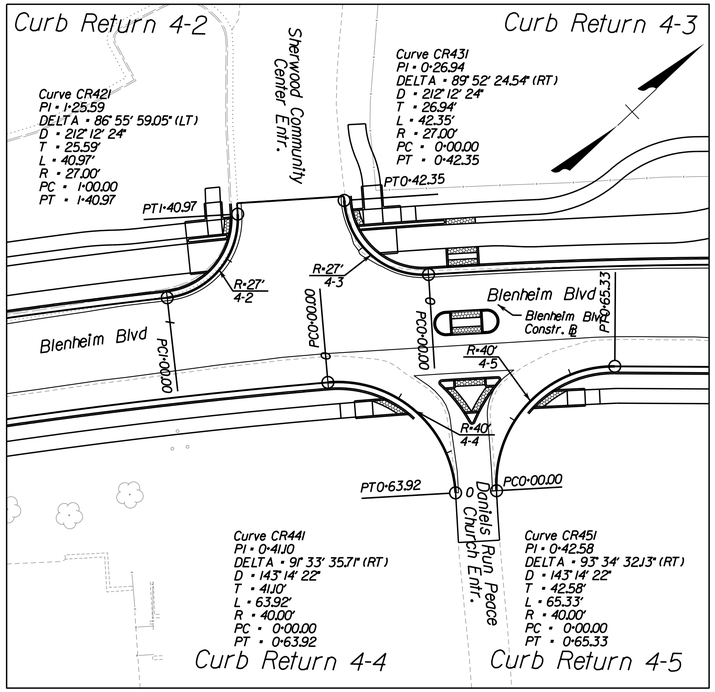


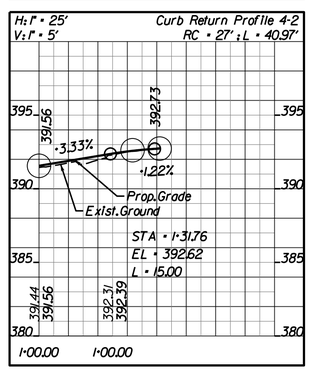


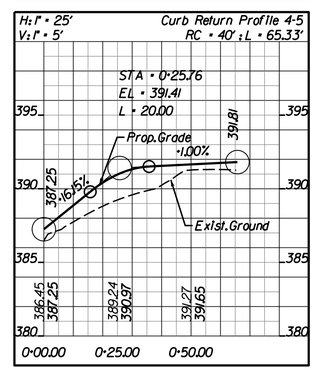












SCALE H: 25' V: 5'
0 1" 2"
0 25' 50'

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-151-R94	2B

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RETURN PROFILES

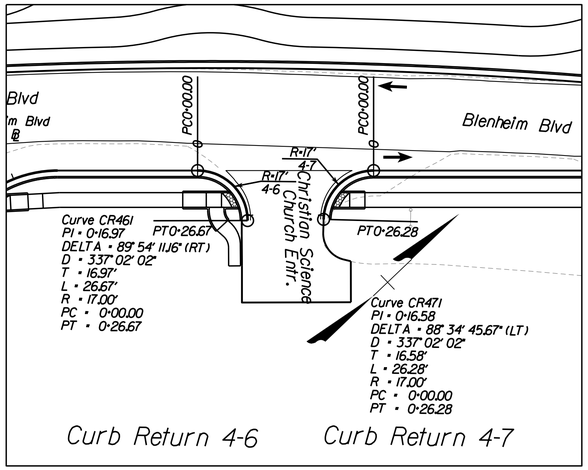
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

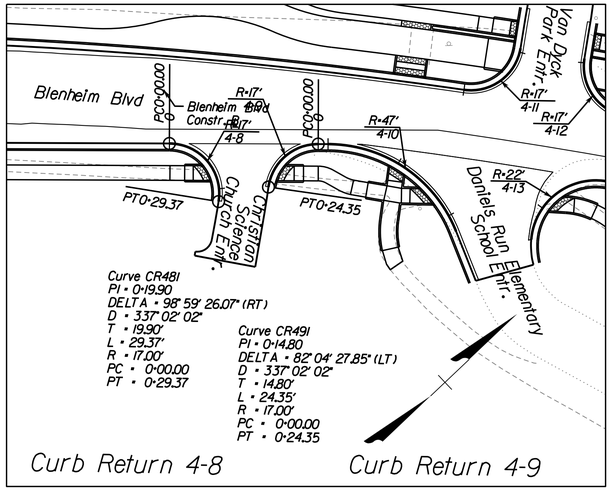
Mark Gunn
2025.12.11 21:53:42 -05'00'

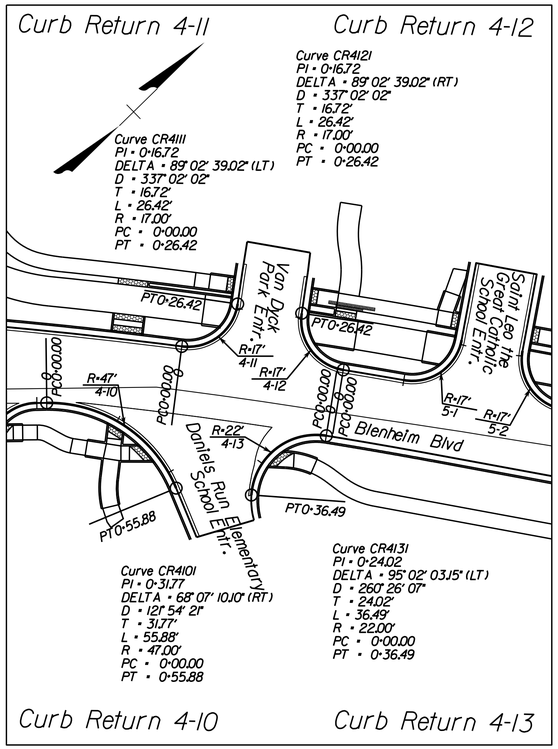
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

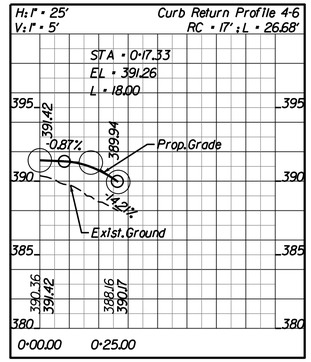
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2B(1)

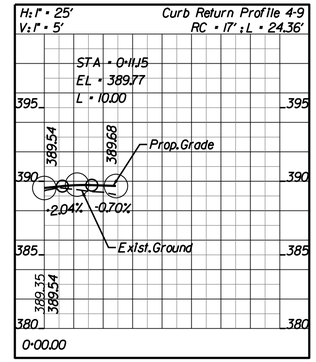
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

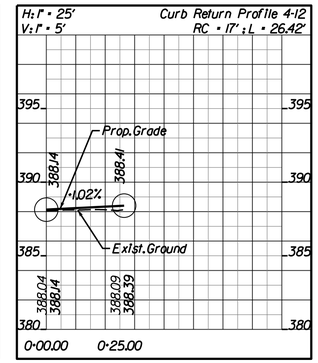


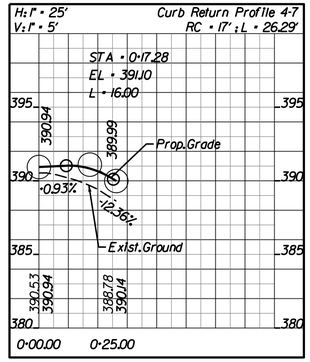


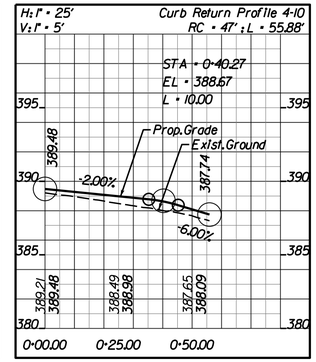


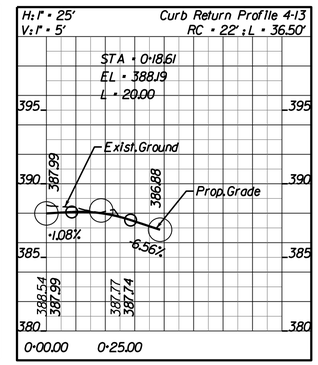


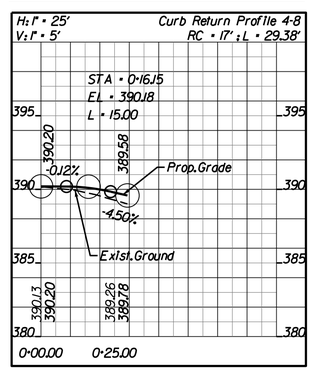


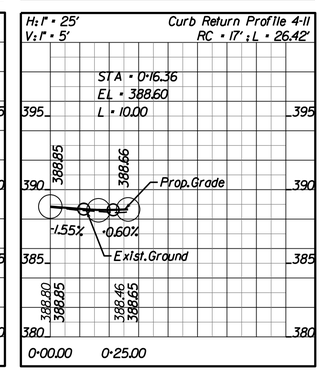












SCALE H: 25' V: 5'
0 25' 50'
0' 1' 2'

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	2B(1)

12/10/2025

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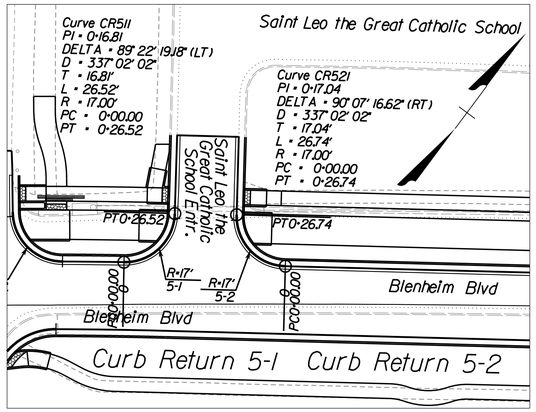

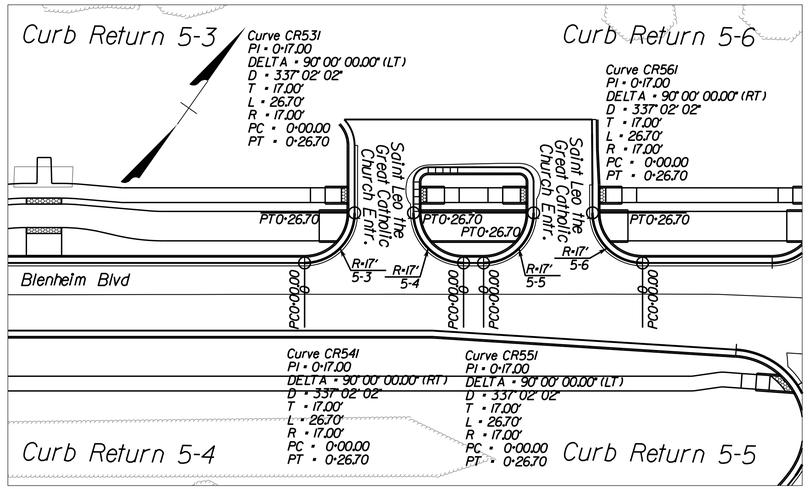

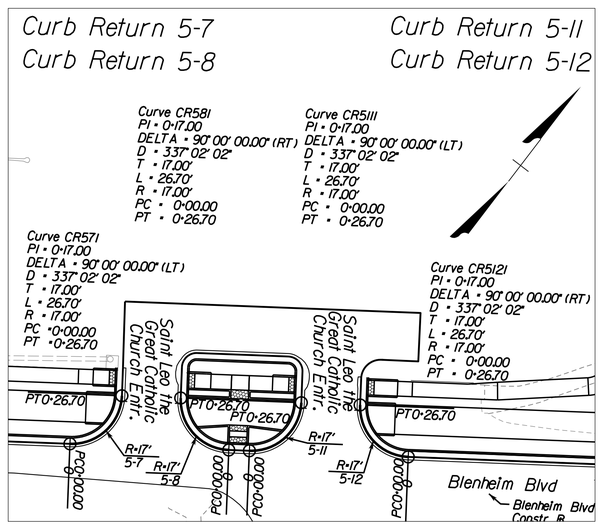

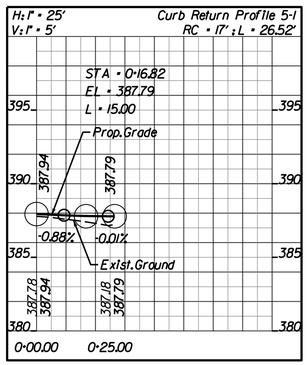

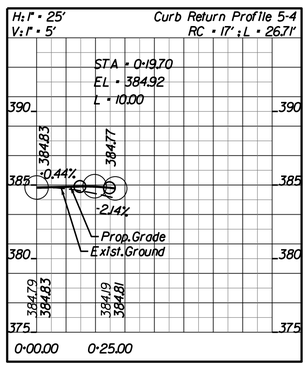

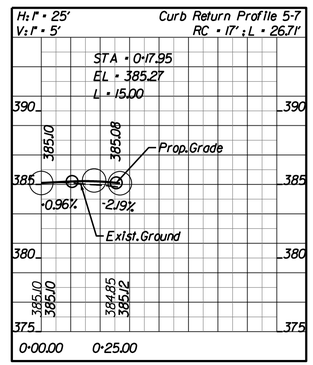

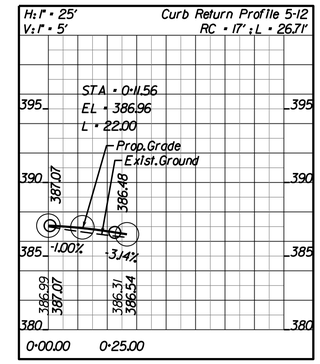

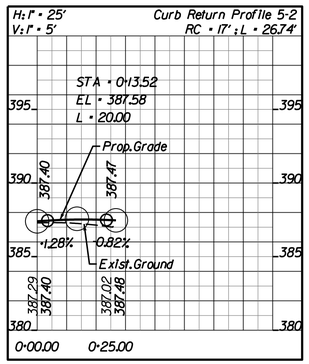

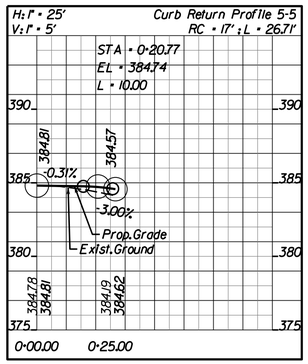

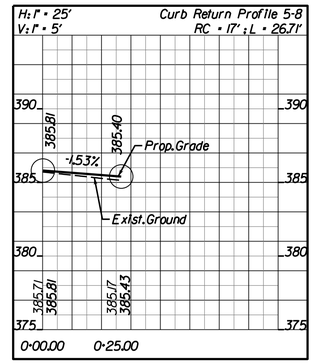

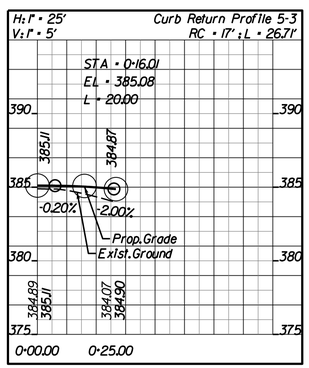

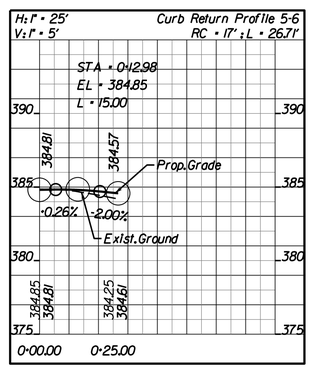

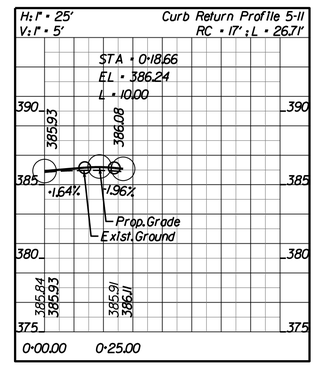

Mark Gunn
2025.12.11 21:54:03 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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

SCALE H: 25' V: 5'
0 25' 50'

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	2B(2)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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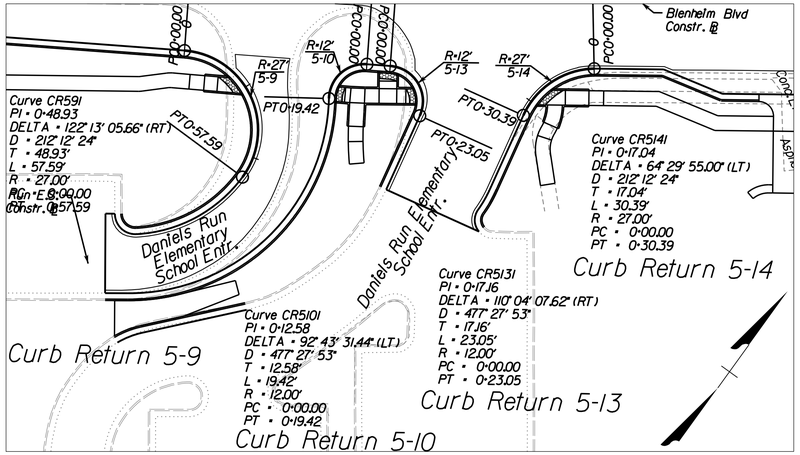
CURB RETURN PROFILES

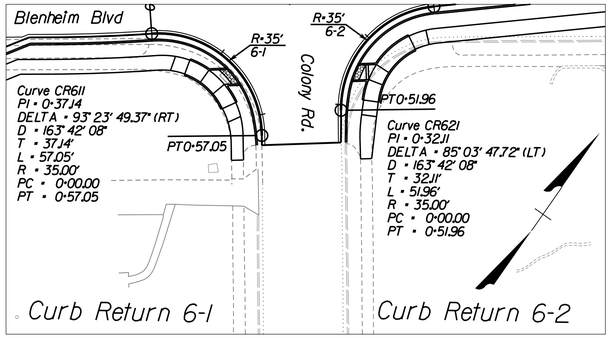
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

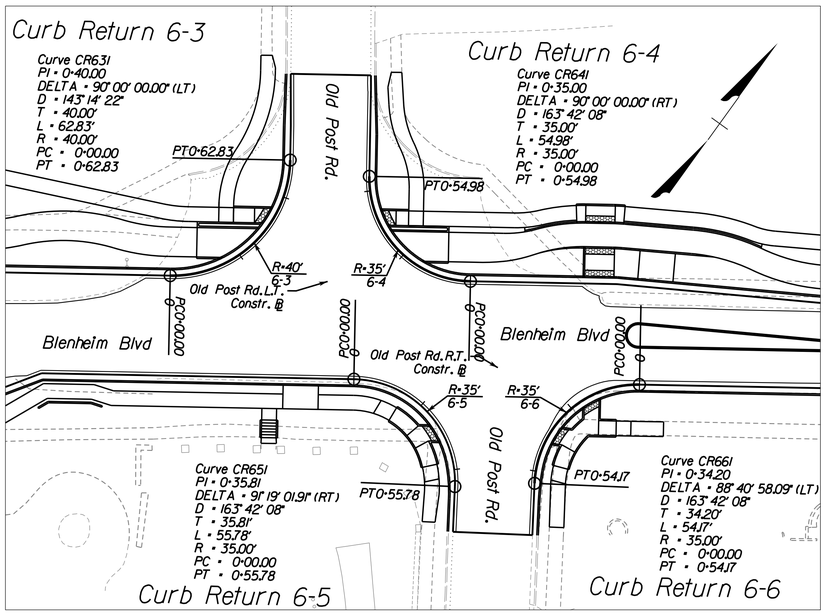
Mark Gunn
2025.12.11 21:54:20 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

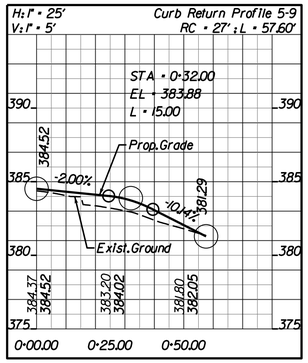
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2B(3)

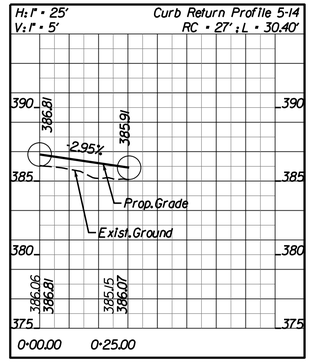
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

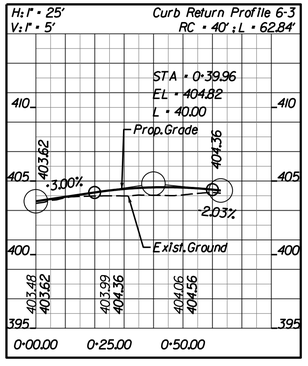


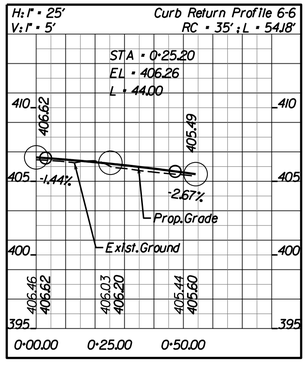


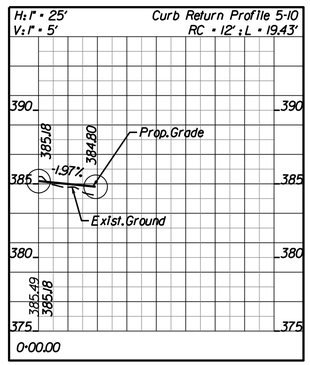


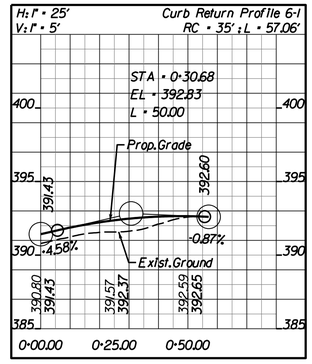


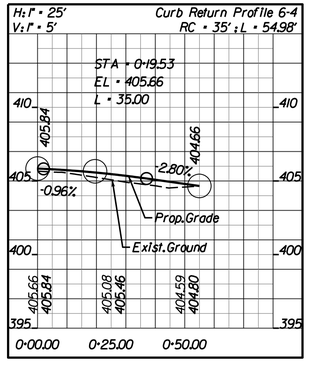


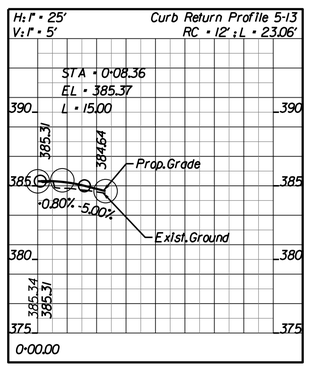


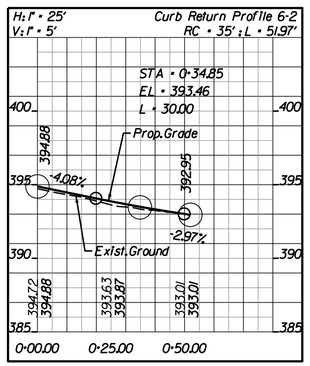


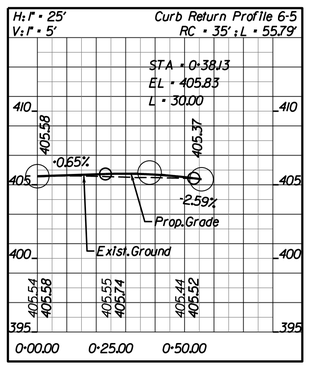












SCALE H: 25' V: 5'
0 25' 50'
0 1" 2"

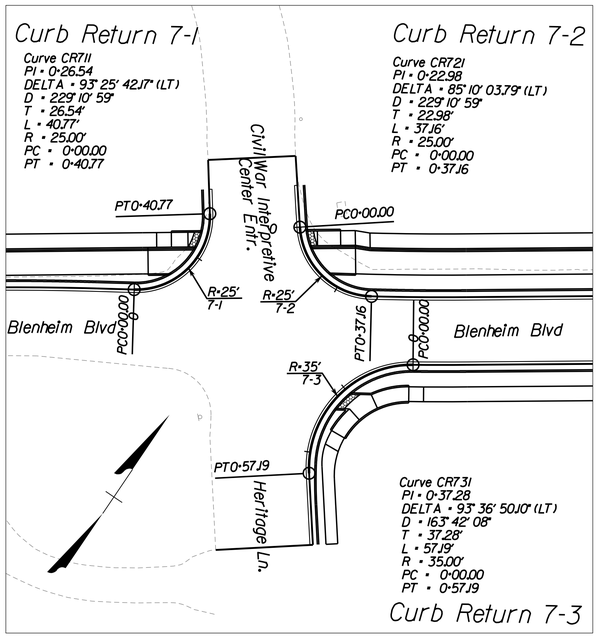
SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	2B(3)

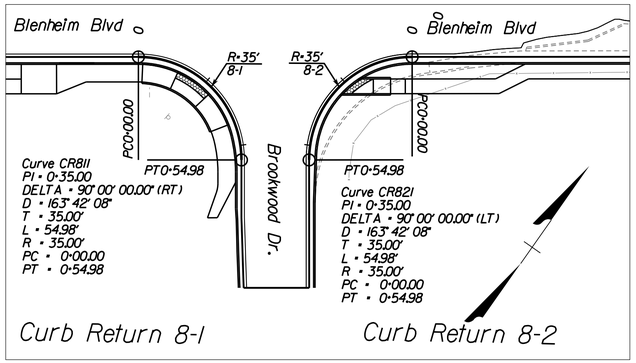
12/10/2025

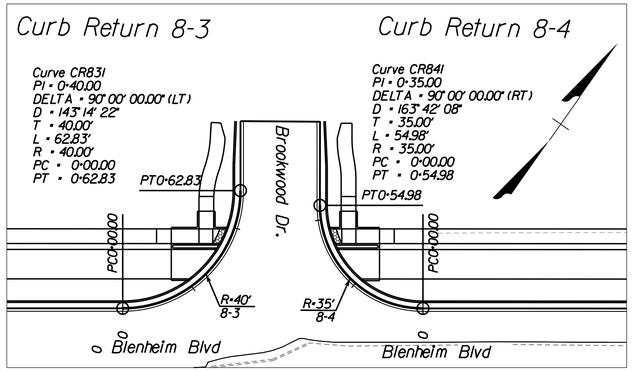
FINAL PLANS

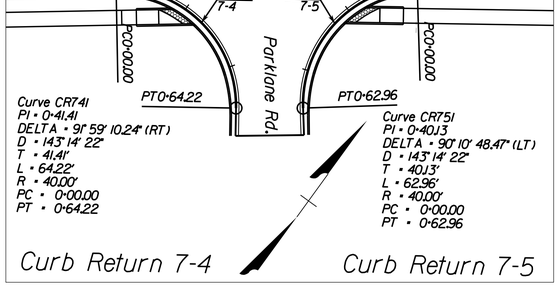
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

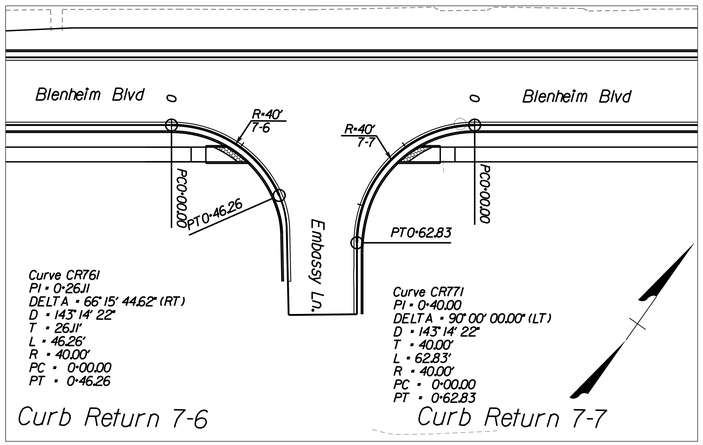
CURB RETURN PROFILES

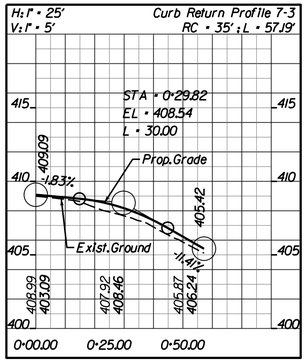


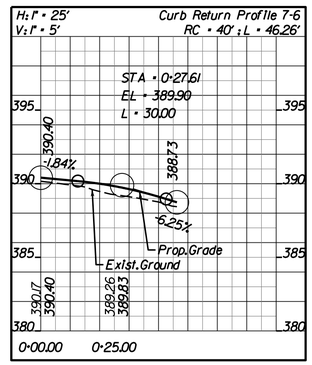


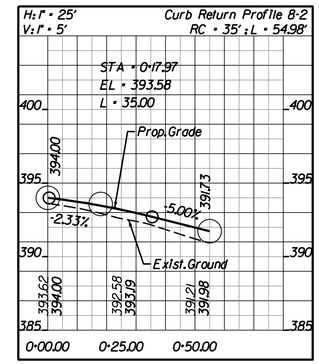


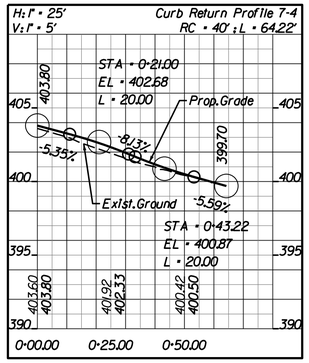


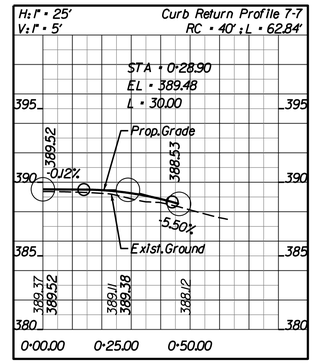


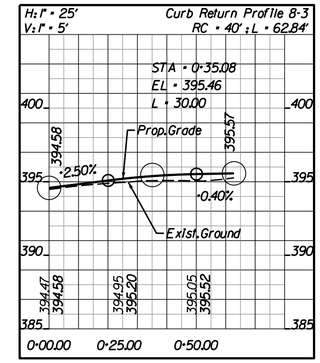


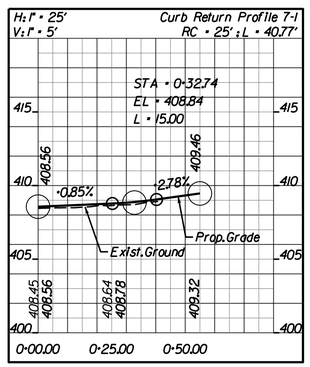


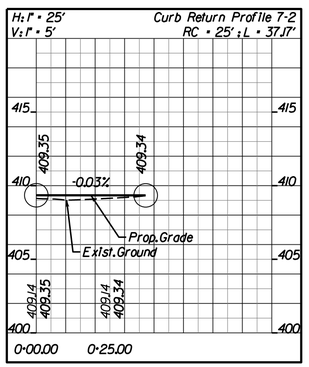


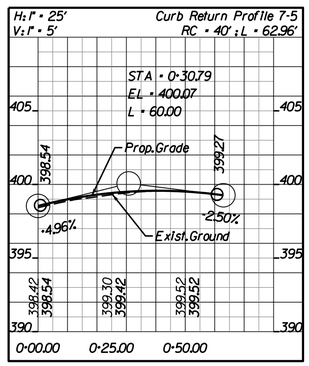


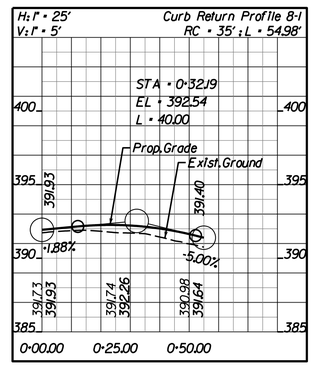


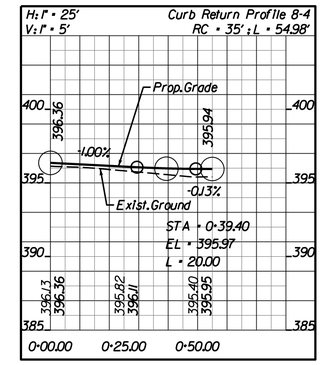












SCALE H: 25' V: 5'
0 25' 50'
0 1" 2"

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-151-R94	2B(4)

MARK A. GUNN
Lic. No. 038323
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:54:57 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2B(4)

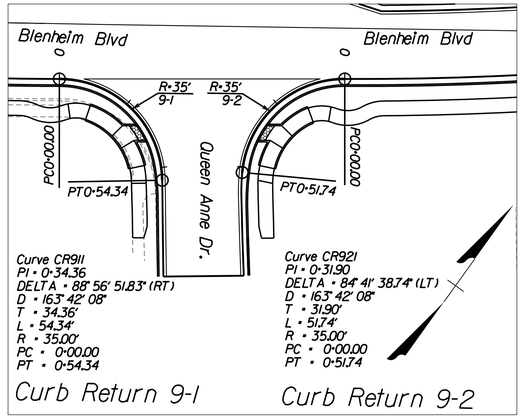
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

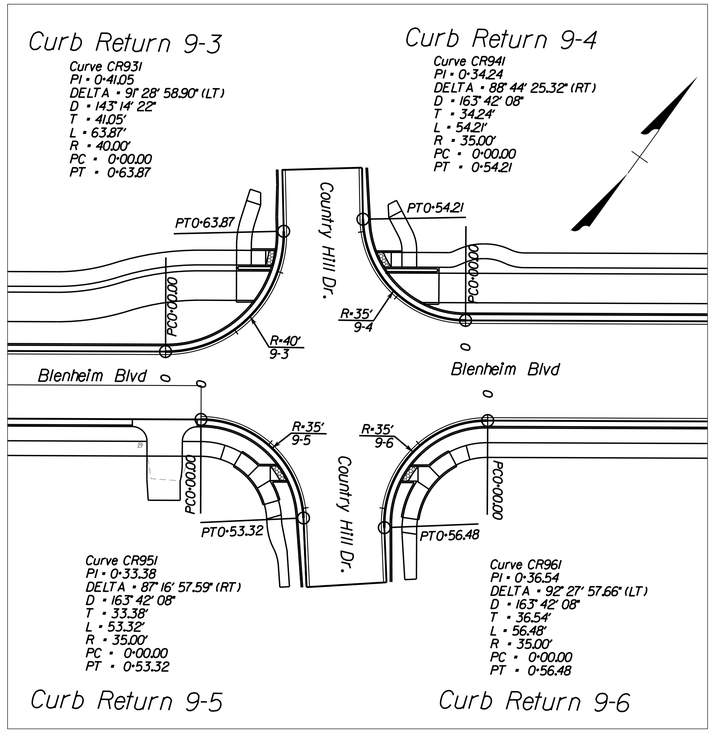
12/10/2025

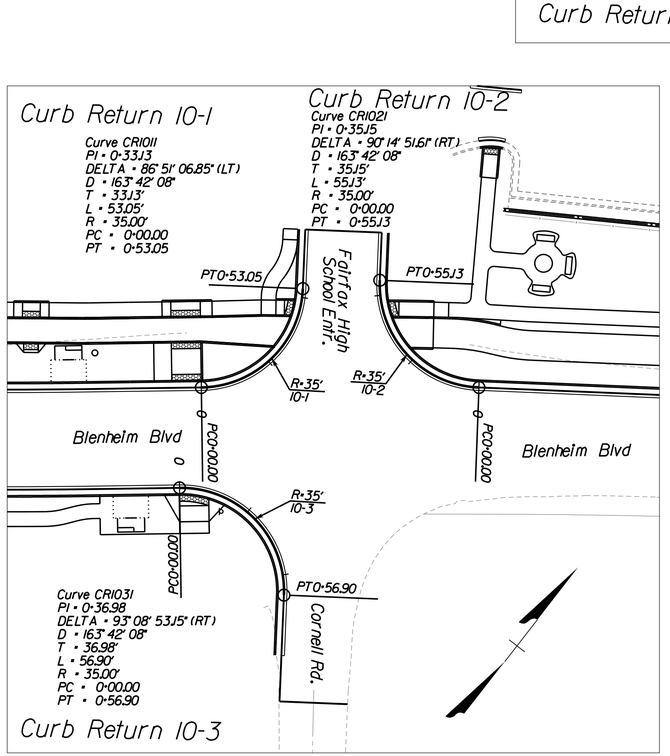
FINAL PLANS

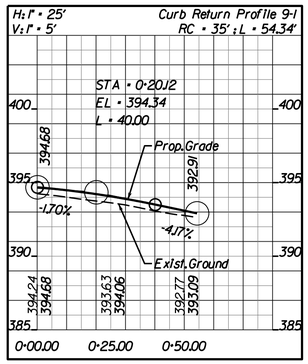
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

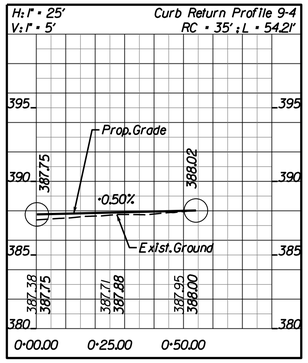
CURB RETURN PROFILES

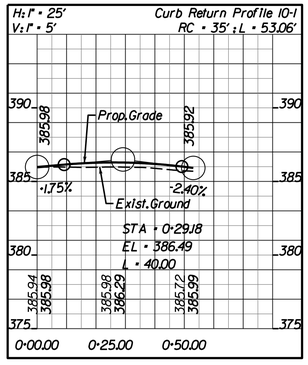


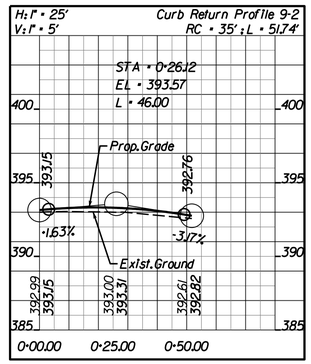


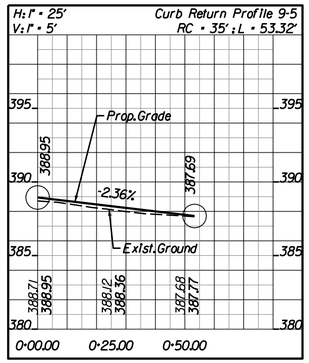


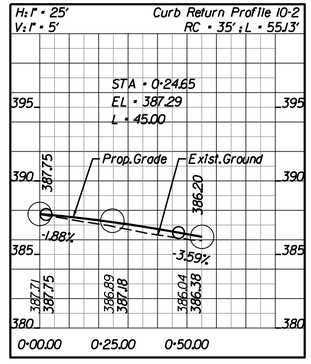


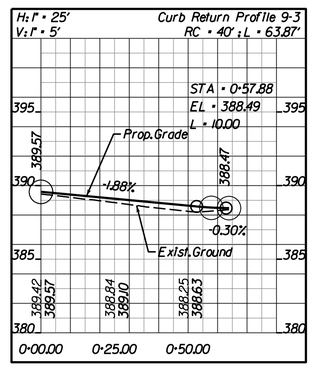


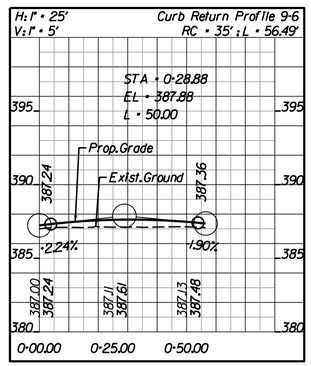


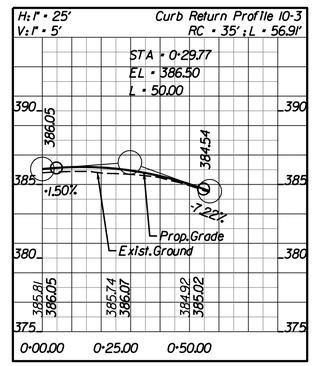












SCALE H: 25' V: 5'
0 25' 50'

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-151-R94	2B(5)

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:55:18 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	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

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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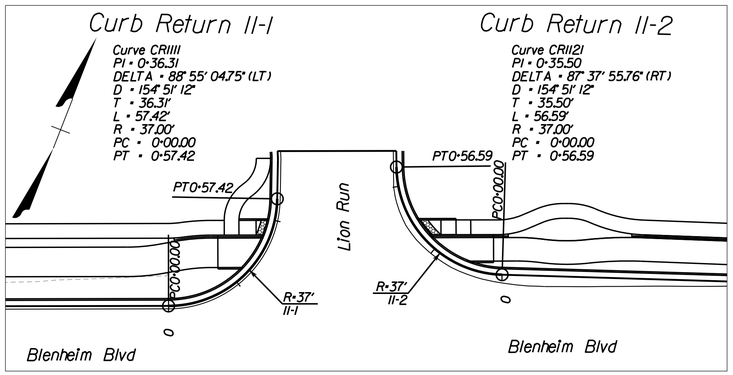
CURB RETURN PROFILES

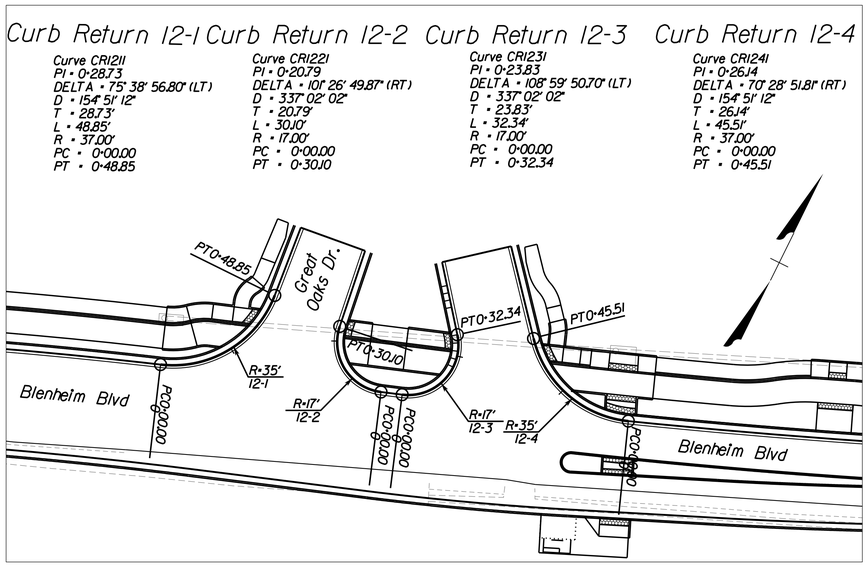
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

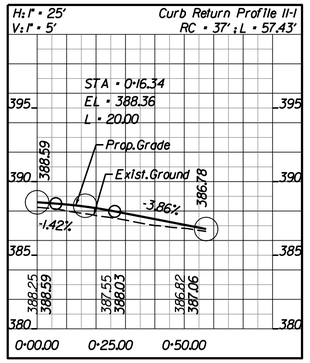
Mark Gunn
2025.12.11 21:55:37 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

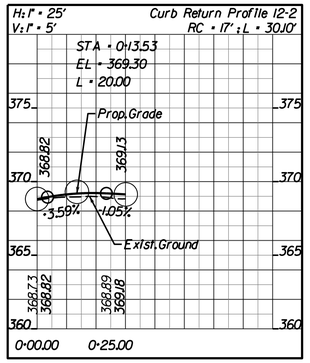
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2B(6)

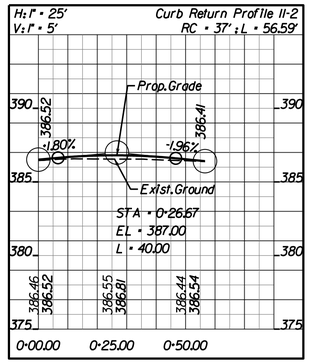
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

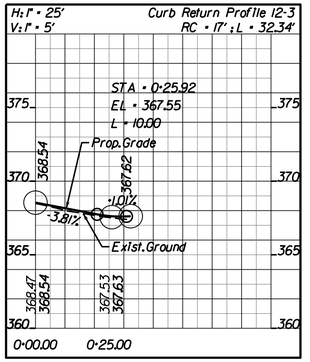


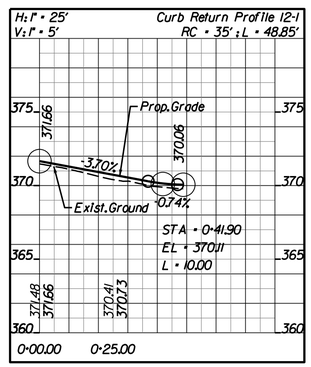


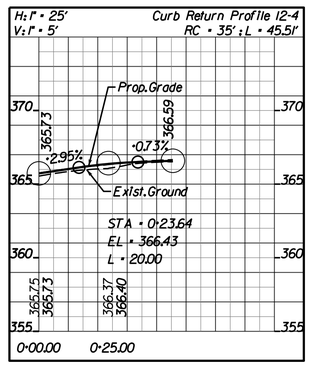












SCALE H: 25' V: 5'
0 25' 50'
0 1" 2"

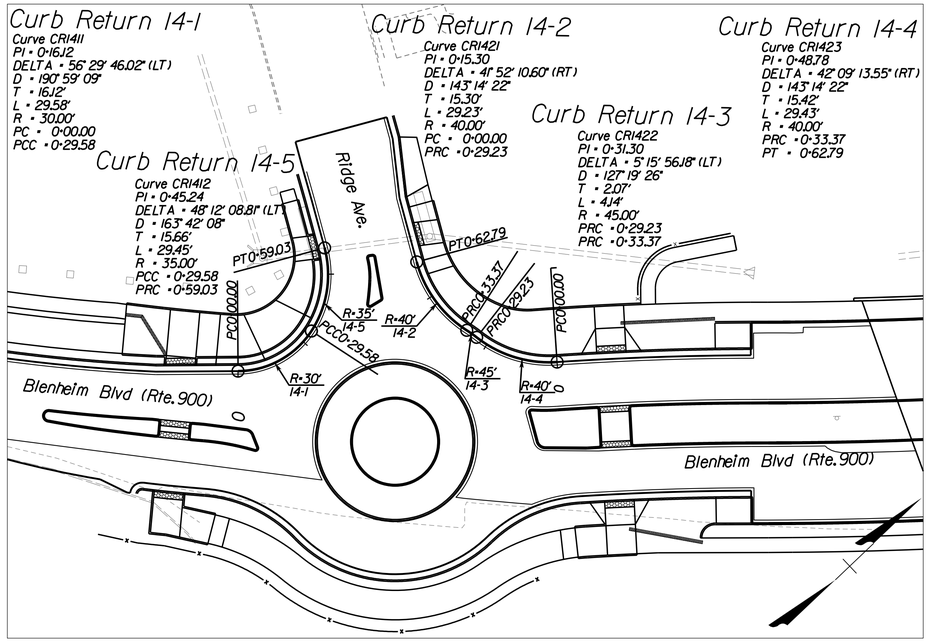
SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	2B(6)

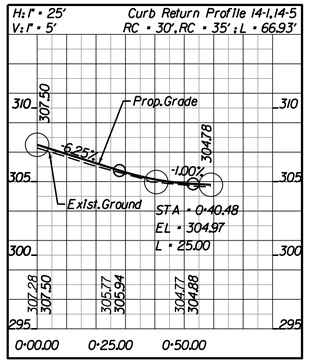
12/10/2025

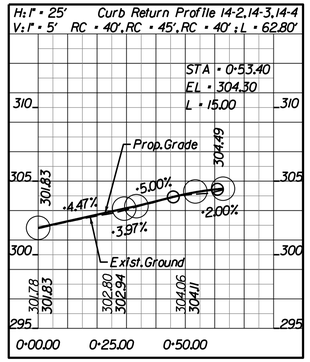
FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

CURB RETURN PROFILES







REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2B(7)

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark Gunn
2025.12.11 21:55:58 -05'00'
Rinker Design Assoc. L.L.C.
Manassas, Virginia
ROADWAY ENGINEER

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

SCALE H: 25' V: 5'
0 25' 50'
0' 1' 2'

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-151-R94	2B(7)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2F

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

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

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

The VDOT RLD (as defined in the latest IIM 242) will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents)for the land disturbance (construction) activity.

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

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

* or ** Delegated Authority Signature"

Signature: _____
Printed Name: _____
Date:_____

(1) See Section 1, Item 11 relating to delegation of authority, and form LD-445H (Delegation of Authority).

ACRONYMS

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

SECTION I GENERAL INFORMATION

1. Activity Description - This project is a the addition of a bike path along the North side of Blenheim Boulevard and improve the existing sidewalks in the City of Fairfax. The project spans from Layton Hall Drive to the North side of the bridge spanning Accotink Creek.

2. This land disturbance (construction) activity site is located in the City of Fairfax and approximately 10.84 acres will be disturbed by excavation, grading or other construction activities.

3. This proposed activity disturbs one acre or greater and requires coverage under the VPDES General Permit for Discharges Of Stormwater from Construction Activities (the VPDES Construction Permit) as issued by the DEQ. A copy of the VPDES Construction Permit (VAR10), the registration information (LD-445 & LD-445C forms) and the permit coverage letter received from DEQ shall be maintained with other SWPPP documents for this land disturbing activity.

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

** 5. Written Evidence of permit coverage shall be provided by the contractor for all support activities located outside of VDOT right of way or easement in the form of the Construction General Permit coverage letter: (List VPDES Permit * or Letter from VSMP Authority stating coverage not needed)

6. List the surface waters that have been identified as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report for sediment, total suspended solids, turbidity, Nitrogen or Phosphorus. These pollutants are considered benthic impairments:
- Potomac River - impaired for fish consumption because of PCBs in Fish Tissue
- Dead Run - impaired for aquatic life because of Benthic Macroinvertebrates Bioassessments

7. Identify the TMDL's where stormwater from construction activities discharges into a watershed with a TMDL waste load allocation established and approved by the State Water Control Board prior to July 1, 2016 for sediment, total suspended solids, turbidity, nitrogen or phosphorus:
N/A

8. This land disturbance activity discharges stormwater to the following surface waters that have been identified as exceptional in Section 9VAC25-260-30 A 3 c of the Virginia Administrative Code:
N/A

9. Locations of surface waters and locations where concentrated stormwater is discharged from this land disturbance (construction) activity are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity. (List name of surface waters and locations here if not shown in construction plan or other such documents).

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

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

Name	Position	Responsibility

* 12. The name of the VDOT individual(s) responsible for the oversight inspection in accordance with IIM-LD-256 on these land disturbance construction activities as identified on these SWPPP General Information Sheets. The names will be updated and maintained with the other SWPPP documents for this land disturbance activity.

VDOT Individuals	Position	Responsibility

* 13. The ESC and P2 inspections for this land disturbing (construction) activity shall follow (Select Schedule 1 or 2, if schedule •2 is used, void note •14) as defined in 2020 R&B Specifications except for Section 107.16(e) 4.an Inspection Requirements Rain gauge notes apply only to Inspection Schedule 1.

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

The rain gage shall be observed daily at 10:00 AM to determine the occurrence of a measurable storm event (i.e., 0.25 inches of rainfall or greater in a 24 hour period). A log book shall be maintained to record observation information which shall include (1) the date, (2) the time, (3) whether or not rainfall is occurring at the time of the observation, (4) the amount of accumulated rainfall in the gage, if any, and (5) whether or not an inspection is required based on the amount of accumulated rainfall in the gage.
If there is no rainfall occurring at the time of the observation, the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage.
If there is rainfall occurring at the time of the observation, the observation information is to be noted in the log book. The rain gage is not to be emptied but left to accumulate additional rainfall until the conclusion of the rainfall event. At the conclusion of the rainfall event, an observation of the rain gage shall be made and the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage.

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

VDOT LD-445: Permitted projects, CBPA projects and Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP and ESC projects > 10,000 s.f. but <1 acre.
VDOT LD-445A: Permitted projects only.
VDOT LD-445C: Projects that require a permit, ESC Plan, or SWPPP.
VDOT LD-445D: Permitted projects, CBPA projects and Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP.
VDOT LD-445F: Emergency work projects (when applicable).
Water Quality Requirement (when applicable)
VDOT LD-445H: Permitted projects only.
VDOT C-107 Part I and Part II. All projects that require a permit or SWPPP.
VDOT LD-445I: AS&S Approval Form (when applicable)

16. If there is an excessive loading of sediment from the project (i.e. more than to be expected from the project with an implemented ESC plan) that is discovered within a local watershed with a sediment TMDL that allocates a WLA to VDOT's MS4, (see note •7) the contractor shall investigate the area of concern at the site within 24 hours of discovery and ensure all erosion and sediment control best management practices are being implemented in accordance with the permits approved standards and specifications required by Part I.B of the current Construction General Permit. If corrective action is necessary, the contractor shall initiate corrective actions no later than 5 business days after the initial investigation.

17. If excessive loading of sediment from a land disturbing activity that is not the responsibility of the contractor is discovered discharging into a MS-4, the contractor shall notify the municipality with jurisdiction over erosion and sediment control activities.

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

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

Revised 5/1/19

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2F

12/9/2025

FINAL PLANS

PROJECT MANAGER *Wendy Block Sanford, (703) 385-7889*
SURVEYED BY, DATE *Nick Kougalis, L.S., (703) 368-7373 (2020)*
DESIGN BY *Mark A. Gunn, P.E., (703) 368-7373*
SUBSURFACE UTILITY BY, DATE *Accumark, (800) 542-2990 (2015)*

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2F(1)

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

SECTION II EROSION AND SEDIMENT CONTROL

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

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

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

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

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

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

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

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

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

10. All engineering calculations supporting the design of erosion and sediment control measures proposed for this land disturbance (construction) activity are contained in the project drainage file located in the VDOT Northern Virginia District Hydraulics Section and will be made available for review upon request during normal business hours.

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

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

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

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

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

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

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

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

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

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

Type(1)	Regulation Modified(2)	Approval Date(3)	Description of Variance

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

SECTION III POST CONSTRUCTION STORMWATER MANAGEMENT

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

1. This land disturbance activity utilizes the Part IIB technical criteria (i.e., Performance or Technology Based, MS 19, etc.) in Section 9VAC25-870-62 et seq. of the VSMP Regulations.

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

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

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

Type(1)	Regulation Modified(2)	Approval Date(3)	Description of Waiver

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

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

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

6. All engineering calculations supporting the design of the post-construction stormwater management measures for this land disturbance (construction) activity, including an explanation of the technical basis used to select the practices, are contained in the project drainage file located in the VDOT Northern Virginia District Hydraulics Section and will be made available for review upon request during normal working business hours.

ACRONYMS

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

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

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

Revised 5/1/19

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2F(1)

12/9/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2F(2)

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

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

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

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

SECTION IV SWPPP

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

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

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

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

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

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

SECTION V - POLLUTION PREVENTION PLAN

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

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

✱✱ 3. The contractor shall develop a Pollution Prevention Plan to address any of his on-site operations that have a potential to generate a pollutant that may reasonably be expected to affect the quality of stormwater discharges from this land disturbance (construction) activity. The Pollution Prevention Plan shall be developed in accordance with, but not limited to, Sections 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications and shall include a narrative with appropriate plan detail and shall be provided on standard 8.5 x 11 inch paper or larger and shall:
   a. Identify the potential pollutant-generating activities and the pollutant that is expected to be exposed to stormwater.
   b. Describe the location where the potential pollutant-generating activities will occur, or if identified on the record set of plans, reference the record set of plans.
   c. Identify all non-stormwater discharges, as described in note two of this section, that are or will be commingled with stormwater discharges from the construction activity, including any on-site support activities.
   d. Identify the person(s) or contractor(s) responsible for implementing and maintaining the pollution prevention practice or practices for each pollutant-generating activity.
   e. Describe the pollution prevention practices and procedures that will be implemented to:
      1) Prevent and respond to leaks, spills, and other releases, including procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases, and procedures for reporting leaks, spills, and other releases in accordance with Section 107.16 of the VDOT Road and Bridge Specifications and the requirements within the VPDES Construction Permit. Any discharges to MWAA controlled areas must be reported to MWAA.
      2) Prevent the discharge of spilled and leaked fuels and chemicals from vehicle fueling and maintenance activities.
      3) Prevent the discharge of soaps, solvents, detergents, and wash water from construction materials, including procedures for the clean-up of stucco, paint, form release oils, and curing compounds.
      4) Minimize the discharge of pollutants from vehicle and equipment washing, wheel wash water, and other types of washing.
      5) Direct concrete wash water into a leak-proof container or leak-proof settling basin. The container or basin shall be designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes. Liquid concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wash waters and shall not be discharged to surface waters.
      6) Minimize the discharge of pollutants from storage, handling, and disposal of construction products, materials, and wastes including building products (such as asphalt sealants, copper flashing, roofing materials, adhesives, and concrete admixtures), pesticides, herbicides, insecticides, fertilizers, landscape materials, construction and domestic wastes (such as packaging materials), scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.
      7) Prevent the discharge of fuels, oils, and other petroleum products, hazardous or toxic wastes, waste concrete and sanitary wastes.
      8) Address any other discharge from any potential pollutant-generating activity not listed herein.
      9) Minimize the exposure of waste materials to precipitation by closing or covering waste containers during precipitation events and at the end of the business day, or implementing other similarly effective practices. Minimization of exposure is not required in case where the exposure to precipitation will not result in a discharge of pollutants.
      10) Describe and implement procedures for providing pollution prevention awareness (including but not limited to prevention practices, disposal practices and appropriate disposal locations) for all applicable wastes (including any wash water), to appropriate personnel.

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

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

Revised 5/1/19

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2F(2)

12/9/2025

FINAL PLANS

PROJECT MANAGER *Wendy Block Sanford, (703) 385-7889*
SURVEYED BY, DATE *Nick Kougalis, L.S., (703) 368-7373 (2020)*
DESIGN BY *Mark A. Gunn, P.E., (703) 368-7373*
SUBSURFACE UTILITY BY, DATE *Accumark, (800) 542-2990 (2015)*

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2F(3)

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

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

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

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

SECTION VI - PERMANENT BMP INFORMATION △

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

INSTALLED BMP INFORMATION
(VDOT Owned/Operated)

Plan Sheet(s)	Date BMP Made Functional	Type of BMP Installed (See Table A and C)	Geographic Location (County or City)	Latitude/Longitude (1) LAT	LONG	VA 6th Order HUC (7)	Receiving Water (2)	Name of Impaired Water (9)	Acres Treated Per BMP (3) Impervious	Pervious	TOTAL	✳ BMP Maintenance ID Number (10)	BMP Maintenance Manual (11) SECTION	BMP Inspection Manual (11) SECTION
5		Manufactured Treatment Device (5-15)	Fairfax	38.9316 N	77.2123 W	PL30	Daniel's Run	Accotink Creek	1.08	0.97	2.05		7	7
8		Manufactured Treatment Device (8-10)	Fairfax	38.9538 N	77.1924 W	PL30	Daniel's Run	Accotink Creek	0.69	0.64	1.33		7	7
9		Manufactured Treatment Device (9-14)	Fairfax	38.9635 N	77.1859 W	PL30	Daniel's Run	Accotink Creek	0.71	0.50	1.21		7	7
4		Manufactured Treatment Device (4-2A)	Fairfax	38.8508 N	77.2950 W	PL30	Daniel's Run	Accotink Creek	0.07	0.04	0.11		7	7
6		Manufactured Treatment Device (6-3A)	Fairfax	38.8526 N	77.2894 W	PL30	Daniel's Run	Accotink Creek	0.06	0.02	0.08		7	7
10		Manufactured Treatment Device (10-4A)	Fairfax	38.8583 N	77.2822 W	PL30	Daniel's Run	Accotink Creek	0.07	0.03	0.10		7	7
10		Manufactured Treatment Device (10-3A)	Fairfax	38.8584 N	77.2856 W	PL30	Daniel's Run	Accotink Creek	0.09	0.04	0.13		7	7
9		Manufactured Treatment Device (9-10A)	Fairfax	38.8571 N	77.2879 W	PL30	Daniel's Run	Accotink Creek	0.02	0.09	0.11		7	7

ALTERNATIVE BMP INFORMATION

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

Perpetual Nutrient Credits Acquired for Project

Name of Nutrient Credit Generating Entity (6)	Nutrient Credits (lbs./TP./year) Acquired (6) (12)
	0.00

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

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

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

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

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

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

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

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

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

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

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

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

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

(10) BMP Maintenance ID Number is to be assigned by the District Maintenance Division at permit termination or project completion. This ID number shall be assigned prior to the permit close out process and entered by the area construction engineer under this column, per IIM-LD-95

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

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

Revised 12/9/24

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2F(3)

12/9/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

DRAINAGE DESCRIPTIONS

NIKHIL V. DESHPANDE
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COMMONWEALTH OF VIRGINIA
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Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2G

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

Sheet 3

3-1 — I-St'd.DI-3C Req'd. L=16' H=4.4' Inv.=368.10 Top=372.46 Type B Nose Req'd. Connect 2 UD-4 to Structure

3-1 to 3-2 — 6' - 15" Storm Sewer Pipe Req'd.(3' Cover) SIit-Tight Joint Type Req'd. Inv(In)368.10 Inv(Out)368.00

3-2 — 4.8 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=372.51 Inv.=367.02 1-St'd.IS-1 Req'd. Connect to Ex.18" Pipe

3-3 — 1-St'd.DI-2B Req'd. L=10' H=3.6' Inv.=373.05 Top=376.60 1 St'd.Monolithic Box Req'd. Less than Minimum Height See Sheet 2G(5) Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure

3-3-Ex.13 — 10' - 15" Storm Sewer Pipe Req'd.(2' Cover) SIit-Tight Joint Type Req'd. Inv(In)373.05 Inv(Out)372.95

Ex-15 — 2.7 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=376.71 Inv.=373.35 1-St'd.IS-1 Req'd. Connect to Ex.15" Pipe

Ex-15 to 3-3 — 4' - 15" Storm Sewer Pipe Req'd.(2' Cover) SIit-Tight Joint Type Req'd. Inv(In)373.35 Inv(Out)373.25

Ex-13 — Modify Existing MH Connect to Proposed 15" Pipe Prop.Inv(In) = 372.95

Sheet 4

4-1 — 1-St'd.DI-2B Req'd. L=12' H=3.8' Inv.=382.00 Top=385.82 Type B Nose Req'd. Remove Existing Structure Connect to Ex.15" Pipe Connect UD-4 to Structure St'd IS-1 Req'd

4-2 — 1-St'd.DI-3B Req'd. L=8' H=3.3' Inv.=382.35 Top=385.64 1 St'd.Monolithic Box Req'd. Less than Minimum Height See Sheet 2G(5) Type B Nose Req'd. Connect UD-4 to Structure

4-2 to 4-1 — 38' - 15" Storm Sewer Pipe Req'd.(2' Cover) SIit-Tight Joint Type Req'd. Inv(In)382.35 Inv(Out)382.10

4-2A — 1- Filterra Tree Box (12'x4') Inv.=382.10 Top= 385.64 1-3'x3' Tree Grate 16'-4" SDR 35 PVC Outfall Pipe to Str.4-2 See Detail, Sheet 2H(5)

4-3 — Structure Number not Used

4-4 — 1-St'd.DI-3B Req'd. L=4' H=3.7' Inv.=388.50 Top=392.16 Type B Nose Req'd. Connect UD-4 to Structure

4-4 to 4-5 — 147' - 15" Storm Sewer Pipe Req'd.(4' Cover) SIit-Tight Joint Type Req'd. Inv(In)388.50 Inv(Out)385.75

4-5 — 1-St'd.DI-3B Req'd. L=6' H=5.1' Inv.=385.65 Top=390.71 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd

4-5 to 4-6 — 57' - 15" Storm Sewer Pipe Req'd.(4' Cover) SIit-Tight Joint Type Req'd. Inv(In)385.65 Inv(Out)384.50

4-6 — 1-St'd.DI-3A Req'd. H=6.4' Inv.=383.40 Top=389.76 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd

4-6 to 5-1 — 185' - 6" Storm Sewer Pipe Req'd.(4' Cover) SIit-Tight Joint Type Req'd. Inv(In)383.40 Inv(Out)382.00

4-8 — 1-St'd.DI-2B Req'd. L=12' H=6.4' Inv.=384.30 Top=390.72 Type B Nose Req'd. Connect UD-4 to Structure

4-8 to 4-6 — 27' - 15" Storm Sewer Pipe Req'd.(4' Cover) SIit-Tight Joint Type Req'd. Inv(In)384.30 Inv(Out)383.90

4-9 — Modify Existing MH Adjust to Grade, Lower 1.2' 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=385.21 Inv.=381.60

Sheet 5

5-1 — 1-St'd.DI-2B Req'd. L=4' H=5.6' Inv.=381.90 Top=387.45 Type B Nose Req'd. Connect 2 UD-4 to Structure St'd.IS-1 Req'd

5-1 to 5-9 — 239' - 10" Storm Sewer Pipe Req'd.(5.5' Cover) SIit-Tight Joint Type Req'd. Inv(In)381.90 Inv(Out)378.00

5-2 — 1-St'd.DI-2BB Req'd. L=8' H=10.1' Inv.=374.96 Top=385.02 Type B Nose Req'd. Connect to Ex.24" Pipe Connect UD-4 to Structure St'd.IS-1 Req'd

5-3 — 1-St'd.DI-2B Req'd. L=4' H=9.7' Inv.=375.75 Top=385.46 Type B Nose Req'd. Connect 2 UD-4 to Structure St'd.IS-1 Req'd

5-3 to 5-9 — 25' - 24" Storm Sewer Pipe Req'd.(7' Cover) SIit-Tight Joint Type Req'd. Inv(In)375.75 Inv(Out)375.40

5-4 — 1-St'd.DI-2C Req'd. L=18' H=5.6' Inv.=379.00 Top=384.61 Type B Nose Req'd. Connect 2 UD-4 to Structure St'd.IS-1 Req'd

5-4 to 5-2 — 59' - 18" Storm Sewer Pipe Req'd.(4' Cover) SIit-Tight Joint Type Req'd. Inv(In)379.00 Inv(Out)378.00

5-5 — 1-St'd.DI-2B Req'd. L=6' H=4.4' Inv.=380.80 Top=385.15 Type B Nose Req'd. Connect to UD-4 to Structure St'd.IS-1 Req'd

5-5 to 5-11 — 22' - 18" Storm Sewer Pipe Req'd.(3' Cover) SIit-Tight Joint Type Req'd. Inv(In)380.80 Inv(Out)380.60

5-6 — 1-St'd.DI-2B Req'd. L=6' H=4.8' Inv.=380.00 Top=384.79 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd

5-6 to 5-4 — 47' - 15" Storm Sewer Pipe Req'd.(4' Cover) SIit-Tight Joint Type Req'd. Inv(In)380.00 Inv(Out)379.10

5-7 — 1-St'd.DI-2B Req'd. L=8' H=4.9' Inv.=382.30 Top=387.24 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd

5-7 to 5-6 — 160' - 15" Storm Sewer Pipe Req'd.(3' Cover) SIit-Tight Joint Type Req'd. Inv(In)383.30 Inv(Out)380.10

5-8 — 1-St'd.DI-2B Req'd. L=6' H=5.0' Inv.=382.80 Top=387.77 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd

5-8 to 5-7 — 34' - 15" Storm Sewer Pipe Req'd.(3' Cover) SIit-Tight Joint Type Req'd. Inv(In)382.80 Inv(Out)382.40

5-9 — 6.5 Lin.Ft.St'd.MH-1 or 2 Req'd 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=385.19 Inv.=378.00 Connect UD-4 to Structure St'd.IS-1 Req'd.

5-9 to 5-2 — 30' - 24" Storm Sewer Pipe Req'd.(8' Cover) SIit-Tight Joint Type Req'd. Inv(In)375.40 Inv(Out)375.00

5-10 — Structure Number Not Used

5-11 — 4.5 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=385.63 Inv.=380.50 1-St'd.IS-1 Req'd.

5-11 to 5-16 — 40' - 18" Storm Sewer Pipe Req'd.(4' Cover) SIit-Tight Joint Type Req'd. Inv(In)380.50 Inv(Out)380.30

5-12 — 1-St'd.DI-2B Req'd. L=6' H=7.9' Inv.=384.00 Top=391.91 Type B Nose Req'd. Connect UD-4 to Structure 0.5" Steel Plate Req'd.at Invert St'd.IS-1 Req'd

5-12 to 5-8 — 118' - 15" Storm Sewer Pipe Req'd.(6' Cover) SIit-Tight Joint Type Req'd. Inv(In)384.00 Inv(Out)382.90

5-13 — 1-St'd.DI-2B Req'd. L=6' H=6.1' Inv.=380.75 Top=386.86 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd

5-13 to 5-3 — 173' - 15" Storm Sewer Pipe Req'd.(5' Cover) SIit-Tight Joint Type Req'd. Inv(In)380.75 Inv(Out)379.25

5-14 — 1-St'd.DI-2B Req'd. L=8' H=4.5' Inv.=383.80 Top=388.30 Type B Nose Req'd. Connect UD-4 to Structure

Note: All Storm Sewer Pipes to be PP - Polypropylene Pipe

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2G

1/22/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

DRAINAGE DESCRIPTIONS

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Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2G(1)

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

	Connect UD-4 to Structure
5-14 to 5-13	140' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)383.80 Inv(Out)382.90
5-15	1 Cascade 5 Water Quality Structure Req'd. Prop.Top=383.94 Inv.Pipe(In)=374.88 Inv.Pipe(Out)=374.88 Connect to Ex.24" Pipe See Detail Sht.2H(1)
5-16	1-St'd.DI-3B Req'd. L=12' H=5.4' Inv.=380.20 Top=385.63 Type B Nose Req'd. St'd.IS-1 Req'd
5-16 to 5-3	34' - 24" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)380.20 Inv(Out)379.70
5-17	1-St'd.DI-2B Req'd. L=14' H=4.0' Inv.=381.20 Top=385.16 Type B Nose Req'd.
5-17 to 5-5	55' - 18" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)381.20 Inv(Out)380.90
Sheet 6	
6-1	1-St'd.DI-3B Req'd. L=6' H=5.1' Inv.=390.50 Top=395.59 Type B Nose Req'd. Connect UD-4 to Structure
6-1 to 6-2	36' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)390.50 Inv(Out)390.10
6-2	1-St'd.DI-2B Req'd. L=10' H=6.0' Inv.=390.00 Top=396.02 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd
6-2 to 5-12	111' - 15" Storm Sewer Pipe Req'd.(5' Cover) Slit-Tight Joint Type Req'd. Inv(In)390.00 Inv(Out)388.42
6-3	1-St'd.DI-3B Req'd. L=6' H=4.3' Inv.=403.50 Top=407.81 Type B Nose Req'd. Connect UD-4 and filterra Drain to Structure
6-3 to 6-4	31' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)403.50 Inv(Out)403.00
6-3A	1- Filterra Tree Box (4'x10') Inv.=404.27 Top= 407.81 1-3'x3' Tree Grate 14'-4" SDR 35 PVC Outfall Pipe to Str.6-3 See Detail, Sheet 2H(6)
6-4	1-St'd.DI-2B Req'd. L=6' H=5.3' Inv.=402.10 Top=407.39 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd
	St'd.IS-1 Req'd
6-4 to 6-9	18' - 15" Storm Sewer Pipe Req'd.(5' Cover) Slit-Tight Joint Type Req'd. Inv(In)402.10 Inv(Out)401.90
6-5	1-St'd.DI-7 Type III Grate Req'd. H=3.7' Inv.=402.00 Top=405.68
6-5 to 6-9	8' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)402.00 Inv(Out)401.90
6-6	1-St'd.DI-3A Req'd. H=5.8' Inv.=398.30 Top=404.85 Type B Nose Req'd. Connect to Ex.15" Pipe Connect UD-4 to Structure
6-7	Structure Number Not Used
6-8	Modify Existing MH Adjust to Grade, Raise 0.3 ft 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=404.77 Connect to Prop 15" Pipe
6-9	Modify Existing DI Adjust to Grade, Raise 3.1 ft 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=407.55 Connect to 2 proposed 15" Pipes
6-10	Structure Number Not Used
6-11	Structure Number Not Used
6-12	1-St'd.DI-2B Req'd. L=6' H=5.2' Inv.=401.00 Top=406.22 Type B Nose Req'd. Connect UD-4 to Structure
6-12 to 6-8	38' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)401.00 Inv(Out)400.00
Sheet 7	
7-1	Structure Number Not Used
7-2	Structure Number Not Used
7-3	1-St'd.DI-3B Req'd. L=8' H=4.0' Inv.=400.00 Top=404.04 Type B Nose Req'd. Connect UD-4 to Structure
7-3 to 7-10	26' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)400.00 Inv(Out)399.80
7-4	1-St'd.DI-2B Req'd. L=6' H=7.7' Inv.=391.00 Top=398.71 Type B Nose Req'd. 0.5" Steel Plate Req'd.at Invert 1-St'd.IS-1 Req'd. Connect UD-4 to Structure Contractor to Provide Shop Drawing
7-4 to 7-6	200' - 15" Storm Sewer Pipe Req'd.(6' Cover) Slit-Tight Joint Type Req'd. Inv(In)391.00 Inv(Out)387.00
7-5	1-St'd.DI-3B Req'd. L=8' H=4.1' Inv.=386.75 Top=390.81 Type B Nose Req'd. Connect UD-4 to Structure
7-5 to 7-6	26' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)386.75 Inv(Out)386.50
7-6	1-St'd.DI-2B Req'd. L=6' H=4.7' Inv.=386.40 Top=391.10 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd.
7-6 to 8-1	102' - 24" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)386.40 Inv(Out)385.50
7-7	Structure Number Not Used
7-8	1-Modified.DI-7 Type III Grate Req'd. H=3.2' Inv.=388.30 Top=391.50
7-8 to 7-6	43' - 24" Storm Sewer Pipe Req'd.(2' Cover) Slit-Tight Joint Type Req'd. Inv(In)388.30 Inv(Out)387.45 Less than Minimum Cover
7-9	Structure Number Not Used
7-10	1-St'd.DI-2B Req'd. L=8' H=8.3' Inv.=396.00 Top=404.30 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
7-10 to 7-4	108' - 15" Storm Sewer Pipe Req'd.(7' Cover) Slit-Tight Joint Type Req'd. Inv(In)396.00 Inv(Out)393.25
Sheet 8	
8-1	1-St'd.DI-2C Req'd. L=14' H=4.7' Inv.=385.40 Top=390.14 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd
8-1 to 8-4	100' - 24" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)385.40 Inv(Out)384.25
8-2	1-St'd.DI-3C Req'd. L=10' H=5.9' Inv.=384.00 Top=389.86 Type B Nose Req'd. Connect 2 UD-4 to Structure Connect CD-2 to Structure
8-2 to 8-3	92' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)384.00 Inv(Out)383.00
8-3	1-St'd.DI-2BB Req'd. L=6' H=9.3' Inv.=381.40 Top=390.71 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect to Ex.24" Pipe Connect UD-4 to Structure
8-4	1-St'd.DI-2B Req'd. L=6' H=8.8' Inv.=382.24 Top=391.00 Type B Nose Req'd. Connect to Ex.24" Pipe Connect UD-4 to Structure St'd.IS-1 Req'd.
8-5	1-St'd.DI-2B Req'd. L=10' H=4.7' Inv.=389.40 Top=394.07 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd.
8-5 to 8-12	84' - 18" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)389.40 Inv(Out)388.00
8-6	1-St'd.DI-3B Req'd. L=6' H=4.4' Inv.=390.00 Top=394.35 Type B Nose Req'd. Connect UD-4 to Structure
8-6 to 8-5	39' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)390.00 Inv(Out)389.50
8-7	1-St'd.DI-3B Req'd. L=6' H=4.1' Inv.=391.20 Top=395.26 Type B Nose Req'd. St'd.IS-1 Req'd
8-7 to 8-5	81' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)391.20 Inv(Out)390.75
8-8	1-St'd.DI-3B Req'd. L=8' H=4.0' Inv.=391.50 Top=395.53 Type B Nose Req'd.
8-8 to 8-7	34' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)391.50 Inv(Out)391.25
8-10	1- Cascade 5 Water Quality Structure Req'd. Prop.Top=390.80 Inv.Pipe(In)=381.40 Inv.Pipe(Out)=381.34 Connect to Ex.24" Pipe See Detail Sht.2H(2)

Note: All Storm Sewer Pipes to be PP - Polypropylene Pipe

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2G(1)

1/22/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

DRAINAGE DESCRIPTIONS

NIKHIL V. DESHPANDE Lic. No. 045430
COMMONWEALTH OF VIRGINIA — PROFESSIONAL ENGINEER

Nikhil V Deshpande
2026.01.22 13:04:52-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2G(2)

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

8-11 Structure Number Not Used

8-12 I-Std.DI-2B Req'd. L=10' H=4.3' Inv.=387.90 Top=392.24 Type B Nose Req'd. Std.IS-1 Req'd Connect to UD-4

8-12 to 8-4 107' - 18" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)387.90 Inv(Out)385.00

Sheet 9

9-1 I-Std.DI-2B Req'd. L=6' H=8.7' Inv.=387.10 Top=395.80 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd.

9-1 to 9-13 125' - 15" Storm Sewer Pipe Req'd.(7' Cover) Slit-Tight Joint Type Req'd. Inv(In)387.10 Inv(Out)386.70

9-2 I-Std.DI-3B Req'd. L=6' H=4.7' Inv.=390.50 Top=395.19 Type B Nose Req'd. Connect UD-4 to Structure

9-2 to 9-1 36' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)390.50 Inv(Out)390.25

9-3 I-Std.DI-2B Req'd. L=6' H=5.6' Inv.=384.60 Top=390.15 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd

9-3 to 9-4 26' - 18" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)384.60 Inv(Out)384.25

9-4 I-Std.DI-3B Req'd. L=6' H=5.7' Inv.=384.00 Top=389.68 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd

9-4 to 9-6 259' - 18" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)384.00 Inv(Out)381.50

9-5 I-Std.DI-2B Req'd. L=6' H=4.5' Inv.=381.10 Top=385.61 Type B Nose Req'd. Connect UD-4 to Structure

9-5 to 9-15 84' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)381.10 Inv(Out)380.55

9-6 I-Std.DI-3B Req'd. L=6' H=4.2' Inv.=380.90 Top=385.14 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd

9-6 to 9-8 81' - 18" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)380.90 Inv(Out)379.60

9-7 41 Lin.Ft.Std.MH-1 or 2 Req'd. 1 Std.MH-1 Frame and Cover Req'd. Prop.Top=384.58 Inv.=380.04 I-Std.IS-1 Req'd. Connect to Ex.15" Pipe

9-8 I-Std.DI-3C Req'd. L=10' H=5.0' Inv.=379.50 Top=384.48 Type B Nose Req'd. Connect 2 UD-4 to Structure Std.IS-1 Req'd.

9-8 to 9-16 19' - 18" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)379.50 Inv(Out)379.10

9-9 I-Std.DI-5 Type III Grate Req'd. Std.PG-2A Type A Cover H=3.0' Inv.=380.66 Top=383.65

9-9 to 9-15 48' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)380.66 Inv(Out)380.36

9-10A I- Filterra Tree Box (12'x4.5') Inv.=387.50 Top= 391.52 1-3'x3' Tree Grate 6'-5" SDR 35 PVC Outfall Pipe to Str.9-10 See Detail, Sheet 2H(7).

9-10 I-Std.DI-3B Req'd. L=6' H=4.8' Inv.=387.00 Top=391.80 Type B Nose Req'd. Connect UD-4 to Structure

9-10 to 9-4 124' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)387.00 Inv(Out)385.50

9-11 I-Std.DI-3B Req'd. L=10' H=2.7' Inv.=386.15 Top=388.80 Type B Nose Req'd.

9-11 to 9-3 61' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)386.15 Inv(Out)385.65

9-12 I-Std.DI-2B Req'd. L=6' H=6.9' Inv.=385.40 Top=392.27 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd.

9-12 to 9-3 124' - 15" Storm Sewer Pipe Req'd.(5' Cover) Slit-Tight Joint Type Req'd. Inv(In)385.40 Inv(Out)384.70

9-13 I-Std.DI-2B Req'd. L=6' H=7.0' Inv.=386.60 Top=393.62 Type B Nose Req'd. 1-Std.IS-1 Req'd. Connect UD-4 to Structure

9-13 to 9-12 84' - 15" Storm Sewer Pipe Req'd.(5' Cover) Slit-Tight Joint Type Req'd. Inv(In)386.60 Inv(Out)385.50

Note: All Storm Sewer Pipes to be PP - Polypropylene Pipe

9-14 1 Cascade 4 Water Quality Structure Req'd. Prop.Top=384.08 Inv.Pipe(In)=378.12 Inv.Pipe(Out)=373.77 Connect to Ex.18" Pipe (2) See Detail Sht.2H(3)

9-15 I-Std.DI-2C Req'd. L=10' H=4.6' Inv.=380.26 Top=384.89 Type B Nose Req'd. Connect 2 UD-4 to Structure Std.IS-1 Req'd

9-15 to 9-7 23' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)380.26 Inv(Out)380.14

9-16 5.3 Lin.Ft.Std.MH-1 or 2 Req'd. 1 Std.MH-1 Frame and Cover Req'd. Prop.Top=384.48 Inv.=378.53 I-Std.IS-1 Req'd. Connect to Ex.18" Pipe

Sheet 10

10-1 I-Std.DI-2B Req'd. L=4' H=4.2' Inv.=381.00 Top=385.21 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd

10-1 to 9-7 48' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)381.00 Inv(Out)380.50

10-2 I-Std.DI-3B Req'd. L=4' H=4.4' Inv.=381.00 Top=385.39 Type B Nose Req'd. Connect UD-4 to Structure

10-2 to 9-16 67' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)381.00 Inv(Out)379.75

10-3A I- Filterra Tree Box (8'x12') Inv.=383.75 Top= 387.50 1-3'x3' Tree Grate 6'-6" SDR 35 PVC Outfall Pipe to Str.10-3 See Detail, Sheet 2H(7).

10-3 I-Std.DI-2B Req'd. L=6' H=4.7' Inv.=383.50 Top=388.15 Type B Nose Req'd. Connect UD-4 to Structure

10-3 to 10-1 172' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)383.50 Inv(Out)381.74

10-4 I-Std.DI-2B Req'd. L=4' H=4.1' Inv.=386.00 Top=390.06 Type B Nose Req'd. Connect UD-4 and Filterra Drain to Structure

10-4 to 10-5 56' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)386.00 Inv(Out)385.50

10-4A I- Filterra Tree Box (8'x8') Inv.=386.52 Top= 390.06 1-3'x3' Tree Grate 7'-4" SDR 35 PVC Outfall Pipe to Str.10-4 See Detail, Sheet 2H(7).

10-5 I-Std.DI-2C Req'd. L=8' H=4.6' Inv.=385.40 Top=389.95 Type B Nose Req'd. Connect 2 UD-4 to Structure Std.IS-1 Req'd

10-5 to 10-6 49' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)385.40 Inv(Out)385.00

10-6 I-Std.DI-2B Req'd. L=4' H=5.1' Inv.=384.90 Top=390.00 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd.

10-6 to 11-1 259' - 15" Conc.Pipe Class III Req'd.(5' Cover) (2770' Radius) with Open Joints - Using 8' Pipe Joint Lengths) Joints are to be opened a maximum of 25% of spigot or tongue length Inv(In)384.90 Inv(Out)382.75 Slit-Tight joint type Req'd.

Sheet 11

11-1 I-Std.DI-2B Req'd. L=4' H=7.0' Inv.=382.00 Top=388.95 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd.

11-1 to 11-3 282' - 15" Storm Sewer Pipe Req'd.(6' Cover) Slit-Tight Joint Type Req'd. Inv(In)382.00 Inv(Out)378.24

11-2 Structure Number Not Used

11-3 I-Std.DI-2B Req'd. L=8' H=5.6' Inv.=376.25 Top=381.83 Type B Nose Req'd. 1-Std.IS-1 Req'd. Connect UD-4 to Structure

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2G(2)

1/22/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

DRAINAGE DESCRIPTIONS

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2026.01.22 13:05:12-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2G(3)

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

11-3 to 11-4	143' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)376.25 Inv(Out)372.25
11-4	1-St'd.DI-2B Req'd. L=8' H=4.8' Inv.=371.75 Top=376.55 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
11-4 to 12-1	117' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)371.75 Inv(Out)368.00
Sheet 12	
12-1	1-St'd.DI-2B Req'd. L=8' H=5.5' Inv.=366.80 Top=372.27 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
12-1 to 12-2	86' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)366.80 Inv(Out)363.50
12-2	1-St'd.DI-2B Req'd. L=4' H=7.2' Inv.=361.90 Top=369.05 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect 2 UD-4 to Structure
12-2 to 12-3	115' - 18" Storm Sewer Pipe Req'd.(5' Cover) Slit-Tight Joint Type Req'd. Inv(In)361.90 Inv(Out)360.00
12-3	1-St'd.DI-2B Req'd. L=10' H=5.0' Inv.=359.90 Top=364.89 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
12-3 to 12-4	112' - 18" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)359.90 Inv(Out)357.00
12-4	1-St'd.DI-2B Req'd. L=4' H=6.2' Inv.=355.00 Top=361.20 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
12-4 to 12-7	93' - 18" Storm Sewer Pipe Req'd.(5' Cover) Slit-Tight Joint Type Req'd. Inv(In)355.00 Inv(Out)353.00
12-5	4.5 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=360.70 Inv.=355.50 1-St'd.IS-1 Req'd. Connect to Prop 15" Pipe
12-5 to 12-4	21' - 15" Storm Sewer Pipe Req'd.(5' Cover) Slit-Tight Joint Type Req'd. Inv(In)355.50 Inv(Out)355.20
12-7	Modify Ex MH Add St'd DI- 2B, L=8' Prop Top=356.63 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect to Ex 15" Pipe Connect UD-4 to Structure
12-8	Structure Number Not Used
12-9	Structure Number Not Used
12-10	1-St'd.DI-2B Req'd. L=12' H=8.0' Inv.=338.00 Top=345.95 Type B Nose Req'd. Connect UD-4 to Structure
12-10 to 13-2	95' - 15" Storm Sewer Pipe Req'd.(7' Cover) Slit-Tight Joint Type Req'd. Inv(In)338.00 Inv(Out)334.00
Sheet 13	
13-1	1-St'd.DI-2B Req'd. L=10' H=7.0' Inv.=319.75 Top=326.70 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
13-1 to 13-4	149' - 15" Storm Sewer Pipe Req'd.(5' Cover) Slit-Tight Joint Type Req'd. Inv(In)319.75 Inv(Out)314.00
13-2	1-St'd.DI-2B Req'd. L=14' H=9.0' Inv.=331.00 Top=340.02 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
13-2 to 13-3	75' - 15" Storm Sewer Pipe Req'd.(6' Cover) Slit-Tight Joint Type Req'd. Inv(In)331.00 Inv(Out)329.00
13-3	1-St'd.DI-2BB Req'd. L=10' H=9.2' Inv.=326.00 Top=335.22 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
13-3 to 13-1	152' - 15" Storm Sewer Pipe Req'd.(7' Cover) Slit-Tight Joint Type Req'd. Inv(In)326.00 Inv(Out)322.00
13-4	1-St'd.DI-2B Req'd. L=8' H=8.1' Inv.=309.50 Top=317.56 Type B Nose Req'd. 0.5" Steel Plate Req'd.at Invert 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
13-4 to 14-1	109' - 15" Storm Sewer Pipe Req'd.(6' Cover) Slit-Tight Joint Type Req'd. Inv(In)309.50 Inv(Out)304.25
Sheet 14	
14-1	1-St'd.DI-2B Req'd. L=6' H=6.8' Inv.=303.20 Top=310.04 Type B Nose Req'd. 0.5" Steel Plate Req'd.at Invert 1-St'd.IS-1 Req'd. Connect UD-4 to Structure Contractor to Provide Shop Drawing
14-1 to 14-14	107' - 18" Storm Sewer Pipe Req'd.(5' Cover) Slit-Tight Joint Type Req'd. Inv(In)303.20 Inv(Out)300.05
14-2	1-St'd.DI-2B Req'd. L=8' H=1.3' Inv.=305.50 Top=306.77 Type B Nose Req'd. Connect to UD-4 Structure
14-2 to 14-15	18' - 15" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)305.50 Inv(Out)305.10
14-3	Structure Number Not Used
14-4	1-St'd.DI-2B Req'd. L=6' H=5.9' Inv.=296.00 Top=301.91 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd
14-4 to 14-5	77' - 24" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)296.00 Inv(Out)295.00
14-5	1-St'd.DI-3B Req'd. L=8' H=4.6' Inv.=294.75 Top=299.30 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd
14-5 to 14-8	6' - 30" Storm Sewer Pipe Req'd.(2' Cover) Slit-Tight Joint Type Req'd. Inv(In)294.75 Inv(Out)294.70
14-6	1-St'd.DI-3B Req'd. L=6' H=4.4' Inv.=295.50 Top=299.86 Type B Nose Req'd. Connect Outlet Pipe to Structure
14-6 to 14-5	38' - 15" Storm Sewer Pipe Req'd.(3' Cover) Slit-Tight Joint Type Req'd. Inv(In)295.50 Inv(Out)295.00
14-7	1-St'd.DI-3B Req'd. L=6' H=5.0' Inv.=292.00 Top=297.01 Type B Nose Req'd. Connect to Ex.15" Pipe
14-8	1-St'd.ES-1 (30") Req'd. Inv.=294.70
14-9	6.0 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.MH-1 Frame and Cover Req'd.(ADA Accessible) Prop.Top=304.91 Inv.=298.20 1-St'd.IS-1 Req'd. Connect to Ex 18" Pipe
14-10	1-St'd.DI-2B Req'd. L=10' H=6.6' Inv.=298.80 Top=305.40 Type B Nose Req'd.
14-10 to 14-9	16' - 15" Storm Sewer Pipe Req'd.(6' Cover) Slit-Tight Joint Type Req'd. Inv(In)298.80 Inv(Out)298.40
14-11	1-St'd.DI-2B Req'd. L=6' H=6.6' Inv.=297.40 Top=303.98 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect to UD-4 to Structure
14-11 to 14-14	17' - 24" Storm Sewer Pipe Req'd.(5' Cover) Slit-Tight Joint Type Req'd. Inv(In)297.40 Inv(Out)297.15
14-12	6.3 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.MH-1 Frame and Cover Req'd.(ADA Accessible) Prop.Top=304.73 Inv.=297.80 1-St'd.IS-1 Req'd. Connect to Ex 18" Pipe
14-12 to 14-11	18' - 24" Storm Sewer Pipe Req'd.(6' Cover) Slit-Tight Joint Type Req'd. Inv(In)297.80 Inv(Out)297.50
14-14	5.8 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=303.46 Inv.=297.00 1-St'd.IS-1 Req'd.
14-14 to 14-4	31' - 24" Storm Sewer Pipe Req'd.(4' Cover) Slit-Tight Joint Type Req'd. Inv(In)297.00 Inv(Out)296.50
14-15	1-St'd.ES-1 or 2 (15") Req'd. Inv.=305.10 1 CY EC-1 Class I Type A Installation Req'd.

Note: All Storm Sewer Pipes to be PP - Polypropylene Pipe

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2G(3)

1/22/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

EXISTING DRAINAGE DESCRIPTIONS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2G(4)

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

(1) In.Pl.Storm MH
Top=372.84
Inv.In=366.16 (From 2)
Inv.In=365.36 (From 8)
Inv.In=366.86 (From 11)
Inv.Out=363.75

(2) In.Pl.Storm MH
Top=372.28
Inv.In=369.05 (From 13)
Inv.In=366.80 (From 16)
Inv.In=366.77 (From 3)
Inv.Out=366.67

(3) In.Pl.Storm MH
Top=372.07
Inv.In=367.11 (From 4)
Inv.In=369.19 (From 15")
Inv.Out=367.00

(4) In.Pl.Storm MH
Top=372.13
Inv.In=367.16 (From 5)
Inv.In=368.22 (From 15")
Inv.Out=367.12

(5) In.Pl.Storm MH
Top=372.63
Inv.In=368.01 (From 6)
Inv.In=368.49 (From 17)
Inv.Out=367.82

(6) In.Pl.Storm Inlet
Top=373.25
Inv.In=369.75 (From 7)
Inv.In=369.23 (From 36")
Inv.Out=368.65

(7) In.Pl.Storm Inlet
Top=385.35
Inv.In=377.33
Inv.Out=376.91

(8) In.Pl.Storm Grate
Top=372.28
Inv.In=366.18 (From 9)
Inv.In=366.15 (From 12)
Inv.Out=366.08

(9) In.Pl.Storm Inlet
Top=373.31
Inv.In=366.91
Inv.Out=366.80

(10) In.Pl.Storm MH
Top=373.82
Inv.In=367.95
Inv.Out=367.81

(11) In.Pl.Storm Inlet
Top=372.27
Inv.Out=367.00

(12) In.Pl.Storm Inlet
Top=374.39
Inv.Out=369.04

(13) In.Pl.Storm MH
Top=376.47
Inv.In=373.16 (From 14)
Inv.In=373.52 (From 15)
Inv.Out=372.88

(14) In.Pl.Storm MH
Top=380.89
Inv.In=377.65
Inv.Out=376.07

(15) In.Pl.Storm Inlet
Top=376.54
Inv.In=373.65
Inv.Out=373.59

(16) In.Pl.Storm Inlet
Top=372.27
Inv.Out=367.02

(17) In.Pl.Storm Inlet
Top=372.36
Inv.Out=368.89

(18) In.Pl.Storm Grate
Top=386.47
Inv.In=381.81 (From 20)
Inv.In=383.70 (From 19)
Inv.Out=381.60

(19) In.Pl.Storm Inlet
Top=390.48
Inv.In=385.93
Inv.Out=385.88

(20) In.Pl.Storm Inlet
Top=385.95'
Inv.Out=383.49'

(21) In.Pl.Storm Inlet
Top=384.57
Inv.In=380.12 (From 23)
Inv.In=375.25 (From 22)
Inv.In=381.28 (From 26)
Inv.In=381.06 (From 27)
Inv.Out=374.99

(22) In.Pl.Storm Inlet
Top=384.46
Inv.In=380.50 (From 23)
Inv.In=378.71 (From 25)
Inv.Out=376.19

(23) In.Pl.Storm Grate
Top=383.79
Inv.In=381.17 (From 24)
Inv.In=381.16 (From 21)
Inv.Out=380.95

(24) In.Pl.Storm Inlet
Top=385.23
Inv.Out=381.91

(25) In.Pl.Storm Inlet
Top=387.68
Inv.Out=384.17

(26) In.Pl.Storm Inlet
Top=385.27
Inv.Out=381.72

(27) In.Pl.Storm Inlet
Top=384.97
Inv.Out=381.41

(28) In.Pl.Storm MH
Top=404.77
Inv.In=398.04 (From 29)
Inv.In=397.95 (From 32)
Inv.Out=397.77

(29) In.Pl.Storm Grate
Top=404.96
Inv.In=401.91
Inv.Out=401.76

(30) In.Pl.Storm Grate
Top=407.32
Inv.In=404.22
Inv.Out=402.82

(31) In.Pl.Storm Grate
Top=408.57
Inv.Out=405.11

(32) In.Pl.Storm Grate
Top=403.48
Inv.Out=398.43

(34) In.Pl.Storm Pipe
Plugged w/ Conc.

(35) In.Pl.Storm Inlet
Top=389.87
Inv.In=381.05 (From 36)
Inv.In=381.46 (From SW)
Inv.Out=380.93

(36) In.Pl.Storm Grate
Top=389.96
Inv.In=384.20 (From 42)
Inv.In=383.41 (From 37)
Inv.Out=382.65

(37) In.Pl.Storm Grate
Top=389.40
Inv.In=384.12
Inv.Out=384.00

(38) In.Pl.Storm Grate
Top=388.88
Inv.In=385.46
Inv.Out=384.63

(39) In.Pl.Storm Grate
Top=389.53
Inv.In=387.71
Inv.Out=386.68

(40) In.Pl.Storm Grate
Top=389.92
Inv.=388.26

(41) In.Pl.Storm End Wall
Inv.=392.12

(42) In.Pl.Storm Grate
Top=391.05
Inv.In=388.03
Inv.Out=386.35

(43) In.Pl.Storm Inlet
Top=392.62
Inv.Out=388.77

(44) In.Pl.Storm Grate
Top=389.31
Inv.Out=384.23

(45) In.Pl.Storm Inlet
Top=383.85
Inv.In=378.12
Inv.Out=373.77

(46) In.Pl.Storm Pipe
Inv.=380.95

(47) In.Pl.Storm MH
Top=356.10
Inv.In=351.48 (From 48)
Inv.Out=350.83 (To 56)

(48) In.Pl.Storm Inlet
Top=357.25
Inv.In=352.72
Inv.Out=352.67

(49) In.Pl.Storm MH
Top=360.61
Inv.In=358.28 (From 52)
Inv.In=355.44 (From 50)
Inv.In=358.31 (From 15")
Inv.Out=355.28

(50) In.Pl.Storm Inlet
Top=365.57
Inv.In=360.96
Inv.Out=360.65

(51) In.Pl.Storm Inlet
Top=371.49
Inv.Out=363.93

(52) In.Pl.Endwall
Top=360.73
Inv.Out=358.38

(53) In.Pl.End Section
Inv.=334.39

(54) In.Pl.Storm Grate
Top=337.56
Inv.In=335.11
Inv.Out=334.93

(55) In.Pl.Storm Grate
Top=340.98
Inv.In=339.73
Inv.Out=337.03

(56) In.Pl.Storm MH
Top=345.09
Cannot Open Structure
Lid Sealed Shut (3/6/23)

(57) In.Pl.End Section
Inv.=294.62

(58) In.Pl.Storm Inlet
Top=305.05
Inv.In=297.84
Inv.Out=297.80

(59) In.Pl.Storm Inlet
Top=305.14
Inv.In=298.50
Inv.Out=298.24

(60) In.Pl.Yard Inlet
Top=305.83
Inv.In=301.63
Inv.Out=299.02

(61) In.Pl.Culvert
Invert Buried

(62) In.Pl.Culvert
Inv.=292.37

(63) In.Pl.Culvert
Invert Buried

(64) In.Pl.Culvert
Inv.=293.42

(65) In.Pl.Storm Inlet
Top=297.36
Inv.In=289.02
Inv.Out=288.96

(66) In.Pl.Storm MH
Top=297.44
Inv.In=290.92 (From 70)
Inv.In=290.11 (From 67)
Inv.Out=290.07

(67) In.Pl.Storm Inlet
Top=297.28
Inv.In=290.92
Inv.Out=290.77

(68) In.Pl.Storm Inlet
Top=297.11
Inv.In=291.36 (From 69)
Inv.In=291.99 (From 15")
Inv.Out=291.29

(69) In.Pl.Storm Inlet
Top=298.45
Inv.In=292.75
Inv.Out=292.69

(70) In.Pl.Storm Inlet
Top=297.34
Inv.In=291.14
Inv.Out=291.04

(71) In.Pl.Storm Inlet
Top=296.98
Inv.Out=291.93

(72) In.Pl.Storm Inlet
Top=296.08
Inv.In=287.87
Inv.Out=287.79

(73) In.Pl.Storm MH
Top=296.84
Inv.In=289.52
Inv.Out=289.44

(74) In.Pl.Storm MH
Top=295.76
Inv.In=288.10 (30")
Inv.In=291.02 (From 75)
Inv.Out=287.95

(75) In.Pl.Storm Inlet
Top=296.14
Inv.In=291.38
Inv.Out=291.33

(76) In.Pl.Storm Inlet
Top=296.20
Inv.Out=297.47

(100) In.Pl.Storm Inlet
Top=376.59
Inv.In=369.54 (From 21)
Inv.In=367.40 (From SW)
Inv.Out=367.32

(28A) In.Pl.Storm Inlet
Top=396.01
Inv.In=391.02 (From 28)
Inv.Out=390.68

(45A) In.Pl.Storm Inlet
Top=370.79
Inv.In=365.97 (From 45)
Inv.Out=365.50

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2G(4)

12/9/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

DRAINAGE DETAILS

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

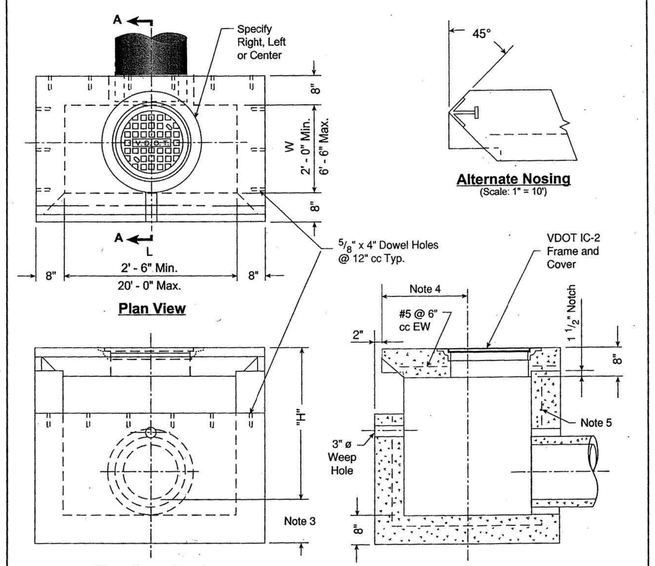
Nikhil V Deshpande
2026.01.23 16:42:16-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2G(5)

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

Circular Manholes / Vertical Structures Curb Inlets



Note:

(1.) Dimensions subject to permissible variation of ASTM C478.

(2.) Maximum pipe size to be 60" thru sides, no practical limit thru front or rear.

(3.) Invert to bottom of base = 10" minimum.

(4.) Manhole $\mathbb{C}_L$ to top face of curb = $\frac{W}{2}$ + 6", $\frac{W}{2}$ + 8" to bottom face.

(5.) Reinforcement to be ASTM A615 #4 bars @ 6" ± E.W. unless noted. Material properties: f'_c = 4,000 p.s.i., f_y = 60,000 p.s.i. Concrete cover over reinforcement (CCOR) = 1.5".

(6.) Throat and gutter pan to be poured in field by others.

(7.) Non-traffic loading only.

```
12" pipe - 1.84'
15" pipe - 2.11'
18" pipe - 2.38'
21" pipe - 2.65'
24" pipe - 2.92'
27" pipe - 3.19'
30" pipe - 3.46'
33" pipe - 2.79'
36" pipe - 4.00'
```

-No Scale-
All dimensions subject to allowable specification tolerances.

TITLE	STATE	SECTION.PAGE	DATE	
VDOT DI - 3 Curb Drop Inlet Monolithic Box Assembly Detail	VA	10.11	03-15-06	Hanson

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H

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

BMP Structure 5-15

CONTECH® ENGINEERED SOLUTIONS — CASCADE separator™ Flow-Based Sizing per VADEQ Regulations

Project Name:	Blenheim Boulevard		
Site Designation:	Str. 5-15	**Date:**	10/12/23
County or Independent City:	Fairfax	**Design Engineer:**	PWV
State:	VA		

Annual Rainfall (inches)	43
Target Rainfall Event, P (inches)	1.00

Volume from Upstream Runoff Reduction Practice to BMP:

	Remaining Volume from Upstream RR Practice (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	0	0	0.00
Impervious Cover	0	0.95	0.00

Volume from Additional Credit Area to BMP:

	Treatment Volume from Untreated Credit Area (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	880	0.25	0.97
Impervious Cover	3724	0.95	1.08

Total Volume to be Treated	4605	cf
Total Effective Area to be Treated	2.05	ac
Composite Rv	0.62	
Time of Concentration (Tc)	17.90	min
Unit Peak Discharge (qu)	678	cfs/mi2/in
Treatment Volume Peak Discharge	1.34	cfs
Model Name	CS-5	

BMP Structure 8-10

CONTECH® ENGINEERED SOLUTIONS — CASCADE separator™ Flow-Based Sizing per VADEQ Regulations

Project Name:	Blenheim Boulevard		
Site Designation:	Str. 8-10	**Date:**	10/12/23
County or Independent City:	Fairfax	**Design Engineer:**	PWV
State:	VA		

Annual Rainfall (inches)	43
Target Rainfall Event, P (inches)	1.00

Volume from Upstream Runoff Reduction Practice to BMP:

	Remaining Volume from Upstream RR Practice (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	0	0	0.00
Impervious Cover	0	0.95	0.00

Volume from Additional Credit Area to BMP:

	Treatment Volume from Untreated Credit Area (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	581	0.25	0.64
Impervious Cover	2379	0.95	0.69

Total Volume to be Treated	2960	cf
Total Effective Area to be Treated	1.33	ac
Composite Rv	0.61	
Time of Concentration (Tc)	8.00	min
Unit Peak Discharge (qu)	925	cfs/mi2/in
Treatment Volume Peak Discharge	1.18	cfs
Model Name	CS-5	

BMP Structure 9-14

CONTECH® ENGINEERED SOLUTIONS — CASCADE separator™ Flow-Based Sizing per VADEQ Regulations

Project Name:	Blenheim Boulevard		
Site Designation:	Str. 9-14	**Date:**	9/14/23
County or Independent City:	Fairfax	**Design Engineer:**	PWV
State:	VA		

Annual Rainfall (inches)	43
Target Rainfall Event, P (inches)	1.00

Volume from Upstream Runoff Reduction Practice to BMP:

	Remaining Volume from Upstream RR Practice (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	0	0	0.00
Impervious Cover	0	0.95	0.00

Volume from Additional Credit Area to BMP:

	Treatment Volume from Untreated Credit Area (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	454	0.25	0.50
Impervious Cover	2448	0.95	0.71

Total Volume to be Treated	2902	cf
Total Effective Area to be Treated	1.21	ac
Composite Rv	0.66	
Time of Concentration (Tc)	11.00	min
Unit Peak Discharge (qu)	827	cfs/mi2/in
Treatment Volume Peak Discharge	1.03	cfs
Model Name	CS-4	

Note: Contactor to use structure shown or approved equal

12/9/2025

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H

FINAL PLANS

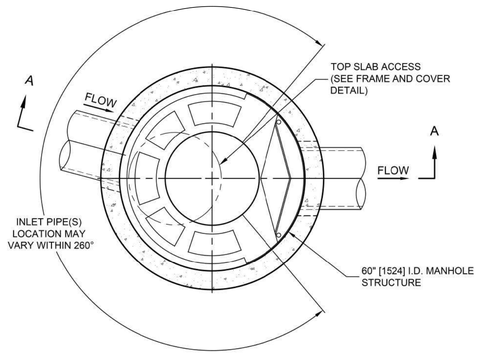
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

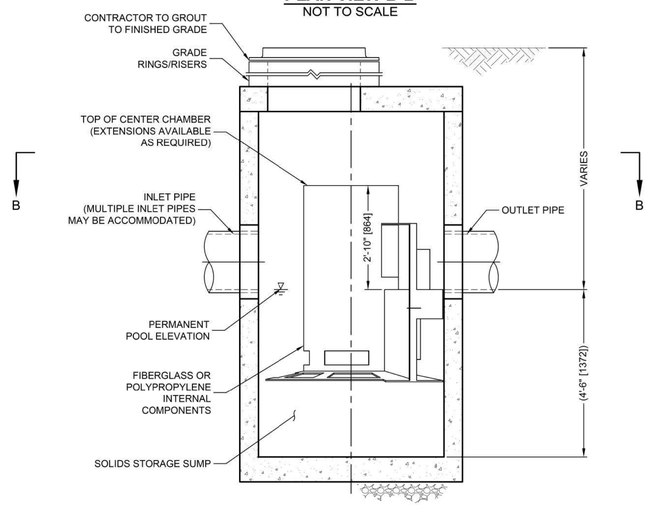
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(1)

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

BMP Structure 5-15



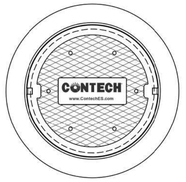
PLAN VIEW B-B
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

CASCADE separator™

CASCADE SEPARATOR DESIGN NOTES
THE STANDARD CS-5 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.
CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID			5-15
WATER QUALITY FLOW RATE (cfs [L/s])			1.34
PEAK FLOW RATE (cfs [L/s])			31.62
RETURN PERIOD OF PEAK FLOW (yrs)			10yr
RIM ELEVATION			383.94
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1	374.88	TBD	24"
INLET PIPE 2			
OUTLET PIPE	374.88	TBD	24"
NOTES / SPECIAL REQUIREMENTS:			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9100 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CS-5
CASCADE SEPARATOR
STANDARD DETAIL

I:\COMMON\CAD\TREATMENT\21 CASCADE\40 STANDARD DRAWINGS\DWG\IN PROCESS\CS-5-DTL.DWG 6/26/2023 2:45 PM

Note: Contactor to use structure shown or approved equal

12/9/2025

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(1)

FINAL PLANS

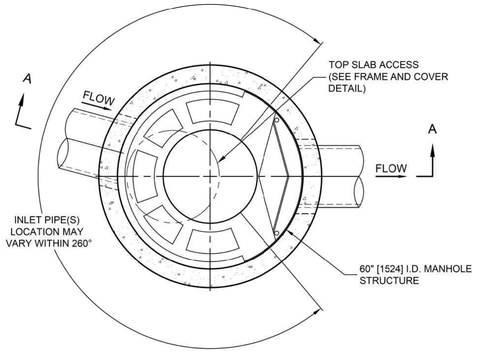
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

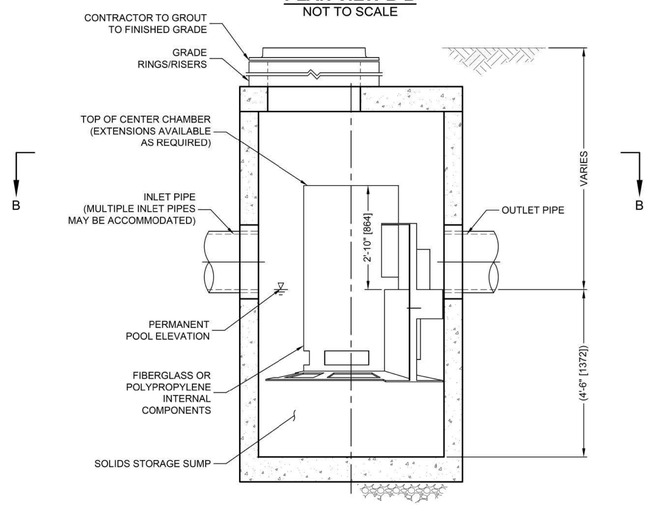
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(2)

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

BMP Structure 8-10



PLAN VIEW B-B
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

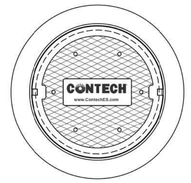
CASCADE separator™

I:\COMMON\CAD\TREATMENT\21 CASCADE\40 STANDARD DRAWINGS\DWG\IN PROCESS\CS-5-DTL.DWG 6/26/2023 2:45 PM

CASCADE SEPARATOR DESIGN NOTES

THE STANDARD CS-5 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			8-10
WATER QUALITY FLOW RATE (cfs [L/s])			1.18
PEAK FLOW RATE (cfs [L/s])			29.29
RETURN PERIOD OF PEAK FLOW (yrs)			10yr
RIM ELEVATION			390.80
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1	381.34	TBD	24"
INLET PIPE 2			
OUTLET PIPE	381.34	TBD	24"

NOTES / SPECIAL REQUIREMENTS:

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
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INSTALLATION NOTES
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D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

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CS-5
CASCADE SEPARATOR
STANDARD DETAIL

Note: Contactor to use structure shown or approved equal

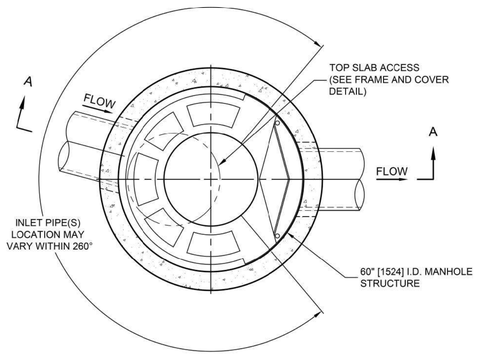
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

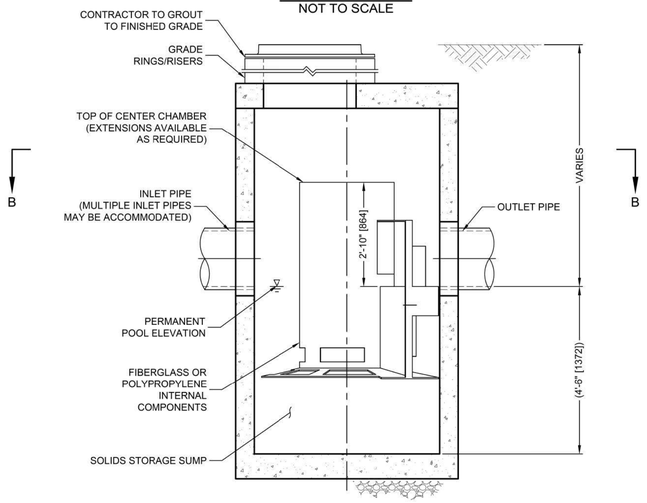
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(3)

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

BMP Structure 9-14



PLAN VIEW B-B
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

CASCADE separator™

CASCADE SEPARATOR DESIGN NOTES

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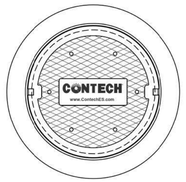
CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			9-14
WATER QUALITY FLOW RATE (cfs [L/s])			1.14
PEAK FLOW RATE (cfs [L/s])			15.78
RETURN PERIOD OF PEAK FLOW (yrs)			10yr
RIM ELEVATION			384.08
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1	378.12	TBD	18"
INLET PIPE 2			
OUTLET PIPE	373.77	TBD	18"

NOTES / SPECIAL REQUIREMENTS:

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9100 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CS-5
CASCADE SEPARATOR
STANDARD DETAIL

I:\COMMON\CAD\TREATMENT\21 CASCADE\40 STANDARD DRAWINGS\DWG\IN PROCESS\CS-5-DTL.DWG 6/26/2023 2:45 PM

Note: Contactor to use structure shown or approved equal

12/9/2025

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(3)

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(4)

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

BMP Structure 4-2A

CONTECH® ENGINEERED SOLUTIONS — WQv-Based Sizing per VADEQ Regulations — filterra

Project Name:	Blenheim Boulevard		
Site Designation:	65% Filterra 4-2a	**Date:**	9/14/23
County or Independent City:	County	**Design Engineer:**	PWV
State:	VA		

Annual Rainfall (inches)	43
Target Rainfall Event, P (inches)	1.00

Volume from Upstream Runoff Reduction Practice to BMP:

	Remaining Volume from Upstream RR Practice (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	0	0	0.00
Impervious Cover	0	0.95	0.00

Volume from Additional Credit Area to BMP:

	Treatment Volume from Untreated Credit Area (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	35	0.25	0.04
Impervious Cover	245	0.95	0.07

Total Volume to be Treated	280	cf
Total Effective Area to be Treated	0.11	ac
Composite Rv	0.70	

Filterra Sizing

Configuration Type	Standard Offline
Model Name	4x8 or 8x4

Pretreatment volume equal to 25% of total volume.
12'x4' Vault
8'x4' Media

BMP Structure 6-3A

CONTECH® ENGINEERED SOLUTIONS — WQv-Based Sizing per VADEQ Regulations — filterra

Project Name:	Blenheim Boulevard		
Site Designation:	65% Filterra 6-3a	**Date:**	9/14/23
County or Independent City:	County	**Design Engineer:**	PWV
State:	VA		

Annual Rainfall (inches)	43
Target Rainfall Event, P (inches)	1.00

Volume from Upstream Runoff Reduction Practice to BMP:

	Remaining Volume from Upstream RR Practice (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	0	0	0.00
Impervious Cover	0	0.95	0.00

Volume from Additional Credit Area to BMP:

	Treatment Volume from Untreated Credit Area (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	18	0.25	0.02
Impervious Cover	207	0.95	0.06

Total Volume to be Treated	225	cf
Total Effective Area to be Treated	0.08	ac
Composite Rv	0.78	

Filterra Sizing

Configuration Type	Standard Offline
Model Name	4x6 or 6x4

Pretreatment volume equal to 25% of total volume.
4'x10' Vault
4'x6' Media

BMP Structure 10-4A

CONTECH® ENGINEERED SOLUTIONS — WQv-Based Sizing per VADEQ Regulations — filterra

Project Name:	Blenheim Boulevard		
Site Designation:	Filterra HC - 10-4a	**Date:**	9/14/23
County or Independent City:	Fairfax	**Design Engineer:**	PWV
State:	VA		

Annual Rainfall (inches)	43
Target Rainfall Event, P (inches)	1.00

Volume from Upstream Runoff Reduction Practice to BMP:

	Remaining Volume from Upstream RR Practice (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	0	0	0.00
Impervious Cover	0	0.95	0.00

Volume from Additional Credit Area to BMP:

	Treatment Volume from Untreated Credit Area (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	24	0.22	0.03
Impervious Cover	241	0.95	0.07

Total Volume to be Treated	265	cf
Total Effective Area to be Treated	0.10	ac
Composite Rv	0.73	

Filterra HC Sizing

Phosphorus Removal	40%
Configuration Type	Standard Offline
Model Name	4x4

Pretreatment volume equal to 25% of total volume.
8'x8' Vault
8'x4' Media

Note: Contactor to use structure shown or approved equal

1/22/2026

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(4)

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(5)

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

BMP Structure 10-3A

CONTECH® ENGINEERED SOLUTIONS — WQv-Based Sizing per VADEQ Regulations — filterra

Project Name:	Blenheim Boulevard		
Site Designation:	10-3	**Date:**	12/9/24
County or Independent City:	Fairfax	**Designer**	KP
State:	VA		

Annual Rainfall (inches)	43
Target Rainfall Event, P (inches)	1.00

Volume from Upstream Runoff Reduction Practice to BMP:

	Remaining Volume from Upstream RR Practice (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	0	0	0.00
Impervious Cover	0	0.95	0.00

Volume from Additional Credit Area to BMP:

	Treatment Volume from Untreated Credit Area (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	0	0.22	0.00
Impervious Cover	517	0.95	0.15

Total Volume to be Treated	517	cf
Total Effective Area to be Treated	0.15	ac
Composite Rv	0.95	

Filterra Sizing

Phosphorus Removal	65%
Configuration Type	Standard Offline
Model Name	6x8 or 8x6

Pretreatment volume equal to 25% of total volume.
8'x12' Vault
8'x6' Media

BMP Structure 9-10A

CONTECH® ENGINEERED SOLUTIONS — WQv-Based Sizing per VADEQ Regulations — filterra

Project Name:	Blenheim Boulevard		
Site Designation:	9-10	**Date:**	12/9/24
County or Independent City:	Fairfax	**Designer**	KP
State:	VA		

Annual Rainfall (inches)	43
Target Rainfall Event, P (inches)	1.00

Volume from Upstream Runoff Reduction Practice to BMP:

	Remaining Volume from Upstream RR Practice (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	0	0	0.00
Impervious Cover	0	0.95	0.00

Volume from Additional Credit Area to BMP:

	Treatment Volume from Untreated Credit Area (cf)	Runoff Coefficient (R_v)	Effective Area (ac)
Managed Turf	0	0.22	0.00
Impervious Cover	345	0.95	0.10

Total Volume to be Treated	345	cf
Total Effective Area to be Treated	0.10	ac
Composite Rv	0.95	

Filterra Sizing

Phosphorus Removal	65%
Configuration Type	Standard Offline
Model Name	4.5x7.83 or 7.83x4.5

Pretreatment volume equal to 25% of total volume.
12'x4.5' Vault
8'x4.5' Media

Note: Contactor to use structure shown or approved equal

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(5)

1/22/2026

FINAL PLANS

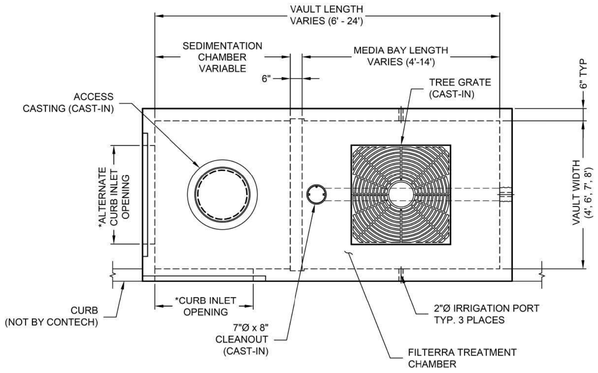
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(6)

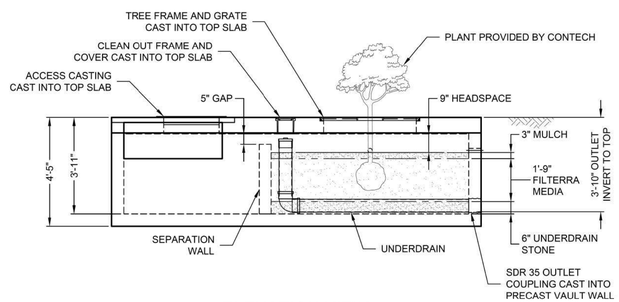
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

BMP Structures 4-2A



*CURB INLET OPENING LENGTH BY VAULT WIDTH:
4' VAULT WIDTH: 3'-0" CURB OPENING
6' VAULT WIDTH: 4'-0" CURB OPENING
7' VAULT WIDTH: 4'-0" CURB OPENING
8' VAULT WIDTH: 5'-0" CURB OPENING

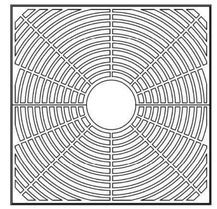
PLAN VIEW



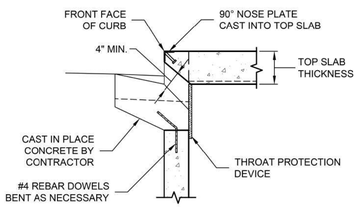
ELEVATION VIEW

Note: 12'x4' Vault
8'x4' Media

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



TREE GRATE
36" x 36" OR 48" x 48"
(ACTUAL PRODUCT MAY VARY)
NOT TO SCALE



CURB INLET DETAIL
NOT TO SCALE

NOTES:
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2. ALL VEGETATION PROVIDED BY CONTECH.
3. ADA COMPLIANT FULL GRATE COVERS WITH SHADE TOLERANT PLANT SPECIES AVAILABLE UPON REQUEST.
4. ALL INFORMATION IS BASED ON STANDARD 3.83' RIM TO OUTLET INVERT DEPTH. CONTACT CONTECH FOR CUSTOM SIZING IF DEPTH IS NOT 3.83'. ACCEPTABLE DEPTH IS 3.33' MIN. TO 5.00' MAX. RIM TO INVERT OUT.
5. PLEASE CONTACT YOUR CONTECH REPRESENTATIVE FOR SIZING RECOMMENDATIONS. www.conteches.com.

filterra®
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CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
7037 Ridge Road, Hanover, MD 21076
866-740-3318 410-796-5505 866-376-8511 FAX

FILTERRA SEDIMENTATION CHAMBER (FTSC)
CONFIGURATION DETAIL
MARYLAND

Note: Contactor to use structure shown or approved equal

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(6)

FINAL PLANS

\\AD.CONTECH-CPI.COM\ROOT\COMMON\CAD\TREATMENT\54 FILTERRA\40 STANDARD DRAWINGS\FTSC - SEDIMENTATION CHAMBER\LAYOUT DETAILS\WIP MD ONLY\FTSC FILTERRA SEDIMENT CHAMBER CONFIG DTL - MD ONLY.DWG, 2/24/2020 12:53, PM

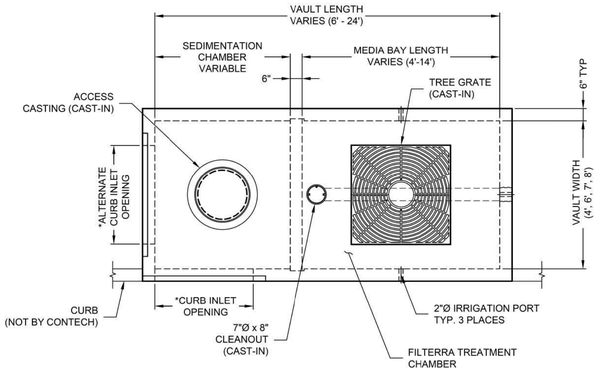
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(7)

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

BMP Structure 6-3A



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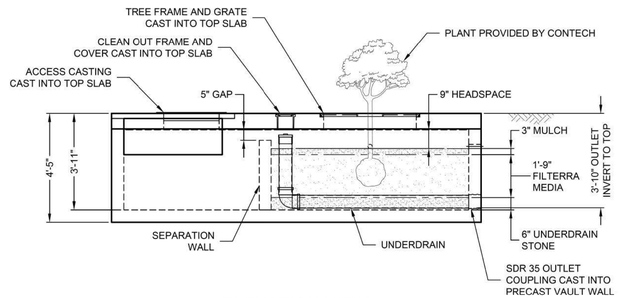
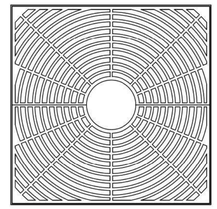
PLAN VIEW



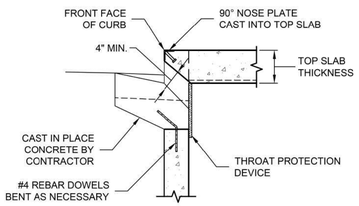
ELEVATION VIEW

Note: 4'x10' Vault
4'x6' Media

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



TREE GRATE
36" x 36" OR 48" x 48"
(ACTUAL PRODUCT MAY VARY)
NOT TO SCALE



CURB INLET DETAIL
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NOTES:
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FILTERRA SEDIMENTATION CHAMBER (FTSC)
CONFIGURATION DETAIL
MARYLAND

Note: Contactor to use structure shown or approved equal

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(7)

FINAL PLANS

\\AD.CONTECH-CPI.COM\ROOT\COMMON\CAD\TREATMENT\54 FILTERRA\40 STANDARD DRAWINGS\FTSC - SEDIMENTATION CHAMBER\LAYOUT DETAILS\WIP MD ONLY\FTSC FILTERRA SEDIMENT CHAMBER CONFIG DTL - MD ONLY.DWG, 2/24/2020 12:53 PM

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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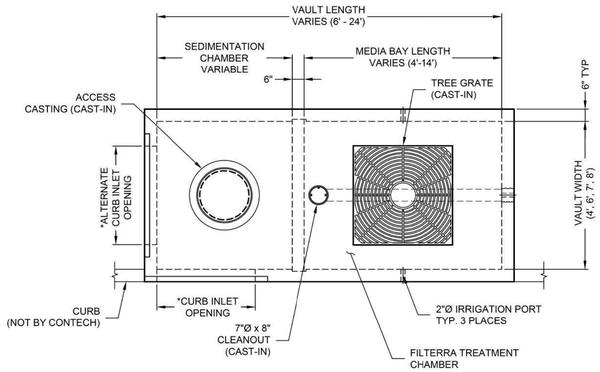
BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(8)

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

BMP Structure 10-4A

\\AD.CONTECH-CPI.COM\ROOT\COMMON\CAD\TREATMENT\54 FILTERRA\40 STANDARD DRAWINGS\FTSC - SEDIMENTATION CHAMBER\PLAYOUT DETAILS\WP MD ONLY\FTSC MD ONLY.DWG 2/24/2020 12:53 PM



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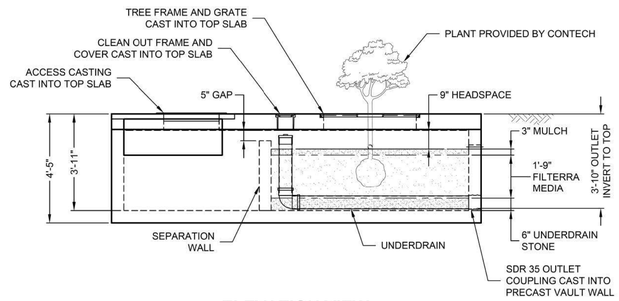
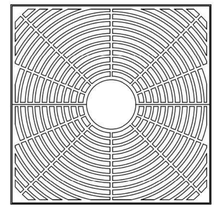
PLAN VIEW



ELEVATION VIEW

Note: 8'x8' Vault
8'x4' Media

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



TREE GRATE
36" x 36" OR 48" x 48"
(ACTUAL PRODUCT MAY VARY)
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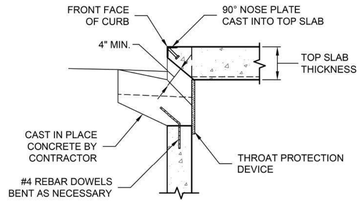

CURB INLET DETAIL
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FILTERRA SEDIMENTATION CHAMBER (FTSC)
CONFIGURATION DETAIL
MARYLAND

Note: Contactor to use structure shown or approved equal

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(8)

1/22/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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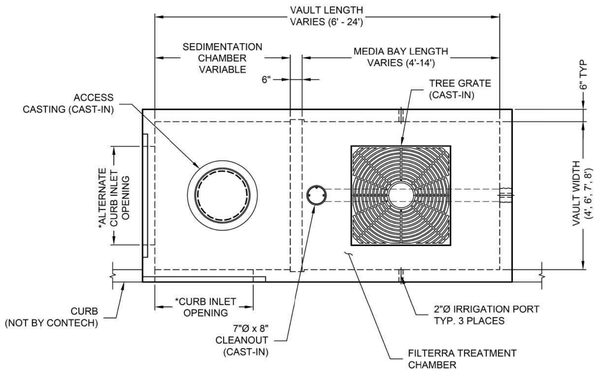
BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(9)

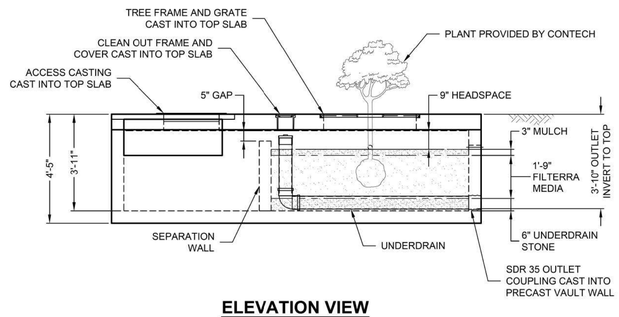
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

BMP Structure 10-3A



*CURB INLET OPENING LENGTH BY VAULT WIDTH:
4' VAULT WIDTH: 3'-0" CURB OPENING
6' VAULT WIDTH: 4'-0" CURB OPENING
7' VAULT WIDTH: 4'-0" CURB OPENING
8' VAULT WIDTH: 5'-0" CURB OPENING

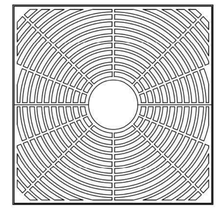
PLAN VIEW



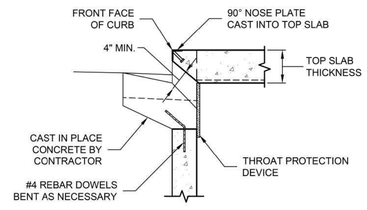
ELEVATION VIEW

Note: 8'x12' Vault
8'x6' Media

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



TREE GRATE
36" x 36" OR 48" x 48"
(ACTUAL PRODUCT MAY VARY)
NOT TO SCALE



CURB INLET DETAIL
NOT TO SCALE

NOTES:
1. REQUIRED MINIMUM FILTERRA TREATMENT SURFACE AREA IS 91 SF/20,000 SF OF THE TOTAL DRAINAGE AREA PER MDE. STORAGE CAPACITY ASSUMES NO STORAGE IN MULCH, MEDIA AND STONE.
2. ALL VEGETATION PROVIDED BY CONTECH.
3. ADA COMPLIANT FULL GRATE COVERS WITH SHADE TOLERANT PLANT SPECIES AVAILABLE UPON REQUEST.
4. ALL INFORMATION IS BASED ON STANDARD 3.83' RIM TO OUTLET INVERT DEPTH. CONTACT CONTECH FOR CUSTOM SIZING IF DEPTH IS NOT 3.83'. ACCEPTABLE DEPTH IS 3.33' MIN. TO 5.00' MAX. RIM TO INVERT OUT.
5. PLEASE CONTACT YOUR CONTECH REPRESENTATIVE FOR SIZING RECOMMENDATIONS. www.conteches.com.

filterra®
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 8,277,274; 8,969,321; 7,625,493; 7,425,261; 7,833,412; RELATED FOREIGN PATENTS.

CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
7037 Ridge Road, Hanover, MD 21076
866-740-3318 410-796-5505 866-376-8511 FAX

FILTERRA SEDIMENTATION CHAMBER (FTSC)
CONFIGURATION DETAIL
MARYLAND

\\AD.CONTECH-CPI.COM\ROOT\COMMON\CAD\TREATMENT\54 FILTERRA\40 STANDARD DRAWINGS\FTSC - SEDIMENTATION CHAMBER\LAYOUT DETAILS\WP MD ONLY\FTSC FILTERRA SEDIMENT CHAMBER CONFIG DTL - MD ONLY.DWG 2/24/2020 12:53 PM

Note: Contactor to use structure shown or approved equal

1/22/2026

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(9)

FINAL PLANS

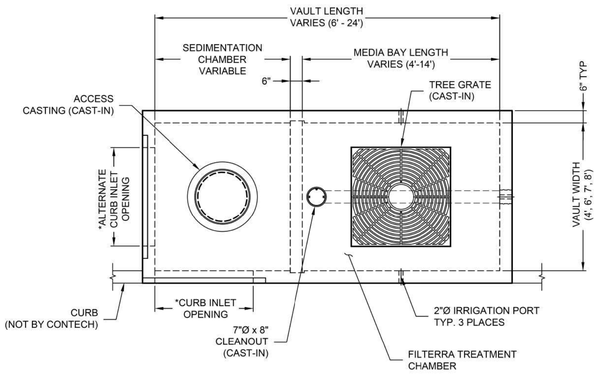
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(10)

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

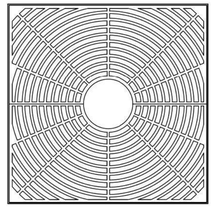
BMP Structure 9-10A



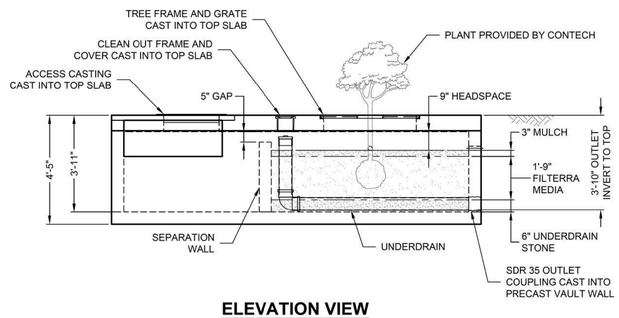
*CURB INLET OPENING LENGTH BY VAULT WIDTH:
4' VAULT WIDTH: 3'-0" CURB OPENING
6' VAULT WIDTH: 4'-0" CURB OPENING
7' VAULT WIDTH: 4'-0" CURB OPENING
8' VAULT WIDTH: 5'-0" CURB OPENING

PLAN VIEW

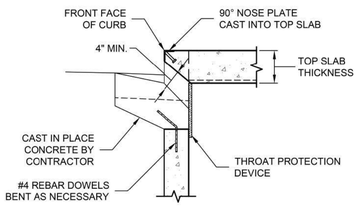
FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



TREE GRATE
36" x 36" OR 48" x 48"
(ACTUAL PRODUCT MAY VARY)
NOT TO SCALE



ELEVATION VIEW



CURB INLET DETAIL
NOT TO SCALE

NOTES:
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Note: 12'x4.5' Vault
8'x4.5' Media

filterra®
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7037 Ridge Road, Hanover, MD 21076
866-740-3318 410-796-5505 866-376-8511 FAX

FILTERRA SEDIMENTATION CHAMBER (FTSC)
CONFIGURATION DETAIL
MARYLAND

Note: Contactor to use structure shown or approved equal

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(10)

FINAL PLANS

1/22/2026

\\AD.CONTECH-CPI.COM\ROOT\COMMON\CAD\TREATMENT\54 FILTERRA\40 STANDARD DRAWINGS\FTSC - SEDIMENTATION CHAMBER\LAYOUT DETAILS\WP MD ONLY\FTSC FILTERRA SEDIMENT CHAMBER CONFIG DTL - MD ONLY.DWG 2/24/2020 12:53

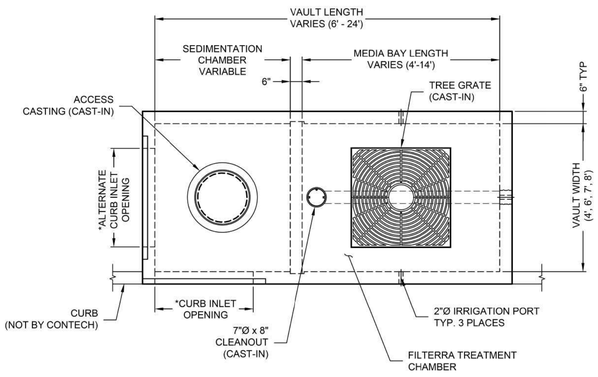
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(II)

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

Filterra Internal Bypass Curb Inlet Configuration



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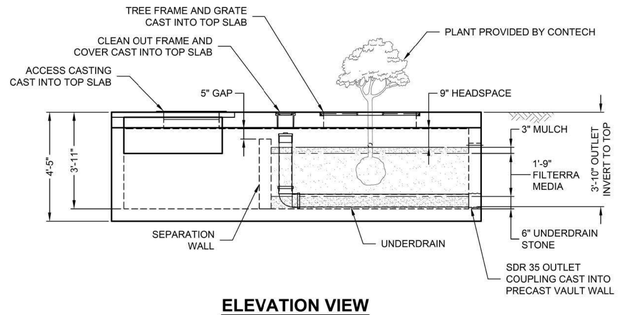
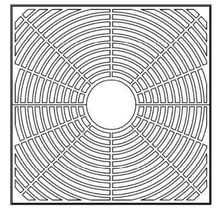
PLAN VIEW

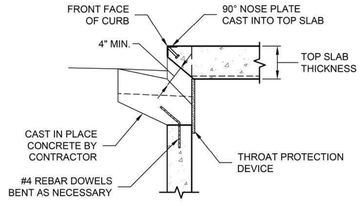


ELEVATION VIEW

FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



TREE GRATE
36" x 36" OR 48" x 48"
(ACTUAL PRODUCT MAY VARY)
NOT TO SCALE



CURB INLET DETAIL
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FILTERRA SEDIMENTATION CHAMBER (FTSC)
CONFIGURATION DETAIL
MARYLAND

\\AD.CONTECH-CPI.COM\ROOT\COMMONCAD\TREATMENT\54 FILTERRA\40 STANDARD DRAWINGS\FTSC - SEDIMENTATION CHAMBER\LAYOUT DETAILS\WP MD ONLY\FTSC FILTERRA SEDIMENT CHAMBER CONFIG DTL - MD ONLY.DWG 2/24/2020 12:53 PM

Note: Contactor to use structure shown or approved equal

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(II)

1/22/2026

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Note: For informational use only

BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(12)

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

Filterra Standard Plan Notes

Construction & Installation

A. The Contractor is responsible for correct installation of Filterra units as shown in plans.

B. Each unit shall be constructed at the locations and elevations according to the sizes shown on the approved drawings. Any modifications to the elevation or location shall be at the direction of and approved by the Engineer.

C. If the Filterra® is stored before installation, the top slab must be placed on the box using the 2x4 wood provided, to prevent any contamination from the site. All internal fittings supplied (if any), must be left in place as per the delivery.

D. The unit shall be placed on a compacted sub-grade with a minimum 6-inch gravel base matching the final grade of the curb line in the area of the unit. The unit to be placed such that the unit and top slab match the grade of the curb in the area of the unit. Compact undisturbed sub-grade materials to 95% of maximum density at +1- 2% of optimum moisture. Unsuitable material below sub-grade shall be replaced to the site engineer's approval.

E. Outlet connections shall be aligned and sealed to meet the approved drawings with modifications necessary to meet site conditions and local regulations.

F. Once the unit is set, the internal wooden forms and protective mesh cover must be left intact. Remove only the temporary wooden shipping blocks between the box and top slab. The top lid should be sealed onto the box section before backfilling, using a nonshrink grout, butyl rubber or similar waterproof seal. The boards on top of the lid and boards sealed in the unit's throat must **NOT** be removed. The Supplier (Americast or its authorized dealer) will remove these sections at the time of activation. Backfilling should be performed in a careful manner, bringing the appropriate fill material up in 6"lifts on all sides. Precast sections shall be set in a manner that will result in a watertight joint. In all instances, installation of Filterra® unit shall conform to ASTM specification C891 "Standard Practice for Installation of Underground Precast Utility Structures", unless directed otherwise in contract documents.

G. Curb and gutter construction (where present) shall ensure that the flow-line of the Filterra® units is at a greater elevation than the flow-line of the bypass structure or relief (drop inlet, curb cut or similar). Failure to comply with this guideline may cause failure and/or damage to the Filterra® environmental device.

H. Each Filterra® unit must receive adequate irrigation to ensure survival of the living system during periods of drier weather. This may be achieved through gutter flow or through the tree grate.

Activation

A. Activation of the Filterra® unit is performed ONLY by the Supplier. Purchaser is responsible for Filterra® inlet protection and subsequent clean out cost. This process cannot commence until the project site is fully stabilized and cleaned (full landscaping, grass cover, final paving and street sweeping completed), negating the chance of construction materials contaminating the Filterra® system. Care shall be taken during construction not to damage the protective throat and top plates.

B. Activation includes installation of plant(s) and mulch layers as necessary.

Maintenance

A. Each correctly installed Filterra® unit is to be maintained by the Supplier, or a Supplier approved contractor for a minimum period of 1 year. The cost of this service is to be included in the price of each Filterra® unit. Extended maintenance contracts are available at extra cost upon request.

B. Annual maintenance consists of a maximum of (2) scheduled visits. The visits are scheduled seasonally; the spring visit aims to clean up after winter loads including salts and sands. The fall visit helps the system by removing excessive leaf litter.

C. Each maintenance visit consists of the following tasks.

1. Filterra® unit inspection
2. Foreign debris, silt, mulch & trash removal
3. Filter media evaluation and recharge as necessary
4. Plant health evaluation and pruning or replacement as necessary
5. Replacement of mulch
6. Disposal of all maintenance refuse items
7. Maintenance records updated and stored (reports available upon request)

D. The beginning and ending date of Supplier's obligation to maintain the installed system shall be determined by the Supplier at the time the system is activated. Owners must promptly notify the Supplier of any damage to the plant(s), which constitute(s) an integral part of the bioretention technology.

FILTERRA PLANT LIST

Scientific Name	Common Name	Plant Type	Sun	Hardy Range	Height	Spread	Sizing
Cephalanthus occidentalis	Buttonbush	Deciduous	Partial Shade to Full Sun	4A-10A	4'-6'	6'-10'	L
Aronia melanocarpa	Black Chokeberry	Deciduous	Full Shade to Full Sun	3B-6B	3'-6'	4'-6'	M
Aronia arbutifolia	Red Chokeberry	Deciduous	Partial Shade to Full Sun	4B-9A	6'-10'	4'-6'	M
Cornus florida	Flowering Dogwood	Deciduous	Partial Shade to Full Sun	5A-8B	15'-20'	15'-20'	Tree
Cornus amomum	Silky Dogwood	Deciduous	Full shade to Full Sun	4B-8A	8'-10'	8'-15'	L
Sambucus canadensis	American Elderberry	Deciduous	Partial Shade to Full Sun	4A-9B	10'-15'	6'-10'	L
Chionanthus virginicus	White Fringe Tree	Deciduous	Full Shade to Full Sun	4A-9A	12'-20'	10'-15'	Tree
Ilex decidua	Possum Haw Holly	Deciduous	Full Shade to Full Sun	5A-9A	15'-20'	15'-250'	Tree
Ilex verticillata	Winterberry Holly	Deciduous	Partial Shade to Full Sun	3B-9A	6'-10'	8'-15'	L
Myrica pensylvanica	Northern Bayberry	Deciduous	Partial Shade to Full Sun	3A-7A	10'-15'	6'-10'	L
Cercis canadensis	Eastern Redbud	Deciduous	Partial Shade to Full Sun	4B-9A	15'-25'	15'-25'	Tree

Note: This is a recommended planting list. For complete planting list, please refer to Filterra Vault Configuration Plant List - Mid Atlantic Region.

12/9/2025

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(12)

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

DITCH TYPICAL SECTIONS

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2025.12.12 08:59:45-05'00'

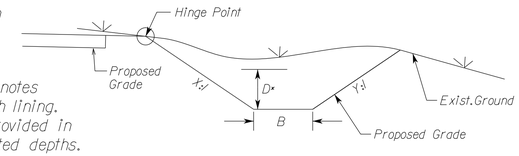
Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2H(13)

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

Typical Ditch								
Blenhiem Blvd. Left	Station	to	Station	D* (ft)	B (ft)	X (ft)	Y (ft)	Lining
Prop. Ditch 1	124+20	to	124+50	0.3	0	3	3	EC-2 Type I
	124+50	to	124+73	0.4	0	3	3	EC-2 Type I
Prop. Ditch 2	130+68	to	131+00	0.2	0	3	10	EC-2 Type I
	131+00	to	131+50	0.3	0	3	10	EC-2 Type I
	131+50	to	132+00	0.8	0	3	3	EC-2 Type I
	132+00	to	132+83	0.9	0	3	3	EC-2 Type I
Prop. Ditch 3	133+87	to	133+81	0.8	0	3	3	EC-3 Type I

Typical Ditch Section
Proposed Ditch



Note: Dimension "D" denotes minimum depth of ditch lining. EC-3 lining shall be provided in accordance with tabulated depths.

Typical Ditch								
Blenhiem Blvd. Right	Station	to	Station	D* (ft)	B (ft)	X (ft)	Y (ft)	Lining
Prop. Ditch 5	174+13	to	175+10	1	2	2	2	Std. PG-5

12/10/2025

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2H(13)

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Drainage Profiles

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

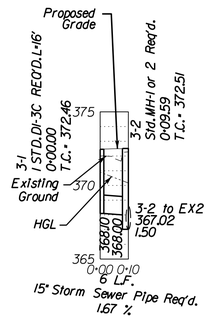
Nikhil V Deshpande
2025.12.12 09:00:13-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

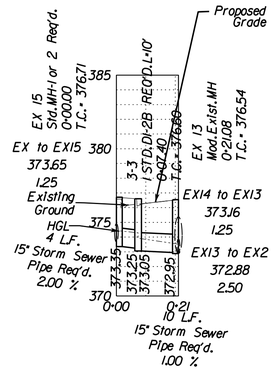
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2I(0)

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

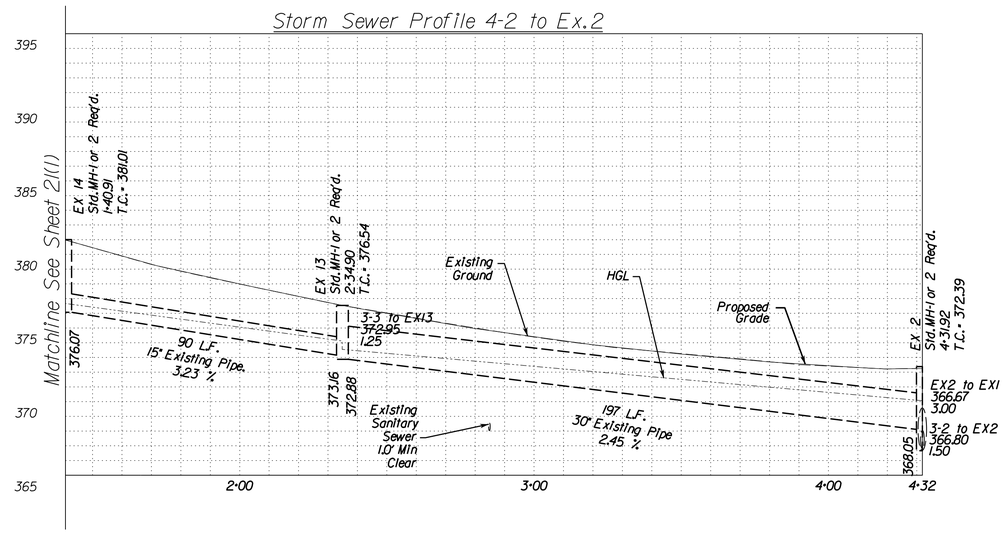
Storm Sewer Profile 3-1 to 3-2



Storm Sewer Profile Ex.12 to 3-2



Storm Sewer Profile 4-2 to Ex.2



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H= 25, V= 1
0 25' 50'
5' 2.5' 0

PROJECT	SHEET NO.
U000-151-R94	2I(0)

12/11/2025

FINAL PLANS

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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Drainage Profiles

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

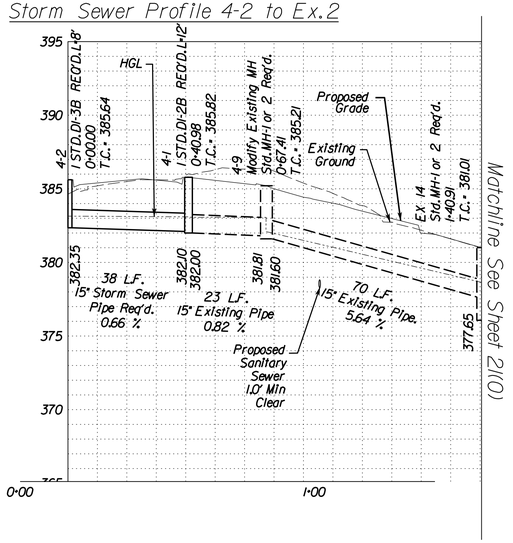
Nikhil V Deshpande
2025.12.12 09:00:46-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

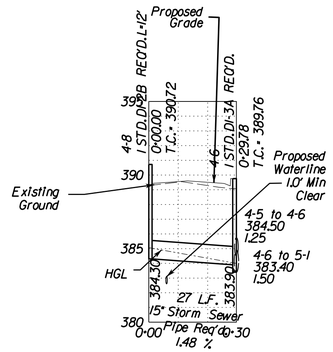
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	21(1)

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

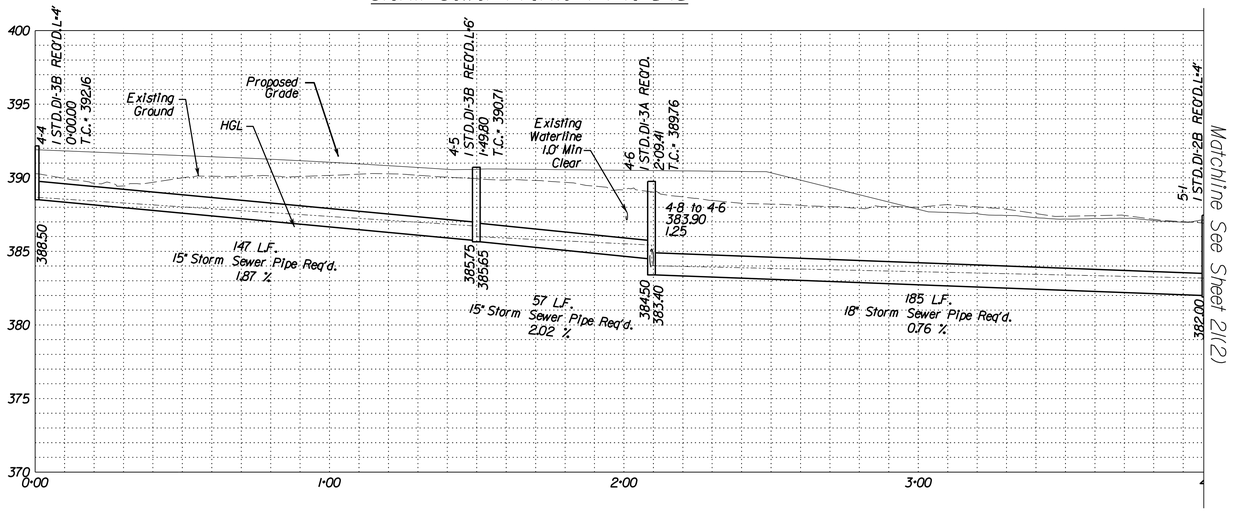
Storm Sewer Profile 4-2 to Ex.2



Storm Sewer Profile 4-8 to 4-6



Storm Sewer Profile 4-4 to 5-15



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H: 25, V: 1
0 25' 50'
5' 2.5' 0

PROJECT	SHEET NO.
U000-151-R94	21(1)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Drainage Profiles

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

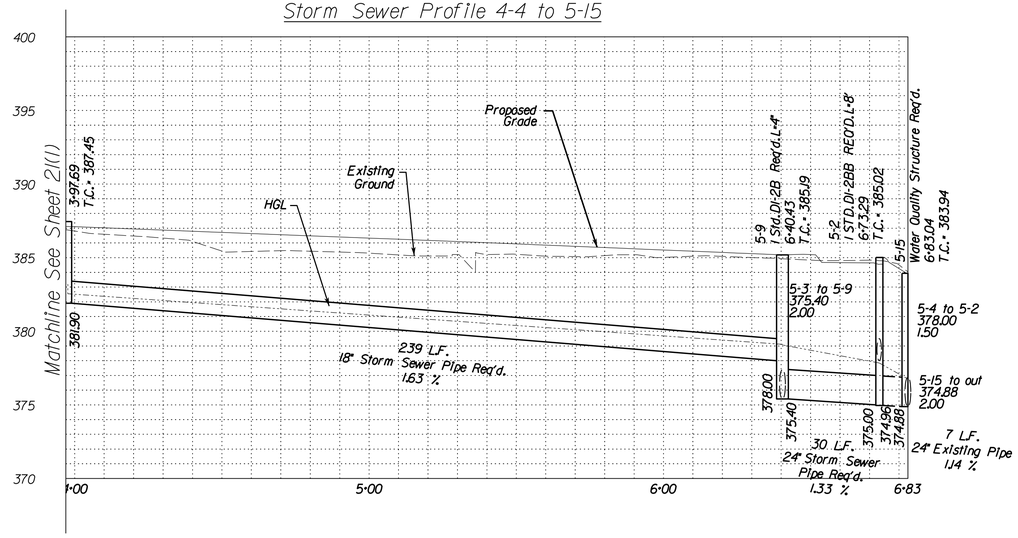
Nikhil V Deshpande
2025.12.12 09:01:07-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

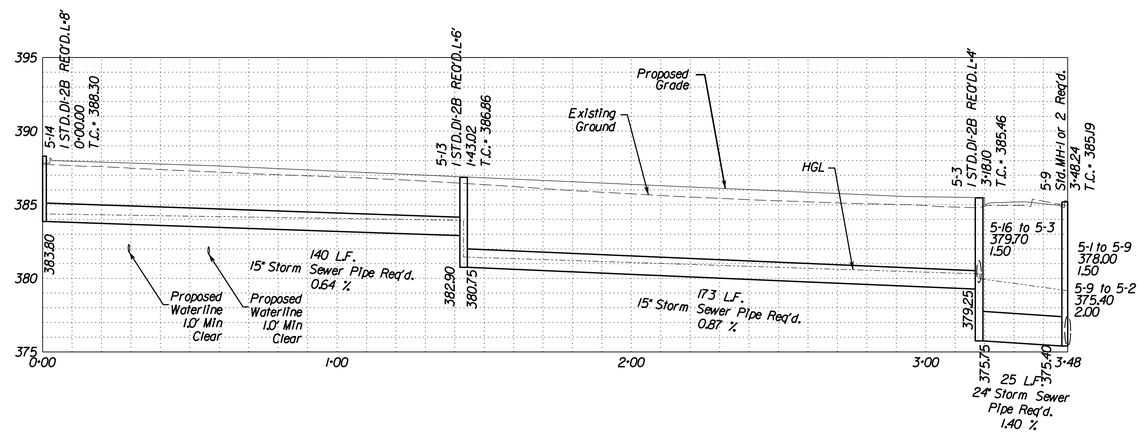
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	21(2)

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

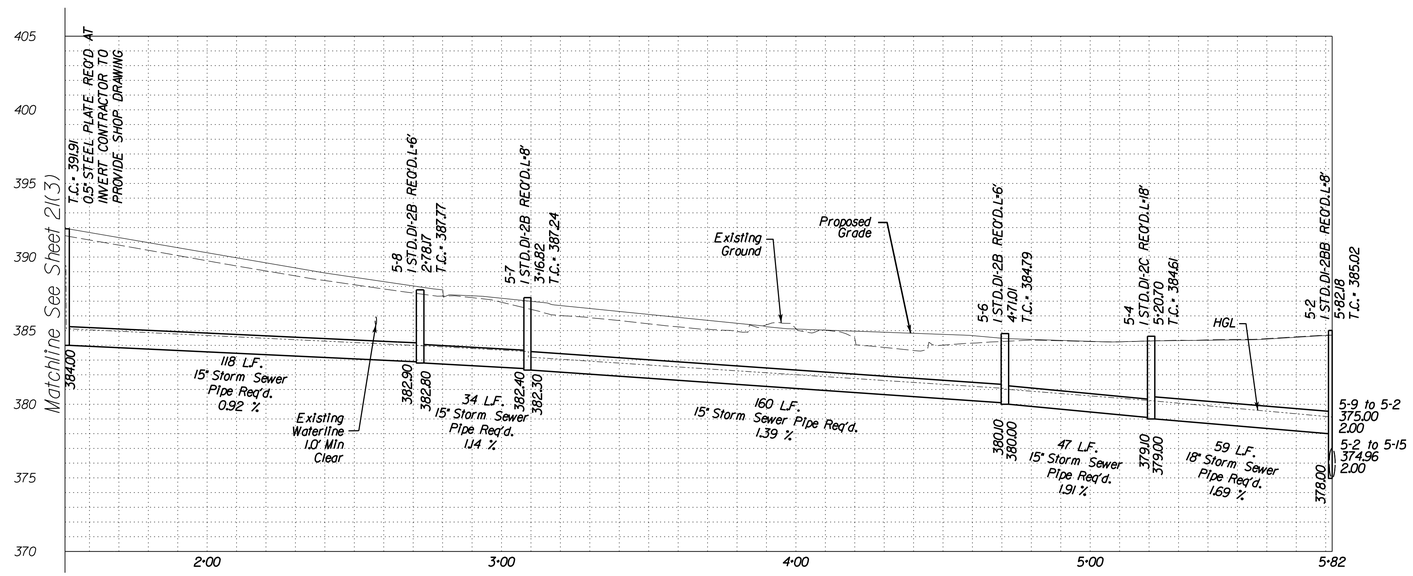
Storm Sewer Profile 4-4 to 5-15



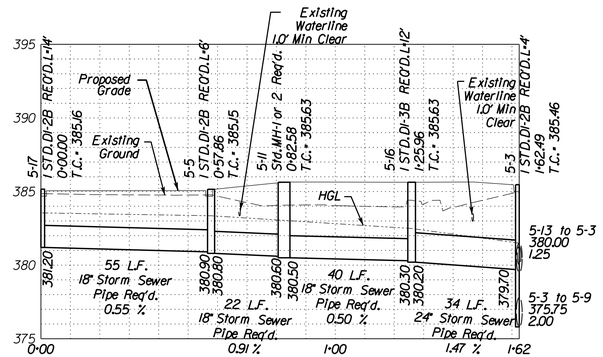
Storm Sewer Profile 5-14 to 5-9



Storm Sewer Profile 6-1 to 5-2



Storm Sewer Profile 5-17 to 5-3



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H: 25, V: 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-151-R94	21(2)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Drainage Profiles

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

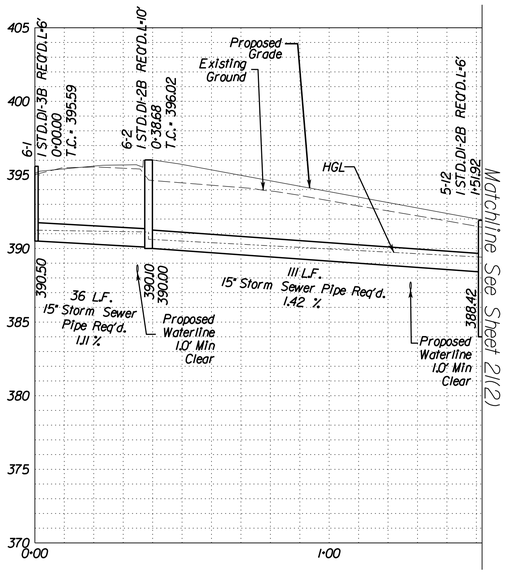
Nikhil V Deshpande
2025.12.12 09:01:26-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

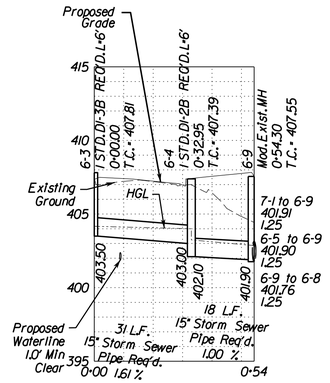
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	21(3)

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

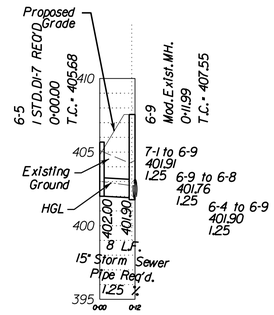
Storm Sewer Profile 6-1 to 5-2



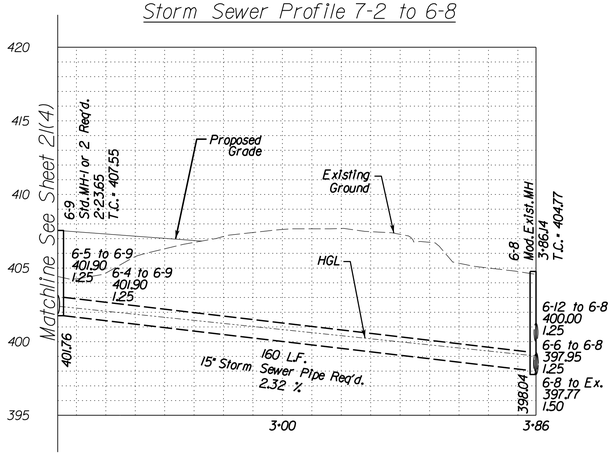
Storm Sewer Profile 6-3 to 6-9



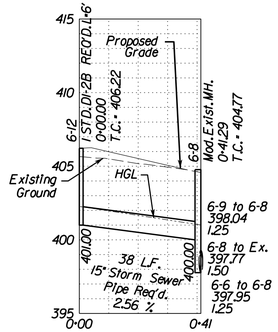
Storm Sewer Profile 6-5 to 6-9



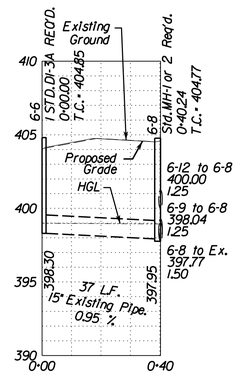
Storm Sewer Profile 7-2 to 6-8



Storm Sewer Profile 6-12 to 6-8



Storm Sewer Profile 6-6 to 6-8



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H: 25, V: 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-151-R94	21(3)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Drainage Profiles

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

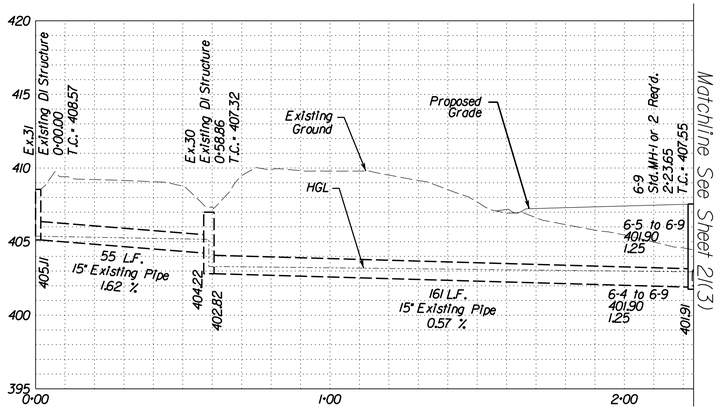
Nikhil V Deshpande
2025.12.12 09:01:44-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

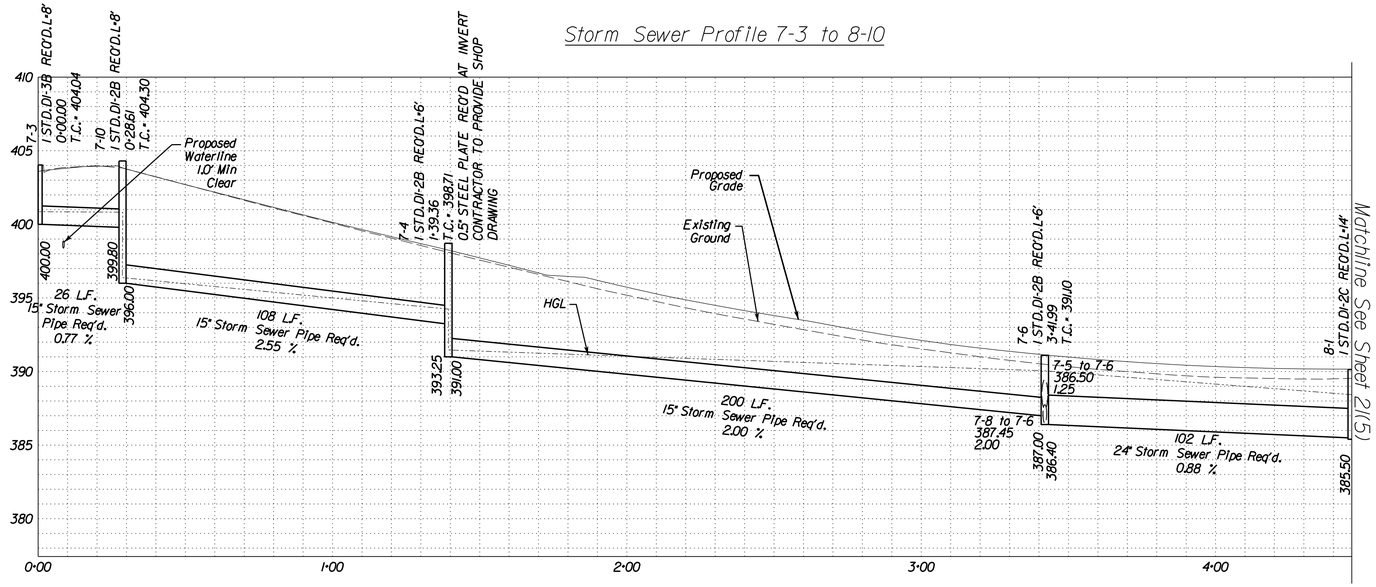
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	21(4)

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

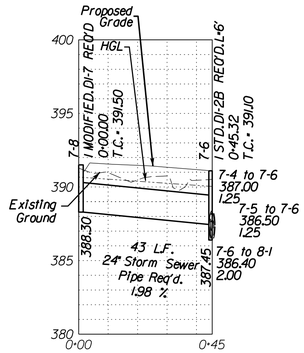
Storm Sewer Profile 7-2 to 6-8



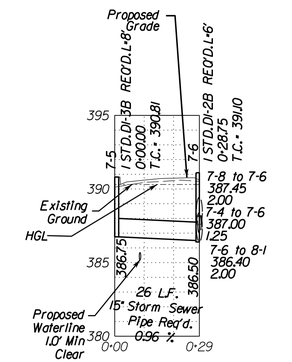
Storm Sewer Profile 7-3 to 8-10



Storm Sewer Profile 7-8 to 7-6



Storm Sewer Profile 7-5 to 7-6



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H= 25, V= 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-151-R94	21(4)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Drainage Profiles

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

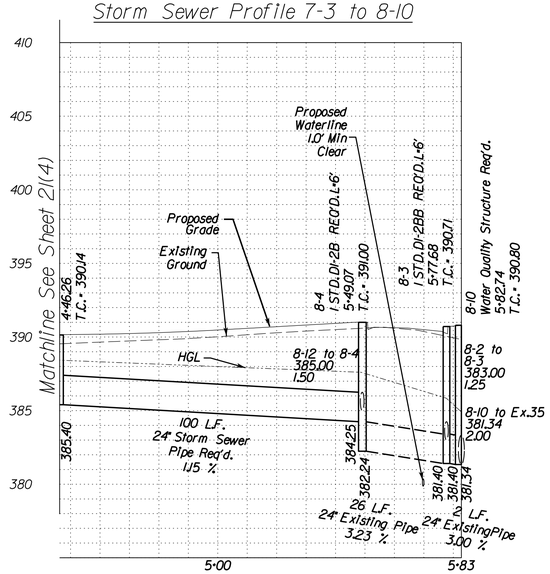
Nikhil V Deshpande
2025.12.12 09:02:04-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

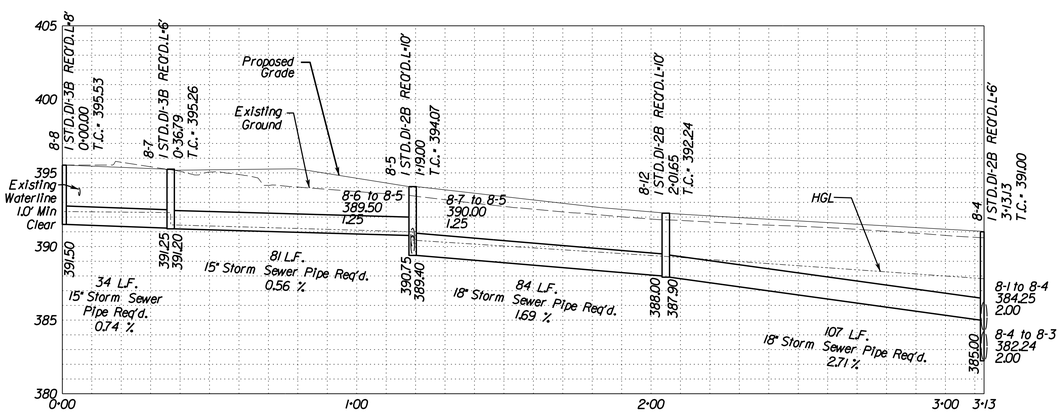
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	21(5)

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

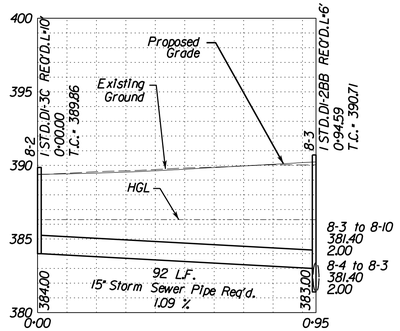
Storm Sewer Profile 7-3 to 8-10



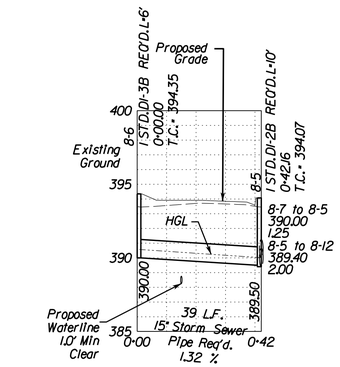
Storm Sewer Profile 8-8 to 8-4



Storm Sewer Profile 8-2 to 8-3



Storm Sewer Profile 8-6 to 8-5



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H: 25, V: 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-151-R94	21(5)

FINAL PLANS

12/10/2025

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Drainage Profiles

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

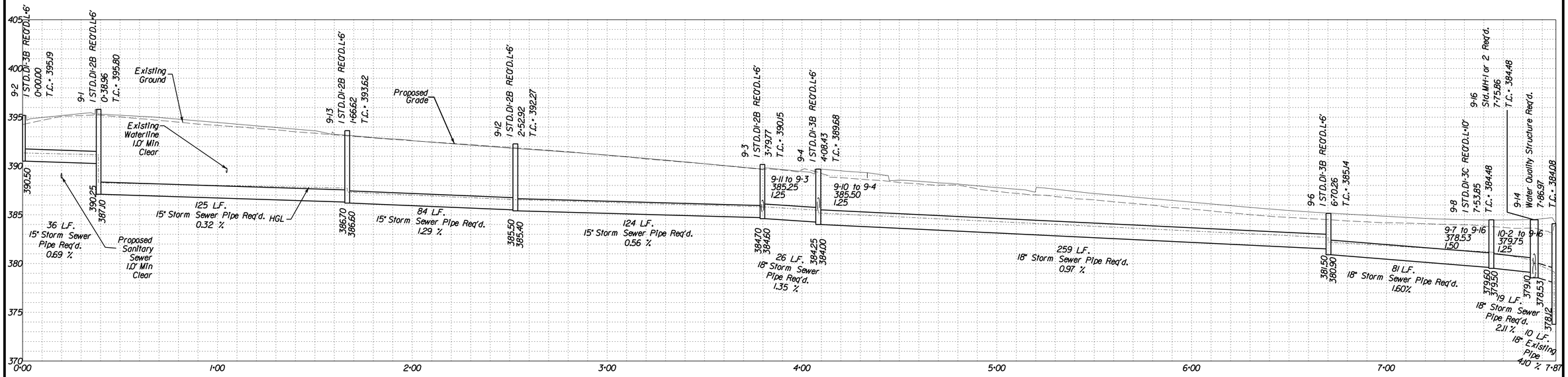
Nikhil V Deshpande
2025.12.12 09:02:25-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

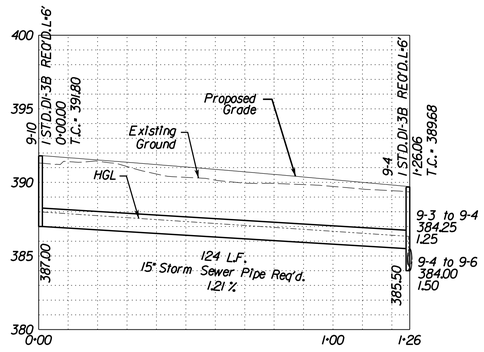
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2l(6)

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

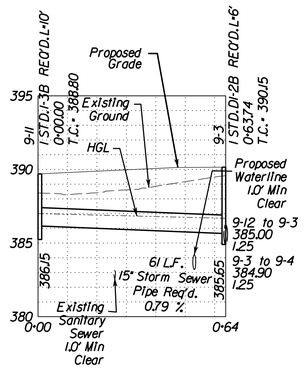
Storm Sewer Profile 9-2 to 9-14



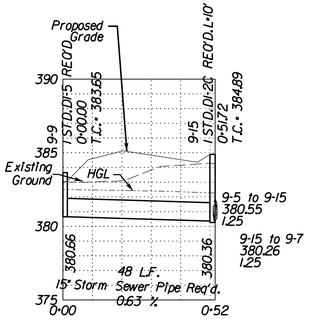
Storm Sewer Profile 9-10 to 9-4



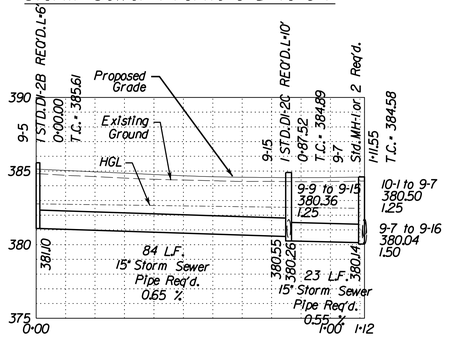
Storm Sewer Profile 9-11 to 9-3



Storm Sewer Profile 9-9 to 9-15



Storm Sewer Profile 9-5 to 9-7



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H: 25, V: 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-151-R94	2l(6)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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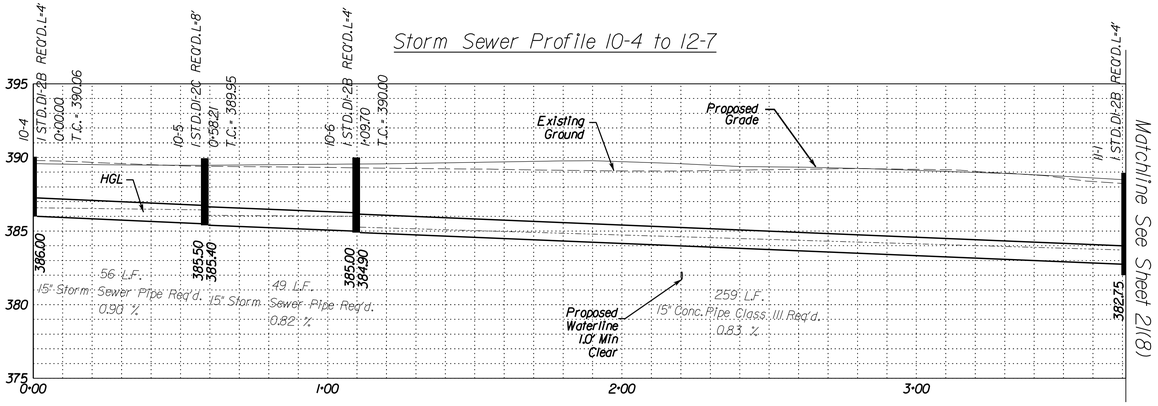
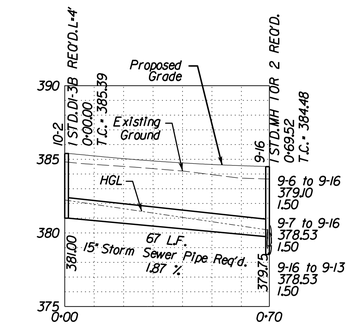
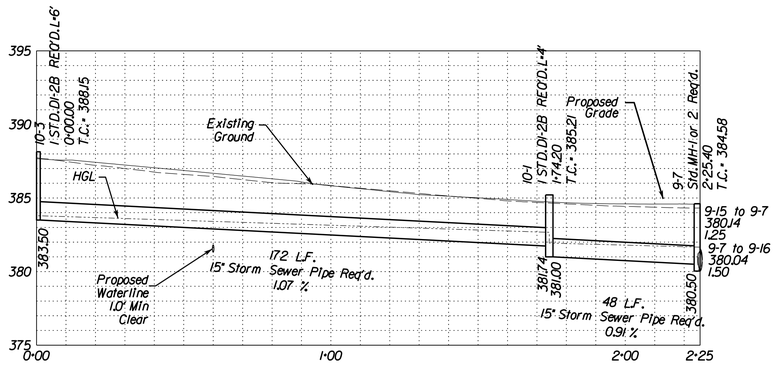
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Drainage Profiles







Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H: 25, V: 1
0 25' 50'
5' 2.5' 0

PROJECT	SHEET NO.
U000-151-R94	2li7)

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2025.12.12 09:02:44-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2li7)

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

12/10/2025

FINAL PLANS

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Drainage Profiles

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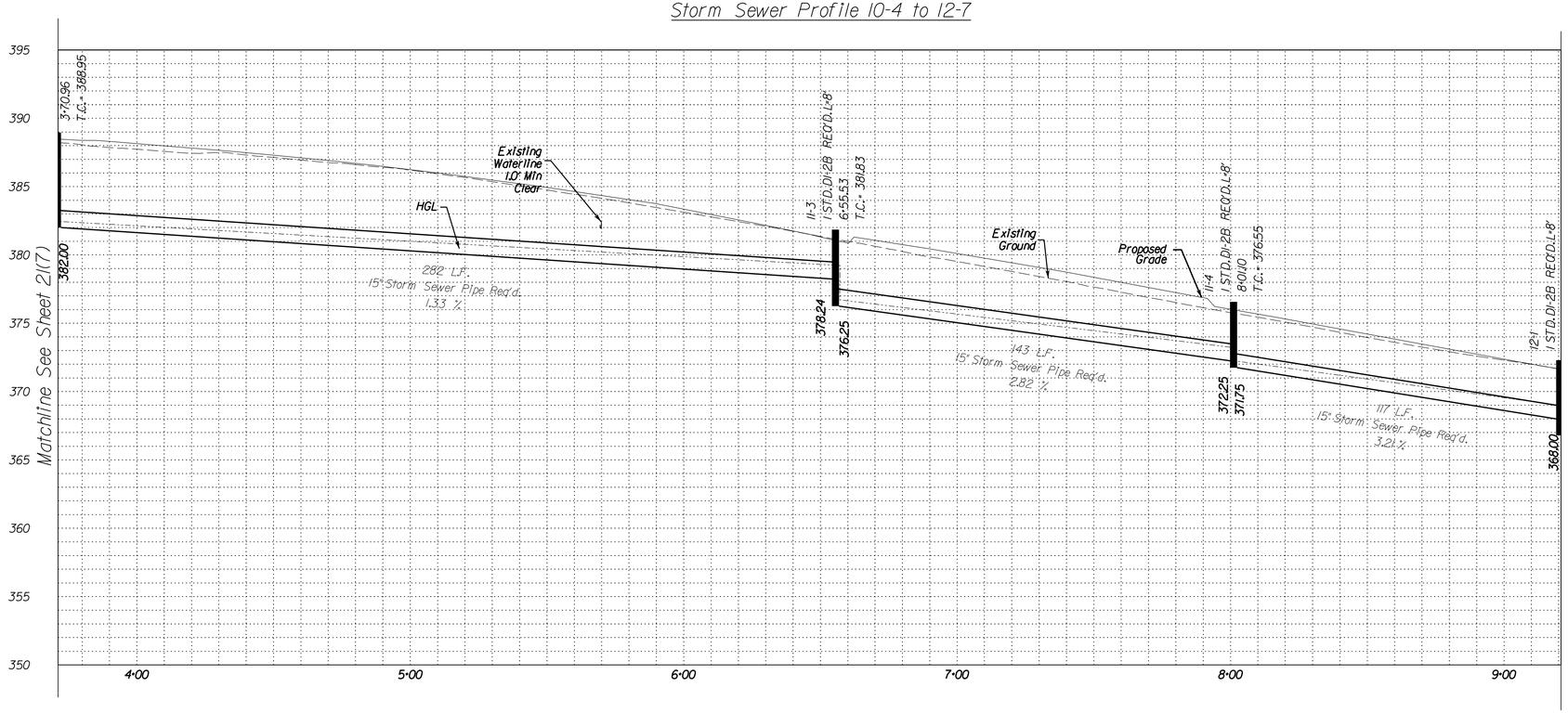
Nikhil V Deshpande
2025.12.12 09:03:01-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	21(8)

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

Storm Sewer Profile 10-4 to 12-7



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H= 25, V= 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-151-R94	21(8)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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Drainage Profiles

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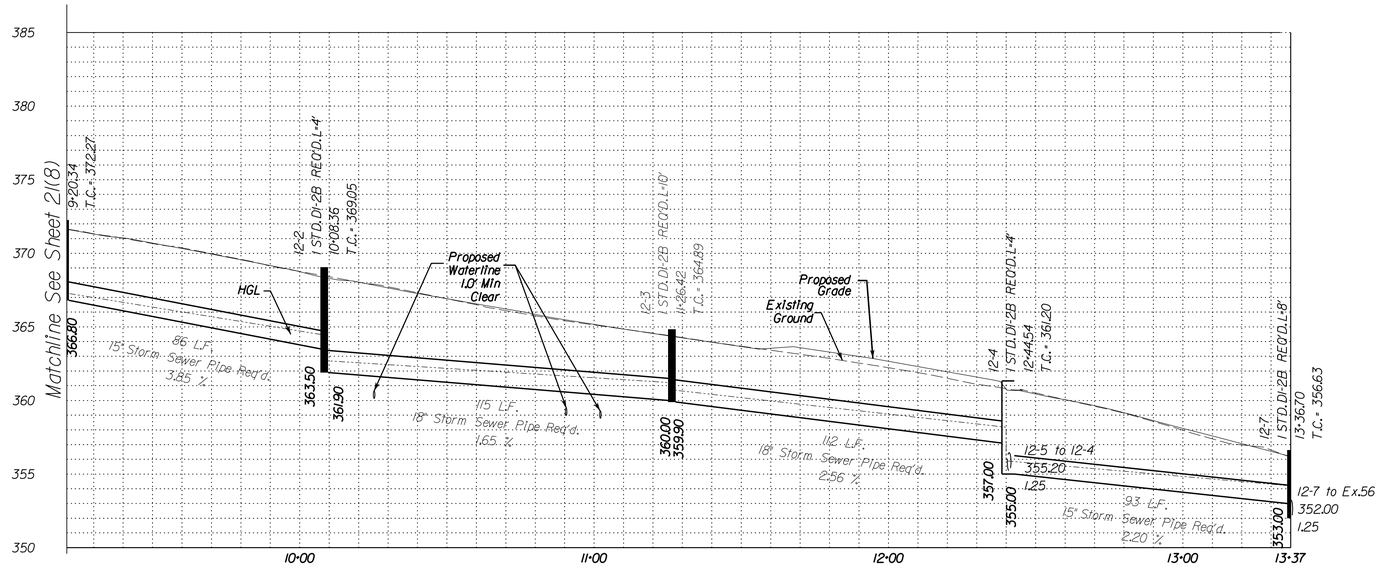
Nikhil V Deshpande
2025.12.12 09:03:20-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

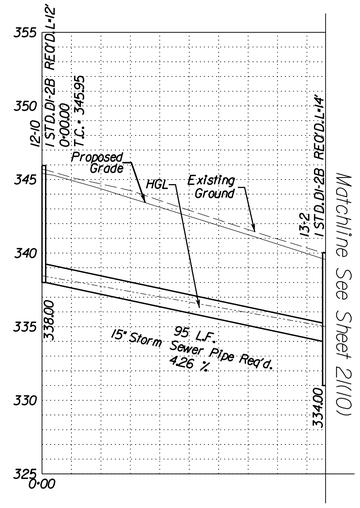
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	21(9)

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

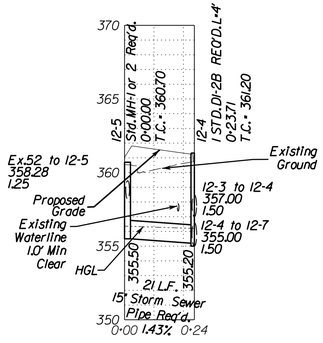
Storm Sewer Profile 10-4 to 12-7



Storm Sewer Profile 12-10 to 14-8



Storm Sewer Profile 12-5 to 12-4



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H: 25, V: 1
0 25' 50'
5' 2.5' 0

PROJECT	SHEET NO.
U000-151-R94	21(9)

12/10/2025

FINAL PLANS

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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Drainage Profiles

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

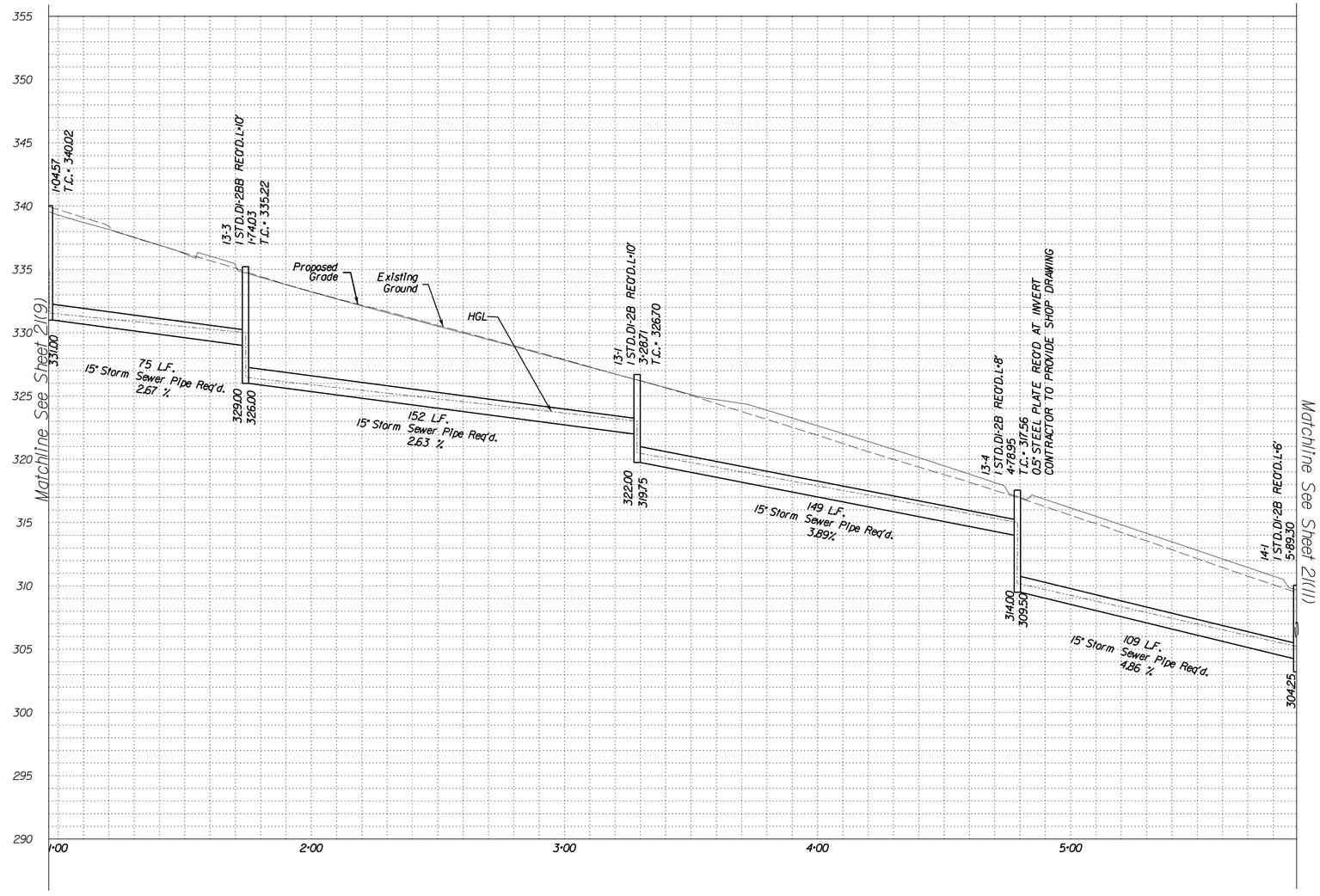
Nikhil V Deshpande
2025.12.12 09:03:39-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2l(10)

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

Storm Sewer Profile 12-10 to 14-8



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H= 25, V= 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-151-R94	2l(10)

12/10/2025

FINAL PLANS

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Drainage Profiles

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
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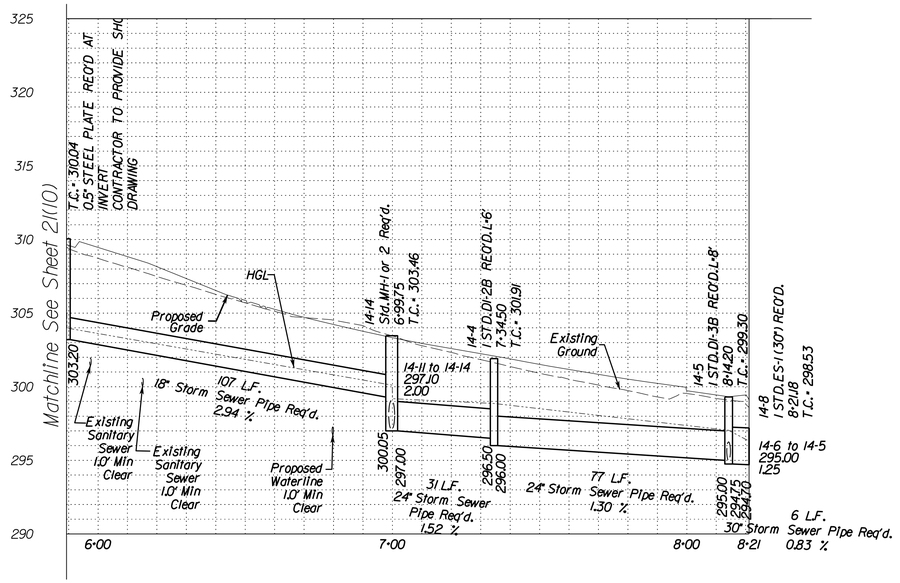
Nikhil V Deshpande
2025.12.12 09:03:58-05'00'

Rinker Design Associates, L.L.C.
Virginia Beach, Virginia
HYDRAULICS ENGINEER

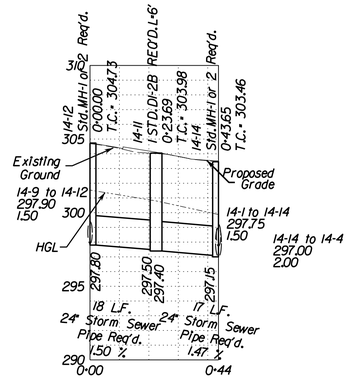
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	21(11)

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

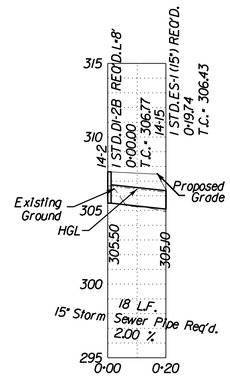
Storm Sewer Profile 12-10 to 14-8



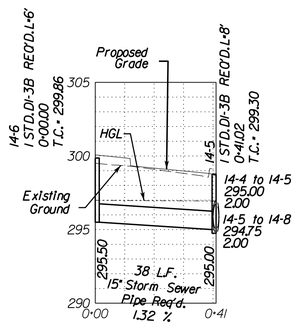
Storm Sewer Profile 14-12 to 14-14



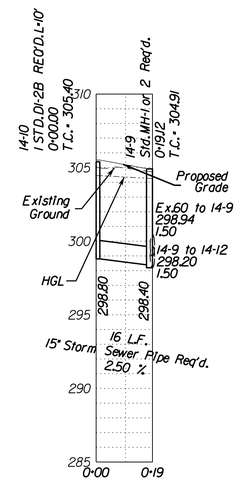
Storm Sewer Profile 14-2 to 14-15



Storm Sewer Profile 14-6 to 14-5



Storm Sewer Profile 14-10 to 14-9



Note: All Storm Sewer Pipes to be Polypropylene Pipe. All HGL lines represent a 10-yr storm.

SCALE H= 25, V= 1
0 25' 50'
5' 2.5' 0

PROJECT	SHEET NO.
U000-151-R94	21(11)

12/10/2025

FINAL PLANS

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SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

UNDERDRAIN SUMMARY

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6628	U000-151-R94	2J10

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

BASELINE	STATION FROM	STATION TO	LOCATION	UD-4 4" (LF)	Mod. UD-4 6" (LF)	CD-1 (LF)	CD-2 (LF)	OUTLET PIPE (LF)	EW-12 2:1	REMARKS
OLH_REV	101+14	101+67	Left	87'						Connect to Structure 3-1
OLH_REV	103+32	101+67	Left	167'						Connect to Structure 3-1
OLH_REV	105+10	101+35	Left	177'						Connect to Structure 3-3
OLH	106+74	105+17	Left	171'						Connect to Structure 4-1
OLH	107+01	105+17	Right	182'						Connect to Structure 4-2
OLH	107+99	108+31	Right	32'						Connect to Structure 4-4
OLH	107+12	110+40	Left	305'						Connect to Structure 4-8
OLH	109+08	109+83	Right	75'						Connect to Structure 4-5
OLH	109+85	110+40	Left	70'						Connect to Structure 4-8
OLH	110+22	110+45	Right	29'						Connect to Structure 4-6
ENTR_110995RT	10+22	10+41	Left	24'						Connect to Existing UD
ENTR_110995RT	10+26	10+41	Left	17'						Connect to Existing UD
OLH	110+99	110+77	Left	37'						Connect to Structure 4-7
OLH	111+22	111+54	Left	91'						Connect to Structure 5-14
OLH	111+74	111+56	Left	54'						Connect to Structure 5-14
OLH	111+20	112+31	Right	113'						Connect to Structure 5-1
OLH	111+27	112+97	Left	134'						Connect to Structure 5-13
OLH	113+00	114+72	Left	172'						Connect to Structure 5-3
OLH	112+31	115+05	Right	272'						Connect to Structure 5-2
OLH	114+98	114+75	Left	41'						Connect to Structure 5-3
OLH	115+23	115+39	Left	45'						Connect to Structure 5-5
OLH	115+42	115+55	Left	41'						Connect to Structure 5-5
OLH	115+06	115+67	Right	62'						Connect to Structure 5-4
OLH	115+67	115+68	Right				15'			Connect to Structure 5-4
OLH	116+15	115+67	Right	49'						Connect to Structure 5-4
OLH	116+46	116+16	Right	33'						Connect to Structure 5-6
ENTR_11667RT	10+29	11+20	Right	74'						Connect to Existing UD
ENTR_11667RT	10+23	11+23	Left	125'						Connect to Existing UD
ENTR_11728RT	10+23	10+73	Right	57'						Connect to Existing UD
ENTR_11728RT	10+23	10+52	Left	50'						Connect to Existing UD
OLH	119+06	117+72	Right	131'						Connect to Structure 5-7
OLH	118+95	117+72	Left	124'						Connect to Structure 5-8
OLH	120+09	118+98	Left	111'						Connect to Structure 5-12
OLH	123+00	120+11	Right	286'						Connect to Structure 6-1
OLH	122+36	120+11	Left	227'						Connect to Structure 6-2
OLDPOST_LT	10+23	10+56	Left	56'						Connect to Structure 6-6
OLDPOST_LT	10+23	10+87	Right	83'						Connect to Existing UD
OLDPOST_RT	10+12	10+63	Right	68'						Connect to Existing UD
OLH to OLDPOST_RT	124+74	10+63	Left	148'						Connect to Existing UD
OLH	124+72	123+47	Left	129'						Connect to Structure 6-12
OLH	125+75	124+75	Right	101'						Connect to Structure 6-3
OLH	126+52	124+75	Left	199'						Connect to Stucture 6-4
HERITAGE_RT	10+23	10+88	Left	57'						Connect to Existing UD
OLH	126+98	129+66	Right	271'						Connect to Structure 7-3
OLH	126+83	129+66	Left	301'						Connect to Structure 7-10
OLH to PARKLANE	129+69	10+63	Right	73'						Connect to Existing UD
PARKLANE	10+21	10+63	Left	46'						Connect to Existing UD
OLH	129+68	130+76	Left	108'						Connect to Structure 7-4
OLH	130+48	132+79	Right	234'						Connect to Structure 7-5
OLH	130+78	132+79	Left	201'						Connect to Structure 7-6
OLH	132+81	133+83	Left	102'						Connect to Structure 8-1
OLH	134+85	133+92	Left	94'						Connect to Structure CD-2
OLH	133+92	133+92	Left				25'			Connect to Structure 8-2
OLH	134+85	133+92	Right	94'						Connect to Structure 8-2
OLH	136+79	134+88	Left	192'						Connect to Structure 8-4
OLH	136+15	134+88	Right	126'						Connect to Structure 8-3
BROOKWOOD to OLH	10+51	136+82	Left	95'						Connect to Structure 8-5
OLH	139+34	137+08	Right	228'						Connect to Structure 8-6
OLH	137+84	140+70	Left	304'						Connect to Structure 9-1
OLH	139+34	140+70	Right	138'						Connect to Sturcture 9-2
OLH	140+73	141+98	Left	116'						Connect to Structure 9-13
OLH	141+76	142+84	Right	102'						Connect to Structure 9-10
OLH	141+95	142+83	Left	86'						Connect to Structure 9-12
OLH	142+85	144+09	Right	124'						Connect to Structure 9-4
OLH	142+85	144+10	Left	124'						Connect to Structure 9-3
OLH	145+33	146+72	Right	140'						Connect to Structure 9-6
COUNTRYHILL to OLH	10+74	146+71	Left	214'						Connect to Structure 9-5
OLH	146+71	147+55	Left	83'						Connect to Structure 9-15
OLH	147+57	147+75	Left	18'						Connect to Structure 9-7
OLH	146+74	147+55	Right	105'						Connect to Structure 9-8
OLH	148+35	147+79	Left	56						Connect to Structure 9-7
OLH	148+45	147+55	Right	69'						Connect to Structure 9-8
OLH	149+07	148+38	Left	90'						Connect to Structure 10-1
OLH	148+99	148+47	Right	54'						Connect to Structure 10-2
ENTRI4955_LT	10+23	10+75	Left	70'						Connect to Existing UD
ENTRI4955_LT	10+23	10+75	Right	70'						Connect to Existing UD
OLH	151+51	150+04	Left	149'						Connect to Structure 10-3

BASELINE	STATION FROM	STATION TO	LOCATION	UD-4 4" (LF)	Mod. UD-4 6" (LF)	CD-1 (LF)	CD-2 (LF)	OUTLET PIPE (LF)	EW-12 2:1	REMARKS
OLH	151+55	153+11	Left	159'						Connect to Structure 10-4
OLH	153+14	153+65	Left	53'						Connect to Structure 10-5
OLH	154+19	153+67	Left	50'						Connect to Structure 10-5
OLH	155+66	154+22	Left	146'						Connect to Structure 10-6
OLH	155+66	156+79	Left	112'						Connect to Structure 11-1
LIONRUN	10+23	10+72	Left	70'						Connect to Existing UD
LIONRUN	10+34	10+70	Right	56'						Connect to Existing UD
OLH	157+96	159+64	Left	168'						Connect to Structure 11-3
OLH	159+67	161+04	Left	142'						Connect to Structure 11-4
OLH	161+06	162+27	Left	121'						Connect to Structure 12-1
GREATOAKS_SB to OLH	10+69	163+15	Right	54'						Connect to Structure 12-2
GREATOAKS_NB to OLH	10+69	163+18	Left	52'						Connect to Structure 12-2
GREATOAKS_NB to OLH	10+71	164+34	Left	112'						Connect to Structure 12-3
OLH	164+37	165+47	Left	110'						Connect to Structure 12-4
OLH	165+50	166+41	Left	91'						Connect to Structure 12-7
OLH	166+43	168+29	Left	186'						Connect to Structure 12-10
OLH	168+33	169+36	Left	103'						Connect to Structure 13-2
OLH	169+39	169+97	Left	60'						Connect to Structure 13-3
OLH	170+00	171+58	Left	158'						Connect to Structure 13-1
OLH	171+60	173+02	Left	139'						Connect to Structure 13-4
OLH	173+05	174+21	Left	114'						Connect to Structure 14-1
RIDGEAVE	11+07	10+47	Left	60'						Connect to Structure 14-11
RIDGEAVE to OLH	10+44	175+70	Left	47'						Connect to Structure 14-4
OLH	174+31	174+82	Right	57'						Connect to Structure 14-2
OLH	174+85	176+34	Right	162'						Connect to Structure 14-6
OLH	175+76	176+34	Left	59'						Connect to Structure 14-5

NOT TO SCALE	PROJECT U000-151-R94	SHEET NO. 2J10

12/9/2025

FINAL PLANS