PROJECT MANAGER: City of Fairfax; Wendy Sanford (703) 385-7889
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

FHWA REGION	STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
3	VA.		6228	U000-154-R94 See Tabulation Below For Section Numbers	1

FHWA 534 DATA 44003

CITY OF FAIRFAX
DEPARTMENT OF PUBLIC WORKS

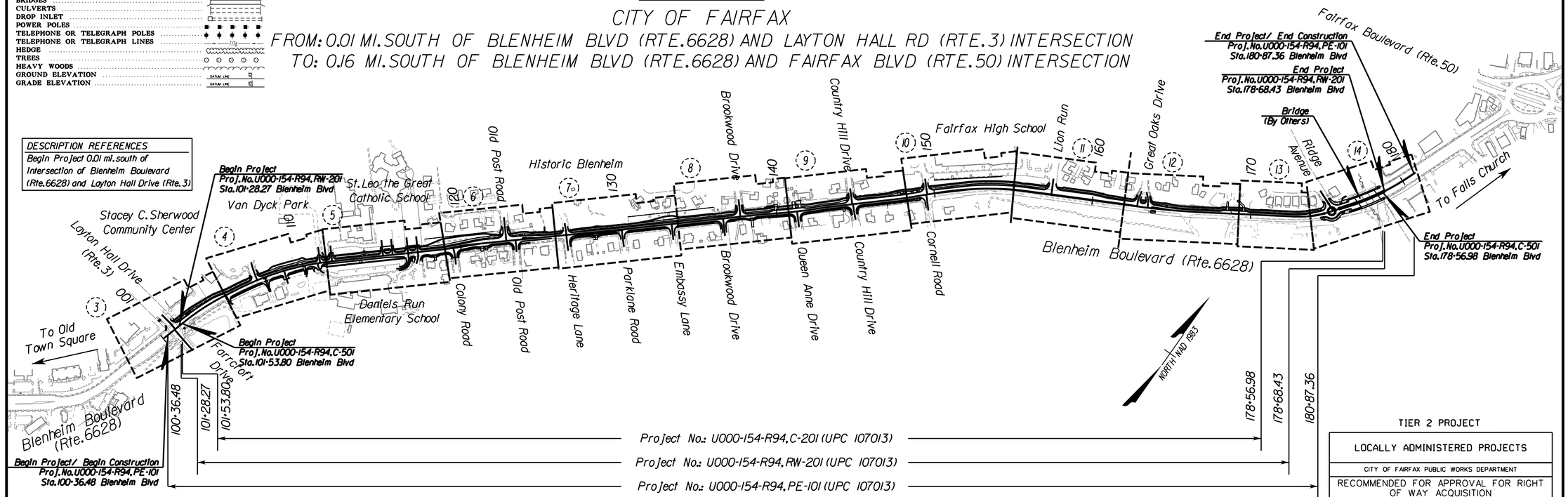
PLAN AND PROFILE OF PROPOSED
BLENHEIM BOULEVARD MULTIMODAL IMPROVEMENTS

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
End Project 0.16 mi. south of Fairfax Blvd.

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



THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, HAS BEEN SEALED AND SIGNED USING DIGITAL SIGNATURES AND THE OFFICIAL PLAN ASSEMBLY IN ELECTRONIC FORMAT IS STORED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY, INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE THE GENERAL NOTES. DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2020 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS(REVISED MAY 2020), 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE 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.

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

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

PH PLANS
MARCH 2023

Project Lengths are based on the Blenheim Boulevard Constr.℄ Sta.100+36.48 to 180+87.36.

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			
U000-154-R94	PE-101	····	PENG	107013	N/A	8050.88	1.525	7918.14	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	7740.16	1.466	7607.42	1.441	N/A	RIGHT OF WAY	FROM: 0.01 MI. N. OF LAYTON HALL RD. TO 0.20 MI. S. OF FAIRFAX BLVD.
	C-501	····	1000	107013	N/A	7703.18	1.459	7570.44	1.434	N/A	CONSTRUCTION	FROM: 0.01 MI. N. OF LAYTON HALL RD. TO 0.21 MI. S. OF FAIRFAX BLVD.

REVISED

TIER 2 PROJECT

LOCALLY ADMINISTERED PROJECTS
CITY OF FAIRFAX PUBLIC WORKS DEPARTMENT
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION
DIRECTOR OF TRANSPORTATION

LOCALLY ADMINISTERED PROJECTS
CITY OF FAIRFAX PUBLIC WORKS DEPARTMENT
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
DIRECTOR OF TRANSPORTATION

APPROVED FOR RIGHT OF WAY ACQUISITION
CHIEF OF POLICY

APPROVED FOR CONSTRUCTION
CHIEF ENGINEER

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3/24/2023

PH PLANS | THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION. | ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE 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)

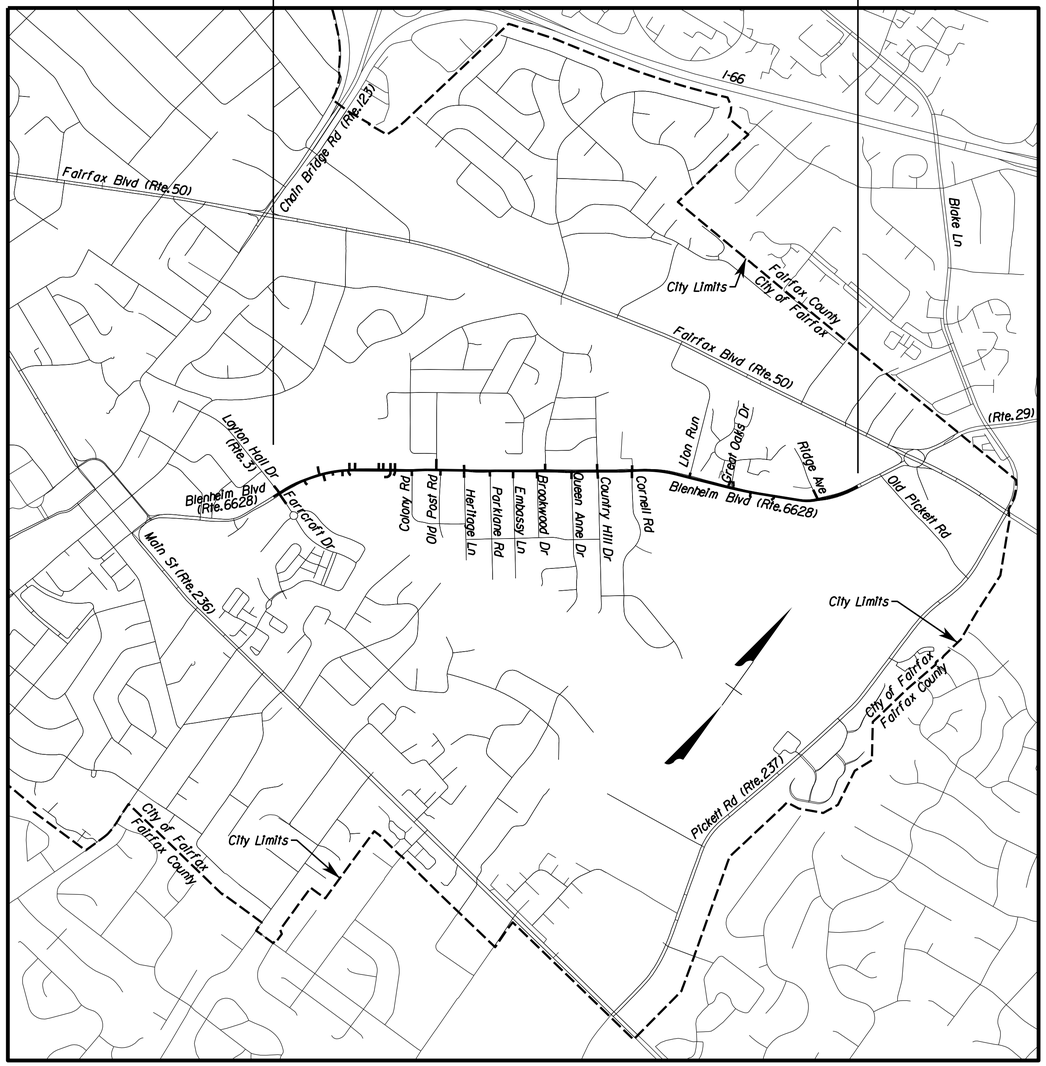
Project Location Map

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IA

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

Proposed Project: U000-154-R94
(See Title Sheet for Section Info.)



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 (2021)	11,000
ADT (2045)	17,260
DHV	971
D (%) (design hour)	52.3
T (%) (design hour)	1
V (MPH)	30

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 (2021)	9,600
ADT (2045)	17,260
DHV	871
D (%) (design hour)	52.9
T (%) (design hour)	1
V (MPH)	30

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 (2021)	10,000
ADT (2045)	17,260
DHV	928
D (%) (design hour)	53.5
T (%) (design hour)	1
V (MPH)	30

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 (2021)	10,000
ADT (2045)	17,260
DHV	940
D (%) (design hour)	56.3
T (%) (design hour)	1
V (MPH)	30

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 (2021)	9,500
ADT (2045)	17,260
DHV	882
D (%) (design hour)	54.8
T (%) (design hour)	1
V (MPH)	30

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA URBAN MINOR ARTERIAL (STD GS-6) 30 MPH MINIMUM DESIGN SPEED	
Lion Run	From: Fairfax High School To: US 29 Lee Hwy
ADT (2021)	4,600
ADT (2045)	-
DHV	N/A
D (%) (design hour)	N/A
T (%) (design hour)	N/A
V (MPH)	25

SCALE	PROJECT	SHEET NO.
0 1000' 2000'	U000-154-R94	IA

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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

3/24/2023

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.	6228	U000-154-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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**	1D	Not Used
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Sheet No.	21(9)	Fairfax Water 30% Plans (Sta.140+75 to 148+25)
Sheet No.	21(10)	Fairfax Water 30% Plans (Sta.148+25 to 155+00)
Sheet No.	21(11)	Fairfax Water 30% Plans (Sta.155+00 to 162+00)
Sheet No.	21(12)	Fairfax Water 30% Plans (Sta.162+00 to 169+25)
Sheet No.	21(13)	Fairfax Water 30% Plans (Sta.169+25 to 173+75)
Sheet No.	21(14)	Fairfax Water 30% Plans (Sta.173+75 to 180+00)

	PROJECT	SHEET NO.
	U000-154-R94	1B

3/24/2023

PH PLANS

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ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE 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.	6228	U000-154-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

INDEX OF SHEETS

Sheet No.	22(3)	Sanitary Sewer 30% Plans (Sta.100+00 to 104+75)
Sheet No.	22(4)	Sanitary Sewer 30% Plans (Sta.104+75 to 111+50)
Sheet No.	22(8)	Sanitary 30% Plans (Sta.133+75 to 140+75)
Sheet No.	22(9)	Sanitary Sewer 30% Plans (Sta.140+75 to 148+25)
Sheet No.	22(12)	Sanitary Sewer 30% Plans (Sta.162+00 to 169+25)
Sheet No.	22(13)	Sanitary Sewer 30% Plans (Sta.169+25 to 173+75)
Sheet No.	22(14)	Sanitary Sewer 30% Plans (Sta.173+75 to 180+00)
**********		
CROSS SECTIONS		
Sheet No.	X	Project Index of Cross Sections
Sheet No.	X1 thru X43	Blenheim Boulevard Cross Sections
**********		
INDEX PLAN SET NOTES:		
22! Total plan and profile sheets in this set		
43 Total cross section sheets		
** Denotes plans not included in this submission		

INDEX OF SHEETS

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PROJECT	SHEET NO.
U000-154-R94	1B(1)

3/24/2023

PH PLANS

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Right of Way Data

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IE

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	-	-	-	-	-	-	-	-		
			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	3	106,688	1,901		104,787	6,619	-	-	-										TAX* 57-2-02-172
002	FARRCROFT HOMEOWNERS ASSOC C/O ANN WICKERSHAM	3,4	383,583	0		383,583	0	-	-	-										TAX* 57-2-02-03-00A
003	CITY OF FAIRFAX	3,4	609,564	3,133		606,431	3,949	-	-	-										TAX* 57-2-02-175A
004	E ETAL TR PARKS MENNONITE CHURCH	3,4	147,211	0		147,211	5,149	-	-	-										TAX* 57-2-02-180
005	CITY OF FAIRFAX	4	454,963	5,578		449,385	4,422	-	-	-										TAX* 57-2-02-175
006	CHRISTIAN SCIENCE CHURCH OF FAIRFAX	4	47,244	290		46,954	5,656	-	-	-										TAX* 57-2-02-179
007	SCHOOL BOARD OF FAIRFAX CITY	4,5	594,965	5,002		589,963	11,792	-	-	148										TAX* 57-2-02-182
008	RT REV PETER L IRETON & CATHOLIC DIOCESE OF ARLINGTON	4,5	542,033	3,857		538,176	8,697	578	-	-										TAX* 57-2-02-177
009	BARBARA ELLEN (TRS) CAREY & BARBARA ELLEN CAREY REV LIV TR	5	9,589	415		9,174	941	-	-	-										TAX* 57-2-15-018A
010	JOHN M APPLETON & PATRICIA A APPLETON	5,6	17,097	0		17,097	0	-	-	-										TAX* 57-2-10-164
011	VAN U NGUYEN & RETT C TRAN & CONNIE DIEM & KHANH LE & ANNA NHA KHANH LE	5,6	10,342	204		10,138	756	-	-	-										TAX* 57-2-15-017A
012	SANDRA SLAPPEY & THOMAS BROWN	5,6	12,439	0		12,439	0	-	-	-										TAX* 57-2-10-163
013	CASEY D DUFFY	6	18,802	3		18,799	400	-	-	-										TAX* 57-2-15-001A
014	APRIL MARIE ERKENBRACK	6	10,560	0		10,560	0	-	-	-										TAX* 57-2-10-162
015	HENRY A GARCIA & AUGUSTO GARCIA	6	10,560	0		10,560	0	-	-	-										TAX* 57-2-10-161
016	DAVID ARONSON & ESTHER NASJLETI	6	10,000	0		10,000	382	-	-	-										TAX* 57-2-23-001
017	ELVA L CARD	6	13,585	0		13,585	0	-	-	-										TAX* 57-2-10-160
018	JOHNATHAN LEBOON & MEGAN LEBOON	6	11,764	0		11,764	0	-	-	-										TAX* 57-2-23-002
019	KENNETH HOETH & ALICE HOETH	6	15,613	0		15,613	0	-	-	-										TAX* 57-2-10-139
020	ALONSO R CASTANO & CAROLINA HURTADO	6	9,154	0		9,154	0	-	-	-										TAX* 57-2-50-001
021	CITY OF FAIRFAX	6,7	522,493	4,417		518,076	6,330	518	-	189										TAX* 57-2-02-190
022	DANYLO K GASPAR & CHRISTINE T GASPAR	6,7	11,734	0		11,734	0	-	-	-										TAX* 57-2-48-003
023	YOUNG CHUL & DIANA D LEE & GINA LEE & MICHAEL ANNA FEE	6,7	11,894	0		11,894	0	-	-	-										TAX* 57-2-48-002
024	LEONARD R KOSTA & MARY L KOSTA	7	11,881	0		11,881	0	-	-	-										TAX* 57-2-16-028
025	JENNIFER M JOHNSON & STEVEN N JOHNSON	7	12,939	0		12,939	521	-	-	-										TAX* 57-2-16-029
026	HAN JOHN LIN & XIAO HUI XU LIN	7	15,501	0		15,501	47	-	-	-										TAX* 58-1-04-060
027	JOYCE YUN PARK	7	14,828	0		14,828	0	-	-	-										TAX* 58-1-04-031
028	JAMES FRANKLIN (TRS) LOCKWOOD & JEAN MARIE (TRS) LOCKWOOD & JAMES FRANKLIN & JEAN MARIE LOCKWOOD LIVING TRUST	7	18,127	0		18,127	0	-	-	-										TAX* 57-2-10-104
029	NICHOLAS PETER DEDHAM & TANIA DE LA FUENTE DEDHAM	7	11,423	0		11,423	0	-	-	-										TAX* 57-2-10-103
030	JAMIL AHMED & TAHMINA AHMED	7	14,372	0		14,372	0	-	-	-										TAX* 58-1-04-030
031	DAVID S MICHEK & JAN M MICHEK	7	10,560	0		10,560	0	-	-	-										TAX* 57-2-10-102
032	CLAUDE G JALKH & MAYA KWAN JALKH	7,8	13,695	0		13,695	0	-	-	-										TAX* 58-1-04-001A
033	KESHAV NEUPANE & RAMITA UPRETY	7,8	10,522	0		10,522	0	-	-	-										TAX* 57-2-10-101
034	JOHN G MCNICHOL & SARAH E MCNICHOL	8	12,589	0		12,589	0	-	-	-										TAX* 57-2-10-100
035	AIDAN WEST-CREWS & CASSANDRA MICHELLE WEST-CREWS	8	15,087	0		15,087	0	-	-	-										TAX* 58-1-05-001
036	HECTOR PONCIANO & KAREN LEE PONCIANO	8	13,053	0		13,053	0	-	-	-										TAX* 57-2-10-099
037	DAVID READE & TAMMY READE	8	13,768	0		13,768	0	-	-	-										TAX* 58-1-06-023
038	WARREN R (TRS) CARMICHAEL & REBECCA HUX (TRX) CARMICHAEL	8	27,644	124		27,520	1,948	-	-	-										TAX* 58-1-02-015
039	ROGER MEZA	8	13,359	0		13,359	0	-	-	-										TAX* 58-1-06-022
040	ROBERT E THOENSEN & DEBORAH A THOENSEN	8	67,624	318		67,306	1,722	-	-	-										TAX* 58-1-02-014
041	DAVID M BISHOP	8	9,486	0		9,486	1,481	-	-	-										TAX* 58-1-02-007
042	BEATRICE W SITO	8,9	16,816	16		16,800	1,491	-	-	-										TAX* 58-1-12-026
043	JEFFREY C DOVE & KIKI M PRYBYLA	8,9	9,356	0		9,356	640	-	-	-										TAX* 58-1-02-006
044	OMAR E CEREZO & LILIANA B ORELLANA	9	13,792	0		13,792	381	-	-	-										TAX* 58-1-02-002
045	THOMAS ANTHONY BORK & YAN BAI	9	16,405	21		16,384	154	-	-	-										TAX* 58-1-12-001
046	MORRIS R JR FITZGERALD & ANN MARIE FITZGERALD	9	13,332	0		13,332	86	-	-	-										TAX* 58-1-06-012
047	ZHIJUN ZHANG & JIANLING LI	9	15,142	0		15,142	115	-	-	-										TAX* 58-1-02-008
048	COURTNEY B (TRS) ASHMORE & TIMOTHY (TRS) ASHMORE & COURTNEY & TIMOTHY ASHMORE LIVING TRUST	9	14,204	33		14,171	900	-	-	-										TAX* 58-1-06-001
049	OZAN CAN BUYUKMEREY	9	13,523	0		13,523	0	-	-	-										TAX* 58-1-10-001
050	CITY OF FAIRFAX SCHOOL BOARD	9,10,11	2,065,798	20,166		2,045,632	23,726	112	-	-										TAX* 58-1-02-003
051	CATHERINE G CRUISE & DONALD A INSLEY	9	22,136	0		22,136	0	-	-	-										TAX* 58-1-18-005
052	CHAD ROBERT BARRY & LINDSAY CASTEEL BARRY	9,10	24,305	0		24,305	0	-	-	-										TAX* 58-1-18-004
053	TIMOTHY W & CYNTHIA O HOPE REV LVG TRUST	10	44,248	0		44,248	0	-	-	-										TAX* 58-1-07-001
054	ARMY NAVY COUNTRY CLUB	10,11,12,13,14	10,063,807	913		10,062,894	896	1,687	-	-										TAX* 58-1-02-005
055	CHARLES E.CONLEY II & LINE STORGAARD-CONLEY	11	5,736	0		5,736	0	-	-	-										TAX* 58-1-17-063
056	BAKHTIYOR SAFAROV & NOZIRA N NAZURDINOVA	11	6,174	0		6,174	0	-	-	-										TAX* 58-1-17-062
057	ERICK FLETCHER & MEGAN FLETCHER	11	5,603	0		5,603	0	-	-	-										TAX* 58-1-17-052
058	DIANA E DOWELL & DIANA E DOWELL TRUST	11,12	5,291	0		5,291	0	-	-	-										TAX* 58-1-17-051
059	JORAM SHENHAR & ROMY SHENHAR	12	8,468	0		8,468	0	-	-	-										TAX* 58-1-17-005
060	AARON D CLAY & CYNTHIA R CRUMB	12	4,095	0		4,095	0	-	-	-										TAX* 58-1-17-006
061	STEVE S CHANG & JIE S CHANG	12	6,255	0		6,255	0	-	-	-										TAX* 58-1-17-007
062	KAREN WHEELER-SMITH & DAVID R SMITH	12	6,930	0		6,930	0	-	-	-										TAX* 58-1-17-008
063	MICHAEL T SHADE & CYNTHIA A DECARLO	12	6,930	0		6,930	0	-	-	-										TAX* 58-1-17-009

3/24/2023

PH 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)

Right of Way Data

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

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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	-	-	-	-	-	-	-	-		
			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.		
064	FREDA S NUNN & DARRYL O NUNN	12	4,918	0	-	4,918	0	-	-	-										TAX# 58-1-17-010
065	PUSHPAM KUMAR & MANASI KUMAR	12	7,476	0	-	7,476	0	-	-	-										TAX# 58-1-17-011
066	CHERISSE MARSHALL & FABIAN MUNGAL	12	31,685	1,273	-	30,412	4,686	-	-	-										TAX# 58-1-09-010A
067	JAMES GEORGE CRAIG & CAROLYN CRAIG	12,13	31,686	1,407	-	30,279	4,612	-	-	-										TAX# 58-1-09-010B
068	XIACLU CUI	13	6,956	26	-	6,930	118	-	-	-										TAX# 48-3-19-006
069	SUSAN S (TRS) CONRAD & CHRISTINA T (TRS) RUPPERT & SUSAN S CONRAD TRUST	13	5,885	0	-	5,885	155	-	-	-										TAX# 48-3-19-005
070	TRENT HONE & LAUREN S H TAYLOR	13	5,962	0	-	5,962	185	-	-	-										TAX# 48-3-19-004
071	PANKAJ K MITTAL & ALKA GUPTA	13	6,090	0	-	6,090	133	-	-	-										TAX# 48-3-19-003
072	AMANDA K ALLEXON & KEVIN M ALLEXON	13,14	6,107	2	-	6,105	122	-	-	-										TAX# 48-3-19-002
073	KAREN M CULLEN & JOHN A SELF	14	8,537	269	-	8,268	452	-	-	-										TAX# 48-3-19-001
074	ANGELA (TRS) SCANLAN & ANGELA SCANLAN TRUST	14	4,577	209	-	4,368	162	-	-	-										TAX# 48-3-08-06-001
075	BEING I MICHAEL FOO & JAMIE C FOO	14	2,756	0	-	2,756	0	-	-	-										TAX# 48-3-08-06-002
076	CITY OF FAIRFAX	14	65,177	28	-	65,149	561	154	-	-										TAX# 48-3-08-06-000A
077	GREAT OAKS HOMEOWNERS ASSOCAT C/O IAN WILLIAMSON	11,12	650,908	6,687	-	644,221	10,388	410	-	90										TAX# 58-1-17-000A
078	PRECISION CIRCLE PROPERTIES LLC	14	402,976	147	-	402,829	128	-	-	-										TAX# 48-3-08-004
079	CITY OF FAIRFAX	14	201,877	0	-	201,877	0	-	-	-										TAX# 48-3-02-014B
080	DOMINION DEVELOPMENT CORP C/O LANN COMPANIES	14	163,548	16	-	163,532	70	-	-	-										TAX# 48-3-02-014A
081	ALLEY	13	5,704	115	-	5,589	327	-	-	-										TAX# 48-3-02-014A
082	FAIRFAX OAKS INC C/O TOM CASEY	14	59,461	160	-	59,301	1,759	-	-	-										TAX# 48-3-08-06-000B

PH PLANS

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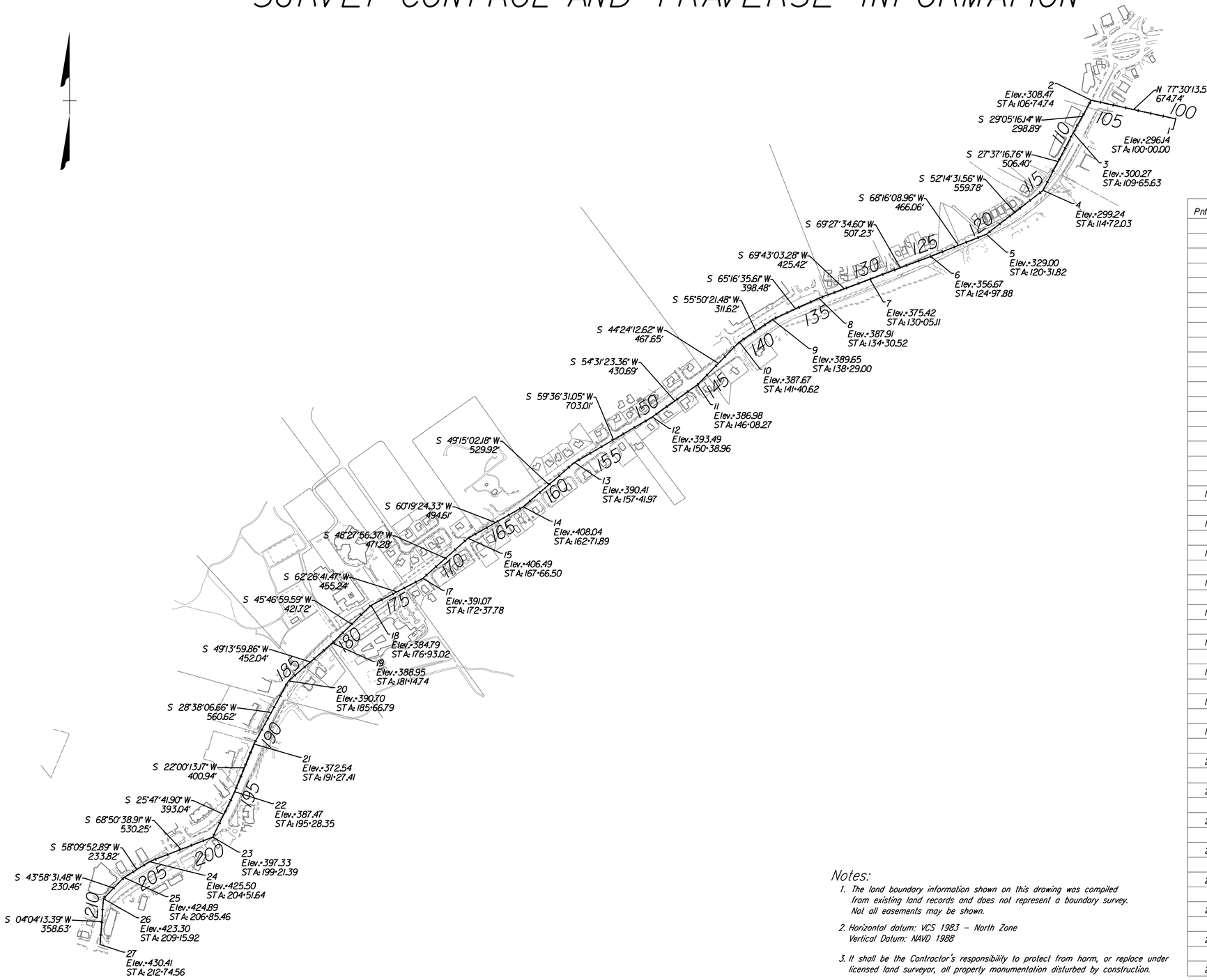
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PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

SURVEY CONTROL AND TRAVERSE INFORMATION

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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	674.74				
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'	U000-154-R94	1F

3/24/2023

PH 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)

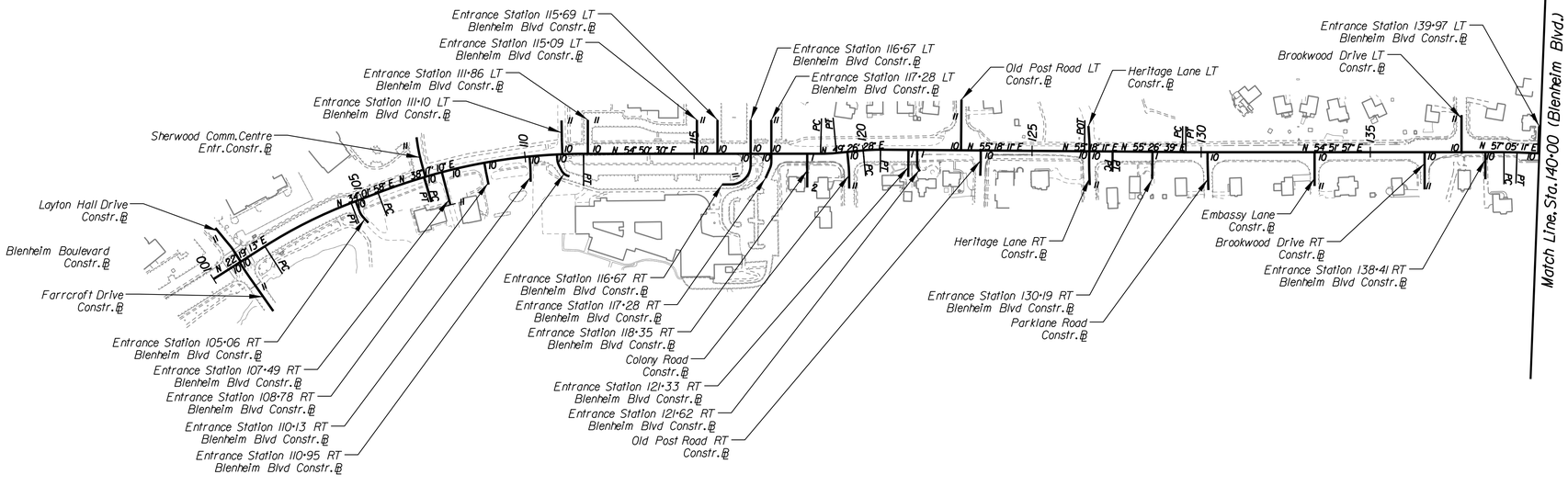
PROPOSED BASELINES

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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



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0 400' 800'	U000-154-R94	IG(1)

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HORIZONTAL CONSTRUCTION ALIGNMENT DATA SHEET

ADAM D. WELSCHENBACH
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COMMONWEALTH OF VIRGINIA
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Manassas, Virginia
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IG(IA)

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Blenheim Boulevard

From Sta.100+00.00 to Sta.180+97.03

OLH001 CUR OLH1 CUR OLH2 CUR OLH3 CUR OLH4 CUR OLH5 OLH002 CUR OLH6 CUR OLH7 CUR OLH8 CUR OLH9 CUR OLH10 CUR OLHII CUR OLH12 CUR OLHI3 CUR OLHI4 CUR OLHI5 CUR OLHI6 CUR OLHI7 CUR OLHI8 CUR OLHI9 CUR OLH20 OLH003

Beginning chain OLH description

Point OLH001 N 6,994,766.8010 E 11,824,827.6357 Sta 100+00.00

Course from OLH001 to PC OLHI N 22°19'13.2648" E Dist 180.0000

Curve Data

Curve OLHI
P.I. Station 103+23.60 N 6,995,066.1518 E 11,824,950.5326
Delta = 11°42'45.1825" (RT)
Degree = 4°05'33.2004"
Tangent = 143.5962
Length = 286.1916
Radius = 1,400.0000
External = 7.3450
Long Chord = 285.6935
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°19'13.2647" E
Ahead = N 34°01'58.4472" E
Chord Bear = N 28°10'35.8559" E

Course from PT OLHI to PC OLH2 N 34°01'58.4466" E Dist 84.9408

Curve Data

Curve OLH2
P.I. Station 106+22.24 N 6,995,314.4749 E 11,825,118.2362
Delta = 4°15'11.6902" (RT)
Degree = 2°59'31.0082"
Tangent = 71.1109
Length = 142.1565
Radius = 1,915.0000
External = 1.3198
Long Chord = 142.1239
Mid.Ord. = 1.3189
P.C. Station 105+51.13 N 6,995,255.5441 E 11,825,078.4376
P.T. Station 106+93.29 N 6,995,370.2917 E 11,825,162.2958
C.C. N 6,994,183.7782 E 11,826,665.4294
Back = N 34°01'58.4472" E
Ahead = N 38°17'10.1374" E
Chord Bear = N 36°09'34.2923" E

Course from PT OLH2 to PC OLH3 N 38°17'10.1399" E Dist 3.2660

Curve Data

Curve OLH3
P.I. Station 109+36.61 N 6,995,561.2794 E 11,825,313.0538
Delta = 16°33'19.4645" (RT)
Degree = 3°28'20.8973"
Tangent = 240.0532
Length = 476.7615
Radius = 1,650.0000
External = 17.3709
Long Chord = 475.1047
Mid.Ord. = 17.1899
P.C. Station 106+96.55 N 6,995,372.8553 E 11,825,164.3193
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°17'10.1375" E
Ahead = N 54°50'29.6020" E
Chord Bear = N 46°33'49.8697" E

Course from PT OLH3 to PC OLH4 N 54°50'29.6020" E Dist 700.6409

Curve Data

Curve OLH4
P.I. Station 118+97.54 N 6,996,116.5476 E 11,826,101.4099
Delta = 5°24'02.0034" (LT)
Degree = 11°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°50'29.6020" E
Ahead = N 49°26'27.5986" E
Chord Bear = N 52°08'28.6003" E

Course from PT OLH4 to PC OLH5 N 49°26'27.5991" E Dist 79.4085

Curve Data

Curve OLH5
P.I. Station 120+26.09 N 6,996,200.1610 E 11,826,199.1047
Delta = 5°51'43.0921" (RT)
Degree = 11°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°26'27.5986" E
Ahead = N 55°18'10.6907" E
Chord Bear = N 52°22'19.1447" E

Course from PT OLH5 to OLH002 N 55°18'10.6907" E Dist 603.6294

Point OLH002 N 6,996,558.3416 E 11,826,716.4405 Sta 126+55.28

Course from OLH002 to PC OLH6 N 55°18'10.6906" E Dist 81.6848

Curve Data

Curve OLH6
P.I. Station 127+38.20 N 6,996,605.5405 E 11,826,784.6119
Delta = 0°08'27.9526" (RT)
Degree = 5°43'46.4806"
Tangent = 1.2313
Length = 2.4626
Radius = 1,000.0000
External = 0.0008
Long Chord = 2.4626
Mid.Ord. = 0.0008
P.C. Station 127+36.96 N 6,996,604.8396 E 11,826,783.5996
P.T. Station 127+39.43 N 6,996,606.2389 E 11,826,785.6260
C.C. N 6,995,782.6660 E 11,827,352.8365
Back = N 55°18'10.6907" E
Ahead = N 55°26'38.6433" E
Chord Bear = N 55°22'24.6670" E

Course from PT OLH6 to PC OLH7 N 55°26'38.6436" E Dist 205.1821

Curve Data

Curve OLH7
P.I. Station 129+49.65 N 6,996,725.4824 E 11,826,958.7641
Delta = 0°34'41.5742" (LT)
Degree = 5°43'46.4806"
Tangent = 5.0459
Length = 10.0918
Radius = 1,000.0000
External = 0.0127
Long Chord = 10.0917
Mid.Ord. = 0.0127
P.C. Station 129+44.61 N 6,996,722.6203 E 11,826,954.6084
P.T. Station 129+54.70 N 6,996,728.3863 E 11,826,962.8906
C.C. N 6,997,546.1932 E 11,826,387.3979
Back = N 55°26'38.6432" E
Ahead = N 54°51'57.0690" E
Chord Bear = N 55°09'17.8566" E

Course from PT OLH7 to PC OLH8 N 54°51'57.0690" E Dist 940.6835

Curve Data

Curve OLH8
P.I. Station 139+14.76 N 6,997,280.8963 E 11,827,748.0378
Delta = 2°13'14.1352" (RT)
Degree = 5°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+95.38 N 6,997,269.7428 E 11,827,732.1880
P.T. Station 139+34.14 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°51'57.0690" E
Ahead = N 57°05'11.2042" E
Chord Bear = N 55°58'34.1366" E

Course from PT OLH8 to PC OLH9 N 57°05'11.2040" E Dist 99.8323

Curve Data

Curve OLH9
P.I. Station 140+57.63 N 6,997,358.5297 E 11,827,867.9785
Delta = 2°42'38.6565" (LT)
Degree = 5°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+33.97 N 6,997,345.6735 E 11,827,848.1161
P.T. Station 140+81.28 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°05'11.2042" E
Ahead = N 54°22'32.5477" E
Chord Bear = N 55°43'51.8760" E

Course from PT OLH9 to PC OLHI0 N 54°22'32.5472" E Dist 102.5070

Curve Data

Curve OLHI0
P.I. Station 142+08.84 N 6,997,446.6105 E 11,827,990.8984
Delta = 2°52'12.9648" (LT)
Degree = 5°43'46.4806"
Tangent = 25.0531
Length = 50.0956
Radius = 1,000.0000
External = 0.3138
Long Chord = 50.0904
Mid.Ord. = 0.3137
P.C. Station 141+83.79 N 6,997,432.0179 E 11,827,970.5339
P.T. Station 142+33.89 N 6,997,462.2046 E 11,828,010.5066
C.C. N 6,998,244.8718 E 11,827,388.0662
Back = N 54°22'32.5477" E
Ahead = N 51°30'19.5829" E
Chord Bear = N 52°56'26.0653" E

Course from PT OLHI0 to PC OLHII N 51°30'19.5843" E Dist 45.5939

Curve Data

Curve OLHII
P.I. Station 143+05.33 N 6,997,506.6715 E 11,828,066.4200
Delta = 2°57'39.7766" (RT)
Degree = 5°43'46.4806"
Tangent = 25.8458
Length = 51.6801
Radius = 1,000.0000
External = 0.3339
Long Chord = 51.6743
Mid.Ord. = 0.3338
P.C. Station 142+79.48 N 6,997,490.5840 E 11,828,046.1914
P.T. Station 143+31.16 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°30'19.5829" E
Ahead = N 54°27'59.3595" E
Chord Bear = N 52°59'09.4712" E

Course from PT OLHII to PC OLHI2 N 54°27'59.3596" E Dist 431.0580

Curve Data

Curve OLHI2
P.I. Station 148+15.12 N 6,997,802.9573 E 11,828,481.2840
Delta = 3°08'53.1469" (LT)
Degree = 2°58'35.0549"
Tangent = 52.8975
Length = 105.7684
Radius = 1,925.0000
External = 0.7267
Long Chord = 105.7551
Mid.Ord. = 0.7264
P.C. Station 147+62.22 N 6,997,772.2144 E 11,828,438.2372
P.T. Station 148+67.99 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°27'59.3595" E
Ahead = N 51°19'06.2126" E
Chord Bear = N 52°53'32.7861" E

Course from PT OLHI2 to PC OLHI3 N 51°19'06.2117" E Dist 82.0127

Curve Data

Curve OLHI3
P.I. Station 149+77.82 N 6,997,904.6608 E 11,828,608.3142
Delta = 3°11'12.5516" (RT)
Degree = 5°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+50.00 N 6,997,887.2751 E 11,828,586.5991
P.T. Station 150+05.62 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°19'06.2126" E
Ahead = N 54°30'18.7642" E
Chord Bear = N 52°54'42.4884" E

Course from PT OLHI3 to PC OLHI4 N 54°30'18.7643" E Dist 197.9920

Curve Data

Curve OLHI4
P.I. Station 152+59.42 N 6,998,068.1767 E 11,828,837.5991
Delta = 6°23'19.0474" (RT)
Degree = 5°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+03.61 N 6,998,035.7723 E 11,828,792.1611
P.T. Station 153+15.12 N 6,998,095.3239 E 11,828,886.3607
C.C. N 6,997,221.6039 E 11,829,372.7900
Back = N 54°30'18.7642" E
Ahead = N 60°53'37.8116" E
Chord Bear = N 57°41'58.2879" E

Course from PT OLHI4 to PC OLHI5 N 60°53'37.8111" E Dist 49.3614

Curve Data

Curve OLHI5
P.I. Station 154+65.51 N 6,998,168.4783 E 11,829,017.7600
Delta = 7°42'23.1629" (RT)
Degree = 3°49'10.9871"
Tangent = 101.0293
Length = 201.7540
Radius = 1,500.0000
External = 3.3985
Long Chord = 201.6019
Mid.Ord. = 3.3908
P.C. Station 153+64.48 N 6,998,119.3347 E 11,828,929.4887
P.T. Station 155+66.23 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°53'37.8116" E
Ahead = N 68°36'00.9745" E
Chord Bear = N 64°44'49.3930" E

Course from PT OLHI5 to PC OLHI6 N 68°36'00.9745" E Dist 641.2480

Curve Data

Curve OLHI6
P.I. Station 162+34.06 N 6,998,449.0130 E 11,829,733.6102
Delta = 3°02'42.3236" (RT)
Degree = 5°43'46.4806"
Tangent = 26.5797
Length = 53.1468
Radius = 1,000.0000
External = 0.3532
Long Chord = 53.1406
Mid.Ord. = 0.3531
P.C. Station 162+07.48 N 6,998,439.3148 E 11,829,708.8630
P.T. Station 162+60.63 N 6,998,457.3829 E 11,829,758.8377
C.C. N 6,997,508.2573 E 11,830,073.7354
Back = N 68°36'00.9745" E
Ahead = N 71°38'43.2981" E
Chord Bear = N 70°07'22.1363" E

Course from PT OLHI6 to PC OLHI7 N 71°38'43.2992" E Dist 14.5018

Curve Data

Curve OLHI7
P.I. Station 163+08.83 N 6,998,472.5640 E 11,829,804.5945
Delta = 3°51'40.1371" (LT)
Degree = 5°43'46.4806"
Tangent = 33.7076
Length = 67.3898
Radius = 1,000.0000
External = 0.5679
Long Chord = 67.3770
Mid.Ord. = 0.5676
P.C. Station 162+75.13 N 6,998,461.9495 E 11,829,772.6017
P.T. Station 163+42.52 N 6,998,485.3087 E 11,829,835.7999
C.C. N 6,999,411.0751 E 11,829,457.7040
Back = N 71°38'43.2981" E
Ahead = N 67°47'03.1610" E
Chord Bear = N 69°42'53.2296" E

Curve Data

Curve OLHI8
P.I. Station 165+23.48 N 6,998,553.7305 E 11,830,003.3306
Delta = 4°08'44.1122" (LT)
Degree = 1°08'45.2961"
Tangent = 180.9643
Length = 361.7707
Radius = 5,000.0000
External = 3.2737
Long Chord = 361.6918
Mid.Ord. = 3.2716
P.C. Station 163+42.52 N 6,998,485.3087 E 11,829,835.7999
P.T. Station 167+04.29 N 6,998,634.0843 E 11,830,165.4766
C.C. N 7,003,114.1408 E 11,827,945.3204
Back = N 67°47'03.1610" E
Ahead = N 63°38'19.0488" E
Chord Bear = N 65°42'41.1049" E

Course from PT OLHI8 to PC OLHI9 N 63°38'19.0488" E Dist 575.8606

Curve Data

Curve OLHI9
P.I. Station 173+87.12 N 6,998,937.5484 E 11,830,777.8373
Delta = 20°19'41.5716" (LT)
Degree = 9°32'57.4677"
Tangent = 107.5690
Length = 212.8766
Radius = 600.0000
External = 9.5663
Long Chord = 211.7618
Mid.Ord. = 9.4162
P.C. Station 172+80.15 N 6,998,889.7844 E 11,830,681.4542
P.T. Station 174+93.02 N 6,999,015.8209 E 11,830,851.6243
C.C. N 6,999,427.3912 E 11,830,415.0354
Back = N 63°38'19.0488" E
Ahead = N 43°18'37.4772" E
Chord Bear = N 53°28'28.2630" E

Course from PT OLHI9 to PC OLH20 N 43°18'37.4771" E Dist 147.6068

Curve Data

Curve OLH20
P.I. Station 178+36.64 N 6,999,265.8491 E 11,831,087.3248
Delta = 15°39'48.4530" (LT)
Degree = 4°01'14.7232"
Tangent = 196.0047
Length = 389.5650
Radius = 1,425.0000
External = 13.4168
Long Chord = 388.3530
Mid.Ord. = 13.2916
P.C. Station 176+40.63 N 6,999,123.2266 E 11,830,952.8753
P.T. Station 180+30.20 N 6,999,439.4747 E 11,831,178.2753
C.C. N 7,000,100.7062 E 11,829,915.9767
Back = N 43°18'37.4772" E
Ahead = N 27°38'49.0242" E
Chord Bear = N 35°28'43.2507" E

Course from PT OLH20 to OLH003 N 27°38'49.0251" E Dist 66.8381

Point OLH003 N 6,999,498.6815 E 11,831,209.2897 Sta 180+97.03

Ending chain OLH description

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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)

HORIZONTAL CONSTRUCTION ALIGNMENT DATA SHEET

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	1G(1B)

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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 = 1,481.087
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

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

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

From Sta. 10+00.00 to Sta. 11+00.10

Chain HERITAGE_RT contains:

HERITAGERT001 CUR HERITAGE_RT1 HERITAGERT002

Beginning chain HERITAGE_RT description

Point HERITAGERT001 N 6,996,566.3263 E 11,826,727.9732 Sta 10+00.00

Course from HERITAGERT001 to PC HERITAGE_RT1 S 33° 53' 36.2113" E Dist 19.3791

Curve Data

Curve HERITAGE_RT1
P.I. Station 10+39.17 N 6,996,533.8132 E 11,826,749.8157
Delta = 3° 14' 19.5579" (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+19.38 N 6,996,550.2402 E 11,826,738.7799
P.T. Station 10+58.95 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' 36.2097" E
Ahead = S 37° 07' 55.7656" E
Chord Bear = S 35° 30' 45.9887" E

Course from PT HERITAGE_RT1 to HERITAGERT002 S 37° 07' 55.7659" E Dist 41.1503

Point HERITAGERT002 N 6,996,485.2290 E 11,826,786.6025 Sta 11+00.10

Ending chain HERITAGE_RT description

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

From Sta. 10+00.00 to Sta. 11+12.08

Chain PARKLANE contains:

PARKLANE001 CUR PARKLANE1 PARKLANE002

Beginning chain PARKLANE description

Point PARKLANE001 N 6,996,765.3902 E 11,827,015.4752 Sta 10+00.00

Course from PARKLANE001 to PC PARKLANE1 S 35° 08' 02.9302" E Dist 23.8439

Curve Data

Curve PARKLANE1
P.I. Station 10+31.32 N 6,996,739.7784 E 11,827,033.4982
Delta = 1° 42' 45.8456" (LT)
Degree = 11° 27' 32.9612"
Tangent = 7.4738
Length = 14.9464
Radius = 500.0000
External = 0.0559
Long Chord = 14.9459
Mid.Ord. = 0.0558
P.C. Station 10+23.84 N 6,996,745.8905 E 11,827,029.1971
P.T. Station 10+38.79 N 6,996,733.7976 E 11,827,037.9801
C.C. N 6,997,033.6369 E 11,827,438.1006
Back = S 35° 08' 02.9325" E
Ahead = S 36° 50' 48.7781" E
Chord Bear = S 35° 59' 25.8553" E

Course from PT PARKLANE1 to PARKLANE002 S 36° 50' 48.7789" E Dist 73.2930

Point PARKLANE002 N 6,996,675.1455 E 11,827,081.9323 Sta 11+12.08

Ending chain PARKLANE 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 = 5.1125
Length = 10.2250
Radius = 1,000.0000
External = 0.0131
Long Chord = 10.2249
Mid.Ord. = 0.0131
P.C. Station 10+42.52 N 6,997,365.1317 E 11,827,950.1928
P.T. Station 10+52.75 N 6,997,356.9109 E 11,827,956.2729
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 11,827,984.1773 Sta 11+00.00

Ending chain QUEENANNE 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' 18.2411"
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

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

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

Chain OLDPOST_LT contains:

OLDPOSTLT001 OLDPOSTLT002

Beginning chain OLDPOST_LT description

Point OLDPOSTLT001 N 6,996,350.3968 E 11,826,416.0969 Sta 10+00.00

Course from OLDPOSTLT001 to OLDPOSTLT002 N 34° 41' 49.3097" W Dist 150.0000

Point OLDPOSTLT002 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:

OLDPOSTRT001 CUR OLDPOST_RT1 OLDPOSTRT002

Beginning chain OLDPOST_RT description

Point OLDPOSTRT001 N 6,996,383.6175 E 11,826,464.0789 Sta 10+00.00

Course from OLDPOSTRT001 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 OLDPOSTRT002 S 33° 22' 47.3990" E Dist 36.4952

Point OLDPOSTRT002 N 6,996,321.4254 E 11,826,505.9891 Sta 10+75.00

Ending chain OLDPOST_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 HERITAGELT001 N 6,996,566.3263 E 11,826,727.9732 Sta 10+00.00

Course from HERITAGELT001 to PC HERITAGE_LT1 N 33° 53' 31.5265" W Dist 15.1738

Curve Data

Curve HERITAGE_LT1
P.I. Station 10+23.50 N 6,996,585.8346 E 11,826,714.8680
Delta = 4° 46' 07.1008" (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+15.17 N 6,996,578.9220 E 11,826,719.5118
P.T. Station 10+31.82 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' 31.5238" W
Ahead = N 38° 39' 38.6246" W
Chord Bear = N 36° 16' 35.0742" W

Course from PT HERITAGE_LT1 to HERITAGELT002 N 38° 39' 38.6253" W Dist 43.0821

Point HERITAGELT002 N 6,996,625.9784 E 11,826,682.7520 Sta 10+74.90

Ending chain HERITAGE_LT 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

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	SHEET NO.
U000-154-R94	1G(1B)

3/24/2023

PH PLANS

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

ADAM D. WELSCHENBACH
Lic. No. 044359
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IG(IC)

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

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

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

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

Chain GREATOAKS_SB contains:

GREATOAKSSB001 CUR GREATOAKS_SB1 GREATOAKSSB002

Beginning chain GREATOAKS_SB description

Point GREATOAKSSB001 N 6,998,464.6951 E 11,829,780.8770 Sta 10+00.00

Course from GREATOAKSSB001 to PC GREATOAKS_SB1 N 21° 26' 21.0051" W Dist 25.1137

Curve Data

Curve GREATOAKS_SB1
P.I. Station 10+38.20 N 6,998,500.2478 E 11,829,766.9160
Delta = 14° 54' 22.3742" (RT)
Degree = 57° 17' 44.8062"
Tangent = 13.0820
Length = 26.0163
Radius = 100.0000
External = 0.8521
Long Chord = 25.9429
Mid.Ord. = 0.8449
P.C. Station 10+25.11 N 6,998,488.0710 E 11,829,771.6976
P.T. Station 10+51.13 N 6,998,513.2449 E 11,829,765.4276
C.C. N 6,998,524.6223 E 11,829,864.7783
Back = N 21° 26' 21.0059" W
Ahead = N 6° 31' 58.6316" W
Chord Bear = N 13° 59' 09.8188" W

Course from PT GREATOAKS_SB1 to GREATOAKSSB002 N 6° 31' 58.6329" W Dist 48.8701

Point GREATOAKSSB002 N 6,998,561.7976 E 11,829,759.8674 Sta 11+00.00

Ending chain GREATOAKS_SB 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' 00.6411" 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

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

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

Chain GREATOAKS_NB contains:

GREATOAKSNB001 CUR GREATOAKS_NB1 GREATOAKSNB002

Beginning chain GREATOAKS_NB description

Point GREATOAKSNB001 N 6,998,488.0202 E 11,829,842.4254 Sta 10+00.00

Course from GREATOAKSNB001 to PC GREATOAKS_NB1 N 22° 24' 08.1319" W Dist 28.4546

Curve Data

Curve GREATOAKS_NB1
P.I. Station 10+43.78 N 6,998,528.4991 E 11,829,825.7393
Delta = 17° 25' 46.4486" (LT)
Degree = 57° 17' 44.8062"
Tangent = 15.3286
Length = 30.4203
Radius = 100.0000
External = 1.1680
Long Chord = 30.3032
Mid.Ord. = 1.1545
P.C. Station 10+28.45 N 6,998,514.3274 E 11,829,831.5811
P.T. Station 10+58.87 N 6,998,540.2703 E 11,829,815.9208
C.C. N 6,998,476.2167 E 11,829,739.1280
Back = N 22° 24' 08.1276" W
Ahead = N 39° 49' 54.5762" W
Chord Bear = N 31° 07' 01.3519" W

Course from PT GREATOAKS_NB1 to GREATOAKSNB002 N 39° 49' 54.5742" W Dist 41.1250

Point GREATOAKSNB002 N 6,998,571.8513 E 11,829,789.5788 Sta 11+00.00

Ending chain GREATOAKS_NB 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

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

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

Chain RIDGEAVE contains:

RIDGEAVE001 RIDGEAVE002

Beginning chain RIDGEAVE description

Point RIDGEAVE001 N 6,999,037.5531 E 11,830,872.1112 Sta 10+00.00

Course from RIDGEAVE001 to RIDGEAVE002 N 61° 37' 12.0003" W Dist 150.0000

Point RIDGEAVE002 N 6,999,108.8506 E 11,830,740.1390 Sta 11+50.00

Ending chain RIDGEAVE description

3/24/2023

PROJECT	SHEET NO.
U000-154-R94	IG(IC)

PH 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)

HORIZONTAL CONSTRUCTION ALIGNMENT DATA SHEET

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IG(ID)

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 6,995,330.2737 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 LT (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

3/24/2023

PROJECT U000-154-R94 | SHEET NO. IG(ID)

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE 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 — ADAM D. WELSCHENBACH Lic. No. 044359 — PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	1G(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.10+00.00 to Sta.10+75.00

Chain ENTR_I1728RT contains:

ENTRI1728003 CUR ENTR_I1728RT1 ENTRI1728004

Beginning chain ENTR_I1728RT description

Point ENTRI1728003 N 6,996,019.1500 E 11,825,963.1273 Sta 10+00.00

Course from ENTRI1728003 to PC ENTR_I1728RT1 S 35° 09' 30.3975" E Dist 22.7426

Curve Data

Curve ENTR_I1728RT1
P.I. Station 10+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 10+22.74 N 6,996,000.5565 E 11,825,976.2233
P.T. Station 10+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_I1728RT1 to ENTRI1728004 S 11° 29' 13.2341" E Dist 31.6002

Point ENTRI1728004 N 6,995,950.7546 E 11,825,990.6367 Sta 10+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 ENT05 N 6,996,260.2786 E 11,826,287.3849 Sta 1+00.00

Course from ENT05 to ENT06 S 37° 01' 29.6626" E Dist 100.0000

Point ENT06 N 6,996,180.4412 E 11,826,347.6011 Sta 2+00.00

Ending chain ENT_I21+33_RT description

Entrance Station 121+62 RT (BLENHEIM BL)

From Sta.1+00 to Sta.1+89.12

Chain ENT_I21+62_RT contains:

ENT09 CUR ENT_I21+62_RT1 ENT10

Beginning chain ENT_I21+62_RT description

Point ENT09 N 6,996,277.4877 E 11,826,310.9069 Sta 1+00.00

Course from ENT09 to PC ENT_I21+62_RT1 S 35° 21' 17.8492" E Dist 41.0414

Curve Data

Curve ENT_I21+62_RT1
P.I. Station 1+58.93 N 6,996,229.4220 E 11,826,345.0085
Delta = 54° 09' 14.2595" (LT)
Degree = 163° 42' 08.0178"
Tangent = 17.8927
Length = 33.0808
Radius = 35.0000
External = 4.3084
Long Chord = 31.8631
Mid.Ord. = 3.8361
P.C. Station 1+41.04 N 6,996,244.0150 E 11,826,334.6551
P.T. Station 1+74.12 N 6,996,229.2687 E 11,826,362.9005
C.C. N 6,996,264.2674 E 11,826,363.2005
Back = S 35° 21' 17.8495" E
Ahead = S 89° 30' 32.1090" E
Chord Bear = S 62° 25' 54.9793" E

Course from PT ENT_I21+62_RT1 to ENT10 S 89° 30' 32.1094" E Dist 15.0000

Point ENT10 N 6,996,229.1401 E 11,826,377.9000 Sta 1+89.12

Ending chain ENT_I21+62_RT description

Entrance Station 128+57 RT (BLENHEIM BL)

From Sta.10+00.00 to Sta.10+97.50

Chain ENT_I28+57_RT contains:

ENTRI2857001 ENTRI2857002

Beginning chain ENT_I28+57_RT description

Point ENTRI2857001 N 6,996,617.2.7937 E 11,826,882.2616 Sta 10+00.00

Course from ENTRI2857001 to ENTRI2857002 S 33° 40' 44.4092" E Dist 97.5001

Point ENTRI2857002 N 6,996,591.6582 E 11,826,936.3293 Sta 10+97.50

Ending chain ENT_I28+57_RT description

Entr.Sta.1+43 RT (ENT_I28+57_RT BL)

From Sta.1+00.00 to Sta.1+25.00

Chain ENT_I+43RT contains:

ENTI43001 ENTI43002

Beginning chain ENT_I+43RT description

Point ENTI43001 N 6,996,629.3317 E 11,826,911.2241 Sta 1+00.00

Course from ENTI43001 to ENTI43002 S 56° 19' 15.5905" W Dist 25.0000

Point ENTI43002 N 6,996,615.4682 E 11,826,890.4202 Sta 1+25.00

Ending chain ENT_I+43RT description

Entrance Station 138+41 RT (BLENHEIM BL)

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

Chain ENT_I38+41_RT contains:

ENT15 ENT16

Beginning chain ENT_I38+41_RT description

Point ENT15 N 6,997,238.0687 E 11,827,687.1773 Sta 1+00.00

Course from ENT15 to ENT16 S 35° 08' 02.9301" E Dist 80.0000

Point ENT16 N 6,997,172.6441 E 11,827,733.2168 Sta 1+80.00

Ending chain ENT_I38+41_RT 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 ENT19 N 6,997,326.3809 E 11,827,818.3098 Sta 1+00.00

Course from ENT19 to ENT20 N 32° 54' 48.7954" W Dist 80.0000

Point ENT20 N 6,997,393.5402 E 11,827,774.8399 Sta 1+80.00

Ending chain ENT_I39+99_LT description

Entrance Station 141+13 LT (BLENHEIM BL)

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

Chain ENT_I41+13_LT contains:

ENT25 ENT26

Beginning chain ENT_I41+13_LT description

Point ENT25 N 6,997,390.4871 E 11,827,912.5762 Sta 1+00.00

Course from ENT25 to ENT26 N 35° 37' 27.4551" W Dist 70.0000

Point ENT26 N 6,997,447.3869 E 11,827,871.8035 Sta 1+70.00

Ending chain ENT_I41+13_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 ENT31 N 6,997,407.1340 E 11,827,935.8075 Sta 1+00.00

Course from ENT31 to ENT32 N 35° 37' 27.4525" W Dist 90.0000

Point ENT32 N 6,997,480.2908 E 11,827,883.3854 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+40.00

Chain ENT_I44+24_RT contains:

ENT37 ENT38

Beginning chain ENT_I44+24_RT description

Point ENT37 N 6,997,575.4075 E 11,828,162.6653 Sta 1+00.00

Course from ENT37 to ENT38 S 35° 32' 00.6419" E Dist 40.0000

Point ENT38 N 6,997,542.8565 E 11,828,185.9124 Sta 1+40.00

Ending chain ENT_I44+24_RT 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_I4955LT1 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_I4955LT1 N 38° 40' 53.7861" W Dist 22.0414

Curve Data

Curve ENTR_I4955LT1
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 = 13.7.396
Length = 27.47.23
Radius = 500.0000
External = 0J.887
Long Chord = 27.4689
Mid.Ord. = 0J.887
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_I4955LT1 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_I6594RT1 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_I6594RT1 S 25° 05' 51.0071" E Dist 35.4340

Curve Data

Curve ENTR_I6594RT1
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 = 16.8.330
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' 51.0079" E
Ahead = S 62° 18' 36.5140" E
Chord Bear = S 43° 42' 13.7610" E

Course from PT ENTR_I6594RT1 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 168+52 LT (BLENHEIM BL)

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

Chain ENT_I68+52_LT contains:

ENT39 ENT40

Beginning chain ENT_I68+52_LT description

Point ENT39 N 6,998,699.7176 E 11,830,297.9180 Sta 1+00.00

Course from ENT39 to ENT40 N 26° 21' 40.9504" W Dist 100.0000

Point ENT40 N 6,998,789.3187 E 11,830,253.5149 Sta 2+00.00

Ending chain ENT_I68+52_LT description

3/24/2023

PROJECT	SHEET NO.
U000-154-R94	1G(1E)

PH 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)

HORIZONTAL CONSTRUCTION ALIGNMENT DATA SHEET

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IG(IF)

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 169+21 RT (BLENHEIM BL)

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

Chain ENTR_1692IRT contains:

ENTR1692100I CUR ENTR_1692IRTI ENTR1692I002

Beginning chain ENTR_1692IRT description

****

Point ENTR1692100I N 6,998,730.3778 E 11,830,359.7873 Sta 10+00.00

Course from ENTR1692100I to PC ENTR_1692IRTI S 26° 21' 40.9433" E Dist 12.0000

Curve Data

Curve ENTR_1692IRTI
P.I. Station = 10+28.42 N = 6,998,704.9146 E = 11,830,372.4060
Delta = 46° 44' 04.98.36" (RT)
Degree = 150° 46' 42.12I7"
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_1692IRTI to ENTR1692I002 S 20° 22' 24.0305" W Dist 27.0066

Point ENTR1692I002 N 6,998,664.2061 E 11,830,357.2882 Sta 10+70.00

****

Ending chain ENTR_1692IRT description

Entrance Station 169+54 LT (BLENHEIM BL)

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

Chain ENT_169+54_LT contains:

ENT45 CUR ENT_169+54_LTI CUR ENT_169+54_LT2 ENT46

Beginning chain ENT_169+54_LT description

****

Point ENT45 N 6,998,744.9788 E 11,830,389.2506 Sta 1+00.00

Course from ENT45 to PC ENT_169+54_LTI N 26° 21' 40.9486" W Dist 43.5063

Curve Data

Curve ENT_169+54_LTI
P.I. Station = 1+50.63 N = 6,998,790.3446 E = 11,830,366.7689
Delta = 50° 48' 47.789I" (LT)
Degree = 381° 58' 18.7083"
Tangent = 7.1247
Length = 13.3029
Radius = 15.0000
External = 1.6060
Long Chord = 12.8712
Mid.Ord. = 1.4507
P.C. Station = 1+43.5I N = 6,998,783.9609 E = 11,830,369.9325
P.T. Station = 1+56.8I N = 6,998,791.9262 E = 11,830,359.8220
C.C. N = 6,998,777.3004 E = 11,830,356.4923
Back = N 26° 21' 40.9510" W
Ahead = N 77° 10' 28.7402" W
Chord Bear = N 51° 46' 04.8456" W

Course from PT ENT_169+54_LTI to PC ENT_169+54_LT2 N 77° 10' 28.7412" W Dist 29.9769

Curve Data

Curve ENT_169+54_LT2
P.I. Station = 2+00.26 N = 6,998,801.57II E = 11,830,317.4562
Delta = 48° 22' 10.0190" (RT)
Degree = 190° 59' 09.3542"
Tangent = 13.4729
Length = 25.3262
Radius = 30.0000
External = 2.8865
Long Chord = 24.5808
Mid.Ord. = 2.6331
P.C. Station = 1+86.79 N = 6,998,798.5804 E = 11,830,330.5929
P.T. Station = 2+12.II N = 6,998,813.3770 E = 11,830,310.9644
C.C. N = 6,998,827.8320 E = 11,830,337.2523
Back = N 77° 10' 28.7402" W
Ahead = N 28° 48' 18.7.2II" W
Chord Bear = N 52° 59' 23.7.306" W

Course from PT ENT_169+54_LT2 to ENT46 N 28° 48' 18.7154" W Dist 15.0000

Point ENT46 N 6,998,826.5209 E 11,830,303.7.370 Sta 2+27.II

****

Ending chain ENT_169+54_LT description

3/24/2023

PROJECT	SHEET NO.
U000-154-R94	IG(IF)

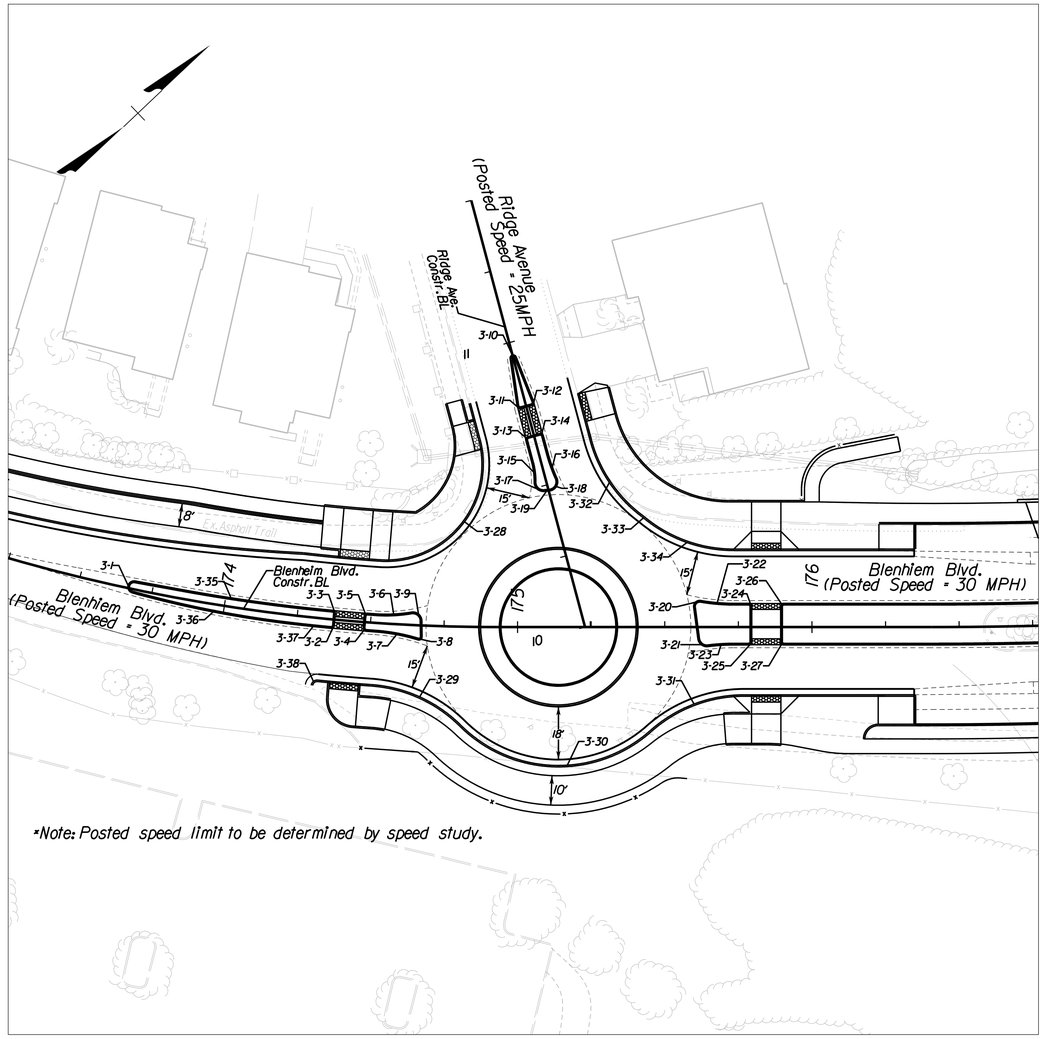
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ROUNDABOUT DETAILS



*Note: Posted speed limit to be determined by speed study.

ADAM D. WELSCHENBACH Lic. No. 044359 COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER

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

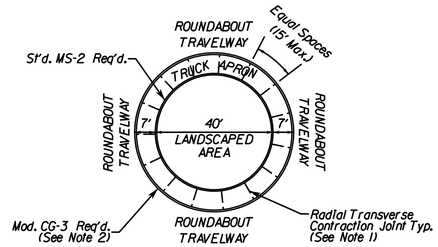
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IG(2)

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REF. NO.	LOCATION				RADIUS	CHORD LENGTH	CURVE LENGTH
SHEET-ITEM	REFERENCE BASELINE	STATION	OFFSET	ELEVATION	FEET	FEET	FEET
3-1 (P.C.)	Blenheim Blvd.	173+68.56	2.78 LT	313.62	2.00	4.00	6.10
3-1 (P.C.C.)	Blenheim Blvd.	137+68.49	1.21 RT	313.70			
3-2 (P.C.C.)	Blenheim Blvd.	174+36.76	3.00 RT	309.24	1.00	1.42	1.58
3-2 (P.T.)	Blenheim Blvd.	174+37.76	1.99 RT	309.67			
3-3 (P.C.)	Blenheim Blvd.	174+37.73	2.01 LT	309.57	1.00	1.41	1.56
3-3 (P.R.C.)	Blenheim Blvd.	174+36.72	3.00 LT	309.13			
3-4 (P.R.C.)	Blenheim Blvd.	174+48.72	3.00 RT	308.50	1.00	1.42	1.58
3-4 (P.T.)	Blenheim Blvd.	174+47.73	1.99 RT	309.05			
3-5 (P.C.)	Blenheim Blvd.	174+47.76	2.01 LT	308.95	1.00	1.45	1.62
3-5 (P.T.)	Blenheim Blvd.	174+48.82	3.00 LT	308.37			
3-6 (P.C.)	Blenheim Blvd.	174+51.61	3.00 LT	308.21	51.00	12.07	12.10
3-6 (P.R.C.)	Blenheim Blvd.	174+63.68	4.31 LT	307.48			
3-7 (P.C.)	Blenheim Blvd.	174+51.65	3.00 RT	308.32	66.00	14.97	15.00
3-7 (P.R.C.)	Blenheim Blvd.	174+66.40	4.88 RT	307.82			
3-8 (P.R.C.)	Blenheim Blvd.	174+66.4	4.88 RT	307.82	1.00	1.62	1.88
3-8 (P.T.)	Blenheim Blvd.	174+67.64	3.85 RT	307.42			
3-9 (P.C.)	Blenheim Blvd.	174+67.33	1.56 LT	307.33	3.00	4.56	5.18
3-9 (P.R.C.)	Blenheim Blvd.	147+63.68	4.31 LT	307.48			
3-10 (P.C.)	Ridge Avenue	10+94.68	0.99 RT	n/a	1.00	1.99	2.91
3-10 (P.T.)	Ridge Avenue	10+94.68	1.00 LT	n/a			
3-11 (P.C.)	Ridge Avenue	10+78.55	2.86 LT	n/a	1.00	1.49	1.69
3-11 (P.T.)	Ridge Avenue	10+77.43	1.87 LT	n/a			
3-12 (P.C.)	Ridge Avenue	10+77.43	1.86 RT	n/a	1.00	1.49	1.69
3-12 (P.T.)	Ridge Avenue	10+78.54	2.85 RT	n/a			
3-13 (P.C.)	Ridge Avenue	10+66.43	3.00 LT	n/a	1.00	1.41	1.57
3-13 (P.T.)	Ridge Avenue	10+67.43	2.00 LT	n/a			
3-14 (P.C.)	Ridge Avenue	10+67.43	2.01 RT	n/a	1.00	1.41	1.57
3-14 (P.T.)	Ridge Avenue	10+66.43	3.01 RT	n/a			
3-15 (P.C.)	Ridge Avenue	10+58.71	3.00 LT	n/a	25.00	6.82	6.84
3-15 (P.R.C.)	Ridge Avenue	10+51.96	3.93 LT	n/a			
3-16 (P.C.)	Ridge Avenue	10+59.30	3.02 RT	n/a	63.00	8.05	8.05
3-16 (P.R.C.)	Ridge Avenue	10+51.28	3.75 RT	n/a			
3-17 (P.R.C.)	Ridge Avenue	10+51.96	3.93 LT	n/a	3.00	4.48	5.06
3-17 (P.R.C.)	Ridge Avenue	10+48.18	1.51 LT	n/a			
3-18 (P.R.C.)	Ridge Avenue	10+51.28	3.75 RT	n/a	3.00	4.91	5.76
3-18 (P.R.C.)	Ridge Avenue	10+47.88	0.21 RT	n/a			
3-19 (P.R.C.)	Ridge Avenue	10+48.18	1.51 LT	n/a	46.42	1.74	1.74
3-19 (P.R.C.)	Ridge Avenue	10+47.88	0.21 RT	n/a			

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+59.88	6.73 LT	302.68	2.00	3.23	3.75
3-20 (P.R.C.)	Blenheim Blvd.	175+62.20	8.96 LT	302.53			
3-21 (P.C.)	Blenheim Blvd.	175+61.32	3.99 RT	302.76	3.00	4.23	4.70
3-21 (P.R.C)	Blenheim Blvd.	175+64.68	6.57 RT	302.66			
3-22 (P.R.C.)	Blenheim Blvd.	175+62.20	8.96 LT	302.53	66.00	11.28	11.29
3-22 (P.T.)	Blenheim Blvd.	175+73.44	8.00 LT	302.03			
3-23 (P.R.C.)	Blenheim Blvd.	175+64.68	6.57 RT	302.66	68.00	8.78	8.78
3-23 (P.T.)	Blenheim Blvd.	175+73.44	6.00 RT	302.30			
3-24 (P.R.C.)	Blenheim Blvd.	175+78.46	8.00 LT	301.81	1.00	1.41	1.57
3-24 (P.T.)	Blenheim Blvd.	175+79.46	7.00 LT	302.27			
3-25 (P.R.C.)	Blenheim Blvd.	175+78.46	6.00 RT	302.09	1.00	1.41	1.57
3-25 (P.T.)	Blenheim Blvd.	175+79.46	5.00 RT	302.53			
3-26 (P.C.)	Blenheim Blvd.	175+89.46	7.00 LT	301.86	1.00	1.41	1.57
3-26 (P.T.)	Blenheim Blvd.	175+90.46	8.00 LT	301.31			
3-27 (P.C.)	Blenheim Blvd.	175+90.46	6.00 RT	301.59	1.00	1.41	1.57
3-27 (P.T.)	Blenheim Blvd.	175+89.46	5.00 RT	302.12			
3-28 (P.C.)	Blenheim Blvd.	174+51.61	21.00 LT	n/a	33.00	53.69	62.71
3-28 (P.T.)	Ridge Avenue	10+70.83	18.00 LT	n/a			
3-29 (P.C.)	Blenheim Blvd.	174+51.65	21.00 RT	308.48	48.00	33.50	34.22
3-29 (P.R.C.)	Blenheim Blvd.	174+81.39	33.47 RT	306.90			
3-30 (P.R.C.)	Blenheim Blvd.	174+81.39	33.47 RT	306.90	47.00	64.37	70.90
3-30 (P.R.C.)	Blenheim Blvd.	175+45.09	35.13 RT	303.63			
3-31 (P.R.C.)	Blenheim Blvd.	175+45.09	35.13 RT	303.63	48.00	34.12	34.88
3-31 (P.T.)	Blenheim Blvd.	175+76.98	23.00 RT	302.28			
3-32 (P.C.)	Ridge Avenue	10+60.99	18.00 RT	n/a	48.00	31.36	31.95
3-32 (P.R.C)	Blenheim Blvd.	175+42.11	37.57 LT	n/a			
3-33 (P.R.C.)	Blenheim Blvd.	175+42.11	37.57 LT	n/a	47.00	1.56	1.56
3-33 (P.R.C.)	Blenheim Blvd.	175+43.34	36.61 LT	n/a			
3-34 (P.R.C.)	Blenheim Blvd.	175+43.34	36.61 LT	n/a	48.00	31.92	32.54
3-34 (P.T.)	Blenheim Blvd.	175+73.44	26.00 LT	n/a			
3-35 (P.C.)	Blenheim Blvd.	173+84.77	3.00 LT	312.56	597.00	51.68	51.70
3-35 (P.R.C.)	Blenheim Blvd.	174+36.72	3.00 LT	309.13			
3-36 (P.C.C.)	Blenheim Blvd.	173+68.49	1.21 RT	313.70	360.00	56.46	56.51
3-36 (P.C.C.)	Blenheim Blvd.	174+24.74	3.00 RT	310.03			
3-37 (P.C.C.)	Blenheim Blvd.	174+24.75	3.00 RT	311.03	603.00	12.08	12.08
3-37 (P.C.C.)	Blenheim Blvd.	174+36.76	3.00 RT	309.24			
3-38 (P.C.)	Blenheim Blvd.	174+32.12	23.00 RT	n/a	2.00	2.83	3.14
3-38 (P.R.C.)	Blenheim Blvd.	174+34.05	21.00 RT	309.61			

7' TRUCK APRON 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 Sheet 2A(5) for Modified CG-3 details and load transfer device between Modified CG-3 and truck apron.

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-154-R94	IG(2)

PH PLANS

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3/24/2023

TOOLE DESIGN
8484 GEORGIA AVENUE, SUITE 800
SILVER SPRING, MD 20910
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www.tooledesign.com

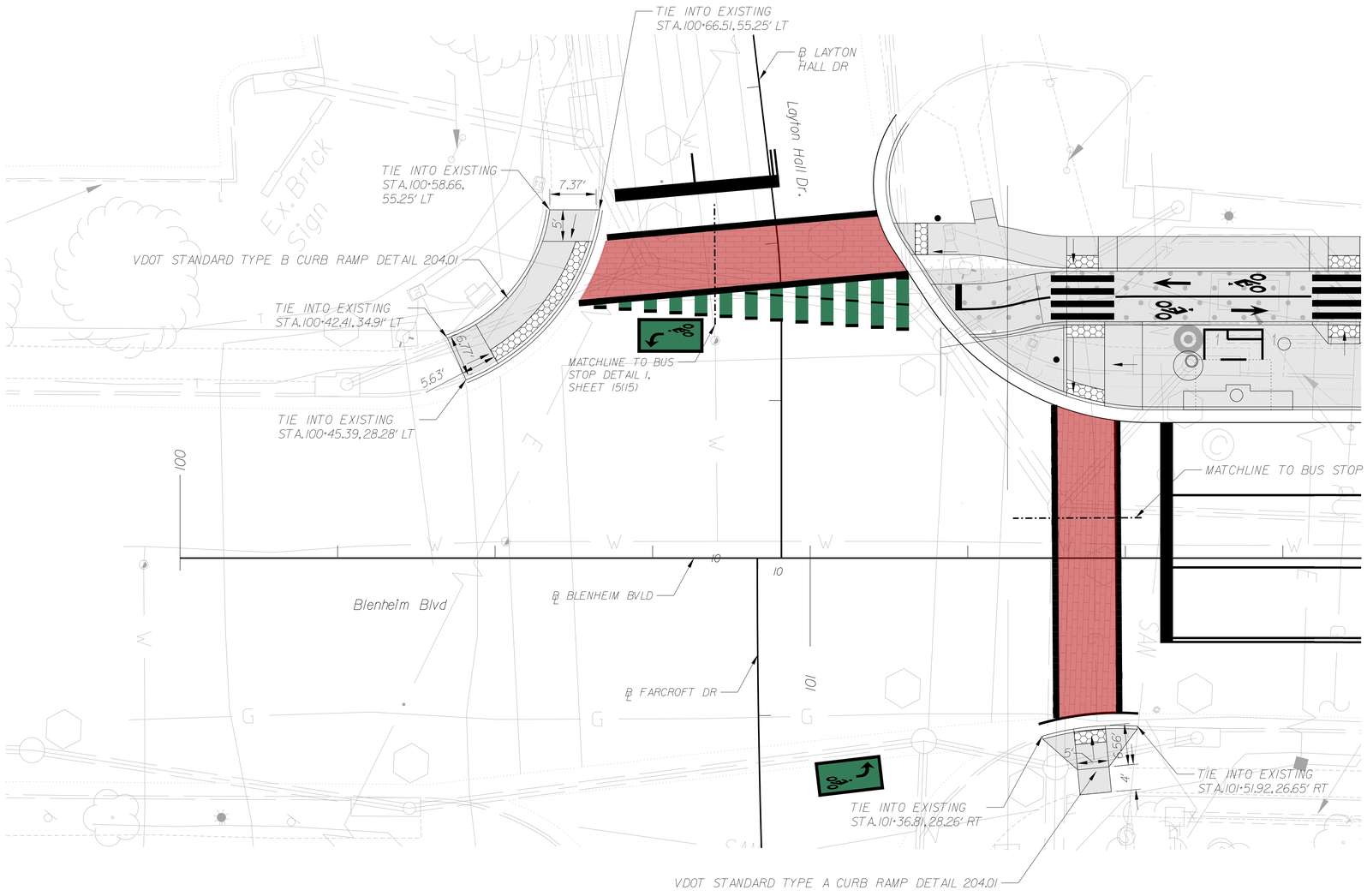
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
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INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH

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TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



SCALE
0 10' 20'

INTERSECTION DETAIL 1

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(15)
Bus Stop Detail Plan	IH(9) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH

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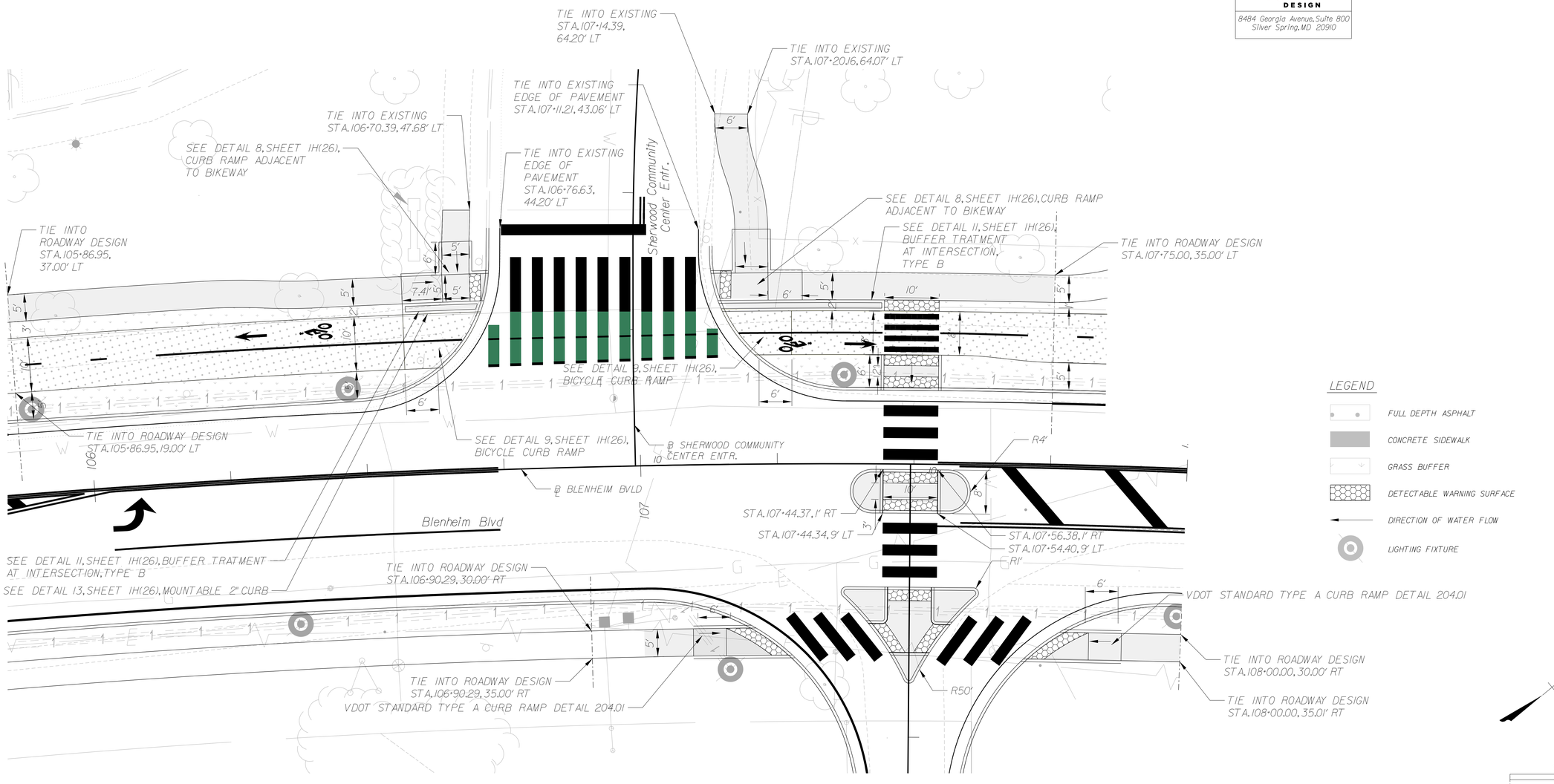
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INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
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TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



LEGEND

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

SCALE
0 10' 20'

INTERSECTION DETAIL 2

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(9) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(1)

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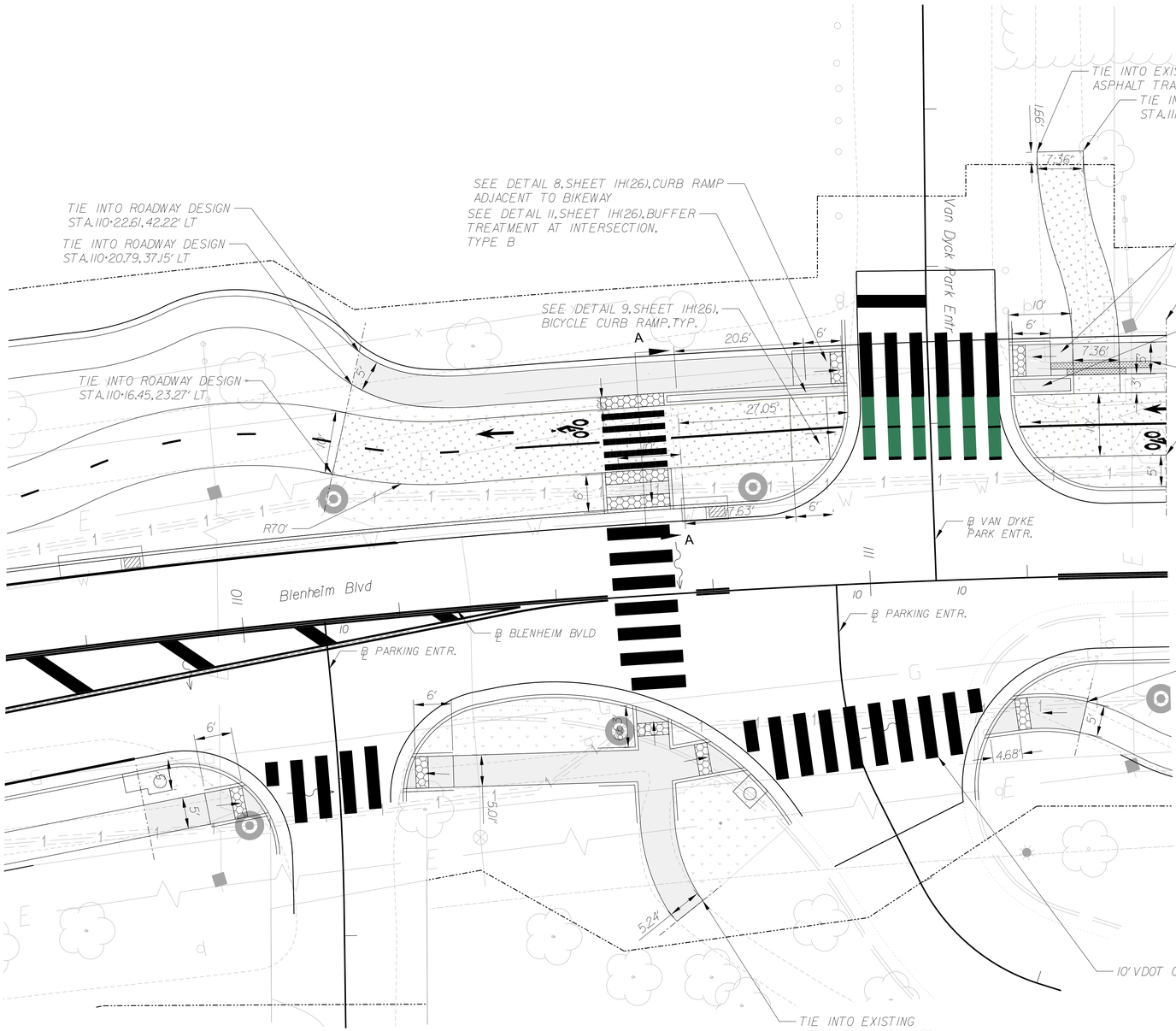
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



INTERSECTION DETAIL 3

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(2)

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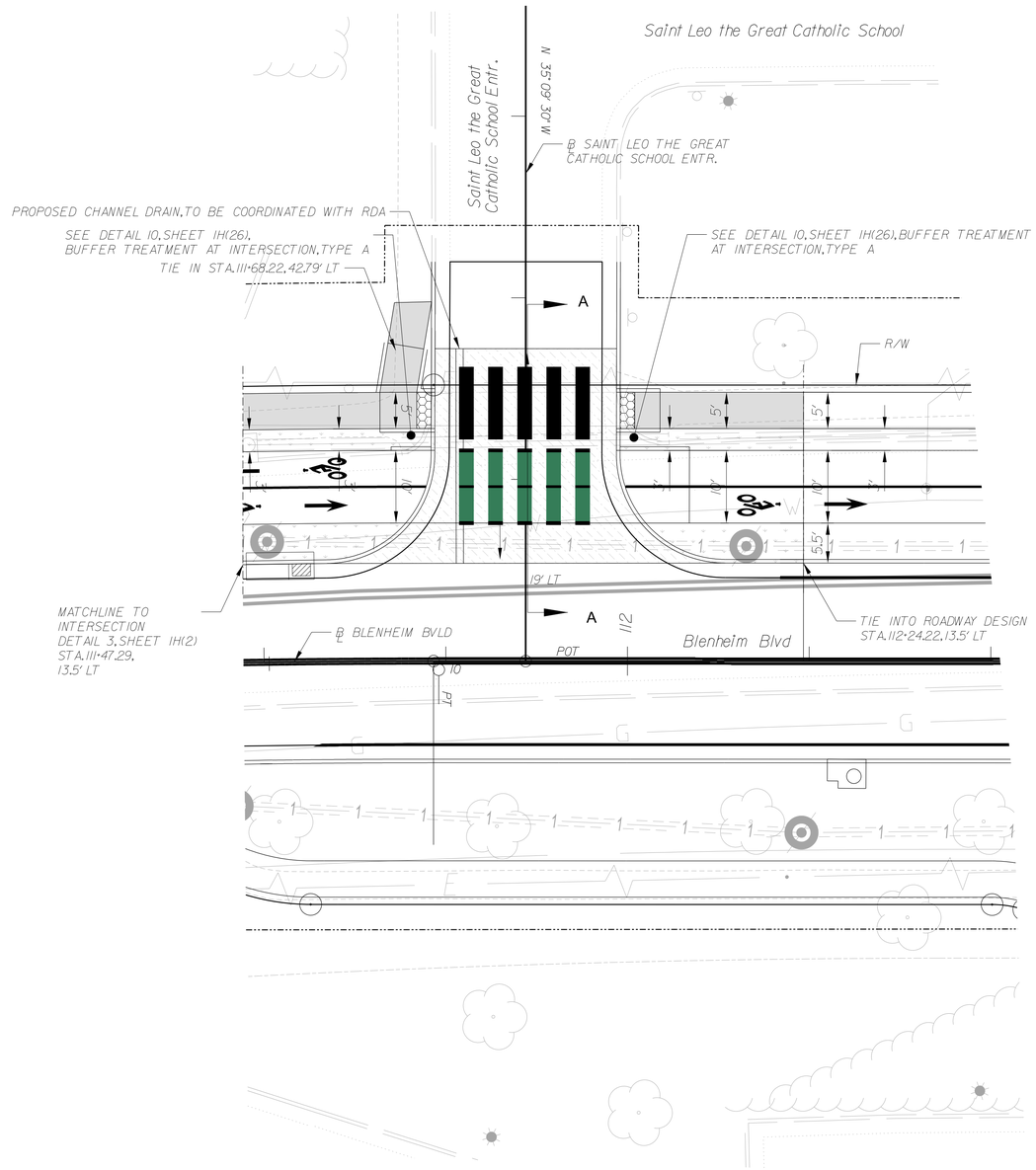
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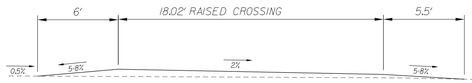
INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(3)

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910





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'

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(3)

INTERSECTION DETAIL 4

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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

3/23/2023
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Plotted By: kkthurana

TOOLE DESIGN
8484 GEORGIA AVENUE, SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
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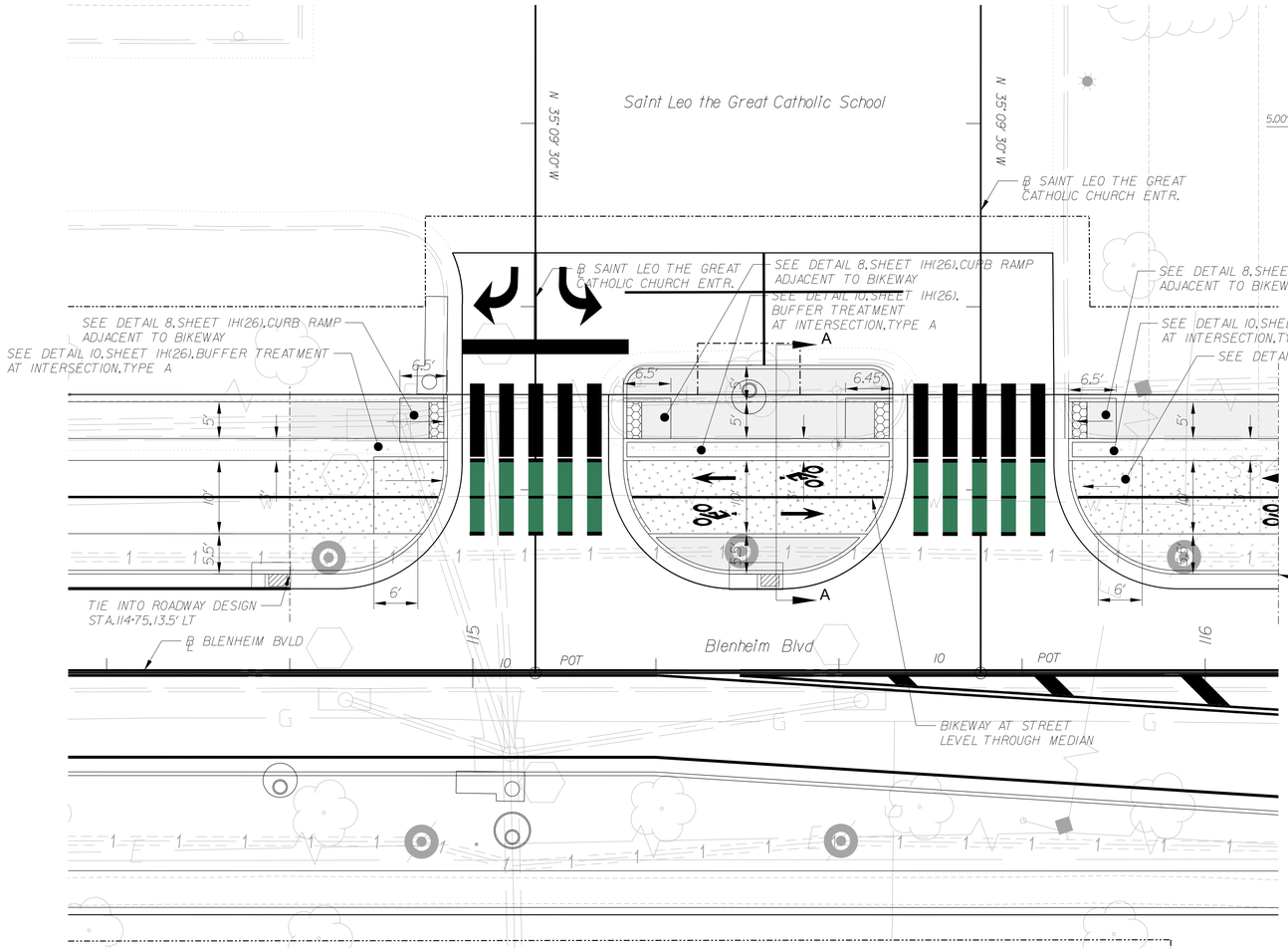
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

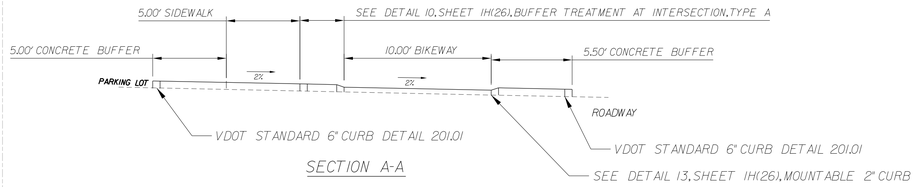
INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(4)

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910





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(15)
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(4)

INTERSECTION DETAIL 5

PH PLANS

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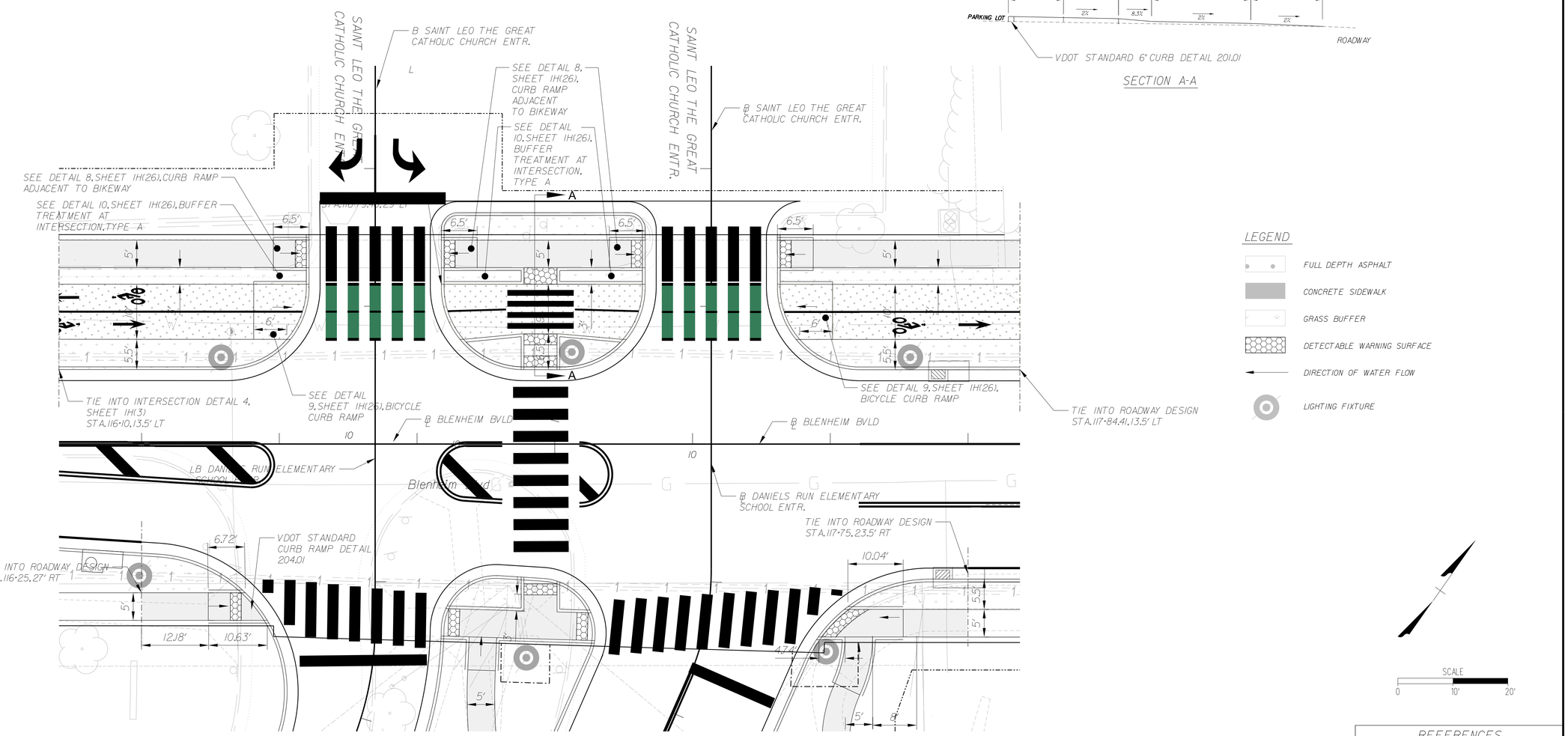
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(5)

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



INTERSECTION DETAIL 6

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(5)
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(5)

PH PLANS

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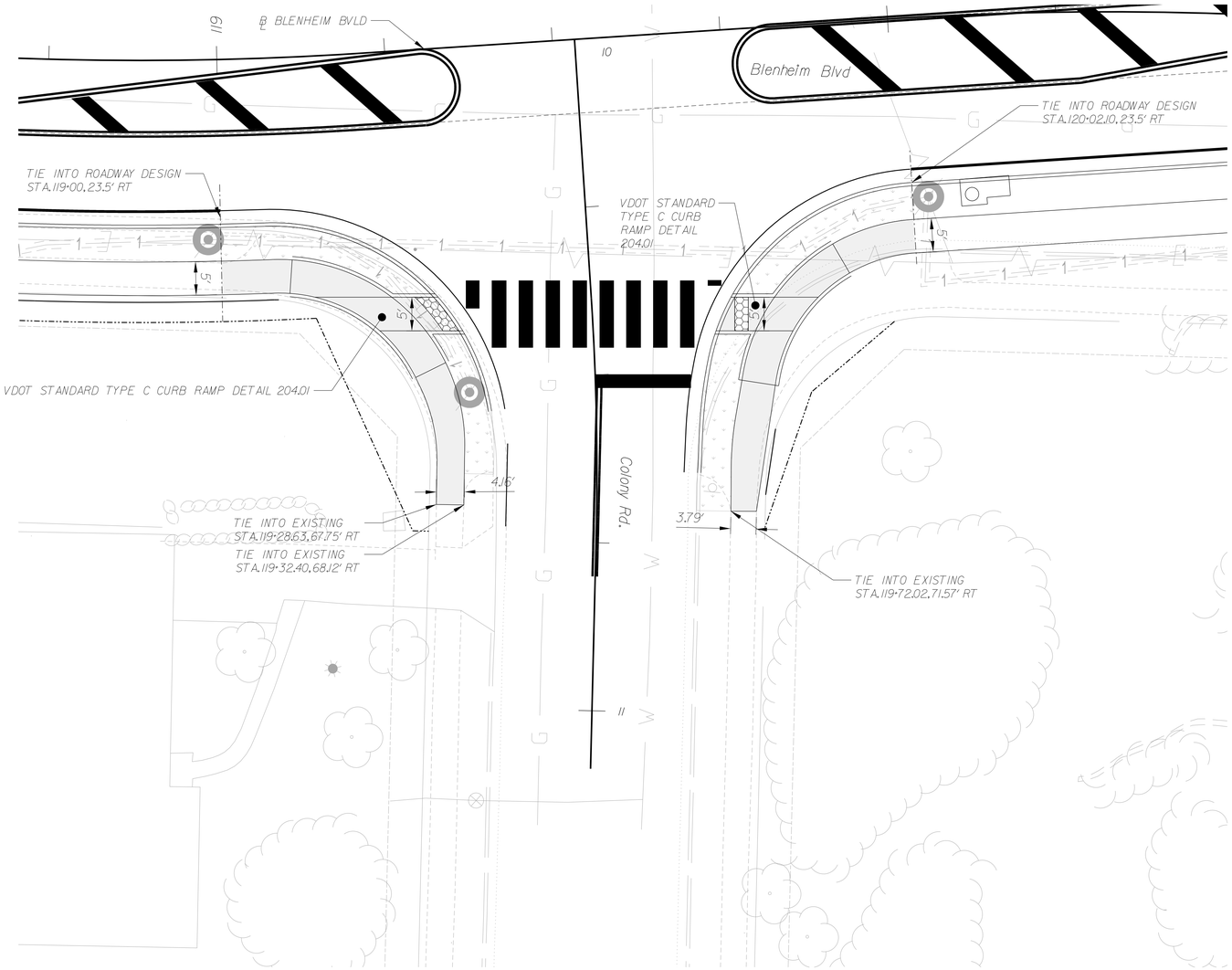
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



LEGEND

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

SCALE
0 10' 20'

INTERSECTION DETAIL 7

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(9) - IH(26)

	PROJECT	SHEET NO.
	U000-154-R94	IH(6)

PH PLANS

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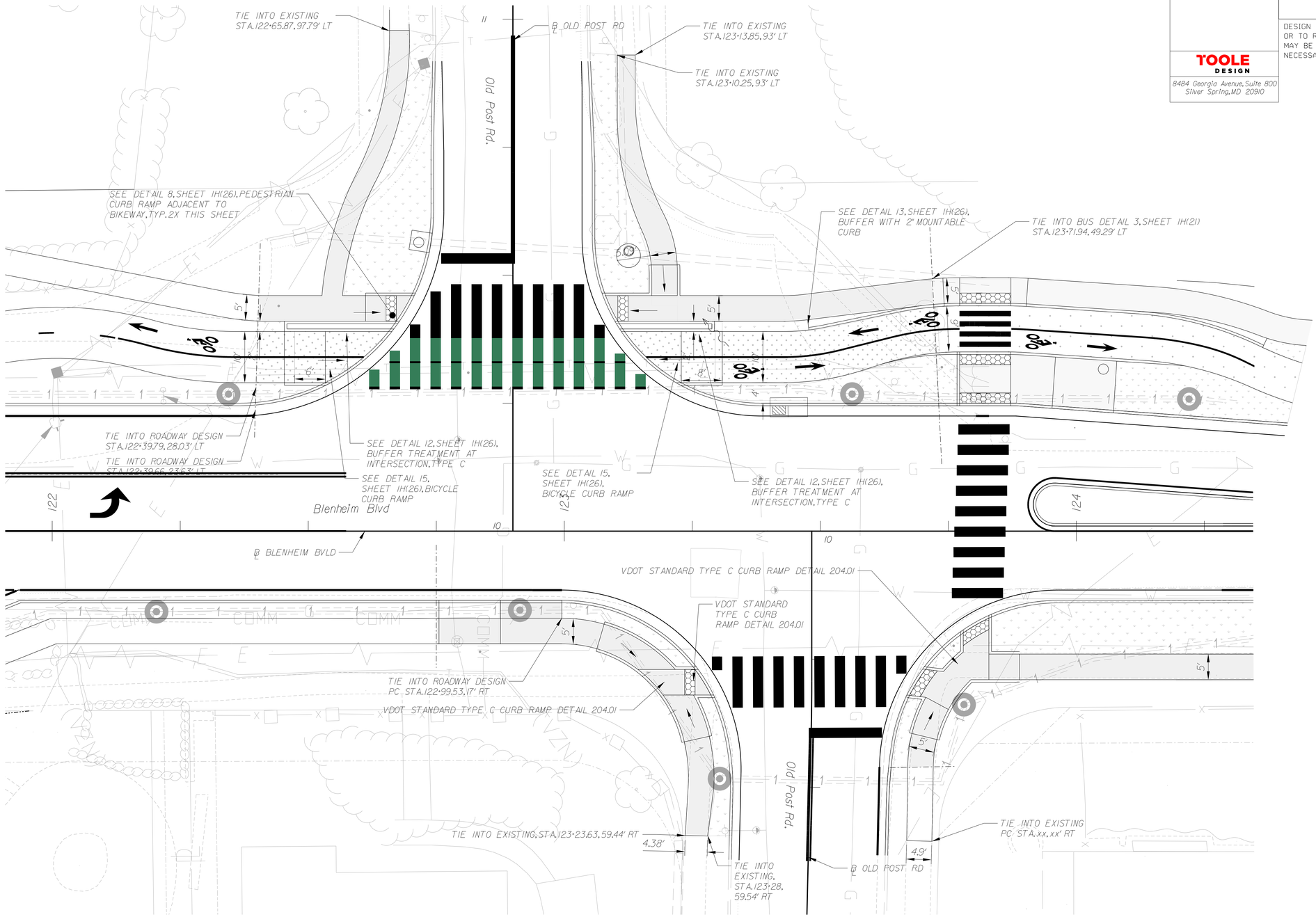
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(7)

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



INTERSECTION DETAIL 8

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(9) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(7)

PH PLANS

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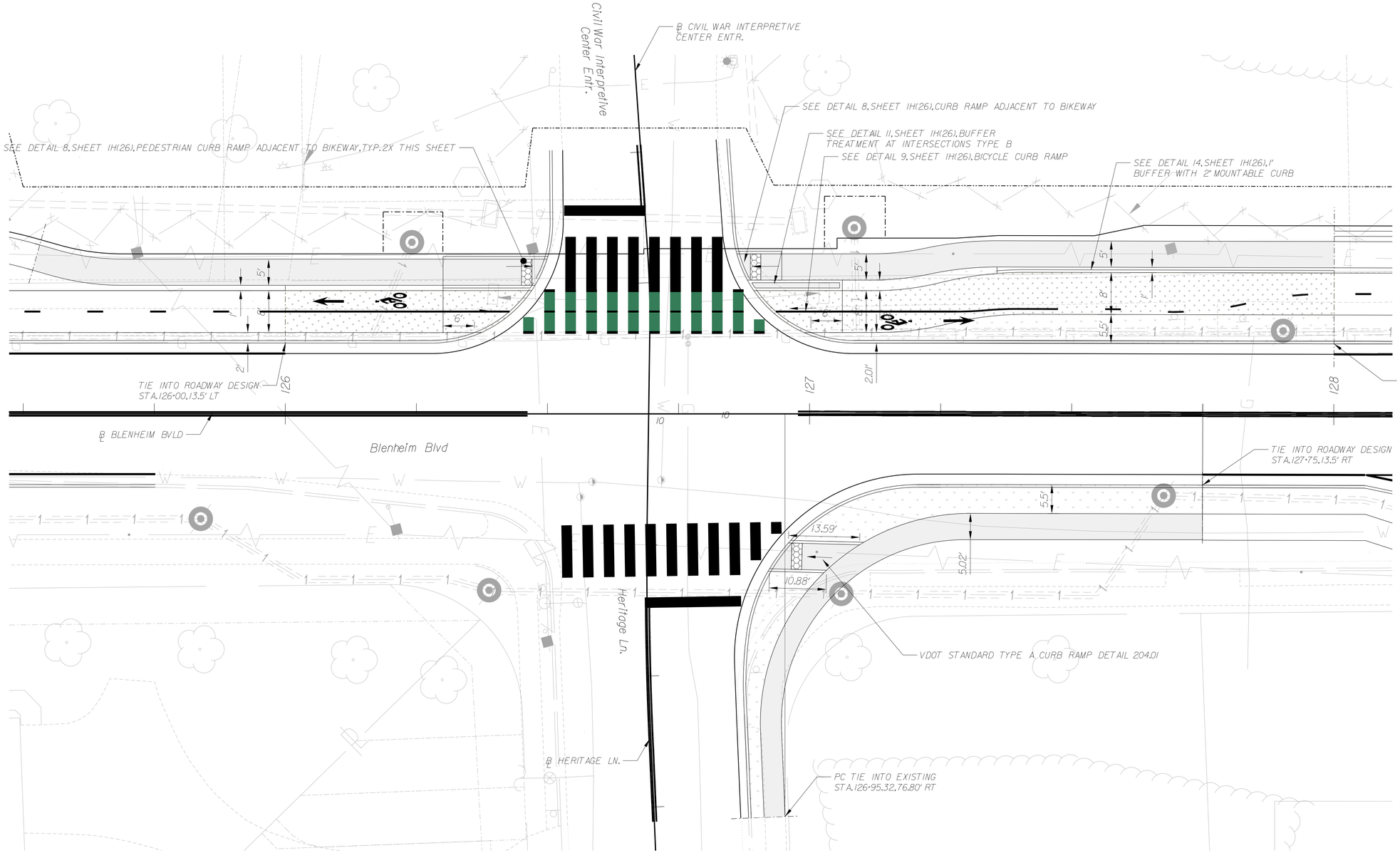
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



INTERSECTION DETAIL 9

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(8)

PH PLANS

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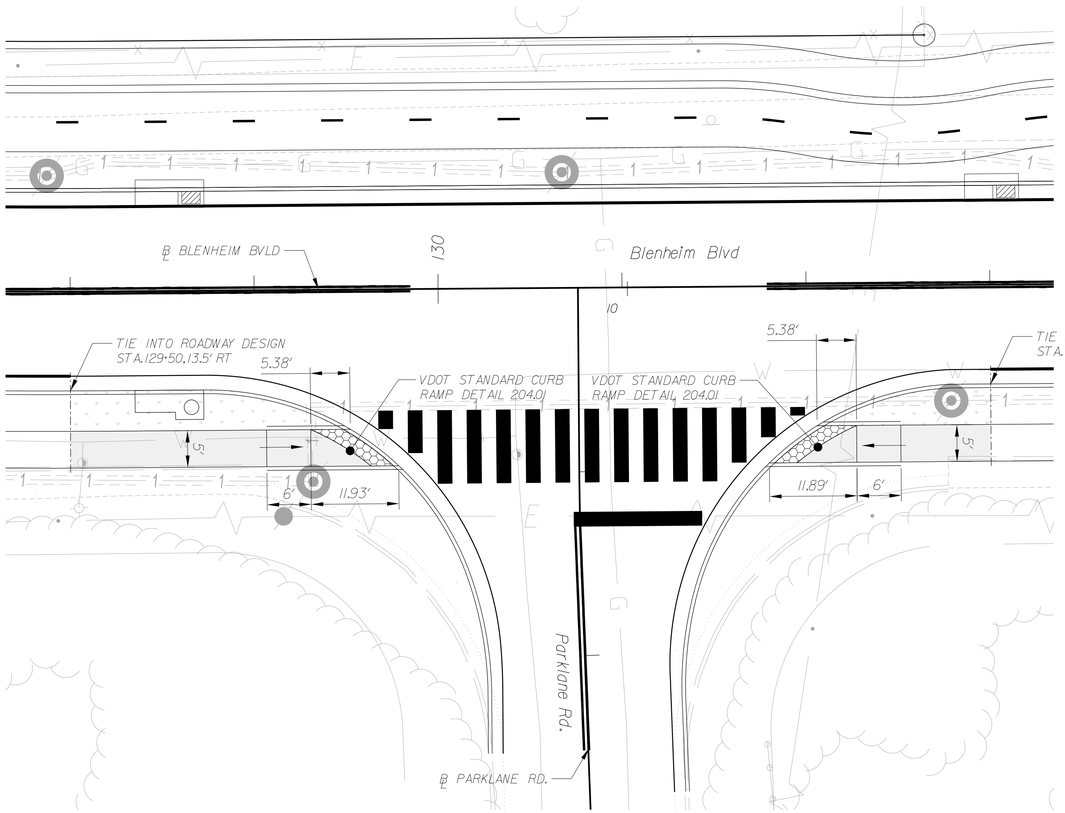
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



LEGEND

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

SCALE
0 10' 20'

INTERSECTION DETAIL 10

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(9) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(9)

PH PLANS

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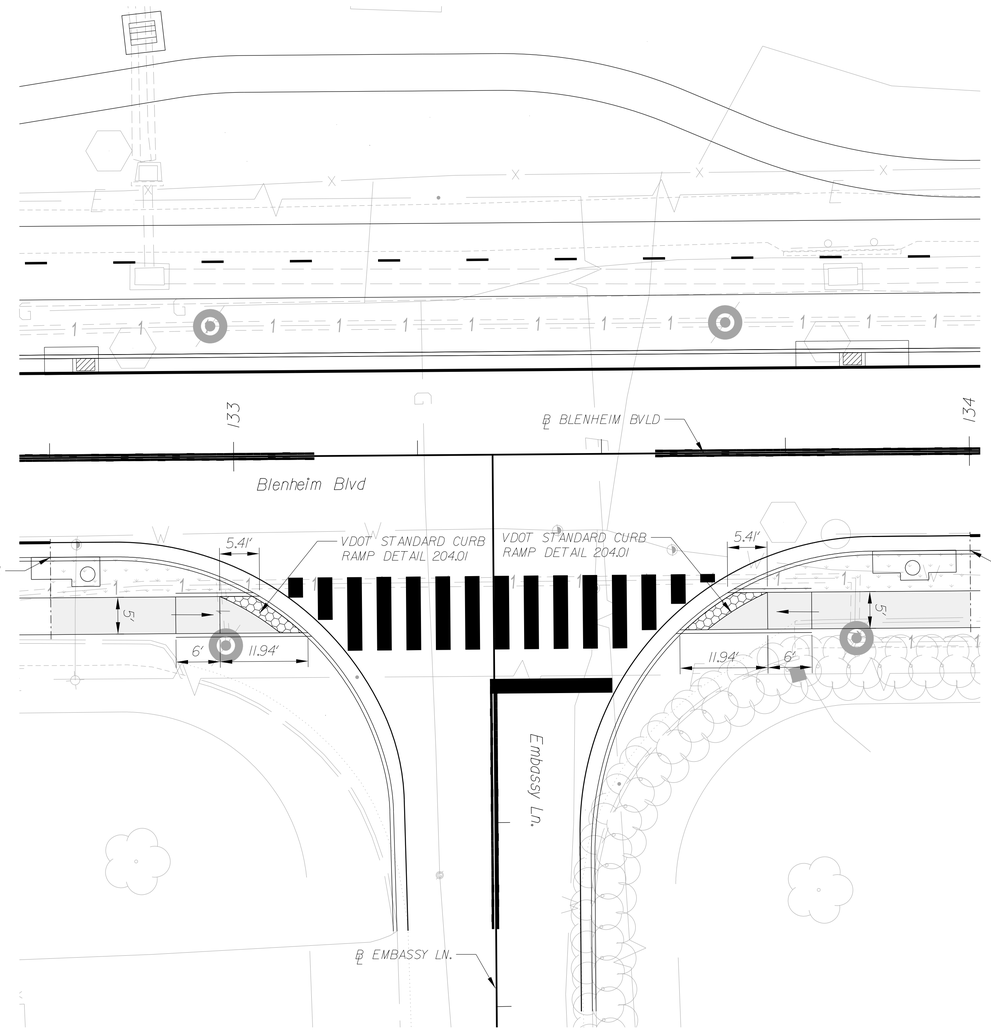
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
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INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



LEGEND

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

SCALE
0 10' 20'

INTERSECTION DETAIL II

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(9) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(10)

PH PLANS

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SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
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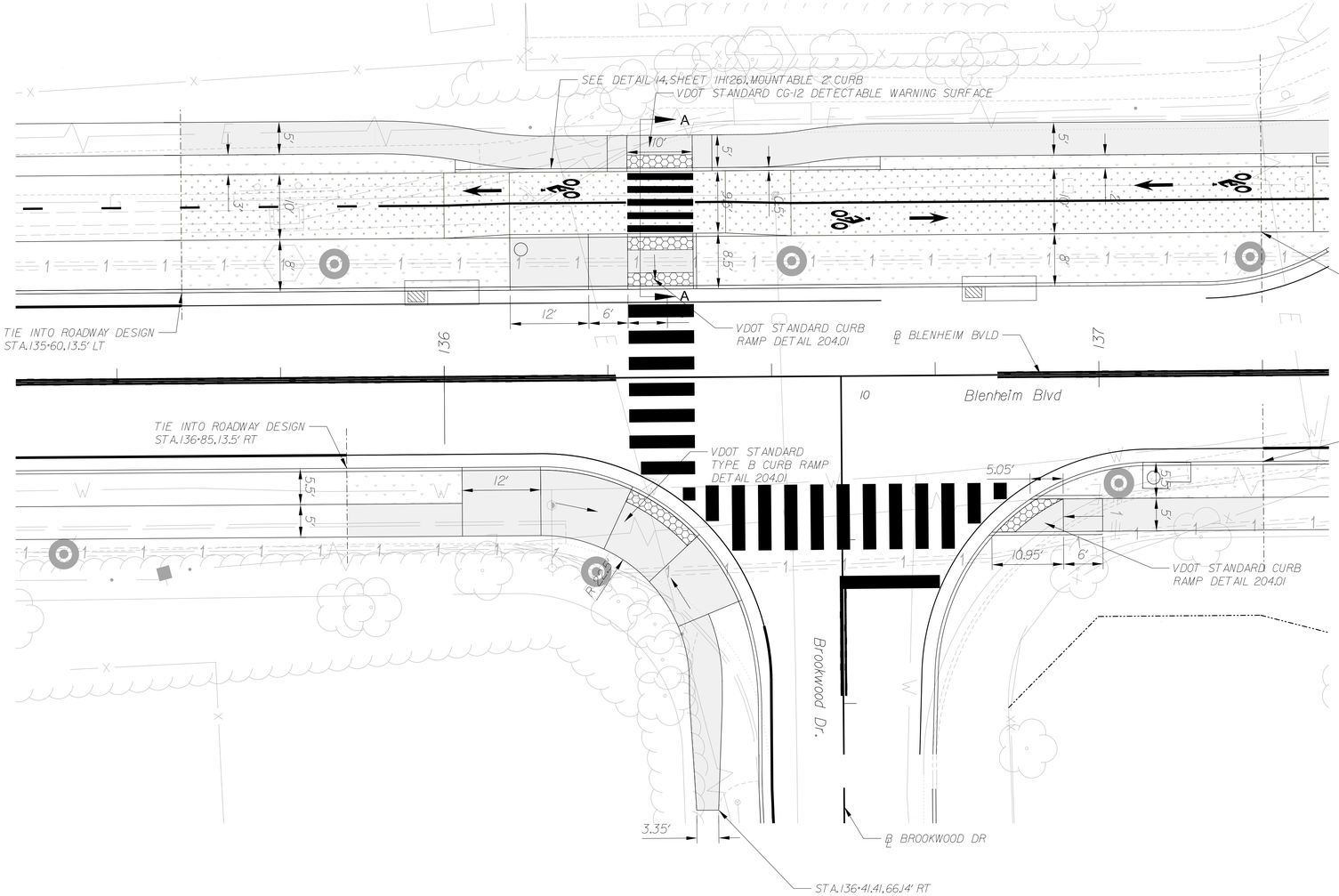
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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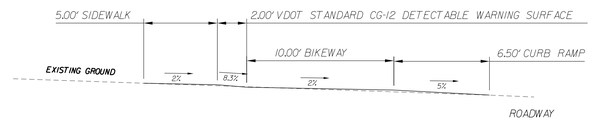
INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910





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(15)
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(11)

PH PLANS

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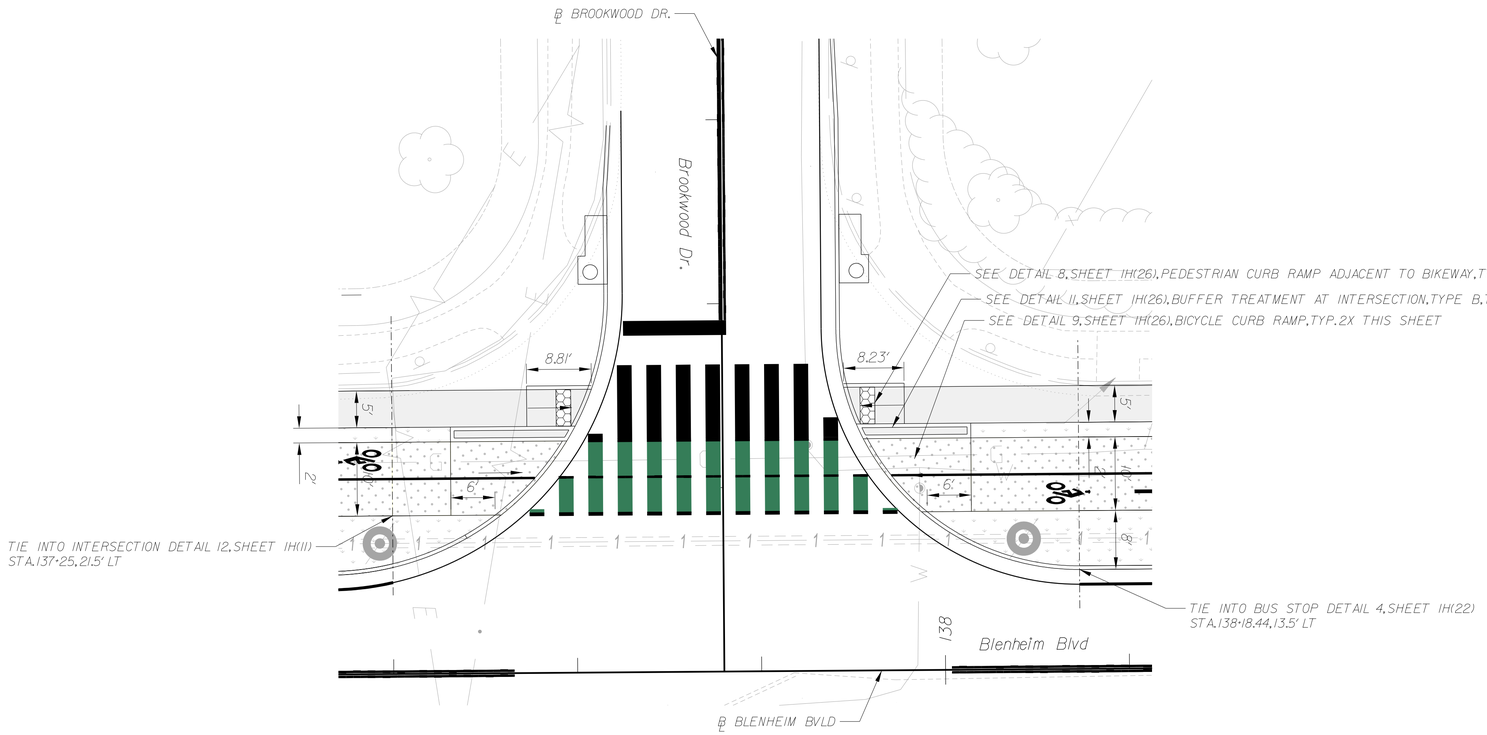
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INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



LEGEND

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

SCALE
0 10' 20'

INTERSECTION DETAIL 13

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan 15 - 15(15)	
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(12)

PH PLANS

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Plotted By: kkthurana

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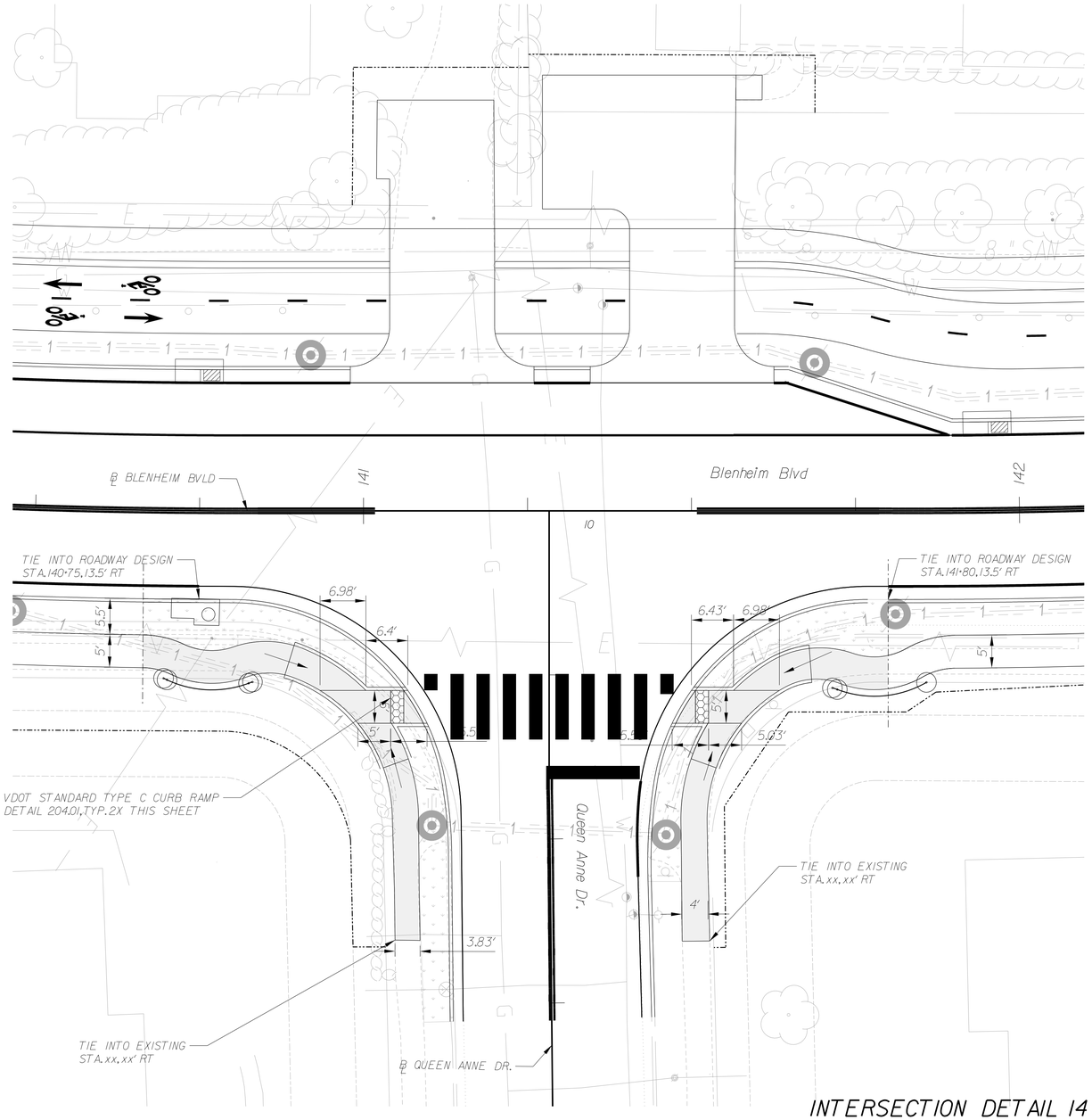
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INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



INTERSECTION DETAIL 14

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(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(13)

PH PLANS

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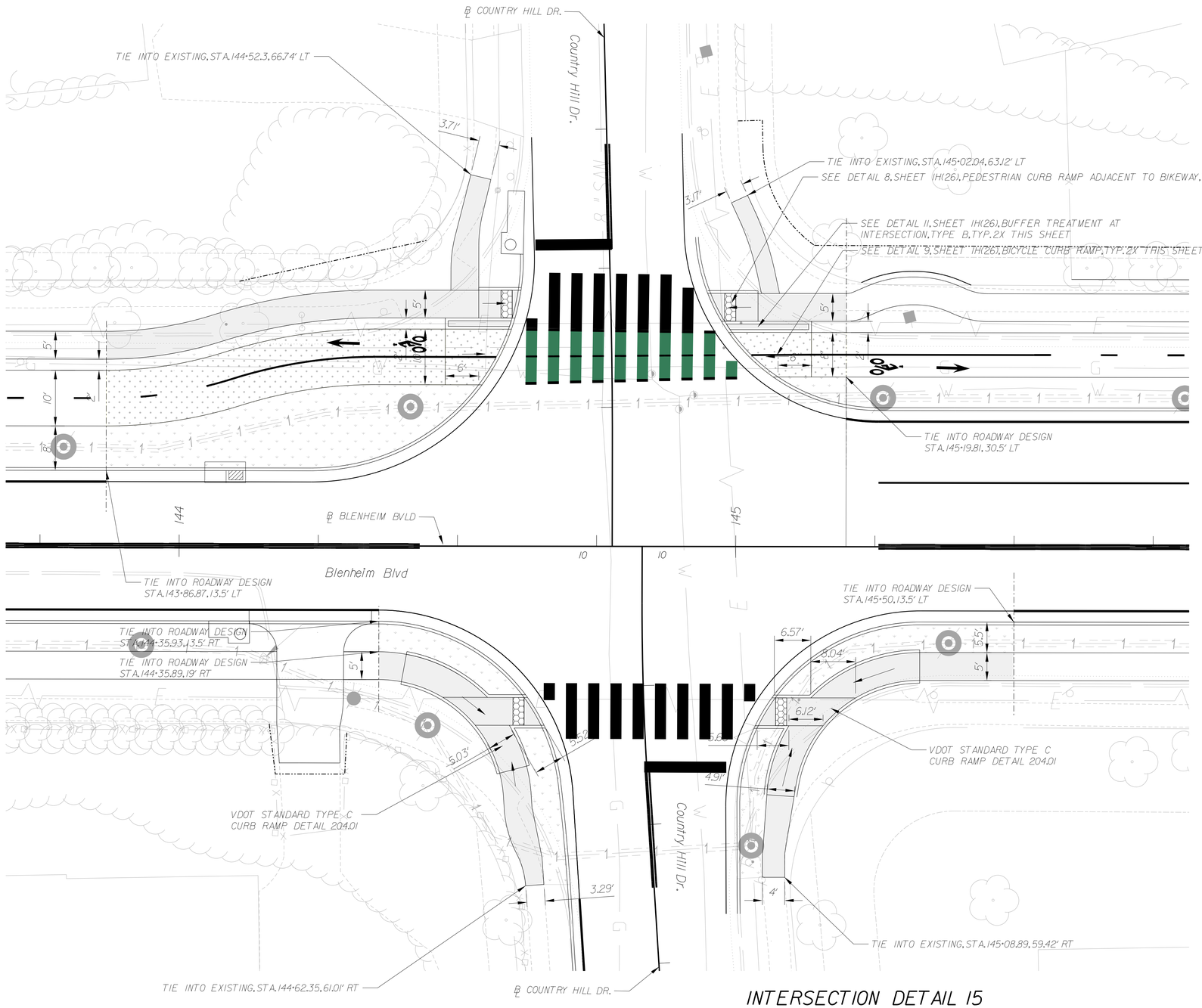
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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INTERSECTION DETAIL PLAN

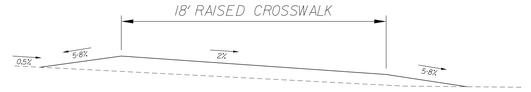
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(14)

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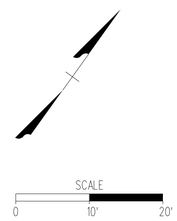
INTERSECTION DETAIL 15



SECTION A-B

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(15)
Bus Stop Detail Plan	IH(9) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(14)

PH PLANS

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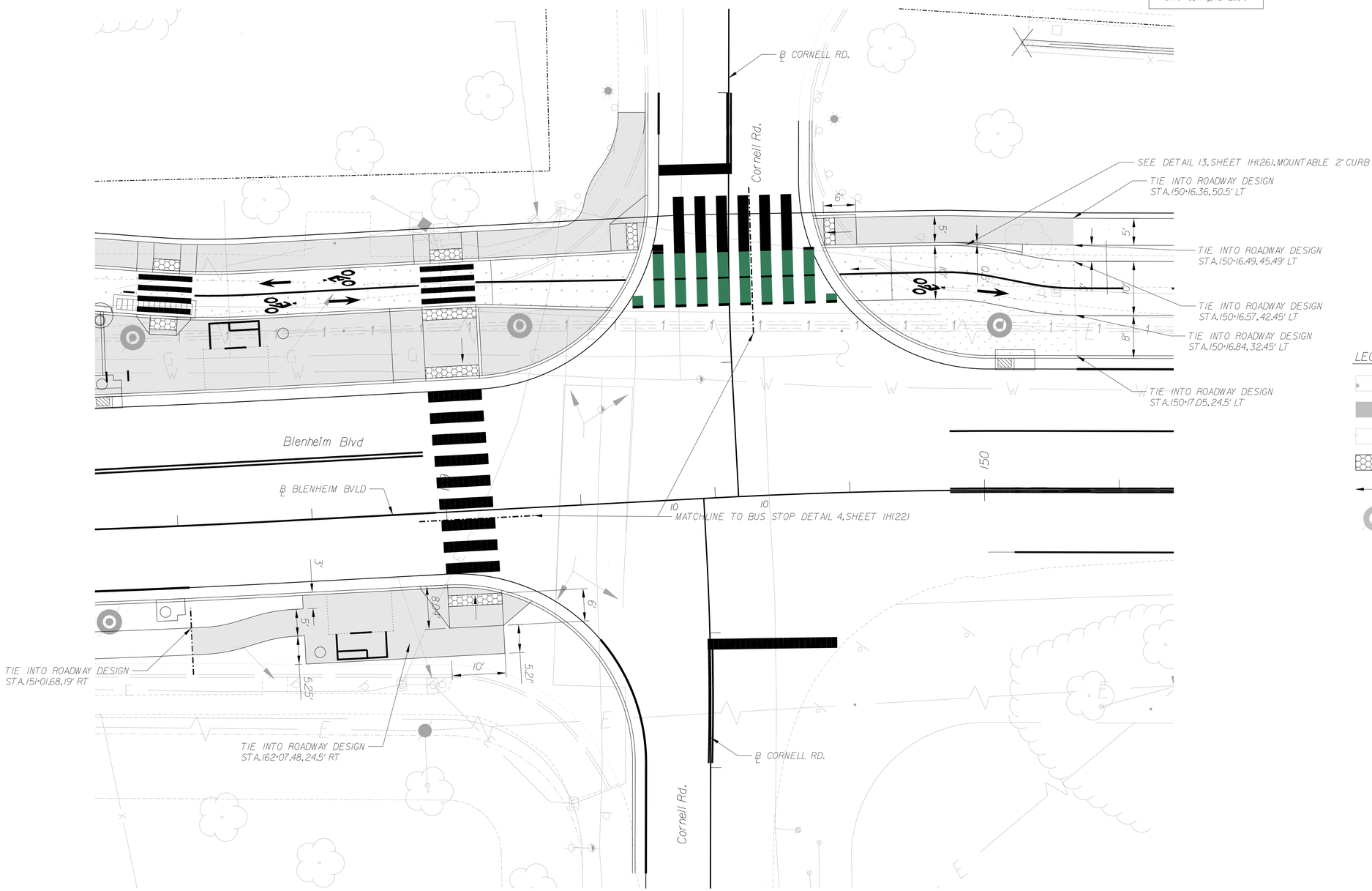
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

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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(15)
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(15)

PH PLANS

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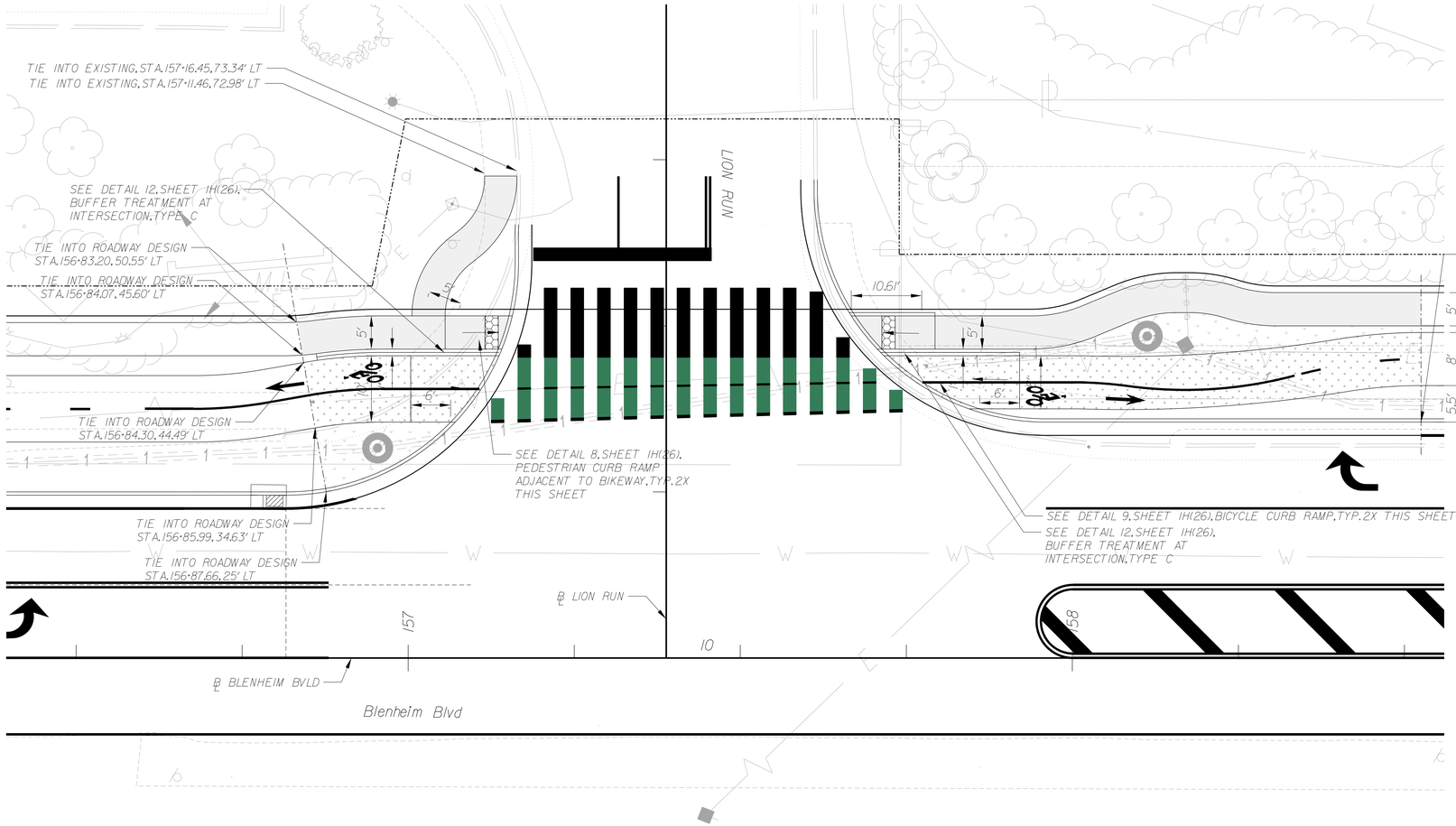
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INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(16)

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Silver Spring, MD 20910



LEGEND

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

SCALE
0 10' 20'

INTERSECTION DETAIL 17

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

Roadway Design Plans	3 - 14
Pavement Marking & Signing Plan	15 - 15(15)
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(16)

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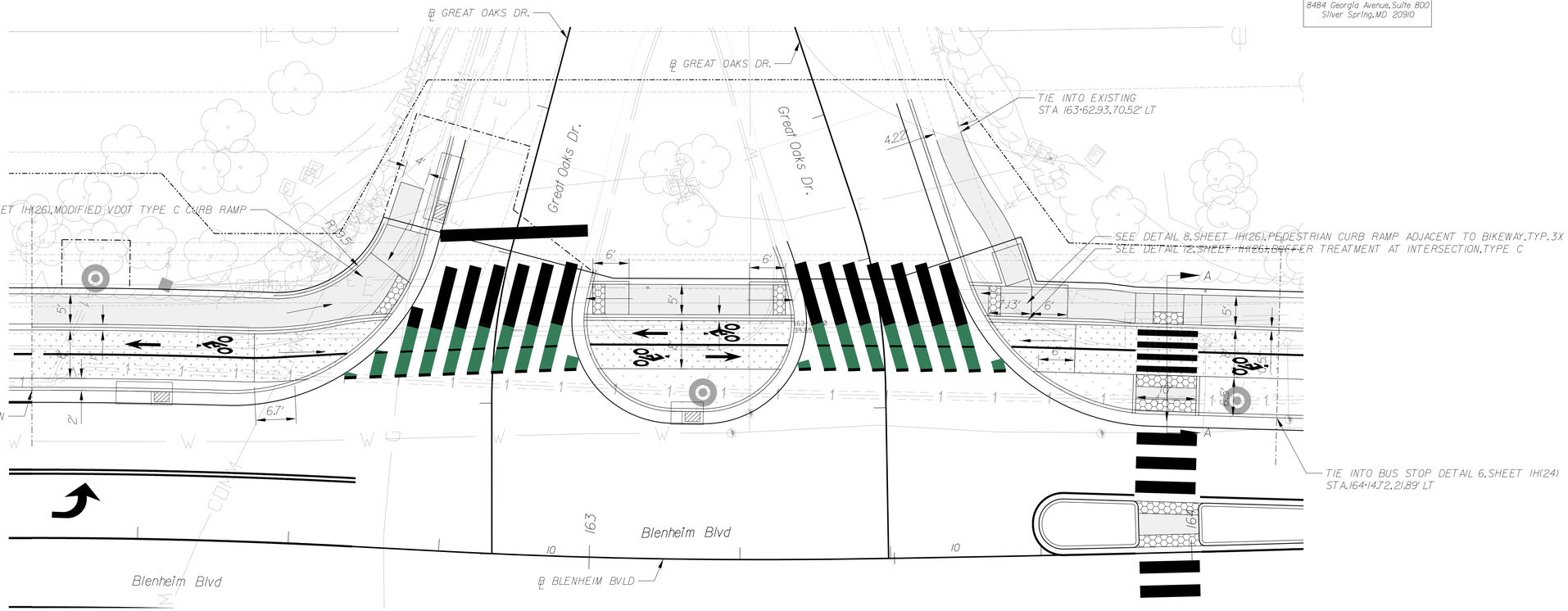
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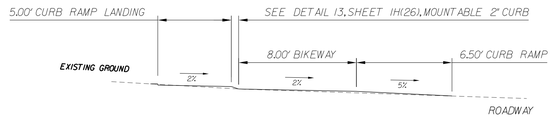
INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(17)

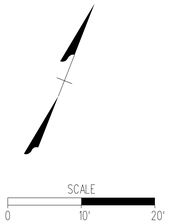
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SECTION A-A



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(15)
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(17)

INTERSECTION DETAIL 18

PH PLANS

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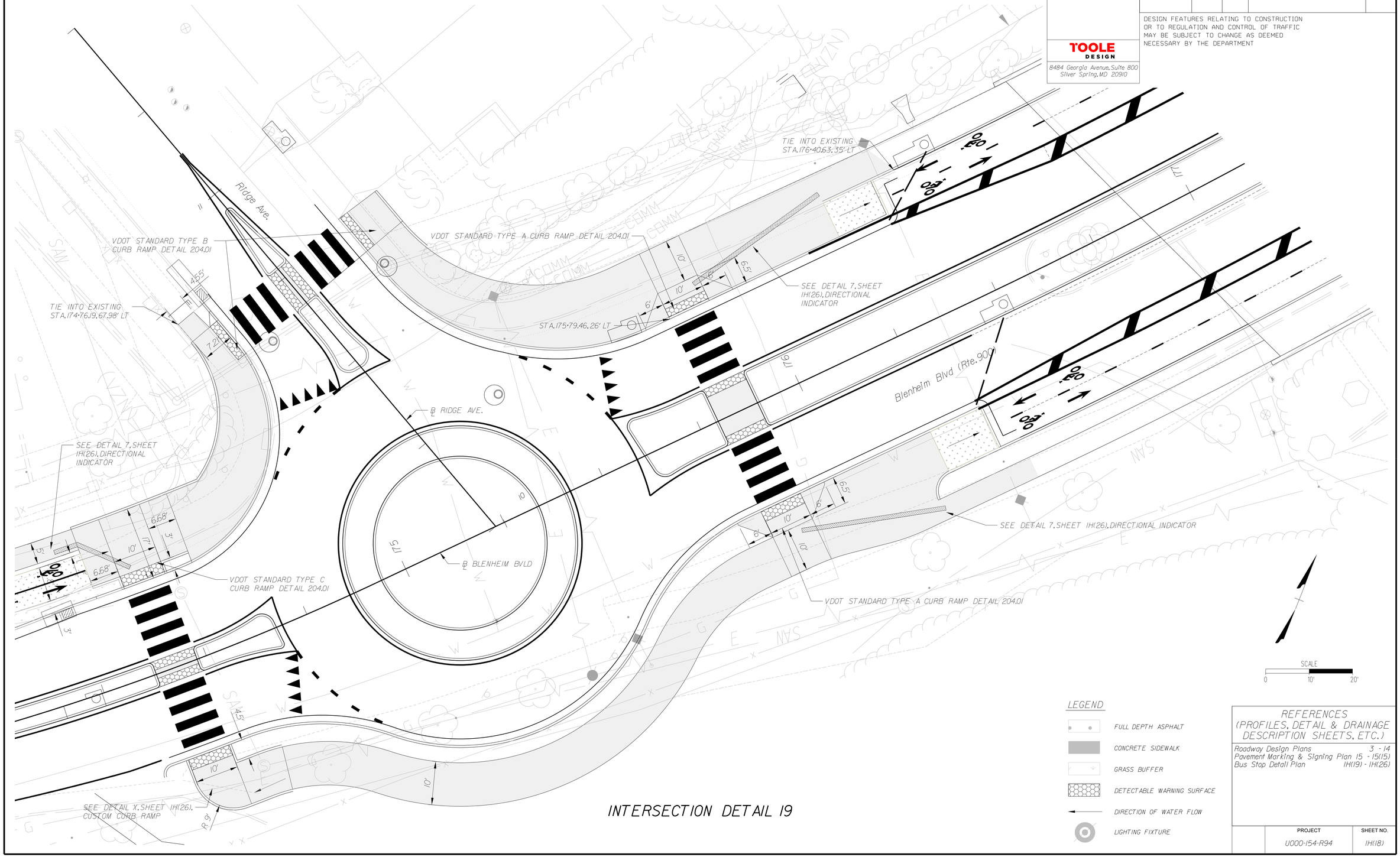
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INTERSECTION DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(18)

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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(15)
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	IH(18)

PH PLANS

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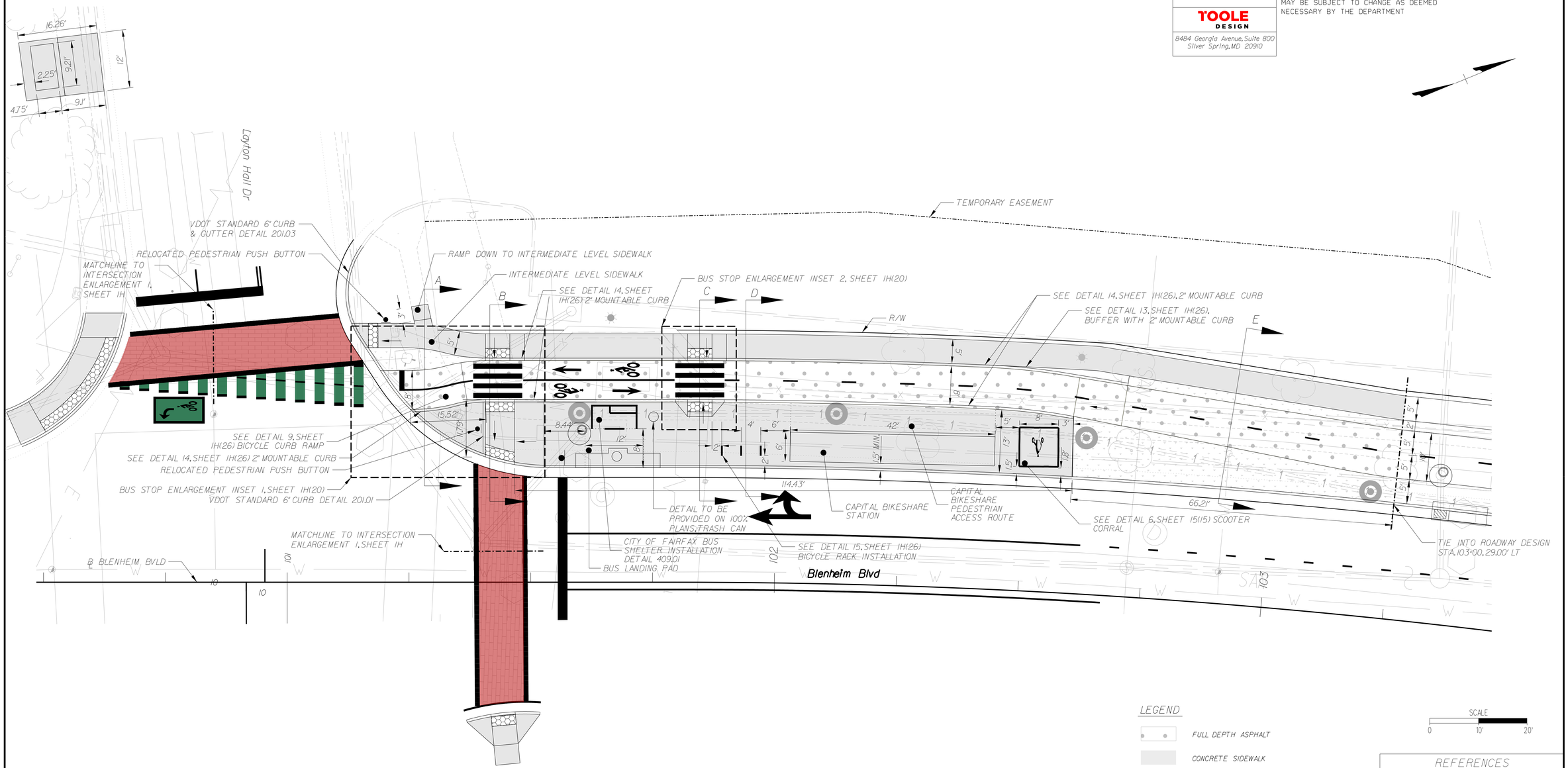
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BUS STOP DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(19)

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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

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	IH-IH(18)

PROJECT	SHEET NO.
U000-154-R94	IH(19)

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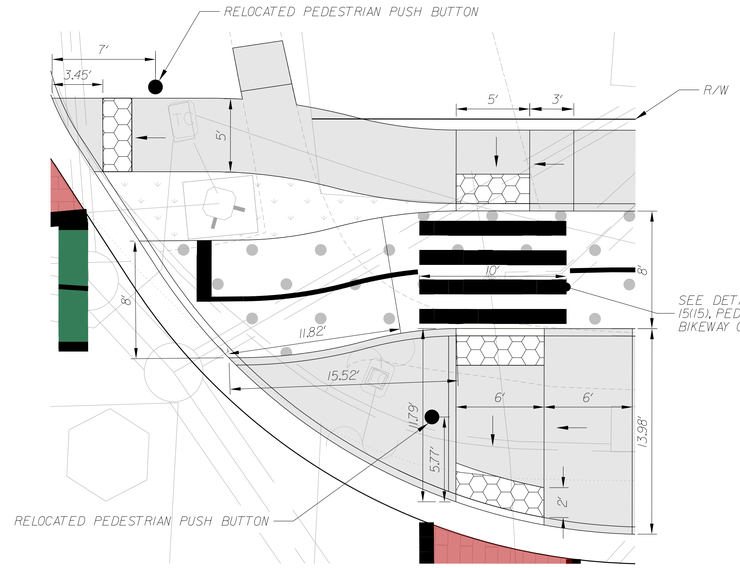
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BUS STOP DETAIL PLAN

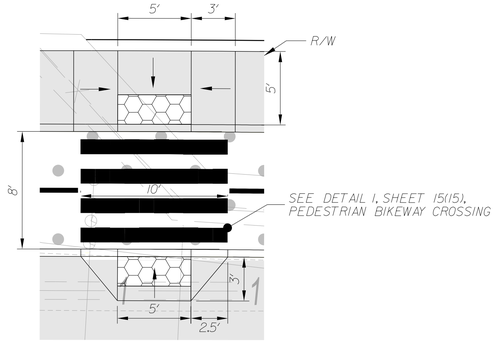
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	1H(20)

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BUS STOP DETAIL INSET 1



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	1H-1H(18)

PROJECT	SHEET NO.
U000-154-R94	1H(20)

PH PLANS

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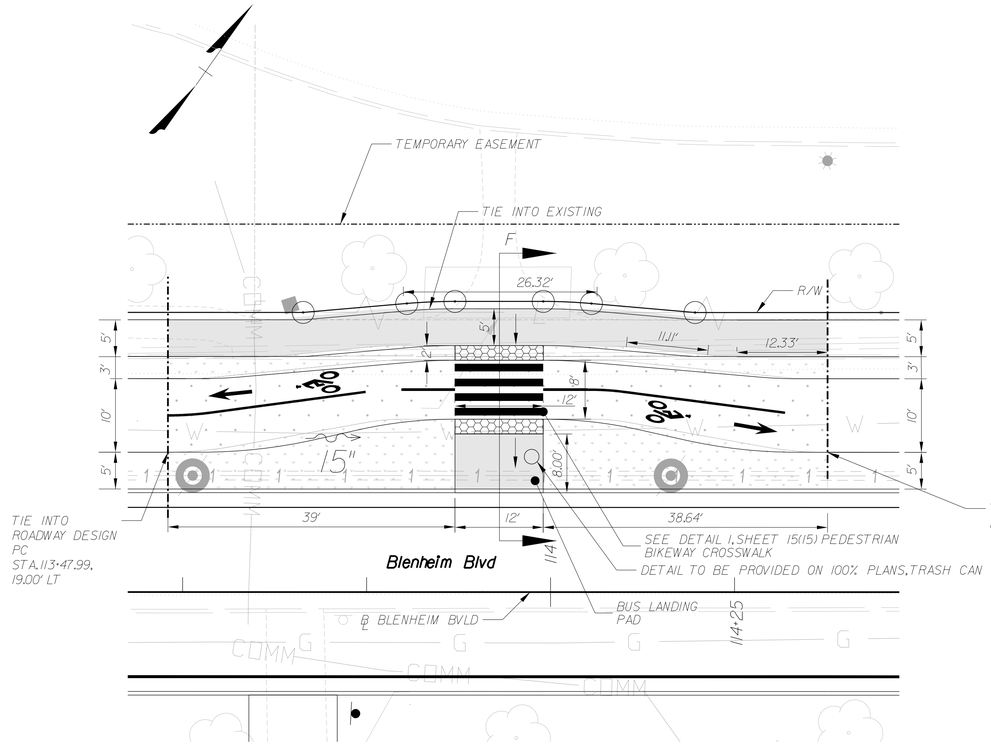
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BUS STOP DETAIL PLAN

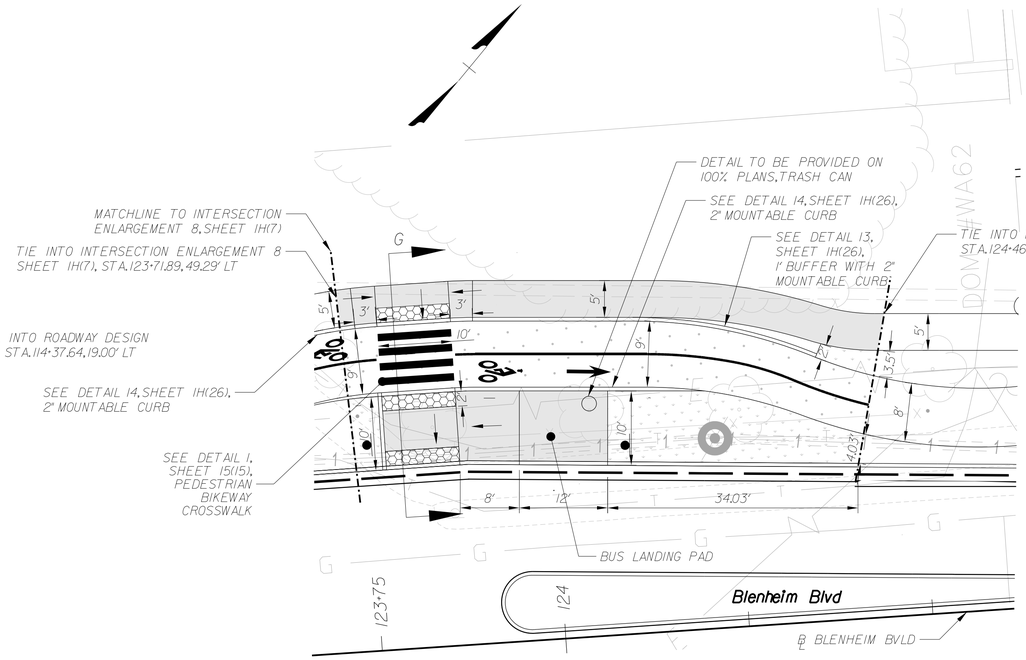
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	1H(21)

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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.
U000-154-R94	1H(21)

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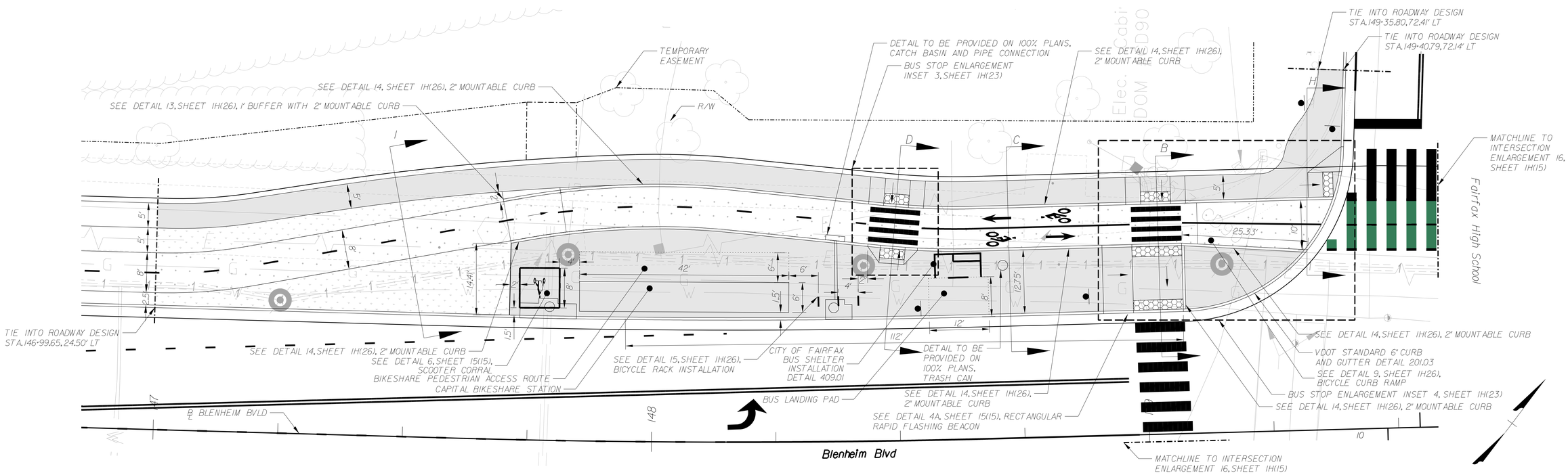
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BUS STOP DETAIL PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(22)

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SCALE
0 10' 20'

LEGEND

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

BUS STOP DETAIL 4

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.
U000-154-R94	IH(22)

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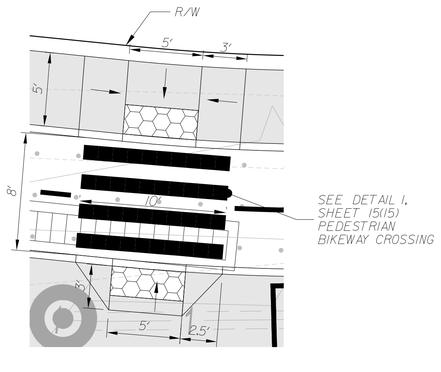
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BUS STOP DETAIL PLAN

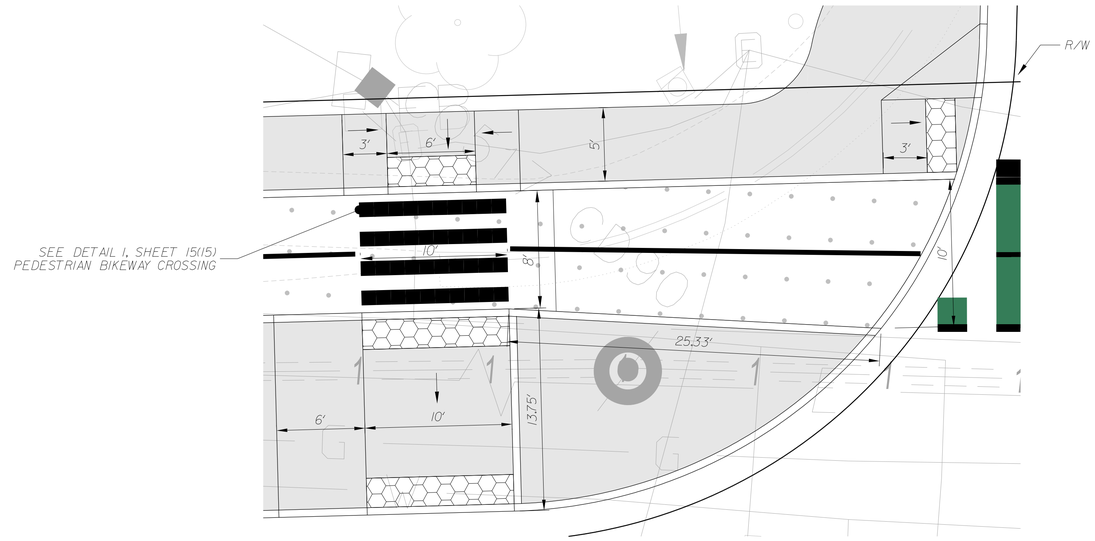
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BUS STOP DETAIL INSET 3



BUS STOP DETAIL INSET 4

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.
	U000-154-R94	IH(23)

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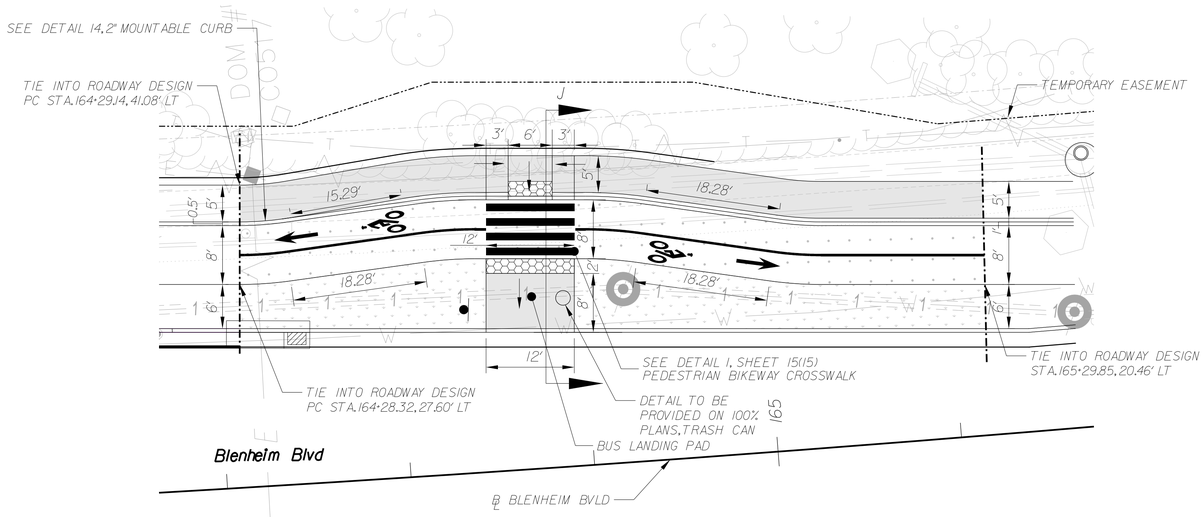
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BUS STOP DETAIL PLAN

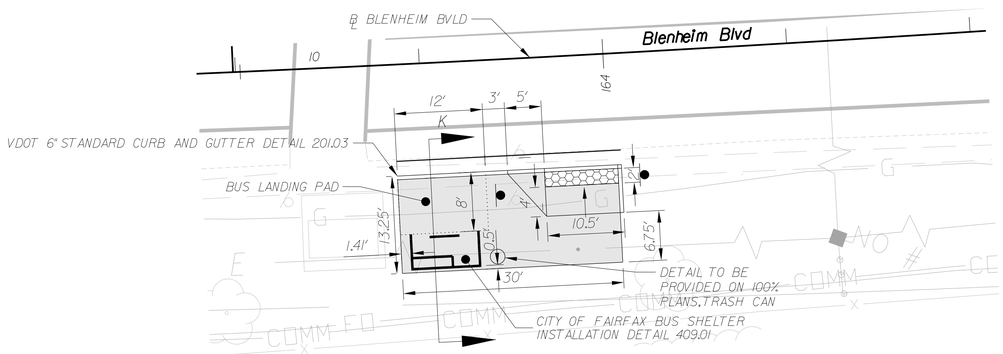
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IH(24)

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Silver Spring, MD 20910



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'

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.
U000-154-R94	IH(24)

PH PLANS

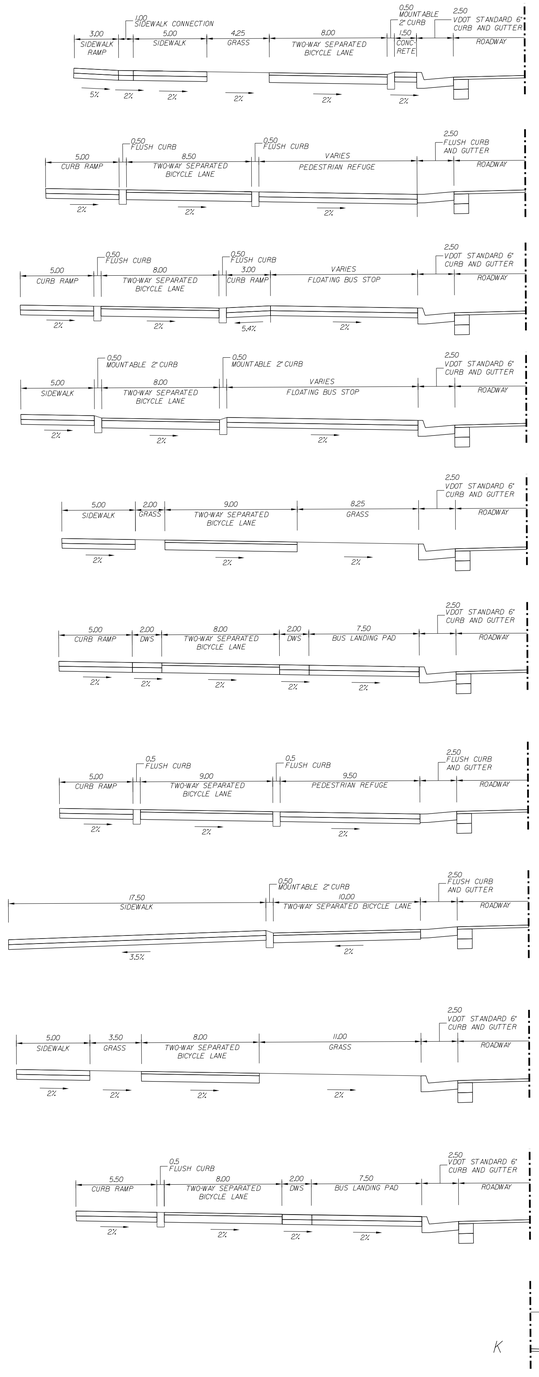
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BUS STOP PLAN



BUS STOP SECTION VIEWS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910

	PROJECT	SHEET NO.
	U000-154-R94	IH(25)

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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

TOOLE DESIGN
8484 GEORGIA AVENUE, SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
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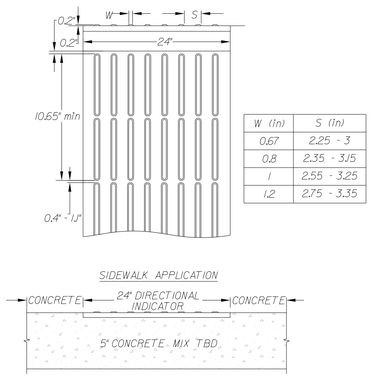
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

HARDSCAPE DETAIL SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	1H(26)

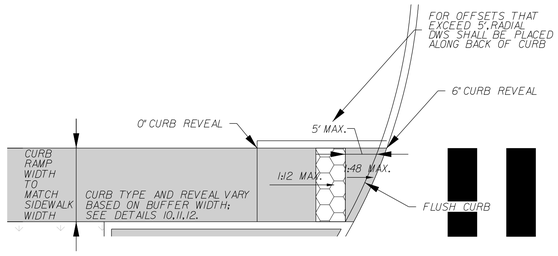
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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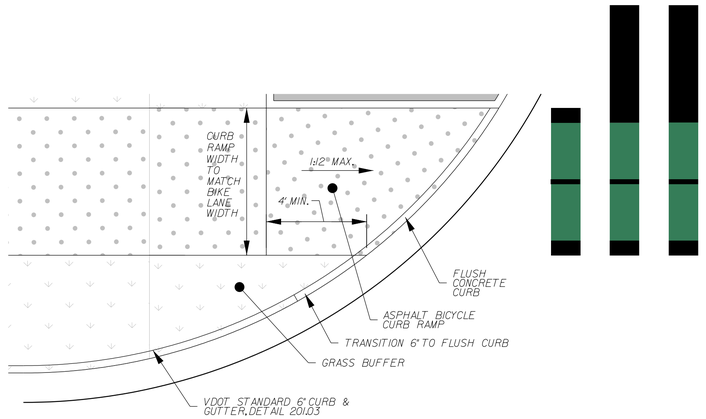


W (in)	S (in)
0.67	2.25 - 3
0.8	2.35 - 3.15
1	2.55 - 3.25
1.2	2.75 - 3.35

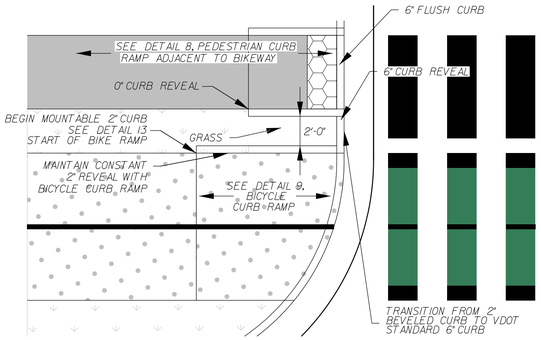
DETAIL 7: DIRECTIONAL INDICATOR
SCALE: 1"=1'



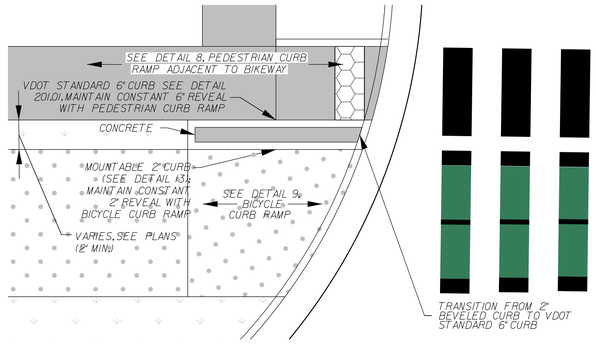
DETAIL 8: CURB RAMP ADJACENT TO BIKEWAY
SCALE: 1"=5'



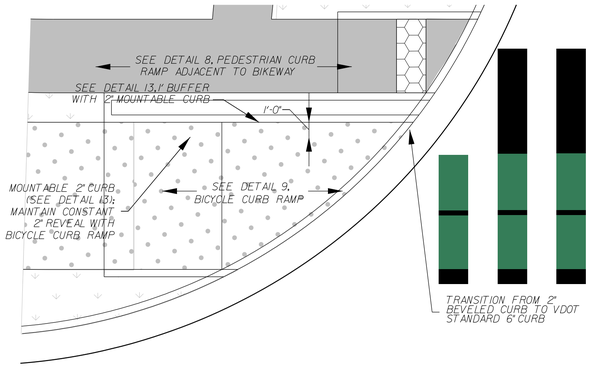
DETAIL 9: BICYCLE CURB RAMP
SCALE: 1"=5'



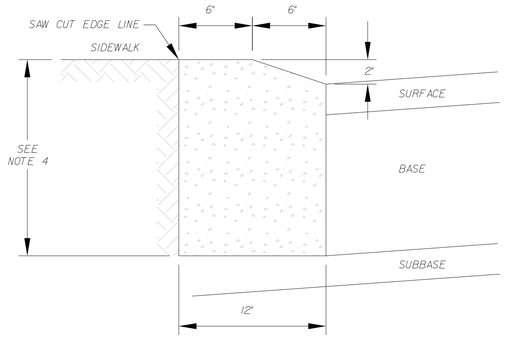
DETAIL 10: TYPICAL BUFFER TREATMENT AT INTERSECTIONS
TYPE A: BUFFER
SCALE: 1"=5'



DETAIL 11: TYPICAL BUFFER TREATMENT AT INTERSECTIONS
TYPE B:
SCALE: 1"=5'



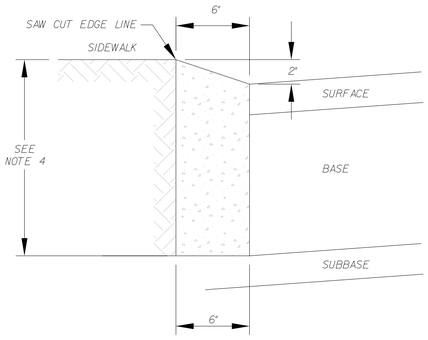
DETAIL 12: TYPICAL BUFFER TREATMENT AT INTERSECTIONS
TYPE C:
SCALE: 1"=5'



DETAIL 13: 1' BUFFER WITH 2" MOUNTABLE CURB
SCALE: 1/2"=1'

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 14: 2" MOUNTABLE CURB
SCALE: 1/2"=1'

PLACEHOLDER
TO BE PROVIDED AT FINAL DESIGN

DETAIL 15: BICYCLE RACK INSTALLATION
SCALE:

	PROJECT	SHEET NO.
	U000-154-R94	1H(26)

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Temporary Traffic Control General Notes

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IJ

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, Brookwood Drive, Lion Run, and Ridge Avenue. The contractor shall ensure safe access to pedestrians.

Existing Bus Stops:
There are nine 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 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	Wendy Sunny	(XXX) XXX-XXXX
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. 010720206, Expires 1/31/2024

Commonwealth of Virginia
Virginia Department of Transportation
VDOT

VERIFICATION OF COMPLETION OF
ADVANCED WORK ZONE TRAFFIC CONTROL TRAINING
AND FLAGGER CERTIFICATION

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.

Date: 1/7/2020

State Traffic Engineer

Verification No. : 010720206 Expiration Date: 1/31/2024

3/24/2023

PROJECT	SHEET NO.
U000-154-R94	IJ

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Temporary Traffic Control TTC Notes and Figures

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IJI(1)

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
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=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

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.[1]
Shoulder Taper = ½ L Minimum

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

Channelizing Device Spacing

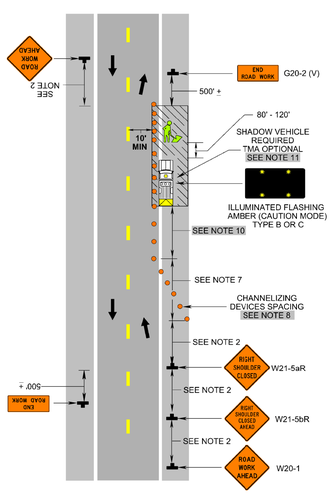
Location Spacing	Speed Limit (mph) 0-35	36+	Location Spacing	Speed Limit (mph) 0-35	36+	Location Spacing	Speed Limit (mph) 0-35	36+
Transition	20'	40'	Travelway	40'	80'	*Construction Access	80'	120'

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

9. **On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.**[1]
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
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.*[2]

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:

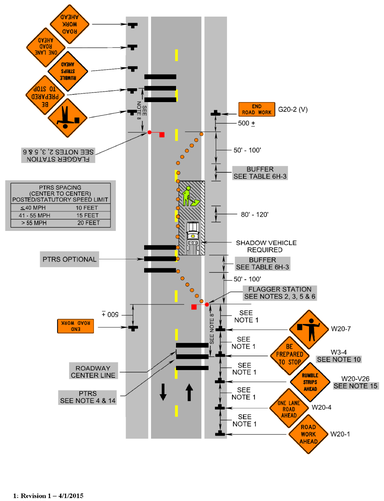
12. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet or less.
13. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be 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

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

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

Guidance:

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

Standard:

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

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=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 ¾ L should be used.[2]
Shoulder Taper = ½ L Minimum

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

Channelizing Device Spacing

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

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

Guidance:

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

Standard:

6. **If the posted speed limit is 45 mph or greater, the shadow vehicle shall have a truck-mounted attenuator.**
7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or two high intensity amber flashing or oscillating[2] lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

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

Standard:

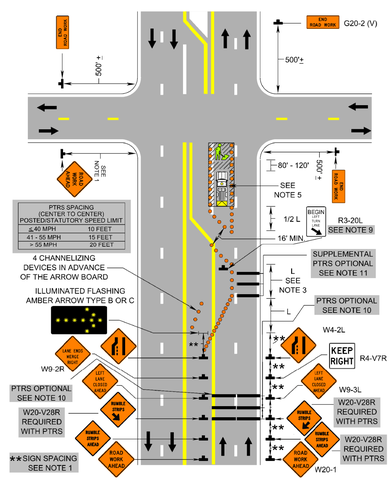
9. **If the left turn lane is closed a NO LEFT TURN (Symbol) (R3-2) shall be used.**

Option:[2]

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

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

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



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

Typical Traffic Control
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:

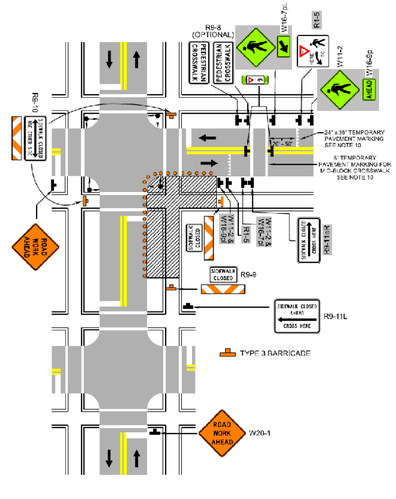
10. Refer to Sections 3B-16 through 3B-18 of the 2009 MUTCD and the Virginia Supplement to the MUTCD[1] for crosswalk[1] lines, yield lines and other related TTC devices that may be used to control vehicular traffic at midblock crosswalks.

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

Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 7/1/2018

PROJECT	SHEET NO.
U000-154-R94	IJI(1)

3/24/2023

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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)

Temporary Traffic Control/TTC Notes and Figures

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IJ(2)

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

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

Support:

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

Standard:

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

Guidance:

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

Typical Traffic Control
Temporary Pavement Marking and Marker Guidelines
(Figure TTC-60.0)
NOTES

Standard:

1. **Unless otherwise noted, construction pavement marking lane lines in transitions shall be 8 inches in width.**
2. **For long-term stationary work (more than 3 days duration), existing conflicting pavement markings shall be removed and temporary markings shall be installed.**
3. **Temporary pavement markers, on 20 foot center to center spacing, shall be installed in transitions.**
4. **Conflicting permanent pavement markers shall be covered or removed.**
5. **Eradication of existing pavement markings shall be as shown in Figure TTC-55.**

Option:

6. Temporary pavement markers, on a 40' center to center spacing, may be added between transitions/shifting tapers as directed by the engineer.
7. For short-term stationary work (less than 3 days duration), lanes may be delineated by retroreflectorized channelizing devices or removable pavement marking instead of temporary pavement markings.

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.[2]*

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

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

Guidance:

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

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **To prevent accidental intrusion into the work area, channelizing device spacing shall not exceed 10' on centers or as directed by the Engineer [1]**

Option:

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

Standard:

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

Taper Length L											
Speed Limit (mph)	Lane Width (Feet)				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
Shoulder Taper = ⅓ L Minimum											

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

Posted Speed Limit (mph)	Distance (Feet)	Posted Speed Limit (mph)	Distance (Feet)
≤ 20	115 – 120	50	425 – 445
25	155 – 165	55	500 – 530
30	200 – 210	60	570 – 600
35	250 – 280	65	645 – 675
40	305 – 325	70	730 – 760
45	360 – 380		

Guidance:

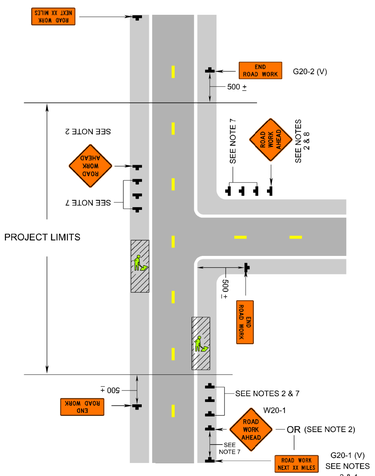
8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Support:

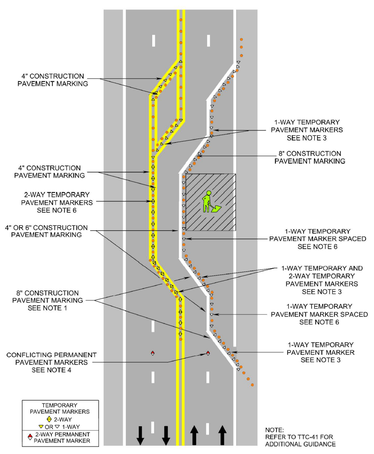
9. Turns can be prohibited as required by vehicular traffic conditions. Unless the streets are wide, it might be physically impossible to make certain turns, especially for large vehicles.

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

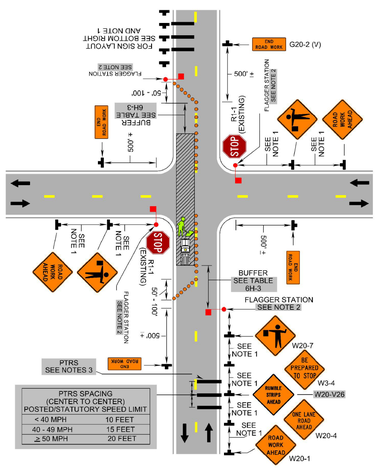
Signing for Project Limits
(Figure TTC-53.0)



Temporary Pavement Marking and Marker Guidelines
(Figure TTC-60.0)

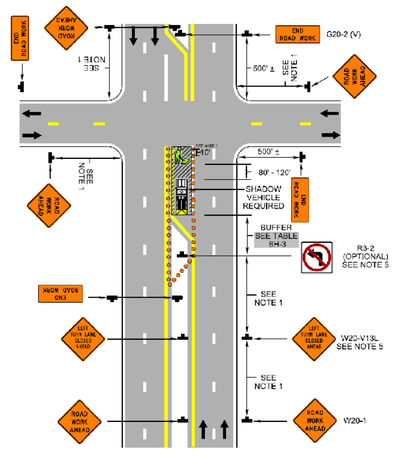


Lane Closure Operation through a Unsignalized[2] Intersection **[1]**
(Figure TTC-67.1)



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

Turn Lane Closure Operation
(Figure TTC-29.2)



2: Revision 2 – 9/1/2019

3/24/2023

PROJECT	SHEET NO.
U000-154-R94	IJ(2)

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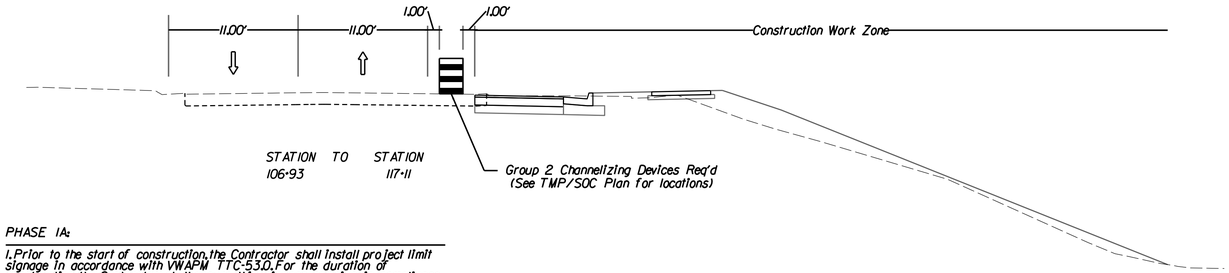
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

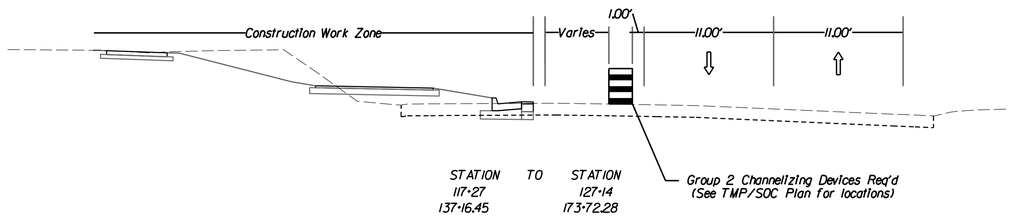
Temporary Traffic Control Typical Sections

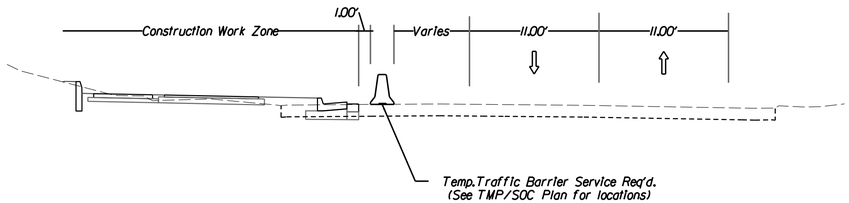
Phase I

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	1J(3)

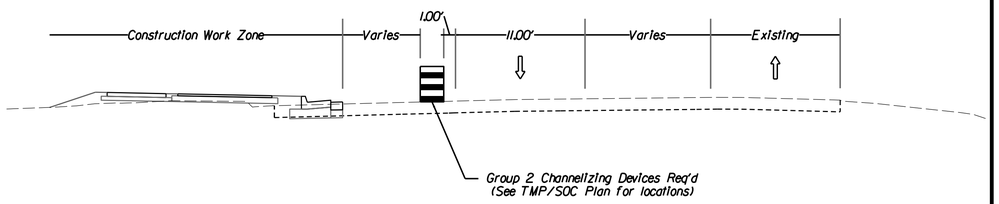
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



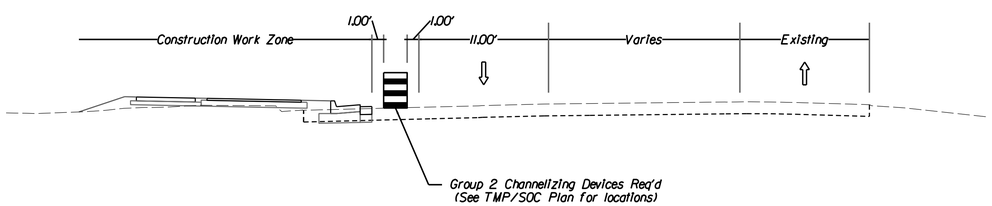




STATION 127+14 TO STATION 137+16.45



STATION 176+34.74 TO STATION 178+99.74



STATION 173+72.28 TO STATION 176+34.74

PHASE IA:

1. Prior to the start of construction, the Contractor shall install project limit signage in accordance with VWAPM TTC-53.0. For the duration of construction, the Contractor shall ensure this signage remains in compliance if the project limits change.

2. The Contractor is to install all traffic control measures and devices, including Group 2 Channelizing devices, and implement VWAPM TTC-4.2 (Stationary Operation on a Shoulder), TTC-5.2 (Shoulder Closure with Minor Encroachment) and TTC-23.2 (Lane Closure on a Two-Lane Roadway Using Flaggers), as needed to construct temporary pavement areas between Station 105+6.4 and 107+28.1, Station 107+66.89 and 108+58.83, Station 109+25.52 and 109+84.62, Station 114+95.11 and 117+05.51, Station 121+67.18 and 123+27.96, Station 137+13.67 and 139+37.53, Station 142+73.80 and 144+17.71, shoulder strengthening between Station 166+44.06 and 168+93.03, and DI-2 drainage structures along the northern side of Blenheim Blvd between Station 105 and 115+50. Temporary covers or steel plates shall be placed on drainage structures within the travelway.

3. At the end of each work day VWAPM TTC-4.2 is to be implemented in all construction areas and an appropriate 6:1 wedge is to be installed per the VWAPM. The 6:1 wedge is not required if the construction area or impacted areas are beyond the travel-way and meet VDOT's clear zone requirements in accordance with the VWAPM, Appendix A. Equipment is to be stored outside of the clear zone for construction areas as designated in the VWAPM or off-site.

4. The Contractor is to maintain access to all entrances at all times during construction. Contractor is to ensure that adequate facilities are provided during construction for drainage and that positive drainage is maintained throughout this phase of construction.

5. The Contractor is solely responsible for relocating all construction signs, equipment, and traffic control devices for the duration of construction. Contractor is also solely responsible for resetting and replacing any roadway sign that is displaced or damaged during this phase of construction.

PHASE I:

1. The Contractor is to install all traffic control measures and devices, including Group 2 Channelizing devices and temporary traffic barrier service for Phase 2 construction.

2. The Contractor is to install all traffic control measures and devices, including Group 2 Channelizing devices, to shift traffic, detour pedestrians, and construct the areas designated for construction in Phase I by implementing VWAPM TTC-5.2 (Shoulder Operation with Minor Encroachment), TTC-6.2 (Shoulder Closure with Barrier Operation), TTC-29.2 (Turn Lane Closure Operation), and TTC-36.2 (Crosswalk Closure and Pedestrian Detour Operation). The Contractor shall then implement VWAPM Typical Traffic Control applications as shown on the plans to construct all designated construction areas in Phase I along Blenheim Blvd. The Contractor shall note the area in front of Daniels Run Elementary School, between Station 110+50 and 116+50 shall be constructed during the summer months when school is not in session.

3. The Contractor shall utilize flagging operations to construct the splitter island on Ridge Avenue at the intersection with Blenheim Blvd.

3. At the end of each work day VWAPM TTC-4.2 is to be implemented in all construction areas and an appropriate 6:1 wedge is to be installed per the VWAPM. The 6:1 wedge is not required if the construction area or impacted areas are beyond the travel-way and meet VDOT's clear zone requirements in accordance with the VWAPM, Appendix A. Equipment is to be stored outside of the clear zone for construction areas as designated in the VWAPM or off-site.

4. The Contractor is to maintain access to all entrances at all times during construction. Contractor is to ensure that adequate facilities are provided during construction for drainage and that positive drainage is maintained throughout this phase of construction.

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3/24/2023

PROJECT	SHEET NO.
U000-154-R94	1J(3)

PH PLANS

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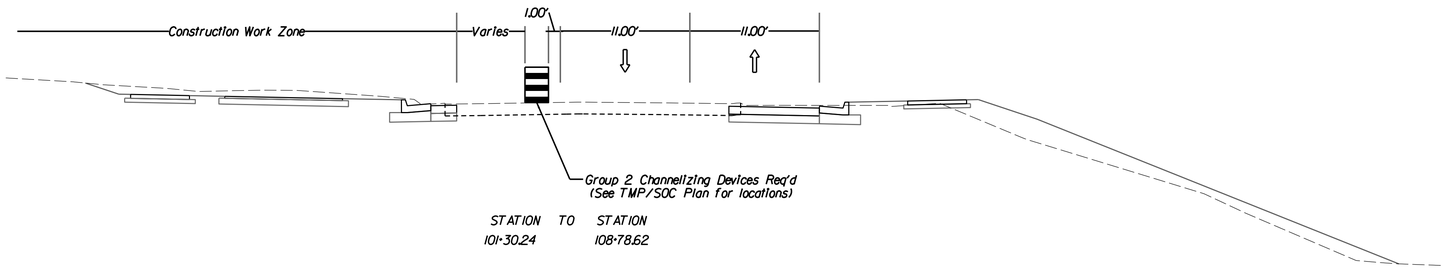
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Typical Sections

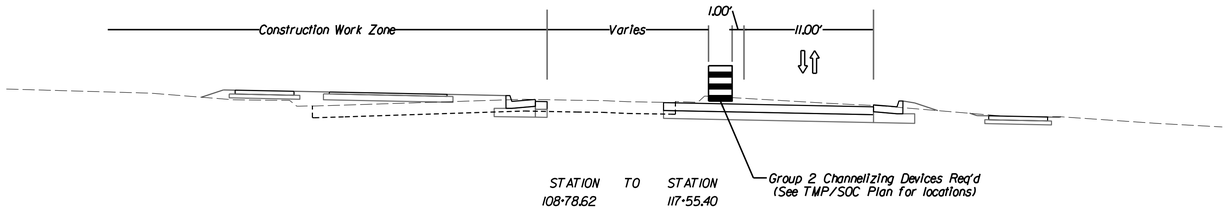
Phase 2

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	1J(4)

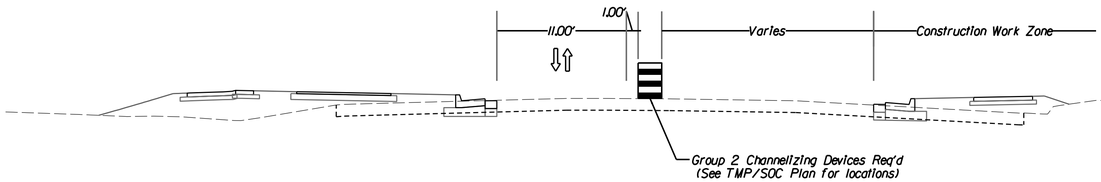
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



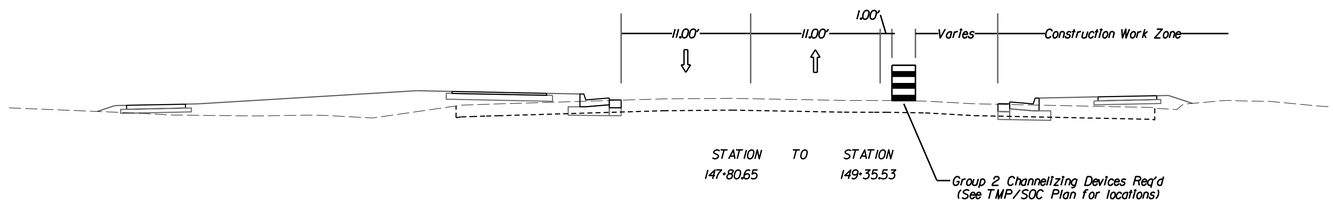
STATION 101+30.24 TO STATION 108+78.62



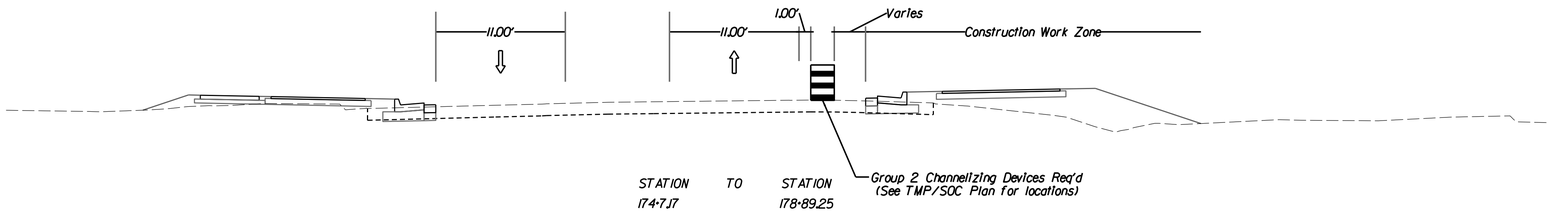
STATION 108+78.62 TO STATION 117+55.40



STATION 117+55.40 TO STATION 147+80.65



STATION 147+80.65 TO STATION 149+35.53



STATION 174+7.17 TO STATION 178+89.25

PHASE 2:

1. The Contractor is to install all traffic control measures and devices, including Group 2 Channelizing devices and temporary traffic barrier service for Phase 2 construction.

2. The Contractor is to install all traffic control measures and devices, including Group 2 Channelizing devices, to shift traffic, detour pedestrians, and construct the areas designated for construction in Phase by implementing TTC-5.2 (Shoulder Operation with Minor Encroachment), TTC 23.2 (Lane Closure on a Two-Lane Roadway Using Flaggers), TTC-36.2 (Crosswalk Closure and Pedestrian Detour Operation), and TTC-67.1 (Lane Closure Operation through an Unsignalized Intersection).

3. The Contractor shall construct a temporary crossing for pedestrians at Station 117+58.40 and the north side of Blenheim Blvd. as shown on the plans.

4. The Contractor shall remove the temporary crossing at Station 117+58.40. The Contractor shall construct a temporary crossing at Station 116+00 and the south side of Blenheim Blvd. as shown on the plans.

5. At the end of each work day VWAPM TTC-4.2 is to be implemented in all construction areas and an appropriate 6:1 wedge is to be installed per the VWAPM. The 6:1 wedge is not required if the construction area or impacted areas are beyond the travel-way and meet VDOT's clear zone requirements in accordance with the VWAPM, Appendix A. Equipment is to be stored outside of the clear zone for construction areas as designated in the VWAPM or off-site.

6. The Contractor is to maintain access to all entrances at all times during construction. Contractor is to ensure that adequate facilities are provided during construction for drainage and that positive drainage is maintained throughout this phase of construction.

7. The Contractor is solely responsible for relocating all construction signs, equipment, and traffic control devices for the duration of construction. Contractor is also solely responsible for resetting and replacing any roadway sign that is displaced or damaged during this phase of construction.

3/24/2023

PROJECT	SHEET NO.
U000-154-R94	1J(4)

PH PLANS

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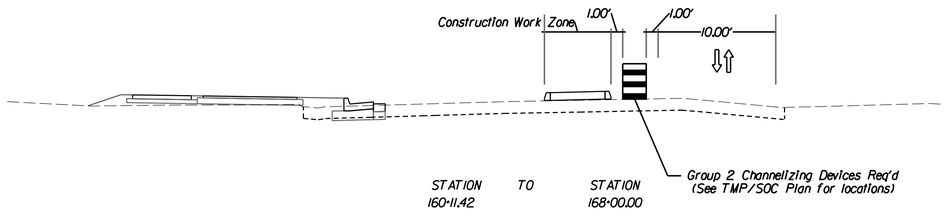
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

Temporary Traffic Control Typical Sections

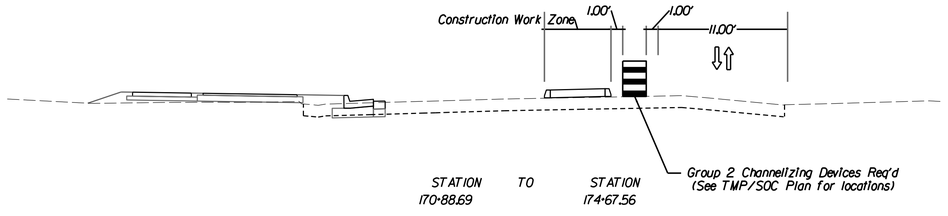
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	1J(5)

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

Phase 3A

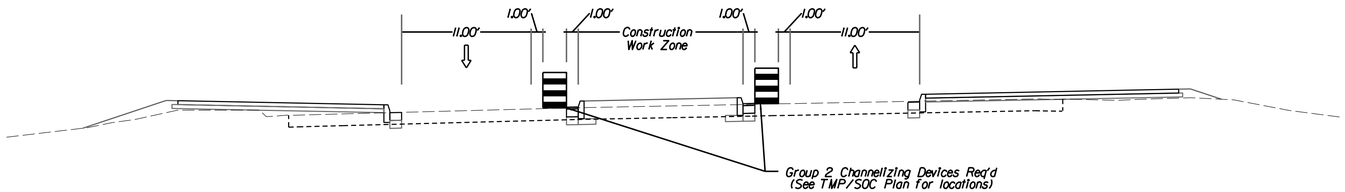


STATION 160+11.42 TO STATION 168+00.00



STATION 170+88.69 TO STATION 174+67.56

Phase 3B



STATION 175+59.87 TO STATION 176+89.24

PHASE 3A:

1. The Contractor shall install all traffic control measures and devices per VWAPM TTC-23.2 (Lane Closure on a Two-Lane Roadway Using Flaggers).

2. The Contractor shall construct medians along Blenheim Blvd at Station 38+32, Station 123+91.41, and Station 163+74.75 using flagging operations, as needed.

3. The Contractor shall install all traffic control measures and devices per TTC 23.2 (Lane Closure on a Two-Lane Roadway Using Flaggers), TTC-36.2 (Crosswalk Closure and Pedestrian Detour Operation), and TTC-67.1 (Lane Closure Operation through an Unsignalized Intersection). The Contractor shall construct the splitter islands on Blenheim Blvd and Ridge Ave.

4. At the end of each work day VWAPM TTC-4.2 is to be implemented in all construction areas and an appropriate 6:1 wedge is to be installed per the VWAPM. The 6:1 wedge is not required if the construction area or impacted areas are beyond the travel-way and meet VDOT's clear zone requirements in accordance with the VWAPM, Appendix A. Equipment is to be stored outside of the clear zone for construction areas as designated in the VWAPM or off-site.

5. The Contractor is to maintain access to all entrances at all times during construction. Contractor is to ensure that adequate facilities are provided during construction for drainage and that positive drainage is maintained throughout this phase of construction.

PHASE 3B:

1. The Contractor shall install all traffic control measures and devices per as shown in the plans. The Contractor shall construct the center island on Blenheim Blvd at Ridge Ave.

2. At the end of each work day VWAPM TTC-4.2 is to be implemented in all construction areas and an appropriate 6:1 wedge is to be installed per the VWAPM. The 6:1 wedge is not required if the construction area or impacted areas are beyond the travel-way and meet VDOT's clear zone requirements in accordance with the VWAPM, Appendix A. Equipment is to be stored outside of the clear zone for construction areas as designated in the VWAPM or off-site.

3. The Contractor is to maintain access to all entrances at all times during construction. Contractor is to ensure that adequate facilities are provided during construction for drainage and that positive drainage is maintained throughout this phase of construction.

4 All final surface course, proposed signage and final pavement markings shall be applied in this phase. VWAPM TTC-14.2 shall be applied for signage and pavement markings as necessary.

PROJECT	SHEET NO.
U000-154-R94	1J(5)

3/24/2023

PH PLANS | THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION. | ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE 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)

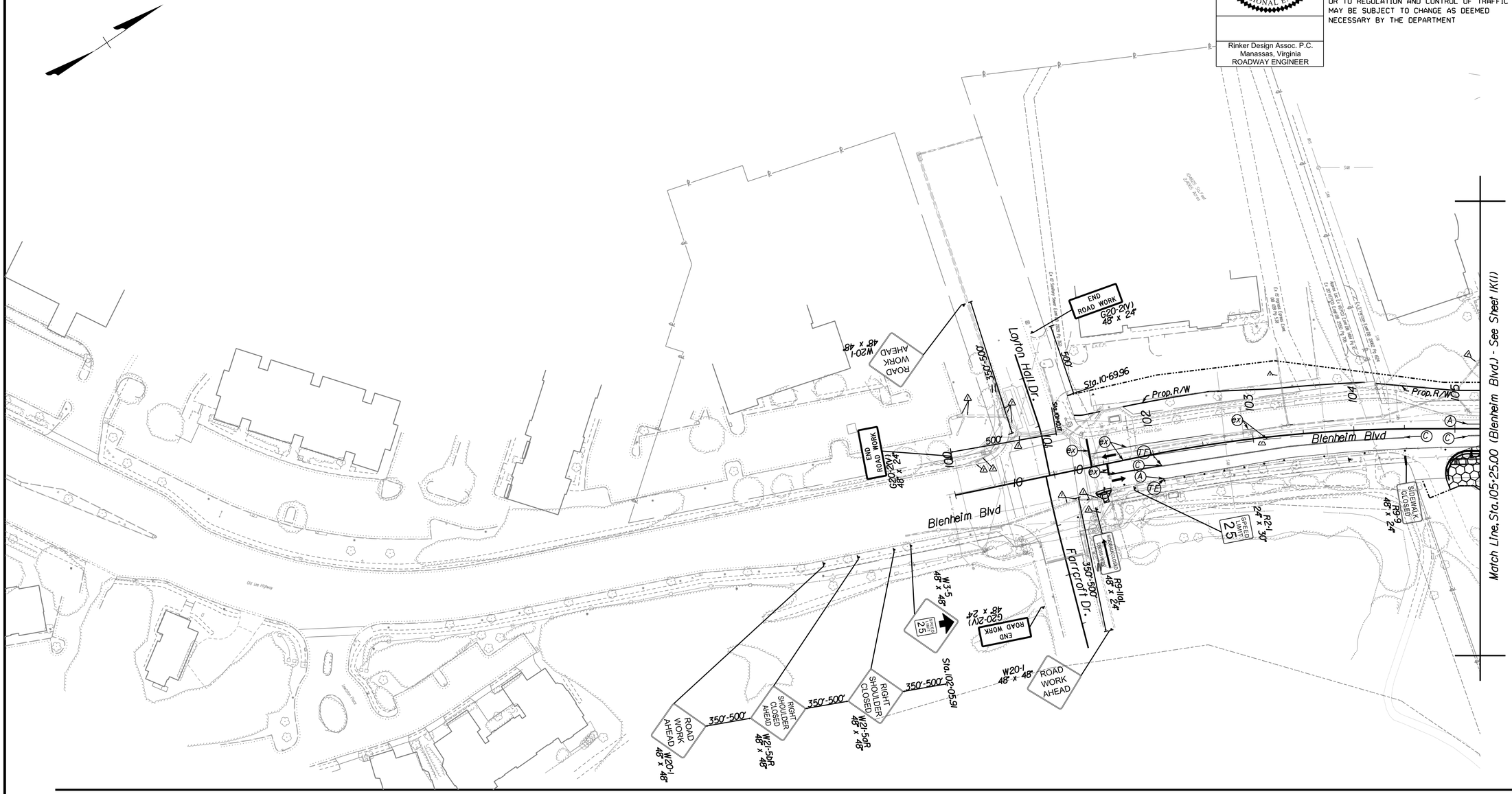
Temporary Traffic Control Plan Phase I

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IK

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



TMP/SOC Legend

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- Denotes Temporary Construction Sign
- Temporary Construction Easement

Temporary Pavement Marking Legend

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- (B) White, 4" Width, 2' Long, 6' Space
- (C) Yellow, 4" Width, Double Line, 4" Space
- (D) White, 24" Width
- (E) White, 8" Width
- (F) Yellow, 4" Width
- (G) Yellow, 4" Width, 2' Long, 6' Space
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- (TE) Tie to Existing

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IK

3/24/2023

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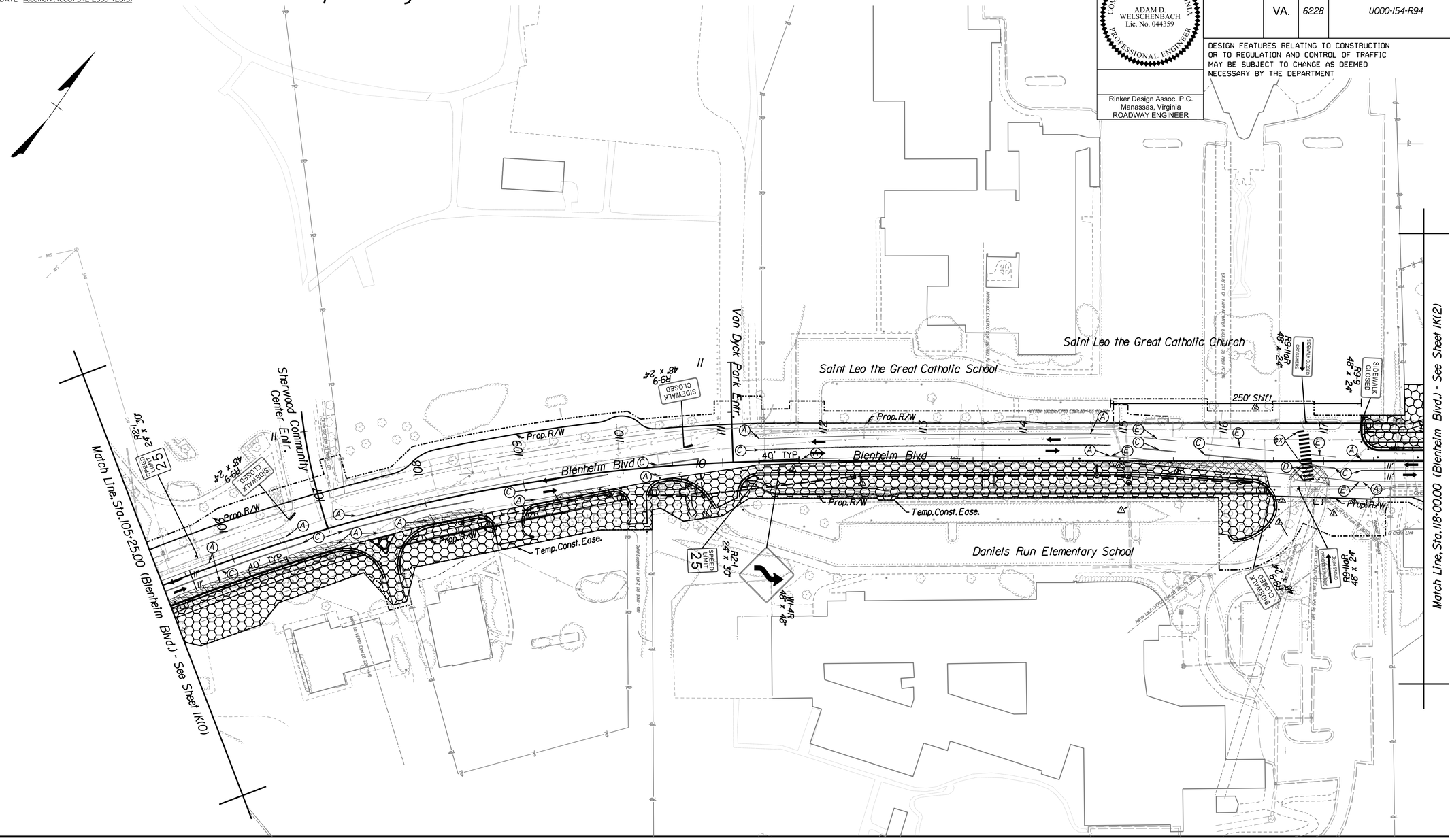
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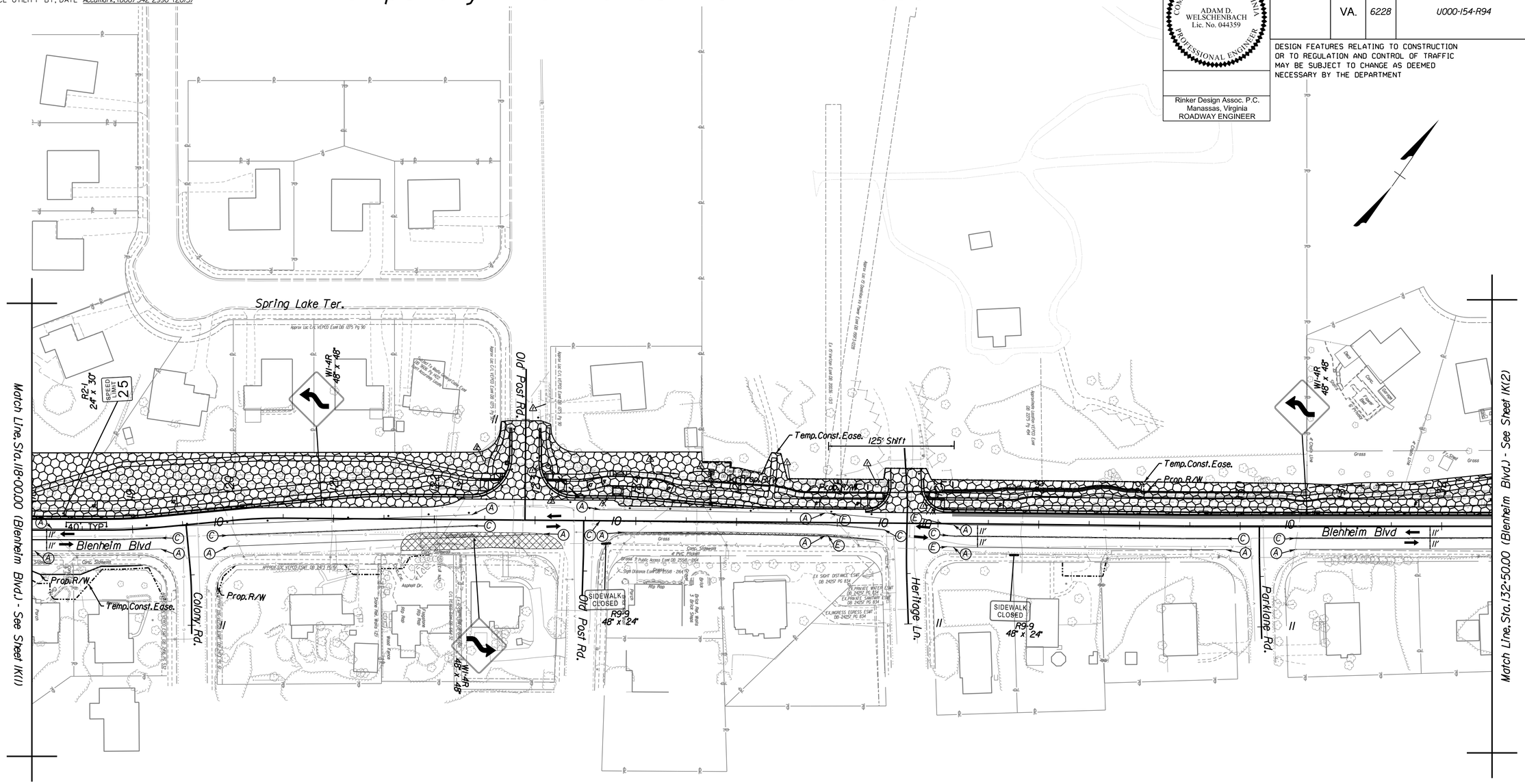
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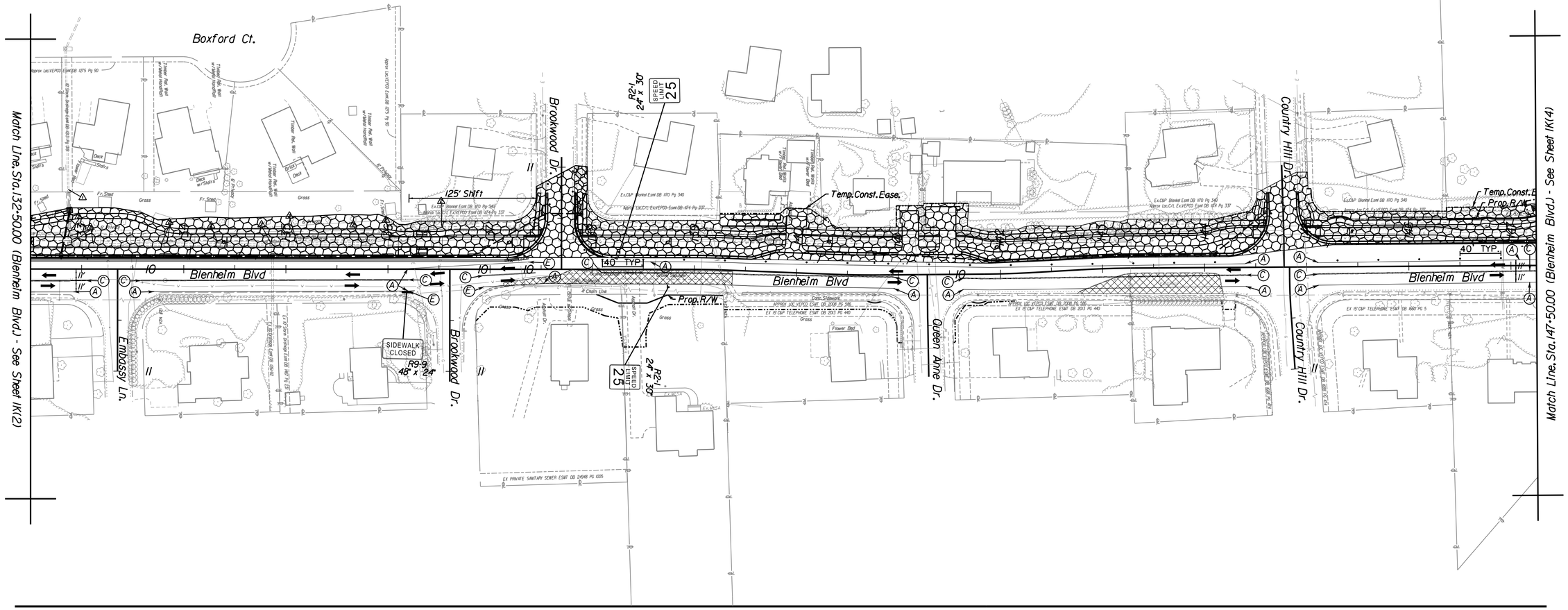
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Boxford Ct.
Brookwood Dr.
Country Hill Dr.
Blenheim Blvd
Embassy Ln.
Queen Anne Dr.
Match Line Sta.132+50.00 (Blenheim Blvd.) - See Sheet IK(2)
Match Line Sta.147+50.00 (Blenheim Blvd.) - See Sheet IK(4)
125' Shift
Temp. Const. Ease.
Prop. R/W
40' TYP.
SIDEWALK CLOSED
R9-9 48" x 24"
R2-1 24" x 30"
SPEED LIMIT 25
Ex. Chain Link
Ex. Gazebo
Flower Bed
Ex. Deck
Ex. Shed
Ex. Shed
Ex. Gravel Drive
Ex. Asphalt Drive
Ex. Concrete Walk
Ex. Concrete Drive
Ex. Private Sidewalk
Ex. Private Steps
Ex. Private Walk
Ex. Private Retaining Wall
Ex. Timber Ret. Wall
Ex. Private Fence
Ex. Private Shed
Ex. Private Deck
Ex. Private Steps
Ex. Private Walk
Ex. Private Retaining

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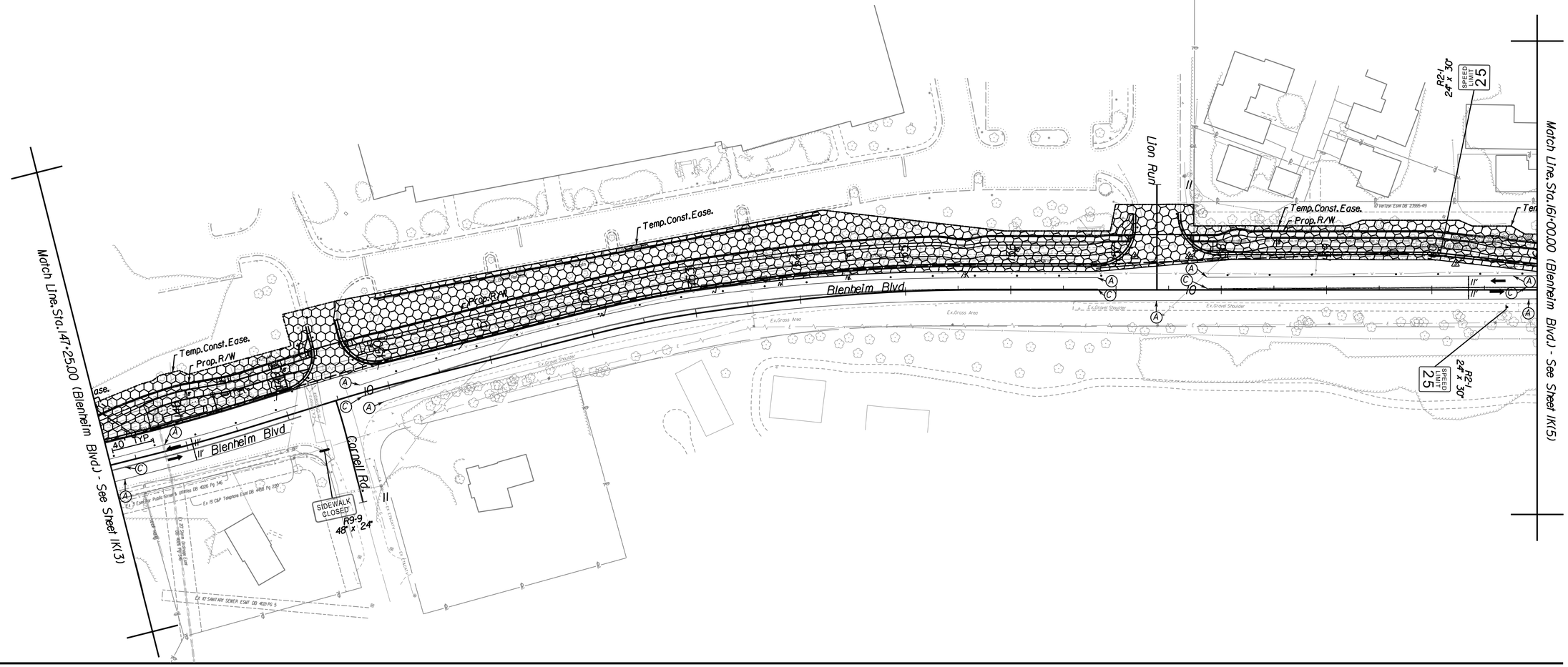
Temporary Traffic Control Plan Phase I

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
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3/24/2023

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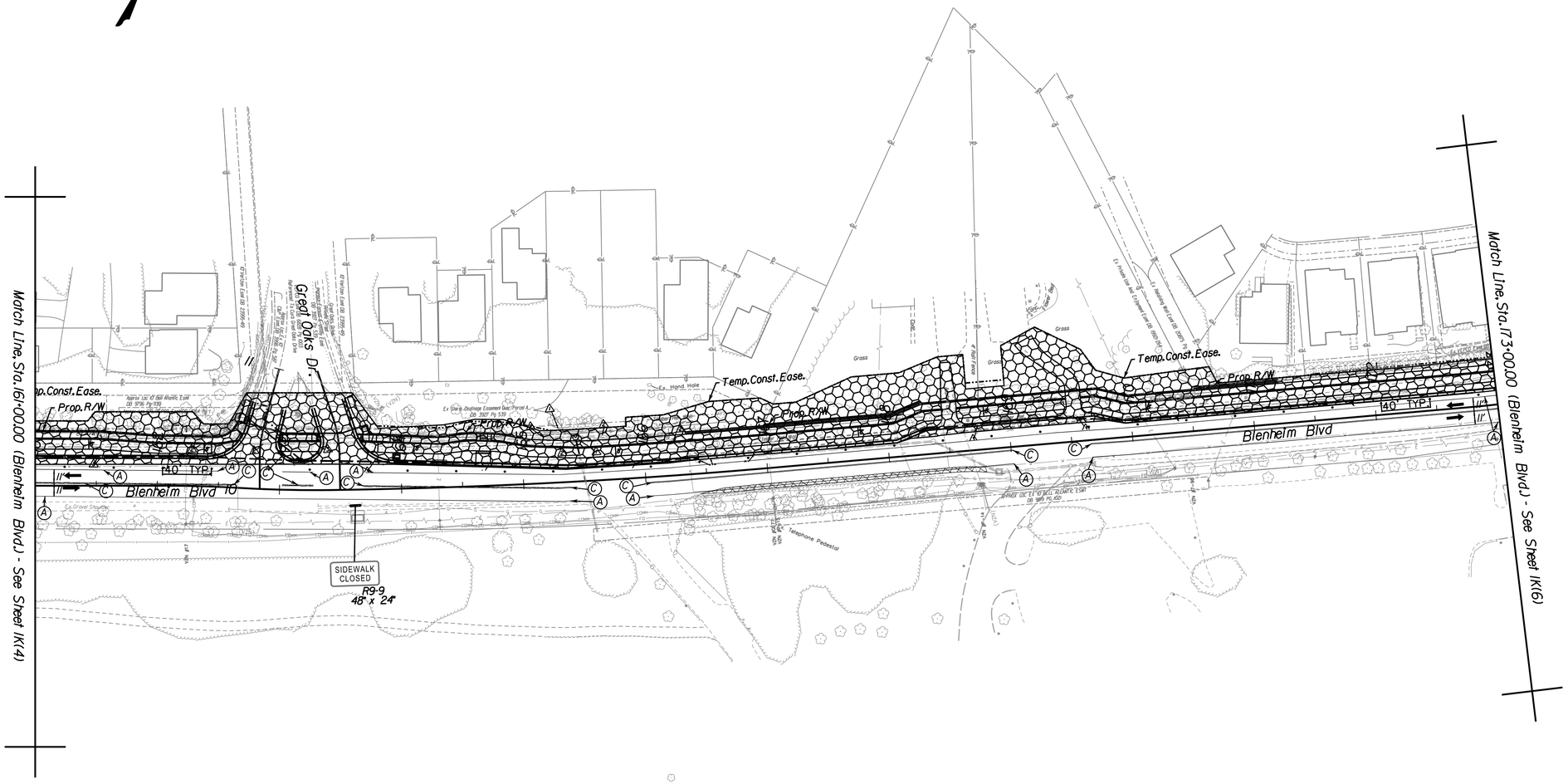
Temporary Traffic Control Plan Phase I

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SCALE 0 50' 100' | PROJECT U000-154-R94 | SHEET NO. IK(5)

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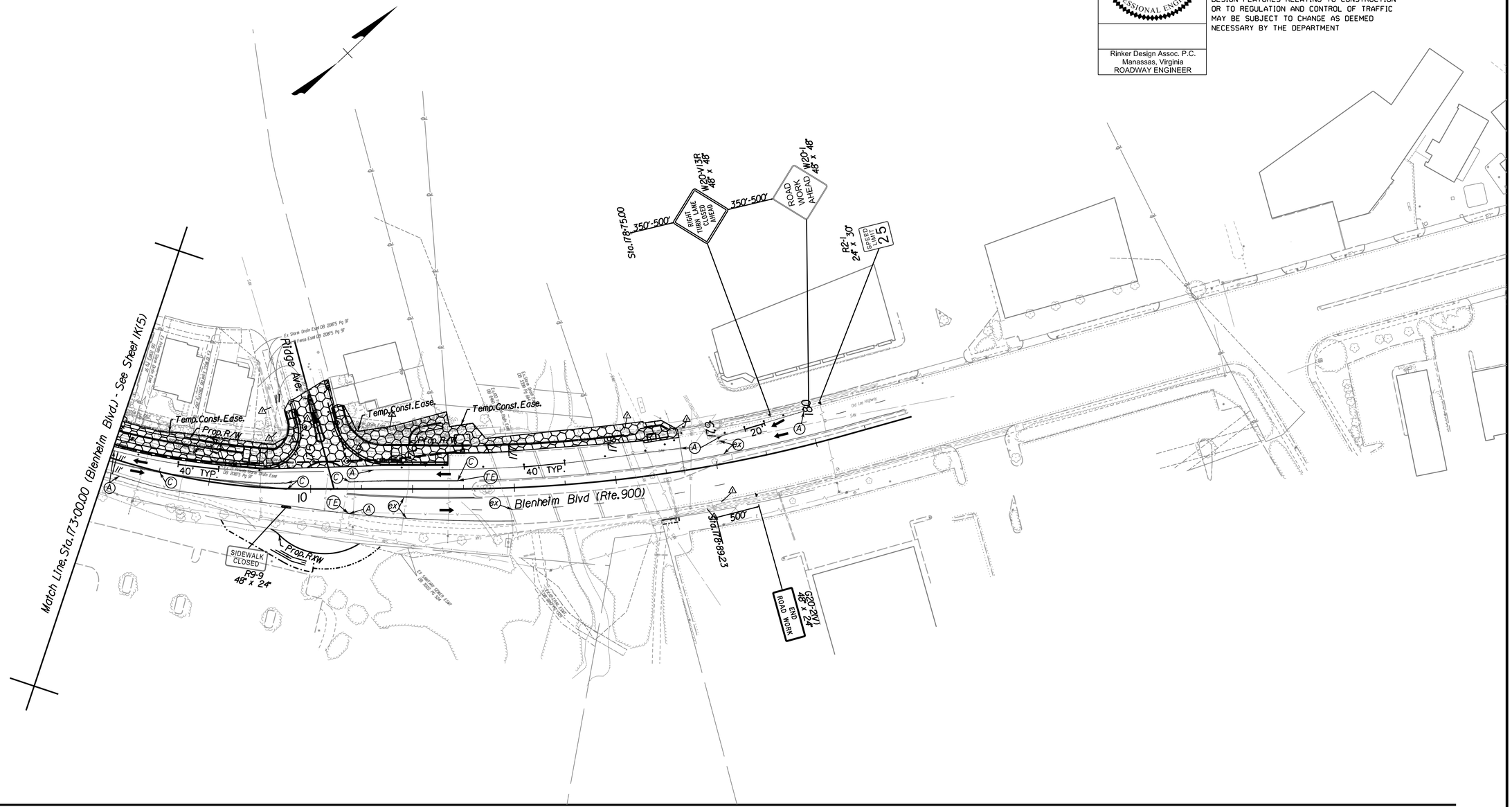
Temporary Traffic Control Plan Phase I

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Temporary Traffic Control Plan Phase 2

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Loyton Hall Dr.
Blenheim Blvd
Blenheim Blvd
Fairfield Dr.
Temp.Const.Ease.
Temp.Const.Ease.
Sta.10+69.96
Approx.Location of E.o.R/W
Approx.Location of E.o.R/W
Begin Project/ Begin Construction Proj.No.U000-154-R94,PE-101 Sta.100+36.48
Begin Project Proj.No.U000-154-R94,C-501 Sta.101+51.00
Begin Project Proj.No.U000-154-R94,RW-201 Sta.101+28.27
Sta.102+05.91
Match Line, Sta.105+25.00 (Blenheim Blvd.) - See Sheet IL(1)
END ROAD WORK
G20-2V1 48" x 24"
G20-2V1 48" x 24"
SIDEWALK CLOSED
R9-9 48" x 24"
R9-9 48" x 24"
ROAD WORK AHEAD
W20-1 48" x 48"
W20-1 48" x 48"
W20-4 48" x 48"
ONE LANE ROAD AHEAD
SPEED LIMIT 25
R2-1 24" x 30"
W3-5 48" x 48"
SPEED LIMIT 25
ROAD WORK AHEAD
W20-1 48" x 48"
SIDEWALK CLOSED
R9-9 48" x 24"
W20-7 48" x 48"
W20-1 48" x 48"
ROAD WORK AHEAD
350'-500'
350'-500'
500'
1050'-1500'
40' TYP.
10' PVC
10' PVC
10' PVC
Old Lee Highway
Ex.Brick Columns w/Metal Fence
Ex.Brick Mailbox
Ex.Brick Retaining Wall
Ex.Covered Bus Stop
Ex.Asphalt Trail
Ex.Concrete Trail
Ex.Curb & Gutter
Ex.Drop Inlet
Ex.Electric Box
Ex.Electric Handhole
Ex.Electric Manhole
Ex.Fence
Ex.Gas Valve
Ex.Guard Rail
Ex.Mailbox
Ex.Sanitary Manhole
Ex.Sanitary Sewer Line
Ex.Sign
Ex.Storm Drain Inlet
Ex.Storm Drain Manhole
Ex.Storm Sewer Line
Ex.Street Light
Ex.Water Line
Ex.Water Valve
Ex.Water Vault
Ex.Water Meter
Ex.Water Manhole
Ex.Utility Pole
Ex.Traffic Signal Pole
Ex.Traffic Signal Box
Ex.Traffic Signal Cabinet
Ex.Traffic Signal Controller
Ex.Traffic Signal Pedestal
Ex.Traffic Signal Pull Box
Ex.Traffic Signal Vault
Ex.Traffic Signal Meter
Ex.Traffic Signal Manhole
Ex.Traffic Signal Conduit
Ex.Traffic Signal Duct Bank
Ex.Traffic Signal Fiber Optic Line
Ex.Traffic Signal Fiber Optic Manhole
Ex.Traffic Signal Fiber Optic Vault
Ex.Traffic Signal Fiber Optic Meter
Ex.Traffic Signal Fiber Optic Pedestal
Ex.Traffic Signal Fiber Optic Pull Box
Ex.Traffic Signal Fiber Optic Cabinet
Ex.Traffic Signal Fiber Optic Controller
Ex.Traffic Signal Fiber Optic Duct Bank
Ex.Traffic Signal Fiber Optic Conduit

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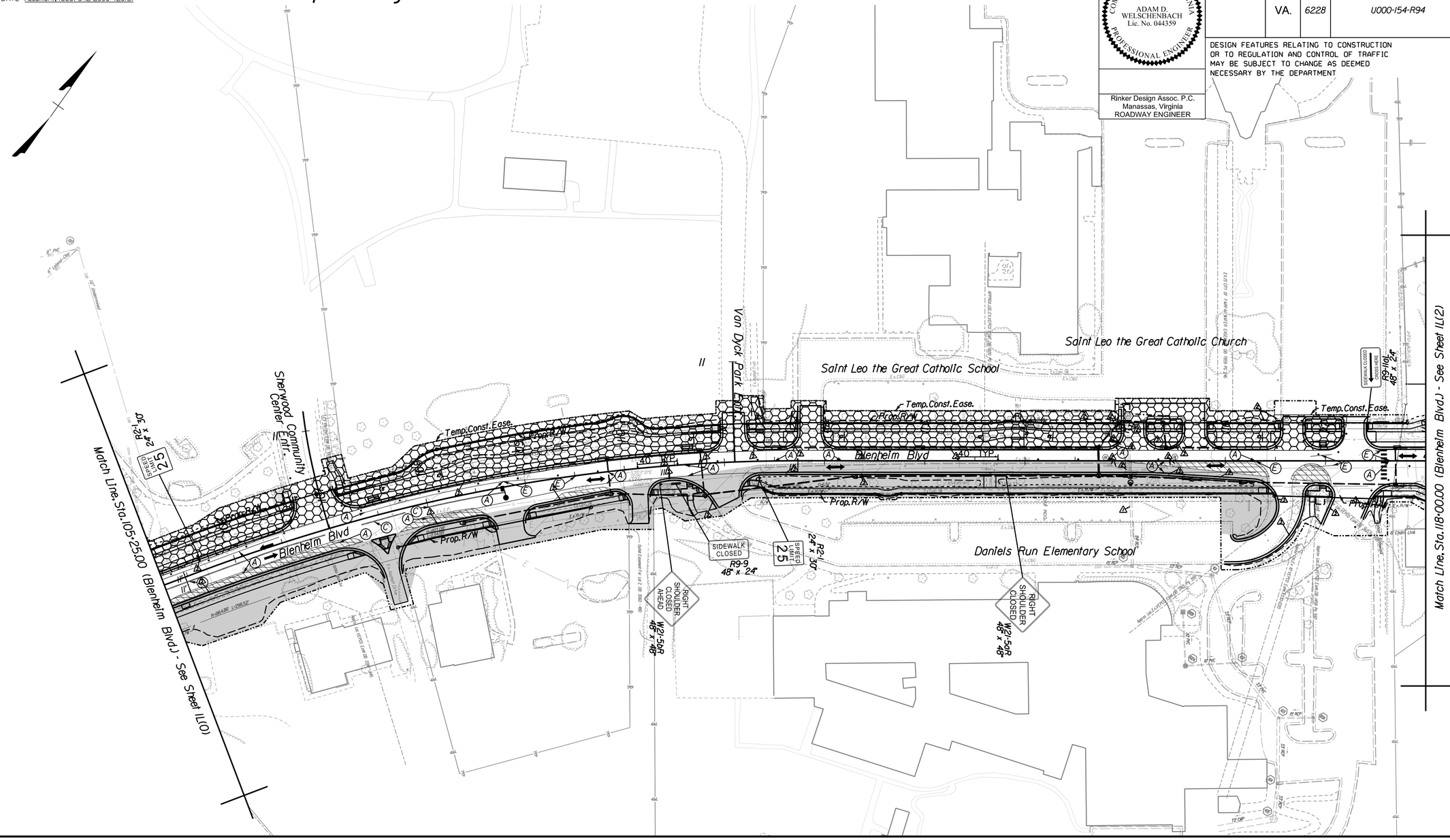
Temporary Traffic Control Plan Phase 2

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- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Type III Barricade
- Denotes Flagger Station
- Denotes Temporary Construction Sign
- Temporary Construction Easement

Temporary Pavement Marking Legend

- (A) White, 4" Width
- (B) White, 4" Width, 2' Long, 6' Space
- (C) Yellow, 4" Width, Double Line, 4" Space
- (D) White, 24" Width
- (E) White, 8" Width
- (F) Yellow, 4" Width
- (G) Yellow, 4" Width, 2' Long, 6' Space
- (H) Pavement Marking Arrows, White
- (I) Temporary Pavement Markers at 20' spacing, White
- (J) Temporary Pavement Markers at 20' spacing, Yellow
- (EX) Existing Pavement Marking/Previously Placed
- (TE) Tie to Existing

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IL(1)

3/24/2023

PH PLANS

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

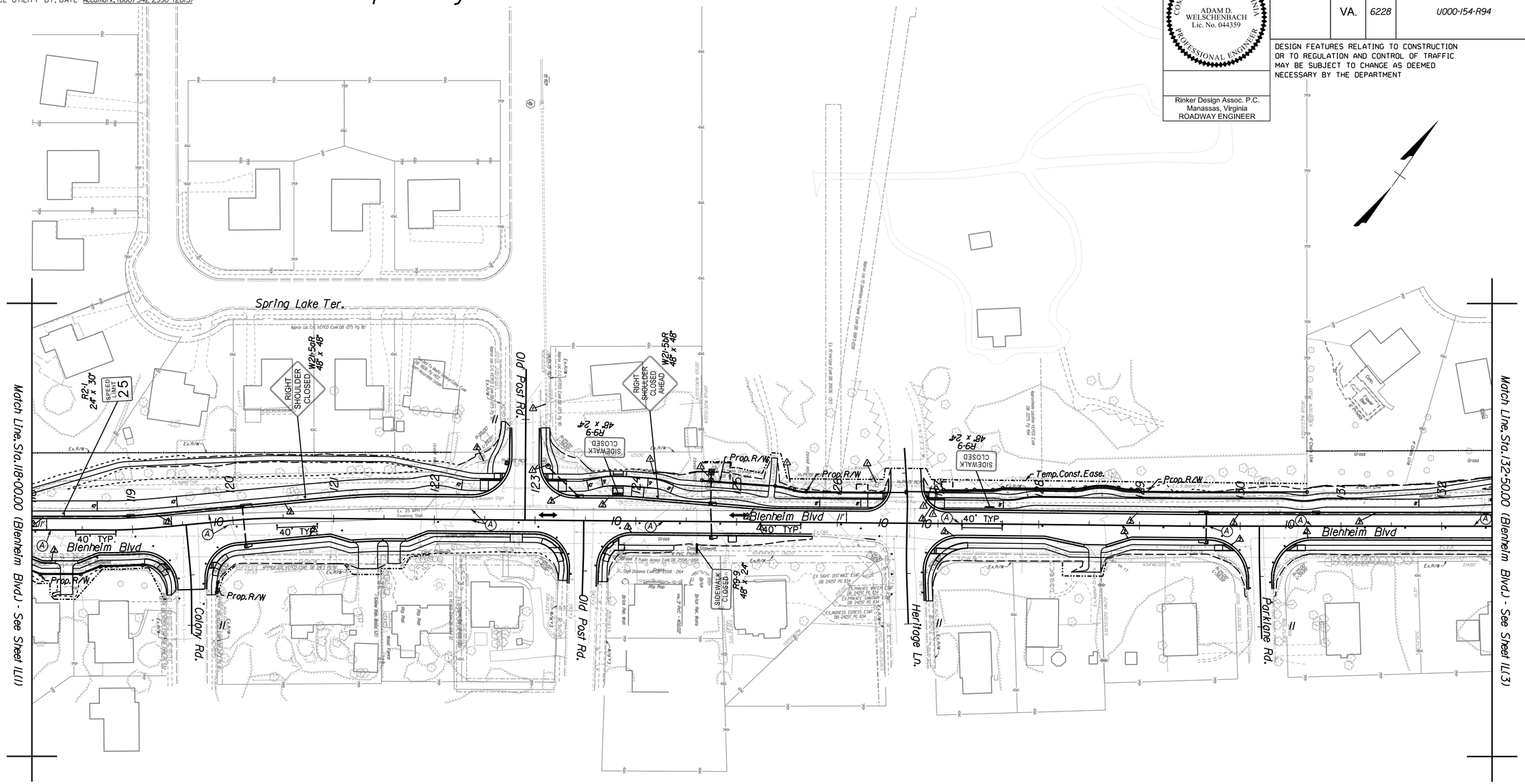
Temporary Traffic Control Plan Phase 2

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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


Spring Lake Ter.
Old Post Rd.
Blenheim Blvd
Colony Rd.
Heritage Ln.
Parklane Rd.
Match Line, Sta.18+00.00 (Blenheim Blvd.) - See Sheet IL(1)
Match Line, Sta.32+50.00 (Blenheim Blvd.) - See Sheet IL(3)
R2-1 24" x 30"
SPEED LIMIT 25
W21-5aR 48" x 48"
RIGHT SHOULDER CLOSED
RIGHT SHOULDER CLOSED AHEAD
R9-9 48" x 24"
SIDEWALK CLOSED
R9-9a 24" x 48"
Prop.R/W
Temp.Const.Ease.
40' TYP.
Ex.R/W
Ex. 25 MPH Flashing Sign
Ex.Wooden Sign
Ex.Gas Line
Ex.Water Line
Ex.Storm Line
Ex.Sanitary Line
Ex.Overhead Utility
Ex.Fiber Optic
Ex.Underground Telephone
Ex.Underground Electric
Ex.Underground Cable TV
Ex.Underground Utility
Ex.Curb
Ex.Concrete
Ex.Asphalt
Ex.Gravel
Ex.Grass
Ex.Trees
Ex.Bush
Ex.Fence
Ex.Guardrail
Ex.Sign
Ex.Mailbox
Ex.Utility Pole
Ex.Light Pole
Ex.Fire Hydrant
Ex.Water Valve
Ex.Water Meter
Ex.Gas Valve
Ex.Gas Meter
Ex.Storm Manhole
Ex.Storm Inlet
Ex.Sanitary Manhole
Ex.Cleanout
Ex.Telephone Pedestal
Ex.Telephone Manhole
Ex.Electric Manhole
Ex.Electric Box
Ex.Electric Meter
Ex.Transformer
Ex.Cable TV Box
Ex.Fiber Optic Manhole
Ex.Fiber Optic Box
Ex.Monitoring Well
Ex.Sign Distance Easement - DB 2564
Ex.Public Access Easement DB 2558 - PG 1
Ex.Public Access Easement DB 2558 - PG 2
Ex.Ingress Egress Easement DB 2558 - PG 3
Ex.Ingress Egress Easement DB 2558 - PG 4
Ex.Sight Distance Easement DB 2558 - PG 5
Ex.Private Water Line DB 2425 PG 834
Ex.Private Sanitary Line DB 2425 PG 834
Ex.Ingress Egress Easement DB 2425 PG 834
Ex.Sight Distance Easement DB 2425 PG 834
Approx. Lot Line Adjustment DB 2425 PG 834
Approx. Lot Line VEPCO Easement DB 1275 PG 90
Approx. Lot Line Vacation Plat DB 2558 - 001
Approx. Lot Line Vacation Plat DB 2558 - 002
Approx. Lot Line Vacation Plat DB 2558 - 003
Approx. Lot Line Vacation Plat DB 2558 - 004
Approx. Lot Line Vacation Plat DB 2558 -

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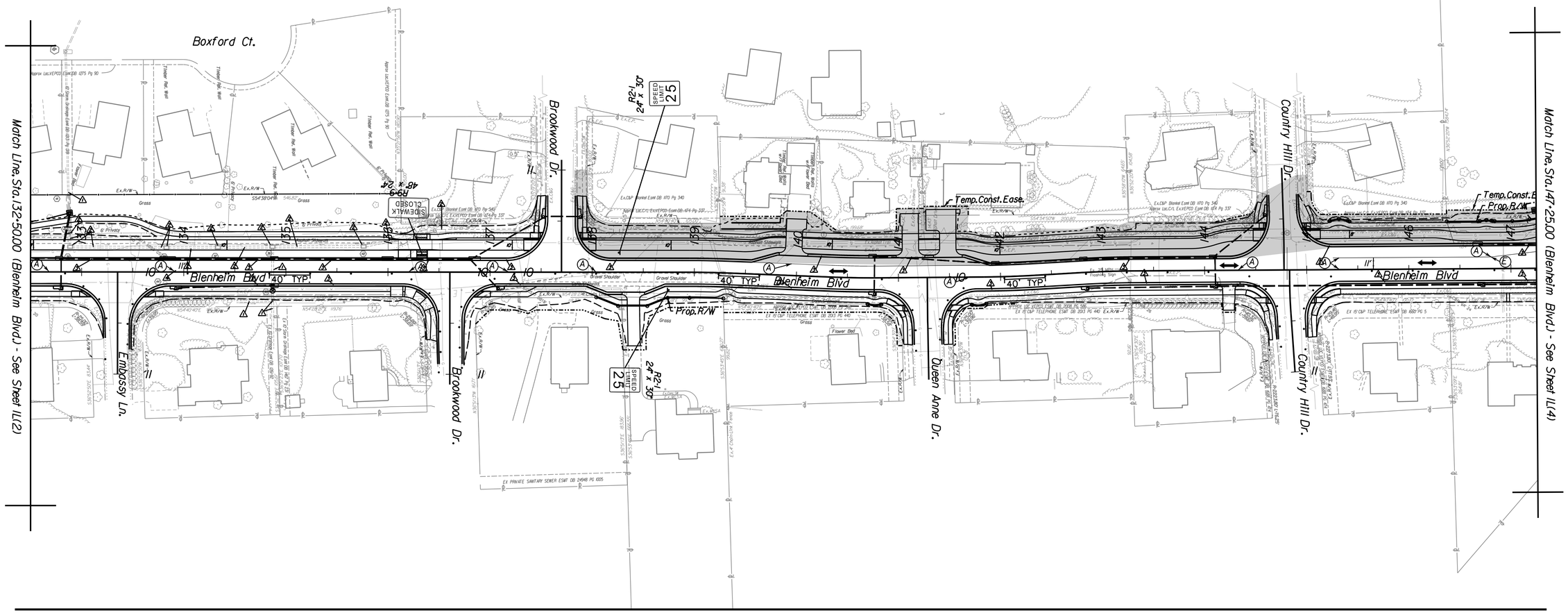
Temporary Traffic Control Plan Phase 2

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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


Boxford Ct.
Brookwood Dr.
Country Hill Dr.
Match Line, Sta.132+50.00 (Blenheim Blvd.) - See Sheet IL(2)
Match Line, Sta.147+25.00 (Blenheim Blvd.) - See Sheet IL(4)
Blenheim Blvd
40' TYP.
Embassy Ln.
Queen Anne Dr.
Temp. Const. Ease.
Prop. R/W
Ex. R/W
R2-1 24" x 30"
SPEED LIMIT 25
R9-9 48" x 24"
SIDEWALK CLOSED
Gravel Shoulder
Grass
Flower Bed
Ex. Addition
Ex. Shed
Ex. Deck
Ex. Porch
Ex. Gazebo
Ex. Pool
Ex. Fence
Ex. Chain Link Fence
Ex. Wood Fence
Ex. Stone Wall
Ex. Timber Ret. Wall
Ex. Concrete Wall
Ex. Brick Wall
Ex. Flashing Sign
Ex. Utility Pole
Ex. Guy Wire
Ex. Fire Hydrant
Ex. Water Valve
Ex. Water Meter
Ex. Sanitary Manhole
Ex. Storm Manhole
Ex. Storm Inlet
Ex. Curb Inlet
Ex. Gas Valve
Ex. Gas Meter
Ex. Gas Line
Ex. Underground Electric
Ex. Overhead Electric
Ex. Underground Telephone
Ex. Overhead Telephone
Ex. Underground Cable TV
Ex. Overhead Cable TV
Ex. Underground Fiber Optic
Ex. Overhead Fiber Optic
Ex. Underground Water
Ex. Underground Sanitary
Ex. Underground Storm
Ex. Underground Gas
Ex. Underground Telephone
Ex. Underground Cable TV
Ex. Underground Fiber Optic
Ex. Underground Electric
Ex. Overhead Electric
Ex. Overhead Telephone
Ex. Overhead Cable TV
Ex. Overhead Fiber Optic
Ex. Water
Ex. Sanitary
Ex. Storm
Ex. Gas
Ex. Telephone
Ex. Cable TV
Ex. Fiber Optic
Ex.

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Temporary Traffic Control Plan Phase 2

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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


Match Line Sta.147+25.00 (Blenheim Blvd.) - See Sheet IL(3)
Match Line Sta.161+00.00 (Blenheim Blvd.) - See Sheet IL(5)
W20-7 48" x 48"
W3-4 48" x 48"
BE PREPARED TO STOP
W20-4 48" x 48"
ONE LANE ROAD AHEAD
R2-1 24" x 30"
SPEED LIMIT 25
Temp.Const.Ease.
Prop.R/W
SIDEWALK CLOSED
R9-9 48" x 24"
Cornell Rd.
Ex.R/W
Ex.Gravel Shoulder
Ex.Grass Area
Ex.Asphalt Cart Path
Ex.Board Fence
Ex.CBG
Ex.Curb
Ex.Drop Inlet
Ex.Utility Pedestal
Ex.Utility Manhole
Ex.Light Pole
Ex.Sign
Ex.Tree
Ex.Bush
Ex.Fire Hydrant
Ex.Water Valve
Ex.Water Meter
Ex.Gas Valve
Ex.Gas Meter
Ex.Mail Box
Ex.Transformer
Ex.Telephone Pedestal
Ex.Telephone Manhole
Ex.Telephone Riser
Ex.Cable TV Riser
Ex.Cable TV Pedestal
Ex.Cable TV Manhole
Ex.Cable TV Box
Ex.Gas Line
Ex.Water Line
Ex.Storm Sewer
Ex.Sanitary Sewer
Ex.Overhead Utility
Ex.Underground Utility
Ex.Chain Link
Conc.Block Wall
Grass
Ex.Curb Inlet
Ex.Drop Inlet
Ex.Flared End Section
Ex.Concrete Flume
Ex.Concrete Ditch
Ex.Concrete Apron
Ex.Concrete Pad
Ex.Concrete Sidewalk
Ex.Concrete Curb & Gutter
Ex.Concrete Median
Ex.Concrete Valley Gutter
Ex.Concrete Driveway Entrance
Ex.Concrete Pedestrian Ramp
Ex.Concrete Crosswalk
Ex.Concrete Island
Ex.Concrete Curb
Ex.Concrete Gutter

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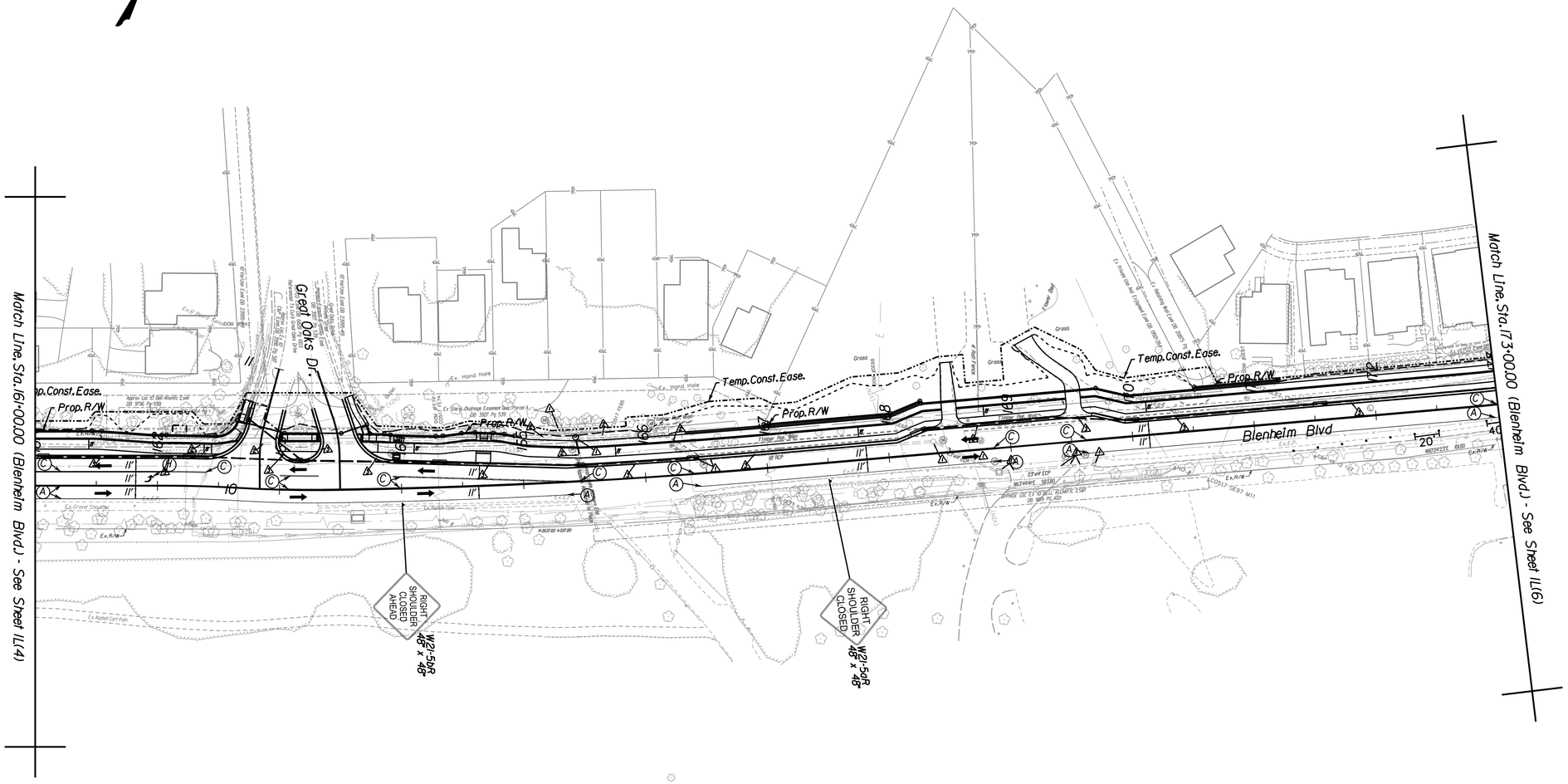
Temporary Traffic Control Plan Phase 2

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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



TMP/SOC Legend

- Denotes Perm. Construction This Phase
- Denotes Temporary Pavement
- Denotes Perm. Construction from Previous Phase
- Denotes Traffic Flow
- Denotes Group II Channelizing Devices
- Denotes Temporary Concrete Barrier
- Denotes Type III Barricade
- Denotes Flagger Station
- Denotes Temporary Construction Sign
- Temporary Construction Easement

Temporary Pavement Marking Legend

- (A) White, 4" Width
- (B) White, 4" Width, 2' Long, 6' Space
- (C) Yellow, 4" Width, Double Line, 4" Space
- (D) White, 24" Width
- (E) White, 8" Width
- (F) Yellow, 4" Width
- (G) Yellow, 4" Width, 2' Long, 6' Space
- (H) Pavement Marking Arrows, White
- (I) Temporary Pavement Markers at 20' spacing, White
- (J) Temporary Pavement Markers at 20' spacing, Yellow
- (ex) Existing Pavement Marking/Previously Placed
- (TE) Tie to Existing

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SCALE 0 50' 100' | PROJECT U000-154-R94 | SHEET NO. IL(5)

3/24/2023

PH PLANS

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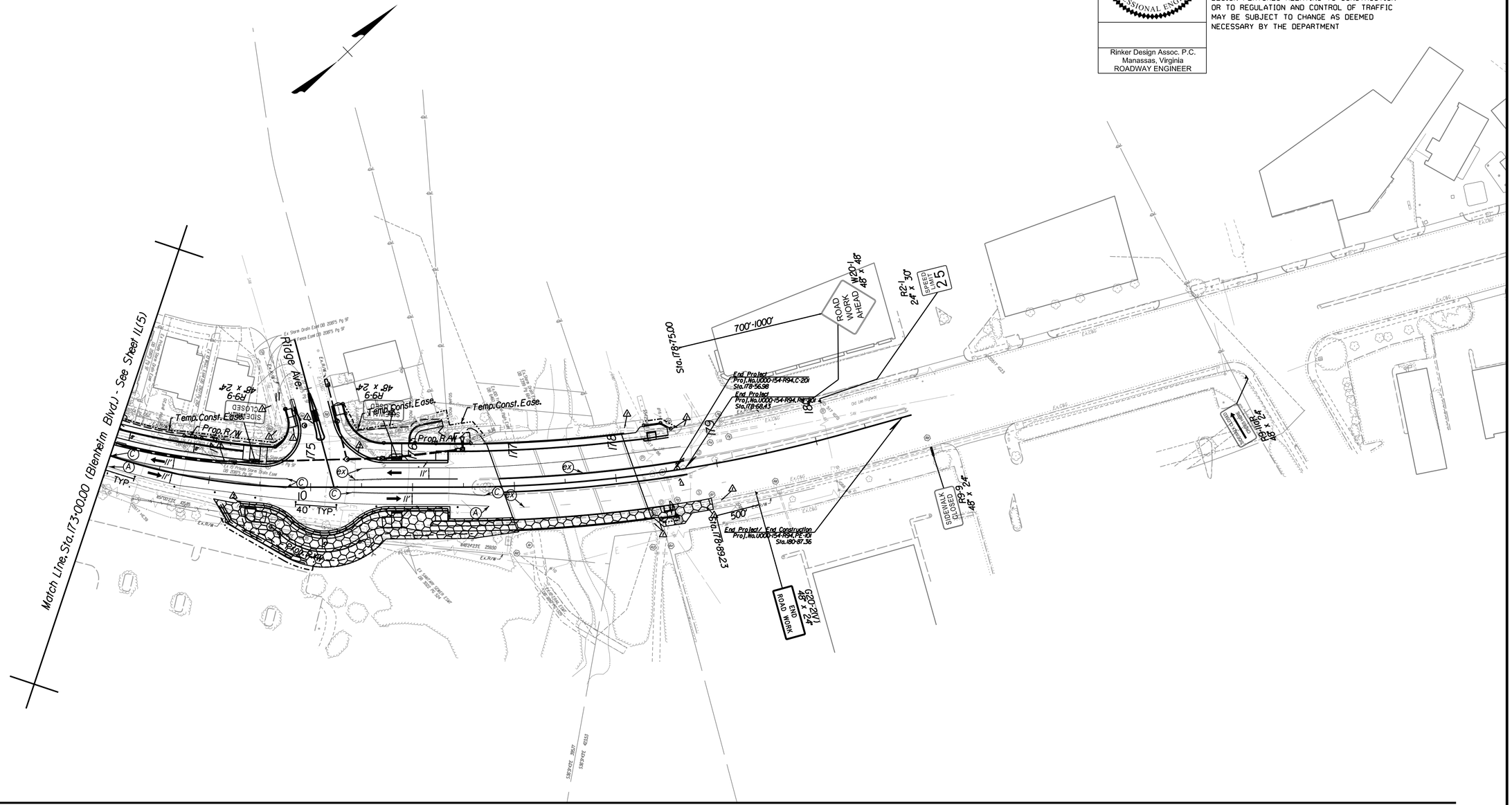
Temporary Traffic Control Plan Phase 2

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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


Match Line, Sta. 173+00.00 (Blenheim Blvd) - See Sheet IL(5)
Ridge Ave.
Temp. Const. Ease.
Prop. R/W
Prop. R/W
Temp. Const. Ease.
Temp. Const. Ease.
Ex. Storm Drain Ease DB 20875 Pg 9F
Fence Ease DB 20875 Pg 9F
Ex. Private Storm Drain Ease DB 20875 Pg 9F
Ex. Private Storm Drain Ease DB 20875 Pg 9F
Ex. Storm Drain Ease DB 20875 Pg 9F
Ex. Private Storm Drain Ease DB 20875 Pg 9F
Ex. Private Storm Drain Ease DB 20875 Pg 9F
Ex. Private

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

Temporary Traffic Control Plan Phase 3A

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IM

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- Denotes Temporary Concrete Barrier
- Denotes Type III Barricade
- Denotes Flagger Station
- Denotes Temporary Construction Sign
- Temporary Construction Easement

Temporary Pavement Marking Legend

- (A) White, 4" Width
- (B) White, 4" Width, 2' Long, 6' Space
- (C) Yellow, 4" Width, Double Line, 4" Space
- (D) White, 24" Width
- (E) White, 8" Width
- (F) Yellow, 4" Width
- (G) Yellow, 4" Width, 2' Long, 6' Space
- (H) Pavement Marking Arrows, White
- (I) Temporary Pavement Markers at 20' spacing, White
- (J) Temporary Pavement Markers at 20' spacing, Yellow
- (ex) Existing Pavement Marking/Previously Placed
- (TE) Tie to Existing

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IM

3/24/2023

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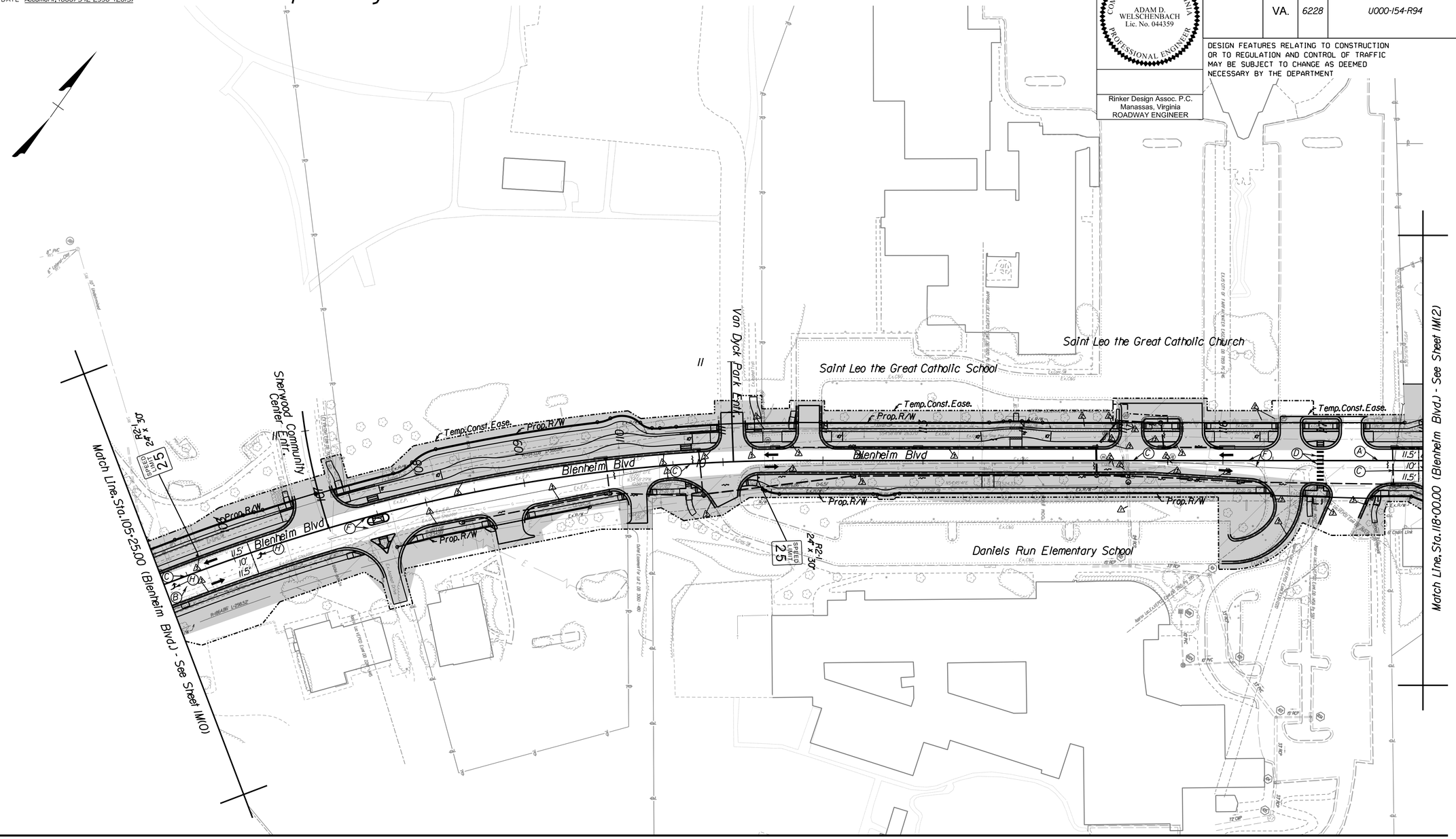
Temporary Traffic Control Plan Phase 3A

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IM(1)

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Temporary Pavement Marking Legend

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IM(1)

3/24/2023

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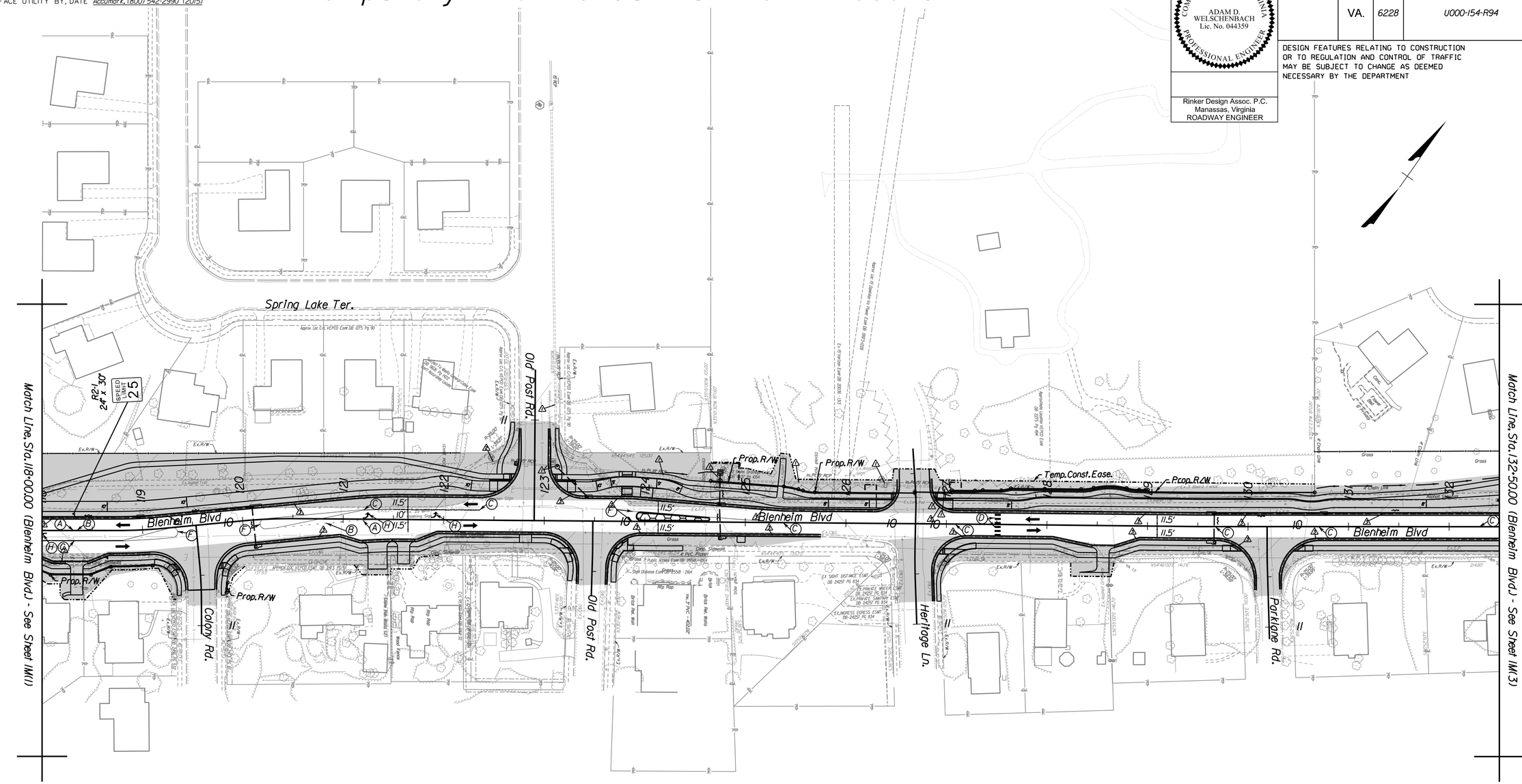
Temporary Traffic Control Plan Phase 3A

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IM(2)

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- (D) White, 24" Width
- (E) White, 8" Width
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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IM(2)

PH PLANS

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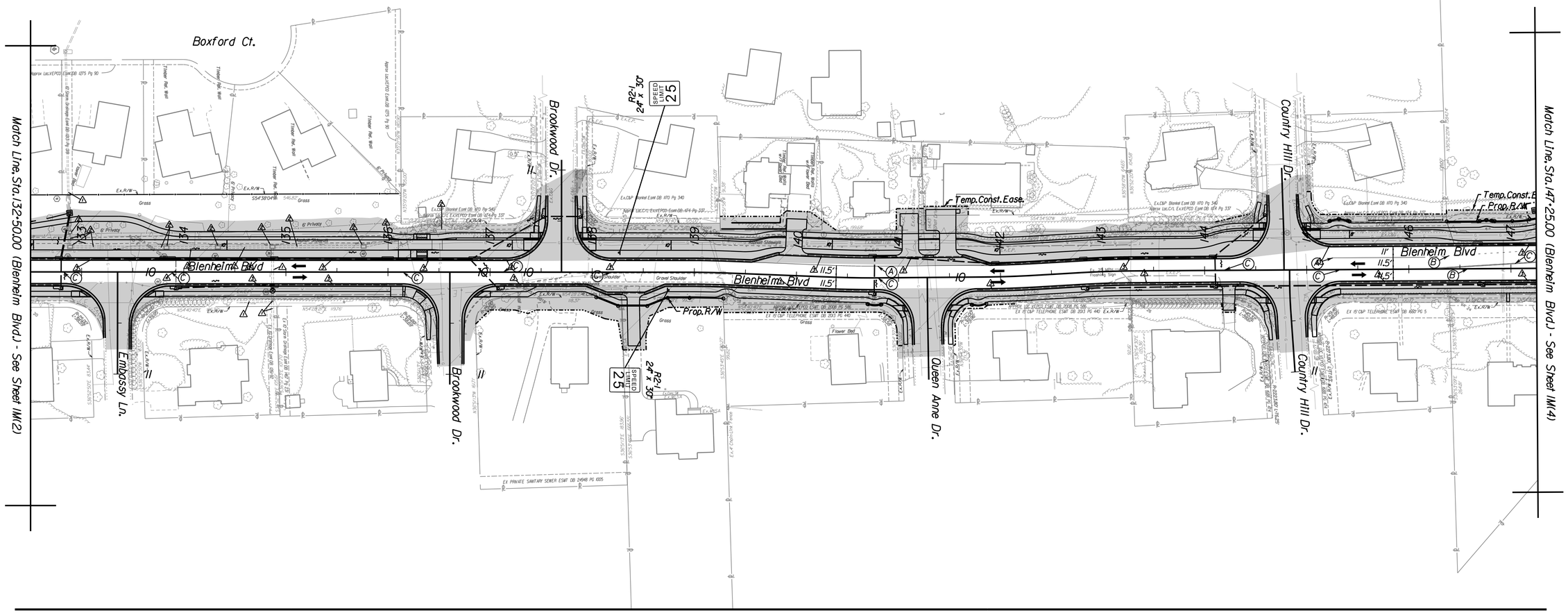
Temporary Traffic Control Plan Phase 3A

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IM(3)

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Temporary Pavement Marking Legend

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- (B) White, 4" Width, 2' Long, 6' Space
- (C) Yellow, 4" Width, Double Line, 4" Space
- (D) White, 24" Width
- (E) White, 8" Width
- (F) Yellow, 4" Width
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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IM(3)

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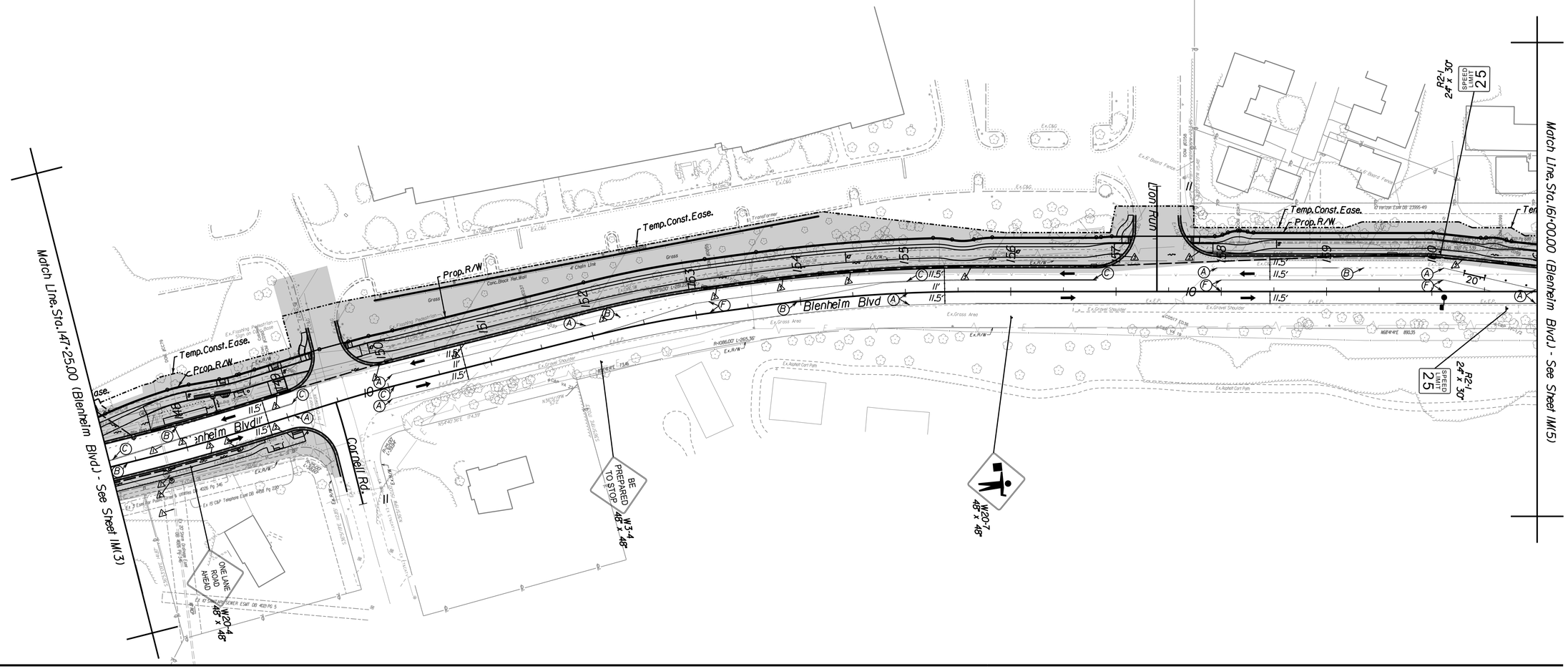
Temporary Traffic Control Plan Phase 3A

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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



TMP/SOC Legend

- Denotes Perm. Construction This Phase
- Denotes Temporary Pavement
- Denotes Perm. Construction from Previous Phase
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- Denotes Type III Barricade
- Denotes Flagger Station
- Denotes Temporary Construction Sign
- Temporary Construction Easement

Temporary Pavement Marking Legend

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- (H) Pavement Marking Arrows, White
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- (ex) Existing Pavement Marking/Previously Placed
- (TE) Tie to Existing

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IM(4)

PH PLANS

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

3/24/2023

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)

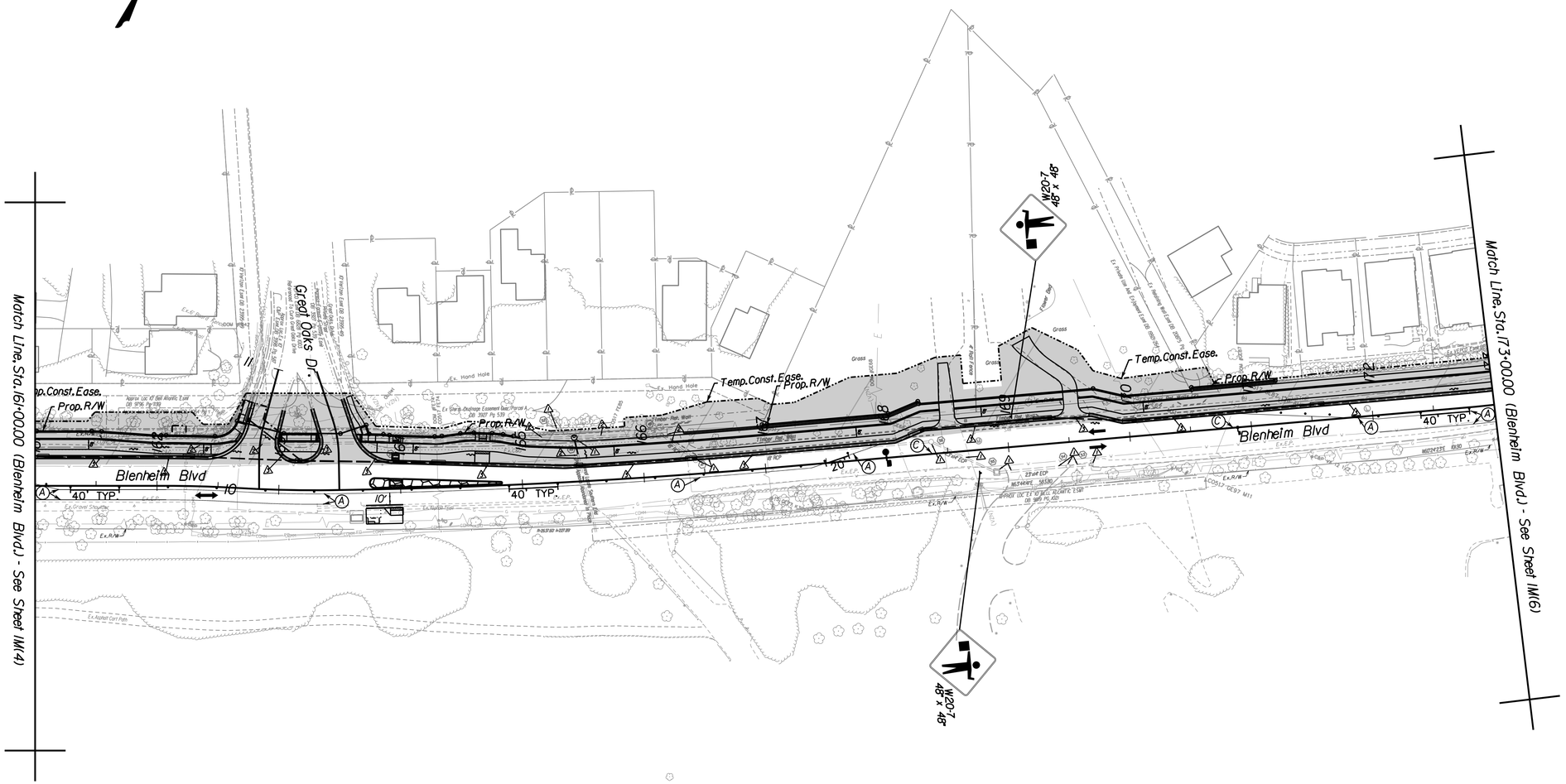
Temporary Traffic Control Plan Phase 3A

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ADAM D. WELSCHENBACH
Lic. No. 044359
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Rinker Design Assoc. P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IM(5)

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0 50' 100'	U000-154-R94	IM(5)

3/24/2023

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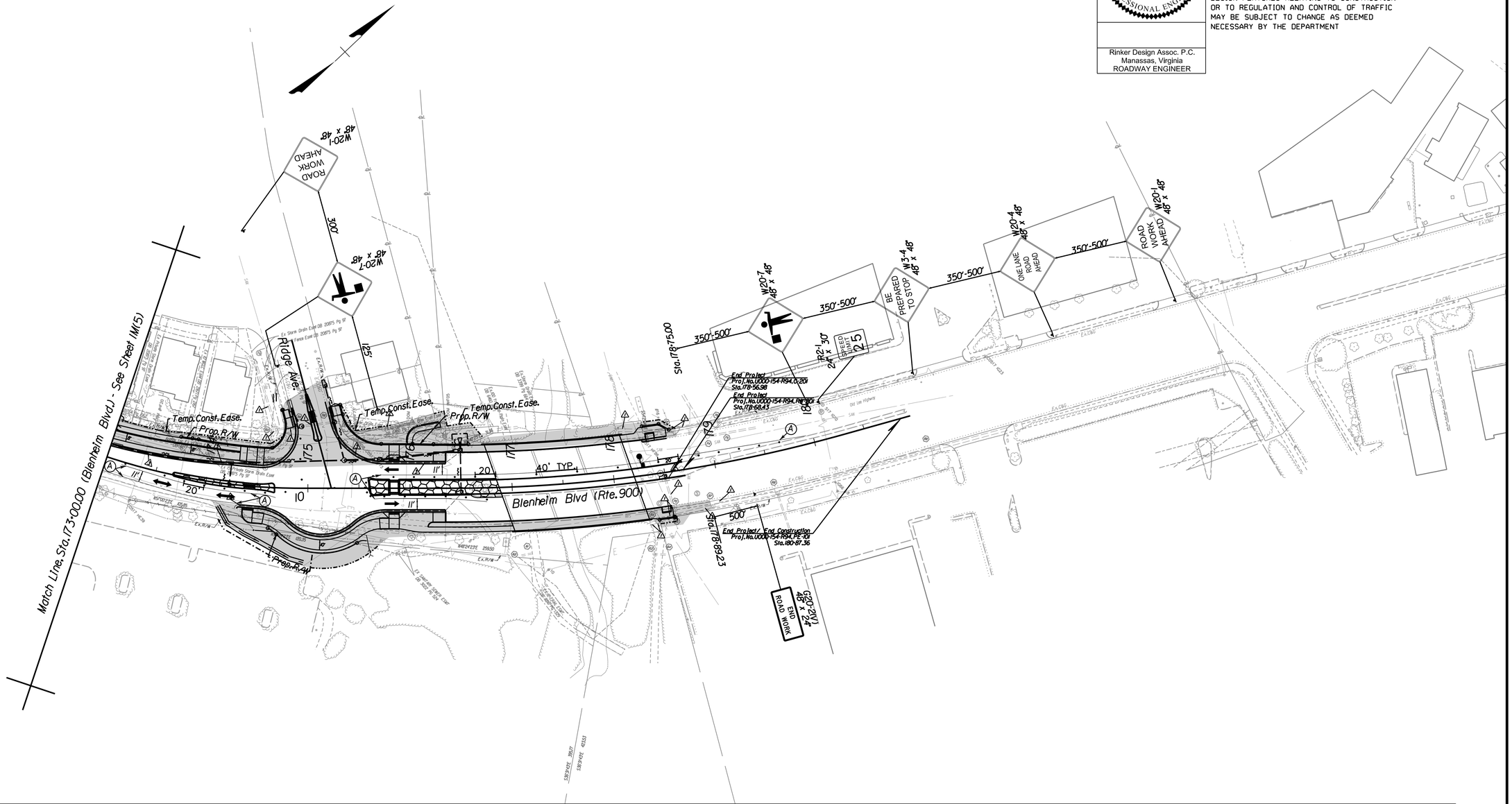
Temporary Traffic Control Plan Phase 3A

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COMMONWEALTH OF VIRGINIA
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Rinker Design Assoc. P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IM(6)

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IM(6)

3/24/2023

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Temporary Traffic Control Plan Phase 3B

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IN

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'	U000-154-R94	IN

3/24/2023

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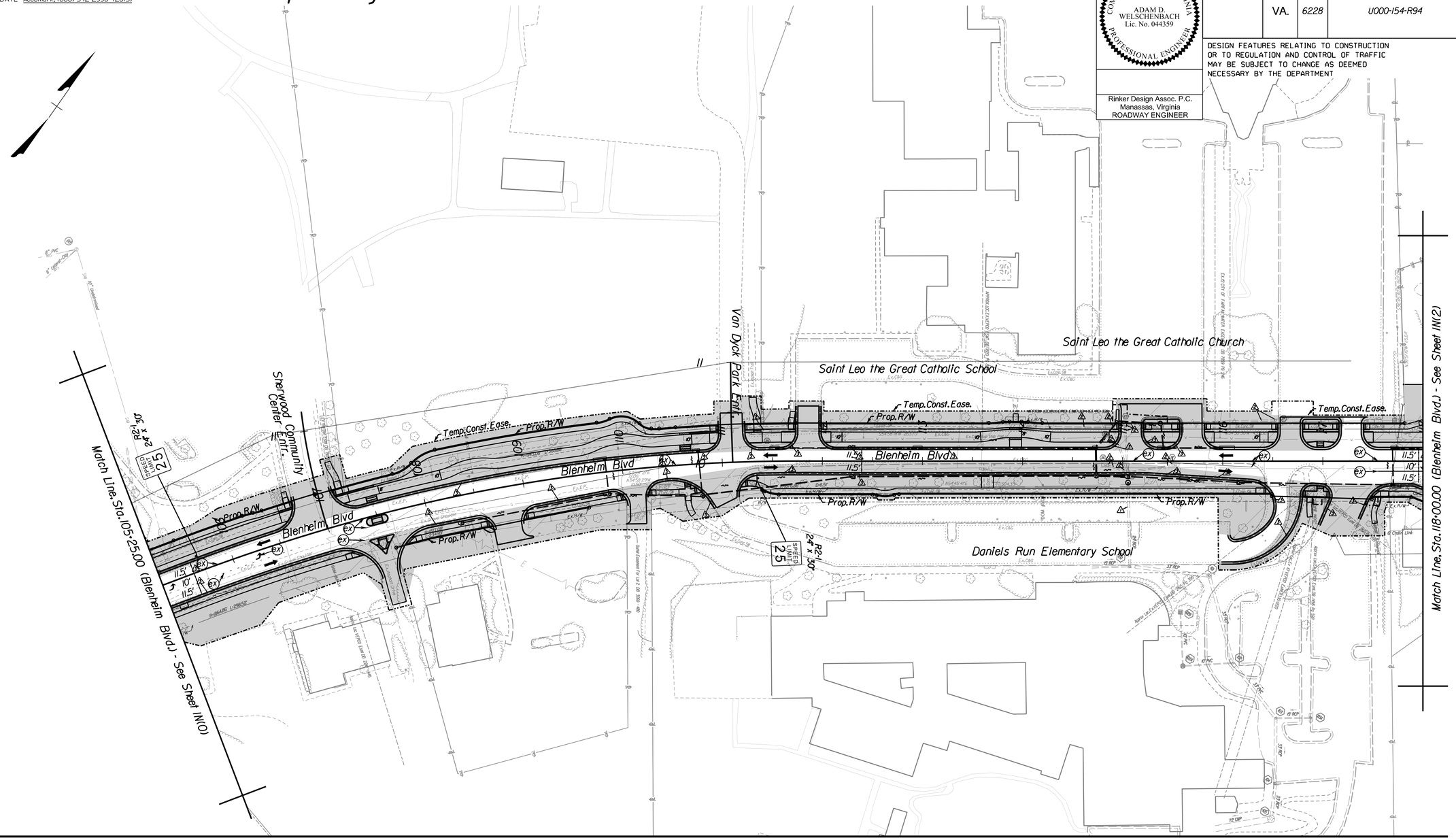
Temporary Traffic Control Plan Phase 3B

ADAM D. WELSCHENBACH
Lic. No. 044359
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IN(1)

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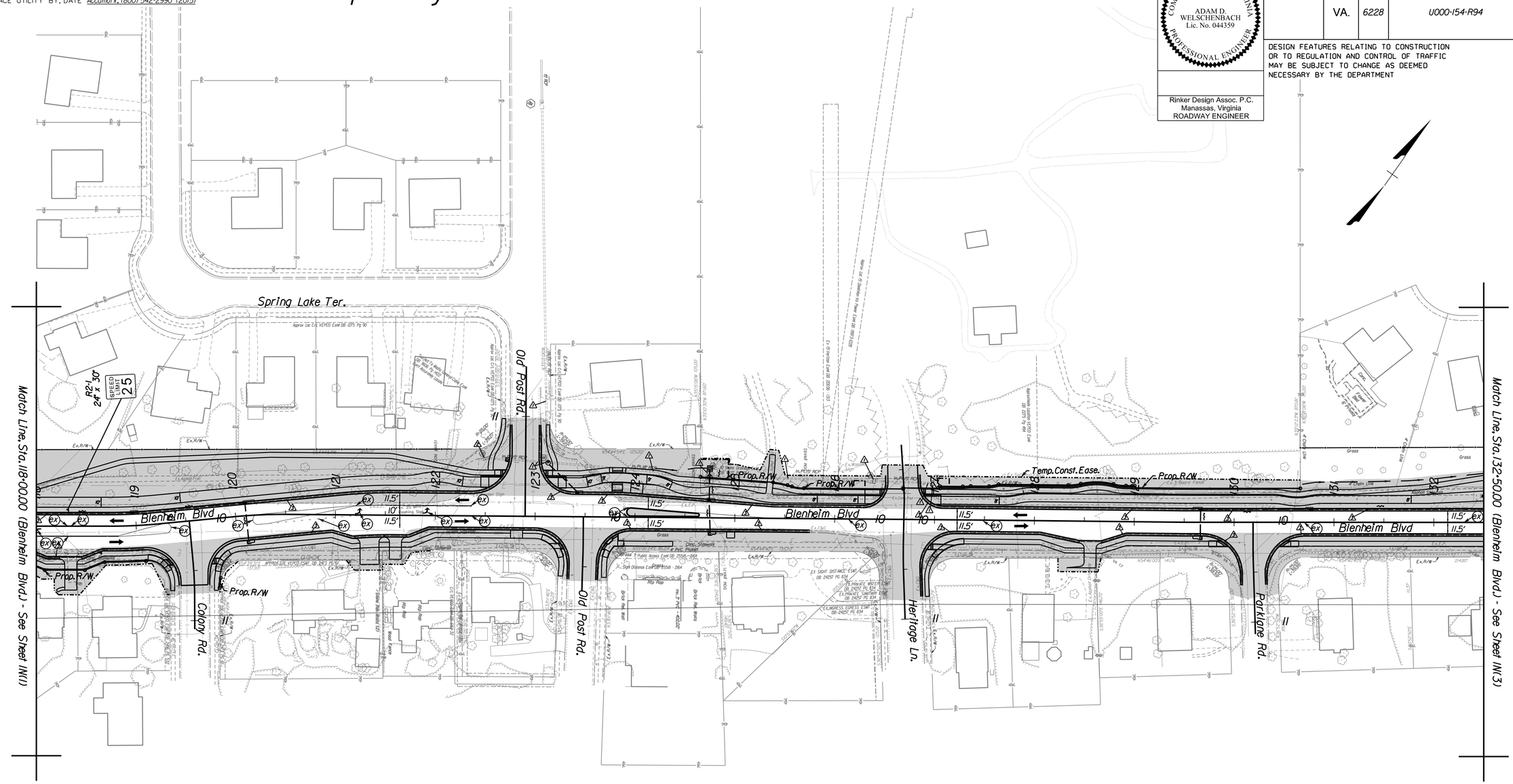
Temporary Traffic Control Plan Phase 3B

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COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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



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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IN(2)

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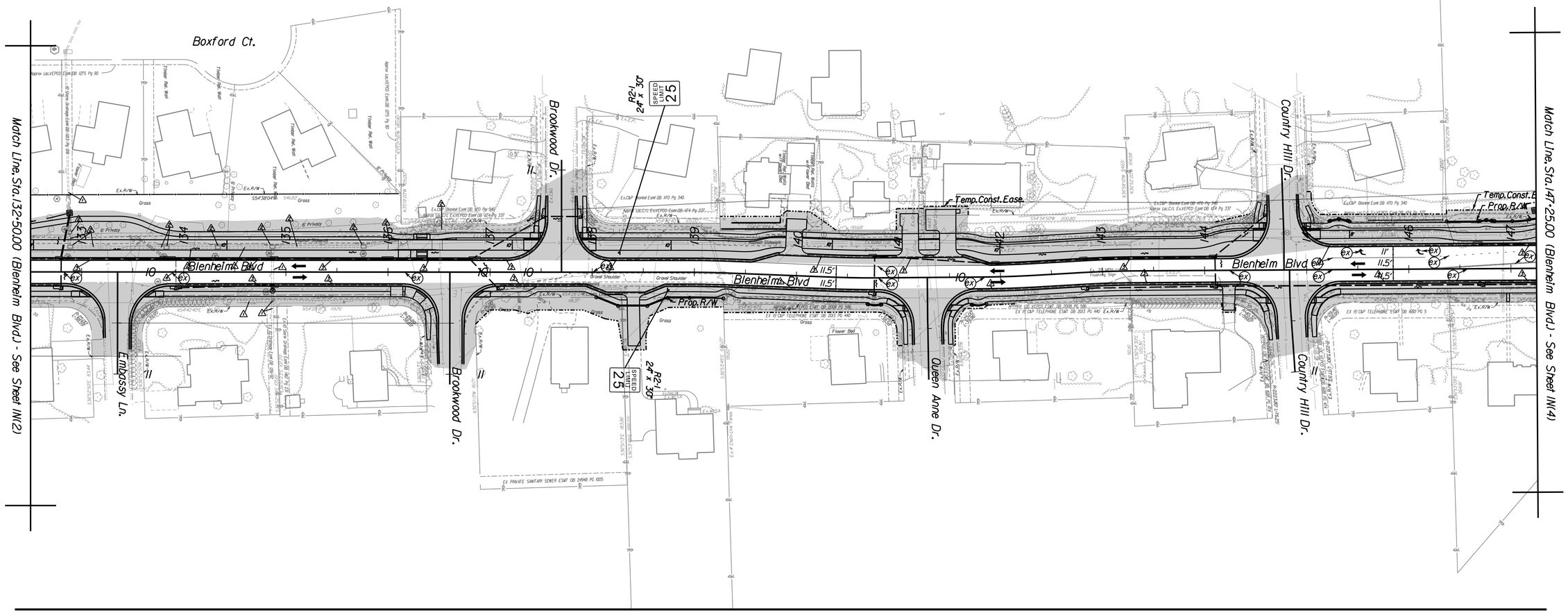
Temporary Traffic Control Plan Phase 3B

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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



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Temporary Traffic Control Plan Phase 3B

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PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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


Match Line Sta.147+25.00 (Blenheim Blvd.) - See Sheet IN(3)
Match Line Sta.161+00.00 (Blenheim Blvd.) - See Sheet IN(5)
Blenheim Blvd
Temp.Const.Ease.
Prop.R/W
Ex.R/W
Ex.Grass Area
Ex.Gravel Shoulder
Ex.Asphalt Cart Path
Ex.Board Fence
Ex.Chain Link Fence
Ex.Crushing Pedestrian Ramp on Grass
Ex.Crushing Pedestrian Ramp on Asphalt
Ex.Concrete Pedestrian Ramp
Ex.Utility Pole
Ex.Fire Hydrant
Ex.Mailbox
Ex.Sign
Ex.Light Pole
Ex.Traffic Signal Pole
Ex.Traffic Signal Box
Ex.Transformer
Ex.Utility Box
Ex.Telephone Pedestal
Ex.Telephone Manhole
Ex.Telephone Riser
Ex.Telephone Vault
Ex.Telephone Box
Ex.Telephone Pole
Ex.Telephone Line
Ex.Fiber Optic Line
Ex.Fiber Optic Marker
Ex.Fiber Optic Manhole
Ex.Fiber Optic Vault
Ex.Fiber Optic Box
Ex.Fiber Optic Pull Box
Ex.Fiber Optic Riser
Ex.Fiber Optic Pedestal
Ex.Fiber Optic Splice Box
Ex.Fiber Optic Splice Vault
Ex.Fiber Optic Splice Pedestal
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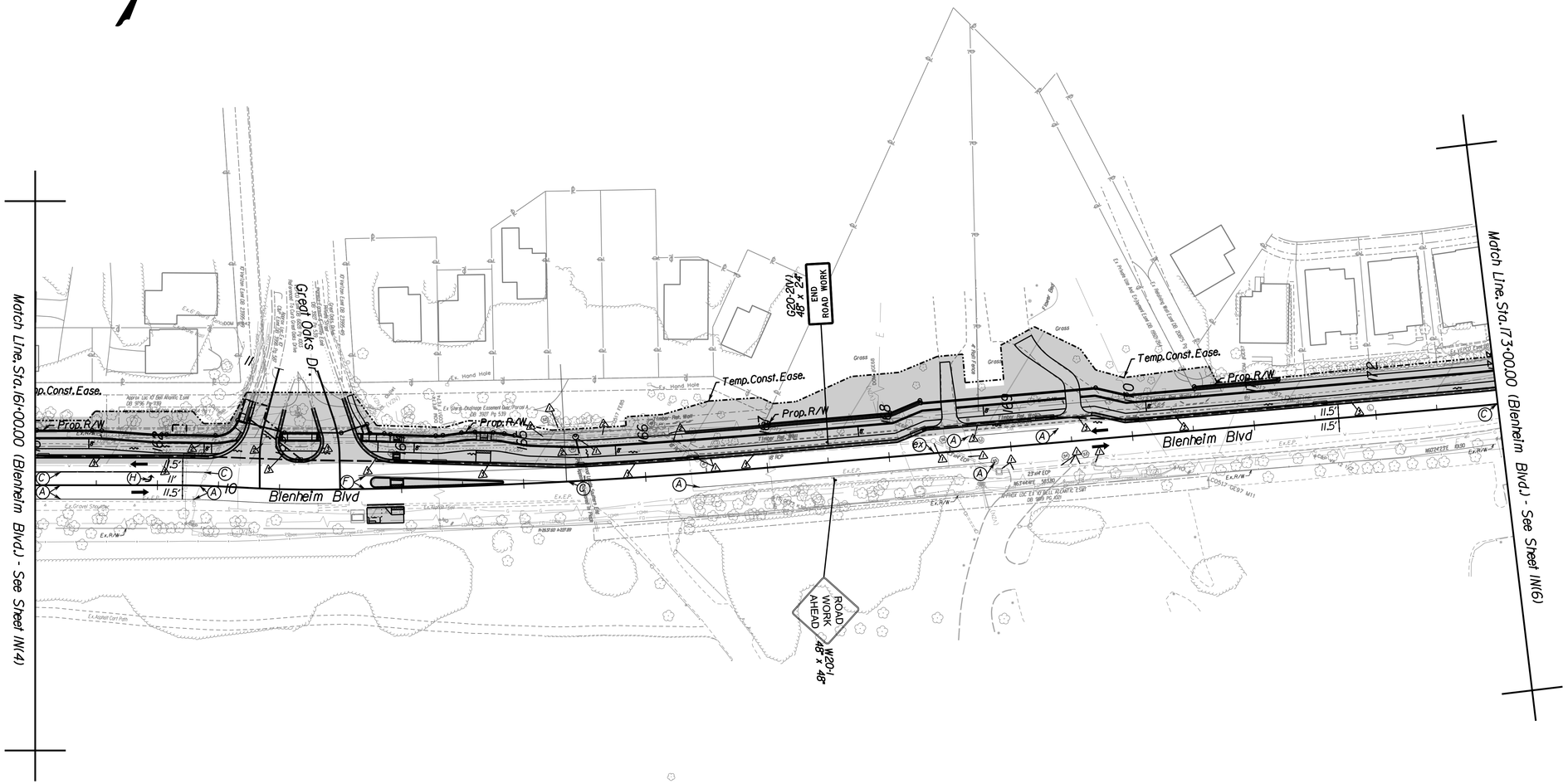
Temporary Traffic Control Plan Phase 3B

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COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IN(5)

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IN(5)

3/24/2023

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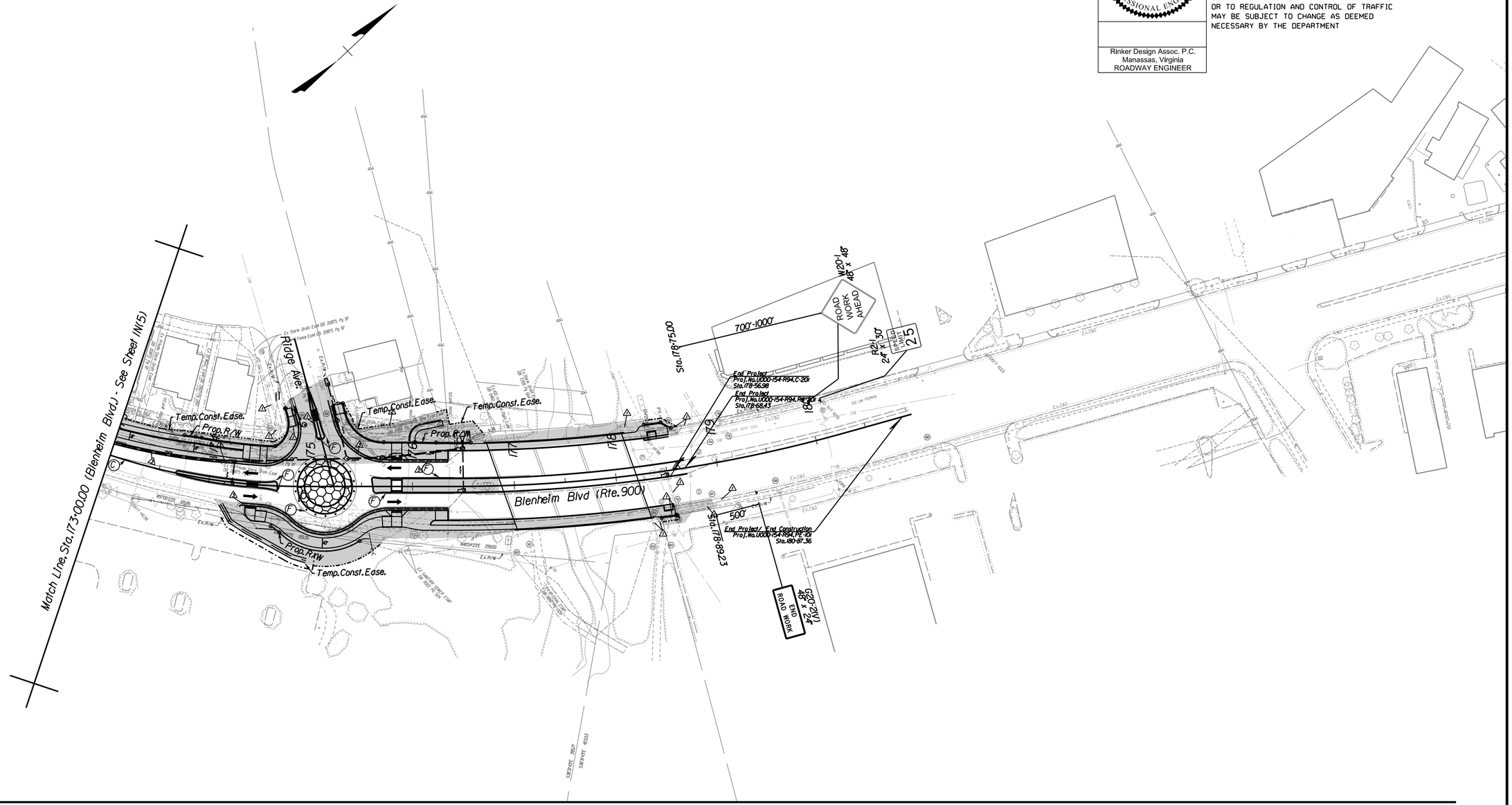
Temporary Traffic Control Plan Phase 3B

COMMONWEALTH OF VIRGINIA
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Rinker Design Assoc. P.C.
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ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IN(6)

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Match Line, Sta.173+00.00 (Blenheim Blvd.) - See Sheet IN(5)
Ridge Ave.
Temp. Const. Ease.
Prop. R/W
Temp. Const. Ease.
Prop. R/W
Temp. Const. Ease.
Blenheim Blvd (Rte.900)
Sta.178+75.00
700'-1000'
W20-1 48" x 48"
ROAD WORK AHEAD
R2-1 30" x 24"
SPEED LIMIT 25
End Project Proj.No.U000-154-R94,C-201 Sta.178+56.98
End Project Proj.No.U000-154-R94,RW-201 Sta.178+68.43
180'
500'
Sta.178+89.23
End Project/ End Construction Proj.No.U000-154-R94,PE-101 Sta.180+87.36
G20-2(V) 48" x 24"
END ROAD WORK
Prop. R/W
Temp. Const. Ease.
Ex. Storm Drain Ease
Ex. Fence Ease
Ex. R/W
Ex. Gas Line Ease
Ex. Sanitary Sewer Ease
Ex. Water Line Ease
Ex. Overhead Wires
Ex. Underground Wires
Ex. Gas Line
Ex. Sanitary Sewer
Ex. Water Line
Ex. Storm Drain

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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Erosion & Sediment Control Notes

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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:

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.

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.

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.

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.

X 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.

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.

X 9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

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.

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 CHANNEL AND RECEIVING CHANNEL.

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:

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:

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-11 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 U000-154-R94	SHEET NO. IP

3/24/2023

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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 DRVE TO RIDGE DRIVE.THE TOTAL DISTURBED AREA OF THE PROJECT ALONG BLENHEIM BOULEVARD IS 10.37 ACRES.

EXISTING SITE CONDITIONS

TOPOGRAPHY FOR THE MAJORITY OF THE PROJECT AREA IS ROLLING HILS WITH A MIXTURE OF RESIDENTAL 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,HAZMAT SOILS,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.DISTURBED AREAS WITHIN 100 FEET OF DELINEATED WETLANDS SHALL BE CONTINUOUSLY PROSECUTED UNTIL COMPLETED AND STABILIZED IMMEDIATELY UPON COMPLETION OF THE WORK IN EACH IMPACTED AREA.

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 COUNTY 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 (CLRD) 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 CLRD 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.

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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.

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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.

3/24/2023

PROJECT	SHEET NO.
U000-154-R94	IP(1)

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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

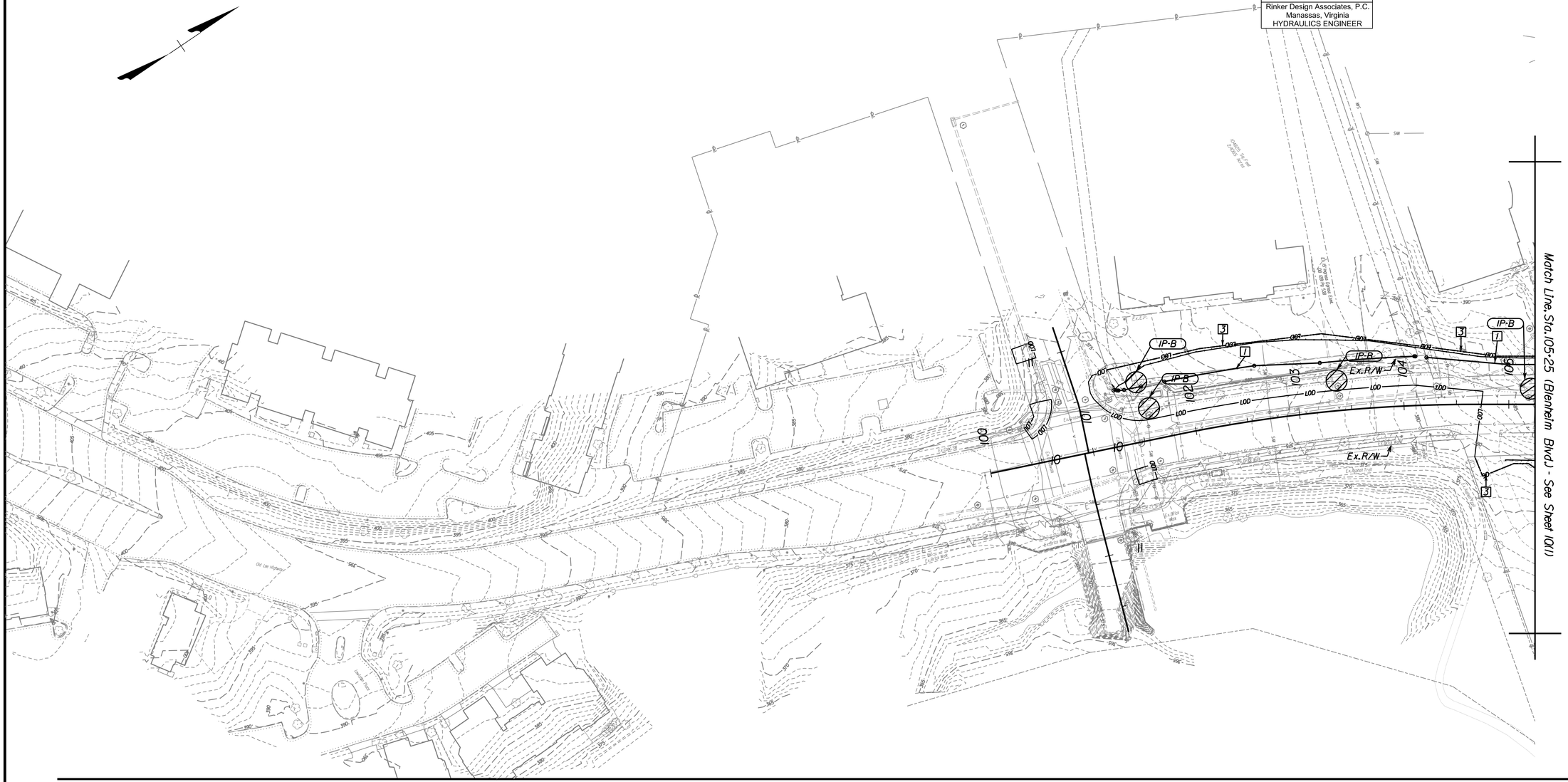
EROSION CONTROL PHASE I

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	10

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SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	10

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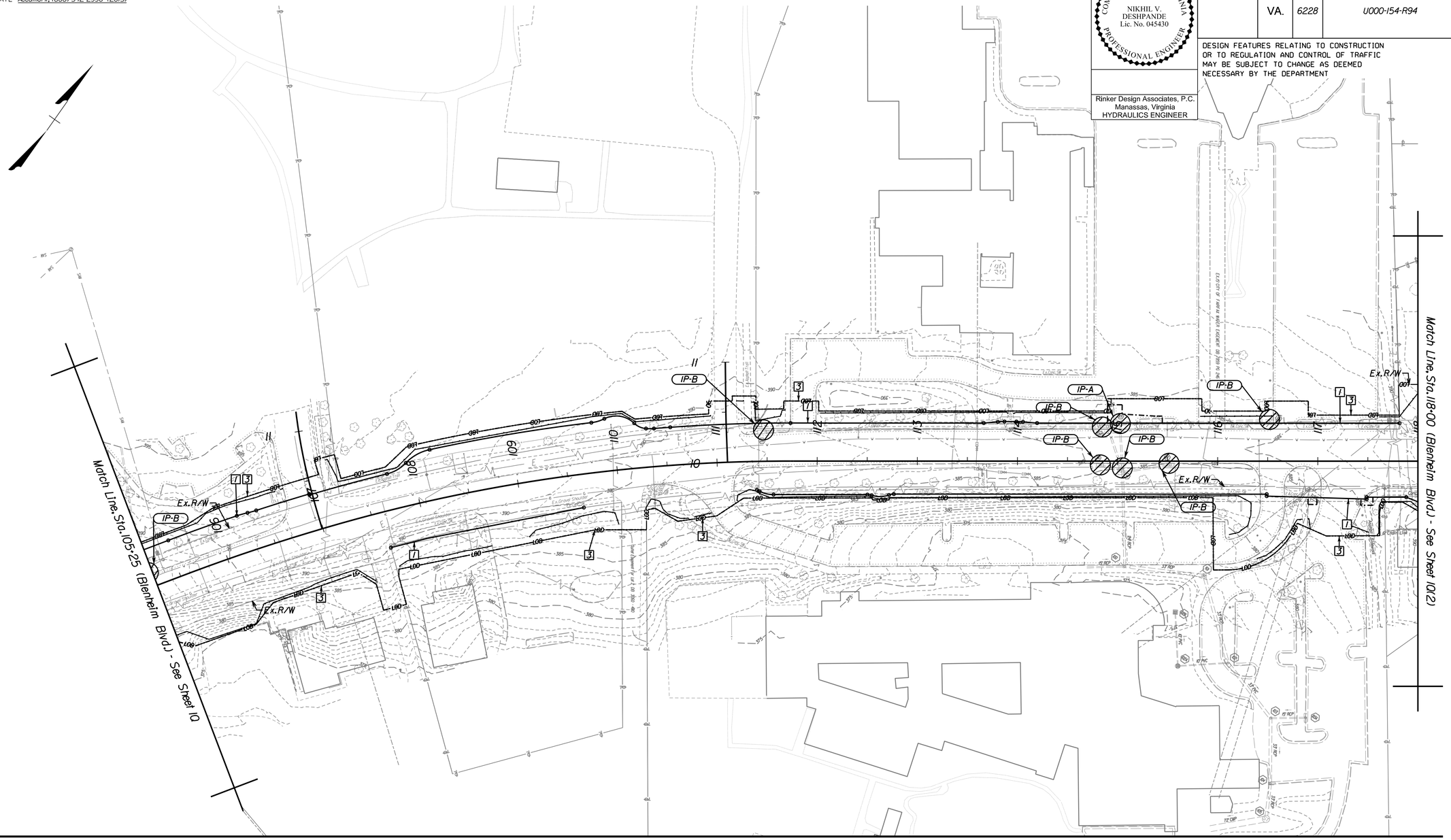
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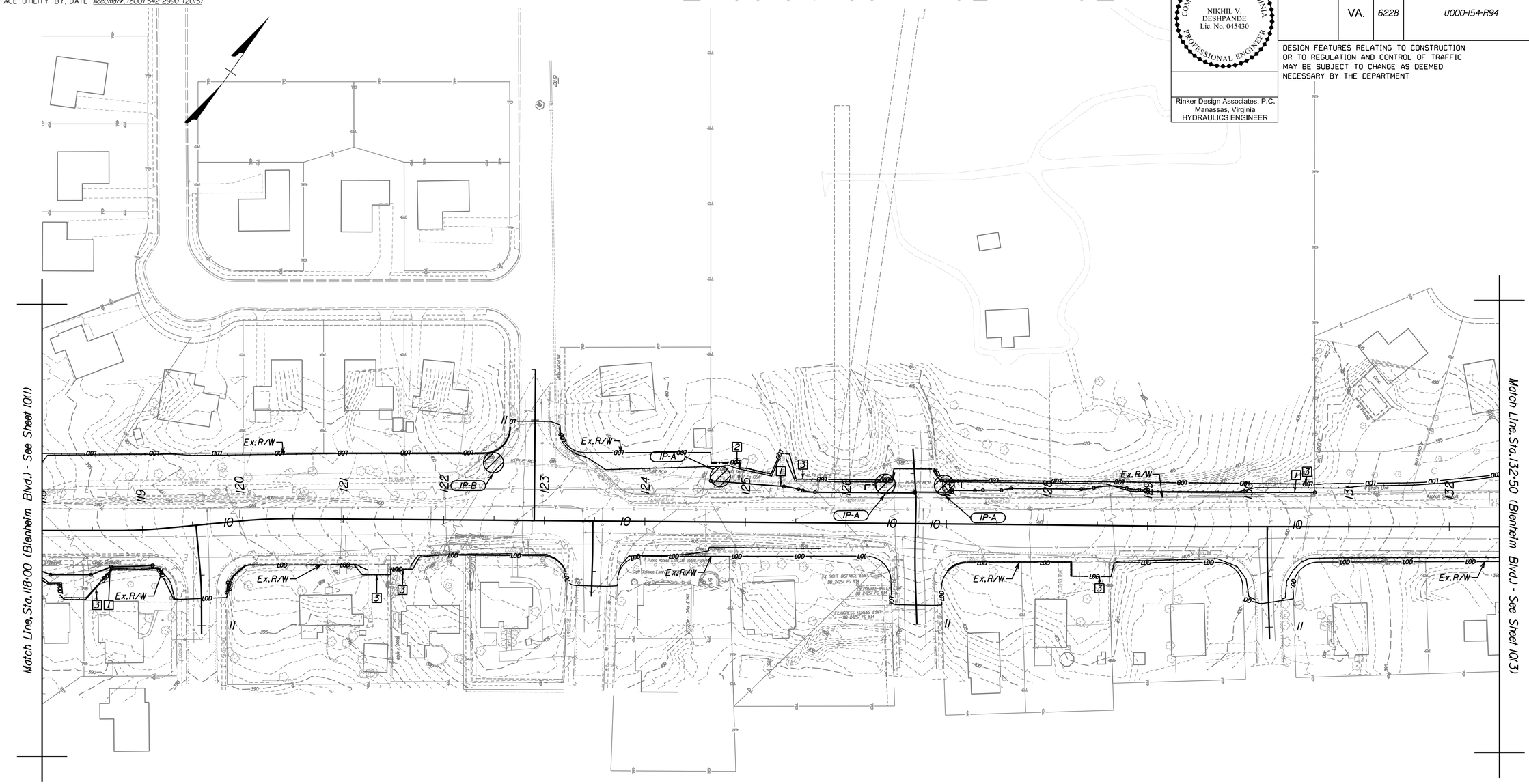
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SCALE 0 50' 100'	PROJECT	SHEET NO.
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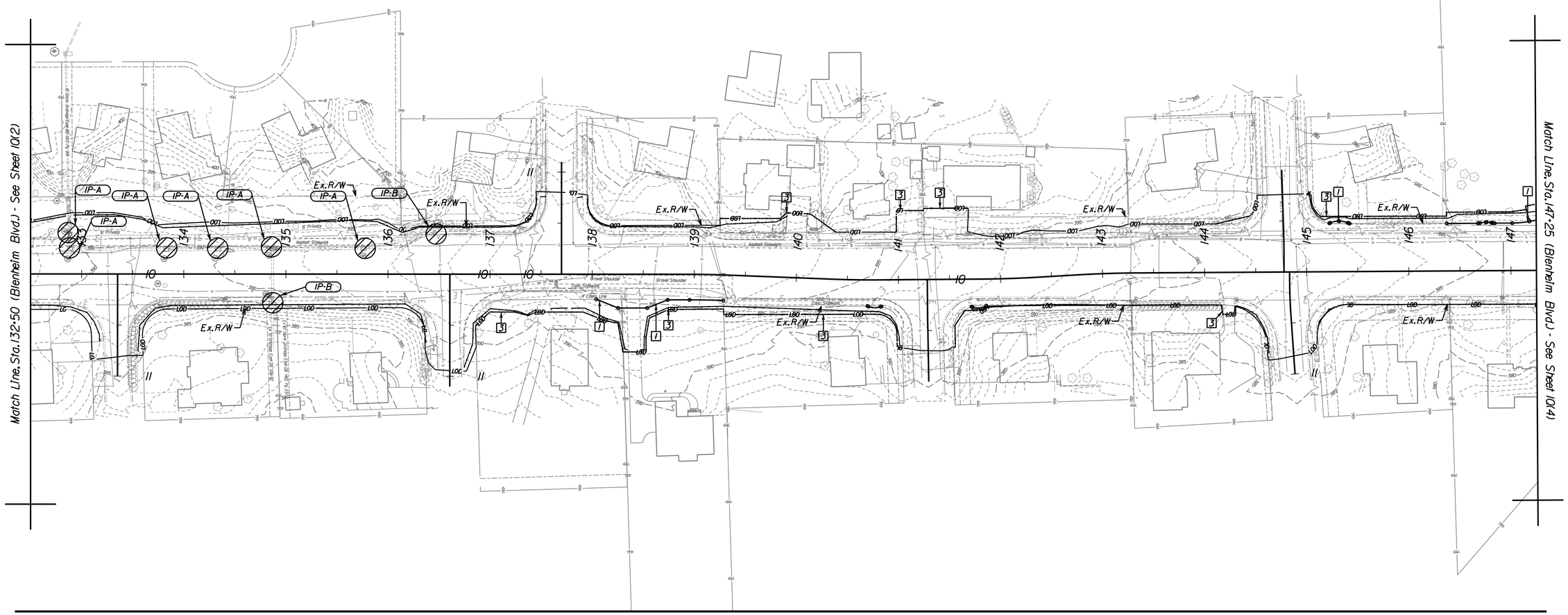
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	101(3)

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SCALE 0 50' 100' | PROJECT U000-154-R94 | SHEET NO. 101(3)

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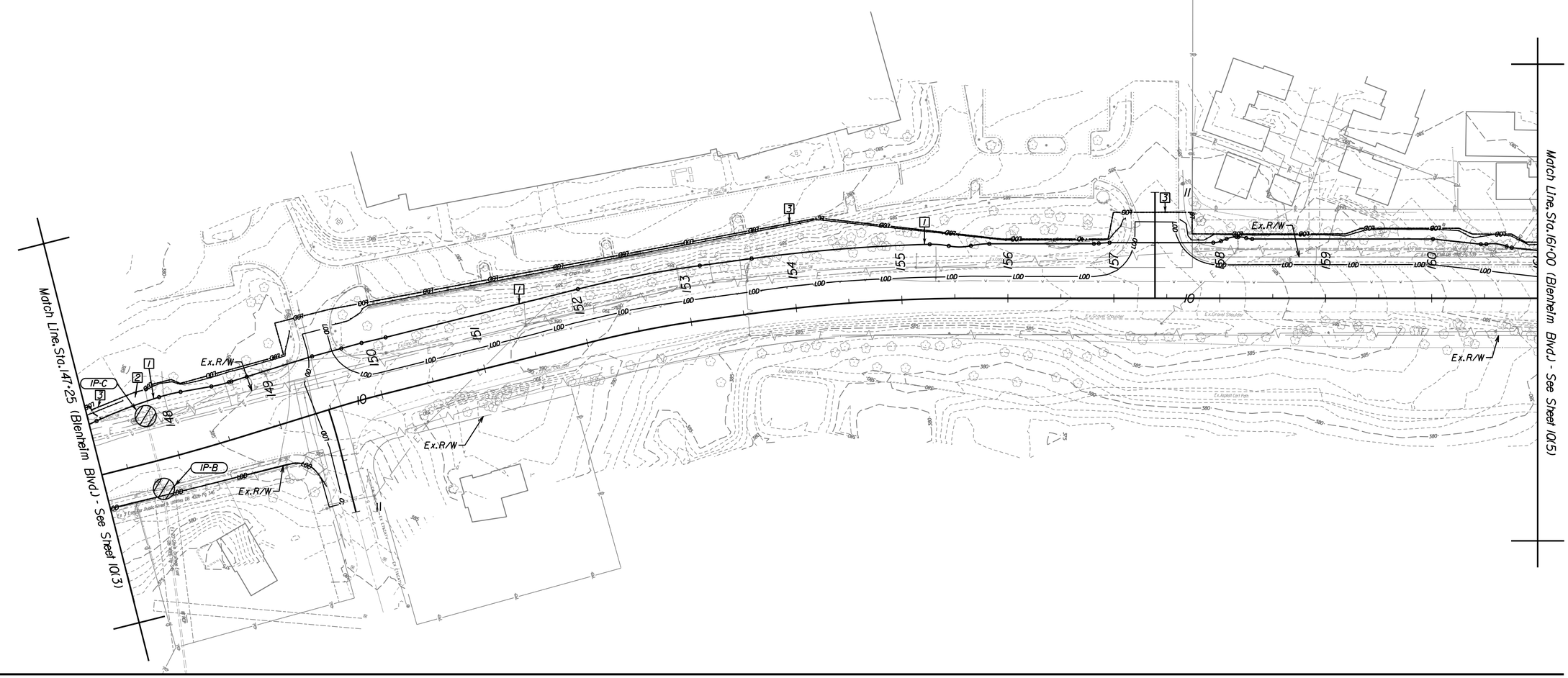
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
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SCALE 0 50' 100' | PROJECT U000-154-R94 | SHEET NO. 101(4)

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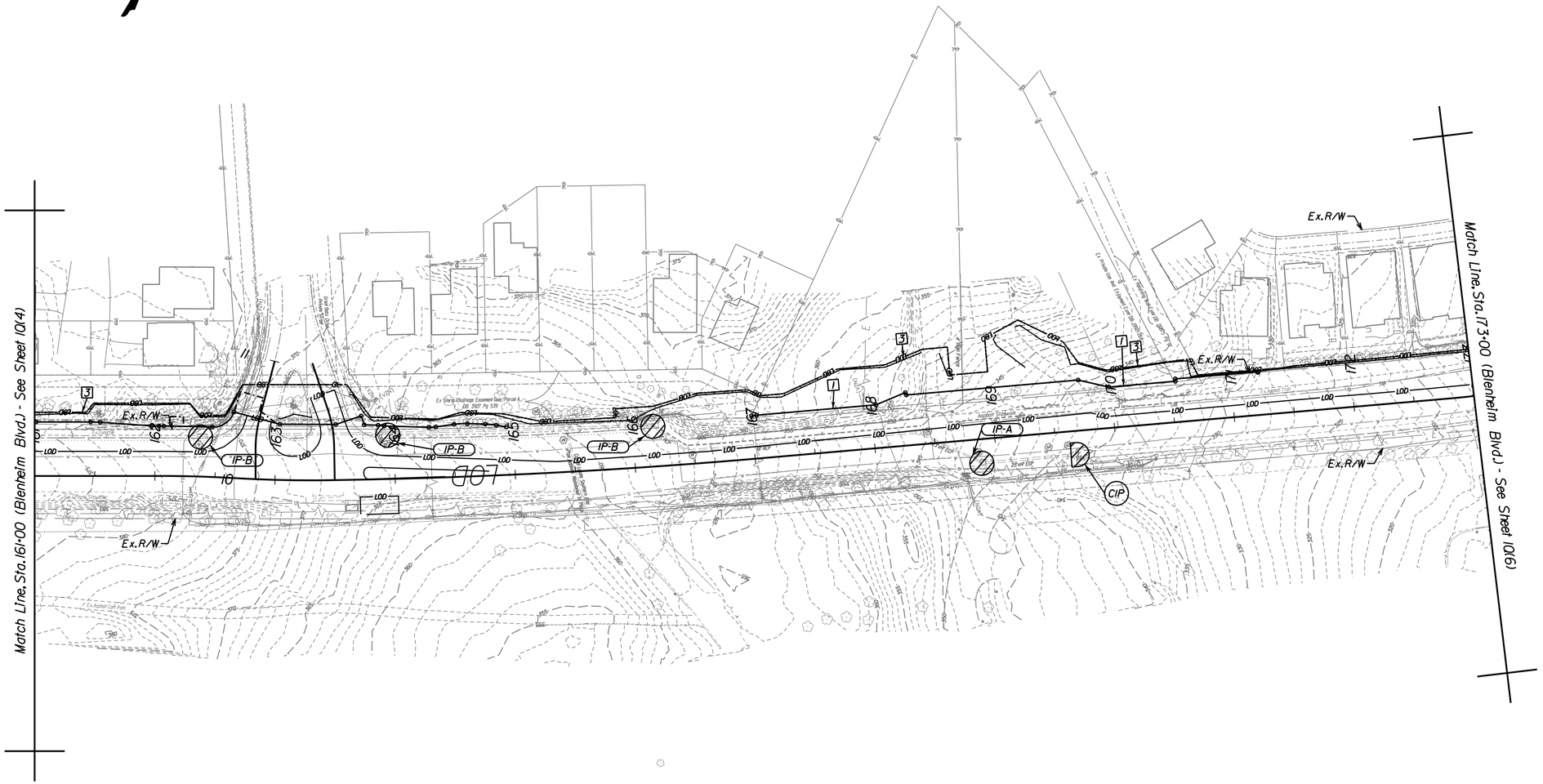
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SCALE 0 50' 100' | PROJECT U000-154-R94 | SHEET NO. 101(5)

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	VA.	6228	U000-154-R94	1Q(6)

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SCALE 0 50' 100'

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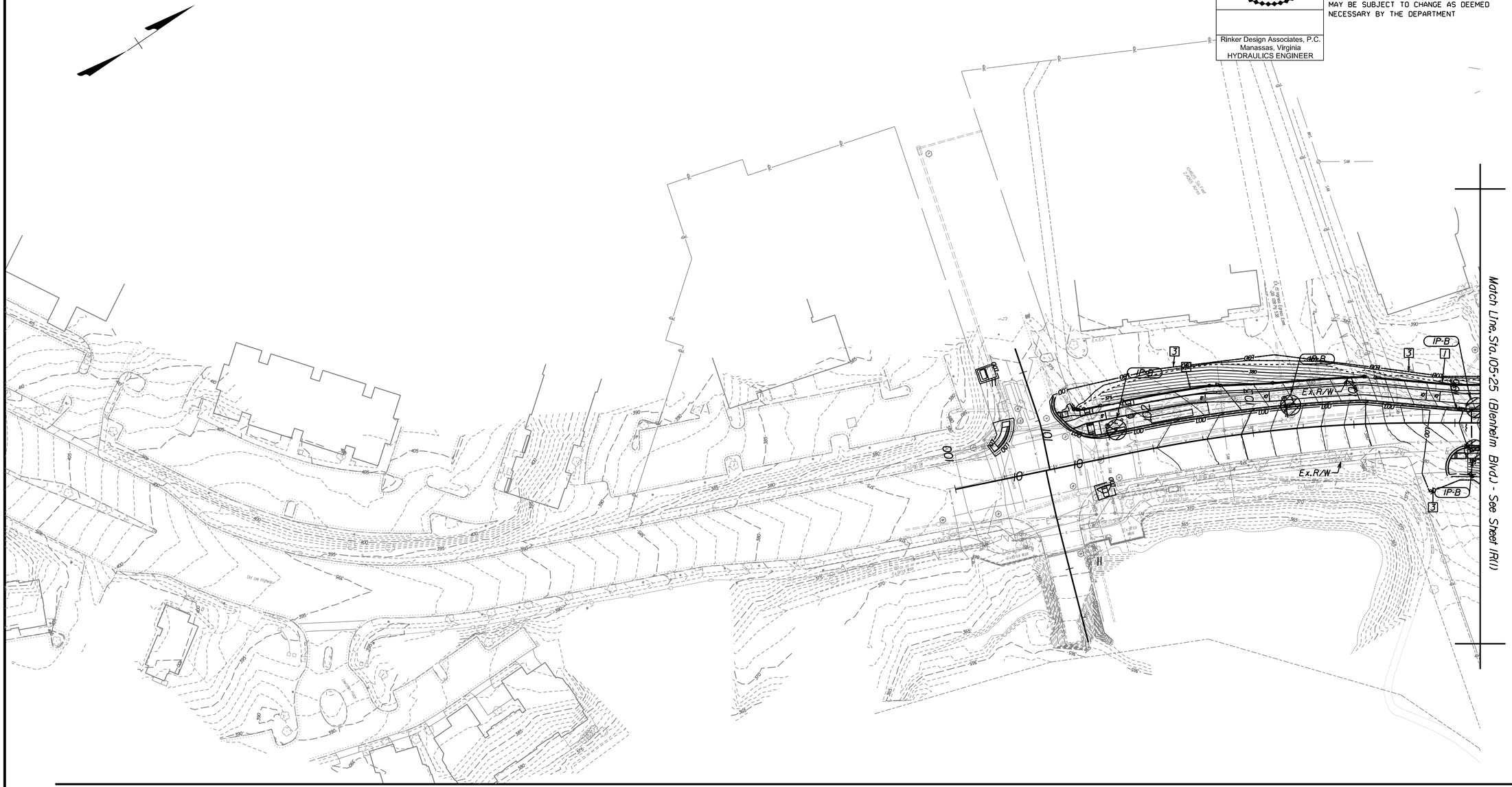
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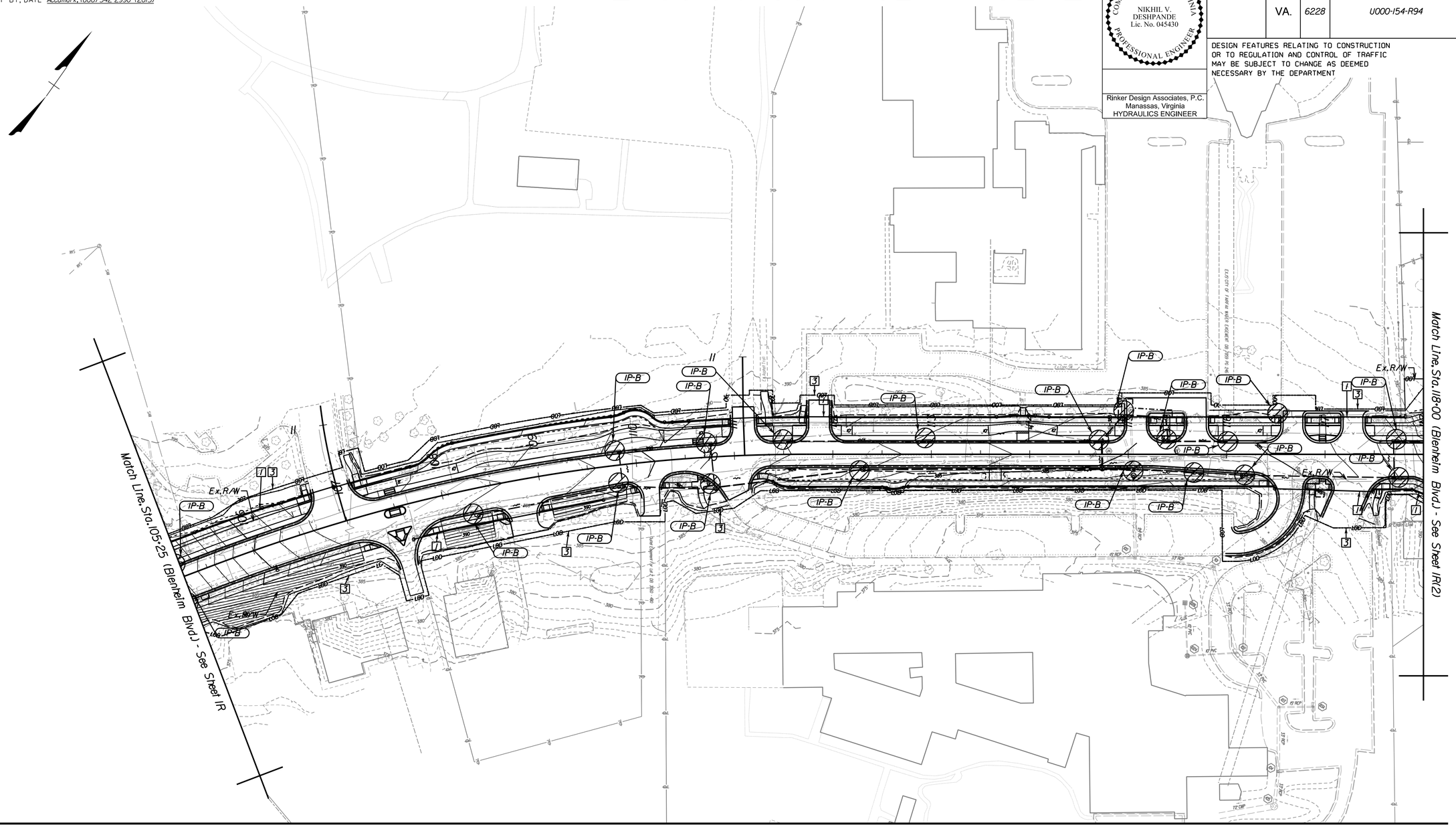
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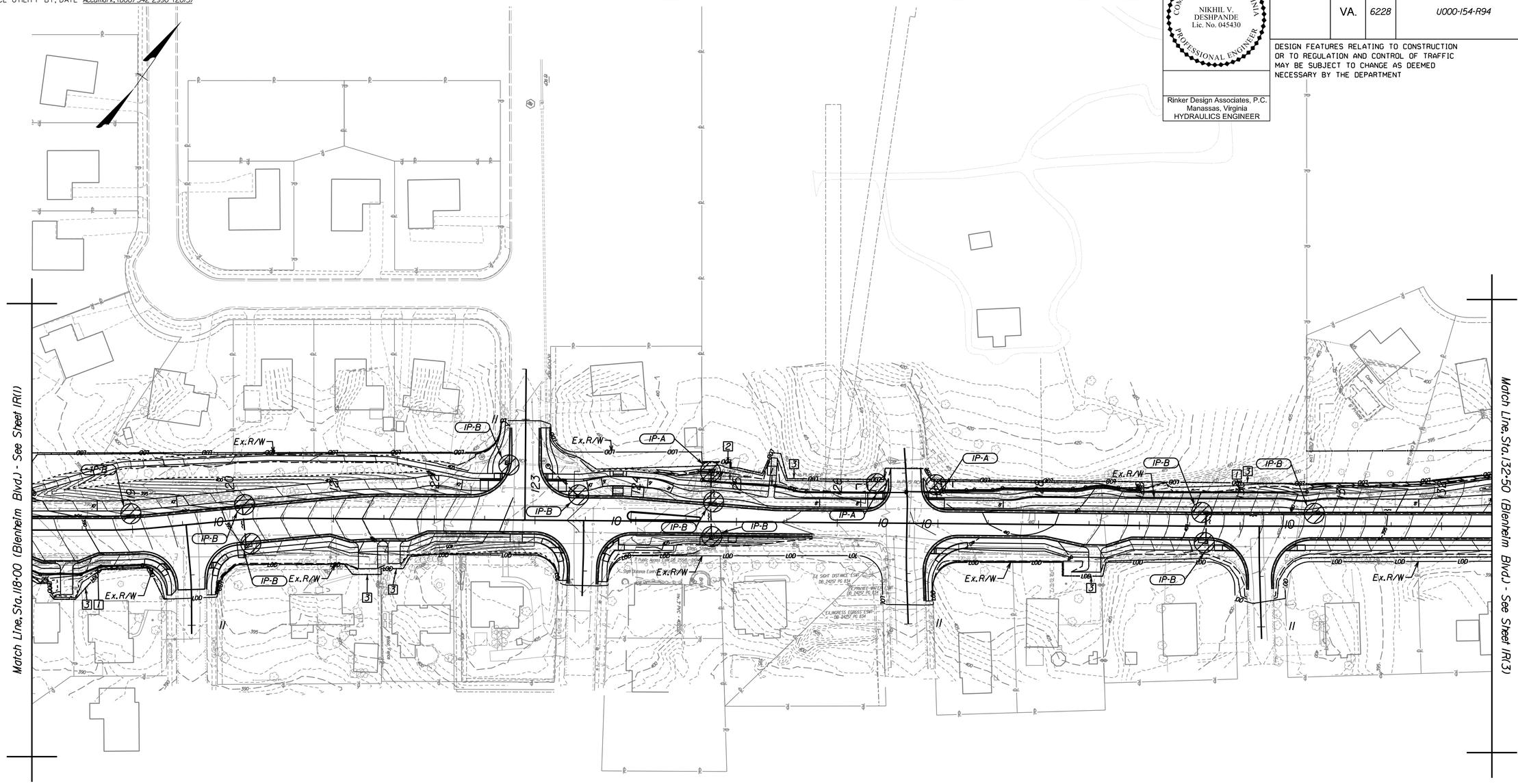
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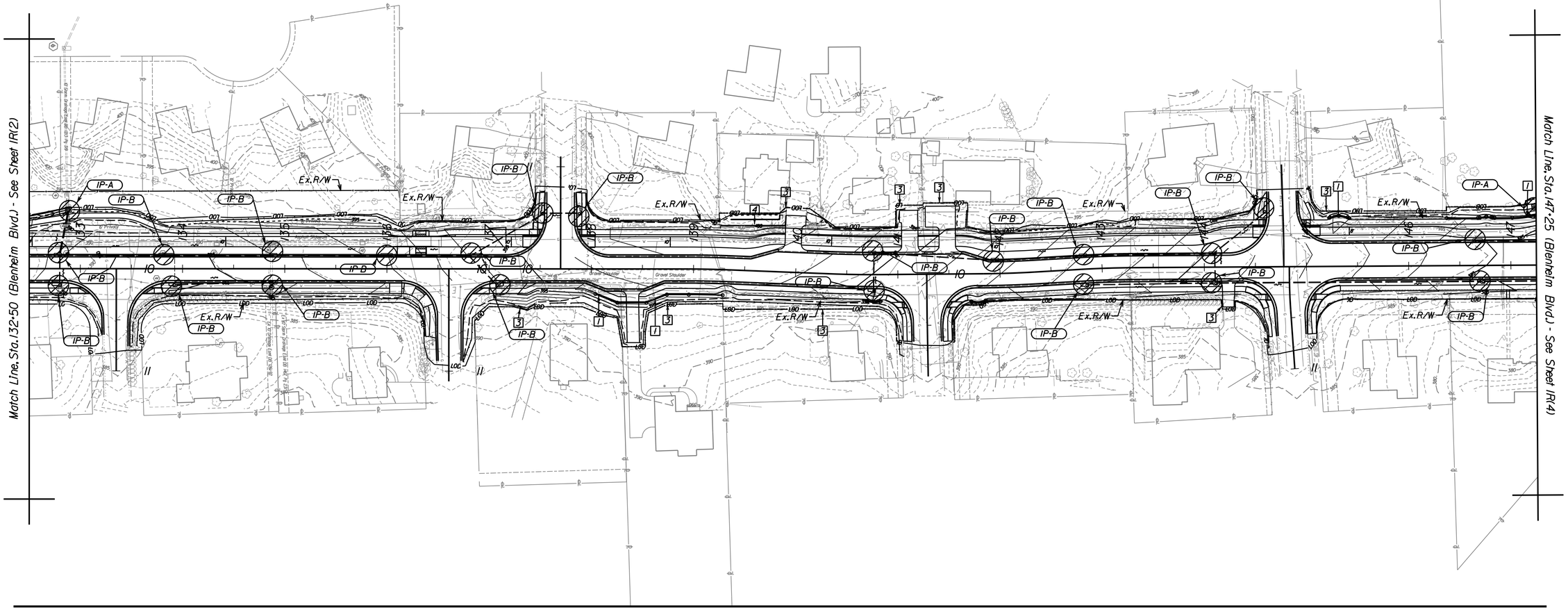
EROSION CONTROL PHASE 2

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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



Erosion & Sediment Legend

- TSF-- Denotes Temporary Silt Fence Type A,or B; St'd EC-5
- FTC Denotes Limits of Cut/Fill
- LOD Denotes Limits of Disturbance
- CD-1 Denotes Temporary Rock Check Dam 1, St'd.EC-4, Ty.I
- CD-2 Denotes Temporary Rock Check Dam 2, St'd.EC-4, Ty.II
- IP-- Denotes Inlet Protection Type A/B; St'd.EC-6
- CIP Denotes Inlet Protection Type C; St'd.EC-6

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. Right of Way Monument RM-2

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IR(3)

PH PLANS

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

3/24/2023

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

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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)
IP-A
IP-B
Ex.R/W
Ex.Gravel Shoulder
Ex.Asphalt Cart Path
Ex.Inlet
Ex.Manhole
Ex.Storm Sewer
Ex.Water Line
Ex.Gas Line
Ex.Fiber Optic Line
Ex.Electric Line
Ex.Telephone Line
Ex.Underground Electric Line
Ex.Underground Telephone Line
Ex.Underground Fiber Optic Line
Ex.Underground Gas Line
Ex.Underground Water Line
Ex.Underground Storm Sewer
Ex.Underground Sanitary Sewer
Ex.Underground Cable TV Line
Ex.Underground Unidentified Line
Ex.Sanitary Sewer Manhole
Ex.Water Valve
Ex.Water Meter
Ex.Fire Hydrant
Ex.Gas Valve
Ex.Gas Meter
Ex.Light Pole
Ex.Power Pole
Ex.Telephone Pole
Ex.Guy Wire
Ex.Sign
Ex.Mailbox
Ex.Tree
Ex.Shrub
Ex.Fence
Ex.Retaining Wall
Ex.Building
Ex.Concrete
Ex.Asphalt
Ex.Gravel
Ex.Curb
Ex.Curb & Gutter
Ex.Sidewalk
Ex.Pavement
Ex.Edge of Pavement
Ex.Centerline
Ex.Property Line
Ex.Right of Way
Ex.Easement
Ex.Contour
Ex.Spot Elevation
Ex.Top of Bank
Ex.Bottom of Bank
Ex.Top of Wall
Ex.Bottom of Wall
Ex.Top of Curb
Ex.Bottom of Curb
Ex.Top of Sidewalk
Ex.Bottom of Sidewalk
Ex.Top of Pavement
Ex.Bottom of Pavement
Ex.Top of Gravel
Ex.Bottom of Gravel
Ex.Top of Concrete
Ex.Bottom of Concrete
Ex.Top of Asphalt
Ex.Bottom of Asphalt
Ex.Top of Curb & Gutter
Ex.Bottom of Curb & Gutter

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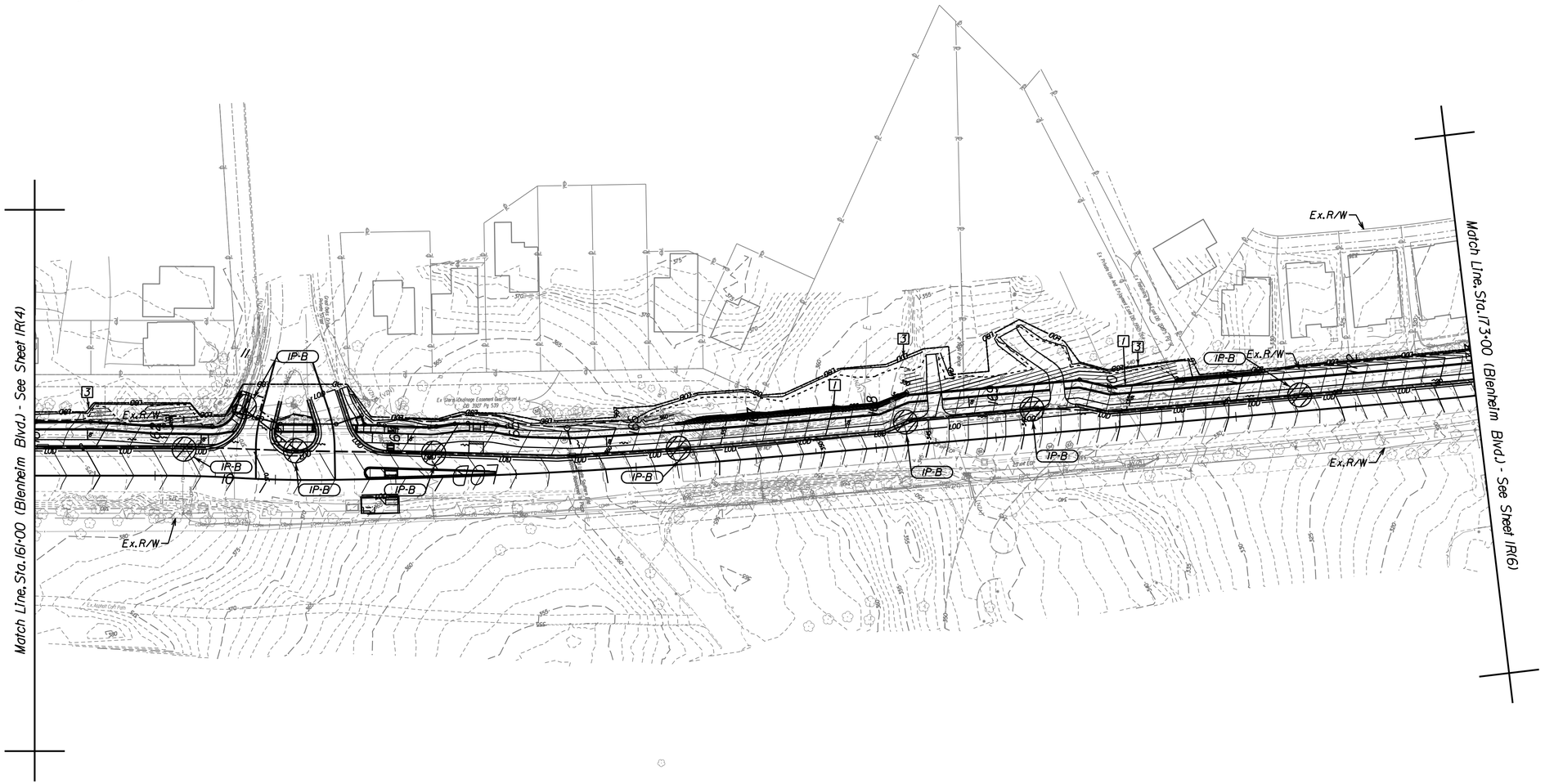
EROSION CONTROL PHASE 2

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HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IR(5)

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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- LOD — Denotes Limits of Disturbance
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- CD-2 — Denotes Temporary Rock Check Dam 2, St'd. EC-4, Ty. II
- IP-_ — Denotes Inlet Protection Type A/B; St'd. EC-6
- CIP — Denotes Inlet Protection Type C; St'd. EC-6

Right of Way Legend

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- 3 — Prop. Permanent Lighting Ease. (Dot-Dashed Lines)
- 4 — Prop. Right of Way Monument RM-2

SCALE	PROJECT	SHEET NO.
0 50' 100'	U000-154-R94	IR(5)

PH PLANS

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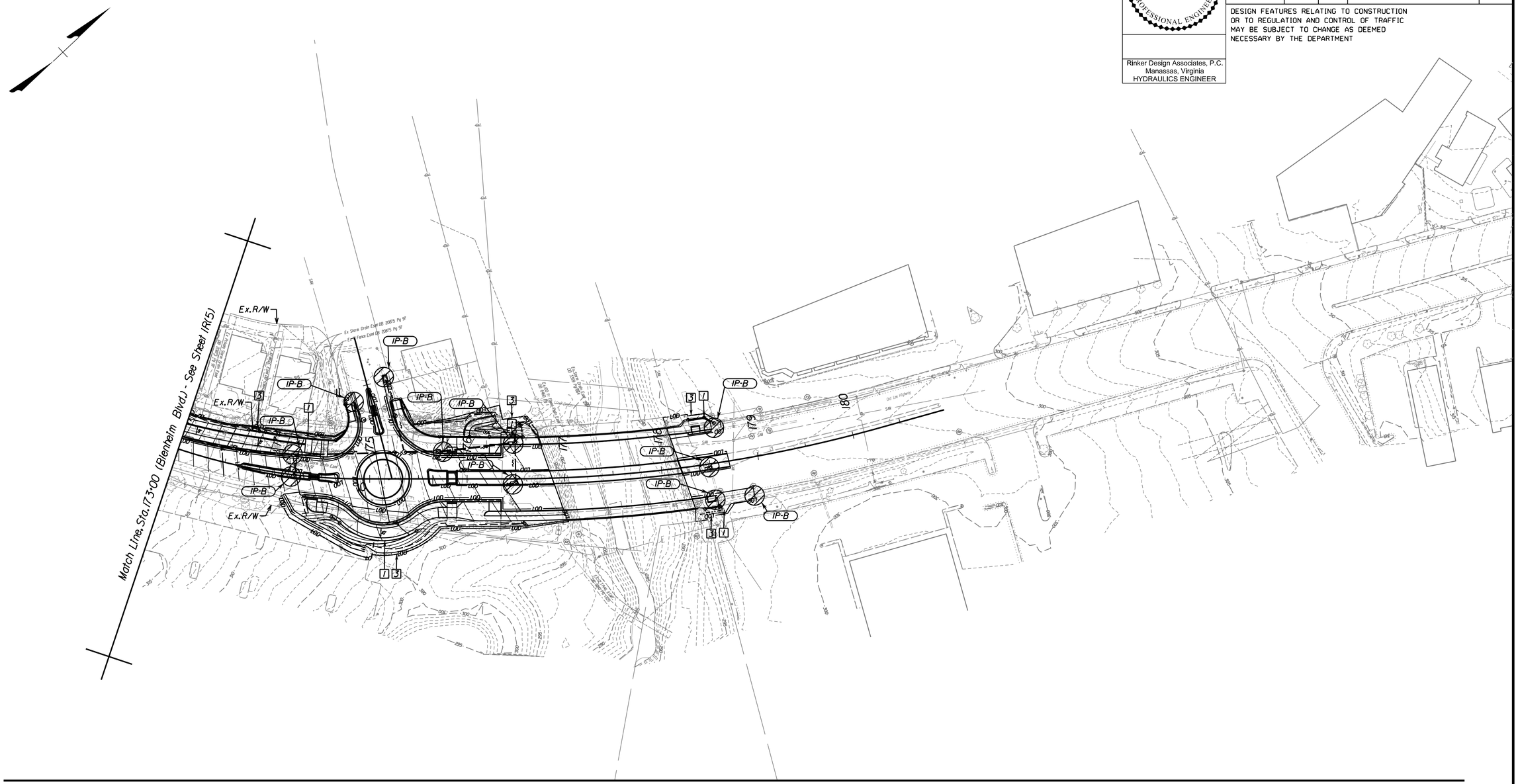
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IR(6)

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- 4
- Prop.Right of Way Monument RM-2

SCALE 0 50' 100'

PROJECT	SHEET NO.
U000-154-R94	IR(6)

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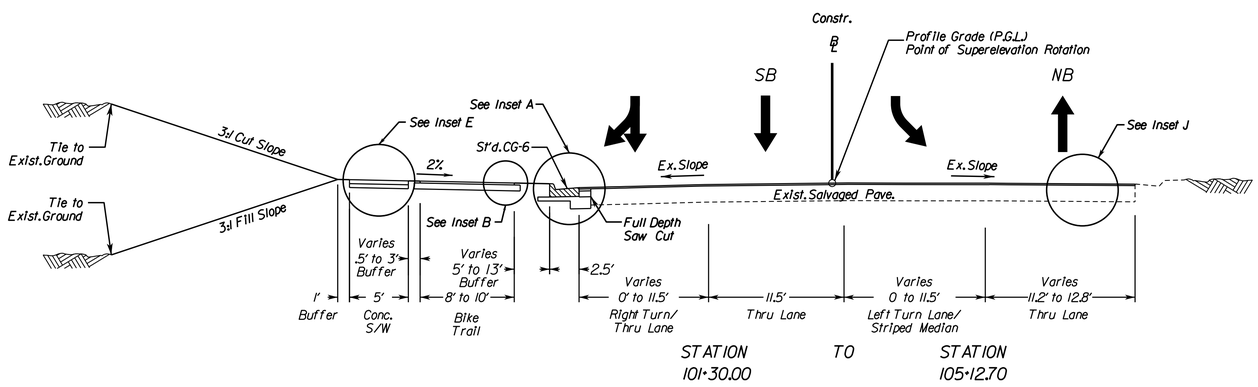
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TYPICAL SECTIONS

Blenheim Boulevard, Rte. 6628

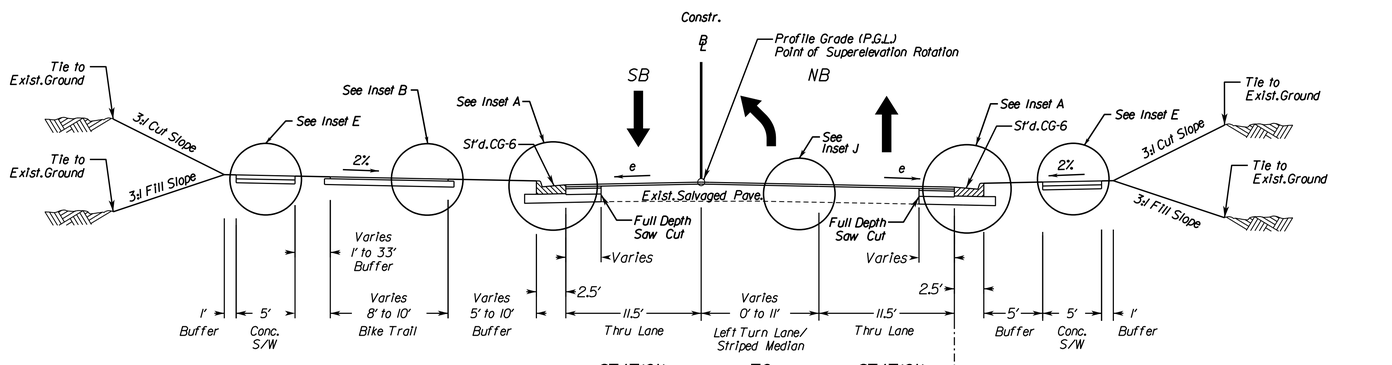
Undivided, 2 Lane Street with Curb & Gutter and SB Right & Left Turn Lanes
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)



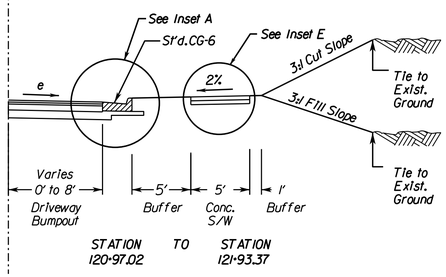
STATION 101+30.00 TO STATION 105+12.70

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)



STATION 105+12.70 TO STATION 110+50.00
STATION 119+28.67 STATION 123+91.41



STATION 120+97.02 TO STATION 121+93.37

ADAM D. WELSCHENBACH
Lic. No. 044359
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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 I7 series for retaining wall details.
6. Std. HR-1, Type II Req'd. See plan sheets for detailed locations.
7. See Sheet 2A(1) for inset details.
8. See Sheet 2A(8) for geotechnical recommendations.

	PROJECT	SHEET NO.
	U000-154-R94	2A

3/24/2023

PH PLANS

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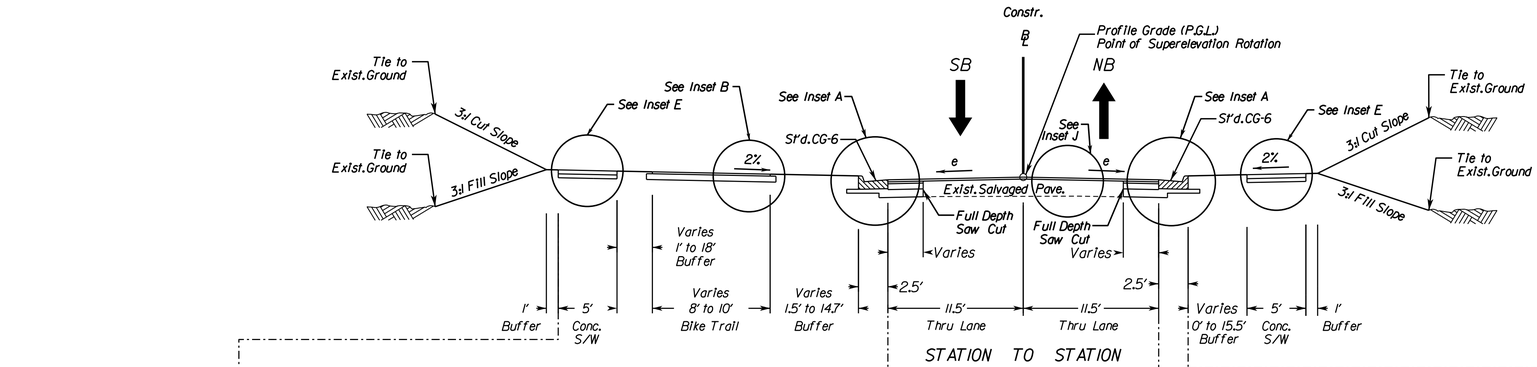
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TYPICAL SECTIONS

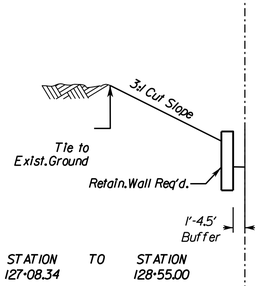
Blenheim Boulevard, Rte. 6628

Undivided, 2 Lane Street with Curb & Gutter
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)

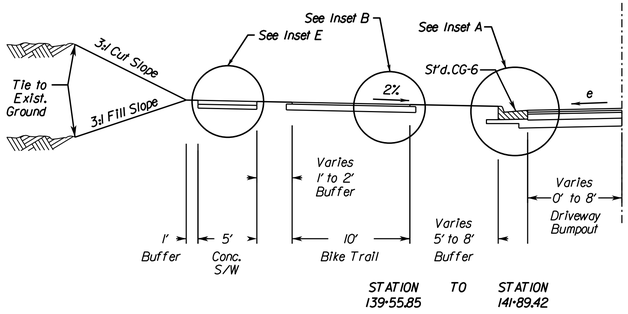


STATION 110+50.00 TO STATION 125+37.43

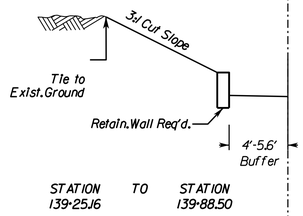
STATION 115+25.66 TO STATION 144+23.68



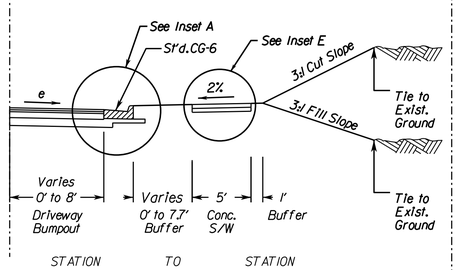
STATION 127+08.34 TO STATION 128+55.00



STATION 139+55.85 TO STATION 141+89.42

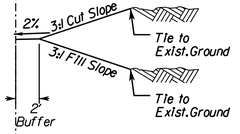


STATION 139+25.16 TO STATION 139+88.50



STATION 128+05.97 TO STATION 128+92.27

STATION 137+94.33 TO STATION 138+71.33



STATION 125+37.43 TO STATION 125+75.20

TYPICAL SECTION NOTES

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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 17 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 Sheet 2A(8) for geotechnical recommendations.

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
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PROFESSIONAL ENGINEER

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

PROJECT	SHEET NO.
U000-154-R94	2A(1)

3/24/2023

PH PLANS

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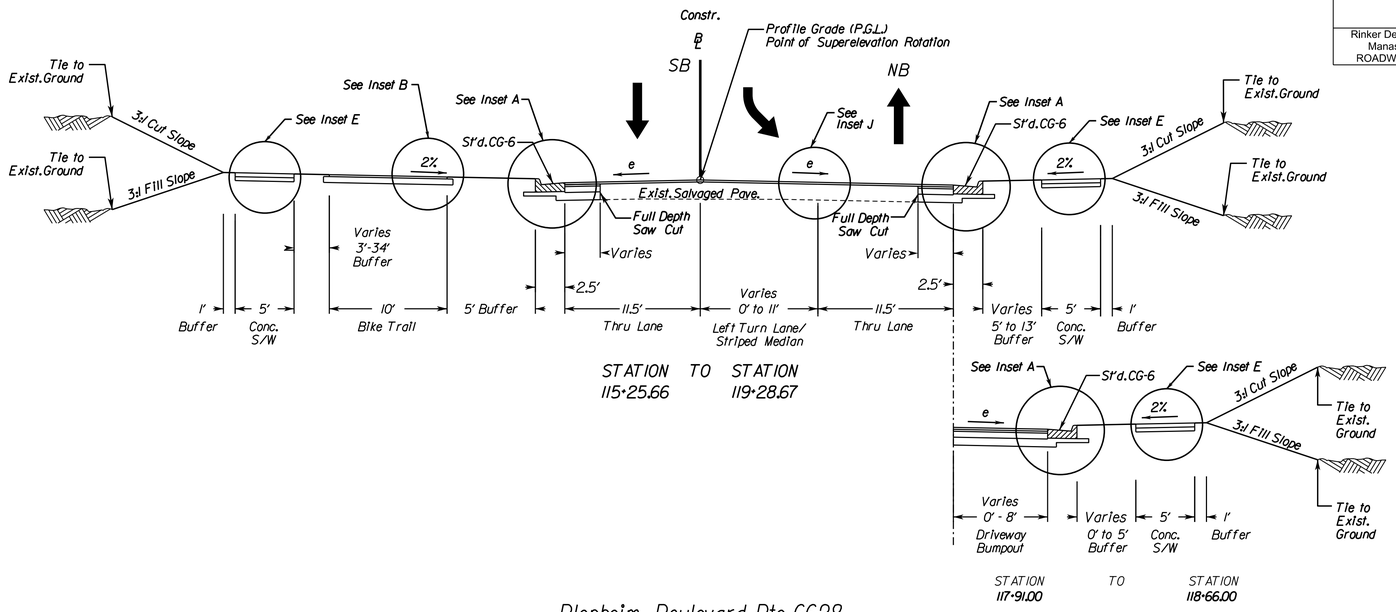
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TYPICAL SECTIONS

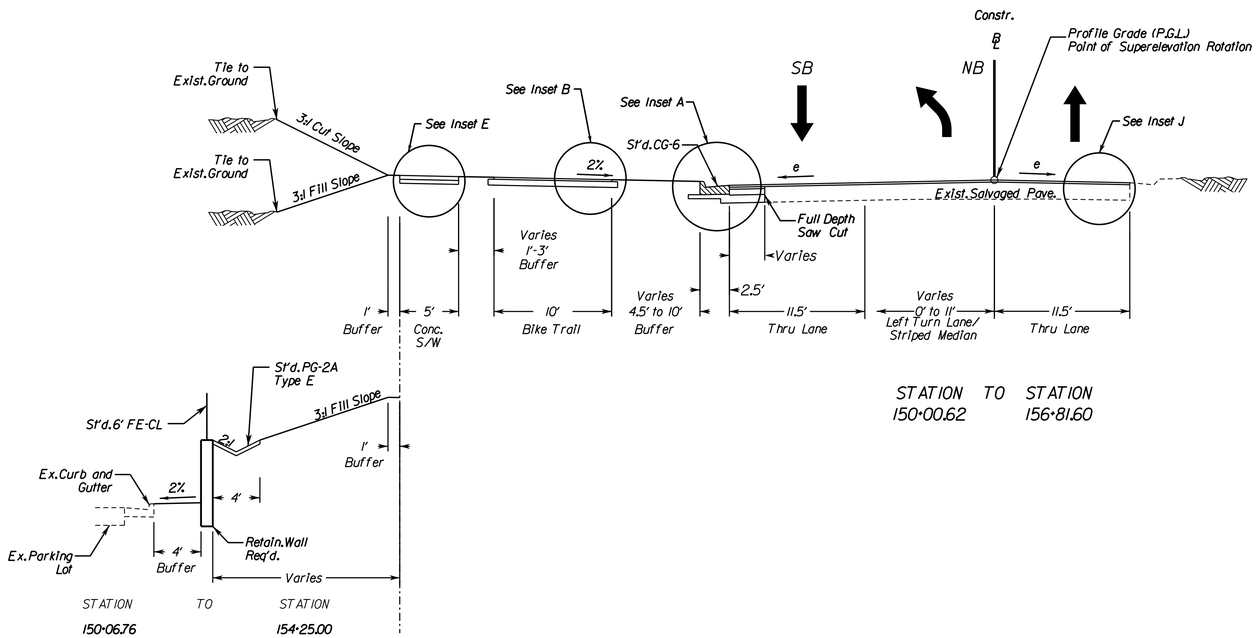
Blenheim Boulevard, Rte. 6628

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)



Blenheim Boulevard, Rte. 6628

Undivided, 2 Lane Street with Curb & Gutter & NB Left Turn Lane
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2A(2)

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4. St'd. UD-2 Req'd. see plan sheets for detailed locations.
5. See 17 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 Sheet 2A(8) for geotechnical recommendations.

	PROJECT	SHEET NO.
	U000-154-R94	2A(2)

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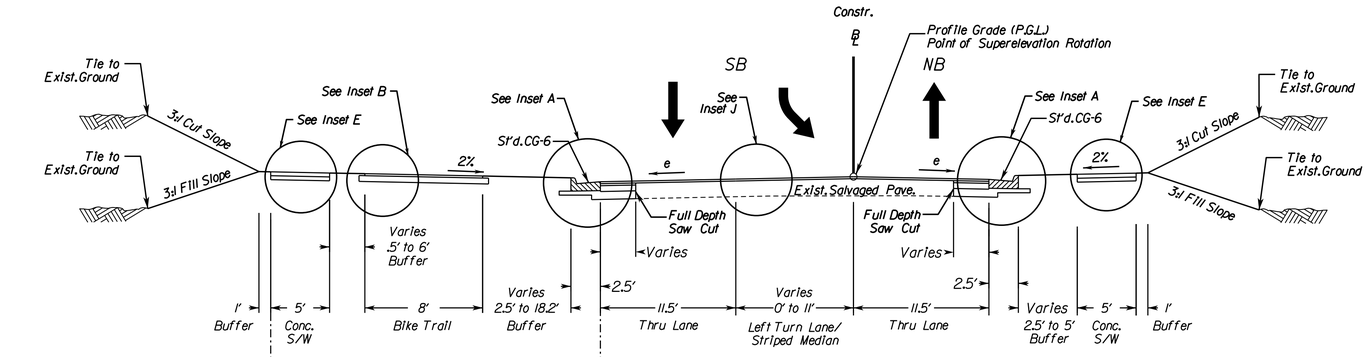
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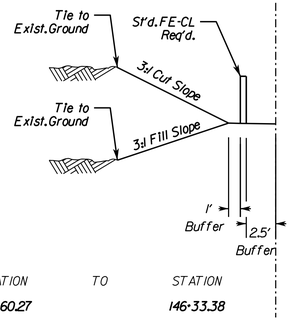
Blenheim Boulevard, Rte. 6628

Undivided, 2 Lane Street with Curb & Gutter & SB Left Turn Lane
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH

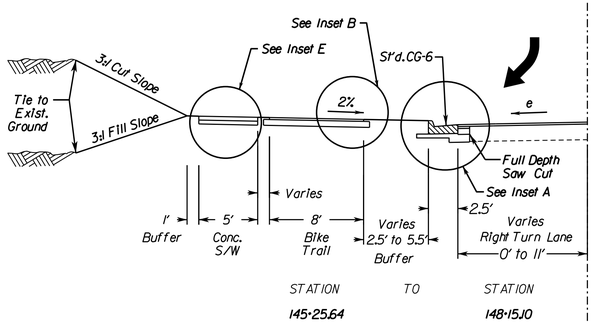
(Not to Scale)



STATION TO STATION
145+25.64 148+99.56



STATION TO STATION
145+60.27 146+33.38

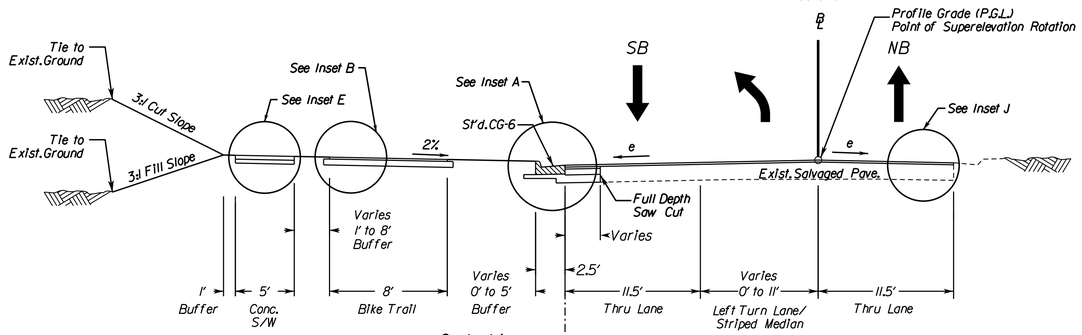


STATION TO STATION
145+25.64 148+15.10

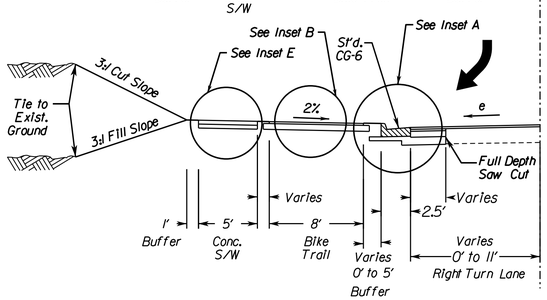
Blenheim Boulevard, Rte. 6628

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
157+96.10 163+74.74



STATION TO STATION
157+96.10 161+00.02

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2A(3)

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8. See Sheet 2A(8) for geotechnical recommendations.

PROJECT	SHEET NO.
U000-154-R94	2A(3)

3/24/2023

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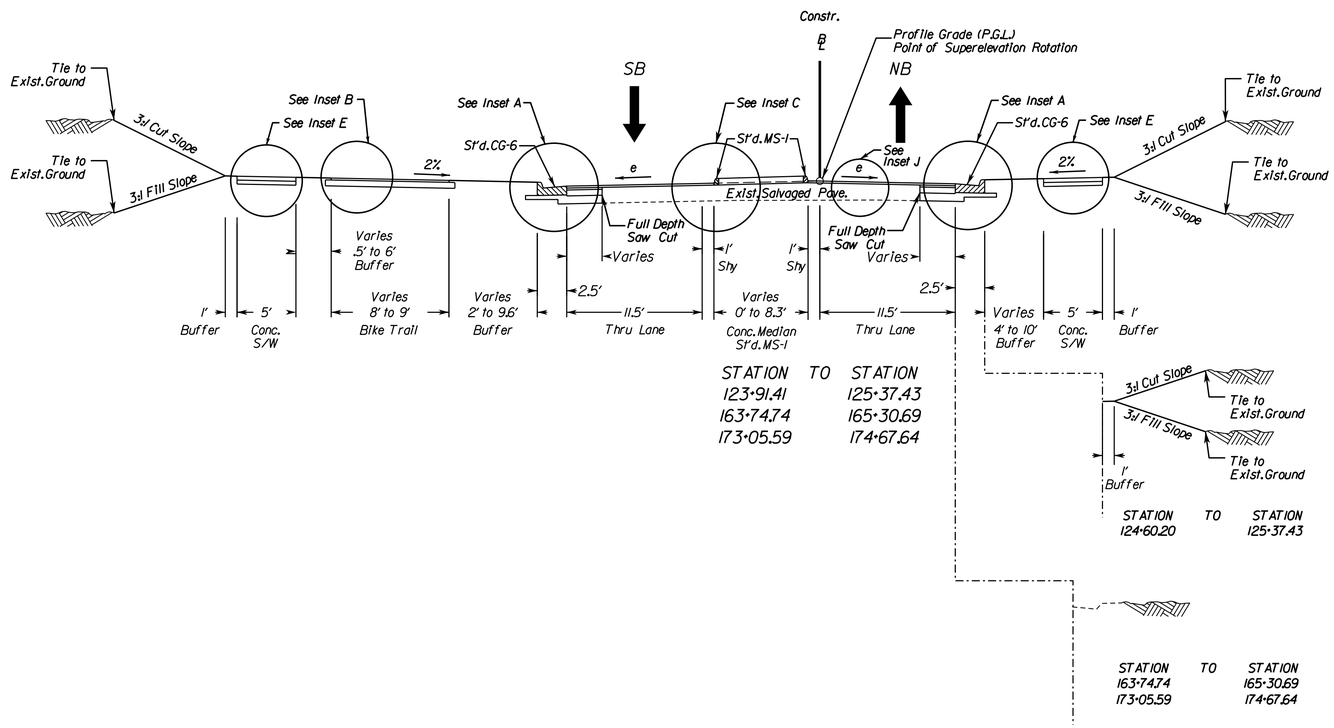
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

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)



STATION	TO	STATION
123+91.41		125+37.43
163+74.74		165+30.69
173+05.59		174+67.64

STATION	TO	STATION
124+60.20		125+37.43

STATION	TO	STATION
163+74.74		165+30.69
173+05.59		174+67.64

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

TYPICAL SECTION NOTES

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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 17 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 Sheet 2A(8) for geotechnical recommendations.

NOTES:

1. THE FENCE SHOWN HEREON IS THE BASIS OF DESIGN. GENERAL CONTRACTOR SHALL SUBMIT FENCE SHOP DRAWINGS AND SUBMITTALS TO CITY OF FAIRFAX FOR REVIEW AND APPROVAL BY FAIRFAX CONSTRUCTION MANAGER AND PROJECT MANAGER. FINAL FENCE SELECTION, DESIGN AND STYLE SHALL BE SELECTED DURING THE SHOP DRAWING/SUBMITTAL PROCESS.
2. SEE LAYOUT PLANS FOR FENCE LAYOUT. COORDINATE FINAL LAYOUT WITH CITY OF FAIRFAX CONSTRUCTION MANAGER.
3. FENCE SHALL COMPLY WITH §4.7 OF THE ZONING ORDINANCE.
4. FENCE SHALL BE DOUBLE-SIDED SO THAT THE FINISHED SIDES FACE PRIVATE PROPERTY AND NEW SIDEWALK. IF FENCE IS SINGLE SIDED, THE FINISHED SIDE SHALL FACE OUTWARDS TOWARDS THE SIDEWALK.
5. BECAUSE THE SIDE YARDS OF THE PROPERTIES FACE A CITY RIGHT-OF-WAY, THE GENERAL CONTRACTOR SHALL SECURE A SPECIAL EXCEPTION (PURSUANT TO §4.7 IN ACCORDANCE WITH RELEVANT PROVISIONS IN §6.17) IN ORDER TO CONSTRUCT A MAXIMUM 7' FENCE.
6. IN ACCORDANCE WITH CITY OF FAIRFAX CODE AND ZONING ORDINANCE, THE FENCE HEIGHT IS MEASURED TO THE TOP RAIL (EXCLUDING POSTS, FINIALS, DECORATIVE ELEMENTS, ETC. PROVIDED THAT THEY DO NOT EXTEND ABOVE THE MAXIMUM HEIGHT BY 12" AND THAT SUCH FEATURES ARE SPACED FOUR FEET APART).
7. SEE THE FOLLOWING WEBSITE FOR ADDITIONAL REQUIREMENTS: HTTPS://WWW.FAIRFAXVA.GOV/HOME/SHOWPUBLISHEDDOCUMENT/13784/637018925591800000
8. PROVIDE 2" CLEAR BETWEEN FINISH GRADE AND BOTTOM STRINGER.
9. PROVIDE GROUND CONTACT PRESSURE TREATED LUMBER FOR LINE POSTS, TERMINAL POSTS AND CORNER POSTS. POSTS SHALL EXTEND 2.5' INTO SUBGRADE OR TO FROST DEPTH. COMPACT EARTH AROUND SOIL TO 95% PROCTOR.
10. ALL OTHER WOOD SHALL BE WESTERN CEDAR.
11. MAXIMUM POST SPACING = 8' O.C.
12. ALL NAILS, SCREWS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.

Privacy Fence Detail



3/24/2023

PROJECT	SHEET NO.
U000-154-R94	2A(4)

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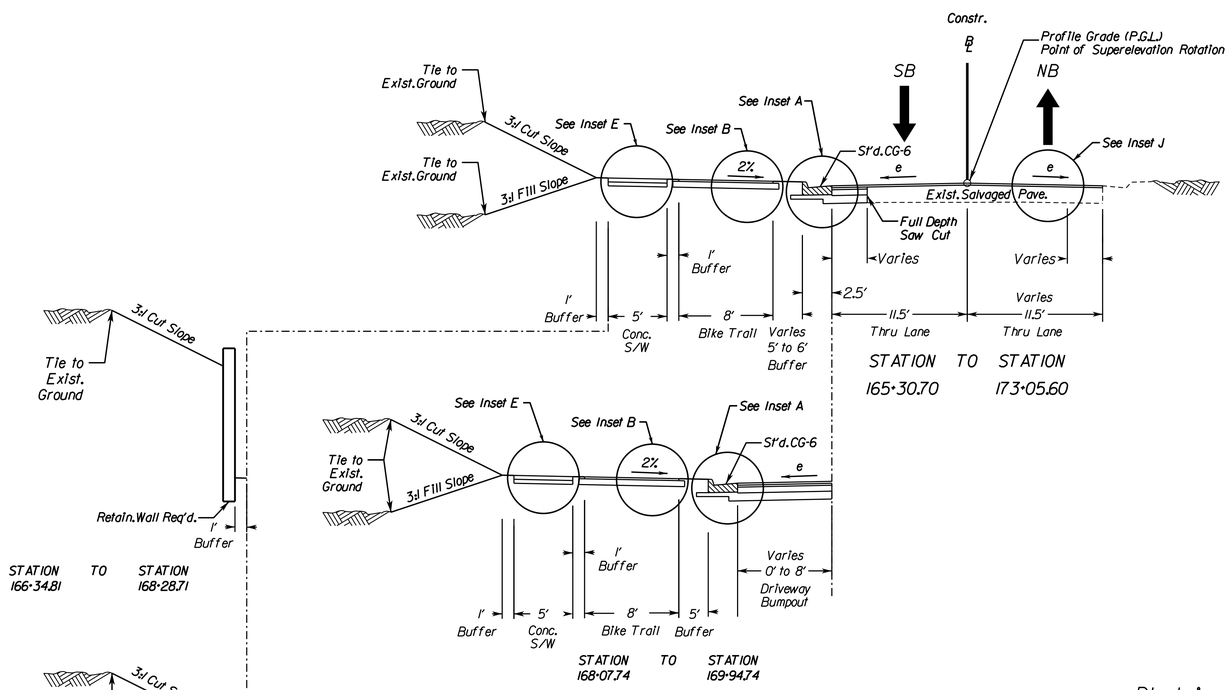
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

TYPICAL SECTIONS

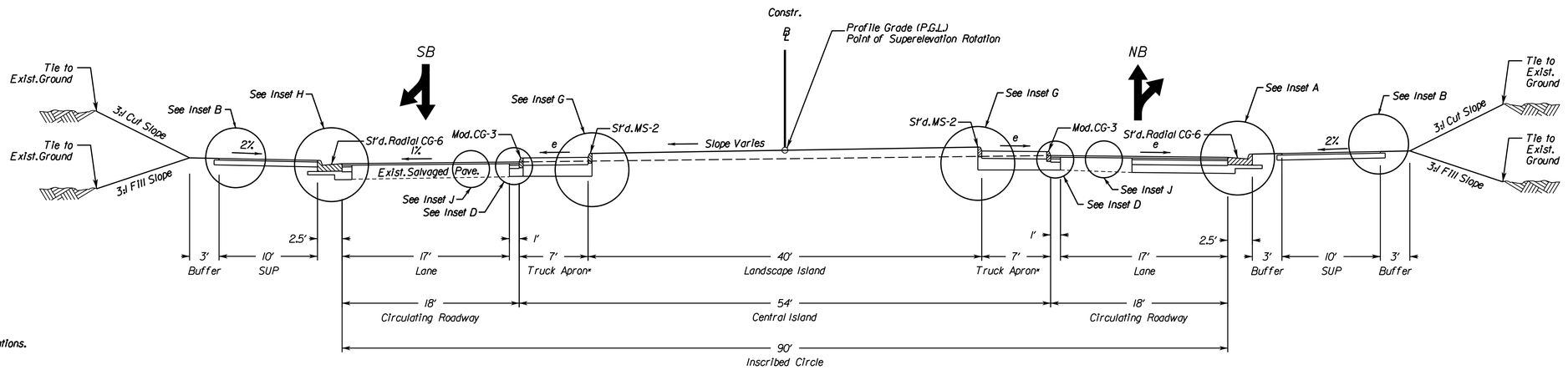
Blenheim Boulevard, Rte. 6628

Undivided, 2 Lane Street with Curb & Gutter
Geometric Design Standard for Urban Minor Arterial System (GS-6): V=30 MPH
(Not to Scale)



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

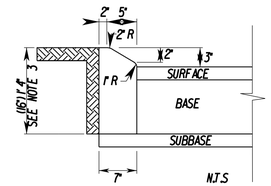
STATION 174+67.64 TO STATION 175+59.88

TYPICAL SECTION NOTES

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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 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 Sheet 2A(8) for geotechnical recommendations.

CG-3 MODIFIED

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. THE MODIFICATION TO THE STANDARD CG-3 IS TO REDUCE THE EXPOSED HEIGHT OF THE CURB AS SHOWN. MODIFIED CURB SHALL BE PAID FOR AS STANDARD CG-3.

COMMONWEALTH OF VIRGINIA
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2A(5)

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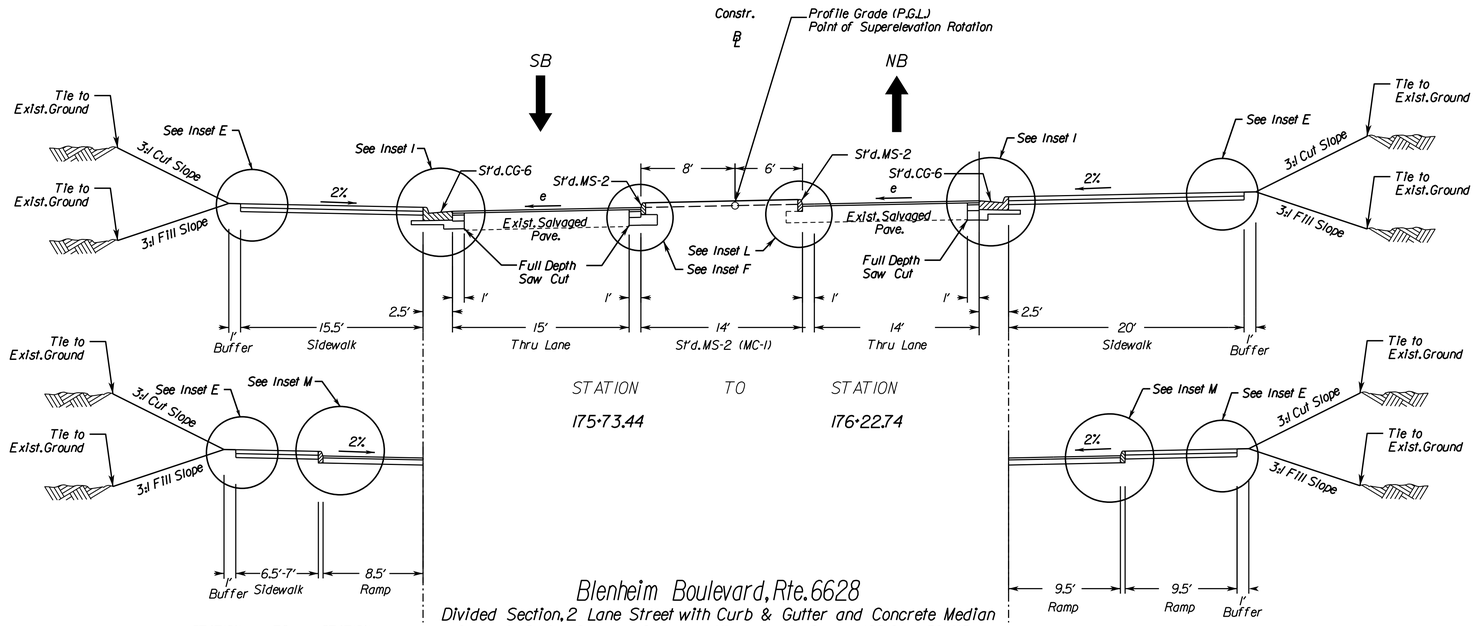
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TYPICAL SECTIONS

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

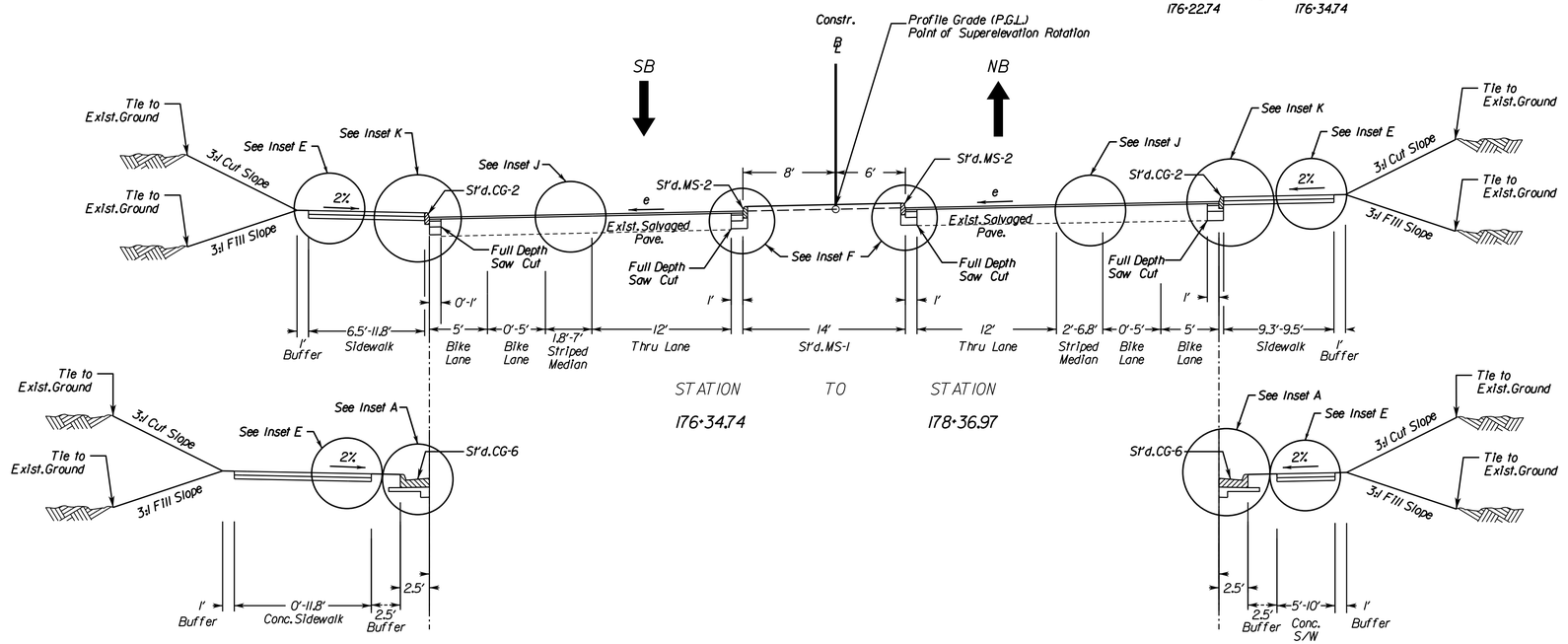
(Not to Scale)



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)



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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 Sheet 2A(8) for geotechnical recommendations.

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PROJECT	SHEET NO.
U000-154-R94	2A(6)

3/24/2023

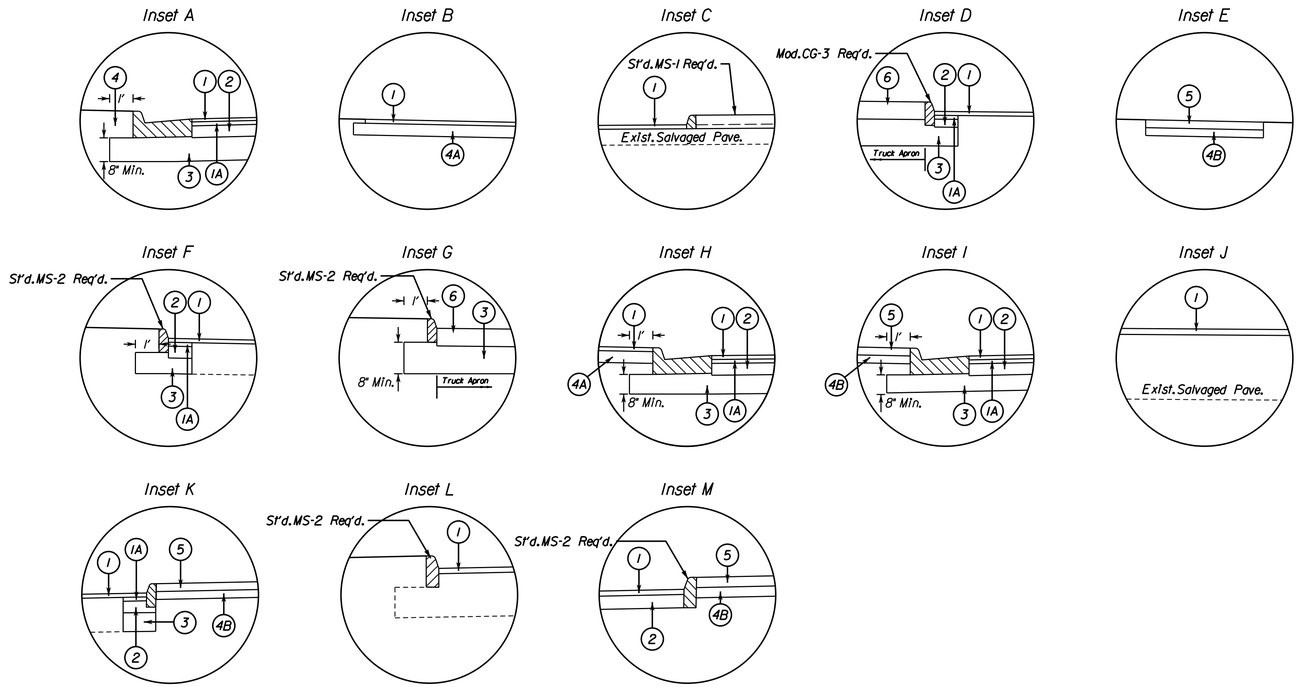
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TYPICAL SECTIONS INSETS

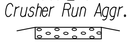


INSET DESIGN LEGEND

(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
(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

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.

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PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
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GEOTECHNICAL RECOMMENDATIONS

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Fairfax, Virginia
GEOTECHNICAL ENGINEER

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Blenheim Boulevard Multimodal Improvements
DMY Project No. 01.02757.03
February 6, 2023

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.

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 an authorized representative of 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 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.

6.5. RETAINING WALLS

A total of four retaining walls are proposed on this project. The information of the proposed retaining walls is summarized in the following table.

Table 6-4: Summary of Retaining Walls

Retaining Wall	Location	Cut/Fill	Appr. Maximum Wall Height (ft)	Reference Borings
#1 (RW-A), Timber Wall	Sta. 139+25.19 to 139+88.86, Left	Cut	5	W-6
#2 (RW-B), RW-3 Wall	Sta. 150+06.77 to 154+25.00, Left	Fill	10	W-7 to W-11
#3 (RW-C), RW-2 Wall	Sta. 166+34.81 to 168+16.97, Left	Cut	14	W-22 to W-24
#4 (RW-D), RW-2 Wall	Sta. 170+59.74 to 171+21.74, Left	Cut	5	W-26 and W-27

Based on our subsurface exploration, undercut will be required for some of the RW-2/3 walls and the table below provides a summary of the areas requiring undercut.

Table 4-2: Summary of Foundation Undercut Recommendations

Retaining Wall	Estimated Areas Requiring Foundation Improvement	Reference Borings	Recommended Foundation Undercut Depth (ft)
#2 (RW-B), RW-3 Wall	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.

7.0 LIMITATIONS

The recommendations provided are based in part on project information provided to us and are only applied to the specific project and site discussed in this report. If the project information is different from those stated in this report or if additional information is available, DMY should be contacted to review our recommendations. We can then modify our recommendations for the proposed project.

Regardless of the thoroughness of a subsurface investigation, there is always a possibility that subsurface conditions may vary from those documented during a subsurface exploration at specific locations. In addition, the construction process itself may alter subsurface conditions. Therefore, experienced geotechnical personnel should be engaged to observe and document the construction procedures used and the conditions encountered. Unanticipated conditions and inadequate procedures should be reported to the design team along with timely recommendations.

We have prepared this report for use by the design team in accordance with generally accepted geotechnical engineering practices and applicable VDOT standards and project specifications. No other warranty, expressed or implied, is made as to the professional advice included in this report.

	PROJECT	SHEET NO.
	U000-154-R94	2A(8)

3/24/2023

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STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2F

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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
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

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 10.37 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 U000-154-R94	SHEET NO. 2F

3/24/2023

PH PLANS | THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION. | ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE 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.	6228	U000-154-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
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ESC - Erosion and Sediment Control
IIM - Instructional and Informational Memorandum
R&B - Road and Bridge
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SWPPP - Stormwater Pollution Prevention Plan
TMDL - Total Maximum Daily Load
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VPDES - Virginia Pollutant Discharge Elimination System
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WLA - Waste Load Allocation
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✱ 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 U000-154-R94	SHEET NO. 2F(1)

3/24/2023

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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)

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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 U000-154-R94	SHEET NO. 2F(2)

3/24/2023

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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)*

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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	1.96	0.86	2.82		7	7
8		Manufactured Treatment Device (8-10)	Fairfax	38.9538 N	77.1924 W	PL30	Daniel's Run	Accotink Creek	1.23	0.58	1.81		7	7
9		Manufactured Treatment Device (9-14)	Fairfax	38.9635 N	77.1859 W	PL30	Daniel's Run	Accotink Creek	1.47	0.52	1.99		7	7
4		Manufactured Treatment Device (4-2A)	Fairfax	38.8508 N	77.2950 W	PL30	Daniel's Run	Accotink Creek	0.15	0.03	0.18		7	7
6		Manufactured Treatment Device (6-3A)	Fairfax	38.8526 N	77.2894 W	PL30	Daniel's Run	Accotink Creek	0.11	0.02	0.13		7	7
10		Manufactured Treatment Device (10-4A)	Fairfax	38.8583 N	77.2822 W	PL30	Daniel's Run	Accotink Creek	0.08	0.00	0.08		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 5/1/19

NOT TO SCALE	PROJECT U000-154-R94	SHEET NO. 2F(3)

3/24/2023

PH PLANS

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

Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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-Std.DI-3C Req'd. L=16' H=4.4' Inv.=368.10 Top=372.45 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) Silt-Tight Joint Type Req'd. Inv(In)368.10 Inv(Out)368.00
3-2	4.8 Lin.Ft.Std.MH-I or 2 Req'd. I Std.MH-I Frame and Cover Req'd. Prop.Top=372.51 Inv.=367.02 I-Std.IS-I Req'd. Connect to Ex.15" Pipe
3-3	I-Std.DI-2B Req'd. L=12' H=3.5' Inv.=373.05 Top=376.59 Type B Nose Req'd. I-Std.IS-I Req'd. Connect UD-4 to Structure
3-3-Ex.13	11' - 15" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)373.05 Inv(Out)372.95
3-4	2.7 Lin.Ft.Std.MH-I or 2 Req'd. I Std.MH-I Frame and Cover Req'd. Prop.Top=376.71 Inv.=373.35 I-Std.IS-I Req'd. Connect to Ex.15" Pipe
3-4 to 3-3	4 - 15" Storm Sewer Pipe Req'd.(2' Cover) Silt-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	I-Std.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 Std IS-I Req'd
4-2	I-Std.DI-3B Req'd. L=8' H=3.3' Inv.=382.35 Top=385.64 Type B Nose Req'd. Connect UD-4 to Structure
4-2 to 4-1	38' - 15" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)382.35 Inv(Out)382.10
4-2A	I- Filterra Tree Box (8'x4') Inv.=382.10 Top= 385.64 I-3'x3' Tree Grate 16'-4" SDR 35 PVC Outfall Pipe to Str.4-2 See Detail, Sheet 2H(3)
4-3	Structure Number not Used
4-4	I-Std.DI-3B Req'd. L=4' H=4.9' Inv.=387.25 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) Silt-Tight Joint Type Req'd. Inv(In)387.25 Inv(Out)385.75
4-5	I-Std.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 Std.IS-I Req'd
4-5 to 4-6	88' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)387.65 Inv(Out)384.50
4-6	I-Std.DI-3A Req'd. H=4.4' Inv.=383.40 Top=387.75 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-I Req'd
4-6 to 5-1	153' - 18" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)383.40 Inv(Out)382.00
4-7	I-Std.DI-2B Req'd. L=12' H=5.0' Inv.=384.29 Top=389.29 Type B Nose Req'd. Connect 2 UD-4 to Structure
4-7 to 4-6	38' - 15" Storm Sewer Pipe Req'd.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)384.29 Inv(Out)383.90
4-8	I-Std.DI-2B Req'd. L=12' H=4.0' Inv.=386.73 Top=390.72 Type B Nose Req'd. Connect UD-4 to Structure
4-8 to 4-5	33' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)386.73 Inv(Out)386.25
4-9	Modify Existing MH Adjust to Grade, Lower 1.2' I Std.MH-I Frame and Cover Req'd. Prop.Top=385.21 Inv.=381.60

Sheet 5

5-1	I-Std.DI-3B Req'd. L=4' H=5.6' Inv.=381.90 Top=387.45 Type B Nose Req'd. Connect 2 UD-4 to Structure Std.IS-I Req'd
5-1 to 5-9	239' - 18" Storm Sewer Pipe Req'd.(6' Cover) Silt-Tight Joint Type Req'd. Inv(In)381.90 Inv(Out)378.00
5-2	I-Std.DI-3BB Req'd. L=8' H=10.1' Inv.=374.96 Top=385.01 Type B Nose Req'd. Connect to Ex.24" Pipe Connect UD-4 to Structure Std.IS-I Req'd
5-3	I-Std.DI-2B Req'd. L=8' H=5.9' Inv.=379.60 Top=385.46 Type B Nose Req'd. Connect 2 UD-4 to Structure Std.IS-I Req'd
5-3 to 5-9	25' - 24" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)379.60 Inv(Out)379.15
5-4	I-Std.DI-3C Req'd. L=18' H=5.6' Inv.=379.00 Top=384.61 Type B Nose Req'd. Connect 2 UD-4 to Structure Std.IS-I Req'd
5-4 to 5-2	59' - 18" Storm Sewer Pipe Req'd.(6' Cover) Silt-Tight Joint Type Req'd. Inv(In)379.00 Inv(Out)378.00
5-5	I-Std.DI-2B Req'd. L=6' H=4.3' Inv.=380.90 Top=385.15 Type B Nose Req'd. Connect to UD-4 to Structure
5-5 to 5-11	19' - 18" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)380.90 Inv(Out)380.70
5-6	I-Std.DI-3B Req'd. L=6' H=4.8' Inv.=380.00 Top=384.79 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-I Req'd
5-6 to 5-4	47' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)380.00 Inv(Out)379.10
5-7	I-Std.DI-2B Req'd. L=12' H=4.1' Inv.=383.15 Top=387.24 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-I Req'd
5-7 to 5-6	152' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)383.15 Inv(Out)380.10
5-8	I-Std.DI-2B Req'd. L=8' H=4.1' Inv.=383.65 Top=387.77 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-I Req'd
5-8 to 5-7	37' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)383.65 Inv(Out)383.25
5-9	6.6 Lin.Ft.Std.MH-I or 2 Req'd. I Std.MH-I Frame and Cover Req'd. Prop.Top=385.19 Inv.=377.90 I-Std.IS-I Req'd.
5-9 to 5-2	28' - 24" Storm Sewer Pipe Req'd.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)377.90 Inv(Out)377.50
5-10	Structure Number Not Used
5-11	4.4 Lin.Ft.Std.MH-I or 2 Req'd. I Std.MH-I Frame and Cover Req'd. Prop.Top=385.63 Inv.=380.60 I-Std.IS-I Req'd. Connect to Ex.15" Pipe
5-11 to 5-16	40' - 18" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)380.60 Inv(Out)380.40
5-12	I-Std.DI-2B Req'd. L=8' H=5.4' Inv.=386.50 Top=391.91 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-I Req'd
5-12 to 5-8	124' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)386.50 Inv(Out)383.75
5-13	I-Std.DI-2B Req'd. L=8' H=4.9' Inv.=382.00 Top=386.86 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-I Req'd
5-13 to 5-3	173' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)382.00 Inv(Out)380.00
5-14	I-Std.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
5-14 to 5-13	140' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)383.80 Inv(Out)382.10

Note: All Storm Sewer Pipes to be RCP Class III Reinforced Concrete Pipe

NOT TO SCALE	PROJECT U000-154-R94	SHEET NO. 2G

3/24/2023

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DRAINAGE DESCRIPTIONS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2G(1)

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5-15	1 CDS 2025-5-C 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(0)
5-16	1-Std.DI-3B Req'd. L=12' H=4.2' Inv.=380.30 Top=384.47 Type B Nose Req'd. Std.IS-1 Req'd
5-16 to 5-3	34' - 18" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)380.30 Inv(Out)379.70
5-17	1-Std.DI-2B Req'd. L=14' H=4' Inv.=381.20 Top=385.16 Type B Nose Req'd. Connect to UD-4 to Structure
5-17 to 5-5	55' - 18" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)381.20 Inv(Out)381.00
Sheet 6	
6-1	1-Std.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) Silt-Tight Joint Type Req'd. Inv(In)390.50 Inv(Out)390.10
6-2	1-Std.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 Std.IS-1 Req'd
6-2 to 5-12	111' - 15" Storm Sewer Pipe Req'd.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)390.00 Inv(Out)388.42
6-3	1-Std.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) Silt-Tight Joint Type Req'd. Inv(In)403.50 Inv(Out)403.00
6-3A	1- Filterra Tree Box (6'x4') 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(3)
6-4	1-Std.DI-2B Req'd. L=8' H=5.3' Inv.=402.10 Top=407.39 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd
6-4 to 6-9	20' - 15" Storm Sewer Pipe Req'd.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)402.10 Inv(Out)401.90
6-5	1-Std.DI-5 Type III Grate Req'd. Std.PG-2A Type A Cover H=3.7' Inv.=402.00 Top=405.68
6-5 to 6-9	5' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)402.00 Inv(Out)401.90
6-6	1-Std.DI-3A Req'd. H=5.8' Inv.=398.30 Top=404.13 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 Drage, 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
6-10	Structure Number Not Used
6-11	Structure Number Not Used
6-12	1-Std.DI-3B 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	39' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-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-Std.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) Silt-Tight Joint Type Req'd. Inv(In)400.00 Inv(Out)399.80
7-4	1-Std.DI-2B Req'd. L=12' H=7.7' Inv.=391.00 Top=398.71 Type B Nose Req'd. 1-Std.IS-1 Req'd. Connect UD-4 to Structure
7-4 to 7-6	200' - 15" Storm Sewer Pipe Req'd.(6' Cover) Silt-Tight Joint Type Req'd. Inv(In)391.00 Inv(Out)387.00
7-5	1-Std.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) Silt-Tight Joint Type Req'd. Inv(In)386.75 Inv(Out)386.50
7-6	1-Std.DI-2B Req'd. L=8' H=4.7' Inv.=386.40 Top=391.10 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd.
7-6 to 8-1	102' - 24" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)386.40 Inv(Out)385.50
7-7	Structure Number Not Used
7-8	1-Std.DI-5 Type III Grate Req'd. Std.PG-2A Type A Cover H=4.0' Inv.=387.50 Top=391.50
7-8 to 7-6	43' - 24" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)387.50 Inv(Out)387.00
7-9	Structure Number Not Used
7-10	1-Std.DI-2B Req'd. L=12' H=7.3' Inv.=397.00 Top=404.30 Type B Nose Req'd. 1-Std.IS-1 Req'd. Connect UD-4 to Structure
7-10 to 7-4	108" - 15" Storm Sewer Pipe Req'd.(6' Cover) Silt-Tight Joint Type Req'd. Inv(In)397.00 Inv(Out)394.90
Sheet 8	
8-1	1-Std.DI-3C Req'd. L=14' H=4.7' Inv.=385.40 Top=390.14 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd
8-1 to 8-4	100' - 24" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)385.40 Inv(Out)384.25
8-2	1-Std.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
8-2 to 8-3	92' - 15" Storm Sewer Pipe Req'd.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)384.00 Inv(Out)383.00
8-3	1-Std.DI-2BB Req'd. L=6' H=9.3' Inv.=381.40 Top=390.71 Type B Nose Req'd. 1-Std.IS-1 Req'd. Connect to Ex.24" Pipe Connect UD-4 to Structure
8-4	1-Std.DI-2B Req'd. L=8' H=8.8' Inv.=382.24 Top=391.00 Type B Nose Req'd. Connect to Ex.24" Pipe Connect UD-4 to Structure Std.IS-1 Req'd.
8-5	1-Std.DI-2B Req'd. L=8' H=4.7' Inv.=389.40 Top=394.07 Type B Nose Req'd. Connect UD-4 to Structure Std.IS-1 Req'd.
8-5 to 8-12	83' - 18" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)389.40 Inv(Out)388.00
8-6	1-Std.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	38' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)390.00 Inv(Out)389.50
8-7	1-Std.DI-3B Req'd. L=6' H=4.4' Inv.=390.90 Top=395.26 Type B Nose Req'd. Std.IS-1 Req'd
8-7 to 8-5	81' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)390.90 Inv(Out)390.00
8-8	1-Std.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) Silt-Tight Joint Type Req'd. Inv(In)391.50 Inv(Out)391.25
8-10	1- CDS-2025-5-C Water Quality Structure Req'd. Prop.Top=390.80 Inv.Pipe(In)=381.34 Inv.Pipe(Out)=381.34 Connect to Ex.24" Pipe See Detail Sht.2H(0)
8-11	Structure Number Not Used

Note: All Storm Sewer Pipes to be RCP Class III Reinforced Concrete Pipe

NOT TO SCALE	PROJECT U000-154-R94	SHEET NO. 2G(1)

3/24/2023

PH 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)

DRAINAGE DESCRIPTIONS

NIKHIL V. DESHPANDE Lic. No. 045430
COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

8-12	I-St'd.DI-3B Req'd. L=10' H=4.3' Inv.=387.90 Top=392.24 Type B Nose Req'd. St'd.IS-1 Req'd Connect to UD-4
8-12 to 8-4	107' - 18" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)387.90 Inv(Out)385.00
Sheet 9	
9-1	I-St'd.DI-2B Req'd. L=8' H=5.7' Inv.=390.00 Top=395.69 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd.
9-1 to 9-13	116' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)390.00 Inv(Out)388.60
9-2	I-St'd.DI-3B Req'd. L=6' H=4.5' Inv.=390.50 Top=395.00 Type B Nose Req'd. Connect UD-4 to Structure
9-2 to 9-1	36' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)390.50 Inv(Out)390.25
9-3	I-St'd.DI-3B Req'd. L=8' H=5.3' Inv.=384.90 Top=390.15 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd
9-3 to 9-4	26' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)384.90 Inv(Out)384.25
9-4	I-St'd.DI-3B Req'd. L=6' H=5.7' Inv.=384.00 Top=389.69 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd
9-4 to 9-6	260' - 18" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)384.00 Inv(Out)381.50
9-5	I-St'd.DI-2B Req'd. L=8' H=4.4' Inv.=381.00 Top=385.41 Type B Nose Req'd. Connect UD-4 to Structure
9-5 to 9-15	106' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)381.00 Inv(Out)380.55
9-6	I-St'd.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 St'd.IS-1 Req'd
9-6 to 9-8	103' - 18" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)380.90 Inv(Out)379.00
9-7	I-St'd.DI-2C Req'd. L=10' H=4.8' Inv.=380.04 Top=384.80 Type B Nose Req'd. Connect to Ex 18" Pipe Connect 2 UD-4 to Structure St'd.IS-1 Req'd
9-8	I-St'd.DI-3C Req'd. L=10' H=6.0' Inv.=378.53 Top=384.48 Type B Nose Req'd. Connect to Ex.18" Pipe Connect 2 UD-4 to Structure St'd.IS-1 Req'd.
9-9	I-St'd.DI-5 Type III Grate Req'd. St'd.PG-2A Type A Cover H=3.0' Inv.=380.65 Top=383.65
9-9 to 9-15	42' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)380.65 Inv(Out)380.36
9-10	I-St'd.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) Silt-Tight Joint Type Req'd. Inv(In)387.00 Inv(Out)385.50
9-11	I-St'd.DI-3B Req'd. L=10' H=5.1' Inv.=385.50 Top=390.61 Type B Nose Req'd.
9-11 to 9-3	63' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)385.50 Inv(Out)385.00
9-12	I-St'd.DI-3B Req'd. L=8' H=5.3' Inv.=387.00 Top=392.27 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd.
9-12 to 9-3	125' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)387.00 Inv(Out)385.00
9-13	I-St'd.DI-2B Req'd. L=6' H=5.1' Inv.=388.60 Top=393.69 Type B Nose Req'd. I-St'd.IS-1 Req'd. Connect UD-4 to Structure
9-13 to 9-12	85' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)388.60 Inv(Out)387.50
9-14	1 CDS-2025-5-C Water Quality Structure Req'd. Prop.Top=384.08 Inv.Pipe(In)=378.10 Inv.Pipe(Out)=373.77 Connect to Ex.18" Pipe (2) See Detail Sht.2H(2)
9-15	3.4 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=384.35 Inv.=380.26 I-St'd.IS-1 Req'd.
9-15 to 9-7	22' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)380.26 Inv(Out)380.14
Sheet 10	
10-1	I-St'd.DI-2B Req'd. L=4' H=4.3' Inv.=381.00 Top=385.29 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd
10-1 to 9-7	55' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)381.00 Inv(Out)380.50
10-2	I-St'd.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 9-8	67' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)381.00 Inv(Out)379.75
10-3	I-St'd.DI-2B Req'd. L=8' H=4.7' Inv.=383.50 Top=388.15 Type B Nose Req'd. Connect UD-4 to Structure
10-3 to 10-1	165' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)383.50 Inv(Out)381.74
10-4	I-St'd.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	52' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)386.00 Inv(Out)385.50
10-4A	1- Filterra Tree Box (6'x6') 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(3).
10-5	I-St'd.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 St'd.IS-1 Req'd
10-5 to 10-6	53' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)385.40 Inv(Out)385.00
10-6	I-St'd.DI-2B Req'd. L=6' H=5.1' Inv.=384.90 Top=390.00 Type B Nose Req'd. Connect UD-4 to Structure St'd.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 Silt-Tight joint type Req'd.
10-7	3.4' Lin.Ft.St'd.MH-1 or 2 Req'd. 30' Trench Drain Req'd. 1 St'd.MH-1 Frame and Cover Req'd. Prop.Top=385.55 Inv.=381.50 I-St'd.IS-1 Req'd.
10-7 to 10-1	10' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)381.50 Inv(Out)381.00
Sheet 11	
11-1	I-St'd.DI-2B Req'd. L=8' H=7.0' Inv.=382.00 Top=388.95 Type B Nose Req'd. Connect UD-4 to Structure St'd.IS-1 Req'd.
11-1 to 11-3	283' - 15" Storm Sewer Pipe Req'd.(6' Cover) Silt-Tight Joint Type Req'd. Inv(In)382.00 Inv(Out)378.24
11-2	Structure Number Not Used
11-3	I-St'd.DI-2B Req'd. L=10' H=6.5' Inv.=375.00 Top=381.46 Type B Nose Req'd. I-St'd.IS-1 Req'd. Connect UD-4 to Structure
11-3 to 11-4	140' - 15" Storm Sewer Pipe Req'd.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)375.00 Inv(Out)371.00
11-4	I-St'd.DI-2B Req'd. L=6' H=5.7' Inv.=370.50 Top=376.15 Type B Nose Req'd. I-St'd.IS-1 Req'd. Connect UD-4 to Structure
11-4 to 12-1	119' - 15" Storm Sewer Pipe Req'd.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)370.50 Inv(Out)367.00

Note: All Storm Sewer Pipes to be RCP Class III Reinforced Concrete Pipe

NOT TO SCALE	PROJECT	SHEET NO.
	U000-154-R94	2G(2)

3/24/2023

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DRAINAGE DESCRIPTIONS

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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

Sheet 12

12-1	1-St'd.DI-2B Req'd. L=12' H=8.4' Inv.=363.80 Top=372.23 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.(7' Cover) Silt-Tight Joint Type Req'd. Inv(In)363.80 Inv(Out)362.00
12-2	1-St'd.DI-2B Req'd. L=4' H=6.9' Inv.=361.90 Top=368.79 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.(6' Cover) Silt-Tight Joint Type Req'd. Inv(In)361.90 Inv(Out)360.00
12-3	1-St'd.DI-2B Req'd. L=8' H=6.2' Inv.=359.90 Top=366.13 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
12-3 to 12-4	113' - 18" Storm Sewer Pipe Req'd.(5' Cover) Silt-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=6.3' Inv.=355.00 Top=361.33 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
12-4 to 12-7	91' - 18" Storm Sewer Pipe Req'd.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)355.00 Inv(Out)353.00
12-5	5.9 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 Ex 18" Pipe
12-5 to 12-4	21' - 15" Storm Sewer Pipe Req'd.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)355.50 Inv(Out)355.20
12-6	1-St'd.DI-2B Req'd. L=8' H=7.2' Inv.=365.00 Top=372.23 Type B Nose Req'd.
12-6 to 12-2	54' - 15" Storm Sewer Pipe Req'd.(6' Cover) Silt-Tight Joint Type Req'd. Inv(In)365.00 Inv(Out)364.00
12-7	Modify Ex MH Add St'd DI- 2B,L=12' Prop Top=356.63 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect to Ex 18" 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=346.03 Type B Nose Req'd. Connect UD-4 to Structure
12-10 to 13-2	105' - 15" Storm Sewer Pipe Req'd.(7' Cover) Silt-Tight Joint Type Req'd. Inv(In)338.00 Inv(Out)334.00

Sheet 13

13-1	1-St'd.DI-2BB Req'd. L=12' H=14.0' Inv.=312.67 Top=326.70 Type B Nose Req'd. 1-St'd.IS-1 Req'd. 1-St'd.SL-1 Req'd. Connect UD-4 to Structure
13-1 to 13-4	145' - 15" Storm Sewer Pipe Req'd.(12' Cover) Silt-Tight Joint Type Req'd. Inv(In)312.67 Inv(Out)309.50
13-2	1-St'd.DI-2B Req'd. L=14' H=7.5' Inv.=332.00 Top=339.51 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
13-2 to 13-3	65' - 15" Storm Sewer Pipe Req'd.(6' Cover) Silt-Tight Joint Type Req'd. Inv(In)332.00 Inv(Out)329.00
13-3	1-St'd.DI-2B Req'd. L=10' H=7.2' Inv.=328.50 Top=335.67 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.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)328.50 Inv(Out)323.00
13-4	1-St'd.DI-2B Req'd. L=8' H=8.9' Inv.=309.00 Top=317.94 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
13-4 to 14-1	110' - 15" Storm Sewer Pipe Req'd.(7' Cover) Silt-Tight Joint Type Req'd. Inv(In)309.00 Inv(Out)306.25

Sheet 14

14-1	1-St'd.DI-2BB Req'd. L=12' H=9.5' Inv.=300.50 Top=310.04 Type B Nose Req'd. 1-St'd.IS-1 Req'd. Connect UD-4 to Structure
14-1 to 14-14	107' - 18" Storm Sewer Pipe Req'd.(8' Cover) Silt-Tight Joint Type Req'd. Inv(In)300.50 Inv(Out)299.50
14-2	1-St'd.DI-2B Req'd. L=10' H=4.6' Inv.=306.10 Top=310.67 Type B Nose Req'd.
14-2 to 14-1	20' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)306.10 Inv(Out)305.75
14-3	Structure Number Not Used
14-4	1-St'd.DI-3B Req'd. L=8' H=6.0' Inv.=296.00 Top=301.95 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) Silt-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=5.6' Inv.=294.90 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' - 24" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)294.90 Inv(Out)294.85
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 UD-4 to Structure
14-6 to 14-5	38' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-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=4.5' Inv.=292.00 Top=296.51 Type B Nose Req'd. Connect to Ex.15" Pipe
14-8	1-St'd.ES-1 or 2 (24") Req'd. Inv.=294.85 1 CY EC-1 Class 1 Type A Installation Req'd.
14-9	6.0 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.MH-1 Frame and Cover Req'd. 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=305.39 Type B Nose Req'd.
14-10 to 14-9	16' - 15" Storm Sewer Pipe Req'd.(5' Cover) Silt-Tight Joint Type Req'd. Inv(In)298.80 Inv(Out)298.40
14-11	1-St'd.DI-3B Req'd. L=6' H=7.6' Inv.=298.25 Top=305.88 Type B Nose Req'd.
14-11 to 14-12	34' - 15" Storm Sewer Pipe Req'd.(6' Cover) Silt-Tight Joint Type Req'd. Inv(In)298.25 Inv(Out)297.90
14-12	6.5 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.MH-1 Frame and Cover Req'd.(ADA Accessible) Prop.Top=304.95 Inv.=297.80 1-St'd.IS-1 Req'd. Connect to Ex 18" Pipe
14-12 to 14-14	34' - 18" Storm Sewer Pipe Req'd.(6' Cover) Silt-Tight Joint Type Req'd. Inv(In)297.80 Inv(Out)297.16
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	32' - 24" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)297.00 Inv(Out)296.50

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NOT TO SCALE	PROJECT U000-154-R94	SHEET NO. 2G(3)

3/24/2023

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EXISTING DRAINAGE DESCRIPTIONS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-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=386.01
Inv.Out=(Full of Debris)

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 U000-154-R94	SHEET NO. 2G(4)

3/24/2023

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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

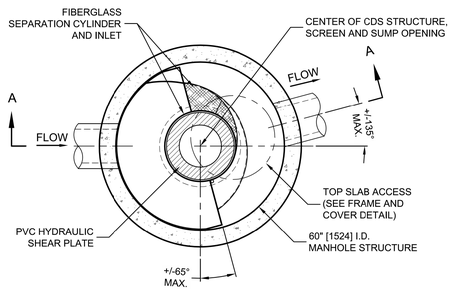
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

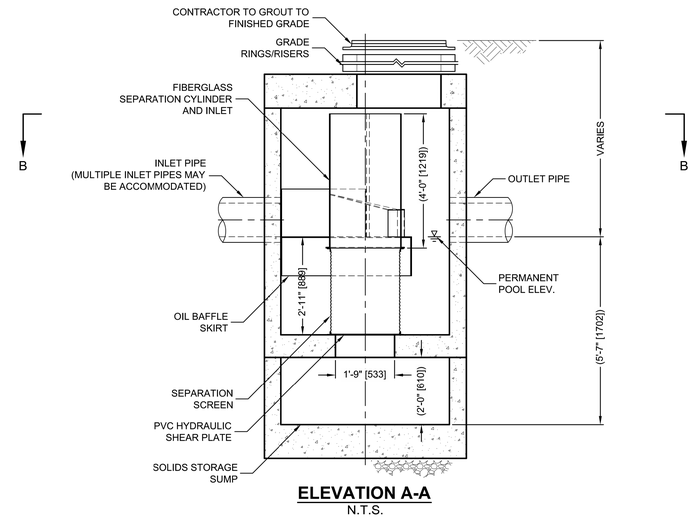
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2H

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



PLAN VIEW B-B
N.T.S.



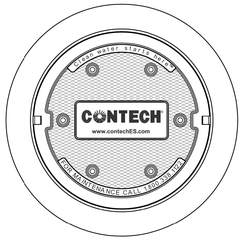
ELEVATION A-A
N.T.S.

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,788,848; 6,641,720; 8,011,508; 8,361,322; RELATED FOREIGN PATENTS; OR OTHER PATENTS PENDING.

CDS2025-5-C DESIGN NOTES

THE STANDARD CDS2025-5-C 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
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	5-15
WATER QUALITY FLOW RATE (CFS OR L/s)	1.22
PEAK FLOW RATE (CFS OR L/s)	27.70
RETURN PERIOD OF PEAK FLOW (YRS)	10yr
SCREEN APERTURE (2400 OR 4700)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	374.88	TBD	24"
INLET PIPE 2	*	*	*
OUTLET PIPE	374.88	TBD	24"

RIM ELEVATION	383.94

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

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 CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
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
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9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2025-5-C
INLINE CDS
STANDARD DETAIL

C:\USERS\SCHLACHTERH\DESKTOP\CDS DETAILS 180 MICRON SIZING\ACAD\CDS2025-5-C-DTL.DWG 5/19/2014 5:20 PM

Note: For informational use only

3/24/2023

NOT TO SCALE	PROJECT U000-154-R94	SHEET NO. 2H

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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

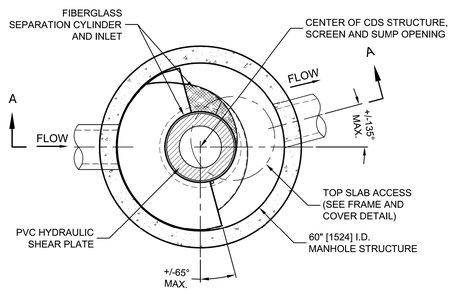
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

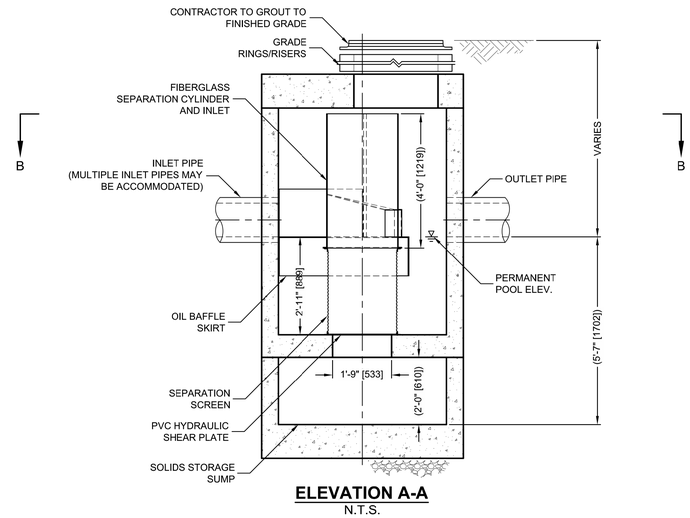
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2H(1)

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

BMP Structures 8-10



PLAN VIEW B-B
N.T.S.



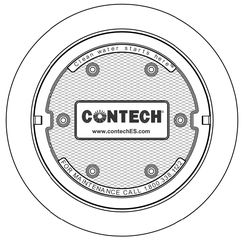
ELEVATION A-A
N.T.S.

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,788,848; 6,641,720; 6,511,165; 6,491,793; RELATED FOREIGN PATENTS; OR OTHER PATENTS PENDING.

CDS2025-5-C DESIGN NOTES

THE STANDARD CDS2025-5-C 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
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	8-10
WATER QUALITY FLOW RATE (CFS OR L/s)	1.86
PEAK FLOW RATE (CFS OR L/s)	27.71
RETURN PERIOD OF PEAK FLOW (YRS)	10yr
SCREEN APERTURE (2400 OR 4700)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	381.34	TBD	24"
INLET PIPE 2	*	*	*
OUTLET PIPE	381.34	TBD	24"

RIM ELEVATION	390.80

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

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 CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
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
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9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2025-5-C
INLINE CDS
STANDARD DETAIL

C:\USERS\SCHLACHTERH\DESKTOP\CDS DETAILS 180 MICRON SIZING\ACAD\CDS2025-5-C-DTL.DWG 5/19/2014 5:20 PM

Note: For informational use only

3/24/2023

NOT TO SCALE	PROJECT U000-154-R94	SHEET NO. 2H(1)

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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

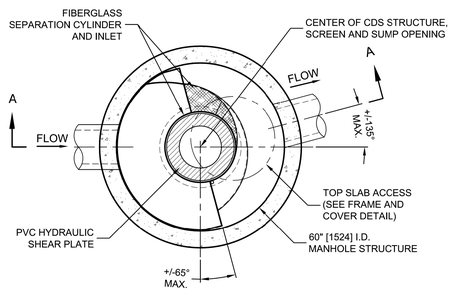
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

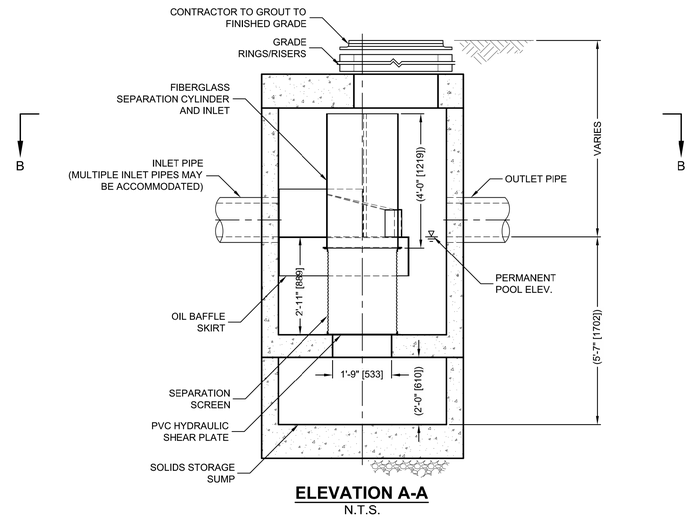
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2H(2)

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

BMP Structures 9-14



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

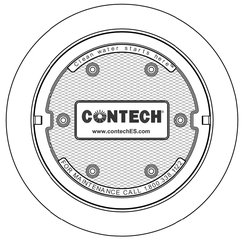
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THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,788,848 6,641,720 6,511,165 6,881,783 RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

CDS2025-5-C DESIGN NOTES

THE STANDARD CDS2025-5-C 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
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	9-14
WATER QUALITY FLOW RATE (CFS OR L/s)	1.14
PEAK FLOW RATE (CFS OR L/s)	12.23
RETURN PERIOD OF PEAK FLOW (YRS)	10yr
SCREEN APERTURE (2400 OR 4700)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	378.10	TBD	18"
INLET PIPE 2	*	*	*
OUTLET PIPE	373.77	TBD	18"

RIM ELEVATION	384.08

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
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4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

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 CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
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D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
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CDS2025-5-C
INLINE CDS
STANDARD DETAIL

Note: For informational use only

3/24/2023

NOT TO SCALE	PROJECT U000-154-R94	SHEET NO. 2H(2)

PH PLANS | THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION. | ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

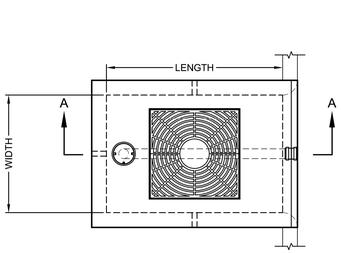
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

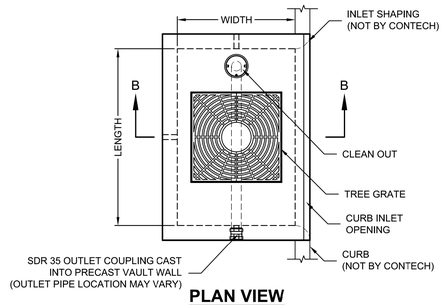
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2H(3)

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

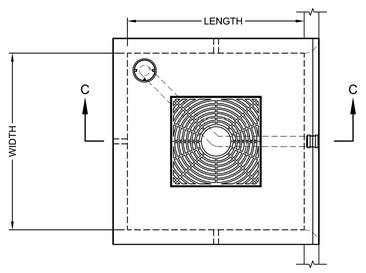
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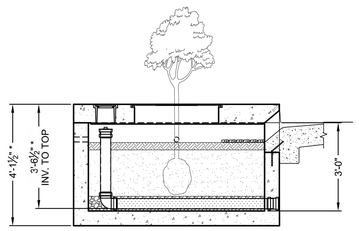
PLAN VIEW



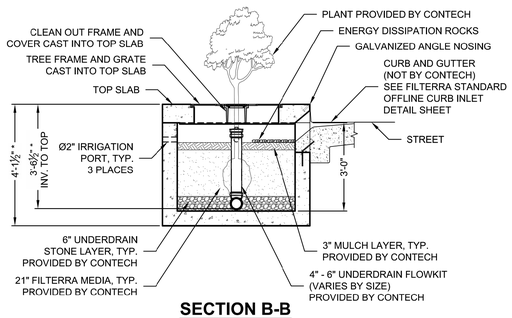
PLAN VIEW



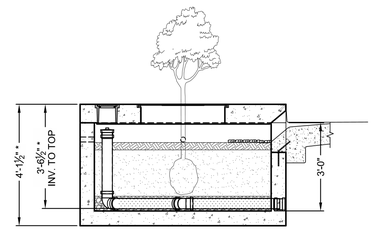
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

SHORT SIDE INLET CONFIGURATION

DESIGNATION	SIZE	LENGTH	WIDTH	OUTLET PIPE	TREE GRATE QTY & SIZE
FT0406	4 x 6	6'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0408	4 x 8	8'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0412	4 x 12	12'-0"	4'-0"	4" SDR 35	(2) 3' x 3'
FT0608	6 x 8	8'-0"	6'-0"	4" SDR 35	(1) 4' x 4'
FT0610	6 x 10	10'-0"	6'-0"	6" SDR 35	(1) 4' x 4'
FT0612	6 x 12	12'-0"	6'-0"	6" SDR 35	(2) 4' x 4'
FT0713	7 x 13	13'-0"	7'-0"	6" SDR 35	(2) 4' x 4'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION

LONG SIDE INLET CONFIGURATION

DESIGNATION	SIZE	LENGTH	WIDTH	OUTLET PIPE	TREE GRATE QTY & SIZE
FT0804	6 x 4	6'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0804	8 x 4	8'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0806	8 x 6	8'-0"	6'-0"	4" SDR 35	(1) 4' x 4'
FT1006	10 x 6	10'-0"	6'-0"	6" SDR 35	(1) 4' x 4'
FT1204	12 x 4	12'-0"	4'-0"	4" SDR 35	(2) 3' x 3'
FT1206	12 x 6	12'-0"	6'-0"	6" SDR 35	(2) 4' x 4'
FT1307	13 x 7	13'-0"	7'-0"	6" SDR 35	(2) 4' x 4'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION

SQUARE INLET CONFIGURATION

DESIGNATION	SIZE	LENGTH	WIDTH	OUTLET PIPE	TREE GRATE QTY & SIZE
FT0404	4 x 4	4'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0606	6 x 6	6'-0"	6'-0"	4" SDR 35	(1) 3' x 3'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION

* DIMENSION MAY VARY ± ½" DEPENDING ON PRECASTER BUILD CONFIGURATION.

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PH PLANS

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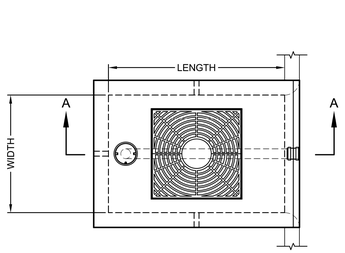
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BMP DETAILS

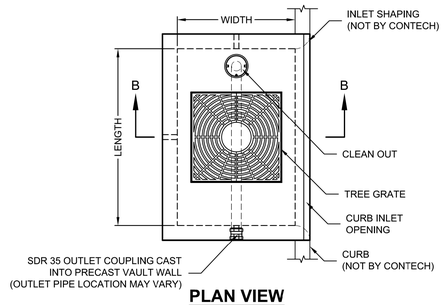
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2H(4)

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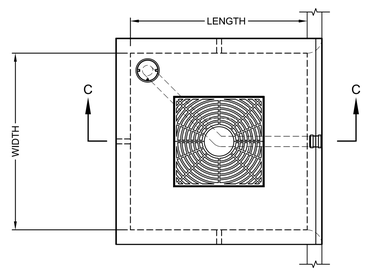
BMP Structures 6-3A



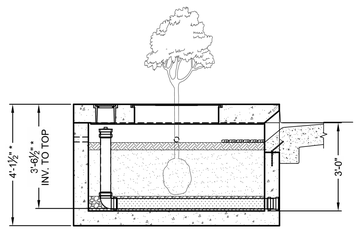
PLAN VIEW



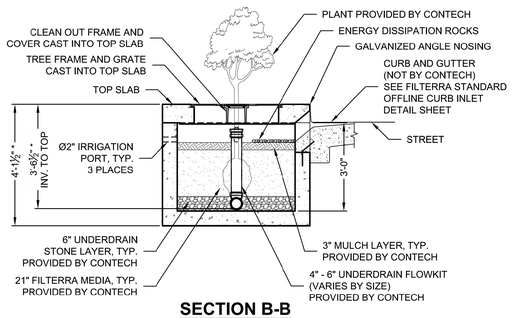
PLAN VIEW



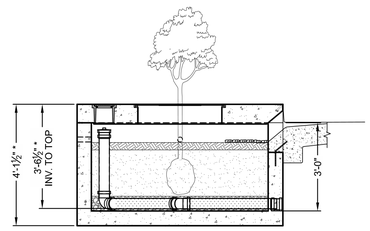
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

SHORT SIDE INLET CONFIGURATION

DESIGNATION	SIZE	LENGTH	WIDTH	OUTLET PIPE	TREE GRATE QTY & SIZE
FT0406	4 x 6	6'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0408	4 x 8	8'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0412	4 x 12	12'-0"	4'-0"	4" SDR 35	(2) 3' x 3'
FT0608	6 x 8	8'-0"	6'-0"	4" SDR 35	(1) 4' x 4'
FT0610	6 x 10	10'-0"	6'-0"	6" SDR 35	(1) 4' x 4'
FT0612	6 x 12	12'-0"	6'-0"	6" SDR 35	(2) 4' x 4'
FT0713	7 x 13	13'-0"	7'-0"	6" SDR 35	(2) 4' x 4'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION

LONG SIDE INLET CONFIGURATION

DESIGNATION	SIZE	LENGTH	WIDTH	OUTLET PIPE	TREE GRATE QTY & SIZE
FT0604	6 x 4	6'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0804	8 x 4	8'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0806	8 x 6	8'-0"	6'-0"	4" SDR 35	(1) 4' x 4'
FT1006	10 x 6	10'-0"	6'-0"	6" SDR 35	(1) 4' x 4'
FT1204	12 x 4	12'-0"	4'-0"	4" SDR 35	(2) 3' x 3'
FT1206	12 x 6	12'-0"	6'-0"	6" SDR 35	(2) 4' x 4'
FT1307	13 x 7	13'-0"	7'-0"	6" SDR 35	(2) 4' x 4'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION

SQUARE INLET CONFIGURATION

DESIGNATION	SIZE	LENGTH	WIDTH	OUTLET PIPE	TREE GRATE QTY & SIZE
FT0404	4 x 4	4'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0606	6 x 6	6'-0"	6'-0'	4" SDR 35	(1) 3' x 3'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION

* DIMENSION MAY VARY ± ½" DEPENDING ON PRECASTER BUILD CONFIGURATION.

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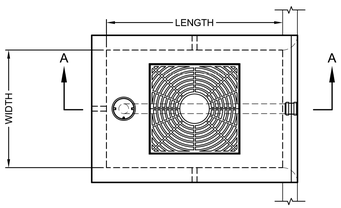
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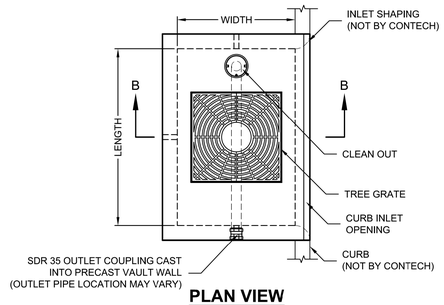
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2H(5)

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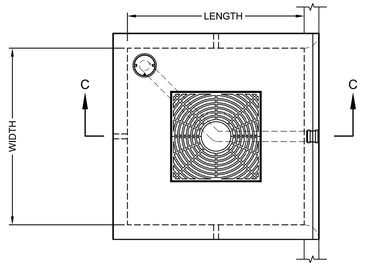
BMP Structures 10-4A



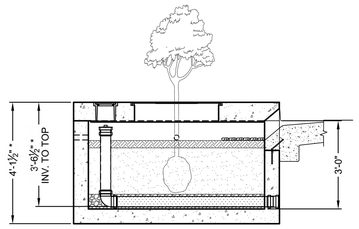
PLAN VIEW



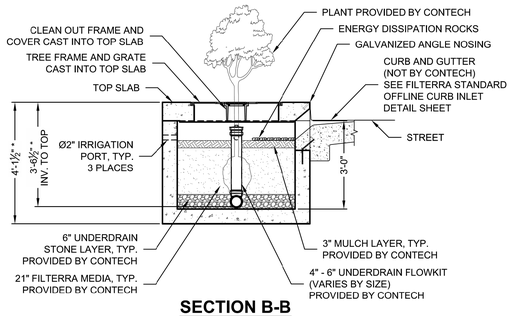
PLAN VIEW



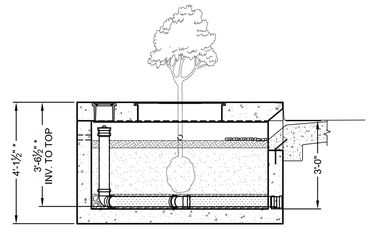
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

SHORT SIDE INLET CONFIGURATION

DESIGNATION	SIZE	LENGTH	WIDTH	OUTLET PIPE	TREE GRATE QTY & SIZE
FT0406	4 x 6	6'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0408	4 x 8	8'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0412	4 x 12	12'-0"	4'-0"	4" SDR 35	(2) 3' x 3'
FT0608	6 x 8	8'-0"	6'-0"	4" SDR 35	(1) 4' x 4'
FT0610	6 x 10	10'-0"	6'-0"	6" SDR 35	(1) 4' x 4'
FT0612	6 x 12	12'-0"	6'-0"	6" SDR 35	(2) 4' x 4'
FT0713	7 x 13	13'-0"	7'-0"	6" SDR 35	(2) 4' x 4'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION

LONG SIDE INLET CONFIGURATION

DESIGNATION	SIZE	LENGTH	WIDTH	OUTLET PIPE	TREE GRATE QTY & SIZE
FT0604	6 x 4	6'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0804	8 x 4	8'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0806	8 x 6	8'-0"	6'-0"	4" SDR 35	(1) 4' x 4'
FT1006	10 x 6	10'-0"	6'-0"	6" SDR 35	(1) 4' x 4'
FT1204	12 x 4	12'-0"	4'-0"	4" SDR 35	(2) 3' x 3'
FT1206	12 x 6	12'-0"	6'-0"	6" SDR 35	(2) 4' x 4'
FT1307	13 x 7	13'-0"	7'-0"	6" SDR 35	(2) 4' x 4'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION

SQUARE INLET CONFIGURATION

DESIGNATION	SIZE	LENGTH	WIDTH	OUTLET PIPE	TREE GRATE QTY & SIZE
FT0404	4 x 4	4'-0"	4'-0"	4" SDR 35	(1) 3' x 3'
FT0606	6 x 6	6'-0"	6'-0'	4" SDR 35	(1) 3' x 3'

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION

* DIMENSION MAY VARY ± ½" DEPENDING ON PRECASTER BUILD CONFIGURATION.

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BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
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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.

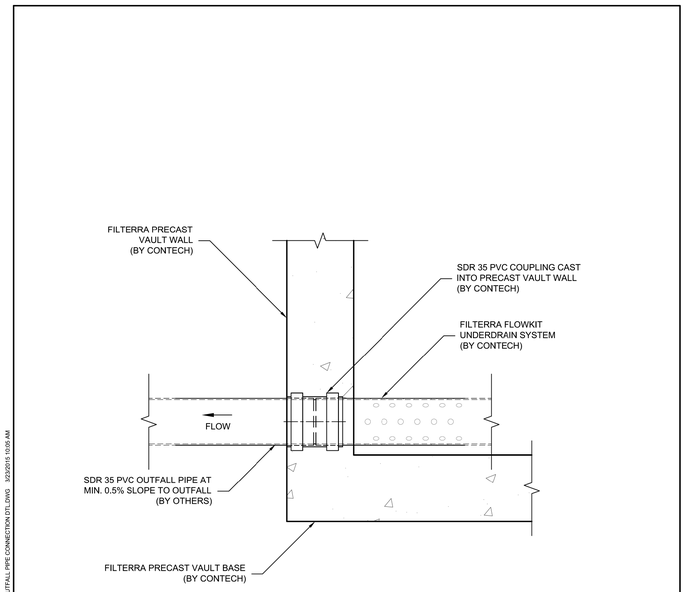
1. Filterra®unit inspection
2. Foreign debris, silt, mulch & trash removal
3. Filter media evaluation and recharge as necessary
4. Plant health evaluation and pruning or replacement as necessary
5. Replacement of mulch
6. Disposal of all maintenance refuse items
7. Maintenance records updated and stored (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.



SECTION VIEW
SCALE 1 ½" = 1'-0"

(THROUGH PRECAST VAULT WALL AT OUTFALL PIPE CONNECTION)

filterra
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 7,425,262; 7,470,366; 7,625,483; 7,425,261; 7,625,412 RELATED FOREIGN PATENTS.

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FILTERRA OUTFALL PIPE CONNECTION TO PRECAST VAULT WALL DETAIL

DATE: 03-23-15 | FILE NAME: FILTERRA OUTFALL PIPE CONNECTION DTL | DRAWN: SCK | CHECKED: XXX

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Note: For informational use only

3/24/2023

NOT TO SCALE | PROJECT U000-154-R94 | SHEET NO. 2H(6)

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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

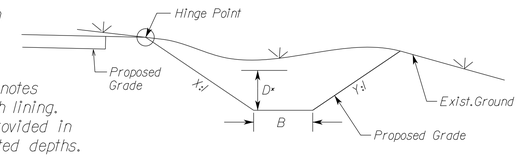
Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2H(7)

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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	3	EC-2 Type I
	131+00	to	131+50	0.3	0	3	3	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

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+05	1	2	2	2	Std. PG-5

NOT TO SCALE	PROJECT U000-154-R94	SHEET NO. 2H(7)

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Drainage Profiles

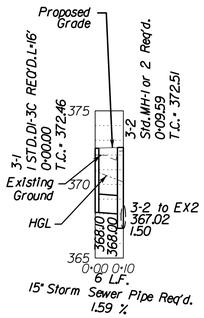
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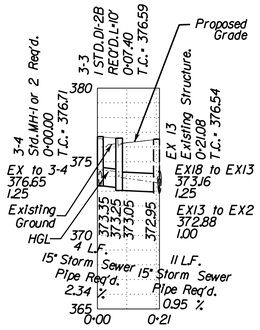
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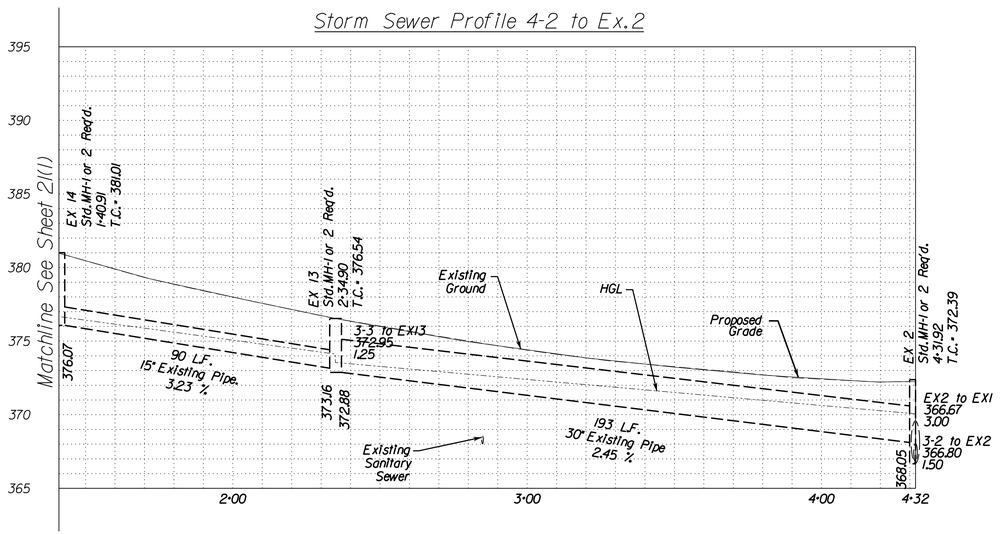
Storm Sewer Profile 3-1 to 3-2



Storm Sewer Profile 3-4 to 3-2



Storm Sewer Profile 4-2 to Ex.2



Note: All Storm Sewer Pipes to be RCP Class III Reinforced Concrete Pipe

SCALE H= 25, V= 1
0 25' 50'
5' 2.5' 0

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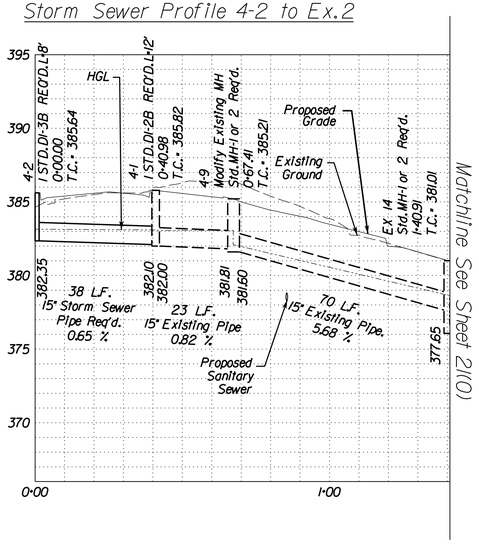
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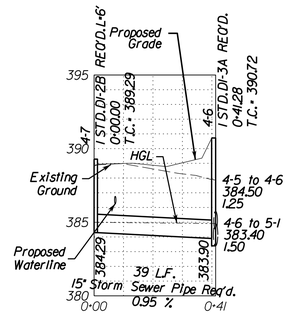
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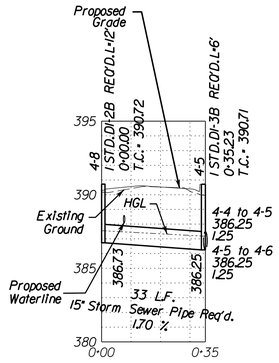
Storm Sewer Profile 4-2 to Ex.2



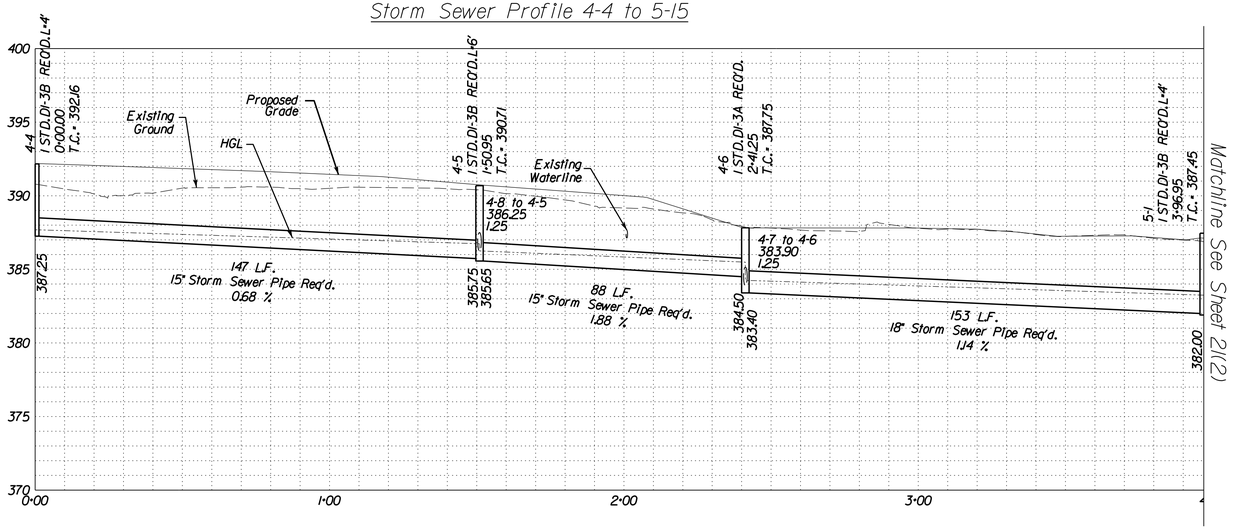
Storm Sewer Profile 4-7 to 4-6



Storm Sewer Profile 4-8 to 4-5



Storm Sewer Profile 4-4 to 5-15



Note: All Storm Sewer Pipes to be RCP Class III Reinforced Concrete Pipe

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5' 2.5' 0

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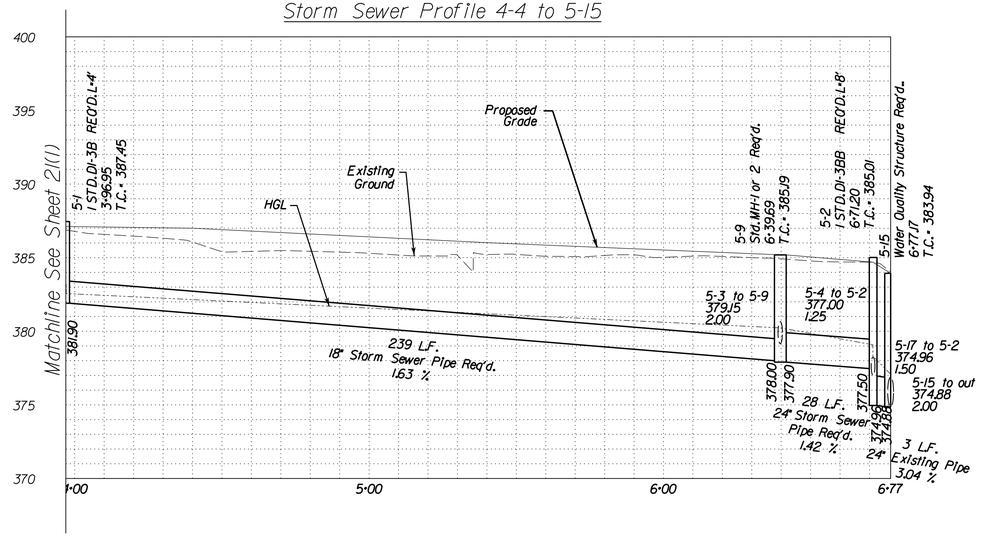
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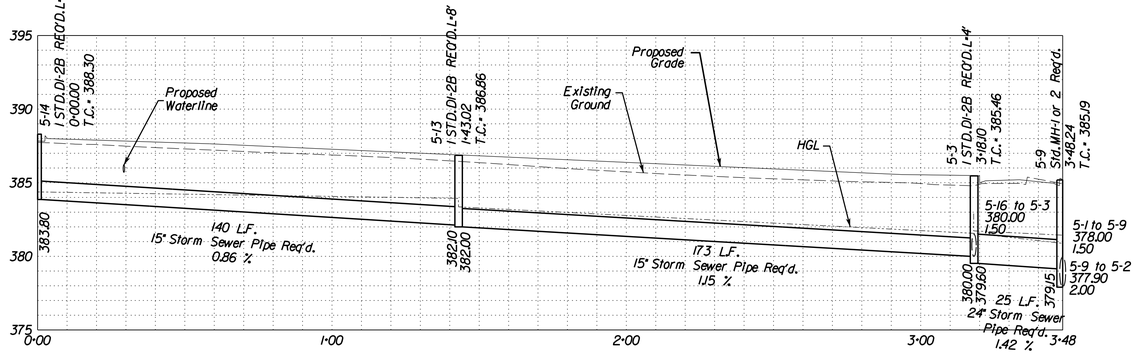
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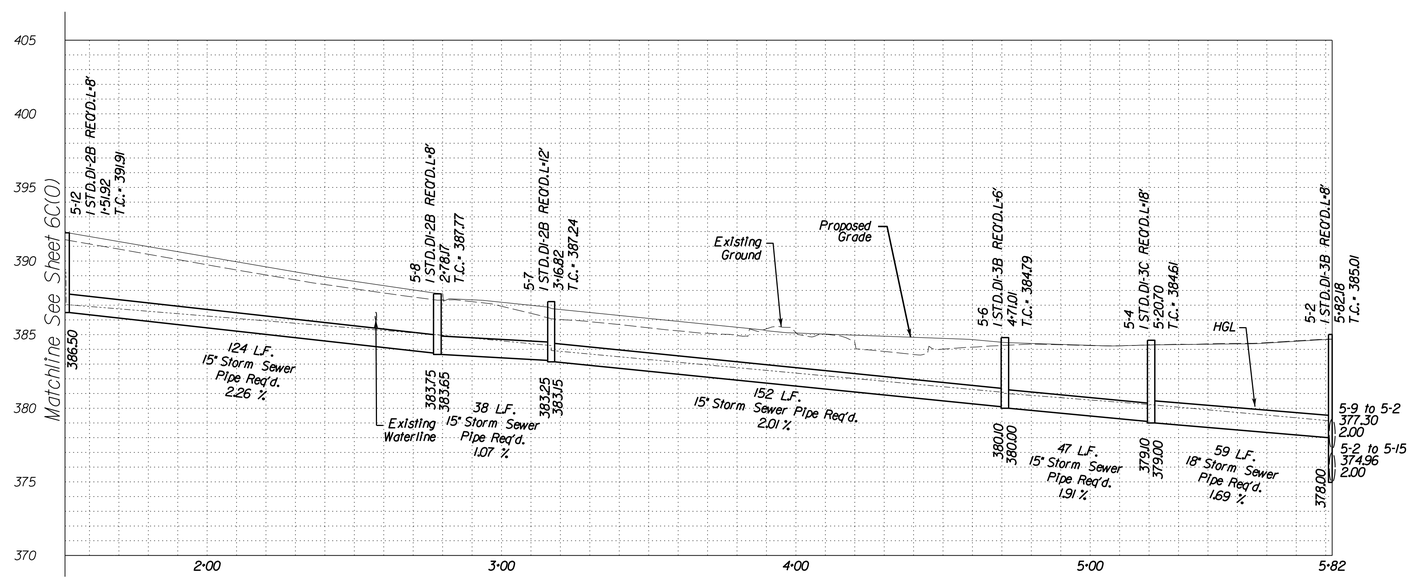
Storm Sewer Profile 4-4 to 5-15



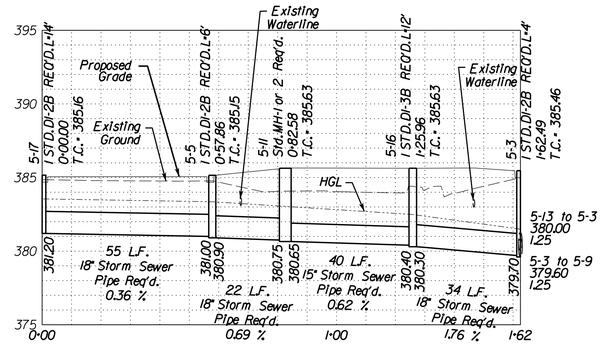
Storm Sewer Profile 5-14 to 5-9



Storm Sewer Profile 6I-1 to 5-2



Storm Sewer Profile 5-17 to 5-3



Note: All Storm Sewer Pipes to be RCP Class III Reinforced Concrete Pipe

SCALE H: 25, V: 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-154-R94	2I(2)

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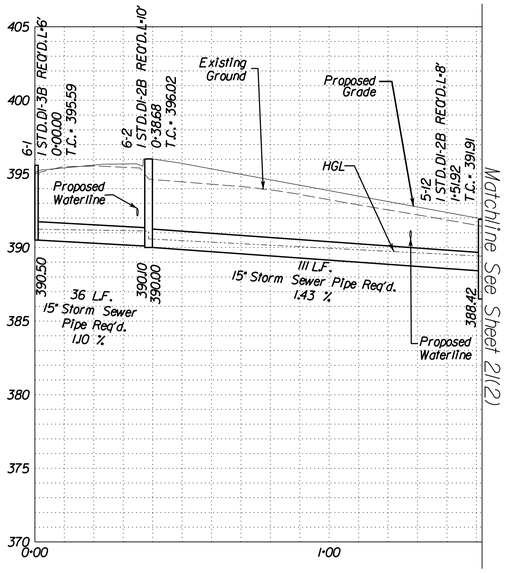
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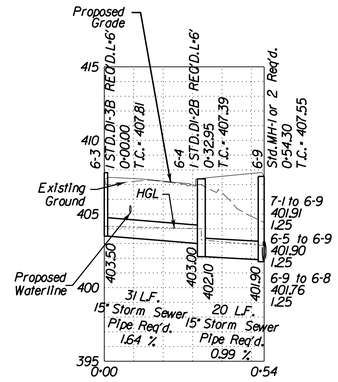
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2l(3)

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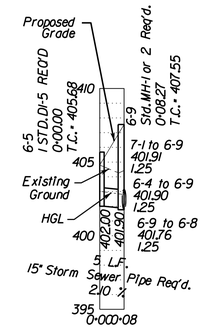
Storm Sewer Profile 6-1 to 5-2



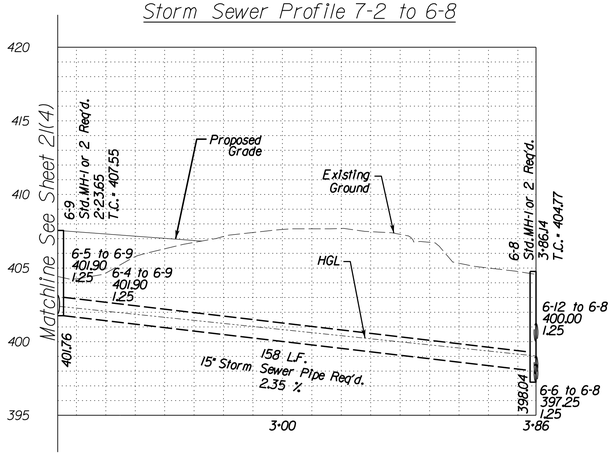
Storm Sewer Profile 6-3 to 6-9



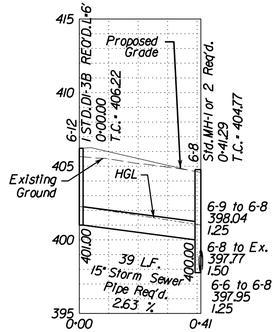
Storm Sewer Profile 6-5 to 6-9



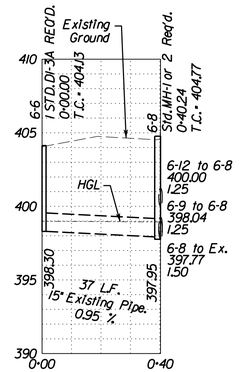
Storm Sewer Profile 7-2 to 6-8



Storm Sewer Profile 6-12 to 6-8



Storm Sewer Profile 6-6 to 6-8



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0 2.5' 5'

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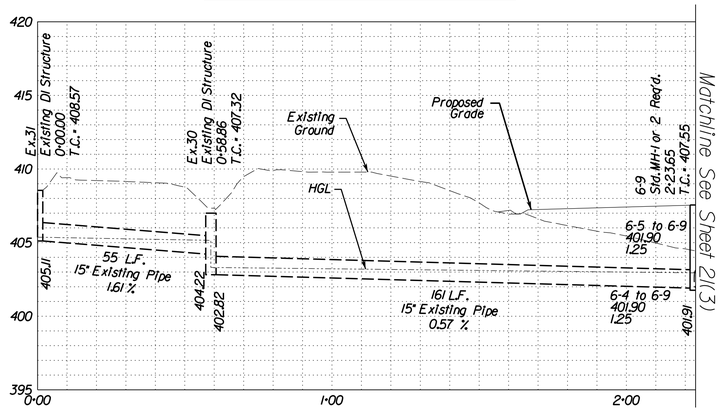
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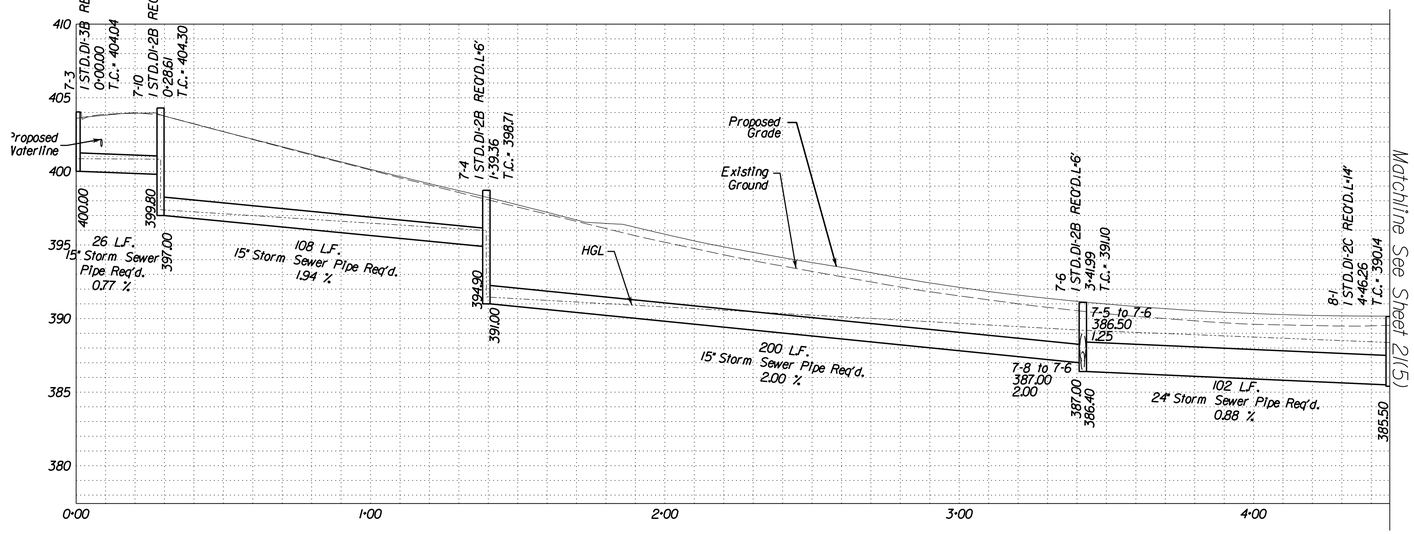
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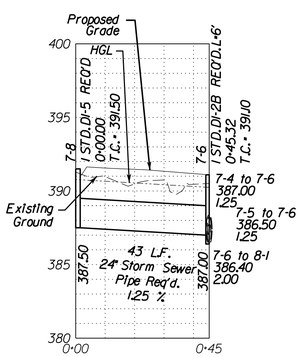
Storm Sewer Profile 7-2 to 6-8



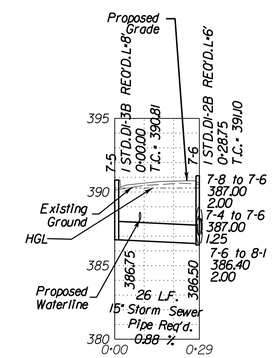
Storm Sewer Profile 7-3 to 8-10



Storm Sewer Profile 7-8 to 7-6



Storm Sewer Profile 7-5 to 7-6



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5' 2.5' 0

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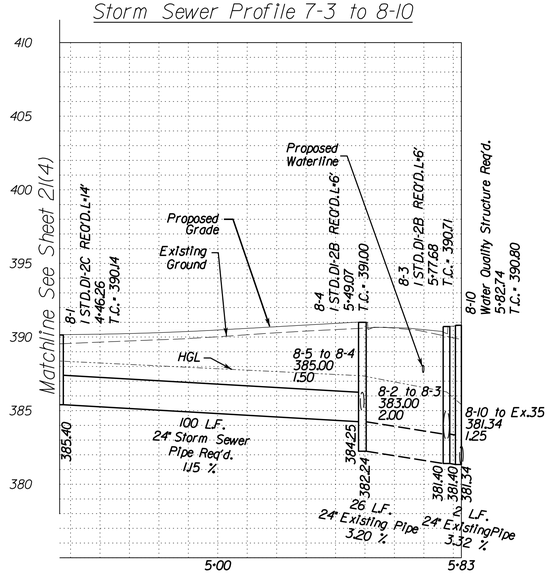
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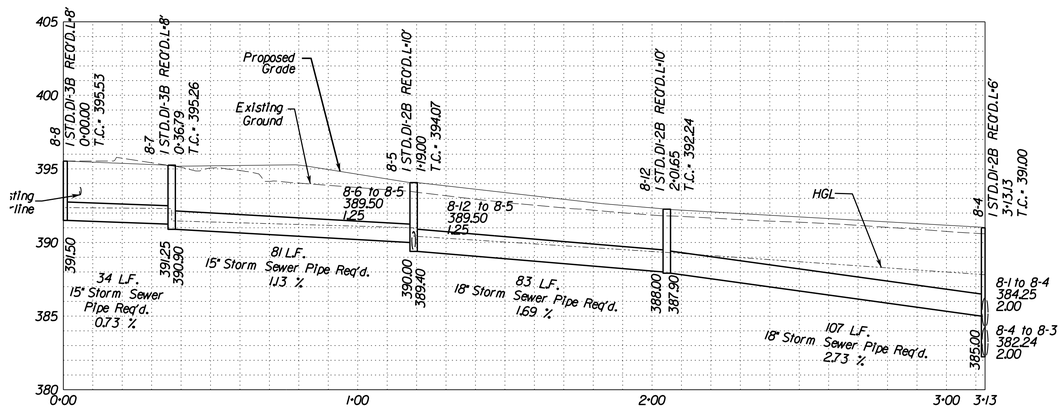
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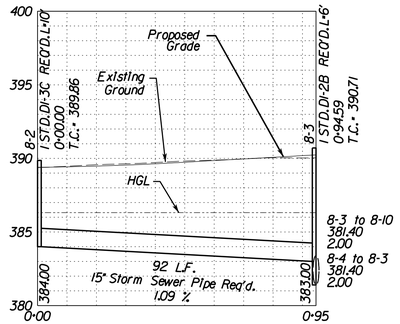
Storm Sewer Profile 7-3 to 8-10



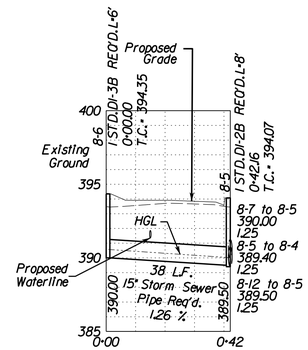
Storm Sewer Profile 8-8 to 8-4



Storm Sewer Profile 8-2 to 8-3



Storm Sewer Profile 8-6 to 8-5



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0 2.5' 5'

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Drainage Profiles

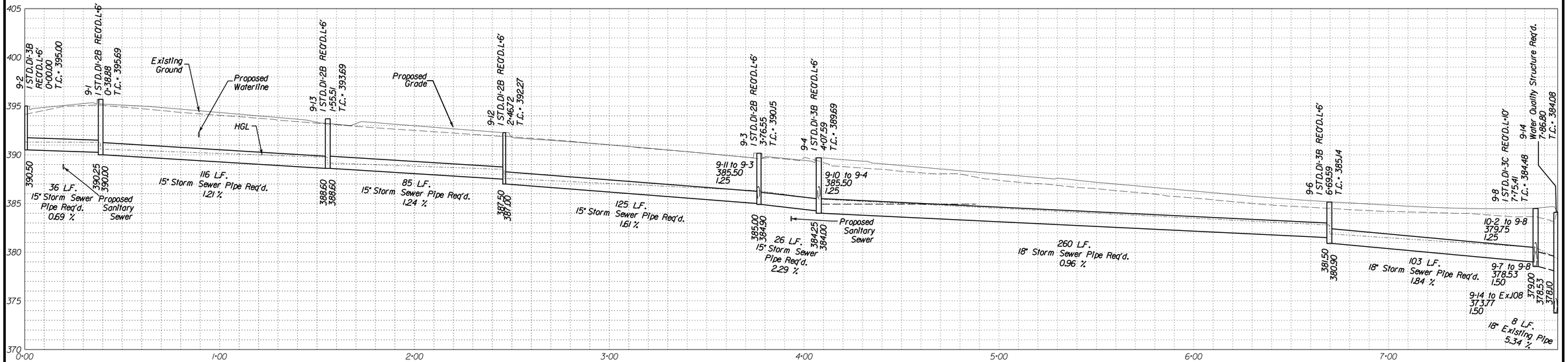
COMMONWEALTH OF VIRGINIA
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Lic. No. 045430
PROFESSIONAL ENGINEER

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HYDRAULICS ENGINEER

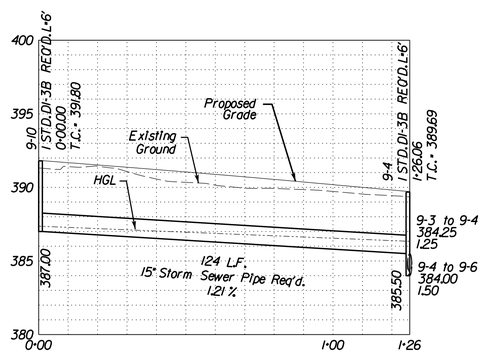
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2l(6)

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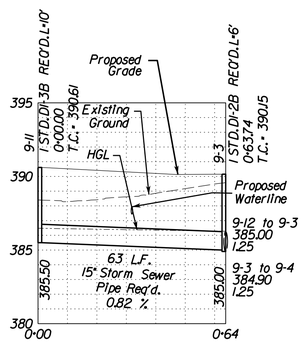
Storm Sewer Profile 9-2 to 9-14



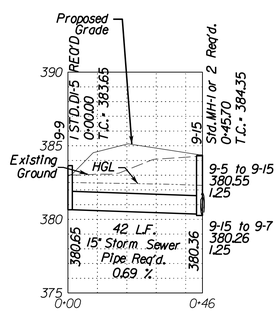
Storm Sewer Profile 9-10 to 9-4



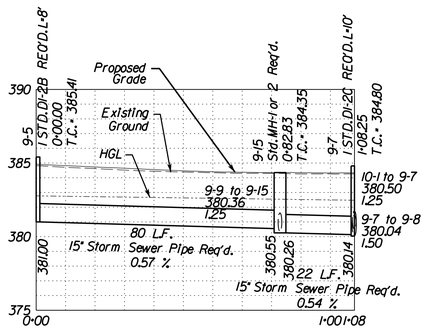
Storm Sewer Profile 9-11 to 9-3



Storm Sewer Profile 9-9 to 9-15



Storm Sewer Profile 9-5 to 9-7



Note: All Storm Sewer Pipes to be RCP Class III Reinforced Concrete Pipe

SCALE H= 25, V= 1
0 25' 50'
5' 2.5' 0

PROJECT	SHEET NO.
U000-154-R94	2l(6)

3/24/2023

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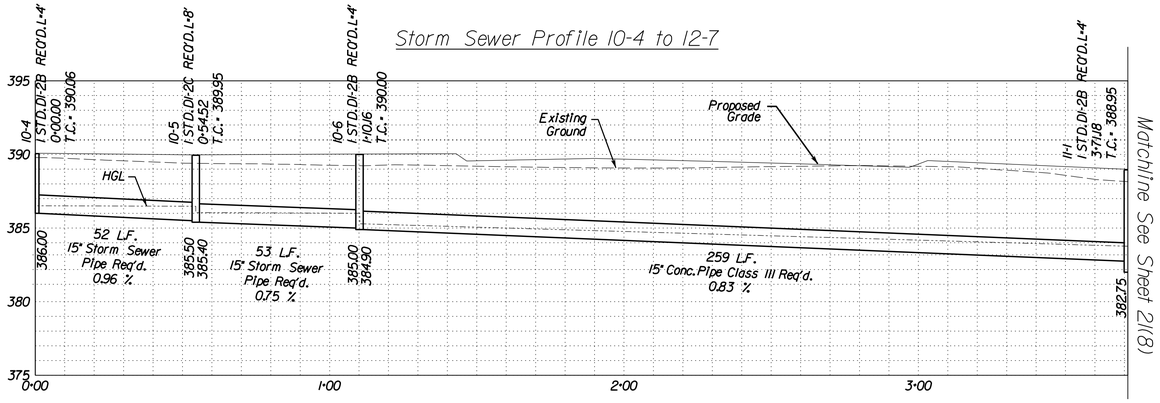
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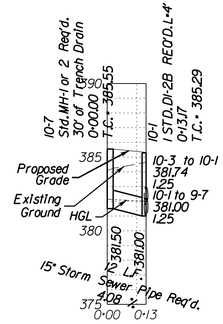
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	VA.	6228	U000-154-R94	2li7)

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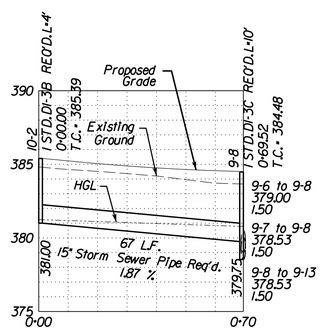
Storm Sewer Profile 10-4 to 12-7



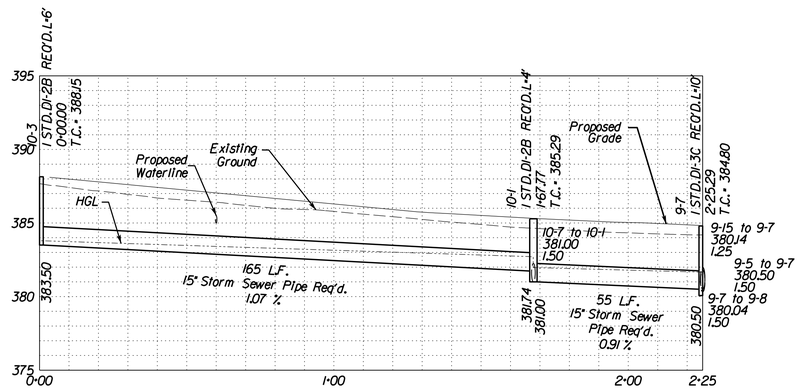
Storm Sewer Profile 10-7 to 10-1



Storm Sewer Profile 10-2 to 9-8



Storm Sewer Profile 10-3 to 9-7



Note: All Storm Sewer Pipes to be RCP Class III Reinforced Concrete Pipe

SCALE H: 25, V: 1
0 25' 50'
5' 2.5' 0

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U000-154-R94	2li7)

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Drainage Profiles

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	VA.	6228	U000-154-R94	2I(8)

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Storm Sewer Profile 10-4 to 12-7



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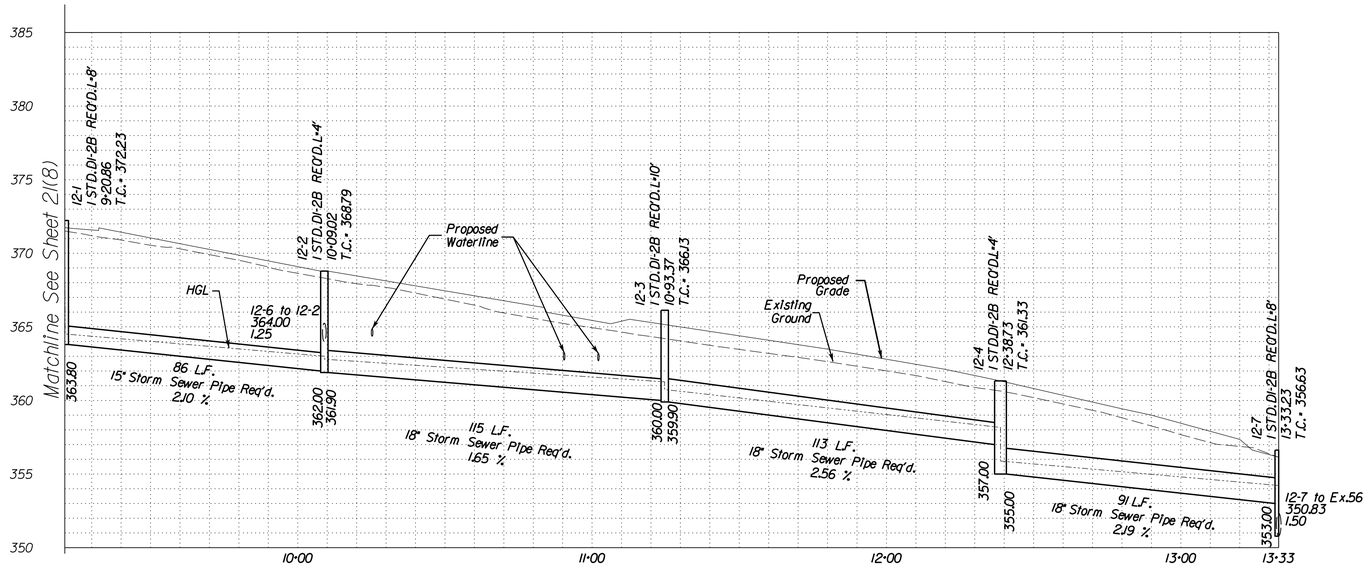
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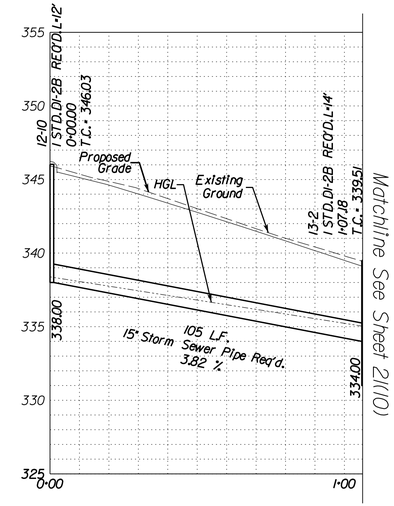
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2l(9)

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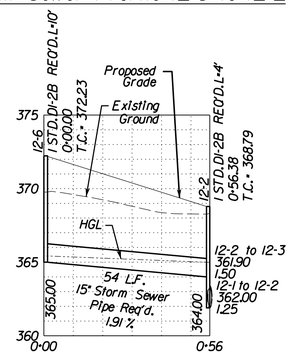
Storm Sewer Profile 10-4 to 12-7



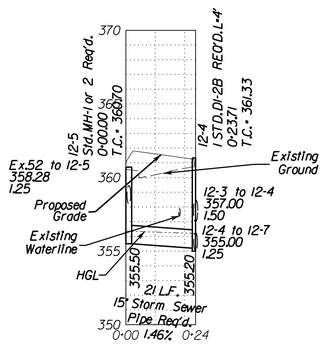
Storm Sewer Profile 12-10 to 14-8



Storm Sewer Profile 12-6 to 12-2



Storm Sewer Profile 12-5 to 12-4



Note: All Storm Sewer Pipes to be RCP Class III Reinforced Concrete Pipe

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0 2.5' 5'

PROJECT	SHEET NO.
U000-154-R94	2l(9)

3/24/2023

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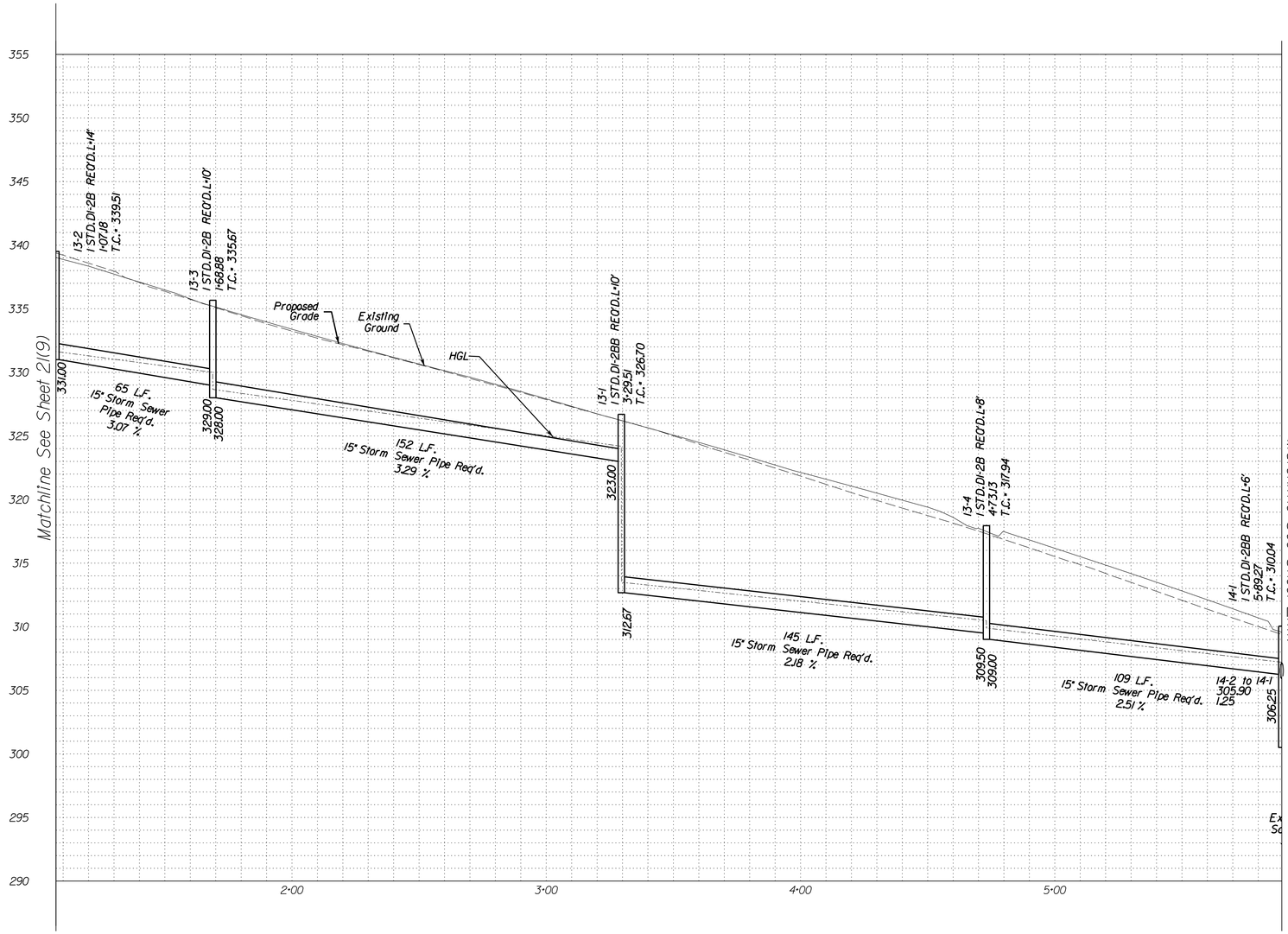
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2I(10)

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Storm Sewer Profile 12-10 to 14-8



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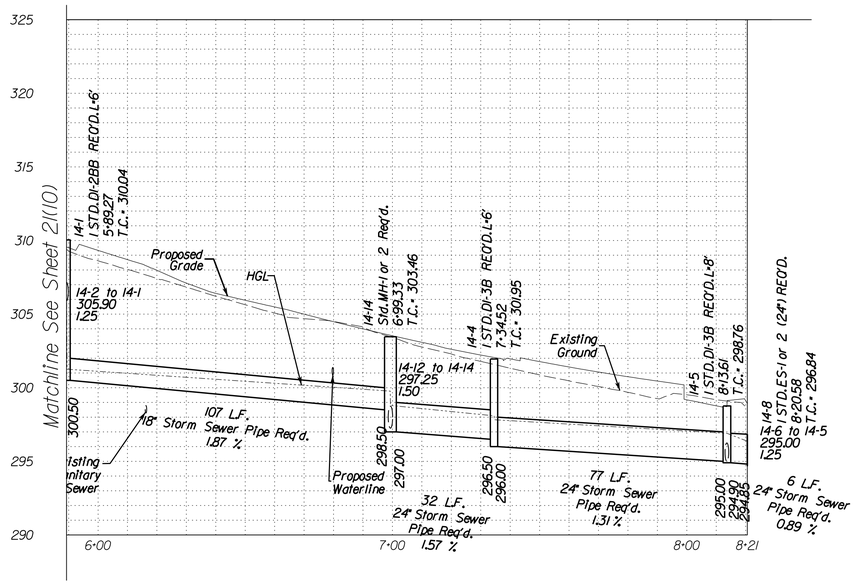
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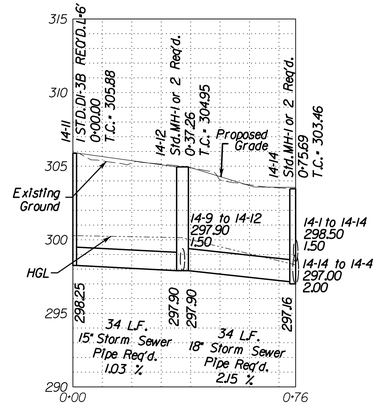
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2l(11)

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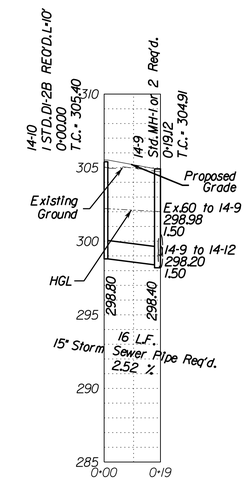
Storm Sewer Profile 12-10 to 14-8



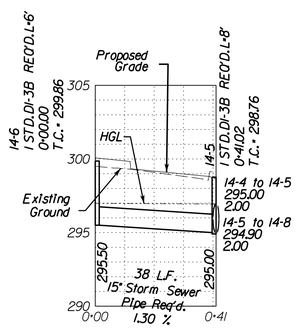
Storm Sewer Profile 14-11 to 14-14



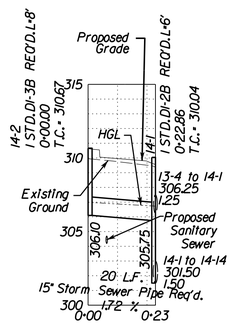
Storm Sewer Profile 14-10 to 14-9



Storm Sewer Profile 14-6 to 14-5



Storm Sewer Profile 14-2 to 14-1



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UNDERDRAIN SUMMARY

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2J(10)

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	109+82	Left	287'						Connect to Structure 4-8
OLH	109+08	109+83	Right	75'						Connect to Structure 4-5
OLH	109+85	110+75	Left	91'						Connect to Structure 4-7
OLH	110+22	110+75	Right	64'						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	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+75	Left	311'						Connect to Structure 9-1
OLH	139+34	140+75	Right	143'						Connect to Sturcture 9-2
OLH	140+79	141+98	Left	111'						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+77	Left	106'						Connect to Structure 9-7
OLH	146+74	147+78	Right	105'						Connect to Structure 9-8
OLH	147+78	147+78	Right				37'			Connect to Structure 9-8
OLH	148+35	147+79	Left	55'						Connect to Structure 9-7
OLH	148+45	147+78	Right	69'						Connect to Structure 9-8
OLH	149+07	148+38	Left	69'						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
OLH	151+55	153+11	Left	159'						Connect to Structure 10-4
OLH	153+14	153+65	Left	51'						Connect to Structure 10-5
OLH	154+19	153+67	Left	52'						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	133'						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 to OLH	10+77	175+70	Left	80'						Connect to Structure 14-4
OLH	174+34	176+34	Right	216'				23'		Connect to Structure 14-6
OLH	175+76	176+34	Left	59'				18'		Connect to Structure 14-5

NOT TO SCALE	PROJECT U000-154-R94	SHEET NO. 2J(10)

3/24/2023

PH 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)

C1
Curve BLENHEIMI
PI = 103+23.60
DELTA = 11°42' 45.8" (RT)
D = 4°05' 33"
T = 143.60'
L = 286.19'
R = 1,400.00'
PC = 101+80.00
PT = 104+66.19
V = 30 mph
E = Match Existing (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C18
Curve LAYTONHALLI
PI = 10+45.69
DELTA = 6°48' 24.9" (LT)
D = 46°36' 18"
T = 7.31'
L = 14.61'
R = 122.94'
PC = 10+38.38
PT = 10+52.98
V = 30 mph

C19
Curve FARRCROFTI
PI = 10+36.22
DELTA = 2°39' 24.09" (LT)
D = 3°52' 06"
T = 34.34'
L = 68.68'
R = 1,481.12'
PC = 10+01.88
PT = 10+70.56
V = 30 mph

3A POT Blenheim Boulevard, Sta.100+91.61
POT Farrcroft Drive, Sta.10+00.00
Delta = 90°00'00" Rt.

3B POT Blenheim Boulevard, Sta.100+95.43
POT Layton Hall Drive, Sta.10+00.00
Delta = 90°00'00" Lt.

ASSESSMENT 2.531 ACRES
TITLE REPORT 2.609 ACRES LE 0.0684 AC LE 0.1202 AC = 2.4204 AC

57-2-02-172
BOARD OF SUPERVISORS OF FAIRFAX COUNTY
DB 10181 PG 151

001

003

002

57 2 02 03 00A
FARRCROFT HOMEOWNERS ASSOC
DB 11390 PG 830

Begin Project / Begin Construction
Proj.No.U000-154-R94, PE-101
Sta.100+36.48

Begin Project
Proj.No.U000-154-R94, C-501
Sta.101+53.80

Begin Project
Proj.No.U000-154-R94, RW-201
Sta.101+28.27

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

Blenheim Blvd

Layton Hall Dr.

Farrcraft Dr.

See Bus Stop Detail I on Sheet 1H(19)

See Intersection Detail I on Sheet 1H

Prop. Utility Pole (By Others)

Ex. Brick Columns w/ Metal Fence

Ex. Brick Wall w/ Metal Railing

Ex. Covered Bus Stop

Ex. Stone Wall w/ Metal Railing

Ex. Asphalt Trail

Gas Street Light

Ex. Traffic Handhole

Ex. Electric Handhole

Ex. Wooden Sign

Ex. Brick Sign

Ex. Traffic Cabinet

Ex. Electric Manhole

Ex. Brick Walk

Ex. Conc. Apron

Ex. Conc. Wall

Ex. C&G

Ex. R/W

Approx. Location of Ex. R/W

Ex. 10' Sanitary Sewer Esmt DB 2829 Pg 360

Ex. 15' Ingress Egress Esmt. DB 12181 Pg 538

Approx Loc Ex VERIZON Esmt DB 14484 Pg 10

Ex. 5' Verizon Esmt DB 21062 Pg 1824

Ex. 20' VEPCO Esmt DB 12650 Pg 1706

Ex. 20' VEPCO Esmt DB 12650 Pg 1706

Ex. Verizon Esmt DB 21062 Pg 1824

Ex. Verizon Esmt DB 21062 Pg 1824

Ex. Verizon Esmt DB 21062 Pg 1824

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BLENHEIM BOULEVARD PROFILE

NIKHIL V. DESHPANDE
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COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

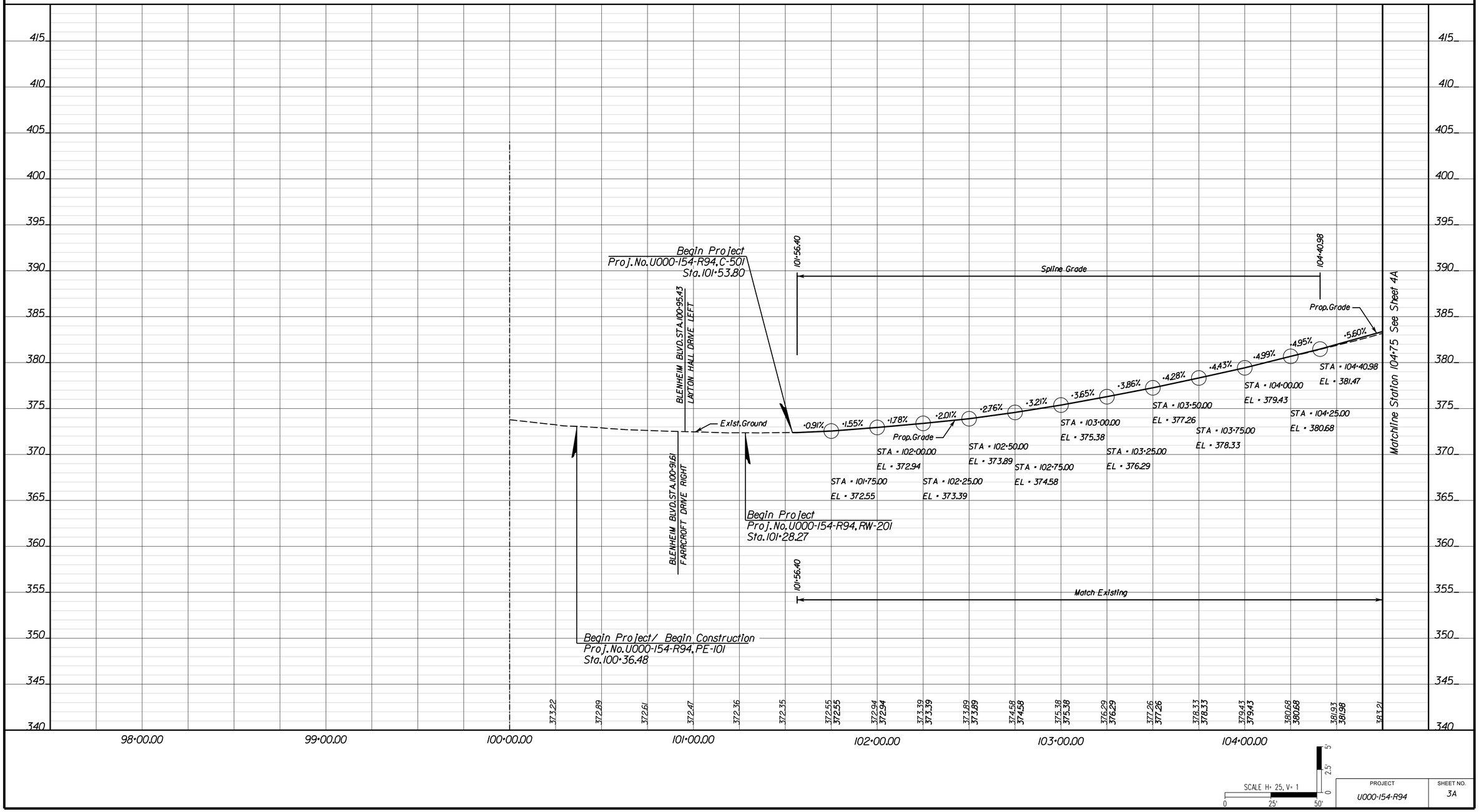
Rinker Design Associates, P.C.
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HYDRAULICS ENGINEER

ADAM D. WELSCHENBACH
Lic. No. 044359
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PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	3A

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.
U000-154-R94	3A

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Transportation – Environmental – Right-of-Way Services

Office Locations
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Fredericksburg: 2121 Cowan Boulevard, Suite 204, Fredericksburg, VA 22401, Phone: (540) 891-2373, Fax: (540) 891-2375
Warrenton: 7 Main Street, Suite 204, Warrenton, VA 20186, Phone: (540) 349-4500, Fax: (540) 349-4505

3/24/2023

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	4

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Rinker Design Associates, P.C. Manassas, Virginia HYDRAULICS ENGINEER

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

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C2 Curve BLENHEIM2
PI = 106+22.24
DELTA = 4°15'11.70" (RT)
D = 2°59'31"
T = 71.11'
L = 142.16'
R = 1,915.00'
PC = 105+51.13
PT = 106+93.29
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C3 Curve BLENHEIM3
PI = 109+36.61
DELTA = 16°33'19.46" (RT)
D = 3°28'21"
T = 240.05'
L = 476.76'
R = 1,650.00'
PC = 106+96.56
PT = 111+73.32
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C20 Curve ENTR_10506RT1
PI = 10+42.27
DELTA = 22°08'01.16" (LT)
D = 11°43'30"
T = 9.78'
L = 19.32'
R = 50.00'
PC = 10+32.49
PT = 10+51.80

C21 Curve ENTR_10699LT2
PI = 10+79.65
DELTA = 8°25'17.87" (RT)
D = 10°25'03"
T = 40.49'
L = 80.84'
R = 550.00'
PC = 10+39.16
PT = 11+20.00

C22 Curve ENTR_10699LT1
PI = 10+20.00
DELTA = 1°12'36.78" (RT)
D = 11°27'33"
T = 5.28'
L = 10.56'
R = 500.00'
PC = 10+14.72
PT = 10+25.28

C23 Curve ENTR_10878RT1
PI = 10+30.91
DELTA = 1°06'39.18" (LT)
D = 11°27'33"
T = 4.85'
L = 9.69'
R = 500.00'
PC = 10+26.06
PT = 10+35.75

C24 Curve ENTR_11013RT1
PI = 10+29.65
DELTA = 4°48'30.69" (RT)
D = 14°19'26"
T = 16.79'
L = 33.57'
R = 400.00'
PC = 10+12.86
PT = 10+46.43

C25 Curve ENTR_11095RT1
PI = 10+22.97
DELTA = 24°00'31.37" (LT)
D = 106°04'17"
T = 11.49'
L = 22.63'
R = 54.02'
PC = 10+11.49
PT = 10+34.12

C26 Curve ENTR_11095RT2
PI = 10+63.44
DELTA = 45°54'00.42" (LT)
D = 179°02'58"
T = 13.55'
L = 25.64'
R = 32.00'
PC = 10+49.89
PT = 10+75.53

C27 Curve ENTR_11110LT1
PI = 10+42.52
DELTA = 1°33'38.03" (RT)
D = 11°27'33"
T = 6.81'
L = 13.62'
R = 500.00'
PC = 10+35.71
PT = 10+49.33

4A POT Blenheim Boulevard, Sta. 104+80.54
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Rt.

4B POT Blenheim Boulevard, Sta. 106+99.05
POT Sherwood Comm. Centre Entr., Sta. 10+00.00
Delta = 90°00'00" Lt.

4C POT Blenheim Boulevard, Sta. 107+49.37
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Rt.

4D POT Blenheim Boulevard, Sta. 108+78.26
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Rt.

4E POT Blenheim Boulevard, Sta. 110+13.02
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Rt.

4F POT Blenheim Boulevard, Sta. 110+94.60
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Rt.

4G POT Blenheim Boulevard, Sta. 111+10.47
POT Van Dyck Park Entr., Sta. 10+00.00
Delta = 90°00'00" Lt.

57-2-02-175A
CITY OF FAIRFAX
DB 5822 PG 644

57-2-02-175
CITY OF FAIRFAX
DB 3026 PG 519

57-2-02-176
THE CITY OF FAIRFAX, VIRGINIA
DB 2971 PG 169
DB 3211 PG 56

57-2-02-180
E ETAL TR PARKS MENNONITE CHURCH
DB 9992 PG 1554

57-2-02-179
CHRISTIAN SCIENCE CHURCH OF FAIRFAX
OF CHRIST SCIENTIST
DB 1766 PG 189

57-2-02-182
SCHOOL BOARD OF FAIRFAX CITY
DB 5442 PG 342

003 004 005 006 007

Match Line, Sta. 104+75.00 (Blenheim Blvd.) - See Sheet 3

Match Line, Sta. 111+50.00 (Blenheim Blvd.) - See Sheet 5

Sherwood Community Center Entr.

Van Dyck Park Entr.

Blenheim Blvd

See Intersection Detail 2 on Sheet IH(1).

See Intersection Detail 3 on Sheet IH(2).

Prop. Utility Pole (By Others)

Ex. Gravel Shoulder

Ex. R/W

Ex. Conc. SW

Ex. Trail

Ex. Entrance Easement DB 2290 PG 1445

Ex. Gravel Trail Easement For Lot 2 DB 3060 PG 489

Marker Loc VEPCO Esmt DB 2290 PG 1445

Roadway Design Legend

#→ Key Legend

1 → Denotes St'd. CG-6 Req'd.
2 → Denotes St'd. Radial CG-6 Req'd.
3 → Denotes St'd. CG-9, Type D Req'd.
4 → Denotes St'd. CG-12, DWS
5 → Denotes Concrete Bus Pad Req'd.
6 → Denotes Concrete Sidewalk Req'd.
7 → Denotes Asphalt Trail Req'd.
8 → Denotes Retaining Wall Req'd.
9 → Denotes St'd. 6' FE-CL Req'd.
10 → Denotes St'd. MS-1 Req'd.
11 → Denotes St'd. CG-2 Req'd.
12 → Denotes Tie to Existing Driveway
13 → Denotes Tie to Ex. Conc. Sidewalk
14 → Denotes Tie to Ex. Curb and Gutter
15 → Denotes St'd. HR-1 Ty. 2 Req'd.
16 → Denotes Mod. CG-3 Req'd.
17 → Denotes Mod. CG-2 Req'd. See Sheet 2A(5) for Details
18 → Denotes Mod. CG-6 Req'd.
19 → Denotes Prop. Bike Station
20 → Denotes Prop. Brick Walkway
21 → Denotes Tie to Ex. Brick Walkway
22 → Denotes Tie to Ex. Asphalt Trail
23 → Denotes Prop. Stone Walkway
24 → Denotes Tie to Ex. Stone Walkway
25 → Denotes St'd. MS-2 Req'd.
26 → Denotes Privacy Fence Req'd. See Sheet 2A(4) for Details

C_____ Denotes Construction Limits in Cuts
F_ _ _ Denotes Construction Limits in Fills

CR / X-X Curb Return See Sheet X-X

Drainage Design Legend

#→ Key Legend
1 → Denotes Drainage Item to Remain
2 → Denotes Drainage Item to Removed/ Abandoned
3 → St'd. UD-4 Req'd.
4 → St'd. CD-2 Req'd.

Pavement Legend

Full Depth Pavment
Mill and Overlay
Concrete Sidewalk
Demolition of Pavement
Demolition of Exist. Trail/Sidewalk

NOTE: Full Depth Sawcut Req'd. Between Proposed Full Depth Pavement and Exist. Pavement/Mill and Overlay

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-Dot-Dashed Lines)
4
Prop. Right of Way Monument RM-2

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(4)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1F)
Erosion Controls PhI & Ph2	1Q - 1R(6)
Typical Sections	2A - 2A(7)
Drainage Descriptions	2G - 2G(3)
Profile Blenheim Blvd	4A
Profile Entrances	4B
Pavement Marking & Signing Plan	1S - 1S(5)
Intersection & Bus Stop Detail Plan	1H - 1H(26)

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	4

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3/24/2023

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Fredericksburg: 2300 Dandridge Garrison Road, Suite 202, Fredericksburg, VA 22401, Phone: (540) 548-2276, Fax: (540) 548-2276
www.RDAinc.com

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BLENHEIM BOULEVARD PROFILE

NIKHIL V. DESHPANDE
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PROFESSIONAL ENGINEER

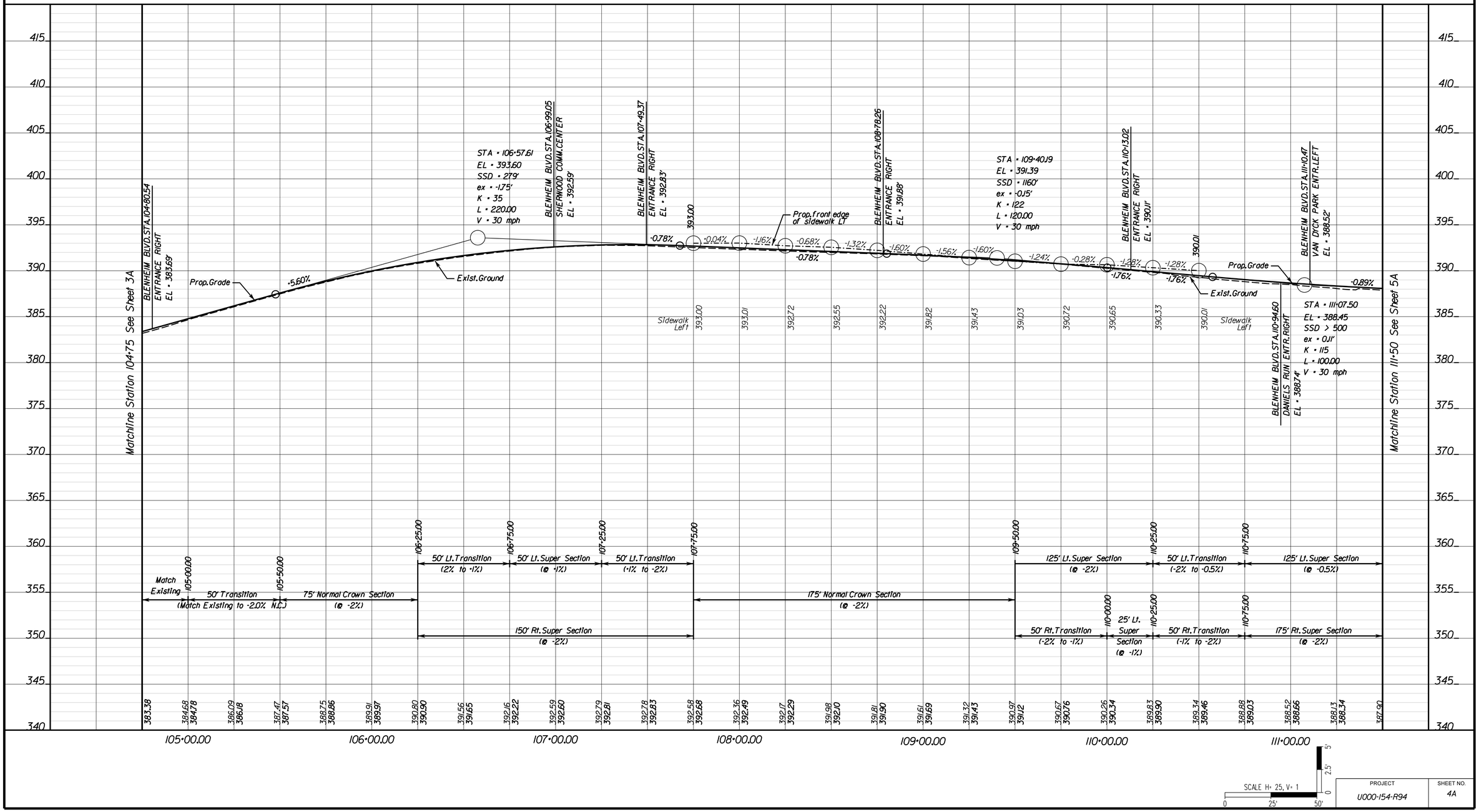
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	4A

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10 Direct Connect Boulevard, Suite 210, Red Hook, NY 12571, Phone: (845) 758-1260, Fax: (845) 758-1435
4501 Daly Drive, Suite 400, Chantilly, VA 20151, Phone: (703) 263-0500, Fax: (703) 263-0520
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SIDE ROAD AND ENTRANCE PROFILES

NIKHIL V. DESHPANDE
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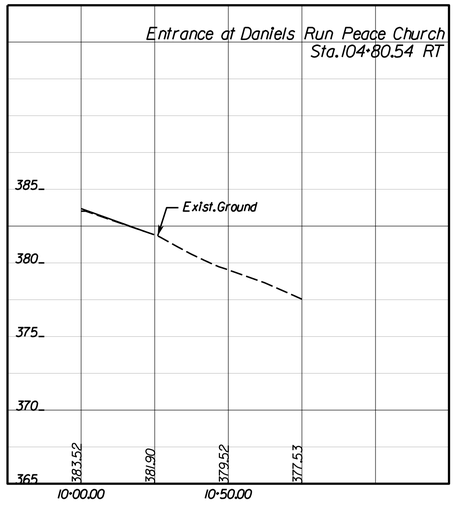
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Manassas, Virginia
HYDRAULICS ENGINEER

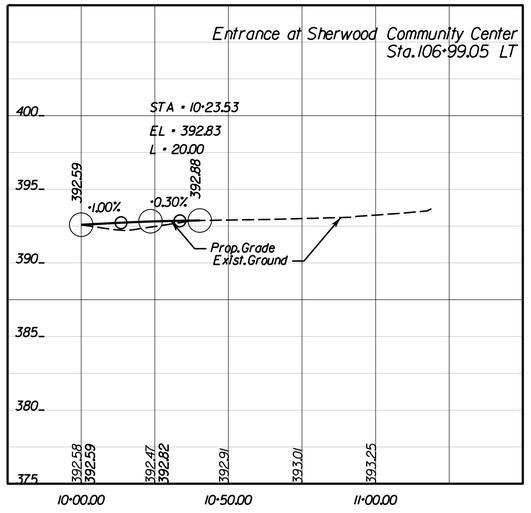
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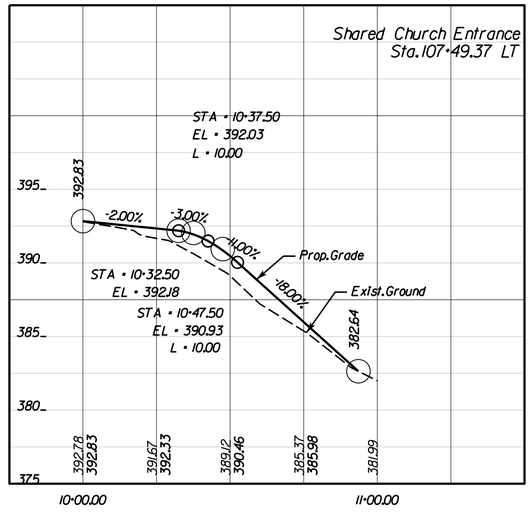
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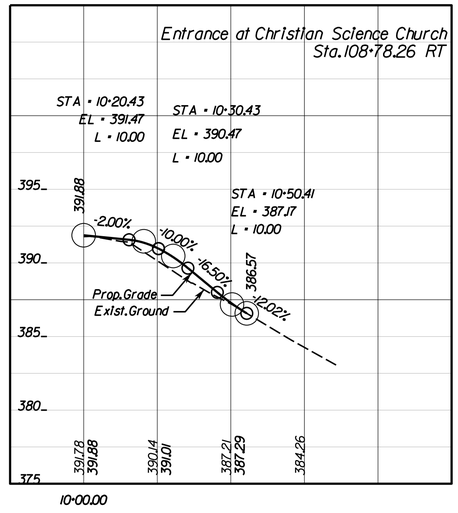
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	4B

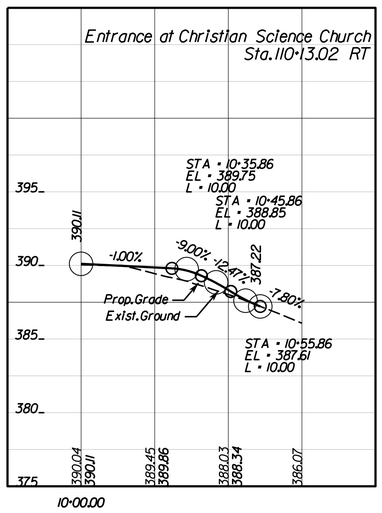
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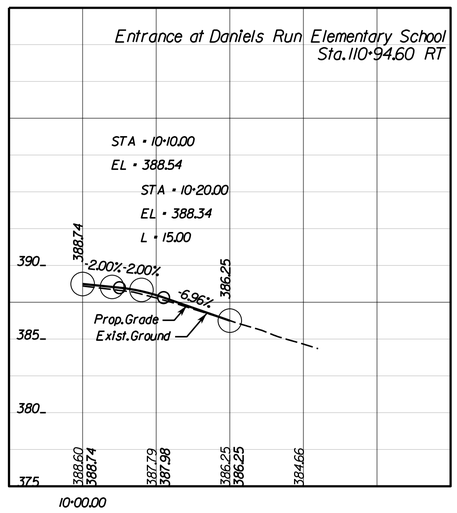


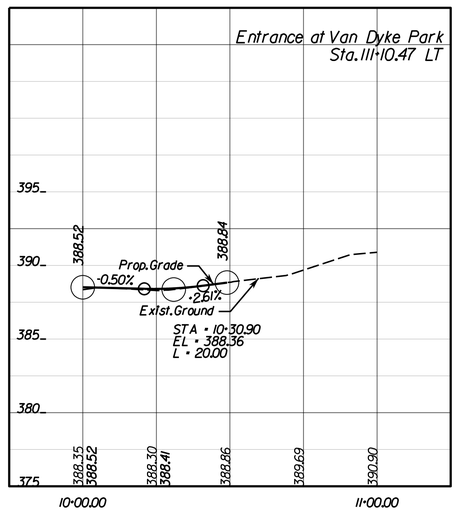












SCALE H= 25, V= 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-154-R94	4B

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
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5A POT Blenheim Boulevard, Sta. 111+85.99
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Lt.

5B POT Blenheim Boulevard, Sta. 115+08.53
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Lt.

5C POT Blenheim Boulevard, Sta. 115+69.34
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Lt.

5D POT Blenheim Boulevard, Sta. 116+67.40
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Lt.

5E POT Blenheim Boulevard, Sta. 116+67.40
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Rt.

5F POT Blenheim Boulevard, Sta. 117+28.40
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Lt.

5G POT Blenheim Boulevard, Sta. 117+28.40
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Rt.

Match Line, Sta. 111+50.00 (Blenheim Blvd.) - See Sheet 4

Match Line, Sta. 119+00.00 (Blenheim Blvd.) - See Sheet 6

Saint Leo the Great Catholic School

Saint Leo the Great Catholic Church

Daniels Run Elementary School

Blenheim Blvd

57-2-02-177
RT.REV.PETER L.IRETON, CATHOLIC DIOCESE OF ARLINGTON
DB 1077 PG 458
DB 3211 PG 56

57-2-02-182
SCHOOL BOARD OF FAIRFAX CITY
DB 1142 PG 342

57-2-10-164
APPLETON
DB 6223 PG 564
LOT 164
COUNTRY CLUB HILLS SEC 6
DB 1307 PG 80

57-2-15-018A
CAREY, T.R
DB 21206 PG 1837
LOT 18A
DB 2702 PG 129
RESUBDIVISOIN OF LOTS 17 AND 18 SECTION 2 OLD POST ESTATES

57-2-15-17A
NGUYEN, TRAN, DIEM, LE, & LE
DB 20979 PG 644

See Intersection Detail 4 on Sheet 1H(3).
See Bus Stop Detail 2 on Sheet 1H(21)
See Intersection Detail 5 on Sheet 1H(4).
See Intersection Detail 6 on Sheet 1H(5).

Curve BLENHEIM3
PI = 109+36.61
DELTA = 16° 33' 19.46" (RT)
D = 3° 28' 21"
T = 240.05'
L = 476.76'
R = 1,650.00'
PC = 106+96.56
PT = 111+73.32
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

Curve BLENHEIM4
PI = 118+97.54
DELTA = 5° 24' 02.00" (LT)
D = 11° 27' 33"
T = 23.58'
L = 47.13'
R = 500.00'
PC = 118+73.96
PT = 119+21.09
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

Curve ENTR_II667RT1
PI = 10+90.27
DELTA = 89° 37' 14.76" (RT)
D = 98° 47' 09"
T = 57.62'
L = 90.72'
R = 58.00'
PC = 10+32.65
PT = 11+23.37

Curve ENTR_II728RT1
PI = 10+33.22
DELTA = 23° 40' 17.16" (RT)
D = 114° 35' 30"
T = 10.48'
L = 20.66'
R = 50.00'
PC = 10+22.74
PT = 10+43.40

Roadway Design Legend

#→ Key Legend

1 → Denotes Sl'd.CG-6 Req'd.
2 → Denotes Sl'd.Radial CG-6 Req'd.
3 → Denotes Sl'd.CG-9,Type D Req'd.
4 → Denotes Sl'd.CG-12,DWS
5 → Denotes Concrete Bus Pad Req'd.
6 → Denotes Concrete Sidewalk Req'd.
7 → Denotes Asphalt Trail Req'd.
8 → Denotes Retaining Wall Req'd.
9 → Denotes Sl'd.6' FE-CL Req'd.
10 → Denotes Sl'd.MS-1 Req'd.
11 → Denotes Sl'd.CG-2 Req'd.
12 → Denotes Tie to Existing Driveway
13 → Denotes Tie to Ex.Conc.Sidewalk
14 → Denotes Tie to Ex.Curb and Gutter
15 → Denotes Sl'd.HR-1 Ty.2 Req'd.
16 → Denotes Mod.CG-3 Req'd.
17 → Denotes Mod.CG-2 Req'd. See Sheet 2A(5) for Details
18 → Denotes Mod.CG-6 Req'd.
19 → Denotes Prop.Bike Station
20 → Denotes Prop.Brick Walkway
21 → Denotes Prop.Stone Walkway
22 → Denotes Tie to Ex.Asphalt Trail
23 → Denotes Prop.Stone Walkway
24 → Denotes Tie to Ex.Stone Walkway
25 → Denotes Sl'd.MS-2 Req'd.
26 → Denotes Privacy Fence Req'd. See Sheet 2A(4) for Details

C Denotes Construction Limits In Cuts
F Denotes Construction Limits In Fills
CR X-X Curb Return See Sheet X-X

Drainage Design Legend

#→ Key Legend
1 → Denotes Drainage Item to Remain
2 → Denotes Drainage Item to Removed/ Abandoned
3 → Sl'd.UD-4 Req'd.
4 → Sl'd.CD-2 Req'd.

Pavement Legend

Full Depth Pavment
Mill and Overlay
Concrete Sidewalk
Demolition of Pavement
Demolition of Exist.Trail/Sidewalk
NOTE: Full Depth Sawcut Req'd. Between Proposed Full Depth Pavement and Exist. Pavement/Mill and Overlay

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.Right of Way Monument RM-2

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(5)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1F)
Erosion Controls Ph1 & Ph2	1Q - 1R(6)
Typical Sections	2A - 2A(7)
Drainage Descriptions	2G - 2G(3)
Profile Blenheim Blvd	5A
Profile Entrances	5B
Pavement Marking & Signing Plan	1S - 1S(5)
Intersection & Bus Stop Detail Plan	1H - 1H(26)

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 5

PH PLANS

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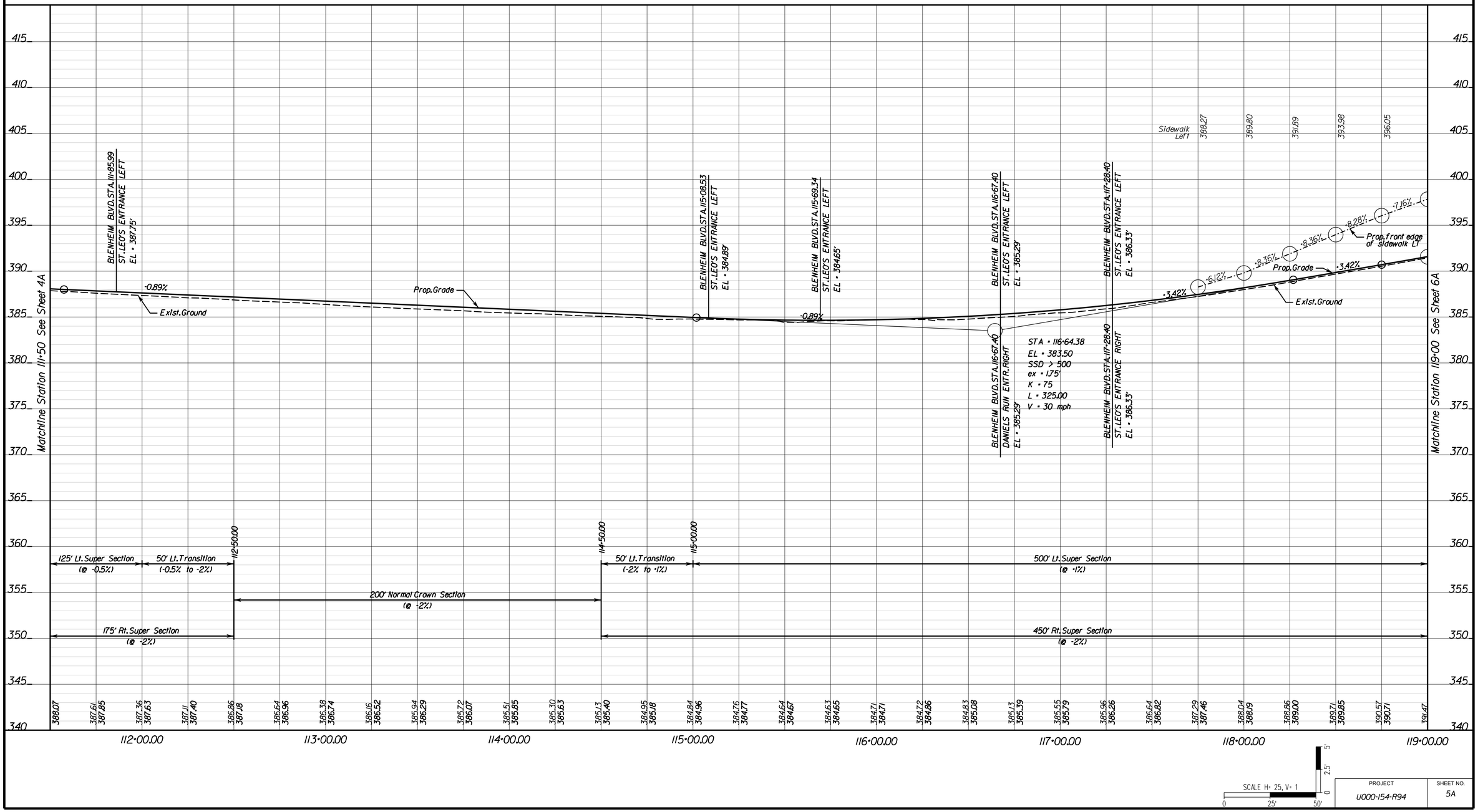
BLENHEIM BOULEVARD PROFILE

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	5A

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Sun City Center, Florida: 1001 Sun City Center Blvd., Suite 100, Sun City Center, FL 33573, Phone: (813) 633-5779, Fax: (813) 633-5774
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SIDE ROAD AND ENTRANCE PROFILES

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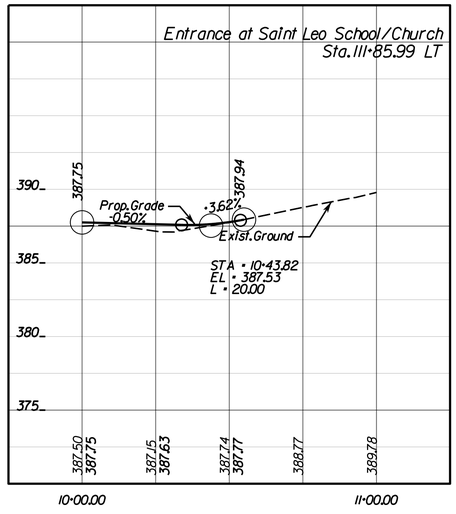
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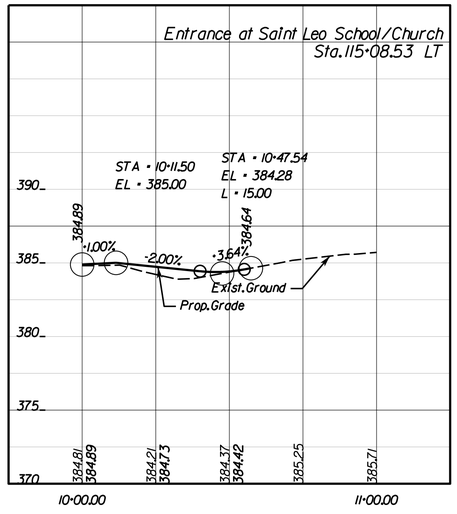
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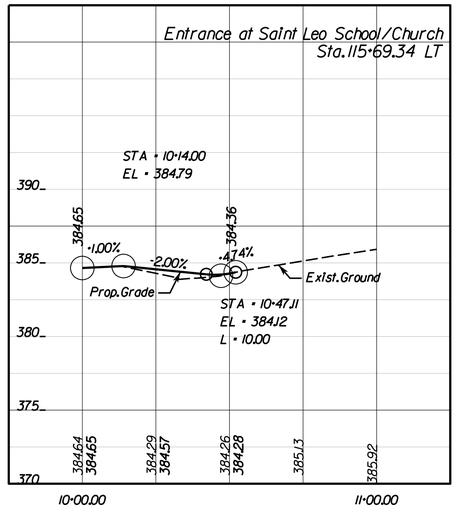
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ROADWAY ENGINEER

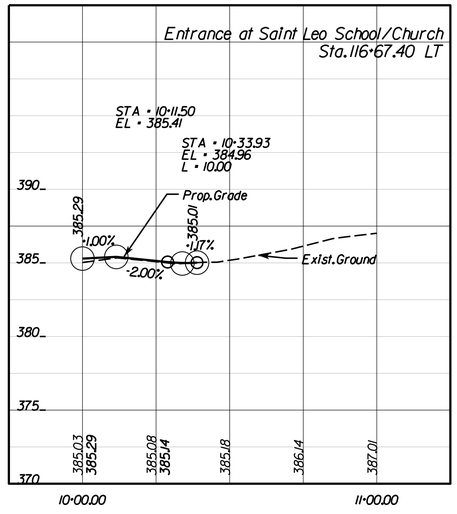
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
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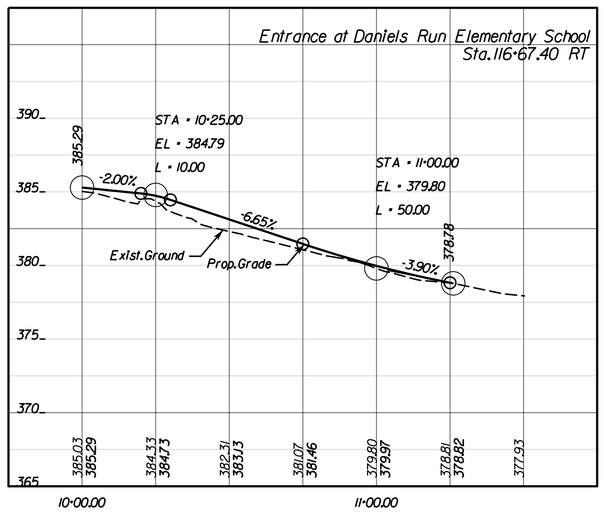
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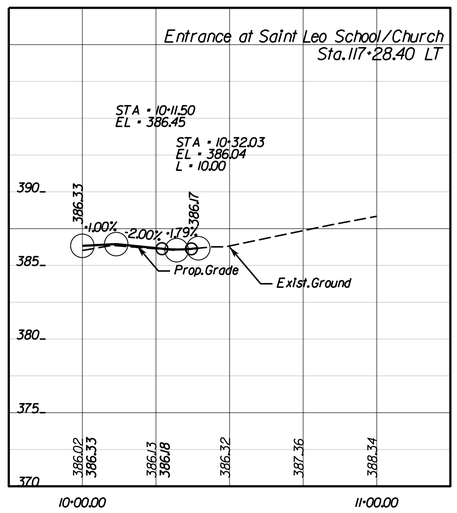


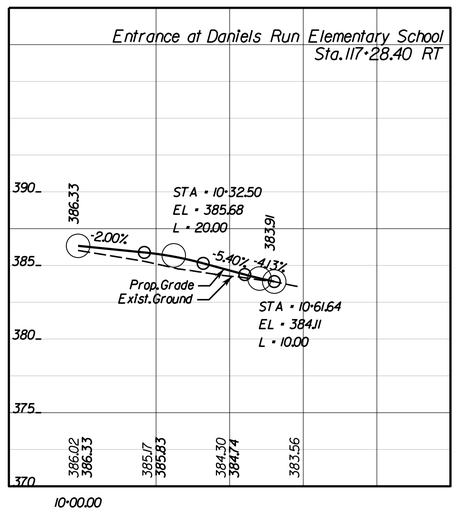












SCALE H= 25, V= 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-154-R94	5B

PH PLANS

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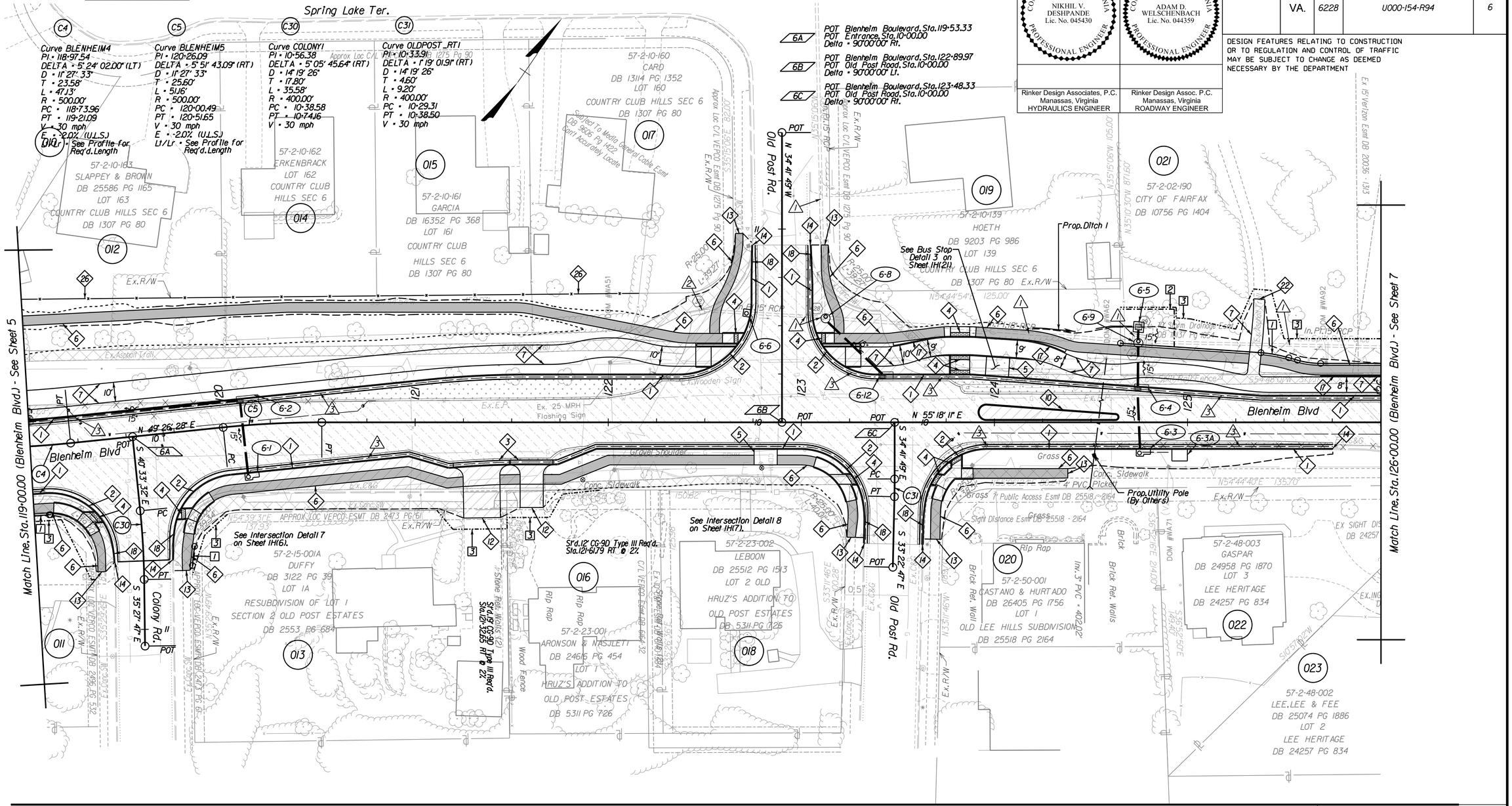
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	6

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Spring Lake Ter.
Old Post Rd.
Blenheim Blvd
Match Line, Sta.119+00.00 (Blenheim Blvd.) - See Sheet 5
Match Line, Sta.126+00.00 (Blenheim Blvd.) - See Sheet 7
C4 Curve BLENHEIM4 PI • 118+97.54 DELTA • 5° 24' 02.00" (LT) D • 11° 27' 33" T • 23.58' L • 47.13' R • 500.00' PC • 118+73.96 PT • 119+21.09 V • 30 mph E • 2.0% (U.L.S.) Lt/Lr • See Profile for Req'd. Length
C5 Curve BLENHEIM5 PI • 120+26.09 DELTA • 5° 51' 43.09" (RT) D • 11° 27' 33" T • 25.60' L • 51.16' R • 500.00' PC • 120+00.49 PT • 120+51.65 V • 30 mph E • -2.0% (U.L.S.) Lt/Lr • See Profile for Req'd. Length
C30 Curve COLONY1 PI • 10+56.38 DELTA • 5° 05' 45.64" (RT) D • 14° 19' 26" T • 17.80' L • 35.58' R • 400.00' PC • 10+38.58 PT • 10+74.16 V • 30 mph
C31 Curve OLDPOST_RT1 PI • 10+33.91 DELTA • 1° 19' 01.91" (RT) D • 14° 19' 26" T • 4.60' L • 9.20' R • 400.00' PC • 10+29.31 PT • 10+38.50 V • 30 mph
POT Blenheim Boulevard, Sta. 119+53.33
POT Entrance, Sta. 10+00.00
Delta • 90°00'00" Rt.
POT Blenheim Boulevard, Sta. 122+89.97
POT Old Post Road, Sta. 10+00.00
Delta • 90°00'00" Lt.
POT Blenheim Boulevard, Sta. 123+48.33
POT Old Post Road, Sta. 10+00.00
Delta • 90°00'00" Rt.
See Bus Stop Detail 3 on Sheet IH(21)
Prop. Ditch 1
See Intersection Detail 7 on Sheet IH(6).
See Intersection Detail 8 on Sheet IH(7).
Std. 12" CG-9D Type III Req'd. Sta. 121+61.79 RT @ 22°
Std. 12" CG-9D Type III Req'd. Sta. 121+59.26 RT @ 22°
Colony Rd. II
Prop. Utility Pole (By Others)
Prop. Drainage Easement DB 25518 Pg 2164
Prop. 15" RCP
Prop. 18" RCP
Prop. 24" RCP
Prop. 4'x3' RCB
Prop. Inl. 3' PVC - 402.00'
Prop. Inl. 4'x3' RCB
Ex. 15" Verizon Esmt DB 20036 - 1313
Ex. 25 MPH Flashing Sign
Ex. Wooden Sign
Ex. Stone Retaining Wall
Ex. Asphalt Trail
Ex. Gravel Shoulder
Ex. Conc. Sidewalk
Ex. Curb and Gutter
Ex. Stone Retaining Wall
Ex. Brick Retaining Walls
Ex. Rip Rap
Ex. Wood Fence
Ex. Chain Link Fence
Ex. 4" PVC Picket
Ex. Public Access Esmt DB 25518 - 2164
Ex. Sight Distance Esmt DB 25518 - 2164
Ex. Drainage Esmt DB 1057 Pg 187
Ex. Drainage Esmt DB 1215 Pg 96
Ex. VEPCO Esmt DB 1215 Pg 96
Ex. VEPCO Esmt DB 2473 Pg 61
Ex. VEPCO Esmt DB 2496 Pg 532
Ex. VEPCO Esmt DB 664 Pg 32
Ex. VEPCO Esmt DB 6161 Pg 1284
Ex. VEPCO Esmt DB 1275 Pg 90
Ex. VEPCO Esmt DB 1215 Pg 96
Ex. Storm Drainage Esmt DB 1057 Pg 187
Ex. Storm Drainage Esmt DB 1057 Pg 187
Approx Loc C/L VEPCO Esmt DB 1275 Pg 90
Approx Loc C/L VEPCO Esmt DB 1215 Pg 96
Approx Loc C/L VEPCO Esmt DB 2473 Pg 61
Approx Loc C/L VEPCO Esmt DB 2496 Pg 532
Approx Loc C/L VEPCO Esmt DB 664 Pg 32
Approx Loc C/L VEPCO Esmt DB 6161 Pg 1284
Approx Loc C/L VEPCO Esmt DB 1275 Pg 90
Approx Loc C/L VEPCO Esmt DB 1215 Pg 96
Ex. R/W
Ex. C/L
Ex. 15" RCP
Ex. 18" RCP
Ex. 24" RCP
Ex. 4'x3' RCB
Ex. Inl. 3' PVC - 402.00'
Ex. Inl. 4'x3' RCB
Ex. Inl. 4'x4' RCB
Ex. Inl. 5'x4' RCB
Ex. Inl. 6'x4' RCB
Ex. Inl. 7'x4' RCB
Ex. Inl. 8'x4' RCB
Ex. Inl. 9'x4' RCB
Ex. Inl. 10'x4' RCB
Ex. Inl. 11'x4' RCB
Ex. Inl. 12'x4' RCB
Ex. Inl. 13'x4' RCB
Ex. Inl.

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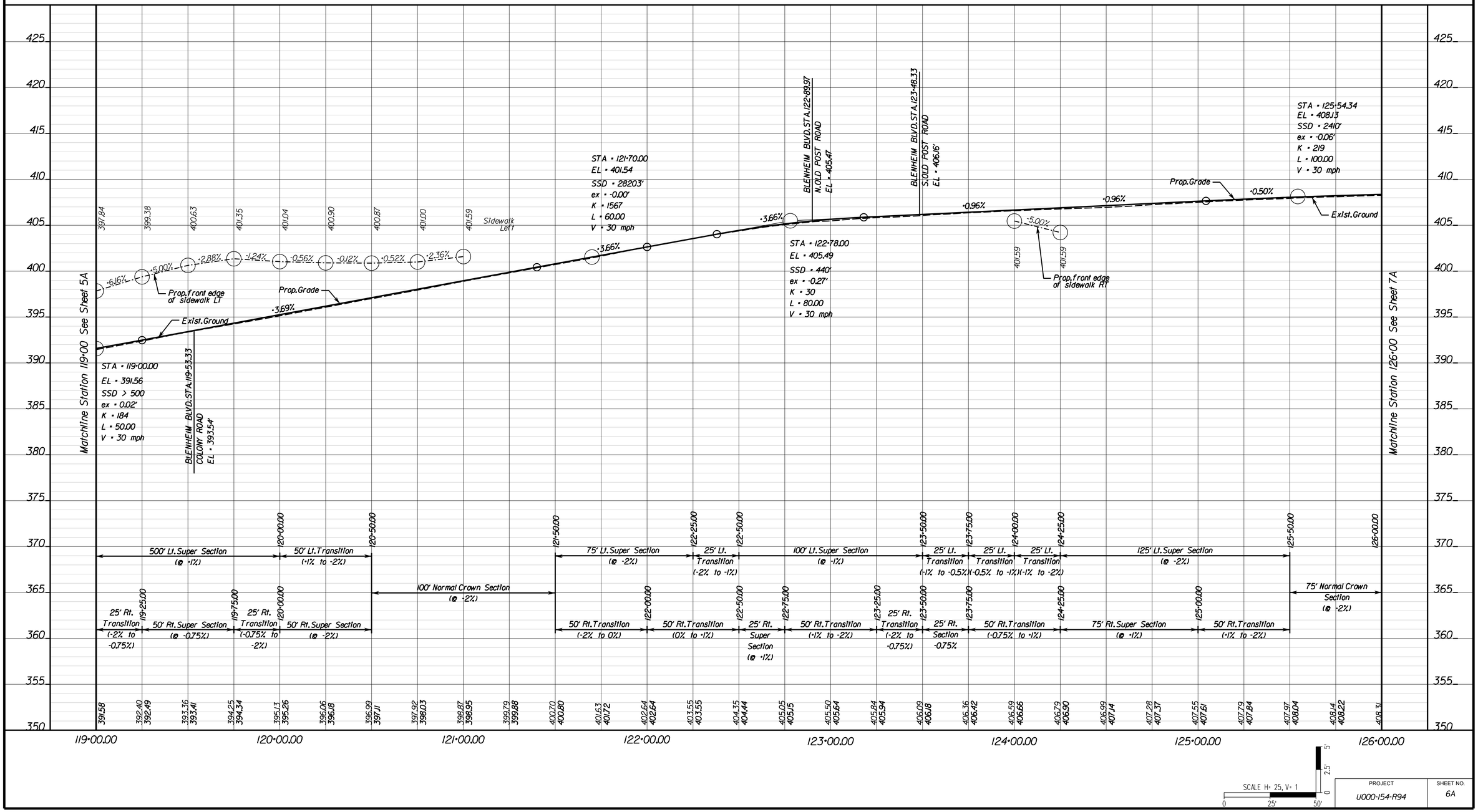
BLENHEIM BOULEVARD PROFILE

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SCALE H• 25, V• 1
0 25' 50'
0 2.5' 5'

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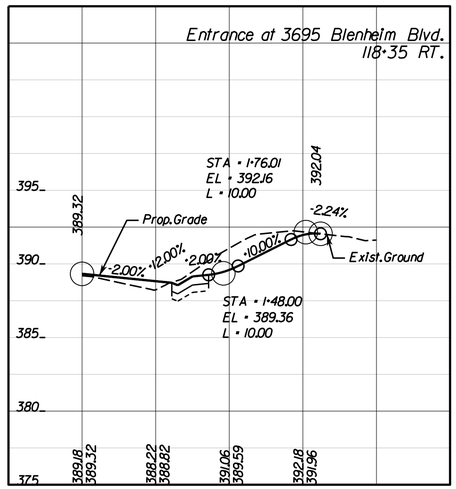
SIDE ROAD AND ENTRANCE PROFILES

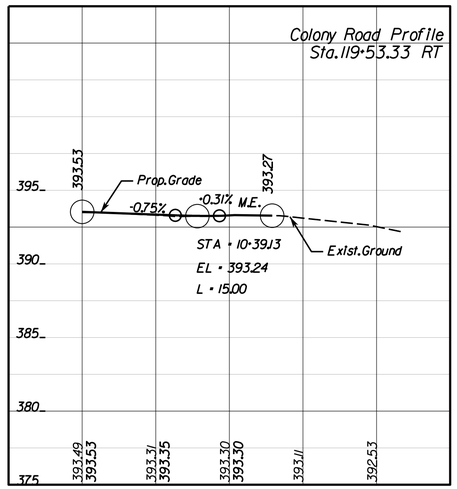
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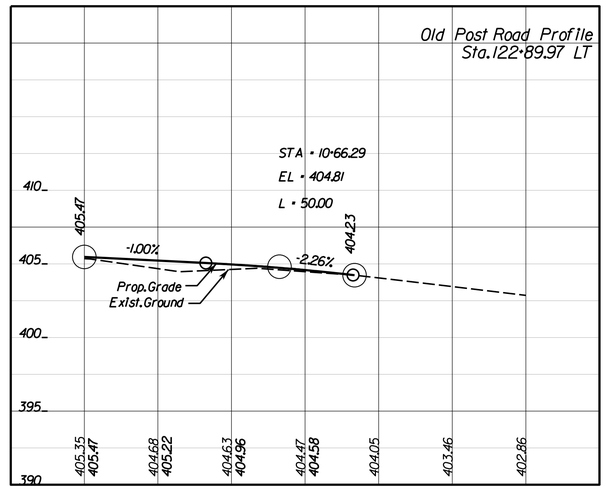
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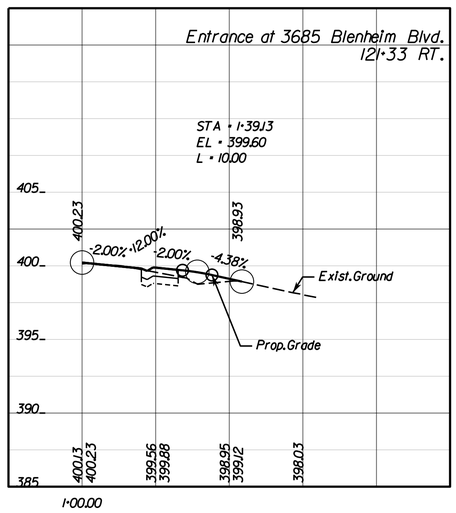
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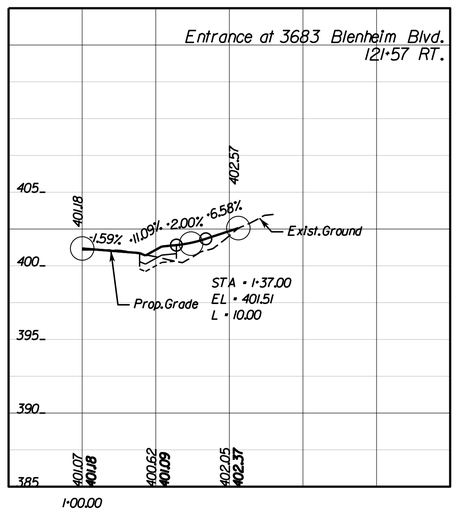
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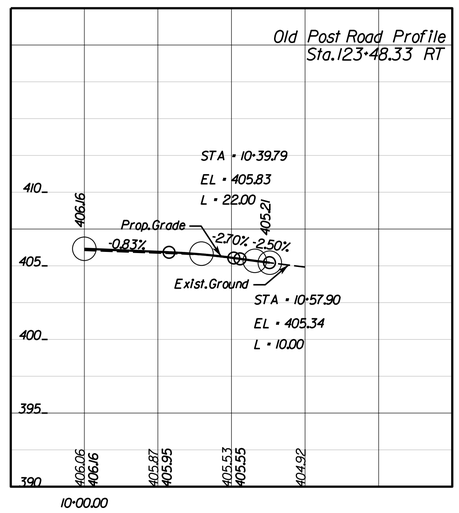












SCALE H= 25, V= 1 (0, 25', 50'; 0, 2.5', 5')

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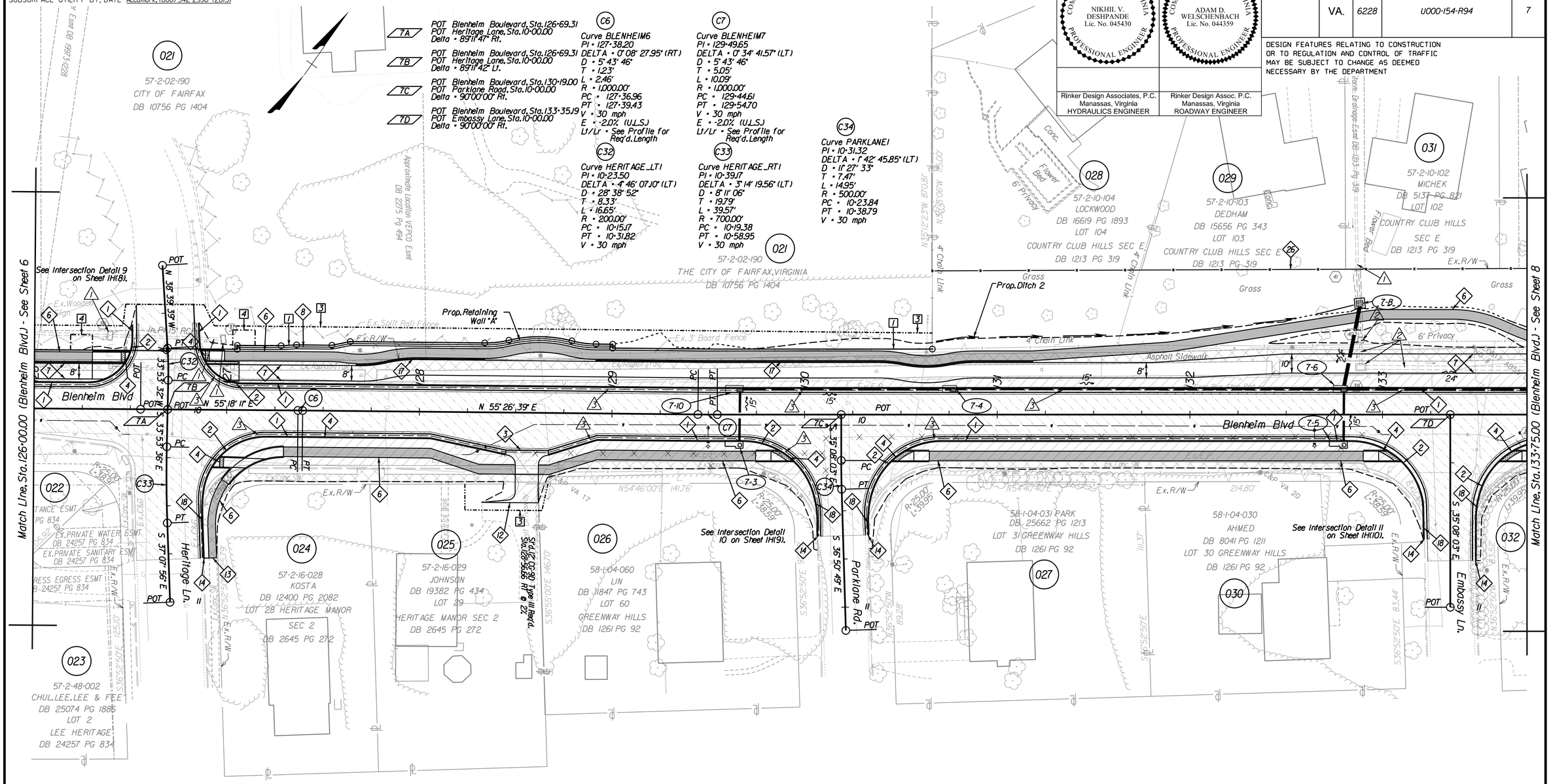
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ADAM D. WELSCHENBACH Lic. No. 044359 — COMMONWEALTH OF VIRGINIA — PROFESSIONAL ENGINEER
Rinker Design Assoc. P.C. Manassas, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	7

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



Roadway Design Legend

#→ Key Legend

1 → Denotes Sl'd.CG-6 Req'd.
2 → Denotes Sl'd.Radial CG-6 Req'd.
3 → Denotes Sl'd.CG-9,Type D Req'd.
4 → Denotes Sl'd.CG-12,DWS
5 → Denotes Concrete Bus Pad Req'd.
6 → Denotes Concrete Sidewalk Req'd.
7 → Denotes Asphalt Trail Req'd.
8 → Denotes Retaining Wall Req'd.
9 → Denotes Sl'd.6' FE-CL Req'd.
10 → Denotes Sl'd.MS-1 Req'd.
11 → Denotes Sl'd.CG-2 Req'd.
12 → Denotes Tie to Existing Driveway
13 → Denotes Tie to Ex.Conc.Sidewalk
14 → Denotes Tie to Ex.Curb and Gutter
15 → Denotes Sl'd.HR-1 Ty.2 Req'd.
16 → Denotes Mod.CG-3 Req'd.
17 → Denotes Mod.CG-2 Req'd. See Sheet 2A(5) for Details
18 → Denotes Mod.CG-6 Req'd.
19 → Denotes Prop.Bike Station
20 → Denotes Prop.Brick Walkway
21 → Denotes Tie to Ex.Brick Walkway
22 → Denotes Tie to Ex.Asphalt Trail
23 → Denotes Prop.Stone Walkway
24 → Denotes Tie to Ex.Stone Walkway
25 → Denotes Sl'd.MS-2 Req'd.
26 → Denotes Privacy Fence Req'd. See Sheet 2A(4) for Details

C ____ Denotes Construction Limits In Cuts
F __ __ Denotes Construction Limits In Fills
CR X-X Curb Return See Sheet X-X

Drainage Design Legend

#→ Key Legend

1 → Denotes Drainage Item to Remain
2 → Denotes Drainage Item to Removed/ Abandoned
3 → Sl'd.UD-4 Req'd.
4 → Sl'd.CD-2 Req'd.

Pavement Legend

Full Depth Pavment
Mill and Overlay
Concrete Sidewalk
Demolition of Pavement
Demolition of Exist.Trail/Sidewalk

NOTE: Full Depth Sawcut Req'd. Between Proposed Full Depth Pavement and Exist. Pavement/Mill and Overlay

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. Right of Way Monument RM-2

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(7)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1F)
Erosion Controls Ph.1 & Ph.2	1Q - 1R(6)
Typical Sections	2A - 2A(7)
Drainage Descriptions	2G - 2G(3)
Profile Blenheim Blvd	7A
Profile Side Roads	7B
Pavement Marking & Signing Plan	1S - 1S(5)
Intersection & Bus Stop Detail Plan	1H - 1H(26)

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	7

3/24/2023

PH PLANS | THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION. | ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

Rinker Design Associates, P.C.
Civil Engineering – Surveying – Land Planning
Transportation – Environmental – Right-of-Way Services
Office Locations
Northern Virginia: 44865 Pipeline Plaza, Suite 260, Ashburn, VA 20147, Phone: (703) 726-2500, Fax: (703) 726-2501
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Maryland: 2 Hamill Road, Suite 1340, Baltimore, MD 21210, Phone: (410) 377-4884, Fax: (410) 377-4886
www.rinkerdesign.com

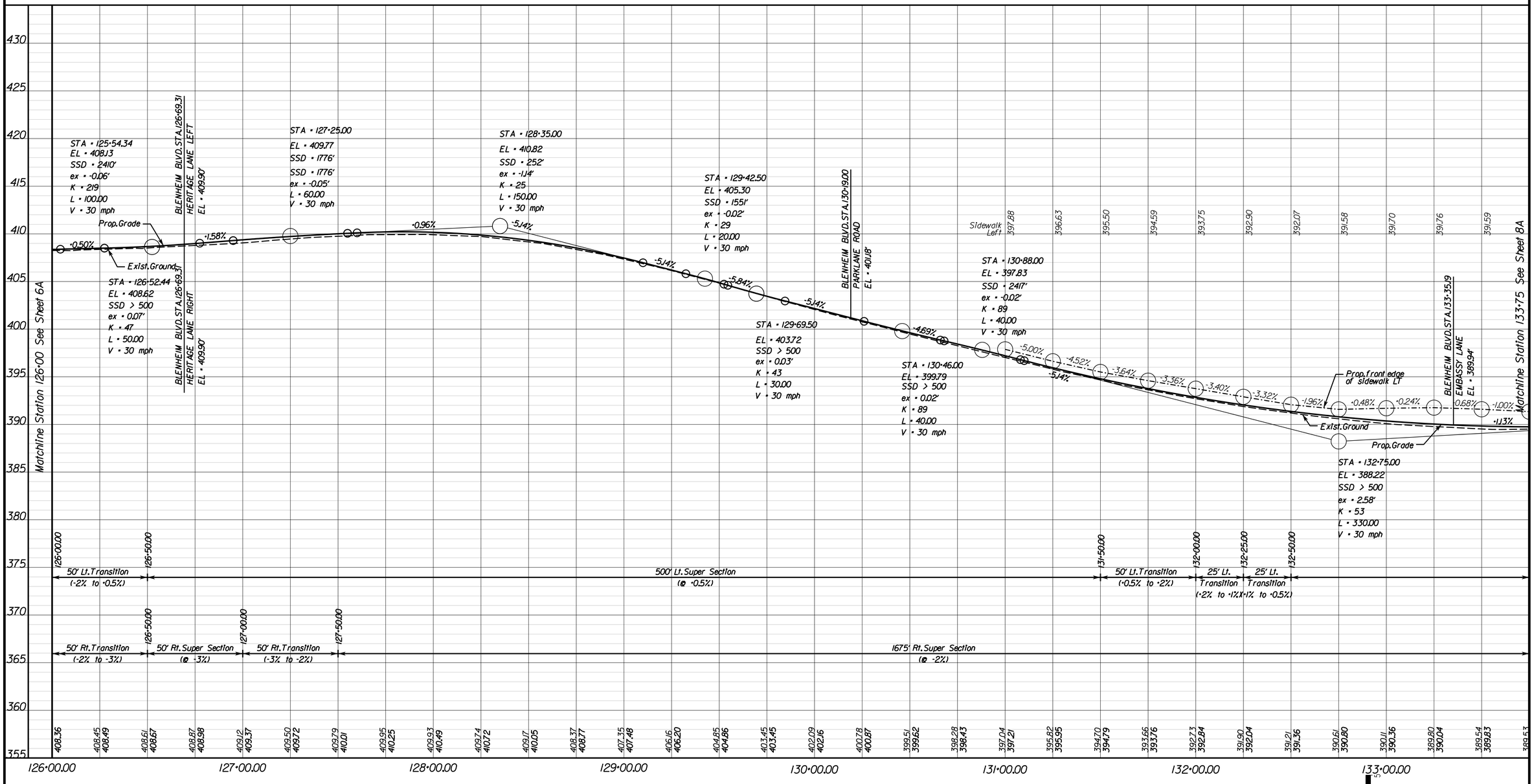
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Sidney Thomas, L.S., (703) 368-7373 (2014)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BLENHEIM BOULEVARD PROFILE

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.			7A

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

Rinker Design Assoc. P.C.
Manassas, Virginia
(ROADWAY ENGINEER)



PROJECT	SHEET NO.
	7A

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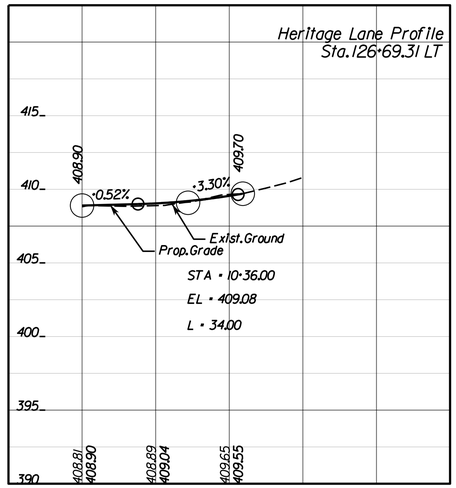
SIDE ROAD AND ENTRANCE PROFILES

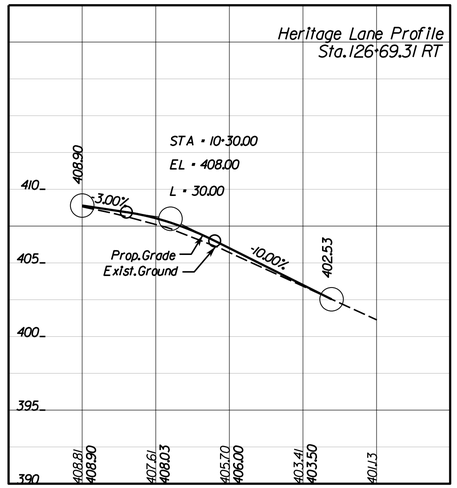
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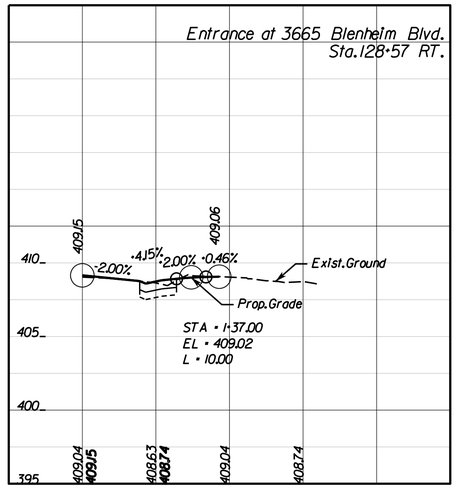
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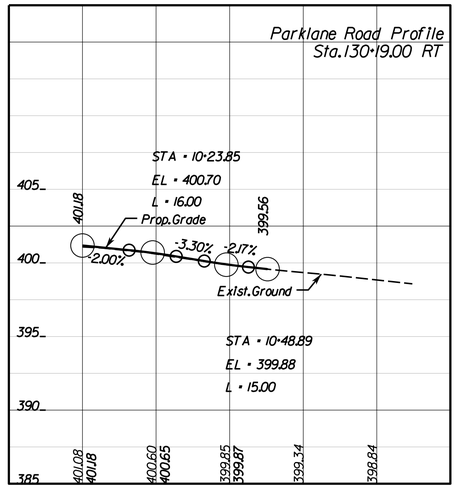
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	7B

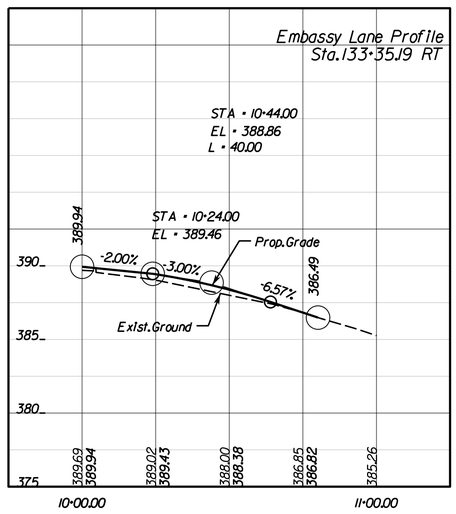
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SCALE H= 25, V= 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-154-R94	7B

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Office Locations
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Transportation – Site Development
Right-of-Way Services
Rinker
RDA

3/24/2023

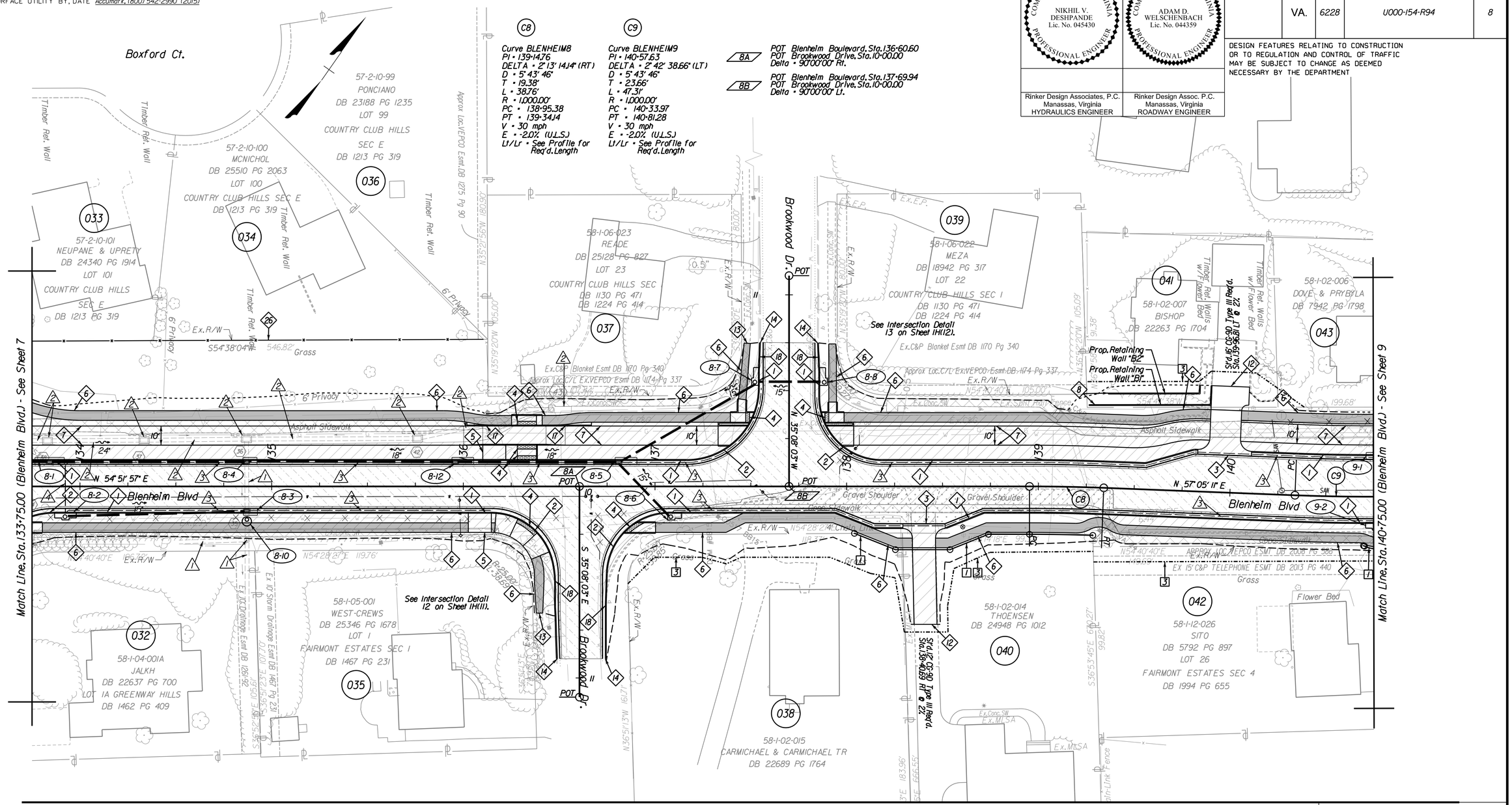
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	8

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



Roadway Design Legend

(#) Key Legend

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2 — Denotes St'd.Radial CG-6 Req'd.
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(CR X-X) Curb Return See Sheet X-X

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Pavement Legend

Full Depth Pavment
Mill and Overlay
Concrete Sidewalk
Demolition of Pavement
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NOTE: Full Depth Sawcut Req'd. Between Proposed Full Depth Pavement and Exist. Pavement/Mill and Overlay

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1 Prop. Permanent Drainage Ease. (Dot-Dashed Lines)
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Profile Brookwood Drive	8B
Pavement Marking & Signing Plan	1S - 1S(15)
Intersection & Bus Stop Detail Plan	1H - 1H(26)

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	8

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3/24/2023

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BLENHEIM BOULEVARD PROFILE

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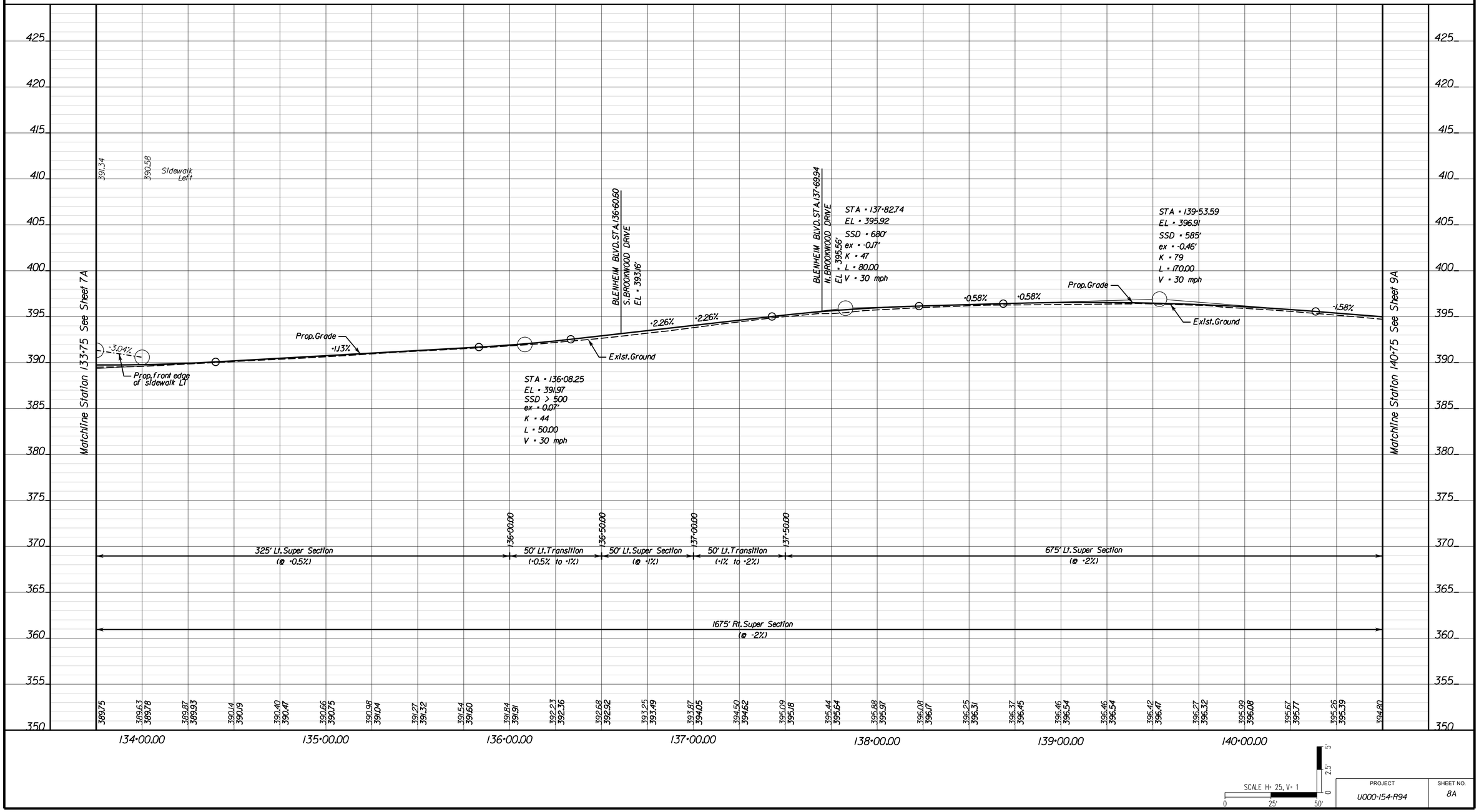
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	8A

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SIDE ROAD AND ENTRANCE PROFILES

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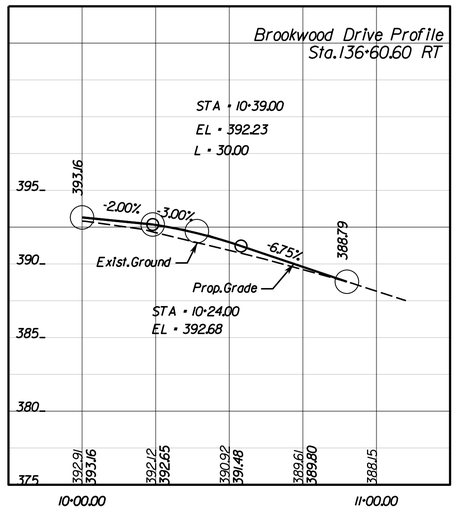
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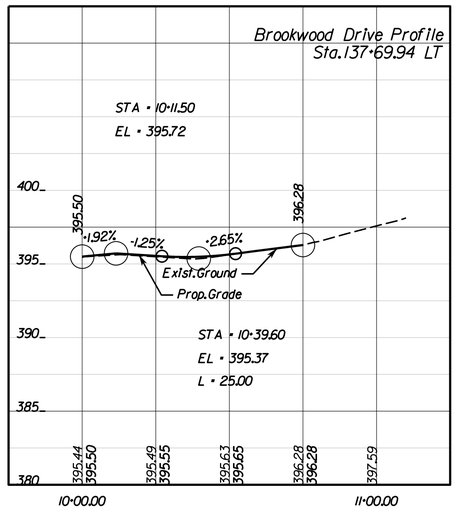
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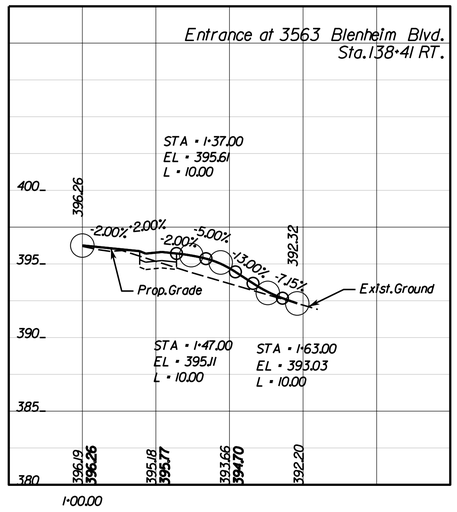
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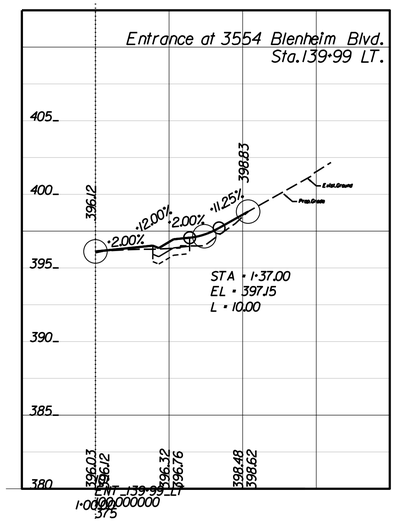
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0 25' 50'
0 2.5' 5'

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Fredericksburg, VA 22407
Phone: (540) 548-1133
Fax: (540) 548-1355

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C9 Curve BLENHEIM9
PI = 140+57.63
DELTA = 2°42' 38.66" (LT)
D = 5°43' 46"
T = 23.66'
L = 47.31'
R = 1,000.00'
PC = 140+33.97
PT = 140+81.28
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C10 Curve BLENHEIM10
PI = 142+08.84
DELTA = 2°52' 12.96" (LT)
D = 5°43' 46"
T = 25.05'
L = 50.10'
R = 1,000.00'
PC = 141+83.79
PT = 142+33.89
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C11 Curve BLENHEIM11
PI = 143+05.33
DELTA = 2°57' 39.77" (RT)
D = 5°43' 46"
T = 25.85'
L = 51.68'
R = 1,000.00'
PC = 142+79.48
PT = 143+31.16
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C12 Curve BLENHEIM12
PI = 148+15.12
DELTA = 3°08' 53.15" (LT)
D = 2°58' 35"
T = 52.90'
L = 105.77'
R = 1,925.00'
PC = 147+62.22
PT = 148+67.99
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C35 Curve QUEENANNE1
PI = 10+47.63
DELTA = 0°35' 09.05" (RT)
D = 5°43' 46"
T = 5.11'
L = 10.22'
R = 1,000.00'
PC = 10+42.52
PT = 10+52.75
V = 30 mph

C36 Curve COUNTRY_LT1
PI = 10+31.10
DELTA = 1°28' 58.90" (LT)
D = 5°43' 46"
T = 12.94'
L = 25.88'
R = 1,000.00'
PC = 10+18.15
PT = 10+44.04
V = 30 mph

C37 Curve COUNTRY_RT1
PI = 10+26.23
DELTA = 3°40' 13.96" (LT)
D = 11°27' 33"
T = 16.02'
L = 32.03'
R = 500.00'
PC = 10+10.21
PT = 10+42.24
V = 30 mph

9A POT Blenheim Boulevard, Sta.141+28.30
POT Queen Anne Drive, Sta.10+00.00
Delta = 90°00'00" Lt.

9B POT Blenheim Boulevard, Sta.144+77.81
POT Country Hill Drive, Sta.10+00.00
Delta = 90°00'00" Lt.

9C POT Blenheim Boulevard, Sta.144+83.19
POT Country Hill Drive, Sta.10+00.00
Delta = 90°00'00" Rt.

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	9

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Match Line, Sta.140+75.00 (Blenheim Blvd.) - See Sheet 8

Match Line, Sta.148+25.00 (Blenheim Blvd.) - See Sheet 10

Country Hill Dr.

Queen Anne Dr.

Blenheim Blvd

043 — 58-1-02-002 CEREZO & ORELLANA DB 25579 PG 109

044

046 — 58-1-06-012 FITZGERALD DB 6236 PG 1674 LOT 12 COUNTRY CLUB HILLS SEC 1 DB 1130 PG 471 DB 1224 PG 414

048 — 58-1-06-001 ASHMORE DB 13728 PG 1743 LOT 1 COUNTRY CLUB HILLS SEC 1 DB 1130 PG 471 DB 1224 PG 414

050 — 58-1-02-003 CITY OF FAIRFAX SCHOOL BOARD DB 3236 PG 341 DB 3269 PG 449 47.762 ACRES

042 — 58-1-12-001 BORK & BAI DB 25250 PG 920 LOT 1 FAIRMONT ESTATES SEC 4 DB 1994 PG 655

045

047 — 58-1-02-008 ZHIJUN ZHANG & JIANLING LI DB 20719 PG 240

049 — 58-1-10-001 BUYUKMEREY DB 24983 PG 2178 LOT 1 FAIRMONT EST. SEC 3 DB 1761 PG 494

051 — 58-1-18-005 CRUISE & INSLEY DB 20193 PG 349 LOT 5 FAIRFAX COUNTRY CLUB EST SEC 6 DB 4026 PG 346

052

Ex.C&P Blanket Esmt DB 1170 Pg 340
Approx Loc.C/L Ex.VEPCO Esmt DB 1174 Pg 337
APPROX LOC VEPCO ESMT DB 2008 PG 586
EX 15' C&P TELEPHONE ESMT DB 2013 PG 440 Ex.R/W
EX 15' C&P TELEPHONE ESMT DB 1660 PG 5
Ex 3' Esmt For Public Street & Utilities 4026 Pg 346
Ex 15' C&P Tel
Ex 10' SANITARY SEWER ESMT DB -
Prop. Utility Pole (By Others)
See Intersection Detail 14 on Sheet 1H(13).
See Intersection Detail 15 on Sheet 1H(14).
Ex. 25 MPH Speed Limit Sign
Ex.R/W
Ex.C&G
Ex.E.P.
Ex.W
Ex.SAN
Ex.STM
Ex.GAS
Ex.OHU
Ex.UGT
Ex.UGP
Ex.UGC
Ex.UGF
Ex.UGW
Ex.UGG
Ex.UGS
Ex.UGTV
Ex.UGCATV
Ex.UGFO
Ex.UGSIG
Ex.UGSTL
Ex.UGSTM
Ex.UGSAN
Ex.UGGAS
Ex.UGOHU
Ex.UGUNK
Ex.UGTEL
Ex.UGELEC
Ex.UGWATER

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Sidney Thomas, L.S., (703) 368-7373 (2014)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BLENHEIM BOULEVARD PROFILE

NIKHIL V. DESHPANDE
Lic. No. 045430
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

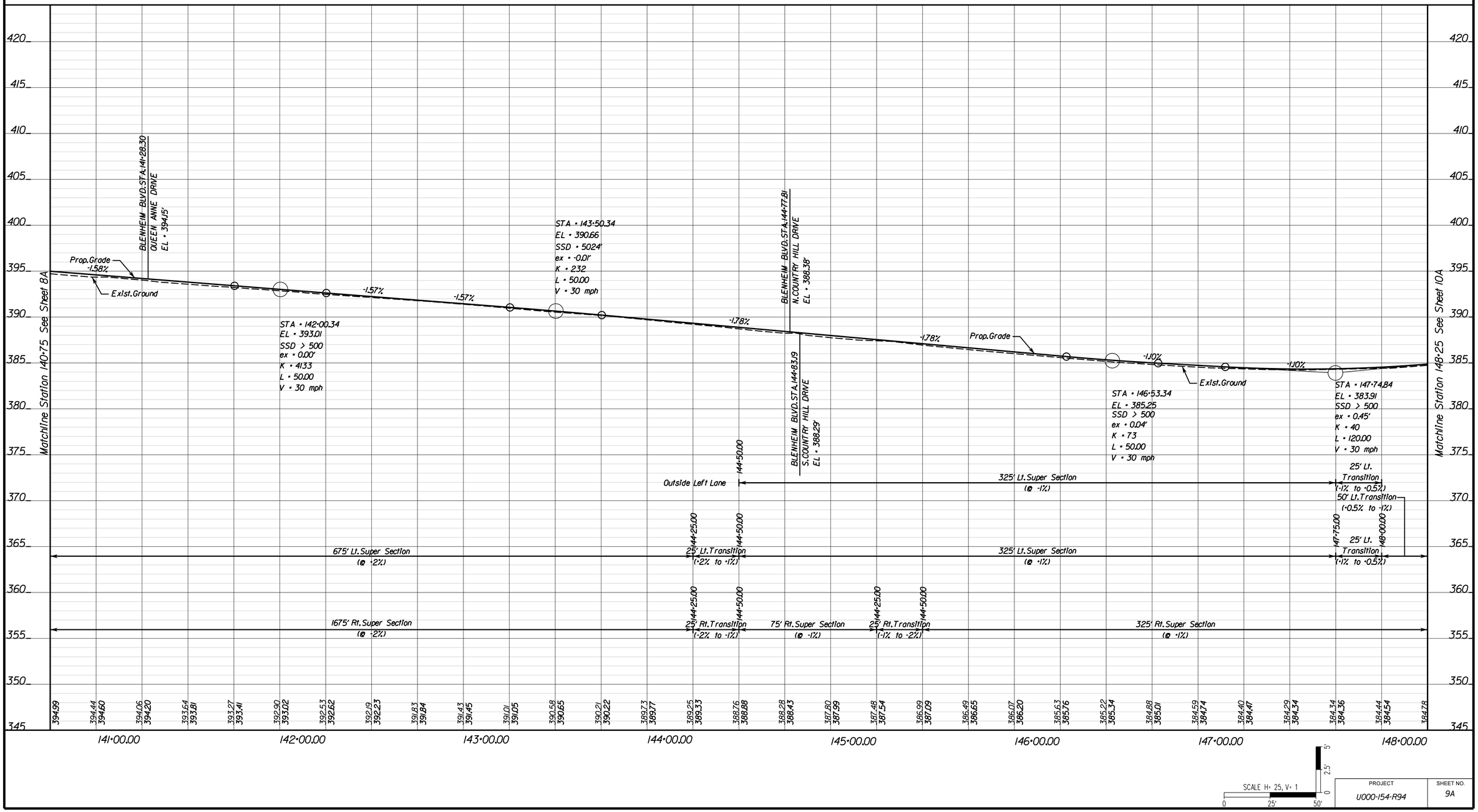
Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

ADAM D. WELSCHENBACH
Lic. No. 044359
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	9A

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.
U000-154-R94	9A

PH PLANS

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Civil Engineering – Surveying – Land Planning
Transportation – Land Development
Right-of-Way Services
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Fredericksburg: 2 Dominion Circle, Suite 3C, Fredericksburg, VA 22406, Phone: (540) 368-1770, Fax: (540) 368-1771
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Richmond: 2100 West Laburnum Avenue, Suite 105, Richmond, VA 23227, Phone: (804) 377-0650, Fax: (804) 377-0651

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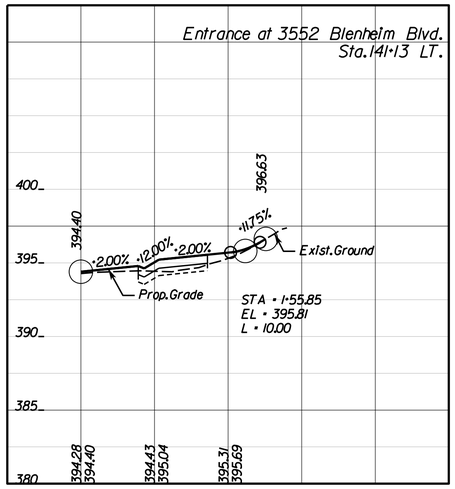
SIDE ROAD AND ENTRANCE PROFILES

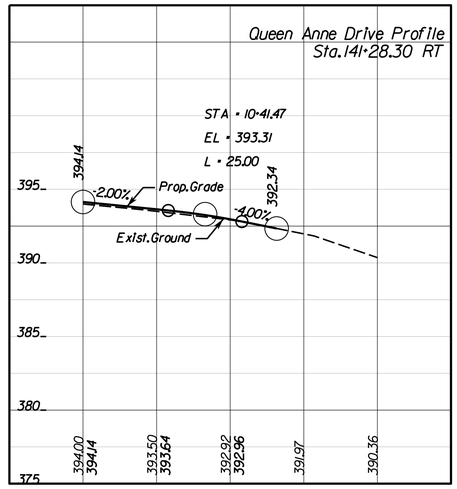
COMMONWEALTH OF VIRGINIA — NIKHIL V. DESHPANDE — Lic. No. 045430 — PROFESSIONAL ENGINEER
Rinker Design Associates, P.C. Manassas, Virginia — HYDRAULICS ENGINEER

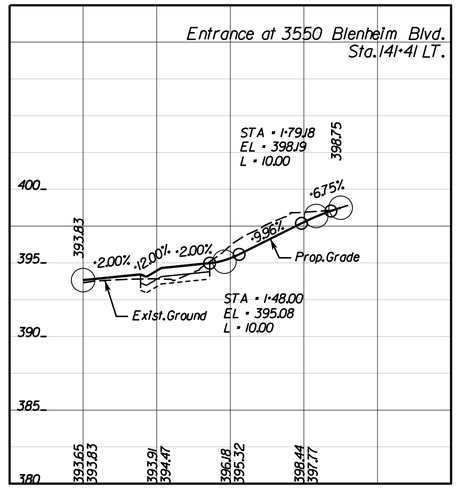
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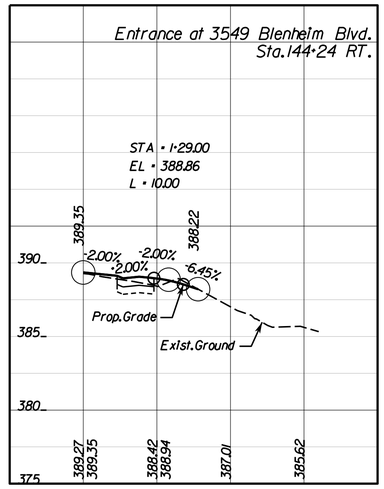
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	9B

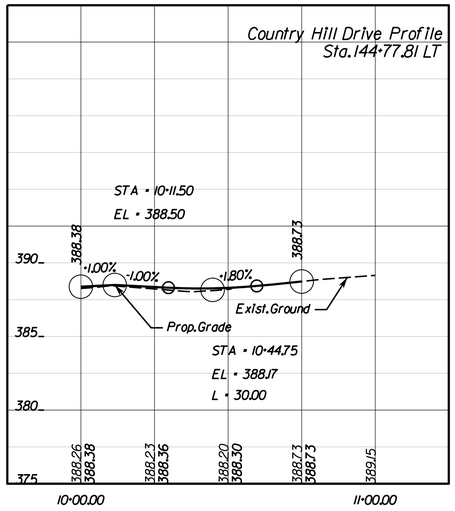
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

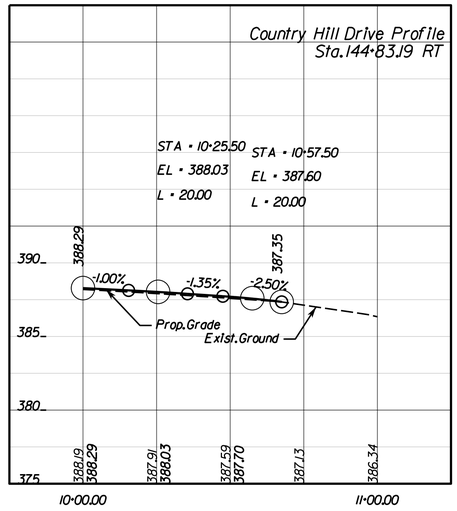












SCALE H= 25, V= 1
0 2.5' 5'
0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	9B

PH PLANS

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3/24/2023

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	10

COMMONWEALTH OF VIRGINIA — NIKHIL V. DESHPANDE — Lic. No. 045430 — PROFESSIONAL ENGINEER
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COMMONWEALTH OF VIRGINIA — ADAM D. WELSCHENBACH — Lic. No. 044359 — PROFESSIONAL ENGINEER
Rinker Design Assoc. P.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

C12
Curve BLENHEIM12
PI = 148+15.12
DELTA = 3°08' 53.15" (LT)
D = 2°58' 35"
T = 52.90'
L = 105.77'
R = 1,925.00'
PC = 147+62.22
PT = 148+67.99
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C13
Curve BLENHEIM13
PI = 149+77.82
DELTA = 3°11' 12.55" (RT)
D = 5°43' 46"
T = 27.82'
L = 55.62'
R = 1,000.00'
PC = 149+50.00
PT = 150+05.62
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C14
Curve BLENHEIM14
PI = 152+59.42
DELTA = 6°23' 19.05" (RT)
D = 5°43' 46"
T = 55.81'
L = 111.50'
R = 1,000.00'
PC = 152+03.61
PT = 153+15.12
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C15
Curve BLENHEIM15
PI = 154+65.51
DELTA = 7°42' 23.16" (RT)
D = 3°49' 11"
T = 101.03'
L = 201.75'
R = 1,500.00'
PC = 153+64.48
PT = 155+66.23
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Profile for Req'd. Length

C38
Curve CORNELL1
PI = 10+24.78
DELTA = 3°08' 53.14" (RT)
D = 11°27' 33"
T = 13.74'
L = 27.47'
R = 500.00'
PC = 10+11.04
PT = 10+38.51
V = 30 mph

C39
Curve ENTR_14955LT1
PI = 10+35.78
DELTA = 3°08' 53.15" (RT)
D = 11°27' 33"
T = 13.74'
L = 27.47'
R = 500.00'
PC = 10+22.04
PT = 10+49.51

10A POT Blenheim Boulevard, Sta. 149+47.82
POT Cornell Road, Sta. 10+00.00
Delta = 90°00'00" Rt.

10B POT Blenheim Boulevard, Sta. 149+54.32
POT Entrance, Sta. 10+00.00
Delta = 90°00'00" Lt.

58-1-02-003
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DB 3236 PG 347
DB 3269 PG 449
47.762 ACRES

050

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

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

Blenheim Blvd

Cornell Rd.

N 51°19' 06" E

N 54° 30' 19" E

N 60° 53' 38" E

S 35° 32' 01" E

S 35° 40' 54" E

PC, PT, POT

R=1179.00' L=281.24'

R=1086.00' L=265.36'

R=25.00' L=39.94'

R=25.00' L=39.60'

See Bus Stop Detail 4 on Sheet 1H(22)

See Intersection Detail 16 on Sheet 1H(15).

Prop. Utility Pole (By Others)

Prop. Retaining Wall "C"

Conc. Block Ret. Wall

Conc. Sidewalk

4' Chain Link Fence

Transformer

Grass

Ex. Flashing Pedestrian Sign on Conc. Base

Ex. Elec. Cabinet on Conc. Base

Ex. Bus Stop

Ex. Conc. SW

Ex. C&G

Ex. R/W

Ex. E.P.

Ex. Gravel Shoulder

Ex. Grass Area

Ex. Asphalt Cart Path

Ex. Drive

Ex. Entrance

Ex. Curb Inlet

Ex. Storm Sewer

Ex. Utility Pole

Ex. Overhead Utility

Ex. Underground Utility

Ex. Fiber Optic

Ex. Gas Line

Ex. Water Line

Ex. Sanitary Sewer

Ex. Storm Drain

Ex. Telephone Pedestal

Ex. Telephone Manhole

Ex. Telephone Vault

Ex. Telephone Riser

Ex. Telephone Line

Ex. Telephone Conduit

Ex. Telephone Duct

Ex. Telephone Cable

Ex. Telephone Wire

Ex. Telephone Pole

Ex. Telephone Guy Wire

Ex. Telephone Anchor

Ex. Telephone Box

Ex. Telephone Junction Box

Ex. Telephone Splice Box

Ex. Telephone Terminal Box

Ex. Telephone Distribution Box

Ex. Telephone Service Box

Ex. Telephone Service Wire

Ex. Telephone Service Line

Ex. Telephone Service Conduit

Ex. Telephone Service Duct

Ex. Telephone Service Cable

Ex. Telephone Service Pole

Ex. Telephone Service Guy Wire

Ex. Telephone Service Anchor

Ex. Telephone Service Box

Ex. Telephone Service Junction Box

Ex. Telephone Service Splice Box

Ex. Telephone Service Terminal Box

Ex. Telephone Service Distribution Box

Ex. Telephone Service Riser

Ex. Telephone Service Vault

Ex. Telephone Service Manhole

Ex. Telephone Service Pedestal

Ex. Telephone Service Line

Ex. Telephone Service Conduit

Ex. Telephone Service Duct

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BLENHEIM BOULEVARD PROFILE

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COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

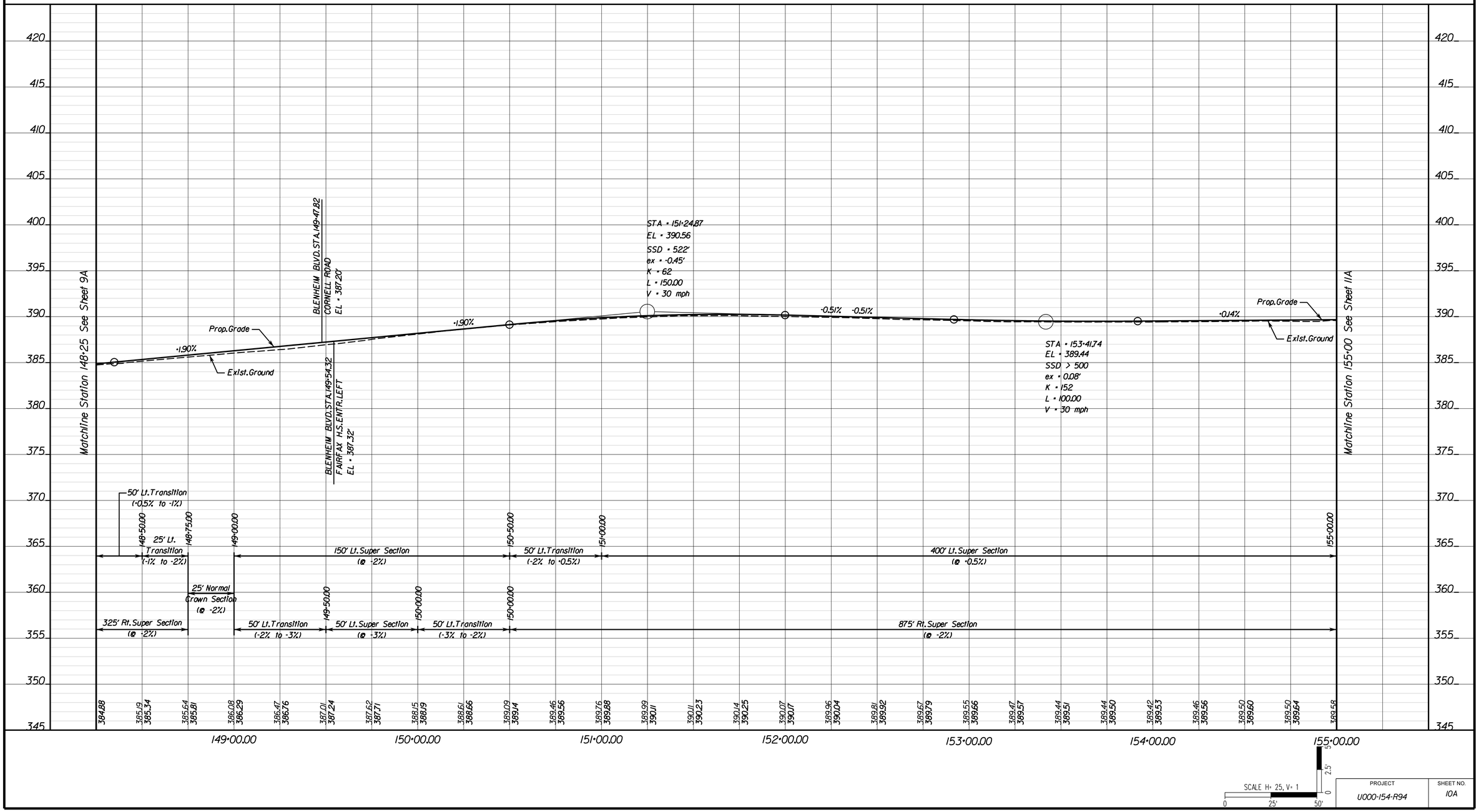
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	10A

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PROJECT U000-154-R94 | SHEET NO. 10A

PH PLANS

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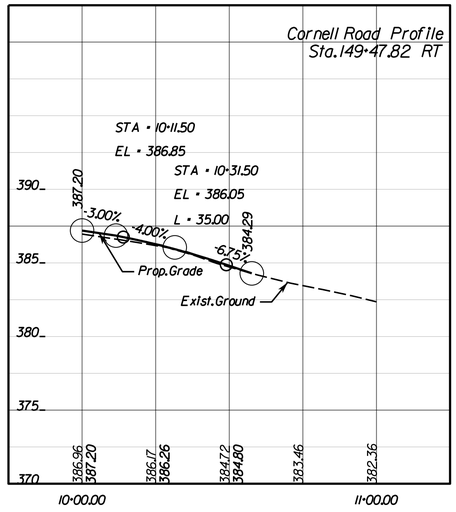
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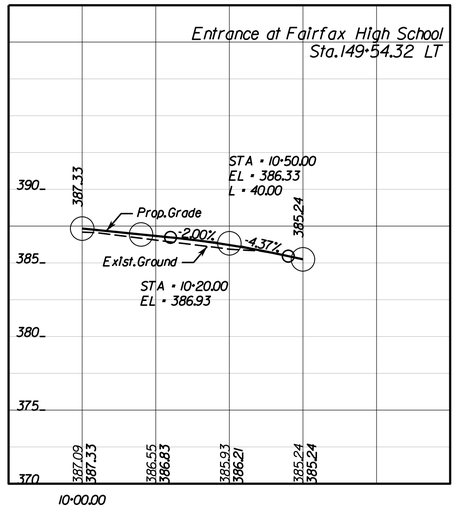
Rinker Design Associates, P.C.
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Transportation - Environmental - Right-of-Way Services
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3/24/2023

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SIDE ROAD AND ENTRANCE PROFILES





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SCALE H= 25, V= 1
0 25' 50'
0 2.5' 5'

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ADAM D. WELSCHENBACH Lic. No. 044359 — COMMONWEALTH OF VIRGINIA — PROFESSIONAL ENGINEER
Rinker Design Assoc. P.C. Manassas, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	II

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

C15
Curve BLENHEIM15
PI = 154+65.51
DELTA = 1° 42' 23.16" (RT)
D = 3° 49' 11"
T = 101.03'
L = 201.75'
R = 1,500.00'
PC = 153+64.48
PT = 155+66.23
V = 30 mph
E = -2.0% (U.L.S.)
Lt/Lr = See Prof for Blenheim Boulevard, Sta. 157+38.85 Req'd Open Section Run, Sta. 10+00.00 Delta = 90°00'00" Lt.
IIA

58-1-02-003
THE SCHOOL BOARD OF THE CITY OF FAIRFAX, VIRGINIA
DB 3236 PG 347
DB 3269 PG 449
47.762 ACRES

050 | 055 | 056 | 057 | 058 | 077 | 054

58-1-17-063
CONLEY II & STORGAARD-CONLEY
DB 23984 PG 283
LOT 63
GREAT OAKS
DB 3927 PG 539

58-1-17-062
SAFAROV & NAZURDINOVA
DB 17464 PG 1801
LOT 62
GREAT OAKS
DB 3927 PG 539

58-1-17-052
FLETCHER
DB 5241 PG 377
LOT 52
GREAT OAKS
DB 3927 PG 539

58-1-17-051
DOWELL, T.R.)
DB 25417 PG 869
LOT 51
GREAT OAKS
DB 3927 PG 539

58-1-17-000A
GREAT OAKS HOMEOWNERS ASSOCIATION
DB 3927 PG 539

See Intersection Detail 17 on Sheet 1H(16).
POT
Lion Run
Prop. Utility Pole (By Others)
Ex.Cons.SW
Ex.R/W
Ex.C&G
Ex.Gravel Shoulder
Ex.Grass Area
Ex.E.P.
Ex.Asphalt Cart Path
Ex.6' Board Fence
Verizon Esmt DB 23995-419
Dominion Virginia Power Esmt DB 3927 PG 539
Approx Loc 10' Verizon Esmt DB 9796 Pg 11
Approx Loc 10' Dominion Virginia Power Esmt DB 3927 PG 539
DOM #ED58
DOM #ED47
DOM #ED99
CO517 ED36
Cable TV
CATV 12-1/2
N 22° 23' 55" W
N 68° 36' 01" E
N68°41'41"E 890.35
8'
15'
10'
PT
II-1
II-3
II-4
C15
IIA
156
157
158
159
160
161

Match Line, Sta. 155+00.00 (Blenheim Blvd.) - See Sheet 10
Match Line, Sta. 162+00.00 (Blenheim Blvd.) - See Sheet 12

Roadway Design Legend

Key Legend

1 — Denotes Std.CG-6 Req'd.
2 — Denotes Std.Radial CG-6 Req'd.
3 — Denotes Std.CG-9,Type D Req'd.
4 — Denotes Std.CG-12,DWS
5 — Denotes Concrete Bus Pad Req'd.
6 — Denotes Concrete Sidewalk Req'd.
7 — Denotes Asphalt Trail Req'd.
8 — Denotes Retaining Wall Req'd.
9 — Denotes Std.6' FE-CL Req'd.
10 — Denotes Std.MS-1 Req'd.
11 — Denotes Std.CG-2 Req'd.
12 — Denotes Tie to Existing Driveway
13 — Denotes Tie to Ex.Conc.Sidewalk
14 — Denotes Tie to Ex.Curb and Gutter
15 — Denotes Std.HR-1 Ty.2 Req'd.
16 — Denotes Mod.CG-3 Req'd.
17 — Denotes Mod.CG-2 Req'd. See Sheet 2A(5) for Details
18 — Denotes Mod.CG-6 Req'd.
19 — Denotes Prop.Bike Station
20 — Denotes Prop.Brick Walkway
21 — Denotes Tie to Ex.Brick Walkway
22 — Denotes Tie to Ex.Asphalt Trail
23 — Denotes Prop.Stone Walkway
24 — Denotes Tie to Ex.Stone Walkway
25 — Denotes Std.MS-2 Req'd.
26 — Denotes Privacy Fence Req'd. See Sheet 2A(4) for Details

C ____ Denotes Construction Limits in Cuts
F __ __ Denotes Construction Limits in Fills
CR X-X Curb Return See Sheet X-X

Drainage Design Legend

Key Legend
1 — Denotes Drainage Item to Remain
2 — Denotes Drainage Item to Removed/ Abandoned
3 — Std.UD-4 Req'd.
4 — Std.CD-2 Req'd.

Pavement Legend

Full Depth Pavment
Mill and Overlay
Concrete Sidewalk
Demolition of Pavement
Demolition of Exist.Trail/Sidewalk
NOTE: Full Depth Sawcut Req'd. Between Proposed Full Depth Pavement and Exist. Pavement/Mill and Overlay

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.Right of Way Monument RM-2

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

Survey Control Data Sheet	IF
Geometric Data Sheet	IG(II)
Horizontal Constr. Alignment Data	IG(IA) - IG(IF)
Erosion Controls Ph.I & Ph.2	IQ - IR(6)
Typical Sections	2A - 2A(7)
Drainage Descriptions	2G - 2G(3)
Profile Blenheim Blvd	IIA
Profile Lion Run	IIB
Pavement Marking & Signing Plan	I5 - I5(I5)
Intersection & Bus Stop Detail Plan	IH - IH(26)

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	II

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BLENHEIM BOULEVARD PROFILE

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COMMONWEALTH OF VIRGINIA
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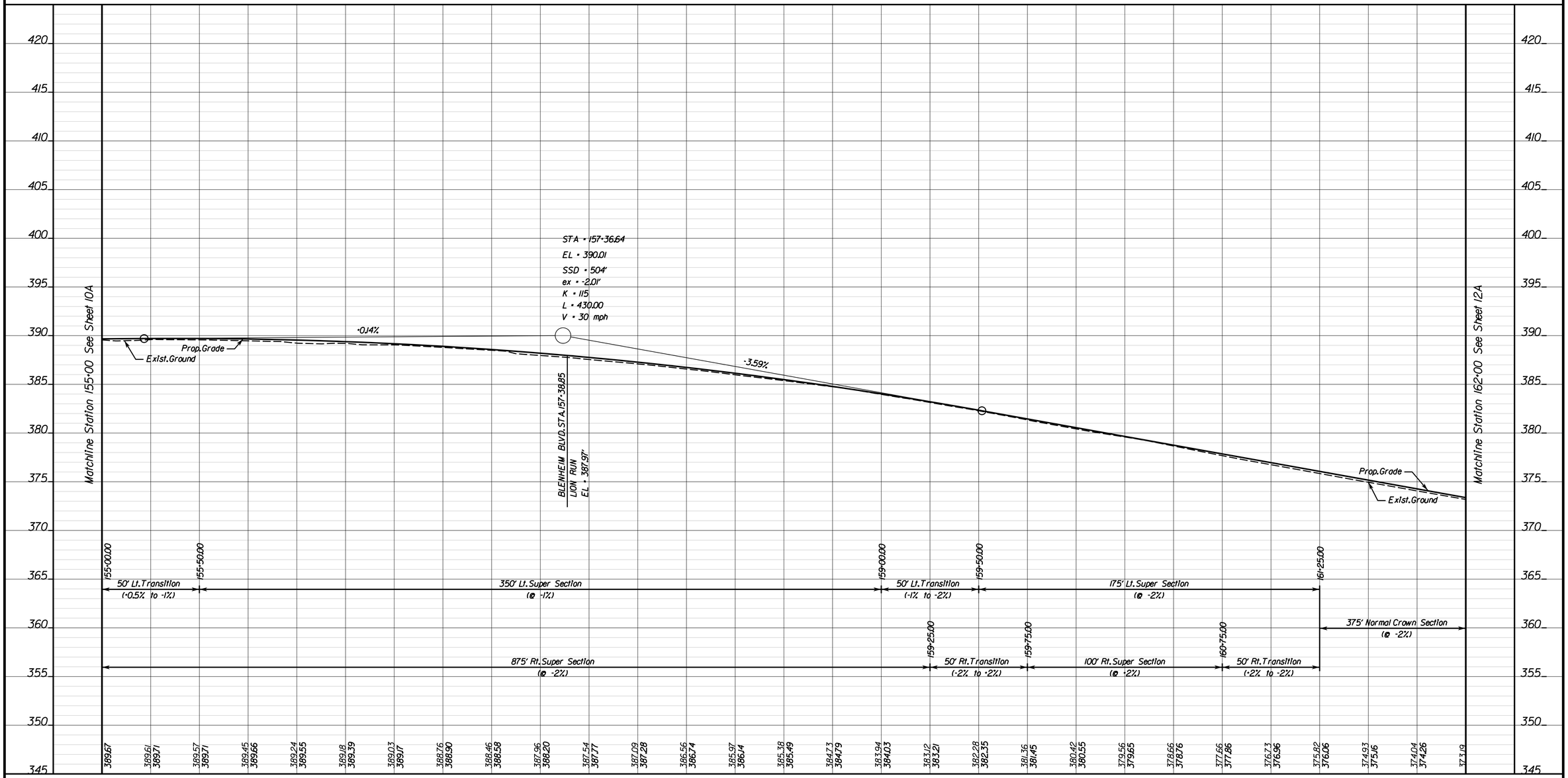
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ADAM D. WELSCHENBACH
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	IIA

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= 1
0 25' 50' 0 2.5' 5'

PROJECT	SHEET NO.
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PH PLANS

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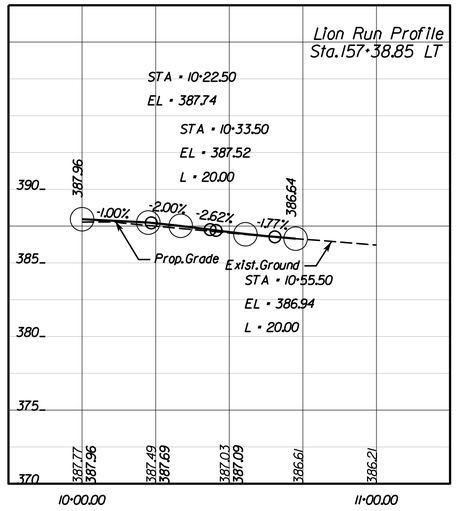
Rinker Design Associates, P.C.
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PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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SIDE ROAD AND ENTRANCE PROFILES



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SCALE H= 25, V= 1
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0 2.5' 5'

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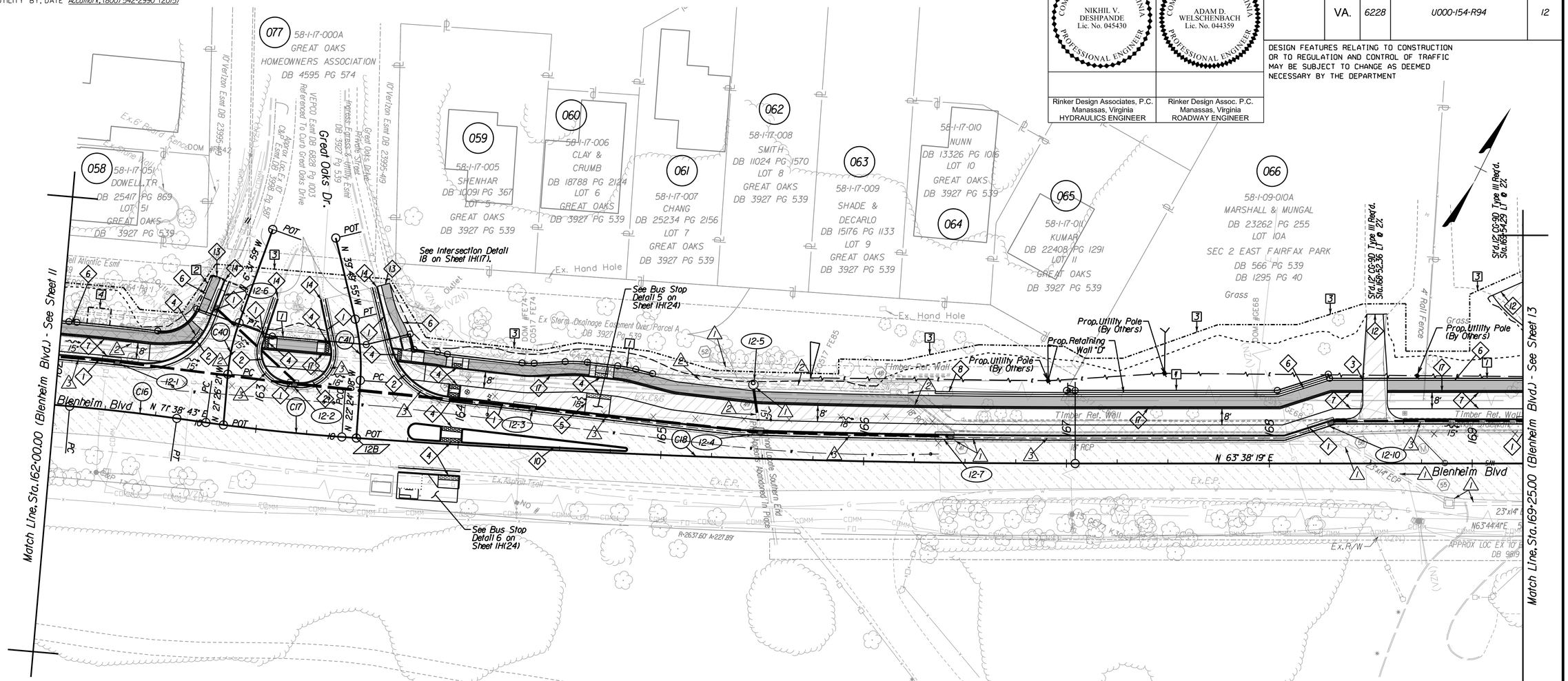
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Match Line, Sta. 162+00.00 (Blenheim Blvd.) - See Sheet 11
Match Line, Sta. 169+25.00 (Blenheim Blvd.) - See Sheet 13
Great Oaks Dr.
Blenheim Blvd
058 58-1-17-051 DOWELL, TR DB 25417 PG 869 LOT 151 GREAT OAKS DB 3927 PG 539
077 58-1-17-000A GREAT OAKS HOMEOWNERS ASSOCIATION DB 4595 PG 574
059 58-1-17-005 SHENHAR DB 10091 PG 367 LOT 5 GREAT OAKS DB 3927 PG 539
060 58-1-17-006 CLAY & CRUMB DB 18788 PG 2124 LOT 6 GREAT OAKS DB 3927 PG 539
061 58-1-17-007 CHANG DB 25234 PG 2156 LOT 7 GREAT OAKS DB 3927 PG 539
062 58-1-17-008 SMITH DB 11024 PG 1570 LOT 8 GREAT OAKS DB 3927 PG 539
063 58-1-17-009 SHADE & DECARLO DB 15176 PG 1133 LOT 9 GREAT OAKS DB 3927 PG 539
064 58-1-17-010 NUNN DB 13326 PG 1016 LOT 10 GREAT OAKS DB 3927 PG 539
065 58-1-17-011 KUMAR DB 22408 PG 1291 LOT 11 GREAT OAKS DB 3927 PG 539
066 58-1-09-010A MARSHALL & MUNGAL DB 23262 PG 255 LOT 10A SEC 2 EAST FAIRFAX PARK DB 566 PG 539 DB 1295 PG 40
See Intersection Detail 18 on Sheet 1H(17).
See Bus Stop Detail 5 on Sheet 1H(24)
See Bus Stop Detail 6 on Sheet 1H(24)
Ex. Hand Hole
Ex. Storm Drainage Easement over Parcel A DB 3927 Pg 539
Ex. Asphalt Trail
Abandoned In Place
Timber Ret. Wall
Prop. Retaining Wall "D"
Prop. Utility Pole (By Others)
Grass
4' Rail Fence
Ex. R/W
Approx. Loc Ex. 10' Verizon Esmt DB 23995-419
Verizon Esmt DB 23995-419
Great Oaks Drive Private Street Ingress-Egress & Utility Esmt DB 3927 Pg 539
VEPCO Esmt DB 6828 Pg 1003 Referenced To Curb Great Oaks Drive
Bell Atlantic Esmt DB 1064 Pg 1
Ex. 6' Board Fence
Ex. Phone Pedestal
Ex. Hydrant
Ex. Gas Valve
Ex. Gas Meter
Ex. Water Valve
Ex. Water Meter
Ex. Light Pole
Ex. Sign
Ex. Mailbox
Ex. Inlet
Ex. Manhole
Ex. Utility Pole
Ex. Guy Anchor
Ex. Fire Hydrant
Ex. Water Line
Ex. Gas Line
Ex. Underground Telephone
Ex. Underground Electric
Ex. Underground Cable TV
Ex. Overhead Utility
Ex. Storm Sewer
Ex. Sanitary Sewer
Ex. Fiber Optic
Ex. Underground Communications
Ex. Fence
Ex. Curb & Gutter
Ex. Edge of Pavement
Ex. Concrete Sidewalk
Ex. Asphalt Trail
Ex. Brick Walkway
Ex. Stone Walkway
Ex. Building
Ex. Deck
Ex. Shed
Ex. Retaining Wall
Ex. Steps
Ex. Ramp
Ex. Tree
Ex. Shrub
Ex. Bush
Ex. Hedge
Ex. Flower Bed
Ex. Rock
Ex. Boulder
Ex. Stump
Ex. Log
Ex. Grass
Ex. Ground Cover
Ex. Mulch
Ex. Gravel
Ex. Dirt
Ex. Water
Ex. Pond
Ex. Stream
Ex. Wetland
Ex. Flood Plain
Ex. Flood Way
Ex. Flood Fringe
Ex. Flood Plain Boundary
Ex. Flood Way Boundary
Ex. Flood Fringe Boundary
Ex. Flood Plain Elevation
Ex. Flood Way Elevation
Ex. Flood Fringe Elevation
Ex. Flood Plain Profile
Ex. Flood Way Profile
Ex. Flood Fringe Profile
Ex. Flood Plain Cross Section
Ex. Flood Way Cross Section
Ex. Flood Fringe Cross Section
Ex. Flood Plain Longitudinal Section
Ex. Flood Way Longitudinal Section
Ex. Flood Fringe Longitudinal Section
Ex. Flood Plain Plan
Ex. Flood Way Plan
Ex. Flood Fringe Plan

Office Locations
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Northern Virginia: 10521 Judicial Drive, Suite 201, Fairfax, VA 22030, Phone: (703) 591-2626, Fax: (703) 591-0810
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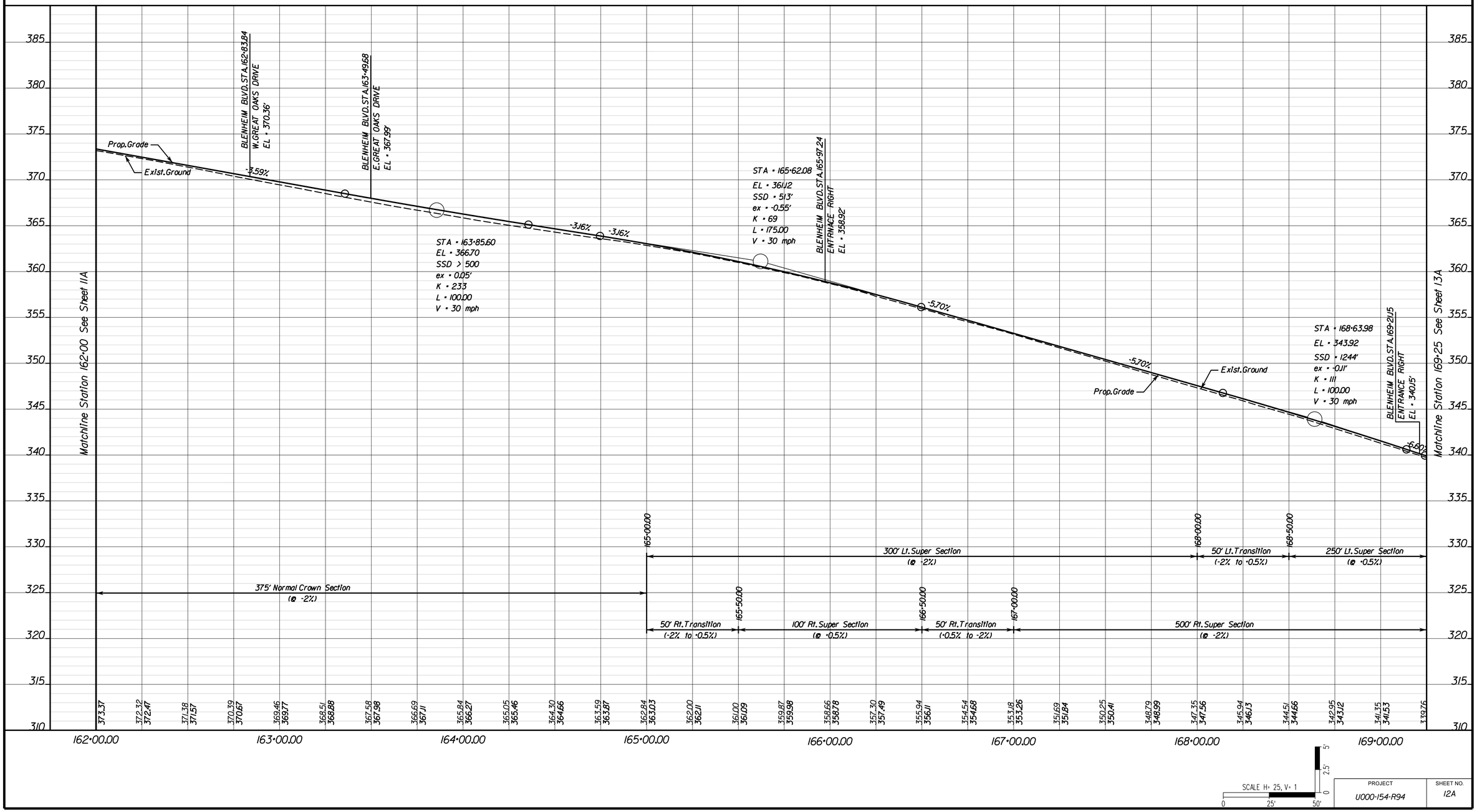
BLENHEIM BOULEVARD PROFILE

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	VA.	6228	U000-154-R94	12A

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3/24/2023

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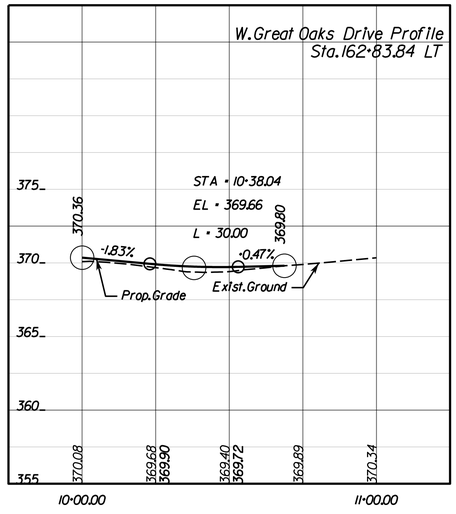
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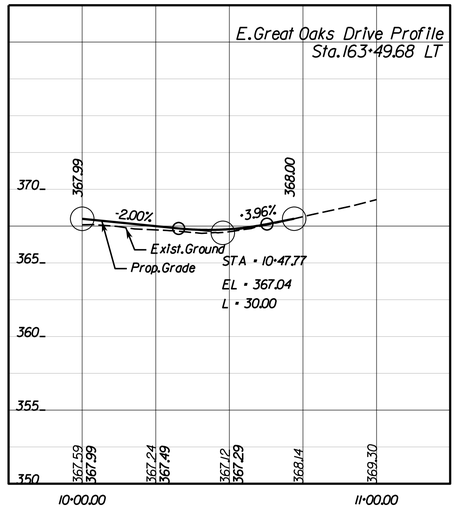
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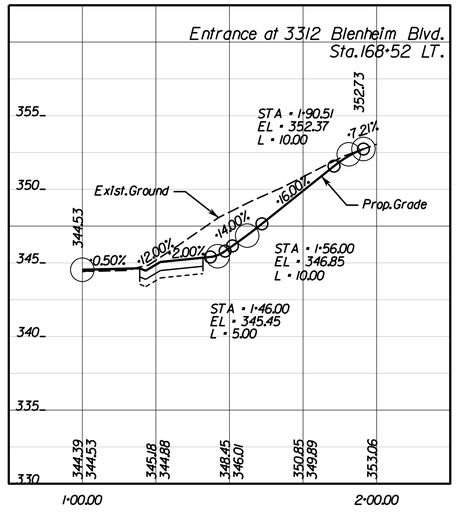
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Main Office: 10363 Hampton Road, Fairfax, VA 22030, Phone: (703) 385-7889, Fax: (703) 385-7899
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Fredericksburg: 2121 Cowan Boulevard, Suite 201, Fredericksburg, VA 22401, Phone: (540) 548-1811, Fax: (540) 548-1812
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SIDE ROAD AND ENTRANCE PROFILES







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SCALE H= 25, V= 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
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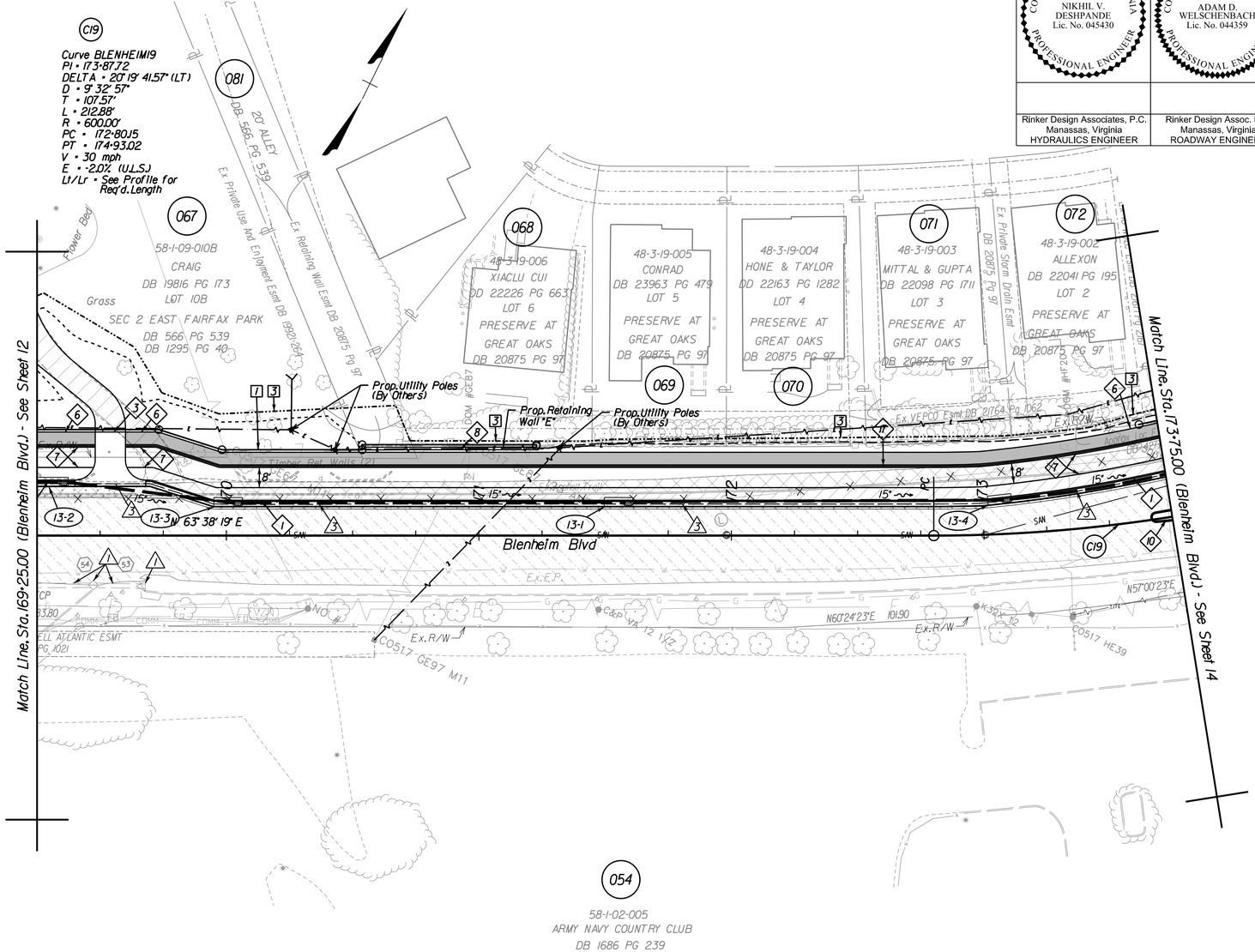
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	13

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Roadway Design Legend

(#) → Key Legend

1 → Denotes Std. CG-6 Req'd.
2 → Denotes Std. Radial CG-6 Req'd.
3 → Denotes Std. CG-9, Type D Req'd.
4 → Denotes Std. CG-12, DWS
5 → Denotes Concrete Bus Pad Req'd.
6 → Denotes Concrete Sidewalk Req'd.
7 → Denotes Asphalt Trail Req'd.
8 → Denotes Retaining Wall Req'd.
9 → Denotes Std. 6' FE-CL Req'd.
10 → Denotes Std. MS-1 Req'd.
11 → Denotes Std. CG-2 Req'd.
12 → Denotes Tie to Existing Driveway
13 → Denotes Tie to Ex. Conc. Sidewalk
14 → Denotes Tie to Ex. Curb and Gutter
15 → Denotes Std. HR-1 Ty. 2 Req'd.
16 → Denotes Mod. CG-3 Req'd.
17 → Denotes Mod. CG-2 Req'd. See Sheet 2A(5) for Details
18 → Denotes Mod. CG-6 Req'd.
19 → Denotes Prop. Bike Station
20 → Denotes Prop. Brick Walkway
21 → Denotes Tie to Ex. Brick Walkway
22 → Denotes Tie to Ex. Asphalt Trail
23 → Denotes Prop. Stone Walkway
24 → Denotes Tie to Ex. Stone Walkway
25 → Denotes Std. MS-2 Req'd.
26 → Denotes Privacy Fence Req'd. See Sheet 2A(4) for Details

C _ _ _ Denotes Construction Limits In Cuts
F _ _ _ Denotes Construction Limits In Fills

(CR X-X) Curb Return See Sheet X-X

Drainage Design Legend

(#) → Key Legend
1 → Denotes Drainage Item to Remain
2 → Denotes Drainage Item to Removed/ Abandoned
3 → Std. UD-4 Req'd.
4 → Std. CD-2 Req'd.

Pavement Legend

Full Depth Pavment
Mill and Overlay
Concrete Sidewalk
Demolition of Pavement
Demolition of Exist. Trail/Sidewalk

NOTE: Full Depth Sawcut Req'd. Between Proposed Full Depth Pavement and Exist. Pavement/Mill and Overlay

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. Right of Way Monument RM-2

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

Survey Control Data Sheet	IF
Geometric Data Sheet	IG(13)
Horizontal Constr. Alignment Data	IG(1A) - IG(1F)
Erosion Controls Ph1 & Ph2	1G - 1R(6)
Typical Sections	2A - 2A(7)
Drainage Descriptions	2G - 2G(3)
Profile Blenheim Blvd	13A
Profile Entrances	13B
Pavement Marking & Signing Plan	15 - 15(15)
Intersection & Bus Stop Detail Plan	1H - 1H(26)

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 13

3/24/2023

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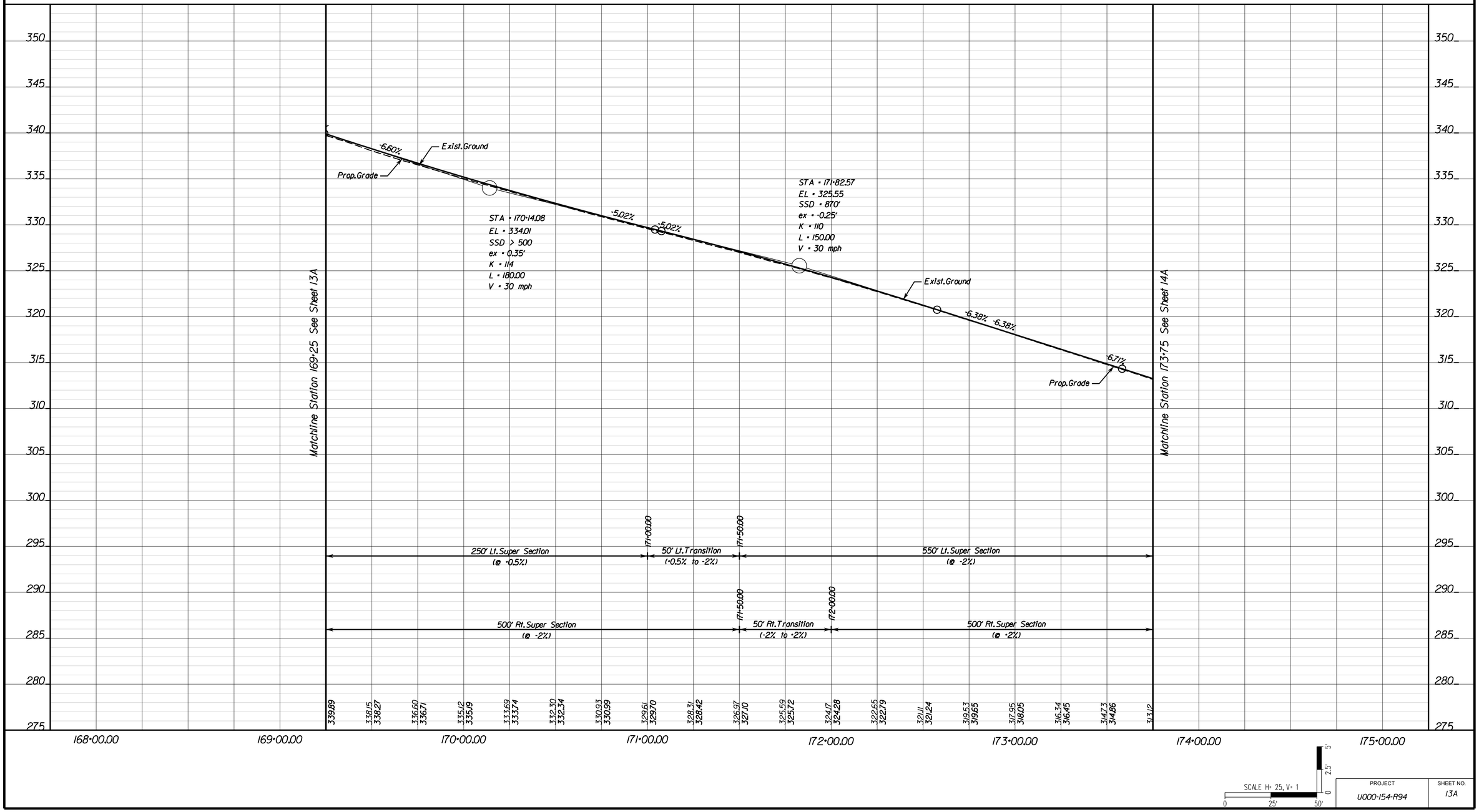
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0 25' 50'

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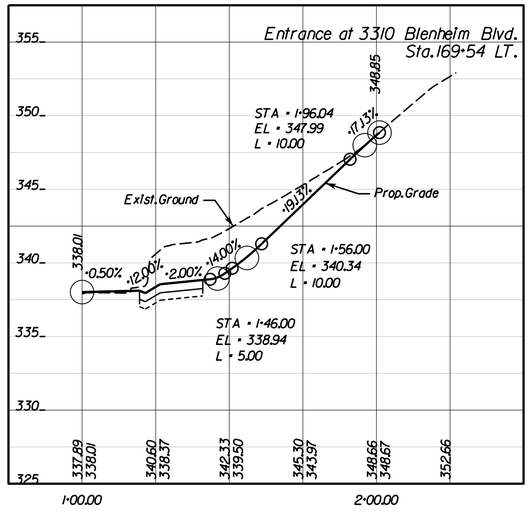
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Suite 204, 4229 Lafayette Center Drive, Chantilly, VA 20151 Phone: (571) 970-3800 Fax: (571) 970-3814
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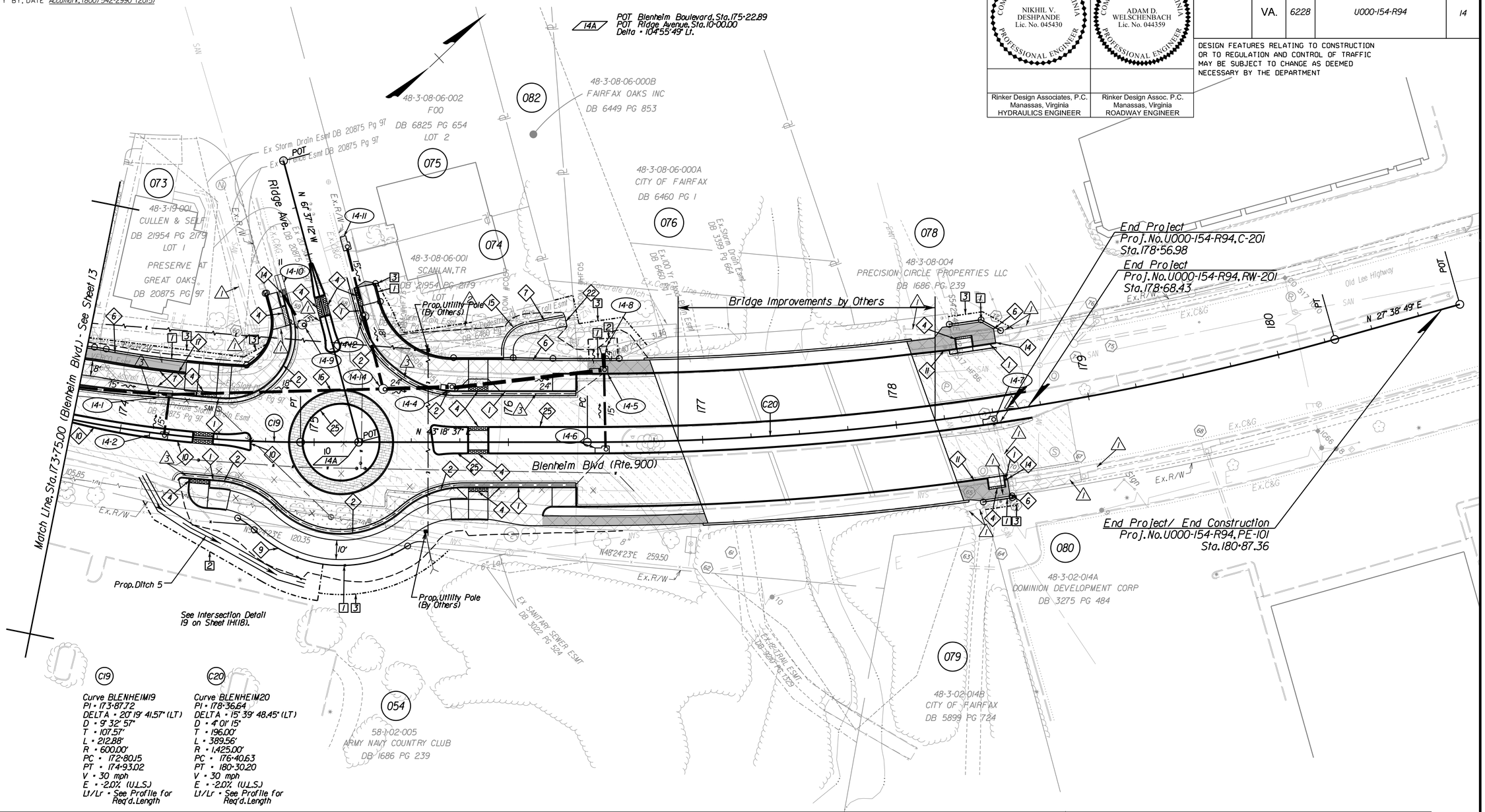
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	14

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Roadway Design Legend

(#) Key Legend

1 — Denotes St'd. CG-6 Req'd.
2 — Denotes St'd. Radial CG-6 Req'd.
3 — Denotes St'd. CG-9, Type D Req'd.
4 — Denotes St'd. CG-12, DWS
5 — Denotes Concrete Bus Pad Req'd.
6 — Denotes Concrete Sidewalk Req'd.
7 — Denotes Asphalt Trail Req'd.
8 — Denotes Retaining Wall Req'd.
9 — Denotes St'd. 6' FE-CL Req'd.
10 — Denotes St'd. MS-1 Req'd.
11 — Denotes St'd. CG-2 Req'd.
12 — Denotes Tie to Existing Driveway
13 — Denotes Tie to Ex. Conc. Sidewalk
14 — Denotes Tie to Ex. Curb and Gutter
15 — Denotes St'd. HR-1 Ty. 2 Req'd.
16 — Denotes Mod. CG-3 Req'd.
17 — Denotes Mod. CG-2 Req'd. See Sheet 2A(5) for Details
18 — Denotes Mod. CG-6 Req'd.
19 — Denotes Prop. Bike Station
20 — Denotes Prop. Brick Walkway
21 — Denotes Tie to Ex. Brick Walkway
22 — Denotes Tie to Ex. Asphalt Trail
23 — Denotes Prop. Stone Walkway
24 — Denotes Tie to Ex. Stone Walkway
25 — Denotes St'd. MS-2 Req'd.
26 — Denotes Privacy Fence Req'd. See Sheet 2A(4) for Details

C ____ Denotes Construction Limits in Cuts
F __ __ Denotes Construction Limits in Fills
CR X-X Curb Return See Sheet X-X

Drainage Design Legend

(#) Key Legend
1 — Denotes Drainage Item to Remain
2 — Denotes Drainage Item to Removed/ Abandoned
3 — St'd. UD-4 Req'd.
4 — St'd. CD-2 Req'd.

Pavement Legend

Full Depth Pavment
Mill and Overlay
Concrete Sidewalk
Demolition of Pavement
Demolition of Exist. Trail/Sidewalk

NOTE: Full Depth Sawcut Req'd. Between Proposed Full Depth Pavement and Exist. Pavement/Mill and Overlay

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. Right of Way Monument RM-2

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(14)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1F)
Erosion Controls Ph.I & Ph.2	1Q - 1R(6)
Typical Sections	2A - 2A(7)
Drainage Descriptions	2G - 2G(3)
Profile Blenheim Blvd	14A
Profile Ridge Avenue	14B
Pavement Marking & Signing Plan	15 - 15(15)
Intersection & Bus Stop Detail Plan	1H - 1H(26)

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 14

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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

3/24/2023

Office Locations
Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Environmental - Right-of-Way Services
Northern Virginia Office: 10363 Hampton Road, Suite 100, Fairfax, VA 22030, Phone: (703) 385-7889, Fax: (703) 385-7890
Richmond Office: 4309 Cox Road, Suite 101, Glen Allen, VA 23060, Phone: (804) 346-4570, Fax: (804) 346-4571
Fredericksburg Office: 1001 Princess Anne Street, Suite 300, Fredericksburg, VA 22401, Phone: (540) 371-2278, Fax: (540) 371-2279
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

BLENHEIM BOULEVARD PROFILE

NIKHIL V. DESHPANDE
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COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

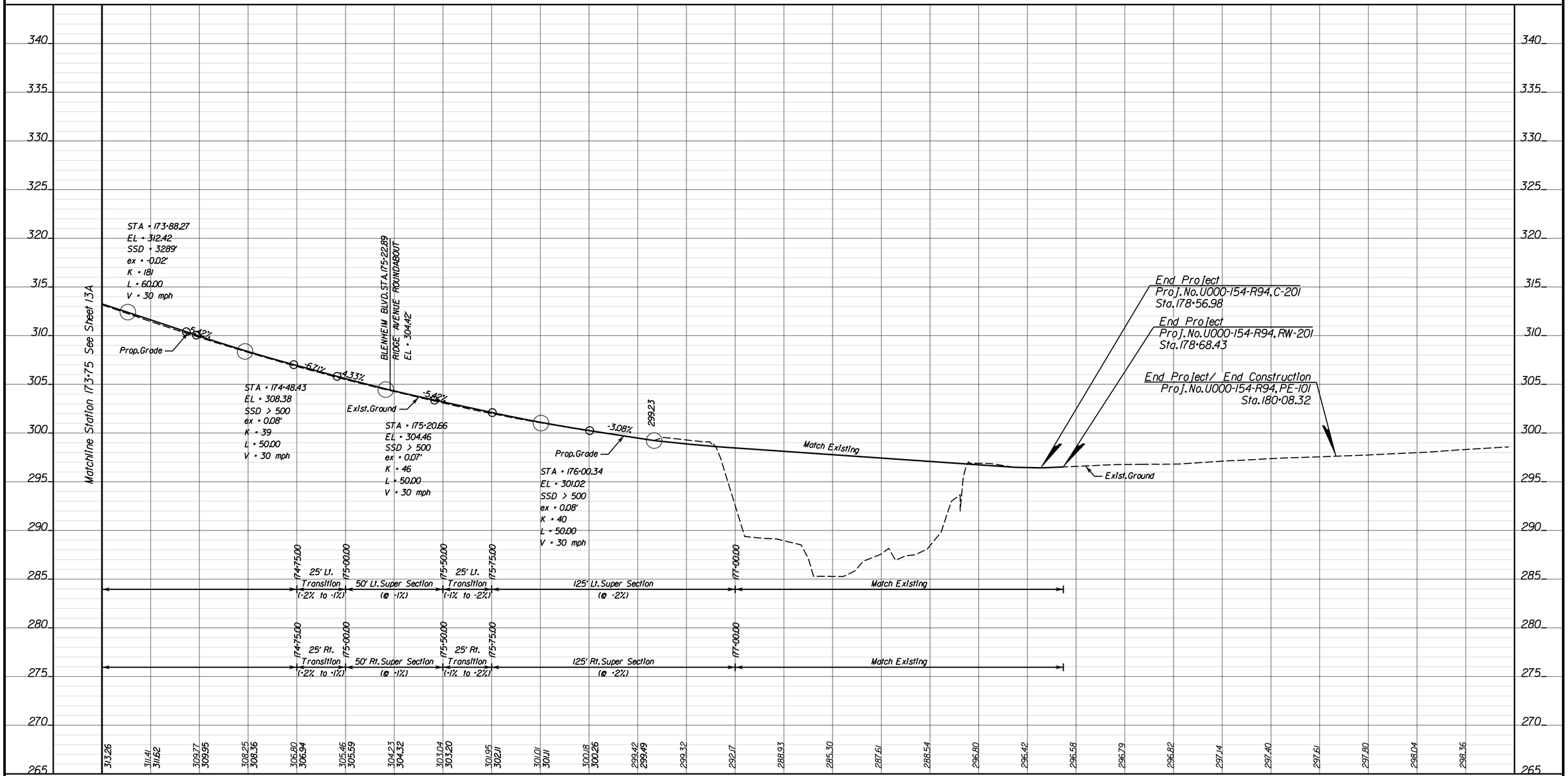
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HYDRAULICS ENGINEER

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	14A

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= 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-154-R94	14A

PH PLANS

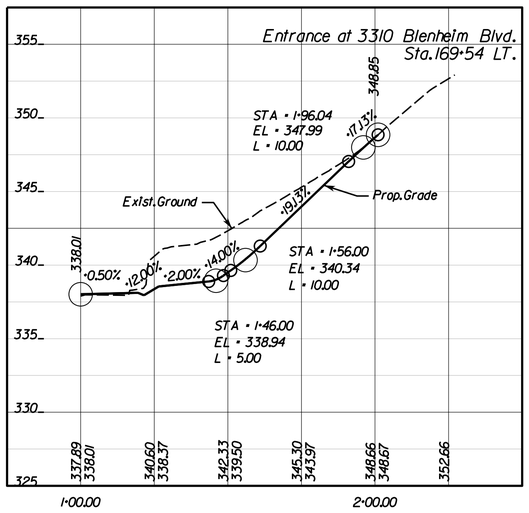
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SIDE ROAD PROFILE



NIKHIL V. DESHPANDE Lic. No. 045430 PROFESSIONAL ENGINEER COMMONWEALTH OF VIRGINIA	ADAM D. WELSCHENBACH Lic. No. 044359 PROFESSIONAL ENGINEER COMMONWEALTH OF VIRGINIA
Rinker Design Associates, P.C. Manassas, Virginia HYDRAULICS ENGINEER	Rinker Design Assoc. P.C. Manassas, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	14B

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= 1
0 25' 50'
0 2.5' 5'

PROJECT	SHEET NO.
U000-154-R94	14B

3/24/2023

PH PLANS

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PAVEMENT MARKING AND SIGNING PLAN: SIGN SCHEDULE

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	15

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910

SIGN SCHEDULE (1 OF 2)

TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	SIGN ASSEMBLY COMPONENTS: MUTCD ST'D.	PANEL SIZE: W	PANEL SIZE: H	QTY.	SIGN PANEL AREA (s.f.): PER ASSEMBLY	SIGN PANEL AREA (s.f.): ALL ASSEMBLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
1	101 105	NO TURN ON RED	R10-11	24	30	2	5	10	SIGNAL MAST ARM	
2	102		R10-3e (L)	9	15	1	0.9375	0.9375	PED. PUSH BUTTON	
3	103	USE PED SIGNAL	R9-5	12	18	1	1.5	1.5	PED. PUSH BUTTON	
			R10-3e (L)	9	15	1	0.9375	0.9375	PED. PUSH BUTTON	
4	104	USE PED SIGNAL	R9-5	12	18	1	1.5	1.5	SIGNAL POLE	
5	201	NO PARKING ANY TIME →	R7-1 (R)	12	18	1	1.5	1.5	SQ. METAL	
6	202 205 301	NO PARKING ANY TIME ←	R7-1 (L)	12	18	3	1.5	4.5	SQ. METAL	
7	203 204	STATE LAW STOP FOR WITHIN CROSSWALK / CROSSWALK WITHIN STATE LAW STOP FOR	R1-6A	12	36	4	6	12	IN-ROAD SIGN	SIGNS TO BE INSTALLED BACK TO BACK
8	206 207		W11-2	30	30	2	6.25	12.5	SQ. METAL	
			W16-7P(L)	24	12	2	2	4		
9	401 402	NEW BUS STOP SIGN	SPECIAL			2	0	0	CUSTOM	
10	601 602	NEW BUS STOP SIGN	SPECIAL			2	0	0	CUSTOM	

TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	SIGN ASSEMBLY COMPONENTS: MUTCD ST'D.	PANEL SIZE: W	PANEL SIZE: H	QTY.	SIGN PANEL AREA (s.f.): PER ASSEMBLY	SIGN PANEL AREA (s.f.): ALL ASSEMBLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
11	801 802	WHEN FLASHING WARNING LIGHTS ARE ON, ALL TURNS MUST YIELD TO PEDS / PUSH BUTTON TO TURN ON WARNING LIGHTS	W11-2	30	30	4	12.5	25	RRFB, SOLAR	SEE DETAIL 4A, SHEET 15(15)
			W16-7P(L)	24	12	2	2	4		
			W16-7P(R)	24	12	2	2	4		
			W10-25	9	12	4	0.75	3		
12	901	TURNING VEHICLES → STOP FOR	SPECIAL	30	30	1	6.25	6.25		R10-15 MOD
13	902	SCHOOL SPEED LIMIT 25 WHEN FLASHING	S5-1	24	48	1	8	8		REQ. ELECTRIC
14	1101 1205	ROUNDABOUT	W2-6	30	30	2	6.25	12.5	SQ. METAL	
			W16-17P	24	12	2	2	4		

NOTES:
1) ALL SIGNS SHALL BE ORIENTATED AS SHOWN ON THE PLANS.
2) SIGN COLOR COMBINATIONS SHALL BE IN ACCORDANCE WITH THE FHWA SHS BOOK AND THE 2011 VIRGINIA SHS BOOK OR AS NOTED IN THE PLANS.
3) ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS OTHERWISE NOTED IN THE REMARKS. ALL OTHER SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-1 OR L-2 UNLESS OTHERWISE NOTED IN THE REMARKS.
4) ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
5) SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
6) ALL ST'D. ST P-1 STRUCTURES TO BE SINGLE POST UNLESS OTHERWISE NOTED.

	PROJECT	SHEET NO.
	U000-154-R94	15

PH PLANS

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

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

PAVEMENT MARKING AND SIGNING PLAN: SIGN SCHEDULE

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	15(1)

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

TOOLE DESIGN
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Silver Spring, MD 20910

SIGN SCHEDULE (2 OF 2)

TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	SIGN ASSEMBLY COMPONENTS: MUTCD ST'D.	PANEL SIZE W	PANEL SIZE H	QTY.	SIGN PANEL AREA (s.f.): PER ASSEMBLY	SIGN PANEL AREA (s.f.): ALL ASSEMBLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
15	1201 1206 1210 1211		W11-15	30	30	4	6.25	25	SQ. MET AL	
			W11-15P	24	12	4	2	8		
16	1202 1204 1207		R1-2	36	36	3	9	27	SQ. MET AL	
17	1203 1208 1209		R6-4	30	24	3	5	15	SQ. MET AL	
18	1212		R3-17	24	18	1	3	3	SQ. MET AL	
			R3-17bP	24	8	1	1.33	1.33	SQ. MET AL	
19	1213		R3-17	24	18	1	3	3	SQ. MET AL	
			R3-17bP	24	8	1	1.33	1.33	SQ. MET AL	
			R3-17aP	24	8	1	1.33	1.33	SQ. MET AL	

NOTES:

1) ALL SIGNS SHALL BE ORIENTATED AS SHOWN ON THE PLANS.
2) SIGN COLOR COMBINATIONS SHALL BE IN ACCORDANCE WITH THE FHWA SHS BOOK AND THE 2011 VIRGINIA SHS BOOK OR AS NOTED IN THE PLANS.
3) ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS OTHERWISE NOTED IN THE REMARKS. ALL OTHER SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-1 OR L-2 UNLESS OTHERWISE NOTED IN THE REMARKS.
4) ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
5) SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
6) ALL ST'D. ST P-1 STRUCTURES TO BE SINGLE POST UNLESS OTHERWISE NOTED.

STANDARD SIGN LEGEND

PLAN ITEM	PLAN SYMBOL: PROPOSED	PLAN SYMBOL: EXISTING
Single Post Sign Support		
Double Post Sign Support		
Triple Post Sign Support		
Flashing Beacon		
O/H Cantilever Sign Support		
O/H Span Sign Support		

SIGN CALL-OUTS

Existing Sign to Remain or to be Relocated — REMOVE 95

Existing Sign to be Removed — REMOVE 95

Proposed Sign Panel — PROPOSAL 95

SIGN LABELS

Proposed Sign Assemblies: denotes Sign Assembly No. (2808 / 3); denotes Text No.

Relocated Sign Assemblies: denotes Sign Assembly No. (2808 / 3); denotes Text No.

Sign Relocation or Payable Sign Disposal/Salvage

denotes Existing Sign Structure and/or Sign Panel Type (GM / A)

STRUCTURE & SIGN PANEL
GM - Ground Mounted
OM - Overhead Mounted
CM - Cantilever Mounted

SIGN PANEL
SP-GM - Ground Mounted Sign Panel
SP-OH - Overhead Mounted Sign Panel

STRUCTURE ONLY
ST-GM - Ground Mounted

denotes Action and Measurement & Payment Item
A - Remove & Dispose
B - Remove & Salvage
C - Relocate
D - Overlay Sign Panel

Signs noted on plans to be removed that do not have an accompanying sign label shall not be measured separately for payment. Removal and disposal for such signs shall be incidental to other contract items.

	PROJECT	SHEET NO.
	U000-154-R94	15(1)

PH PLANS

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

PAVEMENT MARKING AND SIGNING PLAN: PAVEMENT MARKING LEGEND

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	15(2)

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910

PAVEMENT MARKING LEGEND

(#) → Key Legend

A → Type B, Class I, White, 4" Width
B → Type B, Class I, White, 4" Width, 10' Long, 30' Spacing
C → Type B, Class I, White, 4" Width, 2' Long, 6' Spacing
D → Type B, Class I, White, 24" Width
E → Type B, Class I, White, 8" Width, 2' Long, 6' Spacing
F → Type B, Class I, Yellow, 4" Width
G → Type B, Class I, Yellow, 4" Width, Double Line, 4" Spacing
H → Type B, Class I, White, 24" Width, 10' Length, 24" Spacing
I → Type B, Class I, White, 24" Width, 12' Spacing @ 45°
J → Type B, Class I, Yellow, 24" Width, 12' Spacing @ 45°
K → Type B, Class I, White, Turn Lane Use Arrow
L → Type B, Class I, White, "Only" Pavement Marking
M → Type B, Class I, White, "Shared Lane" Marking Symbol
N → Type B, Class I, Yellow, 4" Width, 3' Long, 9' Spacing
O → Type B, Class I, White, 12" Width
P → See Detail 3, Sheet 15(15), Bicycle Lane Symbol
Q → See Detail 2, Sheet 15(15), Two-Way Bikeway Crossing
R → See Detail 1, Sheet 15(15), Pedestrian Bikeway Crossing
S → Type B, Class I, White, Double Turn Lane Use Arrow
TE → Denotes Tie to Existing Pavement Marking
▼ → Type B, Class I, White, 24" "Yield" Marking Symbol
■ → Shading Denotes Areas of New Roadway Surface Pavement

Note:

Any existing condition that does not reflect the pavement marking plan as shown on this sheet, shall be completely eradicated per VDOT standards. The cost shall be incidental to the project and not paid for as a separate item.

	PROJECT	SHEET NO.
	U000-154-R94	15(2)

PH PLANS

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3/23/2023
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Plotted By: kkhurana

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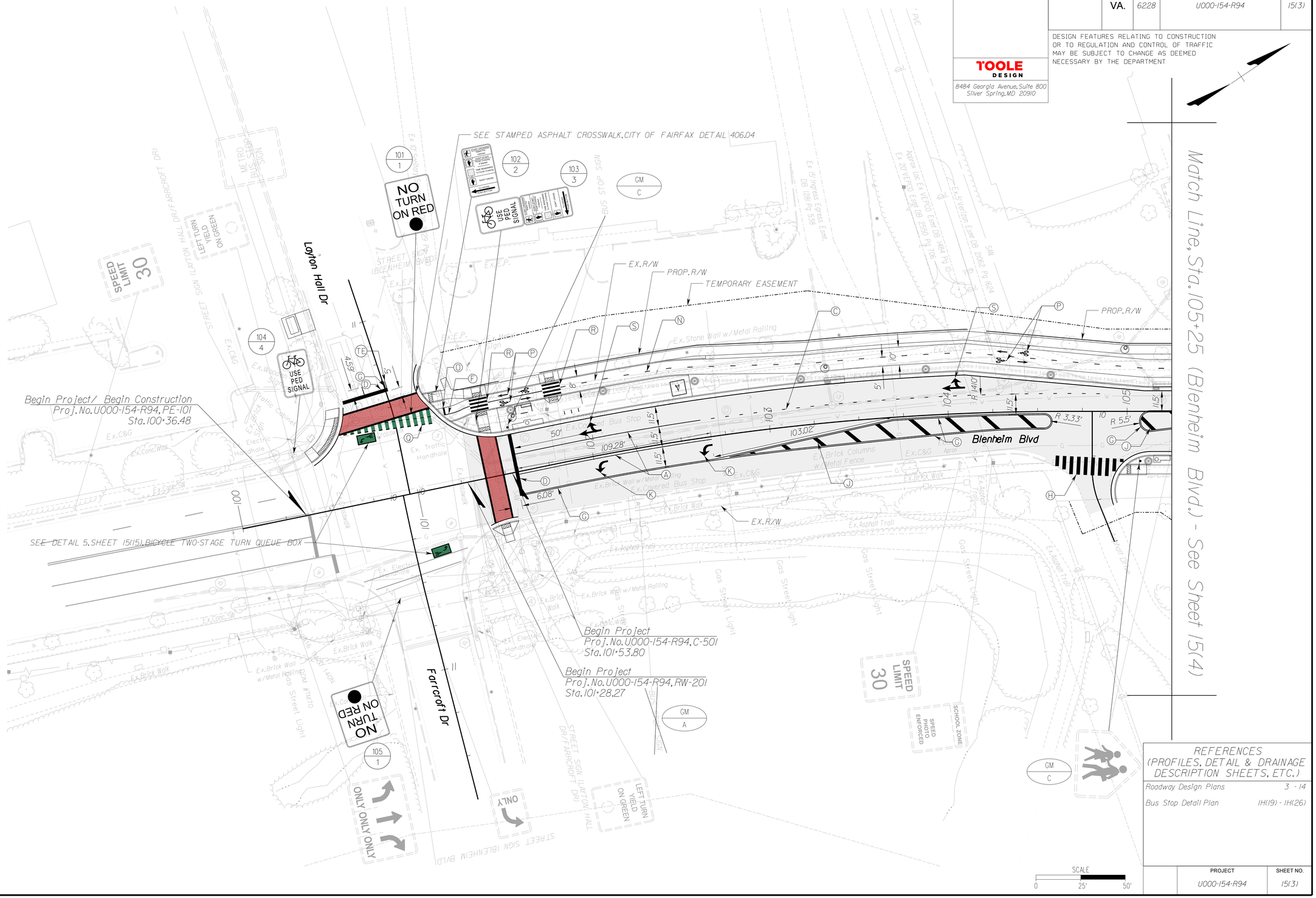
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

PAVEMENT MARKING AND SIGNING PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	15(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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Silver Spring, MD 20910



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

Roadway Design Plans	3 - 14
Bus Stop Detail Plan	IH(9) - IH(26)

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	15(3)

PH PLANS

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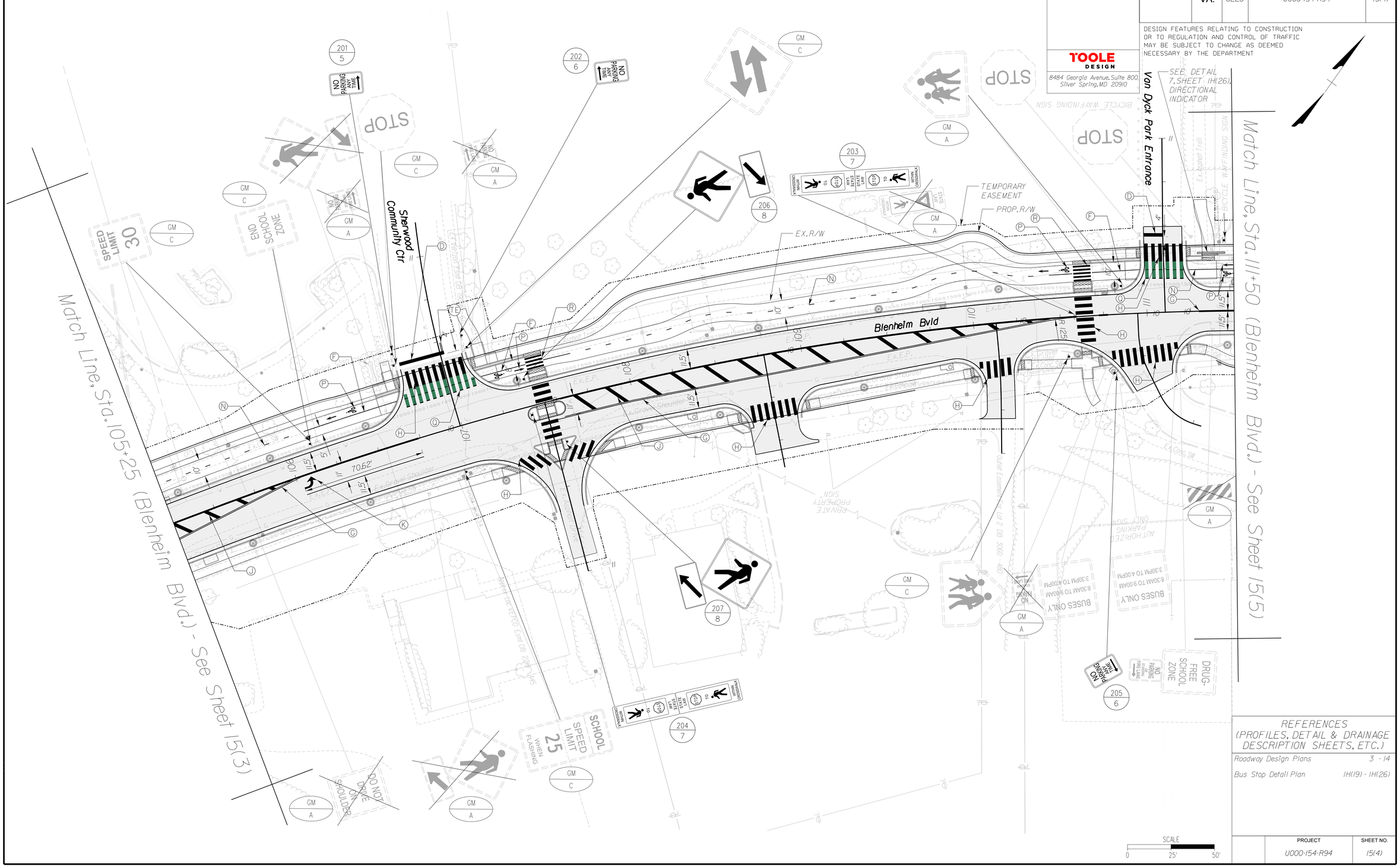
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PAVEMENT MARKING AND SIGNING PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	15(4)

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910


Match Line, Sta. 105+25 (Blenheim Blvd.) - See Sheet 15(3)
Match Line, Sta. 111+50 (Blenheim Blvd.) - See Sheet 15(5)
Blenheim Blvd
Sherwood Community Ctr
Van Dyck Park Entrance
SEE DETAIL 7, SHEET 1H(26), DIRECTIONAL INDICATOR
TEMPORARY EASEMENT
PROP. R/W
EX. R/W
SPEED LIMIT 30
END SCHOOL ZONE
NO PARKING ANYTIME
STOP
SCHOOL SPEED LIMIT 25 WHEN FLASHING
DO NOT DRIVE ON SHOULDER
DRUG-FREE SCHOOL ZONE
BUSES ONLY
8:30AM TO 9:00AM
3:30PM TO 4:00PM
PRIVATE PROPERTY SIGN
AUTHORIZED PARKING ONLY SIGN
BICYCLE WAYFINDING SIGN
Outlet Easement - Lot 2, DB 31060 - 480
Existing Fence to be Removed
Existing Fence to be Relocated
Ex. Gravel Shoulder
Ex. Asphalt Trail
Ex. Concrete Sidewalk
Ex. Curb & Gutter
Ex. Edge of Pavement
Ex. Concrete Curb Ramp
Ex. Concrete Apron
Ex. Concrete Median
Ex. Concrete Island
Ex. Concrete Curb
Ex. Concrete Gutter
Ex. Concrete Pad
Ex. Concrete Flume
Ex. Concrete Valley Gutter
Ex. Concrete Curb & Gutter
Ex. Concrete Sidewalk

3/23/2023
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Plotted By: kkhurana

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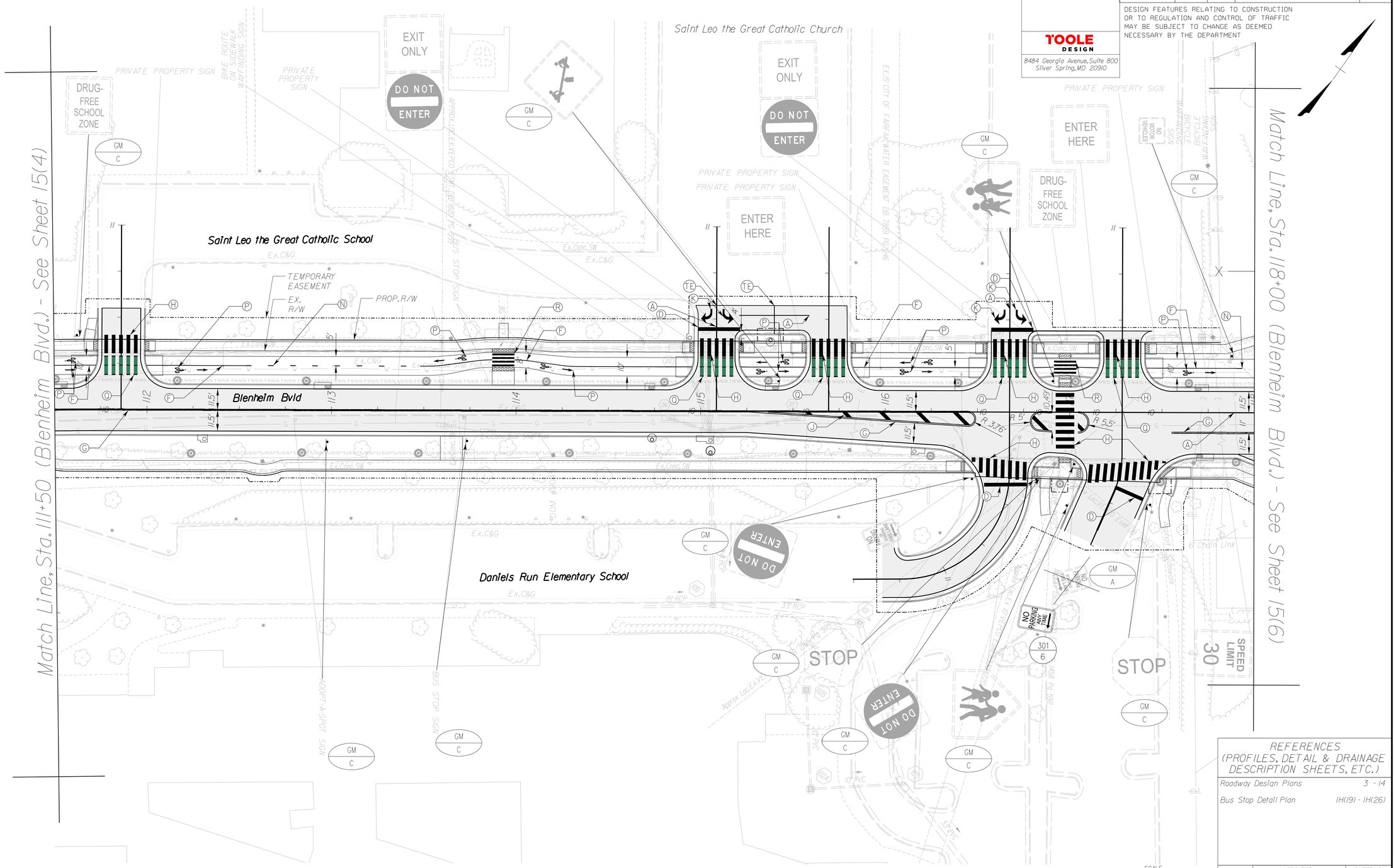
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

PAVEMENT MARKING AND SIGNING PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	15(5)

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



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

Roadway Design Plans	3 - 14
Bus Stop Detail Plan	IH(19) - IH(26)

PROJECT	SHEET NO.
U000-154-R94	15(5)

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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

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Plotted By: kkhurana

TOOLE DESIGN
8484 GEORGIA AVENUE, SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

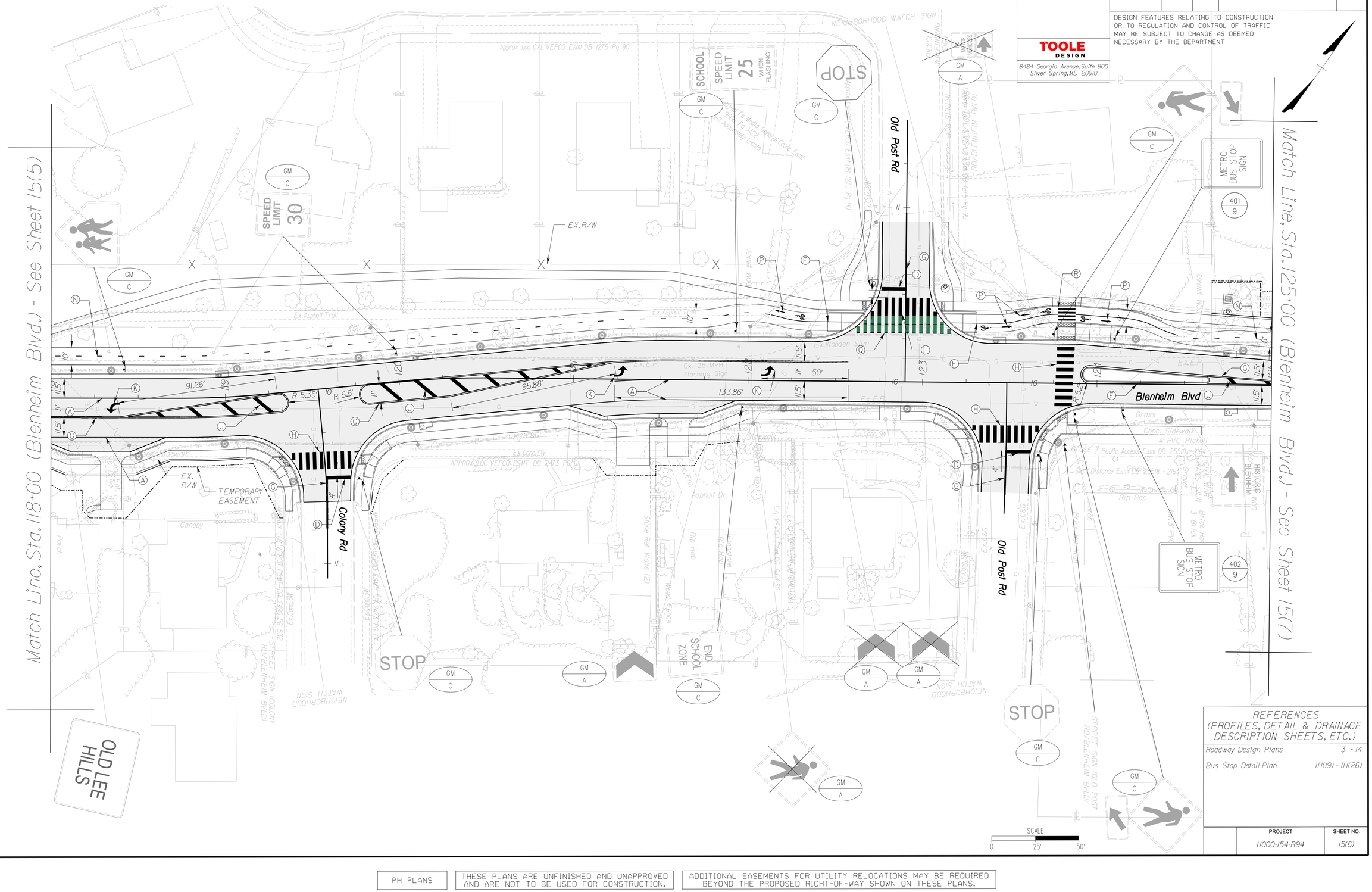
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

PAVEMENT MARKING AND SIGNING PLAN

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Silver Spring, MD 20910


Match Line, Sta. 118+00 (Blenheim Blvd.) - See Sheet 15(5)
Match Line, Sta. 125+00 (Blenheim Blvd.) - See Sheet 15(7)
Old Post Rd
Colony Rd
Blenheim Blvd
EX. R/W
TEMPORARY EASEMENT
EX.R/W
SPEED LIMIT 30
SCHOOL SPEED LIMIT 25 WHEN FLASHING
NEIGHBORHOOD WATCH SIGN
METRO BUS STOP SIGN
HISTORIC BLENHEIM
STOP
END SCHOOL ZONE
OLD LEE HILLS
STREET SIGN (COLONY RD/BLENHEIM BLVD)
STREET SIGN (OLD POST RD/BLENHEIM BLVD)
Ex. 25 MPH Flashing Sign
Ex.Wooden Sign
Ex.Asphalt Trail
Canopy
Porch
Grass
Conc. Sidewalk
4' PVC Picket
Rip Rap
Asphalt Dr.
Stone Ret. Walls (2)
Wood Fence
Brick Retaining Wall
Approx Loc C/L VEPCO Esmt DB 1275 Pg 90
Approx Loc VEPCO Esmt DB 2473 PG 96
Approx Loc VEPCO Esmt DB 2473 PG 96
Approx Loc VEPCO Esmt DB 2473 PG 96
Approx Loc C/L VEPCO Esmt DB 1275 Pg 90

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PAVEMENT MARKING AND SIGNING PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	15(7)

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TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910

Match Line, Sta. 125+00 (Blenheim Blvd.) - See Sheet 15(6)

Match Line, Sta. 132+50 (Blenheim Blvd.) - See Sheet 15(8)

Blenheim Blvd

Heritage Ln

Parklane Rd

Civil War Blenheim Historic Entrance

PROP. R/W

TEMPORARY EASEMENT

SEE DETAIL 7, SHEET IH(26), DIRECTIONAL INDICATOR

EX. R/W

Ex. Split Rail Fence

Ex. 3' Board Fence

4' Chain Link

Asphalt Sidewalk

Ex. Woods Sign

Drainage Pg 1054

Ex. Asphalt Trail

Ex. C&G

Ex. Curb

Ex. Driveway

Ex. Block Wall

Ex. Asphalt Drive

Ex. Bldg

Ex. Shed

Ex. Deck

Ex. Conc. Stairs

Ex. Flower Bed

Ex. Garage

Ex. 6' Privacy

Grass

Ex. Conc. SW

Ex. E.P.

EX. SIGHT DISTANCE ESMT DB 24257 PG 834

EX. PRIVATE WATER ESMT DB 24257 PG 834

EX. PRIVATE SANITARY ESMT DB 24257 PG 834

EX. INGRESS EGRESS ESMT DB 24257 PG 834

Approximate Location VEPCO Esmt DB 2275 Pg 494

SCHOOL ZONE

SPEED PHOTO ENFORCED

NO PARKING STAGING FIRE LANE

STOP

HISTORIC BLENHEIM

CIVIL WAR TRAILS SIGN

NEIGHBORHOOD WATCH SIGN

STREET SIGN (HERITAGE LN/BLENHEIM BLVD)

STREET SIGN (PARKLANE RD/BLENHEIM BLVD)

OLD LEE HILLS

GM C

GM A

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Roadway Design Plans	3 - 14
Bus Stop Detail Plan	IH(19) - IH(26)

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	15(7)

PH PLANS

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Plotted By: kkthurana

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8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910

Match Line, Sta. 132+50 (Blenheim Blvd.) - See Sheet 15(7)

Match Line, Sta. 140+00 (Blenheim Blvd.) - See Sheet 15(9)

Blenheim Blvd

Brookwood Dr

Embassy Ln

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

Roadway Design Plans	3 - 14
Bus Stop Detail Plan	IH(19) - IH(26)

SCALE 0 25' 50'

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Plotted By: kkhurana

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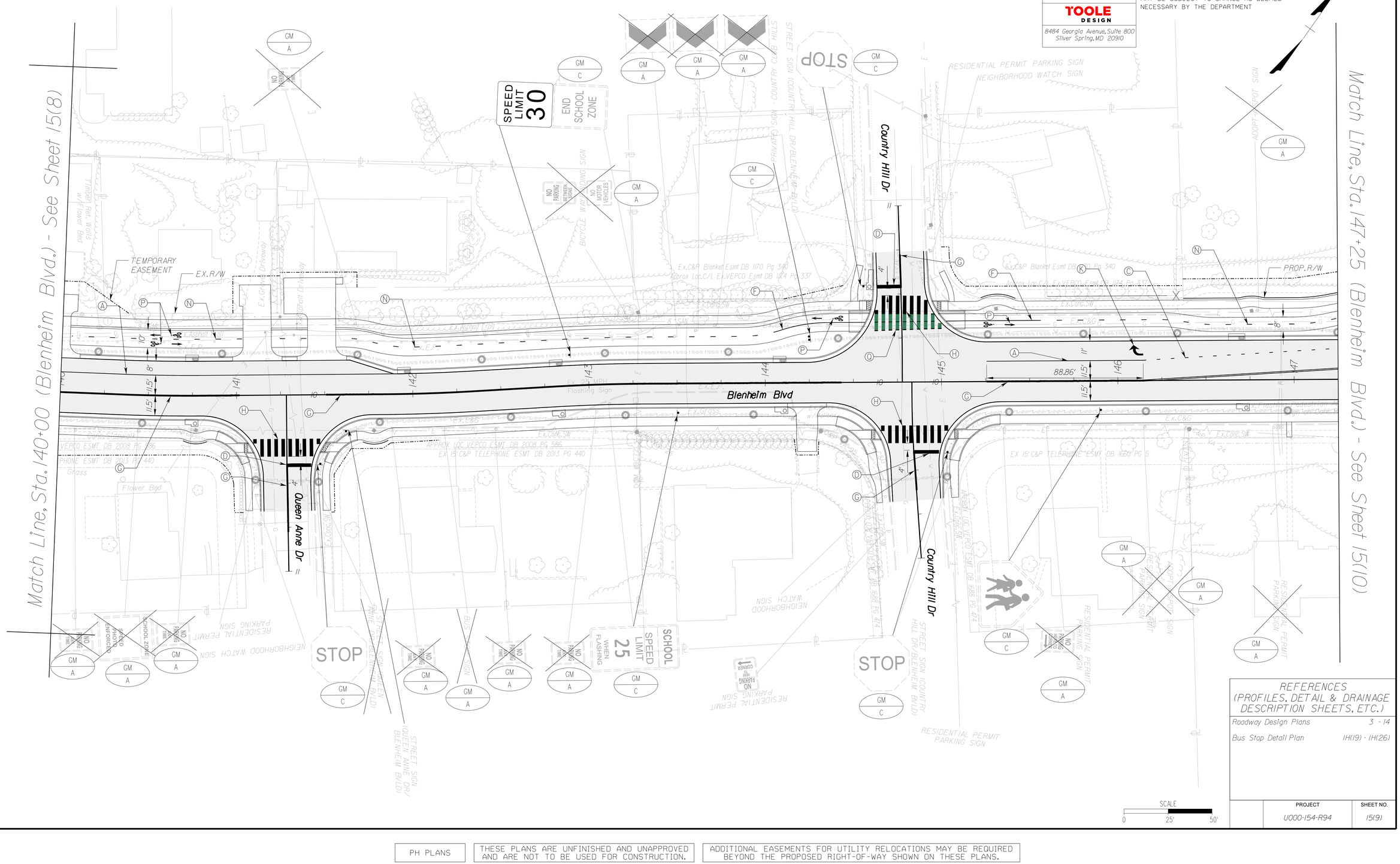
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PAVEMENT MARKING AND SIGNING PLAN

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TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910


Match Line, Sta. 140+00 (Blenheim Blvd.) - See Sheet 15(8)
Match Line, Sta. 147+25 (Blenheim Blvd.) - See Sheet 15(10)
Blenheim Blvd
Country Hill Dr
Queen Anne Dr
SPEED LIMIT 30
END SCHOOL ZONE
STOP
TEMPORARY EASEMENT
EX.R/W
PROP.R/W
88.86'
Ex.C&P Blanket Esmt DB 1170 Pg 340
Approx Loc.C/L Ex.VEPCO Esmt DB 1124 Pg 537
APPROX LOC VEPCO ESMT DB 2008 PG 586
EX 18' C&P TELEPHONE ESMT DB 2013 PG 440
EX 15' C&P TELEPHONE ESMT DB 1688 PG 5
RESIDENTIAL PERMIT PARKING SIGN
NEIGHBORHOOD WATCH SIGN
ADOPT-A-SPOT SIGN
BICYCLE WAY SIGN
PRIVATE ROAD SIGN
COUNTRY CLUB HILLS
STREET SIGN (COUNTRY HILL DR/BLENHEIM BLVD)
STREET SIGN (QUEEN ANNE DR/ BLENHEIM BLVD)
SCHOOL SPEED LIMIT 25 WHEN FLASHING
SPEED LIMIT ENFORCED WHEN FLASHING
SCHOOL ZONE
NO PARKING SCHOOL DAYS
NO PARKING BETWEEN SIGNS
NO MOTOR VEHICLES
BUS STOP SIGN
Ex 25 MPH Flashing Sign
Timber Ret. Walls w/ Flower Bed
Flower Bed
Grass
Ex.Gravel Driveway
Ex.Paved Driveway
Ex.Asphalt Trail
Ex.Concrete Walk
Ex.Curb & Gutter
Ex.C&G
Ex.Grass
Ex.C&G SW
Ex.Curb Inlet
Ex.Storm Sewer
Ex.Water Line
Ex.Gas Line
Ex.Overhead Wires
Ex.Fence
Ex.Guardrail
Ex.Sign
Ex.Utility Pole
Ex.Light Pole
Ex.Fire Hydrant
Ex.Water Valve
Ex.Gas Valve
Ex.Gas Meter
Ex.Mailbox
Ex.Bollard
Ex.Tree
Ex.Shrub
Ex.Bush
Ex.Rock
Ex.Retaining Wall
Ex.Concrete Pad
Ex.Brick Walk
Ex.Brick Pad
Ex.Stone Pad
Ex.Stone Wall
Ex.Stone Steps
Ex.Concrete Steps
Ex.Brick Steps
Ex.Wood Steps
Ex.Wood Deck
Ex.Wood Fence
Ex.Chain Link Fence
Ex.Wrought Iron Fence
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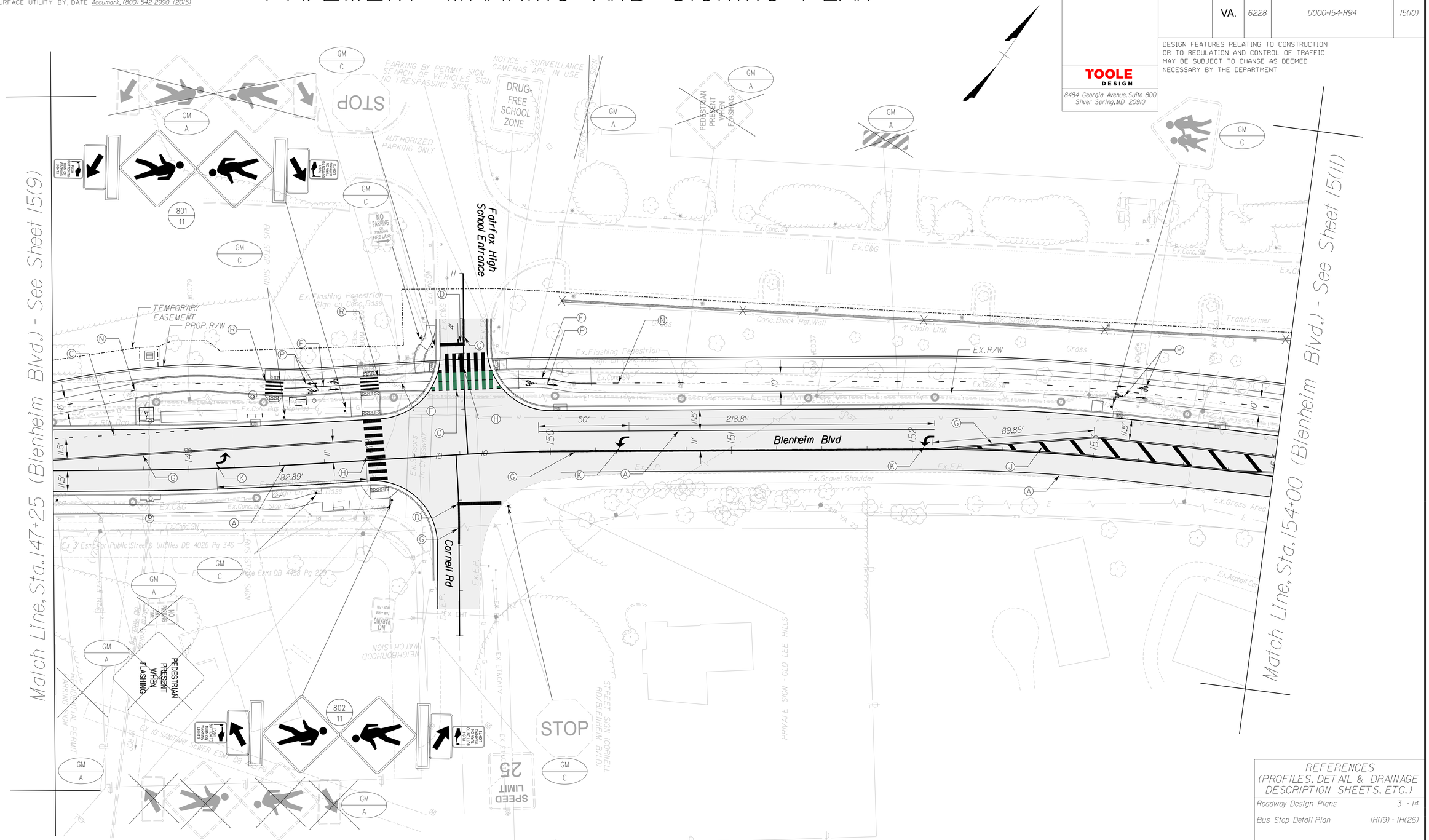
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

PAVEMENT MARKING AND SIGNING PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	15(10)

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



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

Roadway Design Plans	3 - 14
Bus Stop Detail Plan	IH(19) - IH(26)

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	15(10)

PH PLANS

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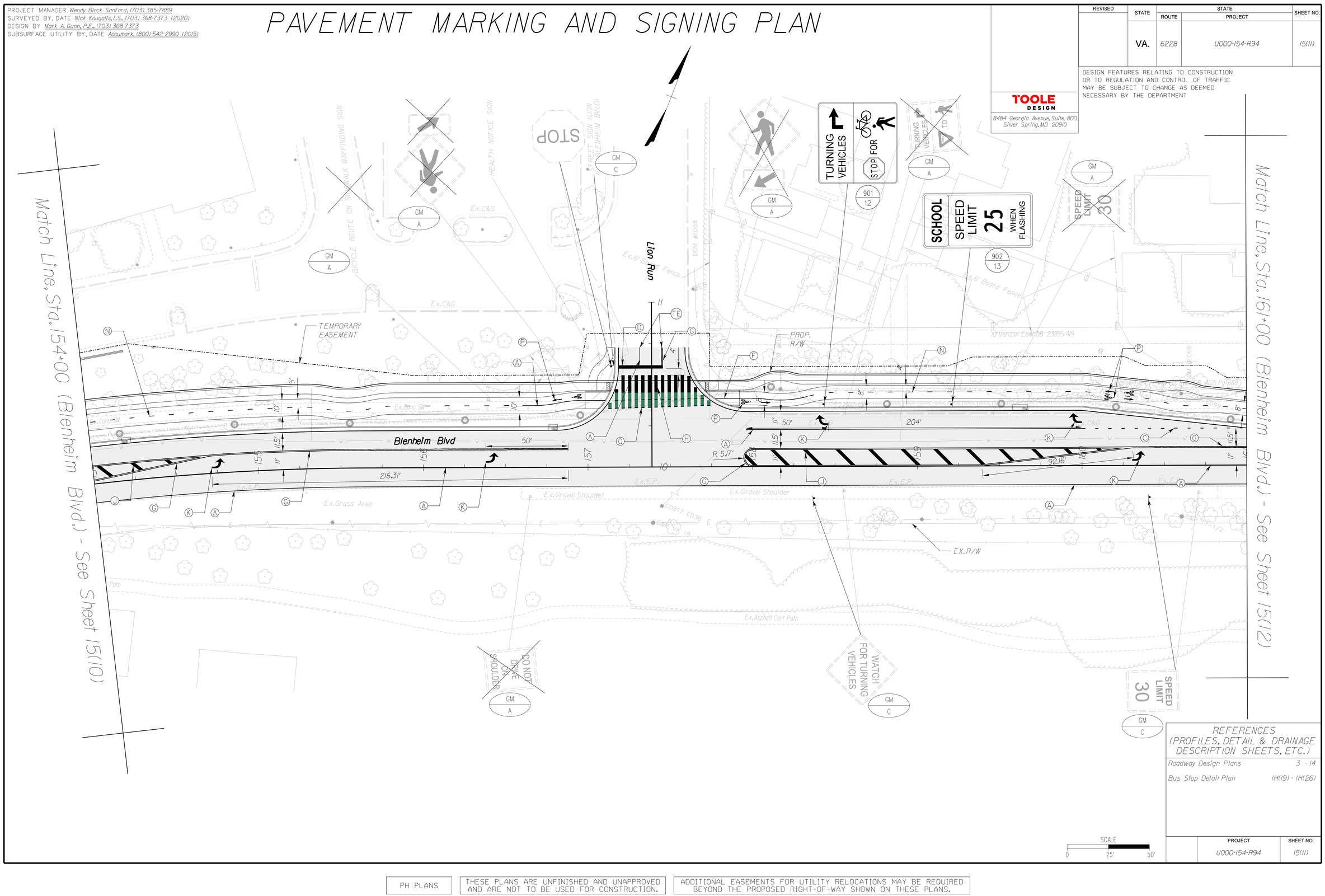
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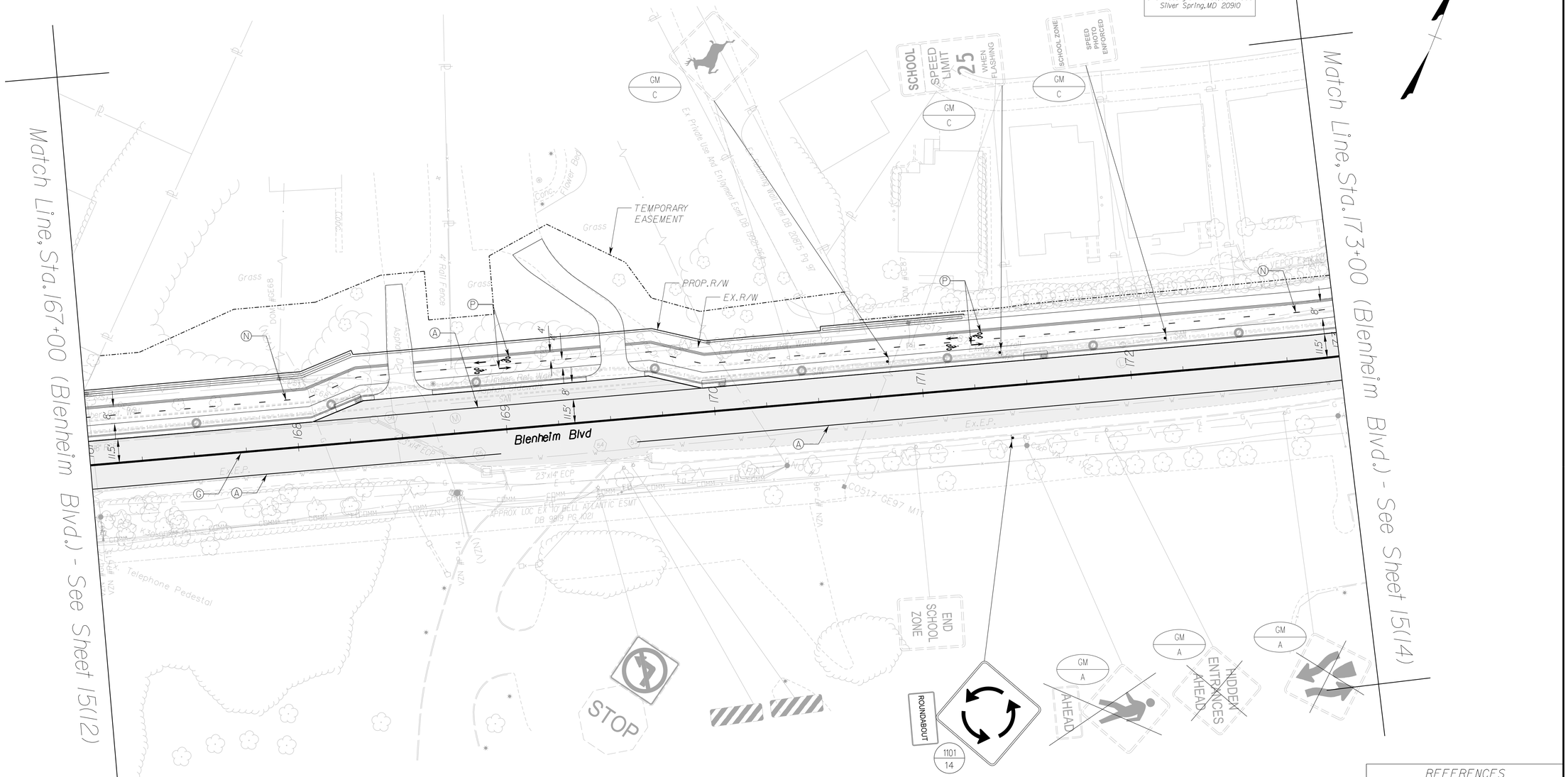
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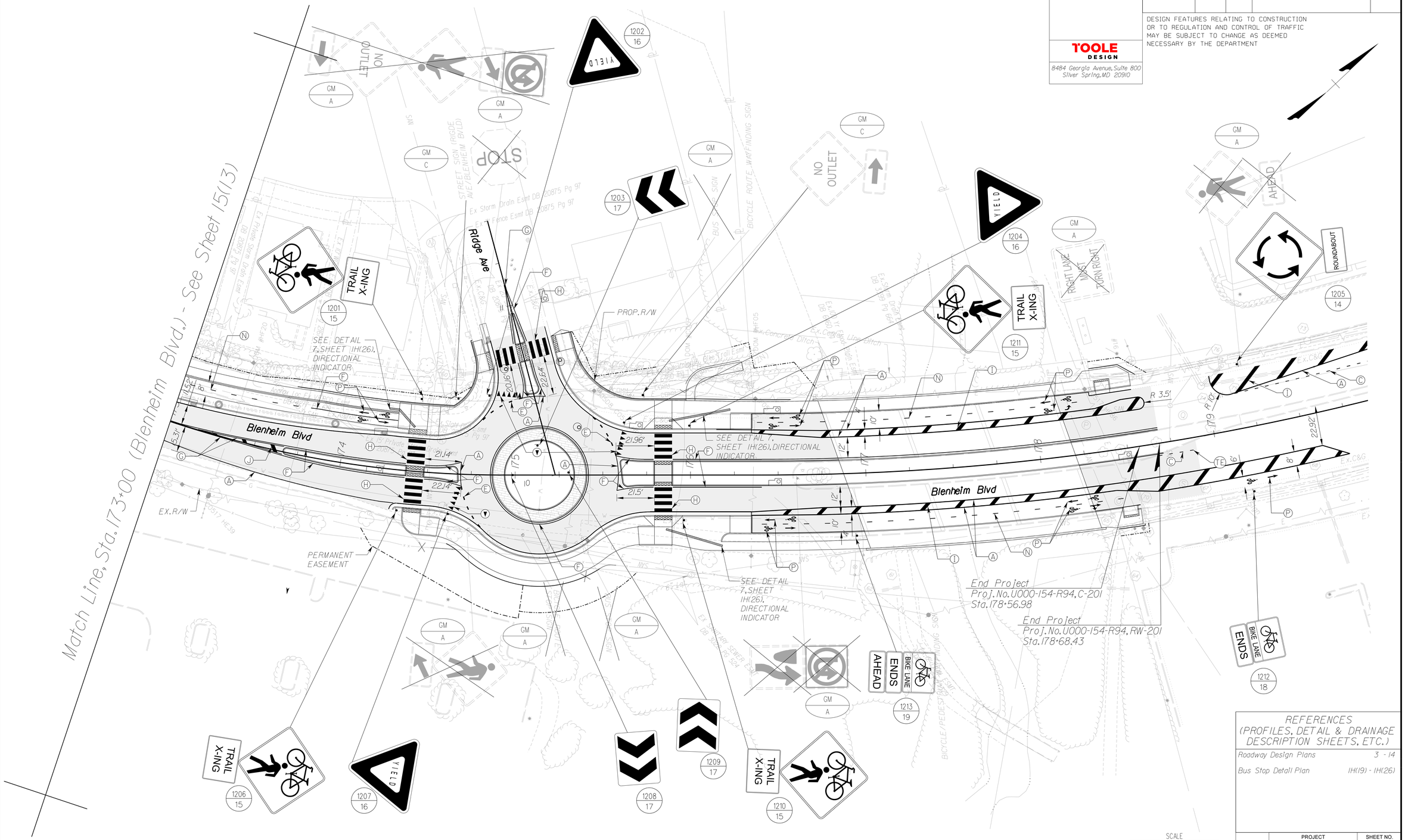
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SCALE
0 25' 50'

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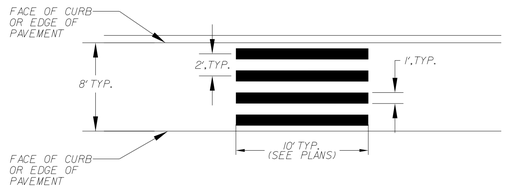
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PAVEMENT MARKING AND SIGNING PLAN: DETAILS

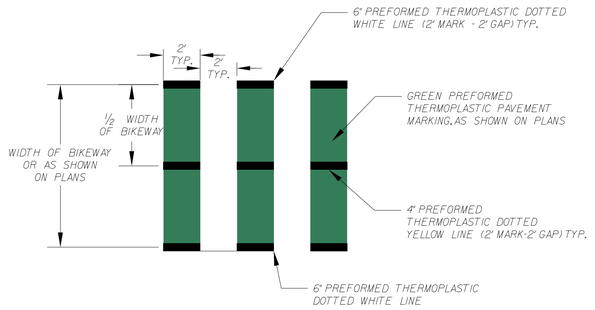
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	VA.	6228	U000-154-R94	15(15)

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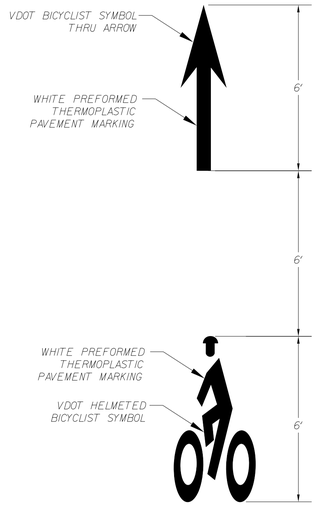
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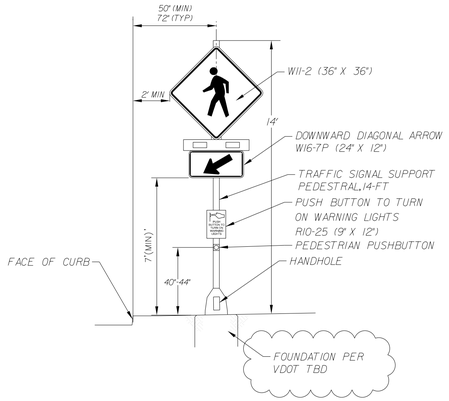
DETAIL 1: PEDESTRIAN BIKEWAY CROSSING
N.T.S.



DETAIL 2: TWO-WAY BIKEWAY CROSSING
N.T.S.



DETAIL 3: BICYCLE LANE SYMBOL
N.T.S.



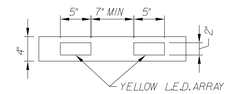
DETAIL 4A: PEDESTAL MOUNTED RECTANGULAR RAPID FLASHING BEACON
N.T.S.

MOVEMENT, SEQUENCE AND TIMING DIAGRAM

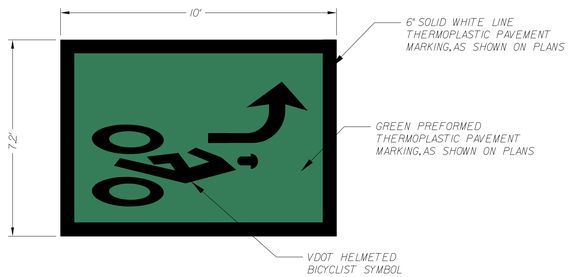
SIGNALS	
1-2	Y (RRFB)
PEDESTRIAN*	16

DETECTOR NOTES

1. PUSH BUTTON DETECTORS 1 AND 2 ACTIVATE RRFB SIGNALS 1-2. THE SIGNALS SHALL REMAIN FLASHING FOR 16 SECONDS AFTER A DETECTOR HAS BEEN CALLED.
2. ADDITIONAL CALLS SHALL RESET FIXED FLASH TIME.



DETAIL 4B: SIGNAL HEAD (1 AND 2)
N.T.S.



DETAIL 5: BICYCLE TWO-STAGE TURN QUEUE BOX
N.T.S.

PLACEHOLDER
TO BE PROVIDED AT FINAL DESIGN

DETAIL 6: SCOOTER CORRAL
N.T.S.

	PROJECT	SHEET NO.
	U000-154-R94	15(15)

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GRAVITY WALL DETAILS (SHEET 1 OF 2)

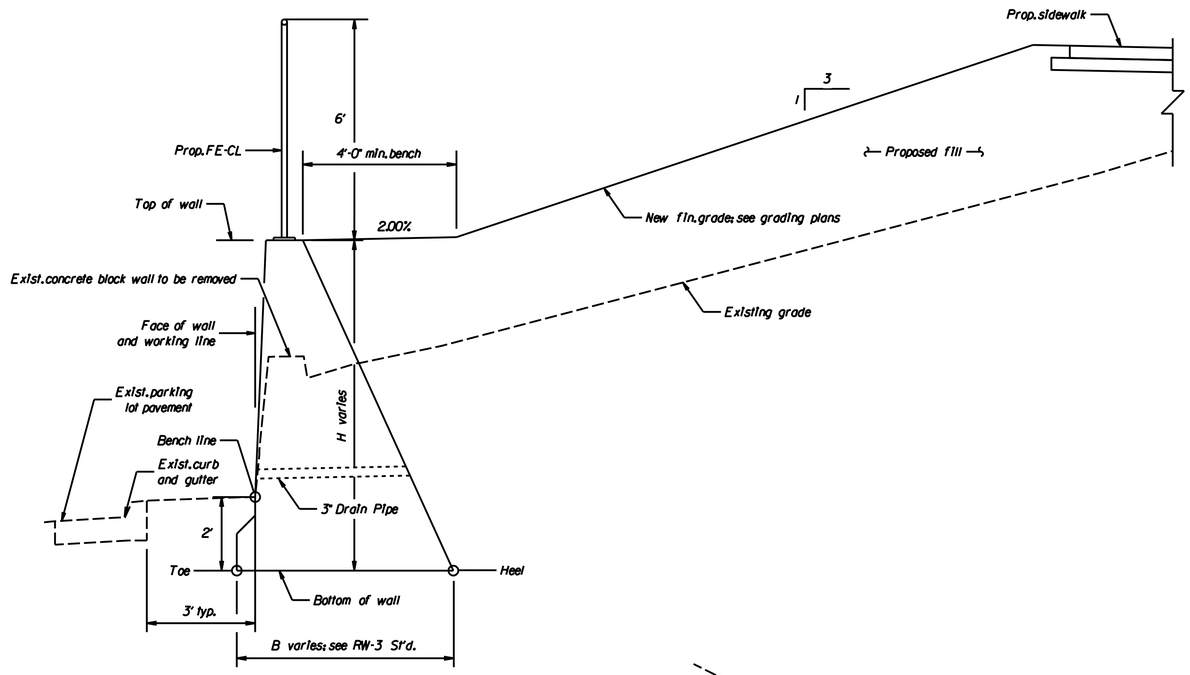
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	17A

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

NOTES:

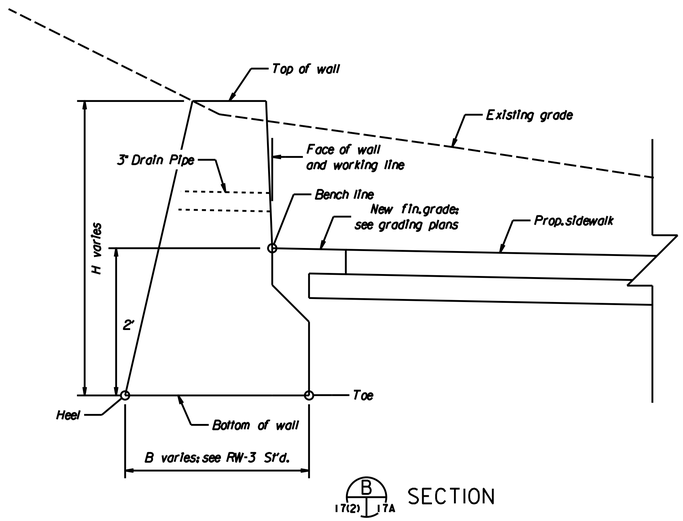
1. See VDOT Std. RW-3 for additional details not shown.



A 17(4) 17A SECTION

TYPICAL SECTION AT RW-C

Details such as aggregates, waterstop and other appurtenances are not shown for clarity.



B 17(2) 17A SECTION

TYPICAL SECTION AT RW-A

Details such as aggregates, waterstop and other appurtenances are not shown for clarity.

PROJECT	SHEET NO.
U000-154-R94	17A

3/24/2023

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GRAVITY WALL DETAILS (SHEET 2 OF 2)

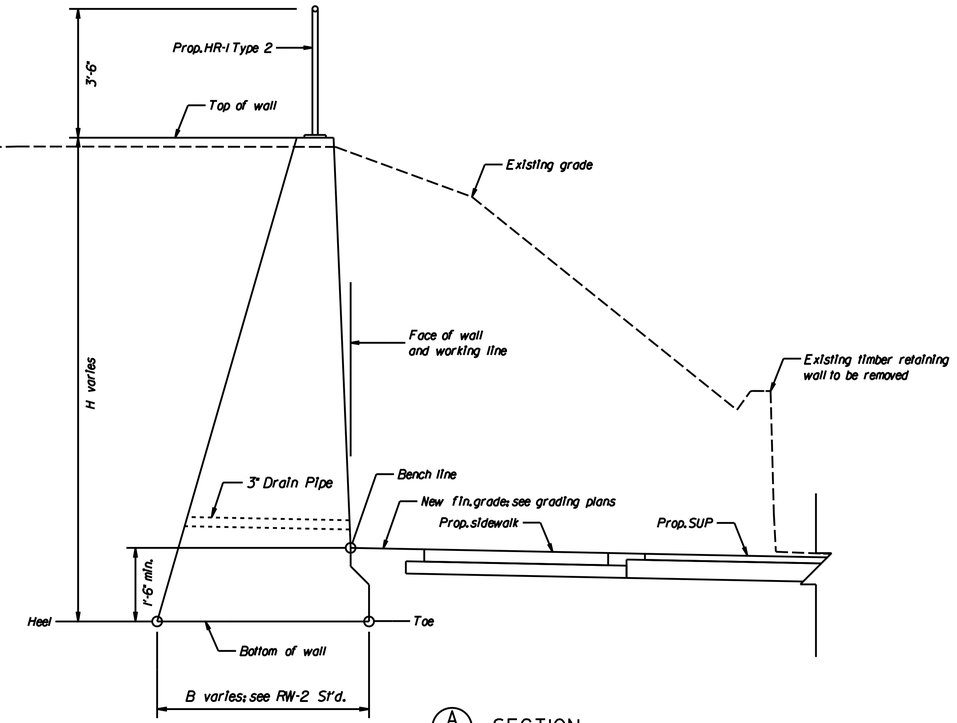
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	17B

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

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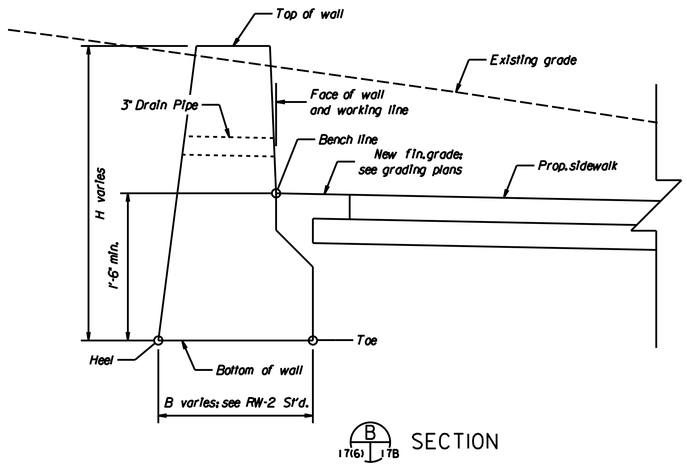
1. See VDOT Std. RW-2 for additional details not shown.



A 17(5) 17B SECTION

TYPICAL SECTION AT RW-D

Details such as aggregates, waterstop and other appurtenances are not shown for clarity.



B 17(6) 17B SECTION

TYPICAL SECTION AT RW-E

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PROJECT	SHEET NO.
U000-154-R94	17B

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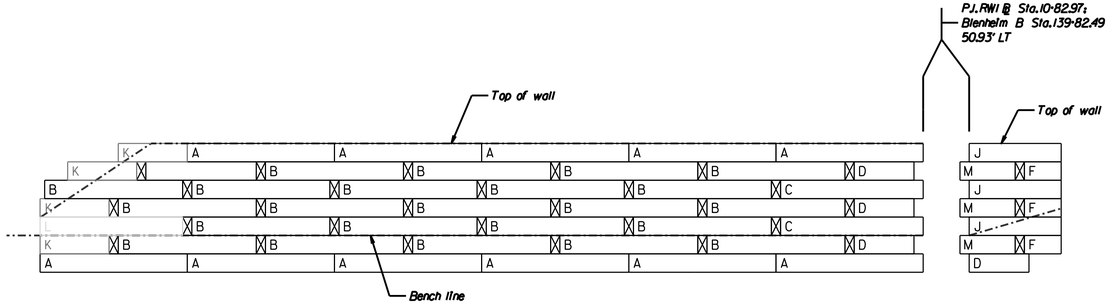
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TIMBER WALL GENERAL NOTES AND DETAILS

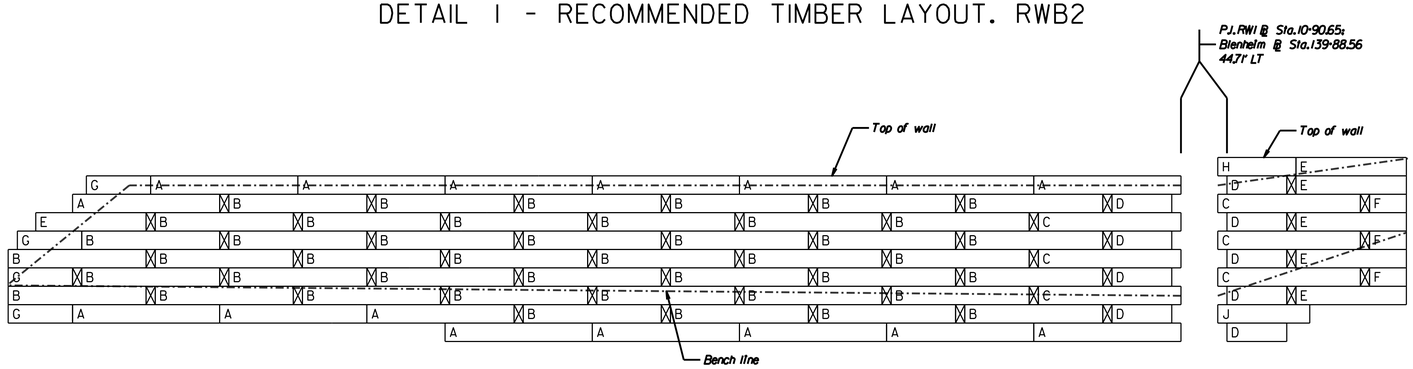
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	VA.	6228	U000-154-R94	I7(1)

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Manassas, Virginia
ROADWAY ENGINEER



DETAIL 1 - RECOMMENDED TIMBER LAYOUT. RWB2



DETAIL 2 - RECOMMENDED TIMBER LAYOUT. RWB1

TIMBER LEGEND		
TYPE	SIZE	LENGTH
A	6"x6"	8'-0"
B	6"x6"	7'-6"
C	6"x6"	7'-9"
D	6"x6"	3'-3"
E	6"x6"	6'-0"
F	6"x6"	2'-0"
G	6"x6"	3'-6"
H	6"x6"	4'-3"
I	NOT USED	
J	6"x6"	5'-0"
K	6"x6"	3'-9"
L	6"x6"	7'-9"
M	6"x6"	3'-0"
DEAD MAN	6"x6"	6'-0"
	6"x6"	2'-6"

SECTION 1: GENERAL NOTES

1. Timber retaining walls shall be constructed in accordance with the following:
   - Lumber shall be 6x6, southern pine, grade #2 or better and preservative-treated in accordance with American Wood Preservers' Association standards for ground contact.
   - All spikes shall be 60d or equivalent, hot-dipped galvanized or stainless steel and driven in pre-drilled holes. Spikes shall be of sufficient length to penetrate the base member a minimum of 2 inches.
2. The minimum concrete compressive strength at 28 days shall be 3,500 psi and shall comply with ACI 318.
3. Reinforcing steel shall comply with ASTM A615 and shall have a yield strength of 60,000 psi.
4. Lap all reinforcing steel a minimum of 20 inches.
5. Masonry retaining walls shall be constructed in accordance with the following:
   - Concrete masonry blocks shall comply with ASTM C90.
   - All joint reinforcement, ties and other accessories shall be resistant to corrosion.
   - All heads and bed joints shall be 3/8-inch thick.
   - Bed joints of the starting course over the concrete foundation may be between ¼-inch and ¾-inch.
   - Mortar shall conform to ASTM C270.

SECTION 2: TIMBER WALL CONSTRUCTION

Wall construction. The construction of a timber retaining wall shall conform to the requirements shown in Figure 1. Deadmen shall be placed at 8 feet on center. Deadmen and cross plates shall be constructed as shown in Figure 2. Deadmen are not required in the top course or bottom course below grade.

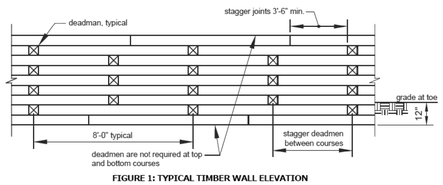


FIGURE 1: TYPICAL TIMBER WALL ELEVATION

Fasteners and connections. Each 6x6 member shall be secured at each end with 2-60d spikes driven vertically into the member below. Corners shall be secured with 2-60d spikes and driven horizontally. See Figure 2 for more information.

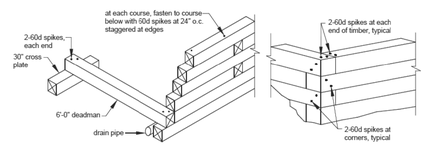


FIGURE 2: TYPICAL FASTENERS FOR TIMBER RETAINING WALLS

PROJECT	SHEET NO.
U000-154-R94	I7(1)

3/24/2023

PH PLANS

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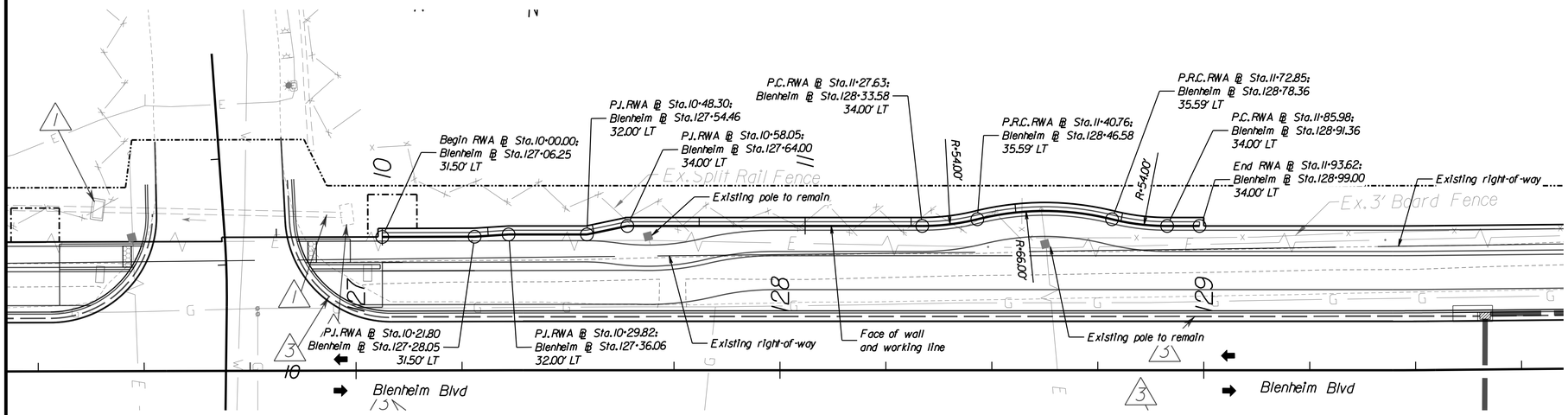
Office Locations
Design Associates, P.C.
Civil Engineering – Surveying – Land Planning
Transportation – Environmental – Right-of-Way Services
Rinker
Fax: (703) 549-7999

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)

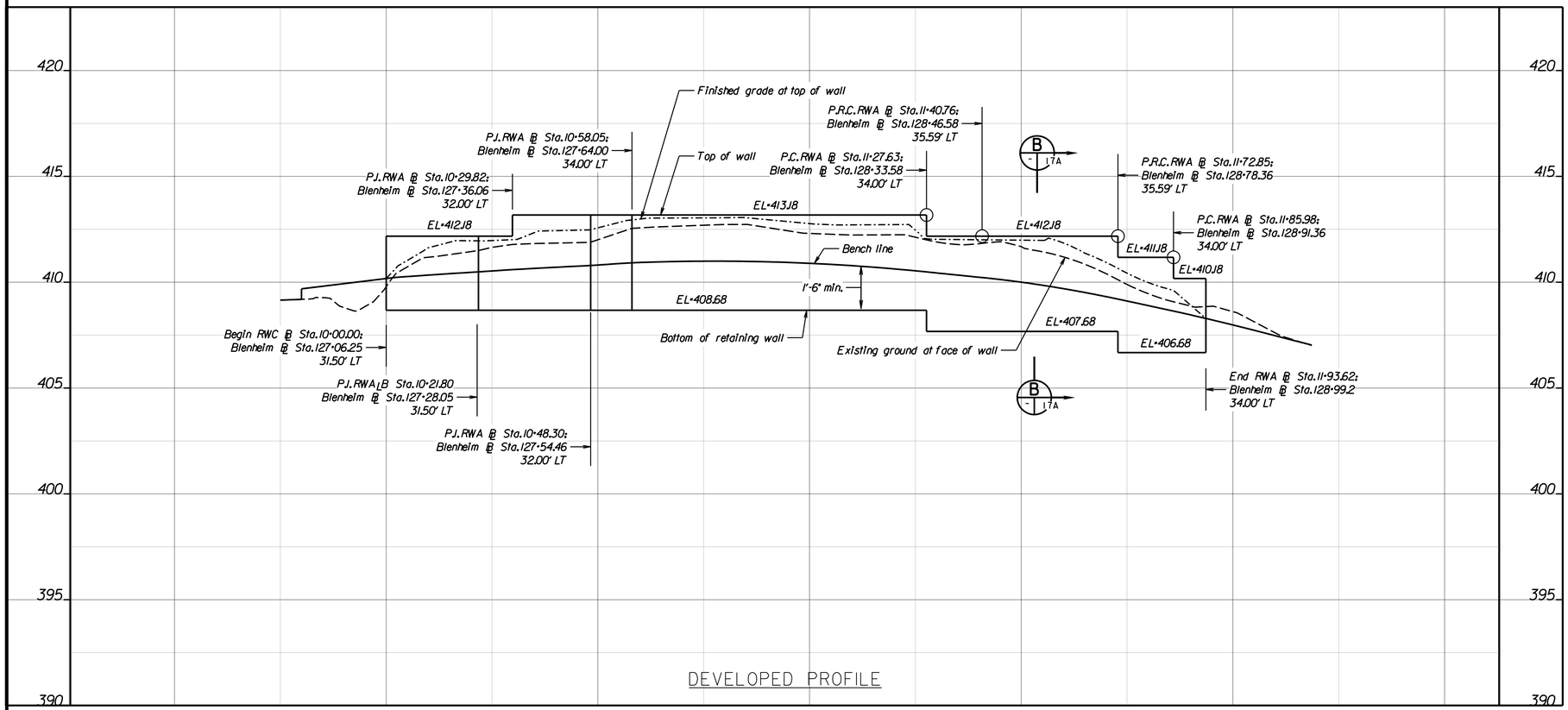
RW-A (ST'D. RW-3) - PLAN AND PROFILE

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	17(2)

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



PLAN



DEVELOPED PROFILE

RWA BASELINE 10+00.00 10+50.00 11+00.00 11+50.00 12+00.00

SCALE 0 15' 30' | 0 1.5' 3'

NOTES:

1. Retaining wall to be maintained by VDOT.

PROJECT	SHEET NO.
U000-154-R94	17(2)

PH PLANS

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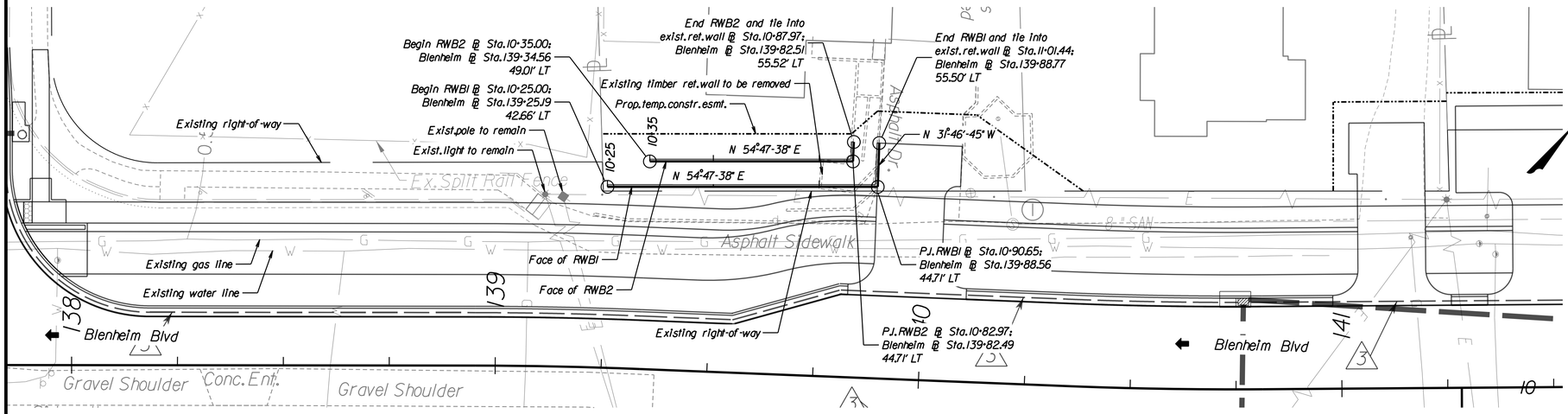
Office Locations
Gannett Fleming Design Associates, P.C.
Civil Engineering – Surveying – Land Planning
Transportation – Environmental – Right-of-Way Services
GdaRinker
10 Chesterfield Business Parkway, Suite 100, Glen Allen, VA 23059, Phone: (804) 346-6570, Fax: (804) 346-6571
3951 Pender Drive, Suite 210, Fairfax, VA 22030, Phone: (703) 934-2020, Fax: (703) 934-2028
3951 Pender Drive, Suite 210, Fairfax, VA 22030, Phone: (703) 934-2020, Fax: (703) 934-2028

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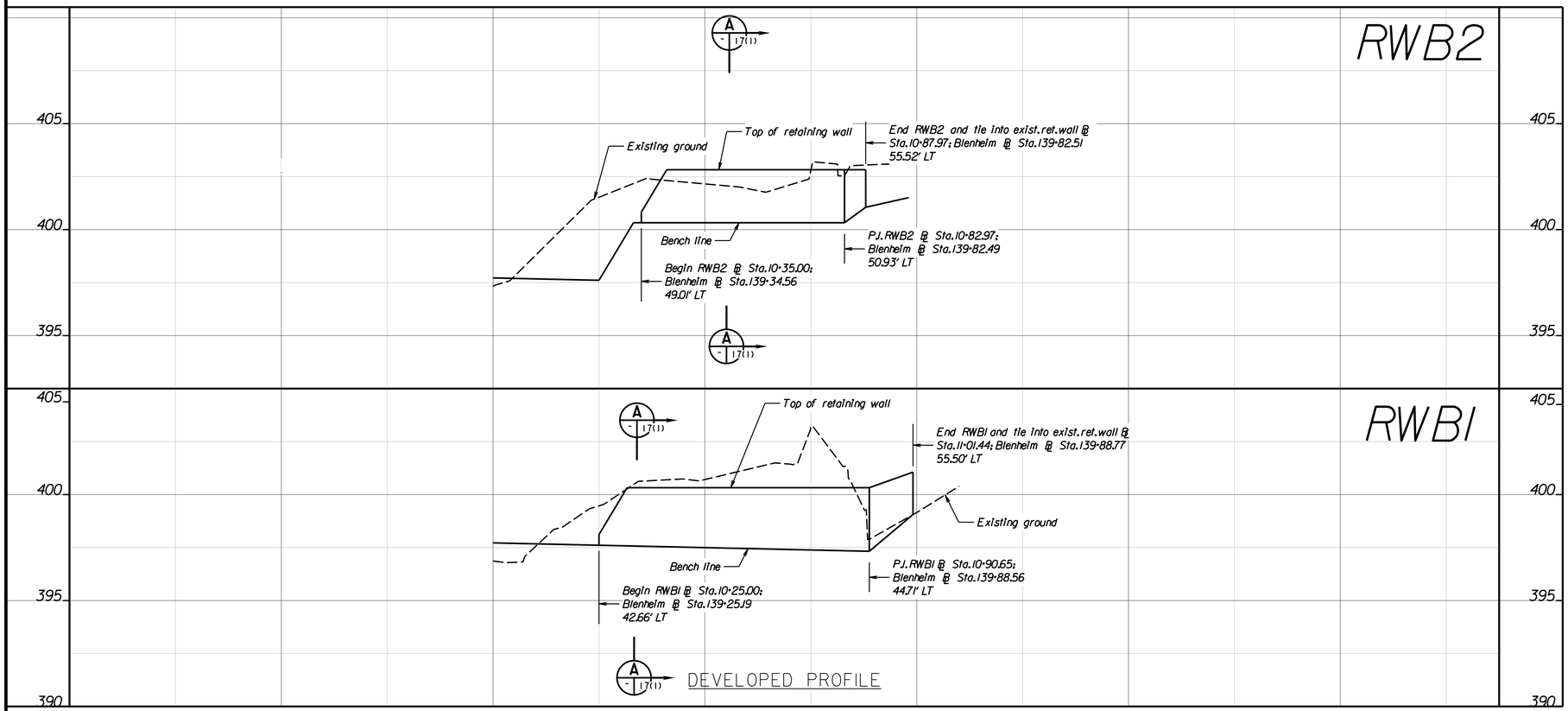
RW-BI/2 (TIMBER WALL) - PLAN AND PROFILE

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	17(3)

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



PLAN



SCALE 0 15' 30' | 0 1.5' 3'

PROJECT	SHEET NO.
U000-154-R94	17(3)

3/24/2023

PH PLANS

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NOTES:

1. Retaining wall to be maintained by property owner.

Office Locations
Design Associates, P.C.
Civil Engineering – Surveying – Land Planning
Transportation – Environmental – Right-of-Way Services
Rinker Design Associates
10 Chase Commons Boulevard, Suite 300, Ashburn, VA 20147
Phone: (703) 724-1290
Fax: (703) 724-1291
www.RDAinc.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
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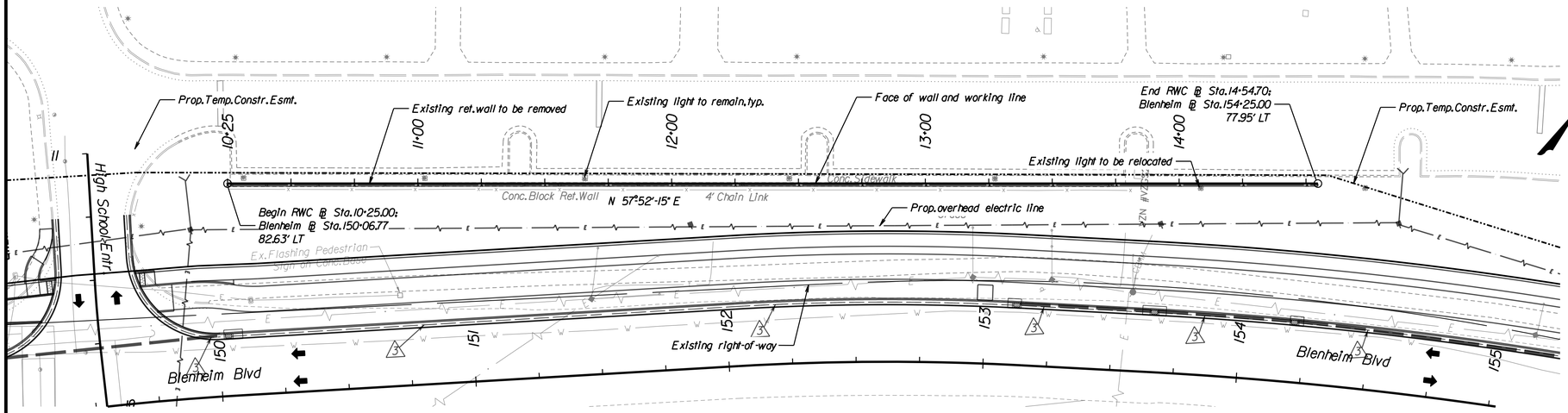
RW-C (ST'D. RW-3) - PLAN AND PROFILE

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	17(4)

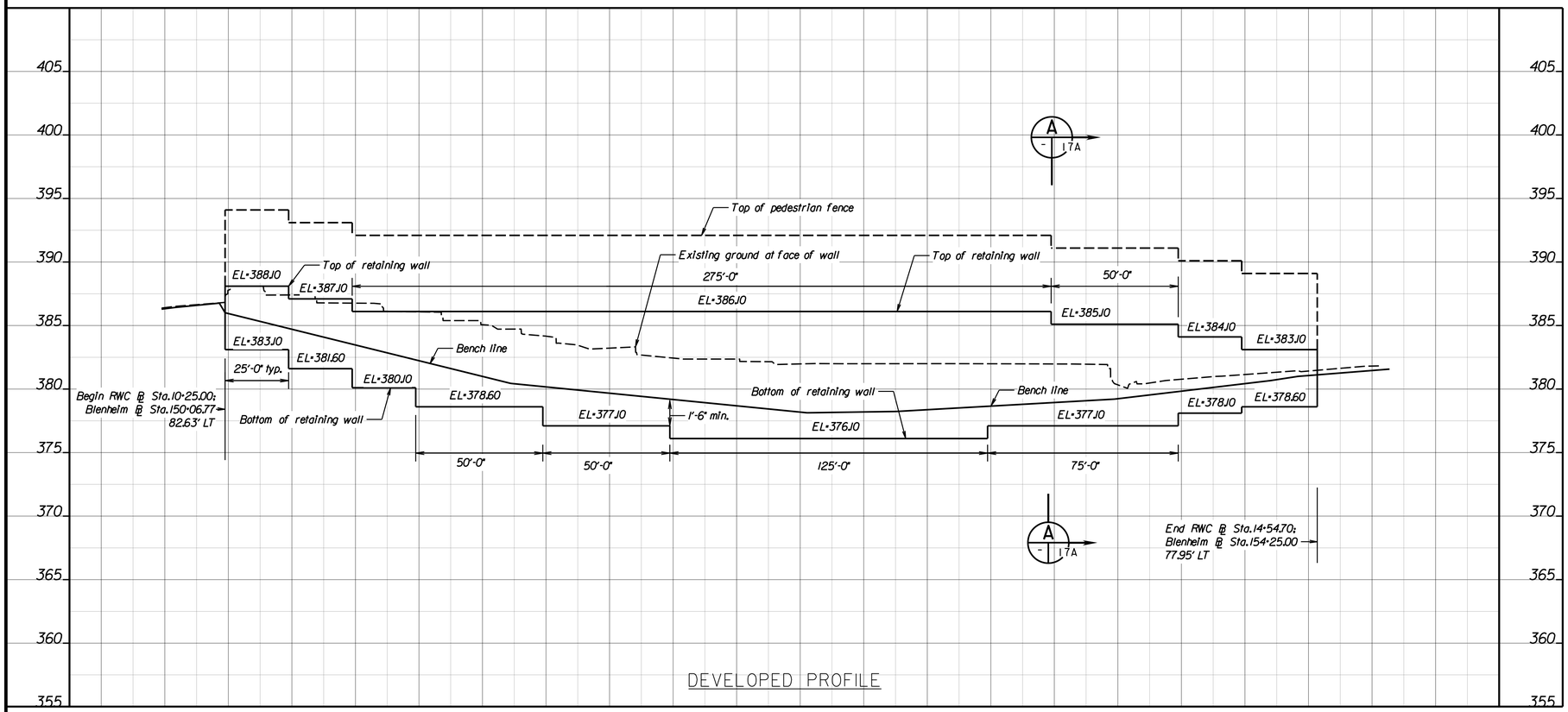
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NOTES:

1. Retaining wall to be maintained by property owner.



PLAN



DEVELOPED PROFILE

RWB BASELINE 10+00.00 11+00.00 12+00.00 13+00.00 14+00.00 15+00.00

SCALE 0 25' 50' | 0 2.5' 5'

PROJECT	SHEET NO.
U000-154-R94	17(4)

PH PLANS

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Transportation – Environmental – Right-of-Way Services
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

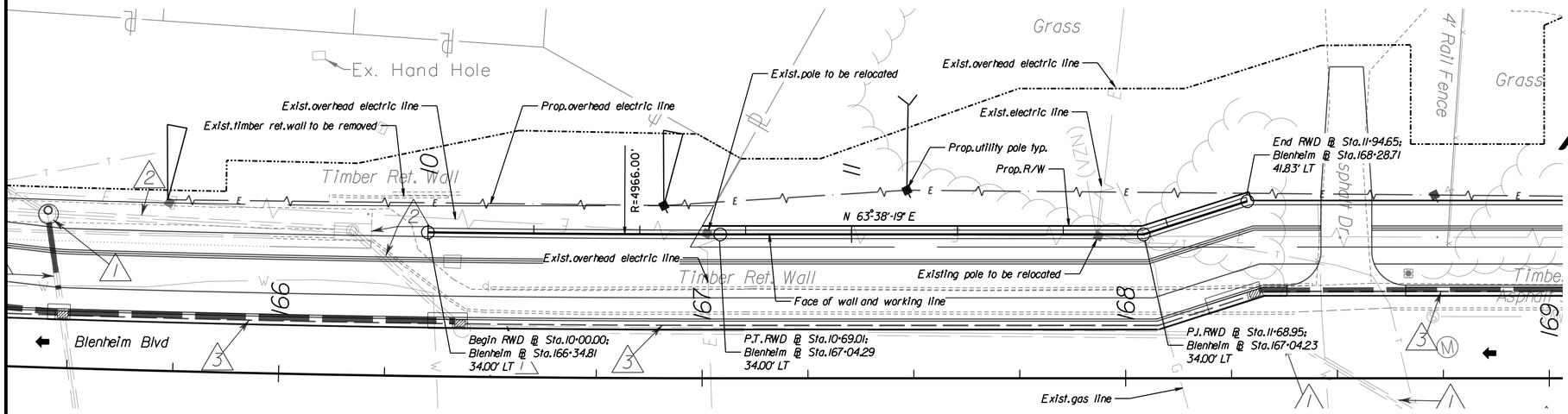
RW-D (ST'D. RW-2) - PLAN AND PROFILE

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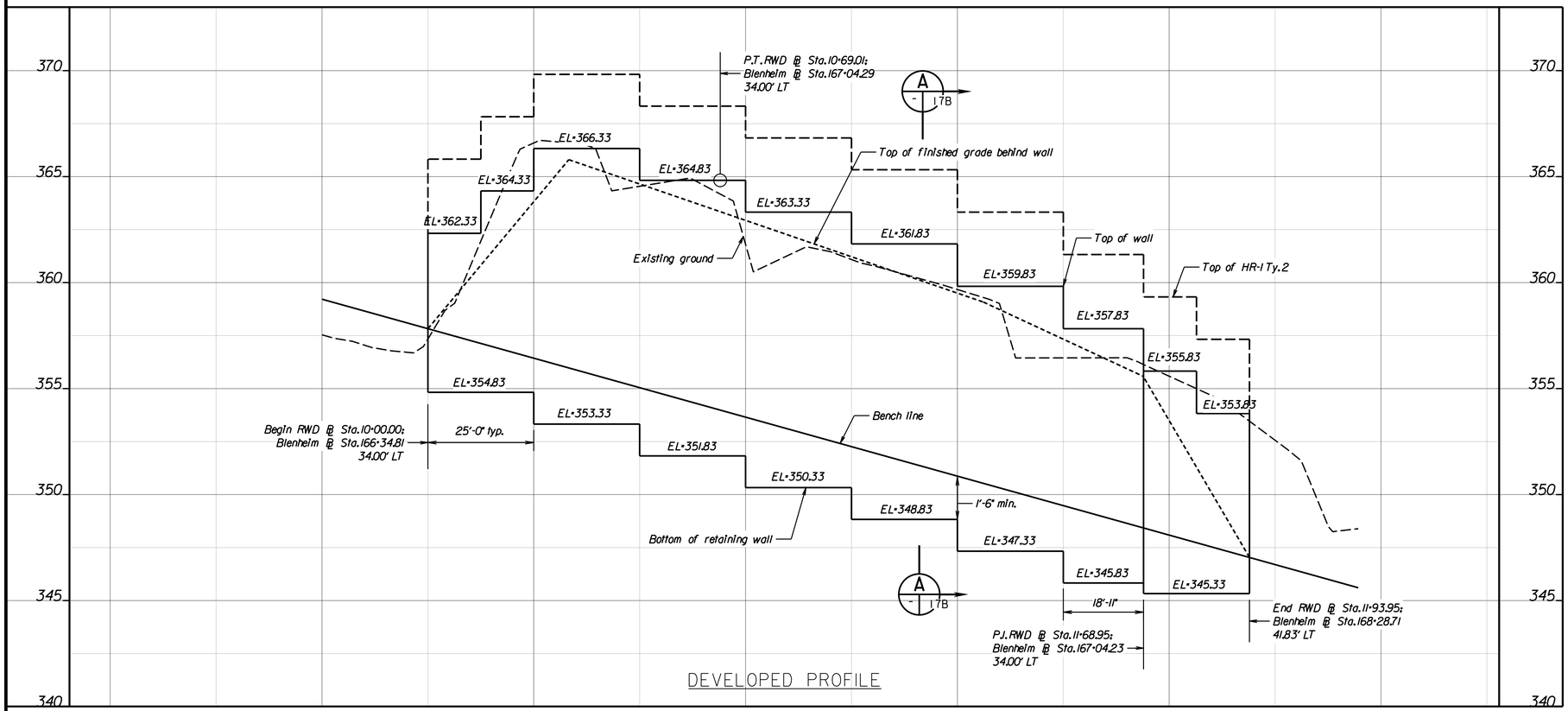
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

NOTES:

1. Retaining wall to be maintained by VDOT.



PLAN



DEVELOPED PROFILE

SCALE 0 15' 30' | 0 1.5' 3'

PROJECT	SHEET NO.
U000-154-R94	17(5)

PH PLANS

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Office Locations
Gay and Dawe Engineering, Inc. (Main Office) 4805 Lake Brook Drive, Suite 100 Glen Allen, VA 23060 Phone: (804) 521-1000 Fax: (804) 521-1001
Dawe Engineering, Inc. 4805 Lake Brook Drive, Suite 100 Glen Allen, VA 23060 Phone: (804) 521-1000 Fax: (804) 521-1001
Gay Engineering, Inc. 4805 Lake Brook Drive, Suite 100 Glen Allen, VA 23060 Phone: (804) 521-1000 Fax: (804) 521-1001
Gay and Dawe Engineering, Inc. (Northern Virginia Office) 4084 University Drive, Suite 101 Fairfax, VA 22030 Phone: (703) 385-7889 Fax: (703) 385-7882
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Gay and Dawe Engineering, Inc. (Valley Office) 2 South Main Street, Suite 201 Harrisonburg, VA 22801 Phone: (540) 437-9000 Fax: (540) 437-9001
Gay and Dawe Engineering, Inc. (Western Office) 1108 East Main Street, Suite 1110 Richmond, VA 23219 Phone: (804) 521-1000 Fax: (804) 521-1001
Gay and Dawe Engineering, Inc. (Southwest Office) 1108 East Main Street, Suite 1110 Richmond, VA 23219 Phone: (804) 521-1000 Fax: (804) 521-1001
Gay and Dawe Engineering, Inc. (Southside Office) 1108 East Main Street, Suite 1110 Richmond, VA 23219 Phone: (804) 521-1000 Fax: (804) 521-1001
Dawe Design Associates, P.C. Civil Engineering – Surveying – Land Planning Transportation – Environmental – Right-of-Way Services
GDA Rinker www.gdarinker.com

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

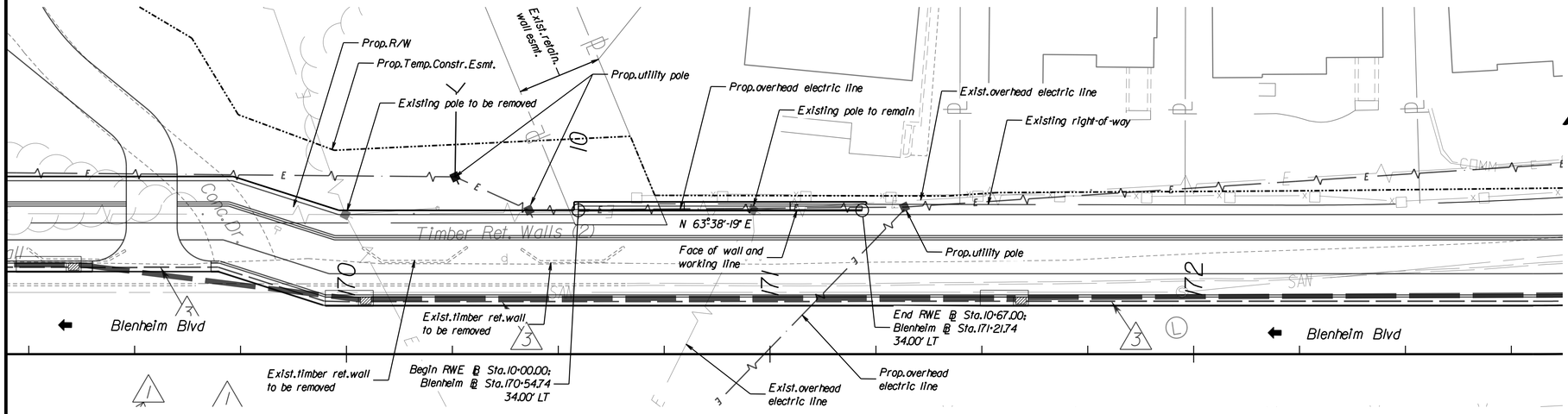
RW-E (ST'D. RW-2) - PLAN AND PROFILE

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	17(6)

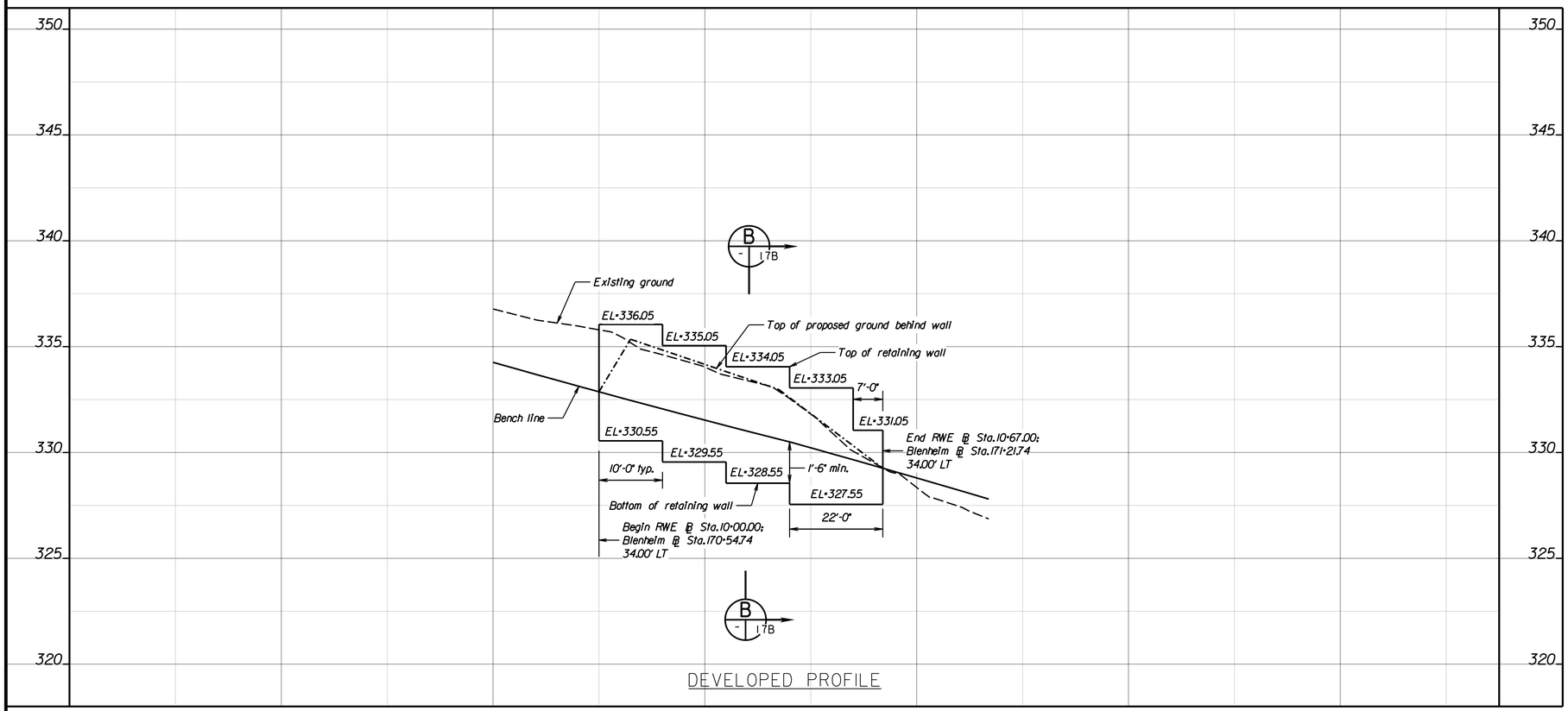
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

NOTES:

1. Retaining wall to be maintained by VDOT.



PLAN



DEVELOPED PROFILE

SCALE 0 1.5" 3" 0 15' 30'

PROJECT	SHEET NO.
U000-154-R94	17(6)

3/24/2023

PH PLANS

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TOOLE DESIGN
8484 GEORGIA AVENUE, SUITE 800
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)

EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20

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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8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- CRZ = CRITICAL ROOT ZONE
- SRZ = STRUCTURAL ROOT ZONE

SCALE
0 25' 50'

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

Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

	PROJECT	SHEET NO.
	107013	20

PH PLANS

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

3/21/2023
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Plotted By: kkhurana

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8484 GEORGIA AVENUE, SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

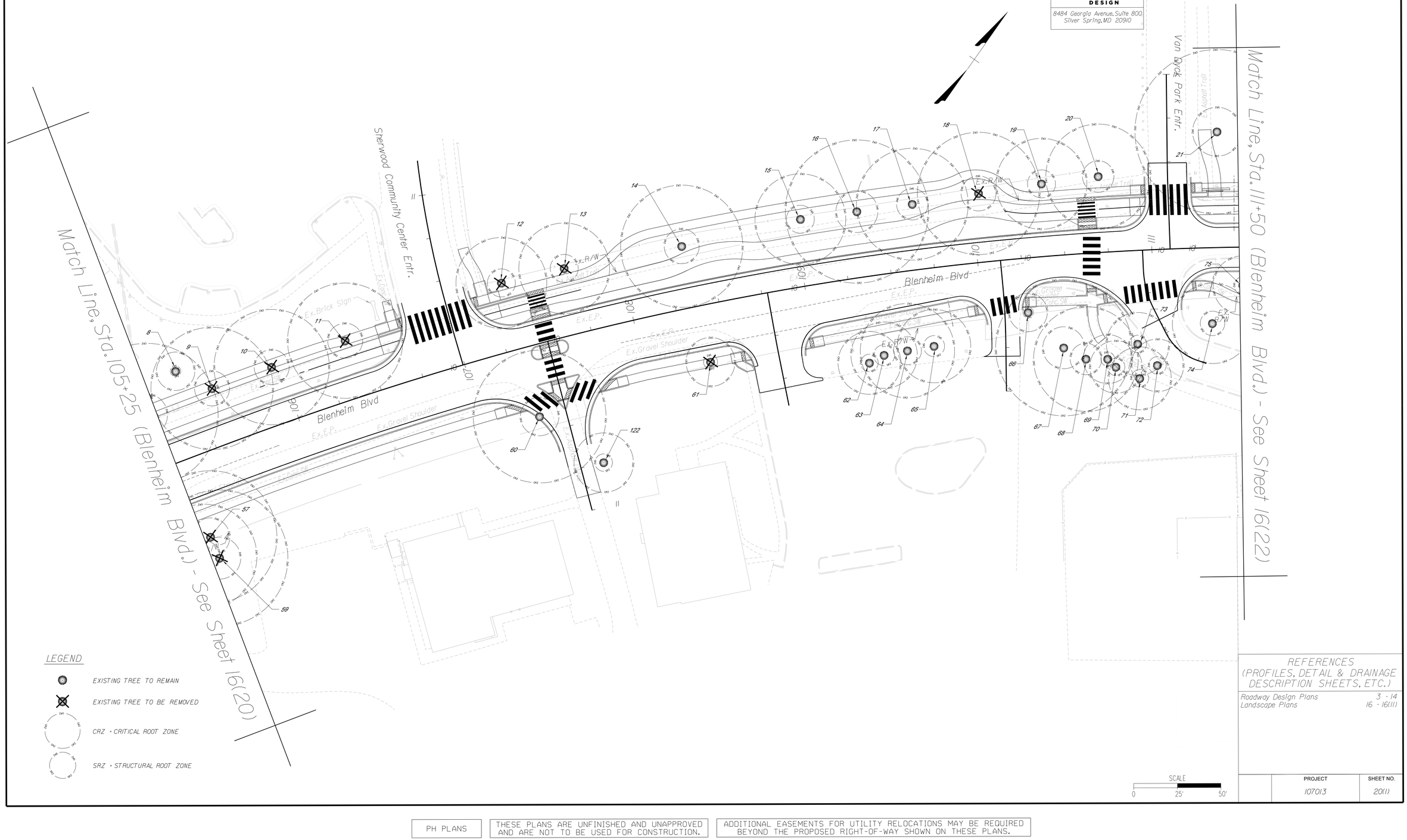
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20(11)

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Silver Spring, MD 20910



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

Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

	PROJECT	SHEET NO.
	107013	20(11)

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Plotted By: kkhurana

TOOLE DESIGN
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SILVER SPRING, MD 20910
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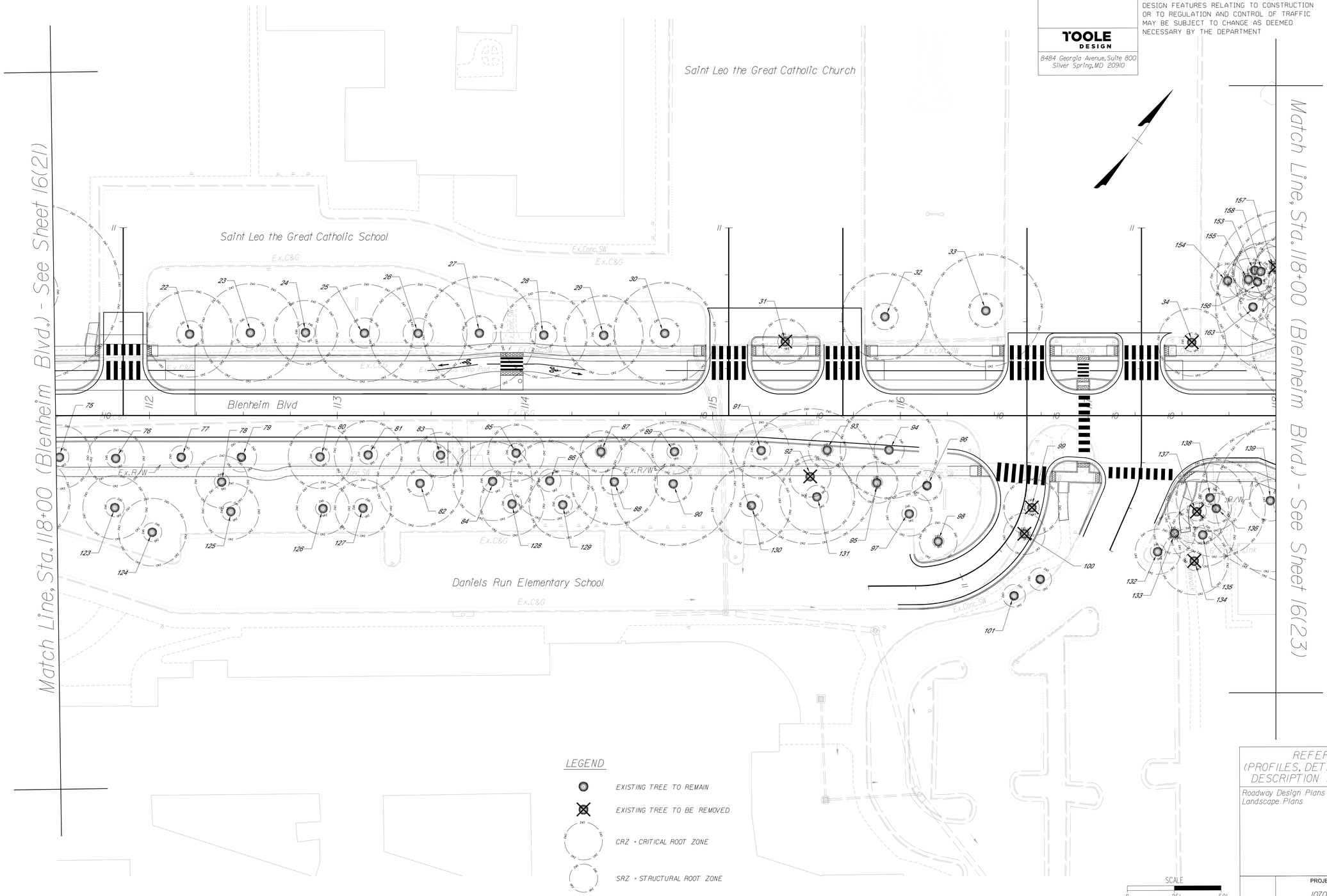
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
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EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20(2)

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

Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

PROJECT	SHEET NO.
107013	20(2)

PH PLANS

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SILVER SPRING, MD 20910
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FAX: 301.927.2800
www.tooledesign.com

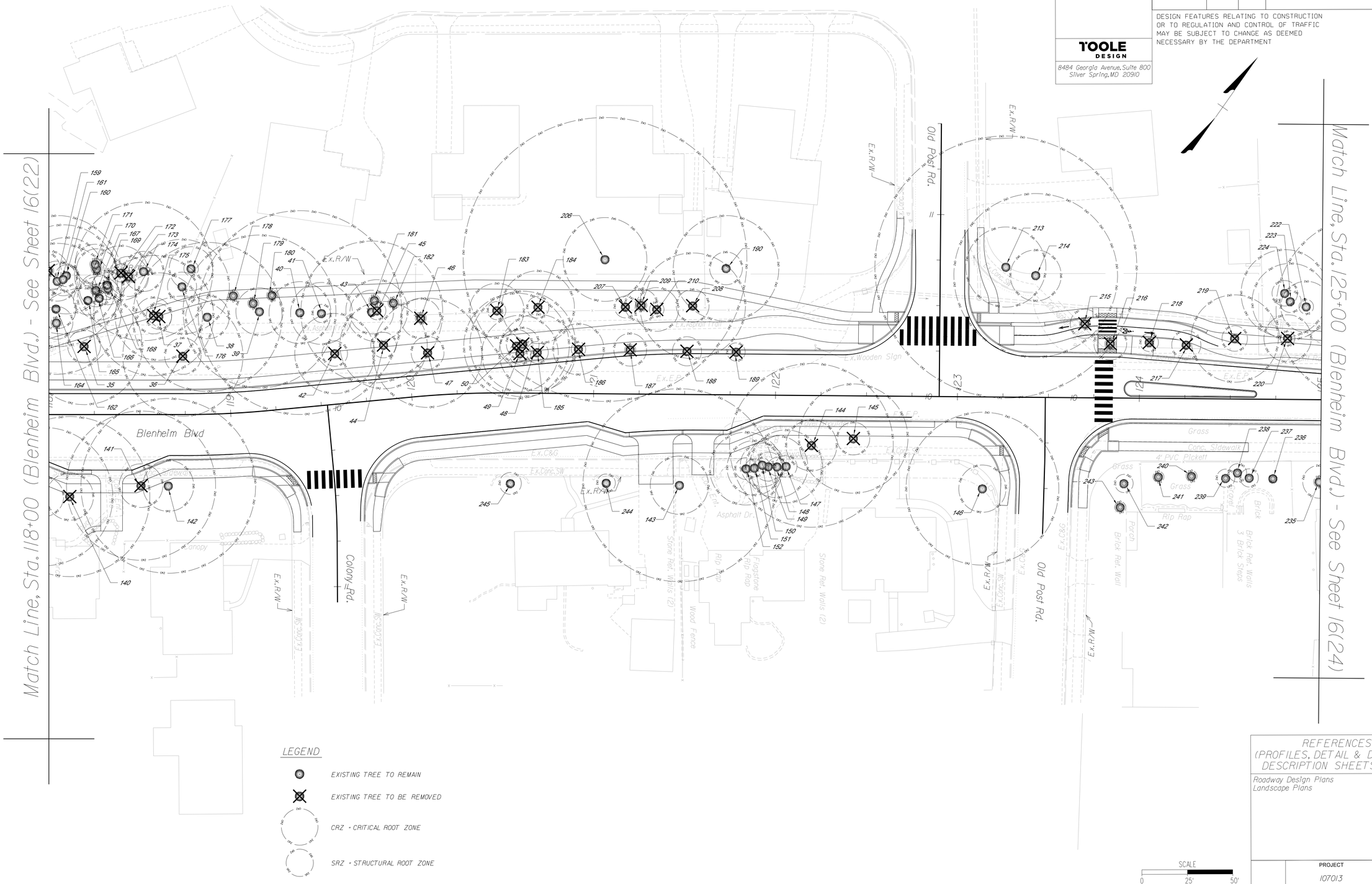
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20(3)

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910


Match Line, Sta. 118+00 (Blenheim Blvd.) - See Sheet 16(22)
Match Line, Sta. 125+00 (Blenheim Blvd.) - See Sheet 16(24)
Blenheim Blvd
Old Post Rd.
Colony Rd.
Ex. R/W
Ex. C&G
Ex. Conc. SW
Ex. R/W
Ex. Asphalt
Ex. Wooden Sign
Ex. E.P.
Grass
Conc. Sidewalk
4' PVC Pickett
Asphalt Dr.
Stone Ret. Walls (2)
Flagstone
Rip Rap
Wood Fence
Brick
Brick Ret. Walls
3 Brick Steps
Porch
Brick Ret. Wall
Ex. Conc. SW
Ex. R/W
Ex. Conc. SW
Ex. R/W
Ex. Conc. SW
Ex. R/W

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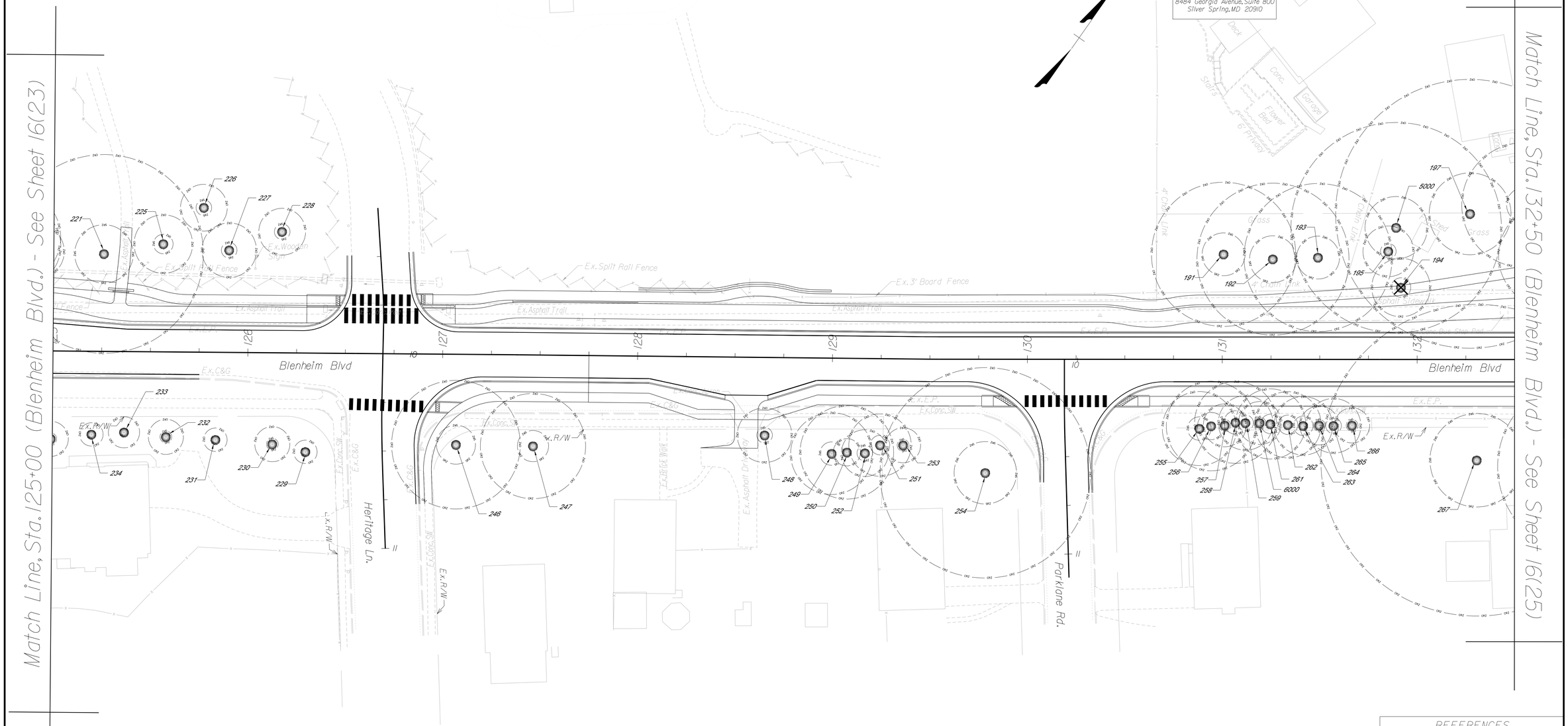
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20(4)

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Silver Spring, MD 20910



LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- CRZ = CRITICAL ROOT ZONE
- SRZ = STRUCTURAL ROOT ZONE

SCALE
0 25' 50'

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

Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

	PROJECT	SHEET NO.
	107013	20(4)

PH PLANS

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3/21/2023
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Plotted By: kkthurana

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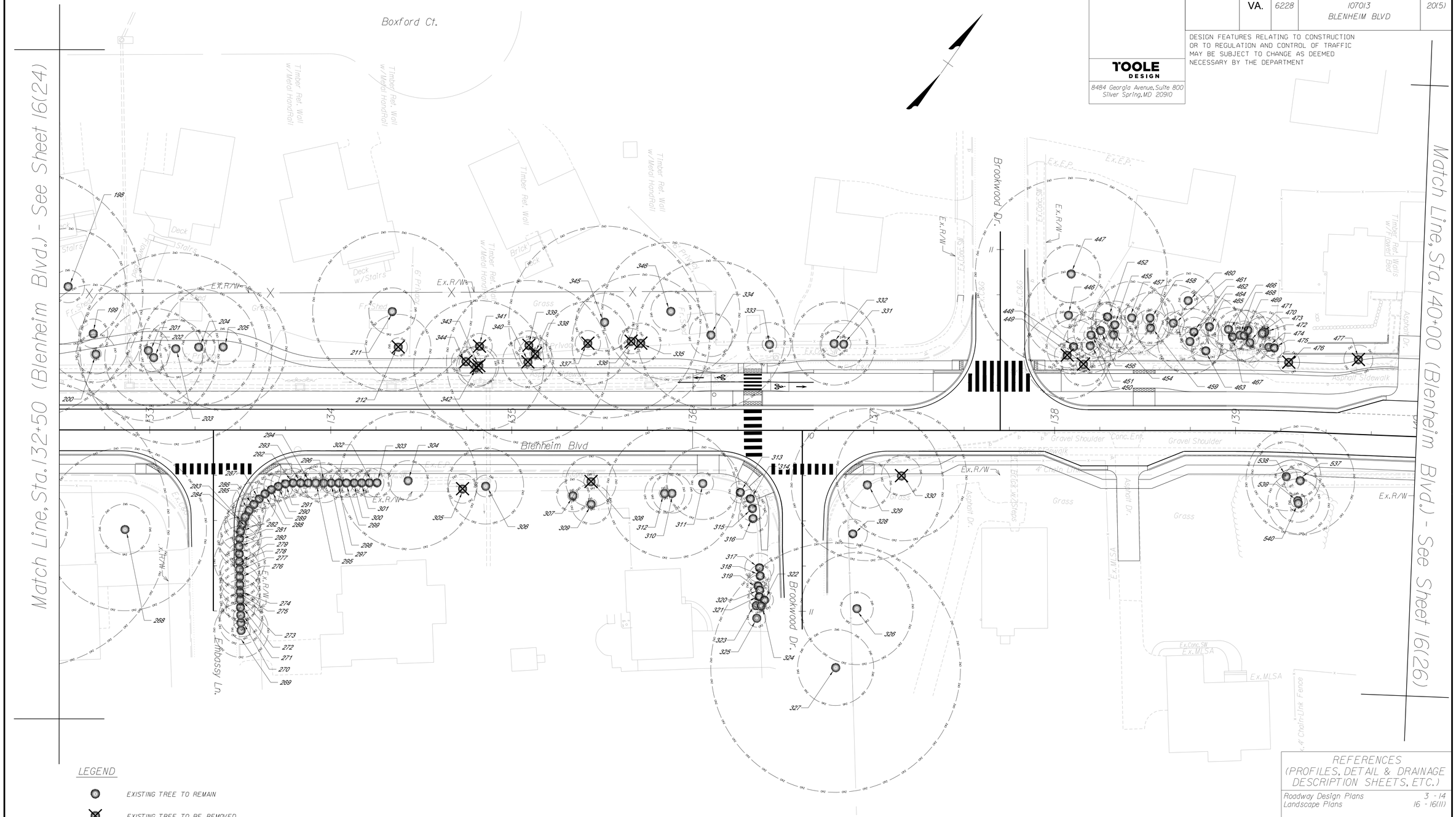
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SURVEYED BY, DATE Nick Kougalis, L.S., (703) 368-7373 (2020)
DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20(5)

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

TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- CRZ = CRITICAL ROOT ZONE
- SRZ = STRUCTURAL ROOT ZONE

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

Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

SCALE 0 25' 50'

	PROJECT	SHEET NO.
	107013	20(5)

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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

3/21/2023
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Plotted By: kkthurana

TOOLE DESIGN
8484 GEORGIA AVENUE, SUITE 800
SILVER SPRING, MD 20910
PHONE: 301.927.1900
FAX: 301.927.2800
www.tooledesign.com

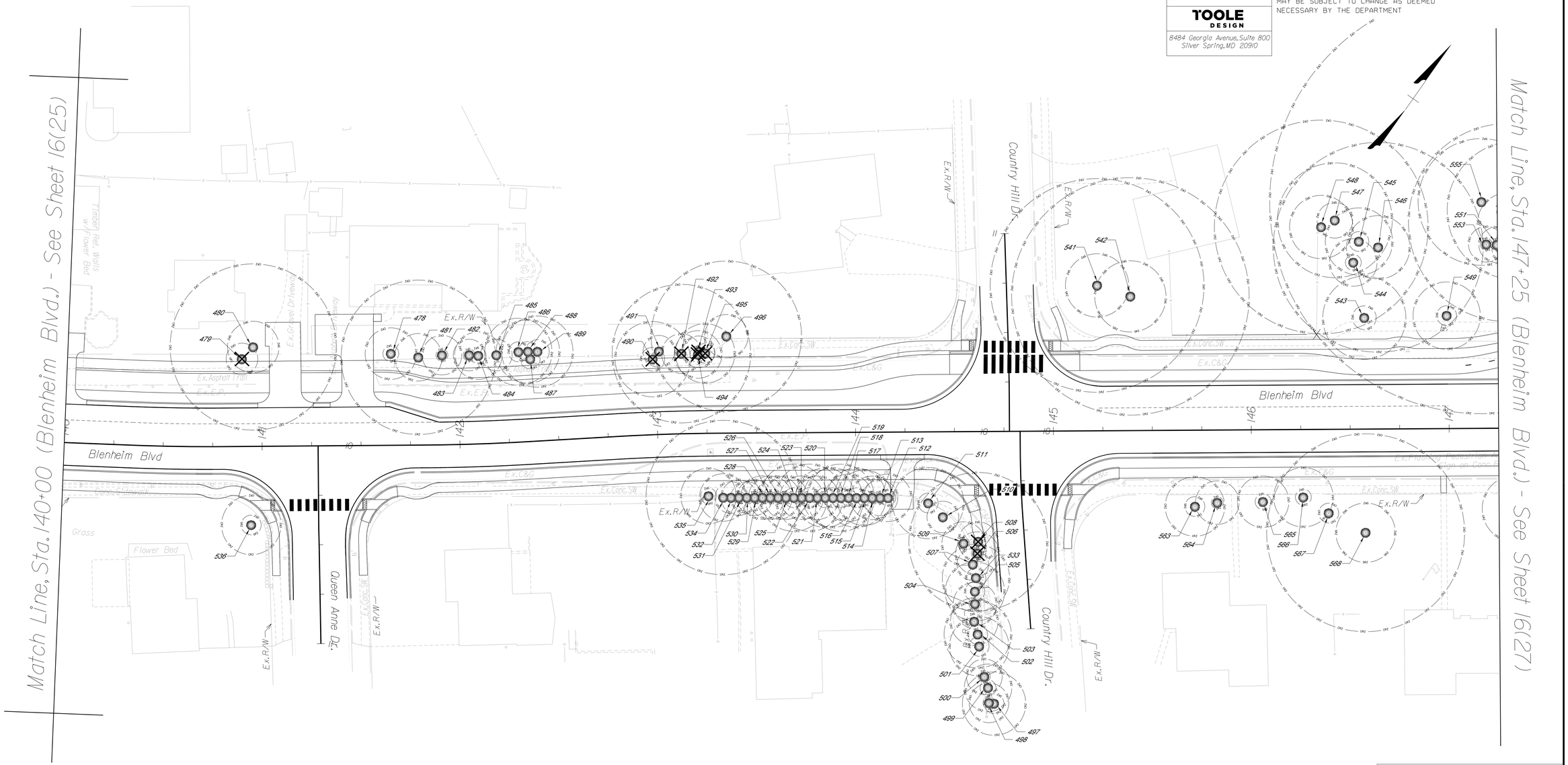
PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20(6)

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

TOOLE DESIGN
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Silver Spring, MD 20910



LEGEND

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- EXISTING TREE TO BE REMOVED
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- SRZ = STRUCTURAL ROOT ZONE

SCALE 0 25' 50'

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

Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

	PROJECT	SHEET NO.
	107013	20(6)

PH PLANS

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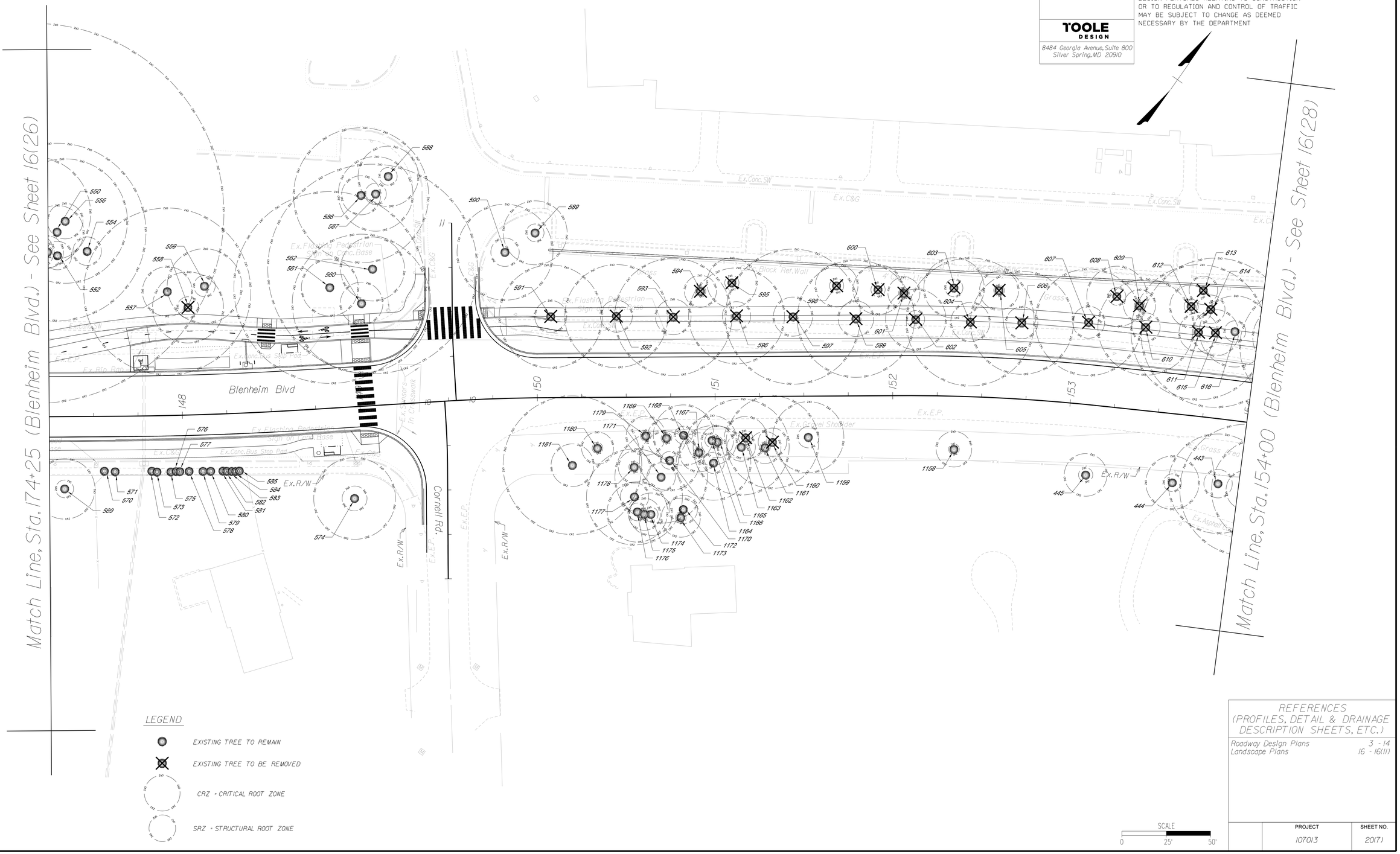
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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20(7)

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TOOLE DESIGN
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Silver Spring, MD 20910



LEGEND

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- EXISTING TREE TO BE REMOVED
- CRZ = CRITICAL ROOT ZONE
- SRZ = STRUCTURAL ROOT ZONE

SCALE
0 25' 50'

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

Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

	PROJECT	SHEET NO.
	107013	20(7)

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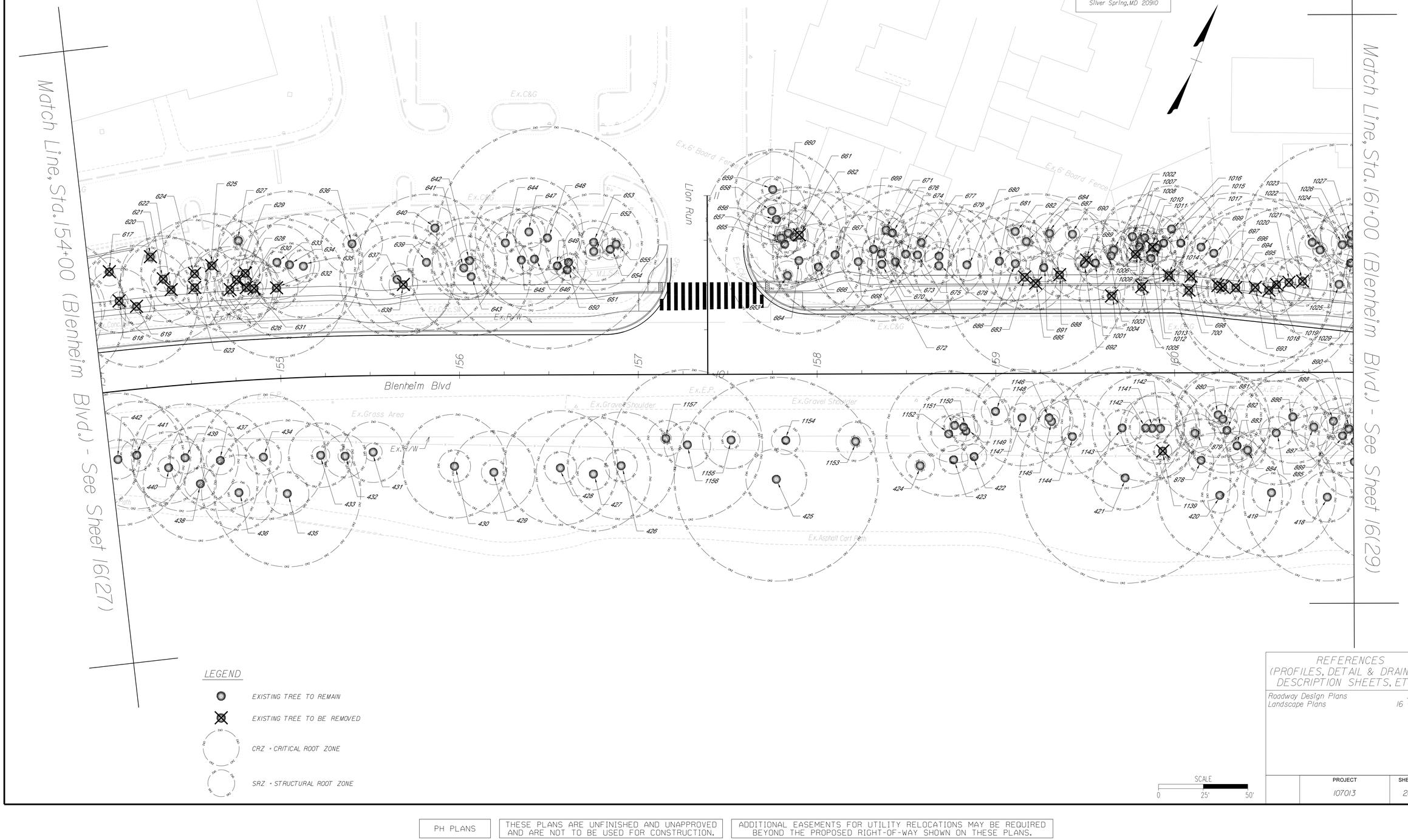
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EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20(8)

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TOOLE DESIGN
8484 Georgia Avenue, Suite 800
Silver Spring, MD 20910



LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- CRZ - CRITICAL ROOT ZONE
- SRZ - STRUCTURAL ROOT ZONE

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

Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

SCALE
0 25' 50'

	PROJECT	SHEET NO.
	107013	20(8)

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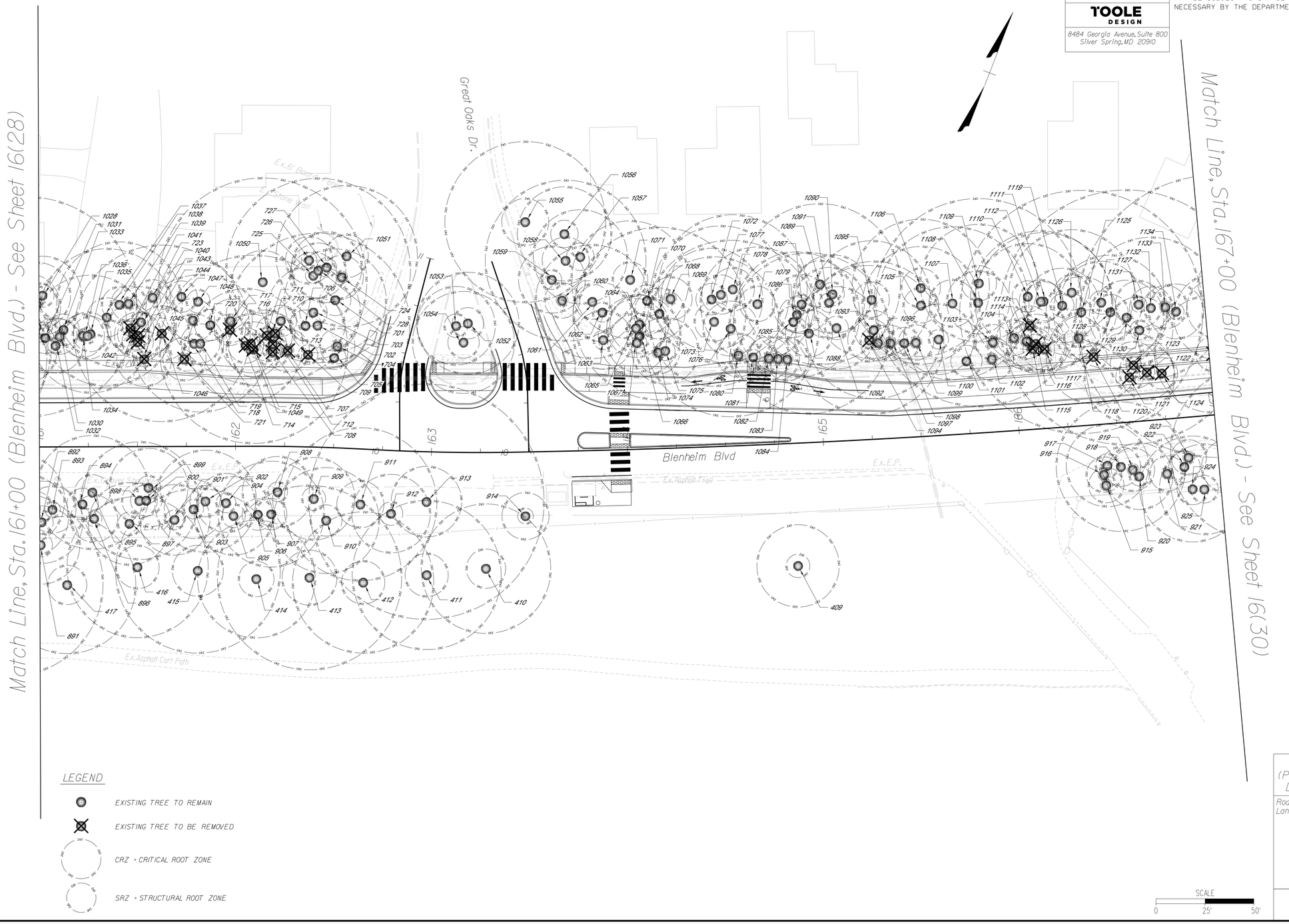
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EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20(9)

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SCALE 0 25' 50'

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

Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

	PROJECT	SHEET NO.
	107013	20(9)

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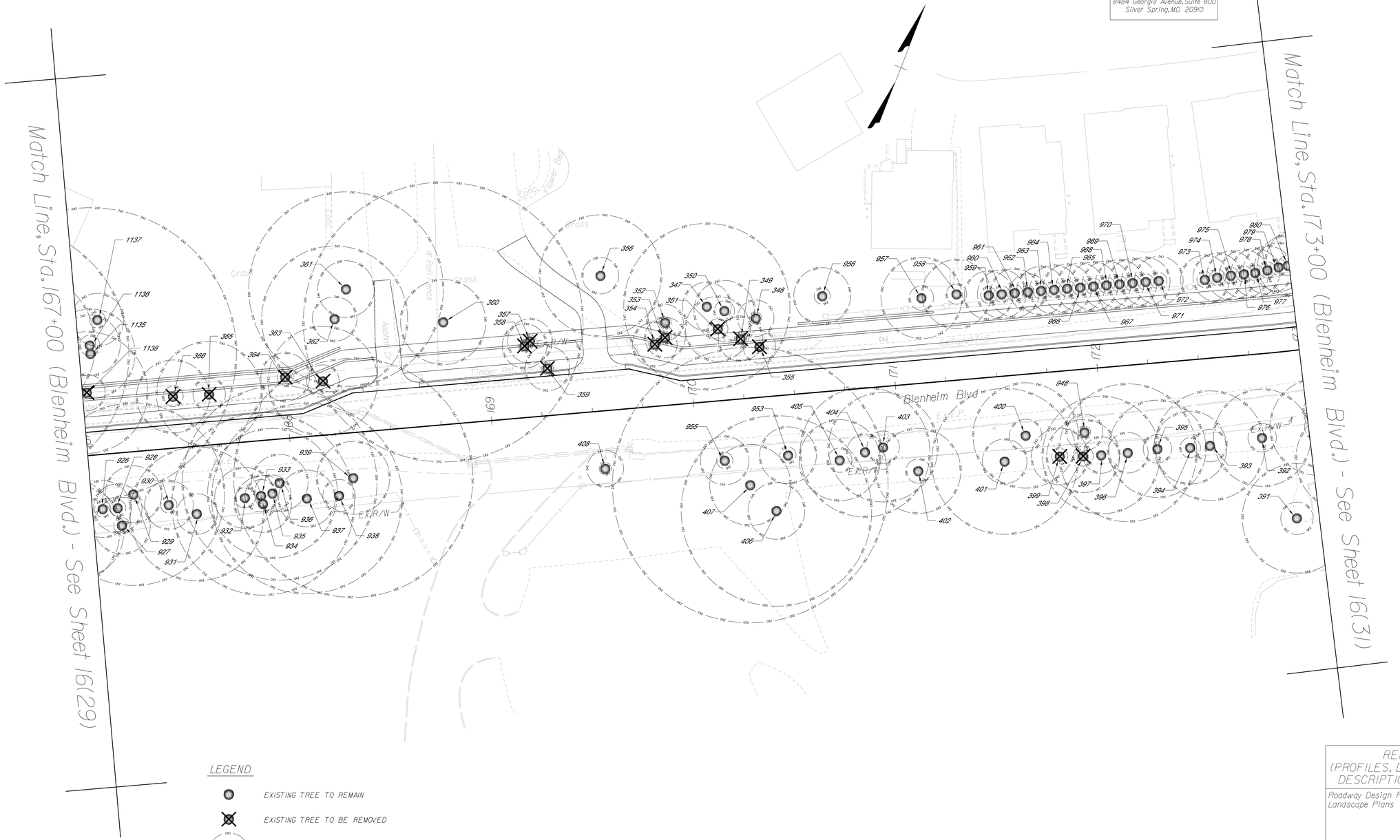
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EXISTING TREE PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	107013 BLENHEIM BLVD	20(10)

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Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

PROJECT	SHEET NO.
107013	20(10)

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Plotted By: kkthurana

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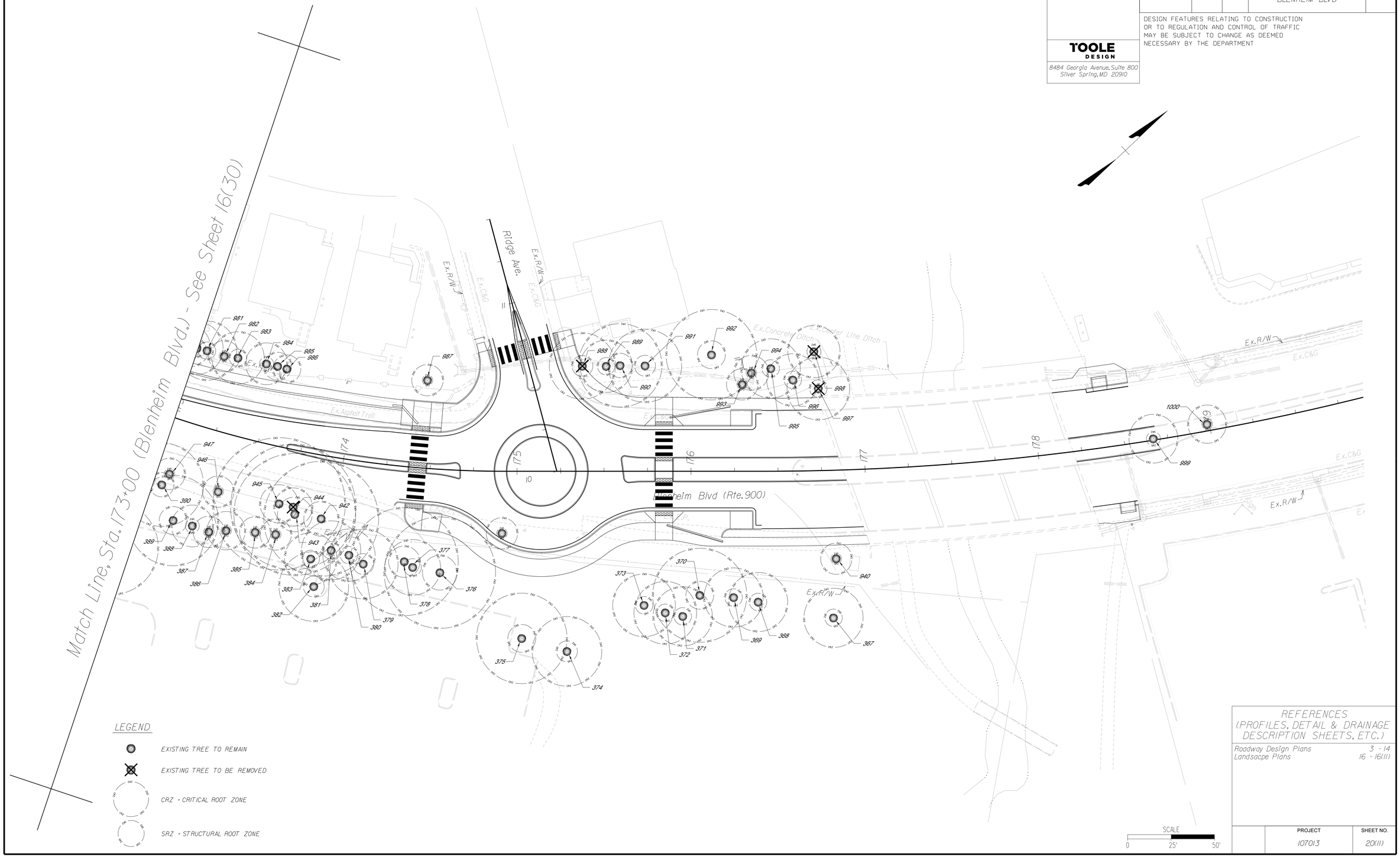
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	VA.	6228	107013 BLENHEIM BLVD	20(11)

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- SRZ = STRUCTURAL ROOT ZONE

SCALE
0 25' 50'

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

Roadway Design Plans	3 - 14
Landscape Plans	16 - 16(11)

	PROJECT	SHEET NO.
	107013	20(11)

PH PLANS

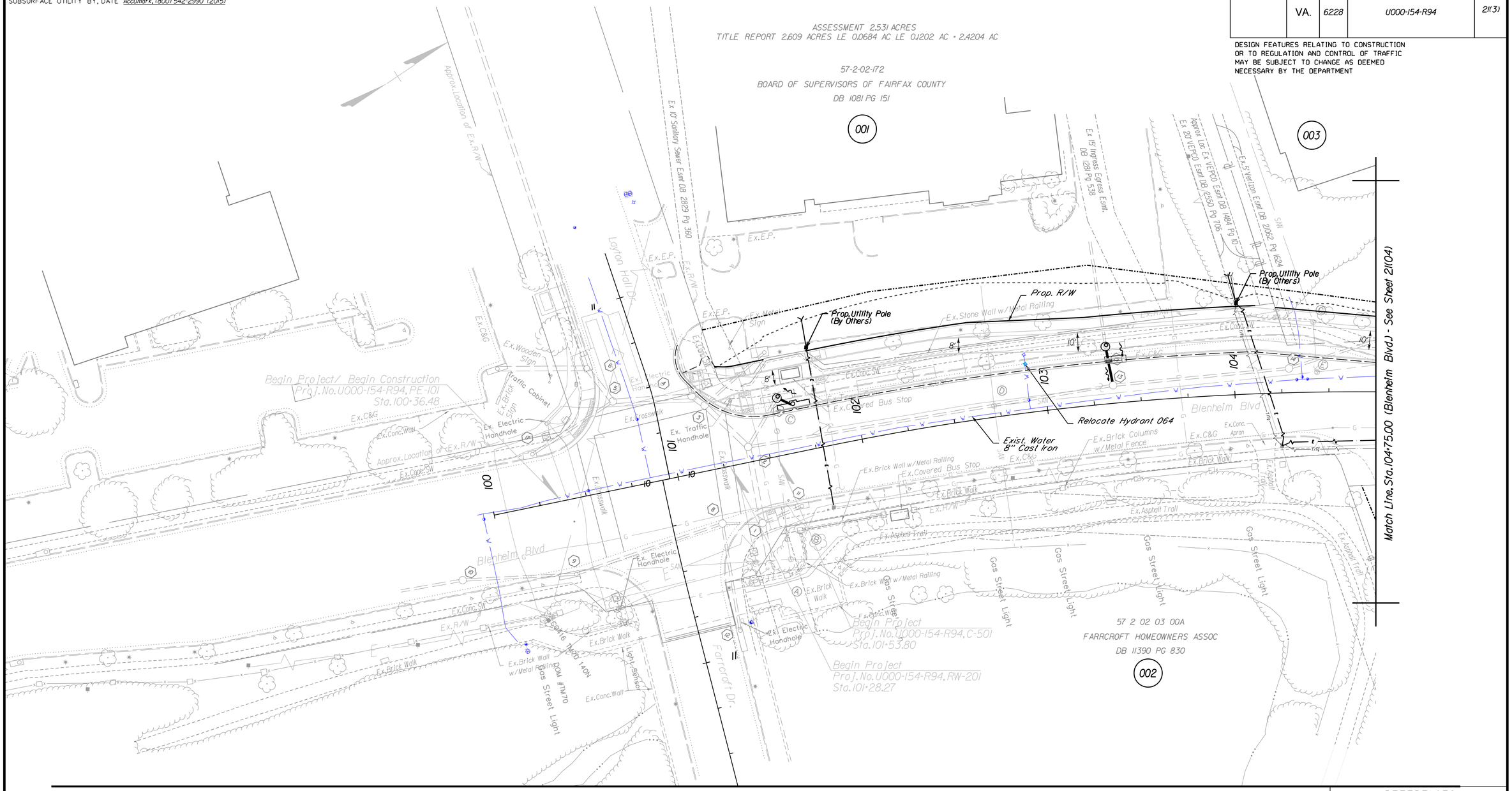
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2I(3)

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



FAIRFAX WATER 30% PLANS

Legend

Exist.Water Main	W
Exist.Water Abandon	W
Prop.Water Main	W
Prop.Hydrant	
Prop.Valve	
Prop.Meter	

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

Survey Control Data Sheet	IF
Geometric Data Sheet	IG(3)
Horizontal Constr. Alignment Data	IG(1A) - IG(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	3A
Profile Layton Hall Dr.& Farrcroft Dr.	3B

SCALE: 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	2I(3)

30% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

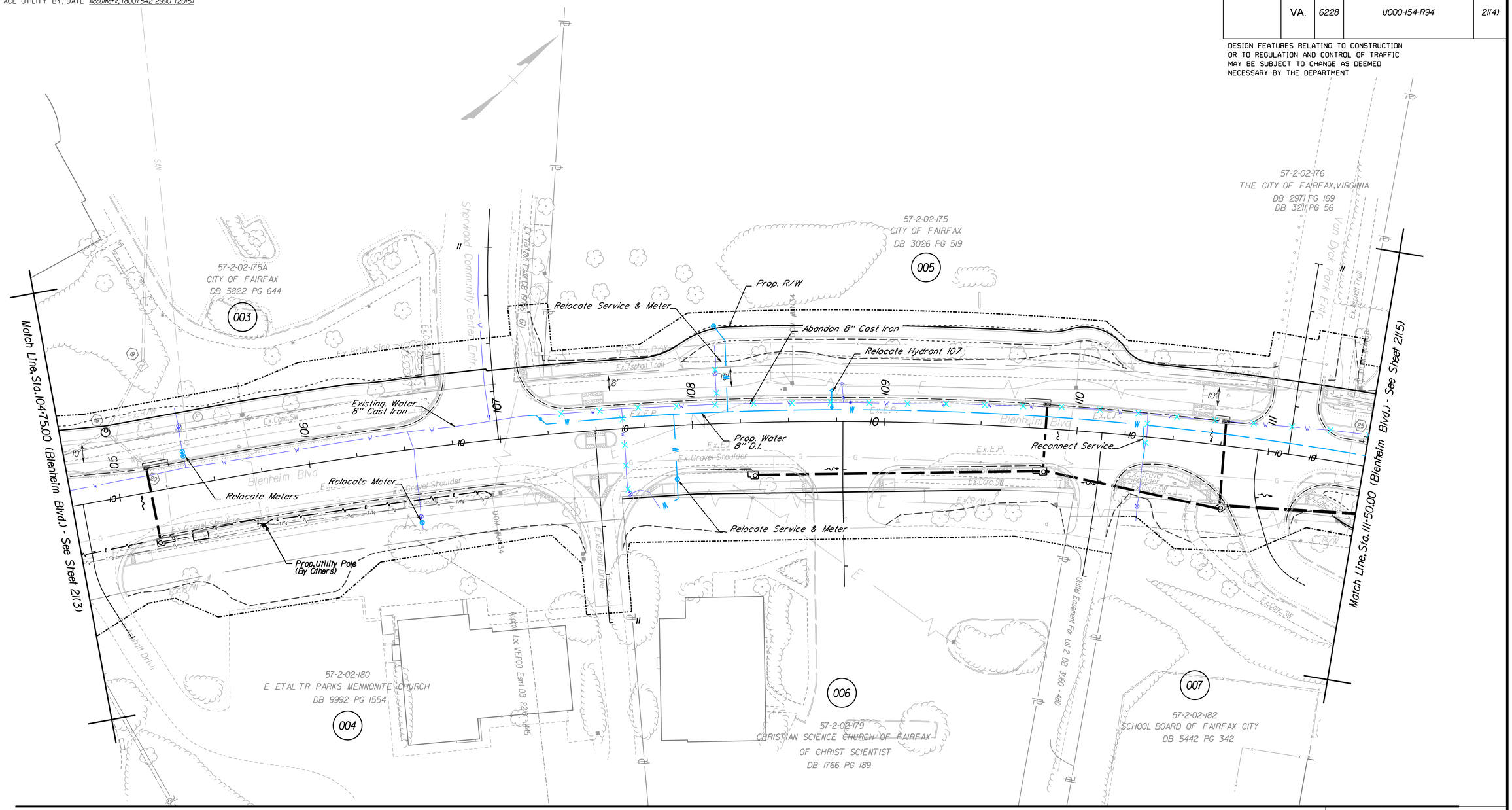
ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

3/24/2023

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.	6228	U000-154-R94	2I(4)

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



FAIRFAX WATER 30% PLANS

Legend

Exist. Water Main	W
Exist. Water Abandon	W
Prop. Water Main	W
Prop. Hydrant	
Prop. Valve	
Prop. Meter	

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

Survey Control Data Sheet	IF
Geometric Data Sheet	IG(4)
Horizontal Constr. Alignment Data	IG(1A) - IG(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	4A
Profile Entrances	4B, 4B(1)

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	2I(4)

3/24/2023

30% PLANS

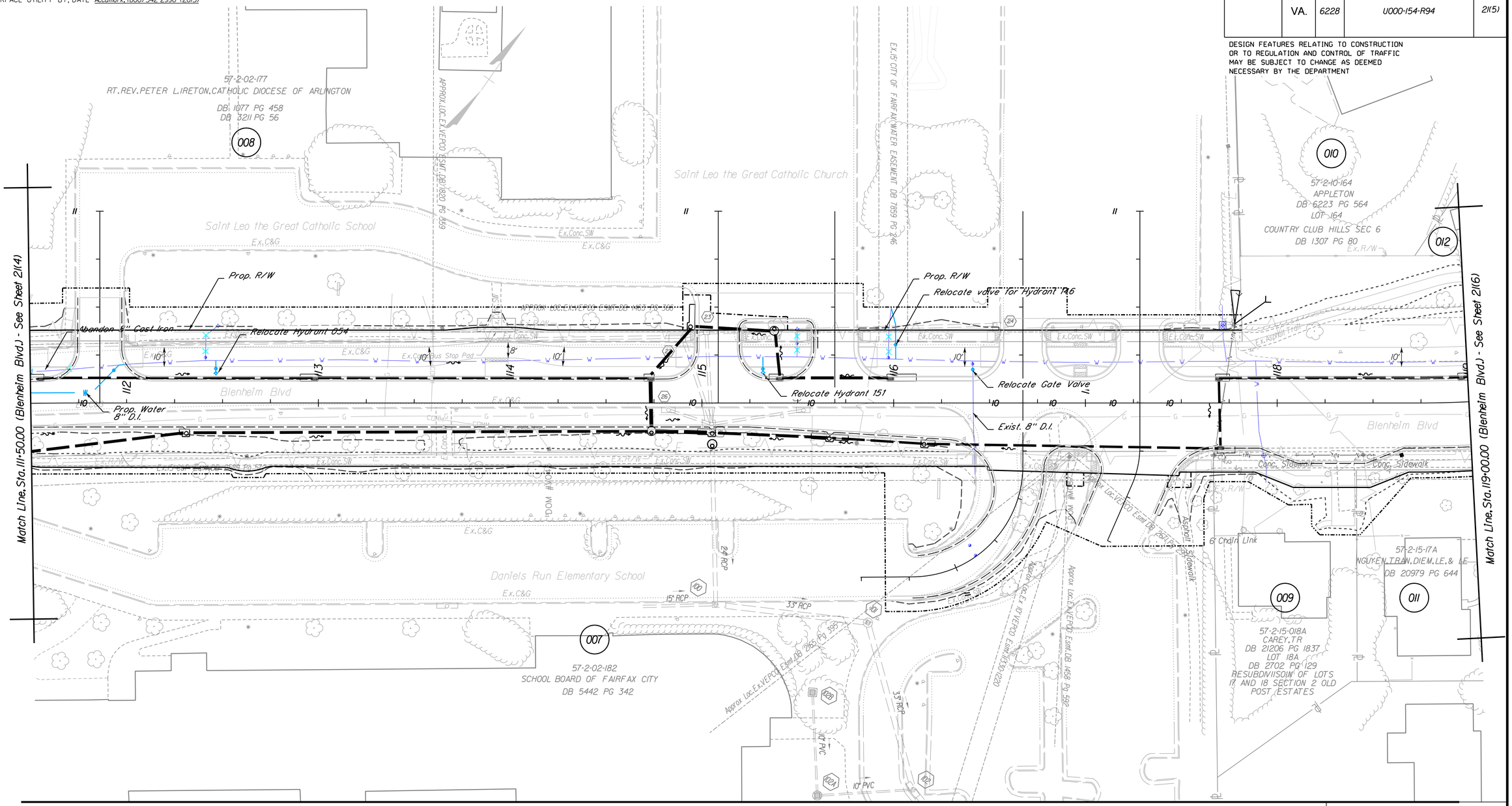
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2I(5)

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



FAIRFAX WATER 30% PLANS

Legend

- Exist. Water Main
- Exist. Water Abandon
- Prop. Water Main
- Prop. Hydrant
- Prop. Valve
- Prop. Meter

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

Survey Control Data Sheet	IF
Geometric Data Sheet	IG(5)
Horizontal Constr. Alignment Data	IG(1A) - IG(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	5A
Profile Entrances	5B, 5B(1)

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	2I(5)

3/24/2023

30% PLANS

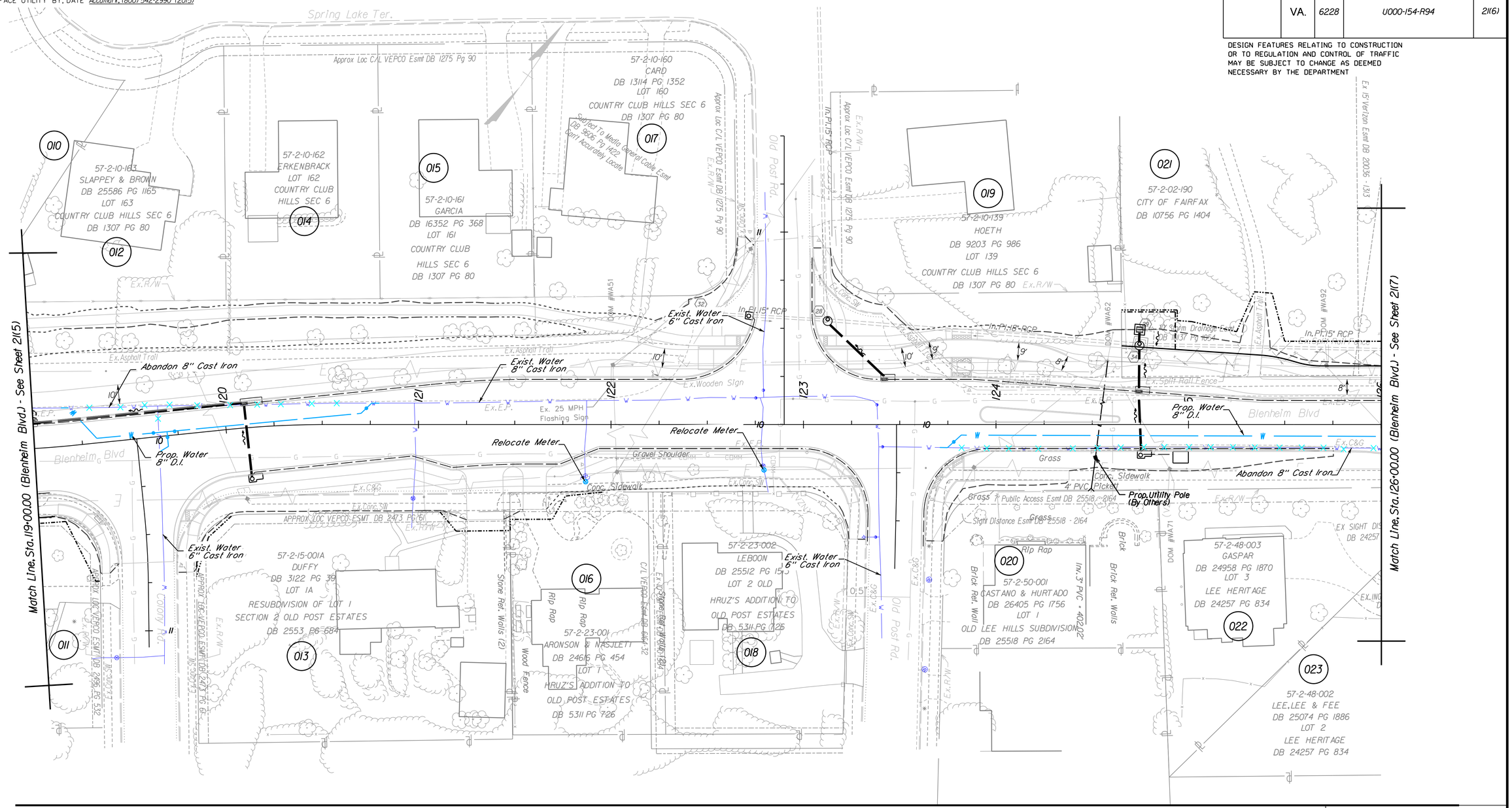
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2I(6)

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FAIRFAX WATER 30% PLANS

Legend

- Exist. Water Main
- Exist. Water Abandon
- Prop. Water Main
- Prop. Hydrant
- Prop. Valve
- Prop. Meter

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

Survey Control Data Sheet	IF
Geometric Data Sheet	IG(6)
Horizontal Constr. Alignment Data	IG(1A) - IG(1E)
Erosion Controls Ph.I & Ph.2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	6A
Profile Old Post Rd., Entrance	6B

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 2I(6)

3/24/2023

30% PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2I(7)

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. 126+00.00 (Blenheim Blvd.) - See Sheet 2I(6)

Match Line, Sta. 133+75.00 (Blenheim Blvd.) - See Sheet 2I(8)

021
57-2-02-190
CITY OF FAIRFAX
DB 10756 PG 1404

021
57-2-02-190
THE CITY OF FAIRFAX, VIRGINIA
DB 10756 PG 1404

Approximate Location VEPCO Esmt DB 2275 Pg 494

Storm Drainage Esmt DB 1213 Pg 319

028
57-2-10-104
LOCKWOOD
DB 16619 PG 1893
LOT 104
COUNTRY CLUB HILLS SEC E
DB 1213 PG 319

029
57-2-10-103
DEDHAM
DB 15656 PG 343
LOT 103
COUNTRY CLUB HILLS SEC E
DB 1213 PG 319

031
57-2-10-102
MICHEK
DB 5137 PG 821
LOT 102
COUNTRY CLUB HILLS
SEC E
DB 1213 PG 319

Blenheim Blvd

Prop. Water 8" D.I.

Exist. Water 8" Cast Iron

Relocate Hydrant 148

Abandon 8" Cast Iron

Abandon 6" Cast Iron

Prop. Water 6" D.I.

Relocate Hydrant 070

4" Chain Link

6' Privacy

Ex. Split Rail Fence

Ex. 3' Board Fence

Ex. Wooden Sign

Ex. Asphalt Trail

Asphalt Sidewalk

Ex. Conc. Pad

Ex. Conc. Flr. Pad

Flower Bed

Conc.

Grass

Ex. R/W

Ex. C&G

Ex. E.P.

022
ESMT DB 24257 PG 834
EX. PRIVATE WATER ESMT DB 24257 PG 834
EX. PRIVATE SANITARY ESMT DB 24257 PG 834
EGRESS ESMT DB 24257 PG 834

023
57-2-48-002
CHUL.LEE.LEE & FEE
DB 25074 PG 1885
LOT 2
LEE HERITAGE
DB 24257 PG 834

024
57-2-16-028
KOSTA
DB 12400 PG 2082
LOT 28 HERITAGE MANOR
SEC 2
DB 2645 PG 272

025
57-2-16-029
JOHNSON
DB 19382 PG 434
LOT 29
HERITAGE MANOR SEC 2
DB 2645 PG 272

026
58-1-04-060
LIN
DB 11847 PG 743
LOT 60
GREENWAY HILLS
DB 1261 PG 92

027
58-1-04-031 PARK
DB 25662 PG 1213
LOT 31 GREENWAY HILLS
DB 1261 PG 92

030
58-1-04-030
AHMED
DB 8041 PG 1211
LOT 30 GREENWAY HILLS
DB 1261 PG 92

032

Heritage Ln.

Parklane Rd.

Embassy Ln.

VA 17

VA 20

FAIRFAX WATER 30% PLANS

Legend

- Exist. Water Main
- Exist. Water Abandon
- Prop. Water Main
- Prop. Hydrant
- Prop. Valve
- Prop. Meter

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

Survey Control Data Sheet	IF
Geometric Data Sheet	IG(7)
Horizontal Constr. Alignment Data	IG(1A) - IG(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	7A
Profile Heritage Ln., Parklane Rd.	7B
Profile Embassy Ln.	7B

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 2I(7)

3/24/2023

30% PLANS

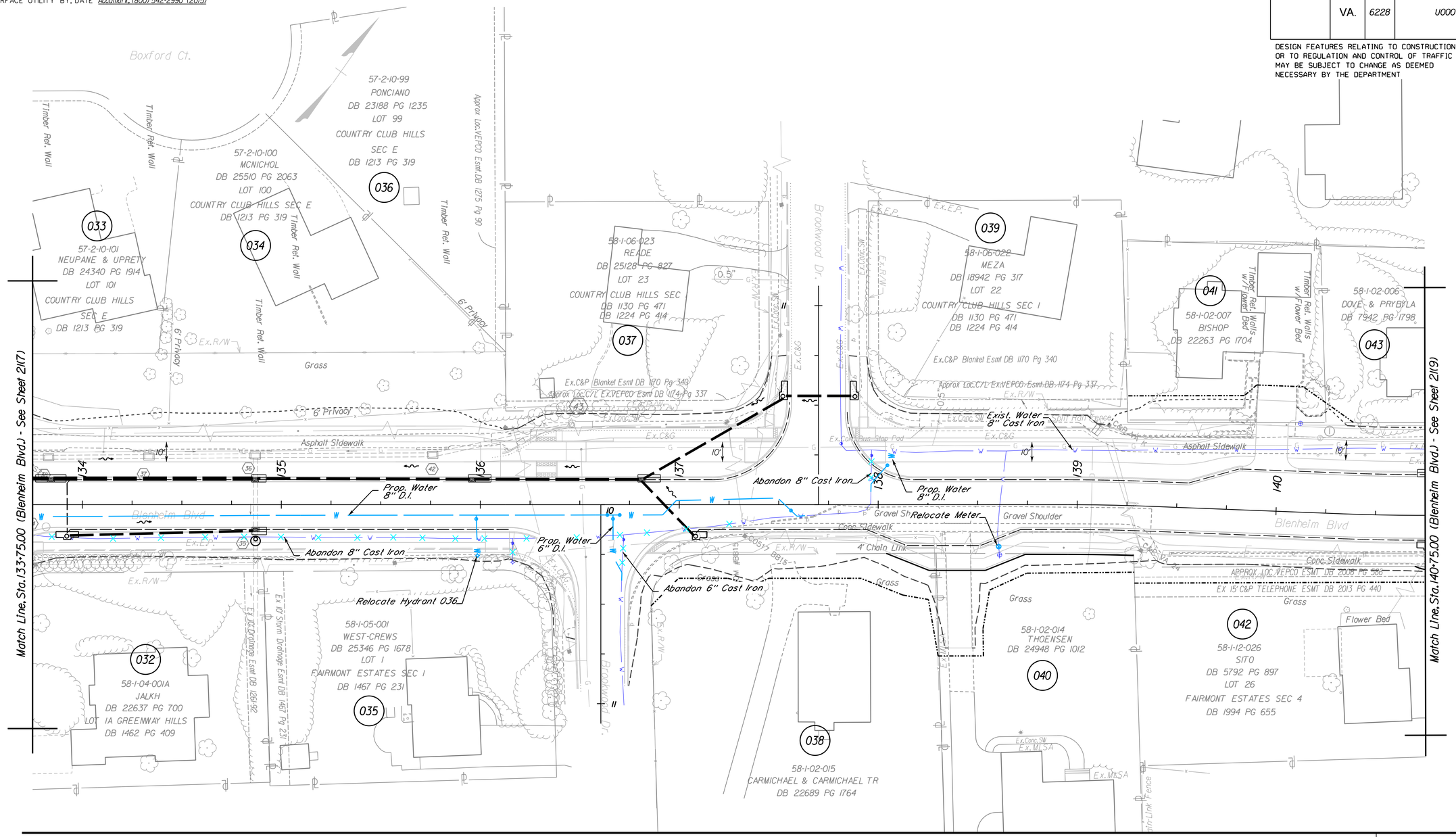
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ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

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.	6228	U000-154-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



FAIRFAX WATER 30% PLANS

Legend

- Exist. Water Main — W
- Exist. Water Abandon — W
- Prop. Water Main — W
- Prop. Hydrant
- Prop. Valve
- Prop. Meter

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(8)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	8A
Profile Brookwood Drive	8B

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 21(8)

3/24/2023

30% PLANS

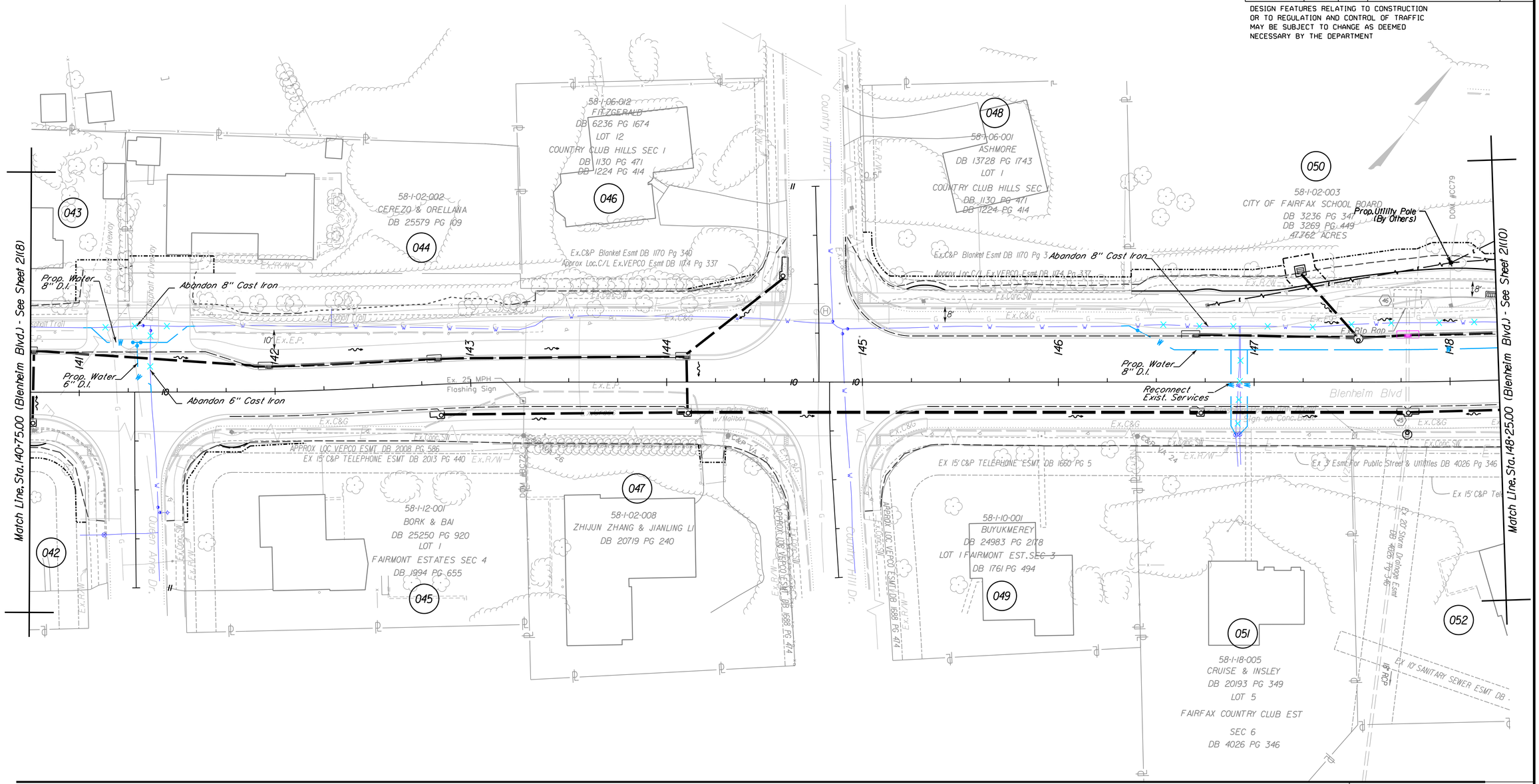
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2I(9)

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



FAIRFAX WATER 30% PLANS

Legend

Exist. Water Main	W
Exist. Water Abandon	W
Prop. Water Main	W
Prop. Hydrant	
Prop. Valve	
Prop. Meter	

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

Survey Control Data Sheet	IF
Geometric Data Sheet	IG(9)
Horizontal Constr. Alignment Data	IG(IA) - IG(IE)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	9A
Profile Queen Anne Dr., Country Hill Dr.	9B

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-154-R94	2I(9)

3/24/2023

30% PLANS

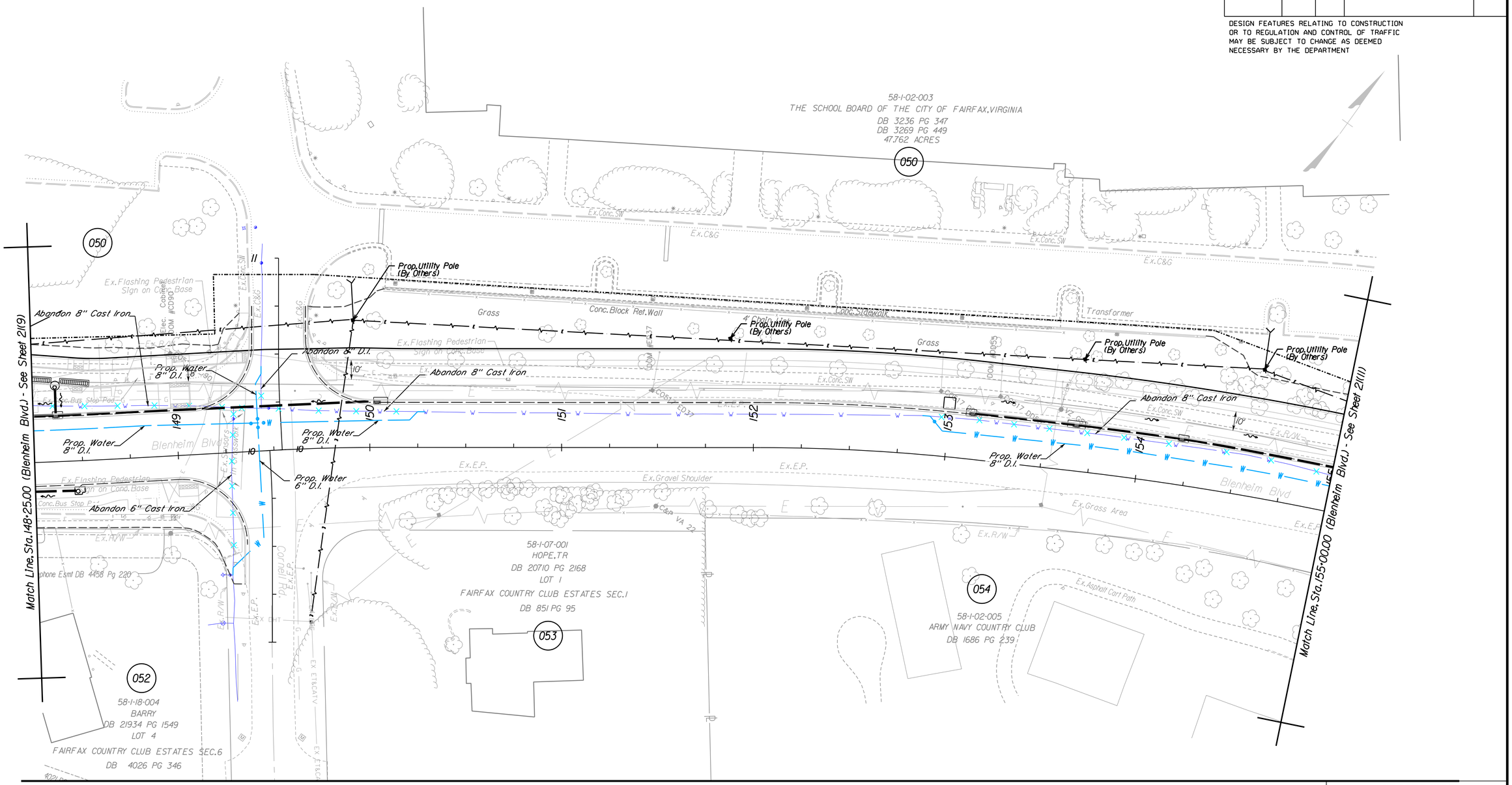
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2(10)

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



FAIRFAX WATER 30% PLANS

Legend

Exist.Water Main	W
Exist.Water Abandon	W
Prop.Water Main	W
Prop.Hydrant	
Prop.Valve	
Prop.Meter	

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(10)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	10A
Profile Cornell Rd., Entrance	10B

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 2(10)

30% PLANS

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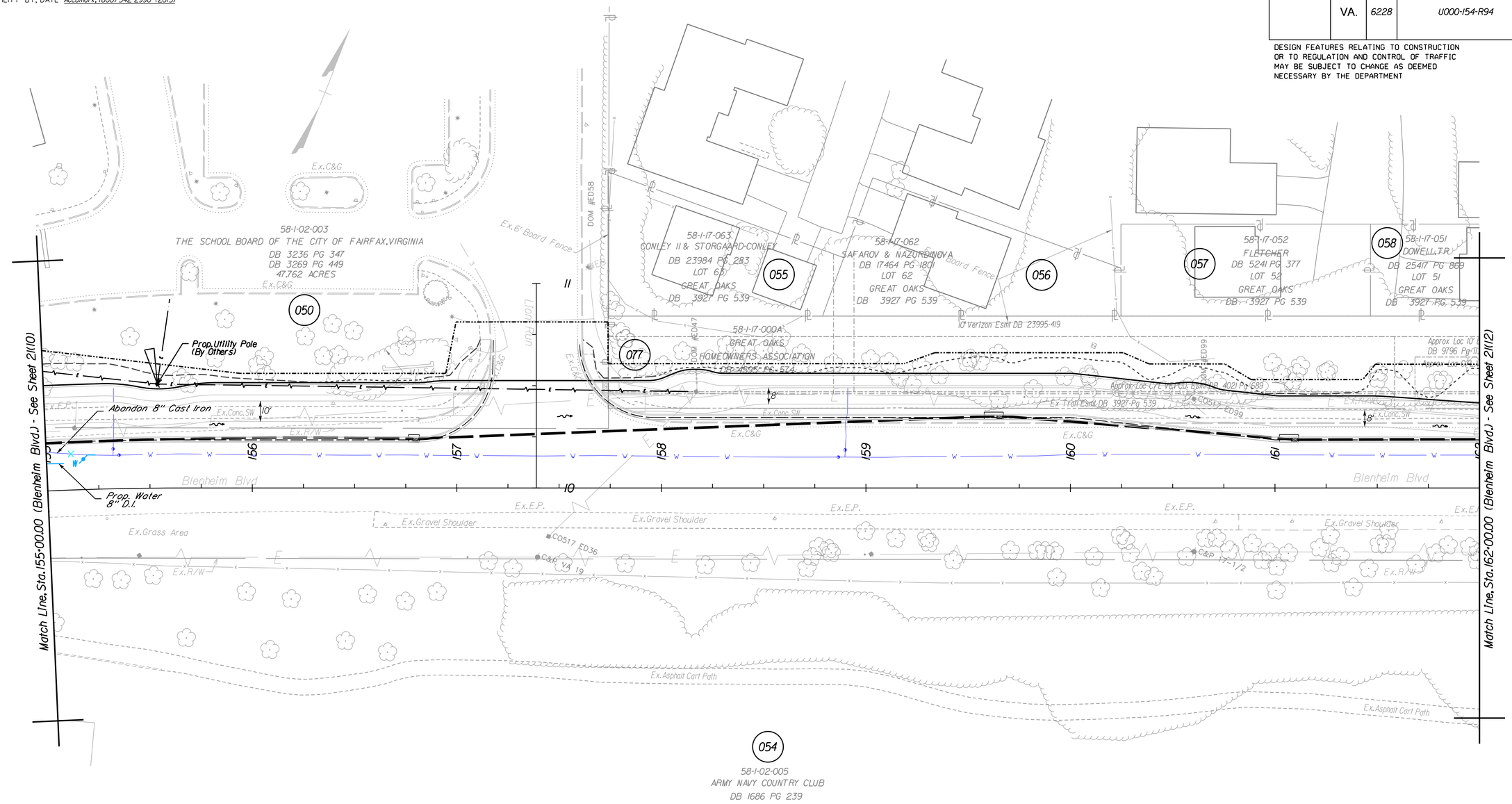
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2(III)

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



054
58-1-02-005
ARMY NAVY COUNTRY CLUB
DB 1686 PG 239

FAIRFAX WATER 30% PLANS

Legend

Exist. Water Main	W
Exist. Water Abandon	W
Prop. Water Main	W
Prop. Hydrant	
Prop. Valve	
Prop. Meter	

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

Survey Control Data Sheet	IF
Geometric Data Sheet	IG(I)
Horizontal Constr. Alignment Data	IG(IA) - IG(IE)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	IIA
Profile Lion Run	IIB

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 2(III)

30% PLANS

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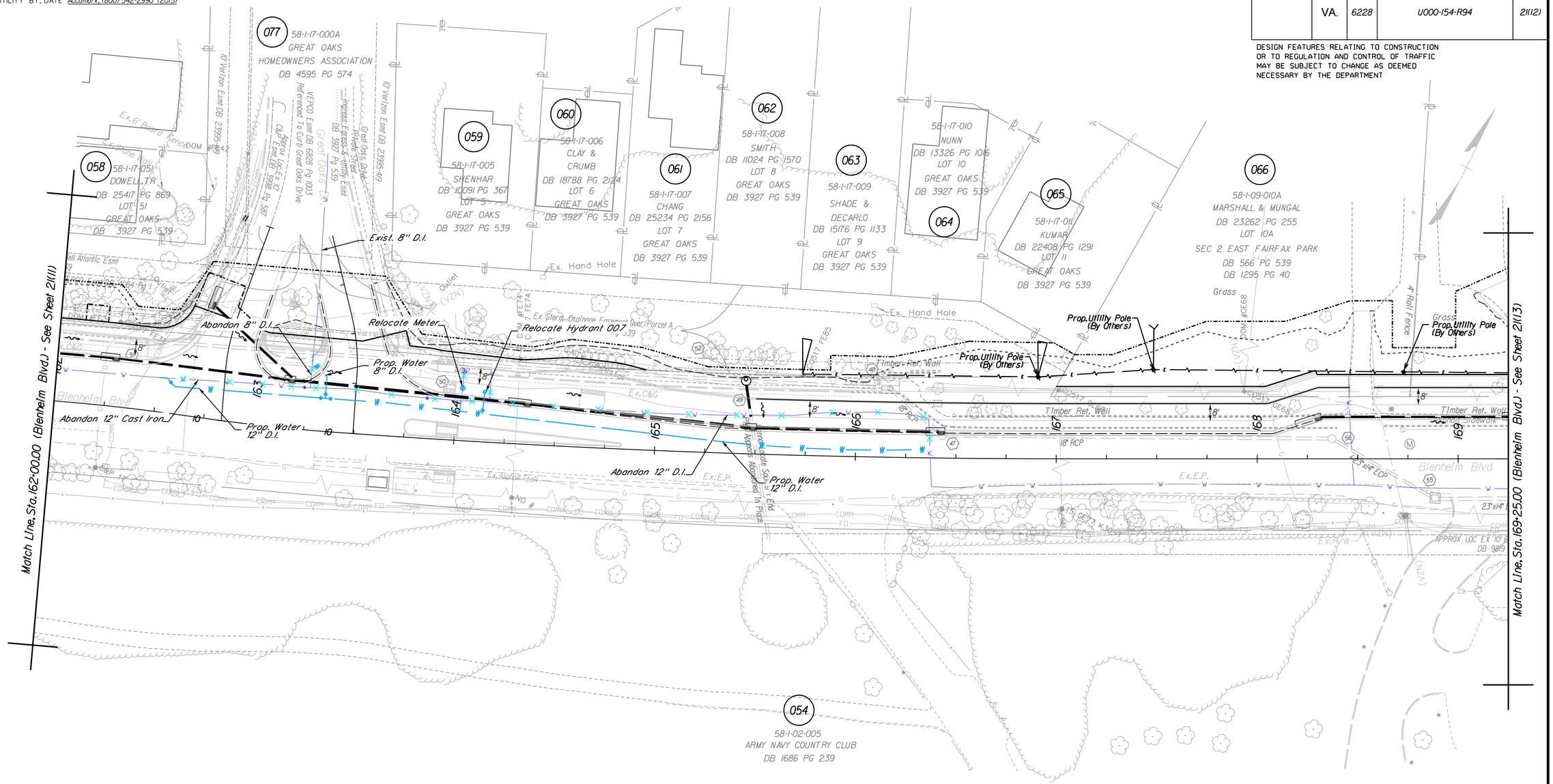
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3/24/2023

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SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2(12)

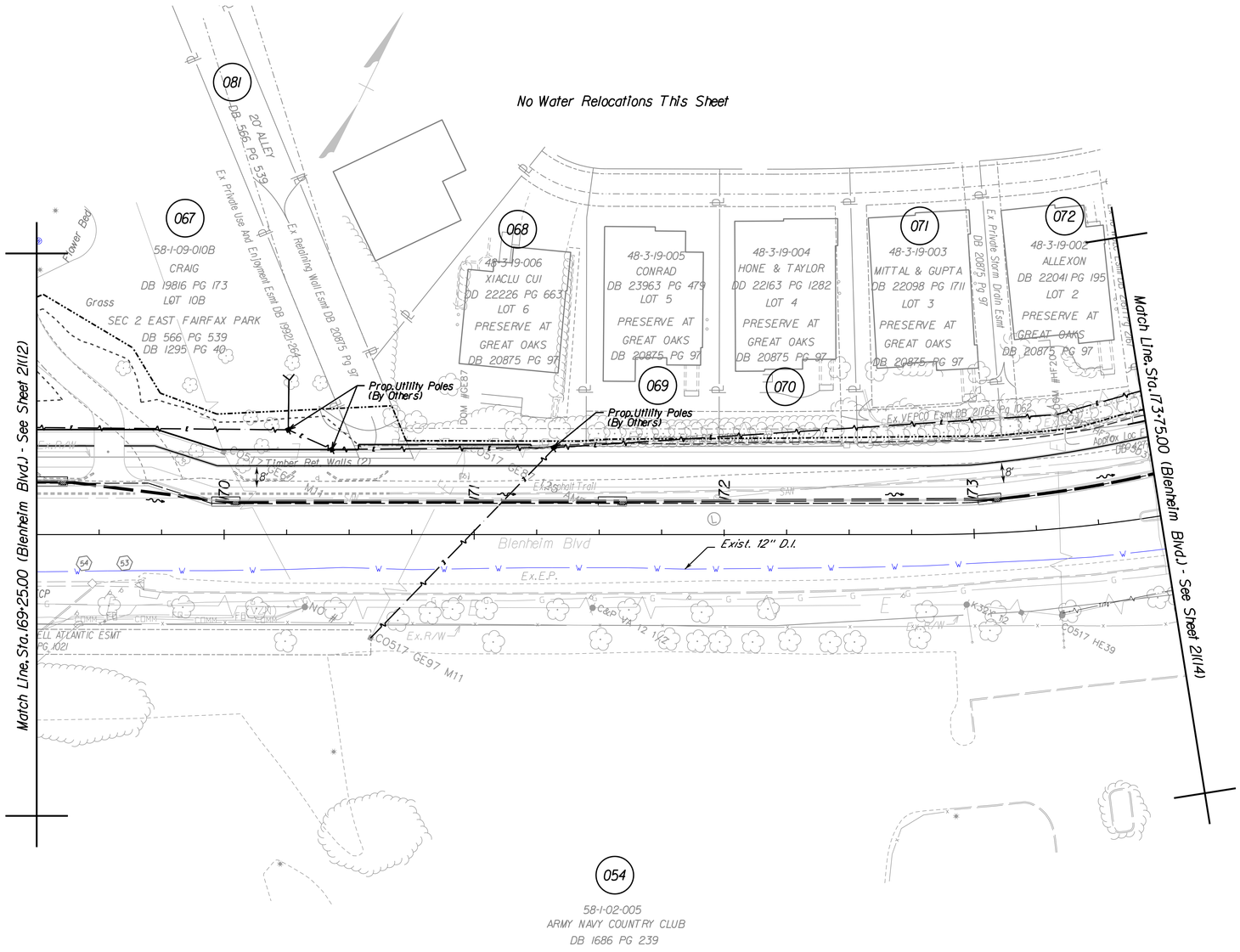
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077
58-I-17-000A
GREAT OAKS HOMEOWNERS ASSOCIATION
DB 4595 PG 574
058
58-I-17-051
DOWELL, TR
DB 25417 PG 869
LOT 151
GREAT OAKS
DB 3927 PG 539
059
58-I-17-005
SHENHAR
DB 10091 PG 367
LOT 5
GREAT OAKS
DB 3927 PG 539
060
58-I-17-006
CLAY & CRUMB
DB 18788 PG 2124
LOT 6
GREAT OAKS
DB 3927 PG 539
061
58-I-17-007
CHANG
DB 25234 PG 2156
LOT 7
GREAT OAKS
DB 3927 PG 539
062
58-I-17-008
SMITH
DB 11024 PG 1570
LOT 8
GREAT OAKS
DB 3927 PG 539
063
58-I-17-009
SHADE & DECARLO
DB 15176 PG 1133
LOT 9
GREAT OAKS
DB 3927 PG 539
064
58-I-17-010
NUNN
DB 13326 PG 1016
LOT 10
GREAT OAKS
DB 3927 PG 539
065
58-I-17-011
KUMAR
DB 22408 PG 1291
LOT 11
GREAT OAKS
DB 3927 PG 539
066
58-I-09-010A
MARSHALL & MUNGAL
DB 23262 PG 255
LOT 10A
SEC 2 EAST FAIRFAX PARK
DB 566 PG 539
DB 1295 PG 40
054
58-I-02-005
ARMY NAVY COUNTRY CLUB
DB 1686 PG 239
Match Line, Sta. 162+00.00 (Blenheim Blvd.) - See Sheet 2(11)
Match Line, Sta. 169+25.00 (Blenheim Blvd.) - See Sheet 2(13)
Exist. 8" D.I.
Abandon 8" D.I.
Relocate Meter
Relocate Hydrant 007
Prop. Water 8" D.I.
Abandon 12" Cast Iron
Prop. Water 12" D.I.
Abandon 12" D.I.
Prop. Water 12" D.I.
Ex. Hand Hole
Ex. Storm Drainage Easement Over Parcel A
Prop. Utility Pole (By Others)
Timber Ret. Wall
4' Rail Fence
Blenheim Blvd
Great Oaks Drive
Ex. Asphalt Trail
Ex. E.P.
Ex. C&G
Ex. Drop Inlet
18" RCP
23"x14" ECP
Grass
Sidewalk
Approx. Loc. Ex. 10' Verizon Esmt DB 23995 Pg 587
10' Verizon Esmt DB 23995-419
VEPCO Esmt DB 6828 Pg 1003
Ingress, Egress & Utility Esmt DB 3927 Pg 539
Cap Esmt DB 3998 Pg 587
Ex. 6' Board Fence
Ex. Stone Wall
Bell Atlantic Esmt DB 1264 Pg 1
Ex. Overhead Wires
Ex. Inlet
Ex. Manhole
Ex. Hydrant
Ex. Valve
Ex. Meter
Ex. Gas Valve
Ex. Gas Meter
Ex. Gas Line
Ex. Water Line
Ex. Sanitary Line
Ex. Storm Line
Ex. Comm. Line
Ex. Fiber Optic Line
Ex. Underground Electric Line
Ex. Overhead Electric Line

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2\(13)

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



FAIRFAX WATER 30% PLANS

Legend

Exist. Water Main	W
Exist. Water Abandon	W
Prop. Water Main	W
Prop. Hydrant	
Prop. Valve	
Prop. Meter	

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(13)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	13A
Profile Entrances	13B

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-154-R94	2\(13)

3/24/2023

30% PLANS

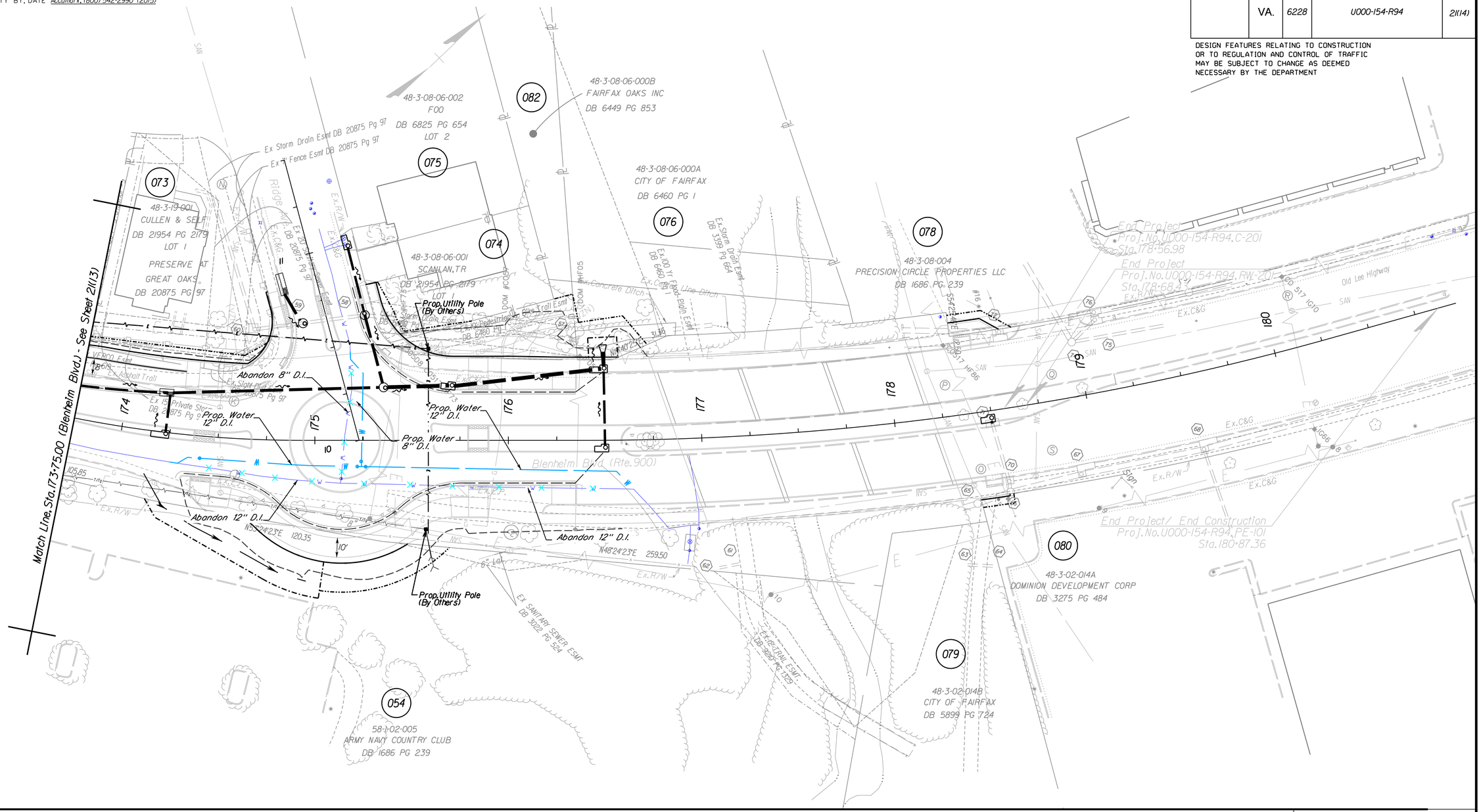
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DESIGN BY Mark A. Gunn, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accumark, (800) 542-2990 (2015)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	2I(14)

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



FAIRFAX WATER 30% PLANS

Legend

Exist. Water Main	W
Exist. Water Abandon	W
Prop. Water Main	W
Prop. Hydrant	
Prop. Valve	
Prop. Meter	

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

Survey Control Data Sheet	IF
Geometric Data Sheet	IG(14)
Horizontal Constr. Alignment Data	IG(1A) - IG(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	14A
Profile Ridge Avenue	14B

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-154-R94	2I(14)

3/24/2023

30% PLANS

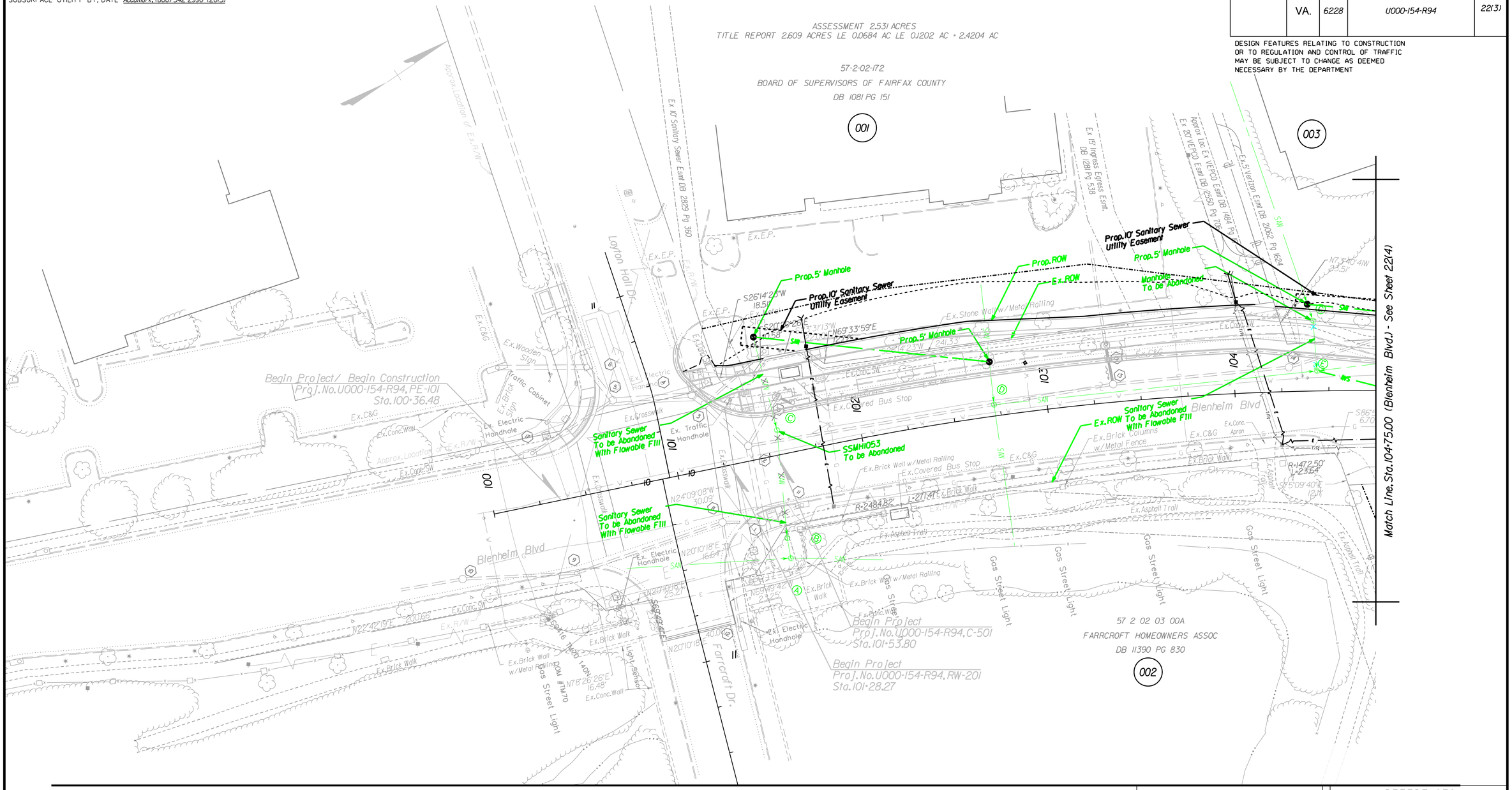
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SUBSURFACE UTILITY BY, DATE *Accumark, (800) 542-2990 (2015)*

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	22(3)

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



SANITARY SEWER 30% PLANS

Legend

- Exist. Sanitary Main
- Exist. San Abandon
- Prop. Sanitary Main
- Prop. Manhole
- Exist. Right of Way
- Prop. Utility Easement

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(3)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	3A
Profile Layton Hall Dr.& Farrcroft Dr.	3B

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 22(3)

3/24/2023

30% PLANS

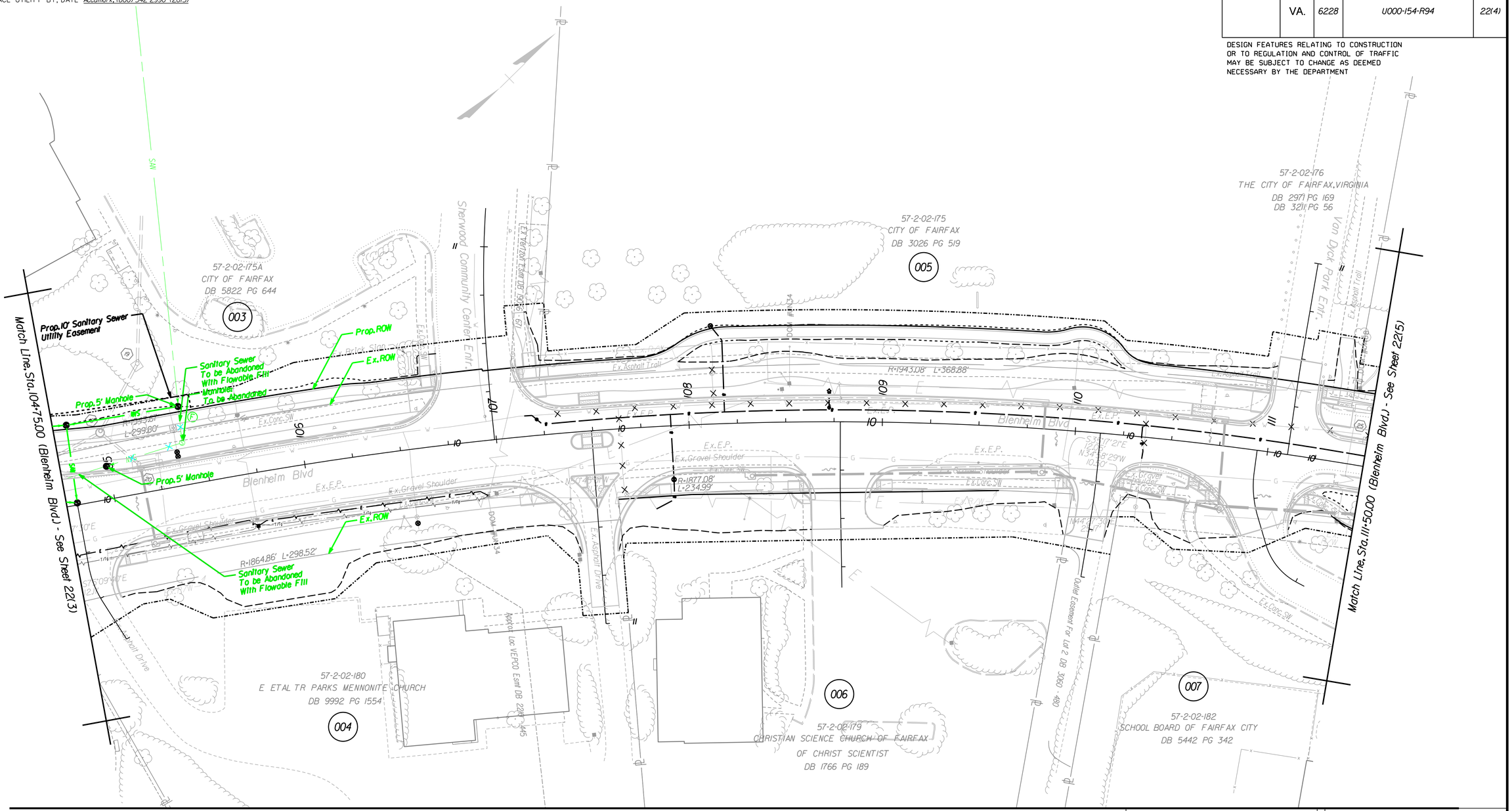
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SUBSURFACE UTILITY BY, DATE *Accumark, (800) 542-2990 (2015)*

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	22(4)

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



SANITARY SEWER 30% PLANS

Legend

- Exist. Sanitary Main
- Exist. San Abandon
- Prop. Sanitary Main
- Prop. Manhole
- Exist. Right of Way
- Prop. Utility Easement

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(4)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	4A
Profile Entrances	4B, 4B(1)

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 22(4)

3/24/2023

30% PLANS

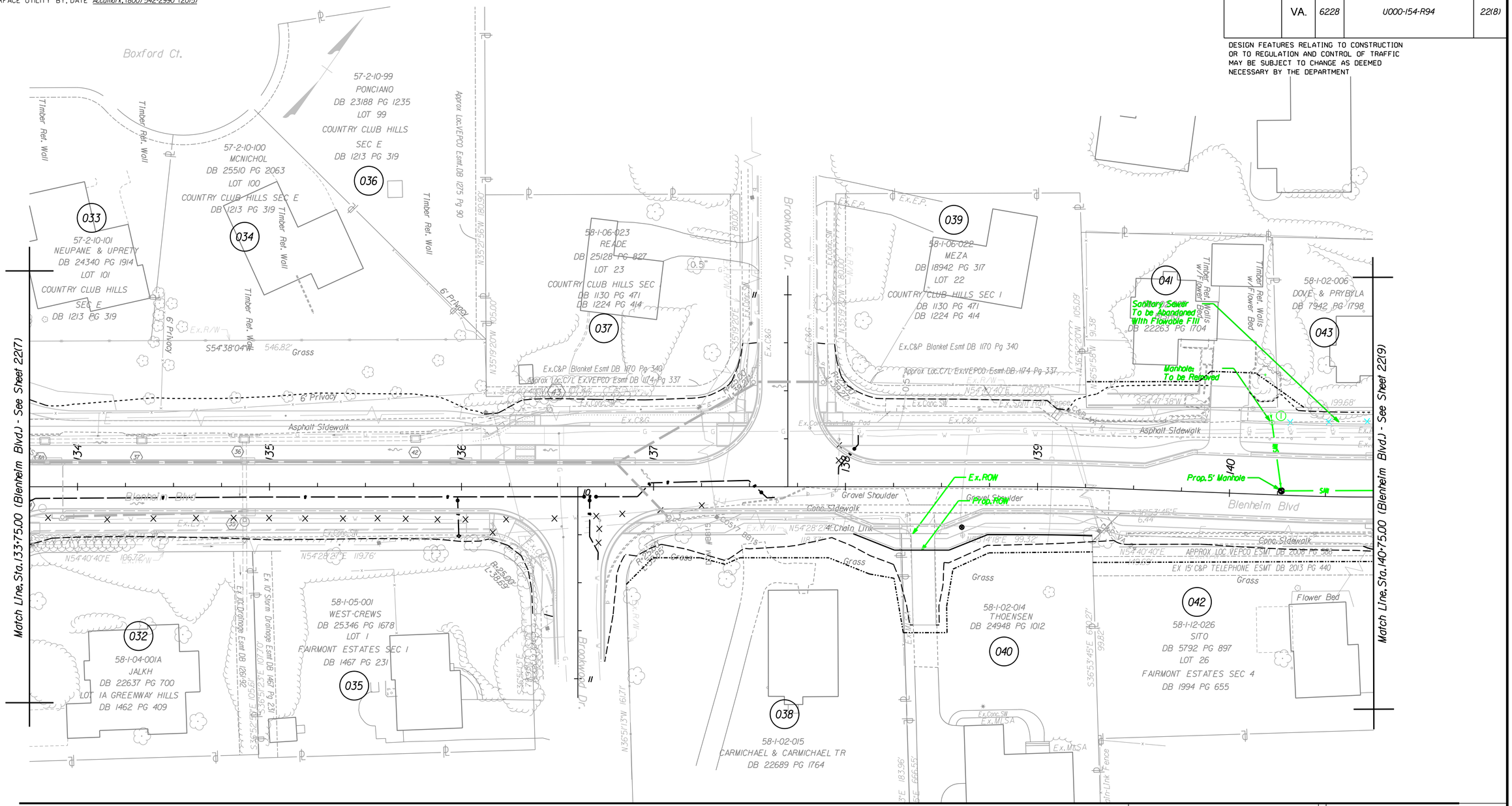
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	22(8)

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



SANITARY SEWER 30% PLANS

Legend
- Exist. Sanitary Main
- Exist. San Abandon
- Prop. Sanitary Main
- Prop. Manhole
- Exist. Right of Way
- Prop. Utility Easement

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(8)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	8A
Profile Brookwood Drive	8B

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 22(8)

3/24/2023

30% PLANS

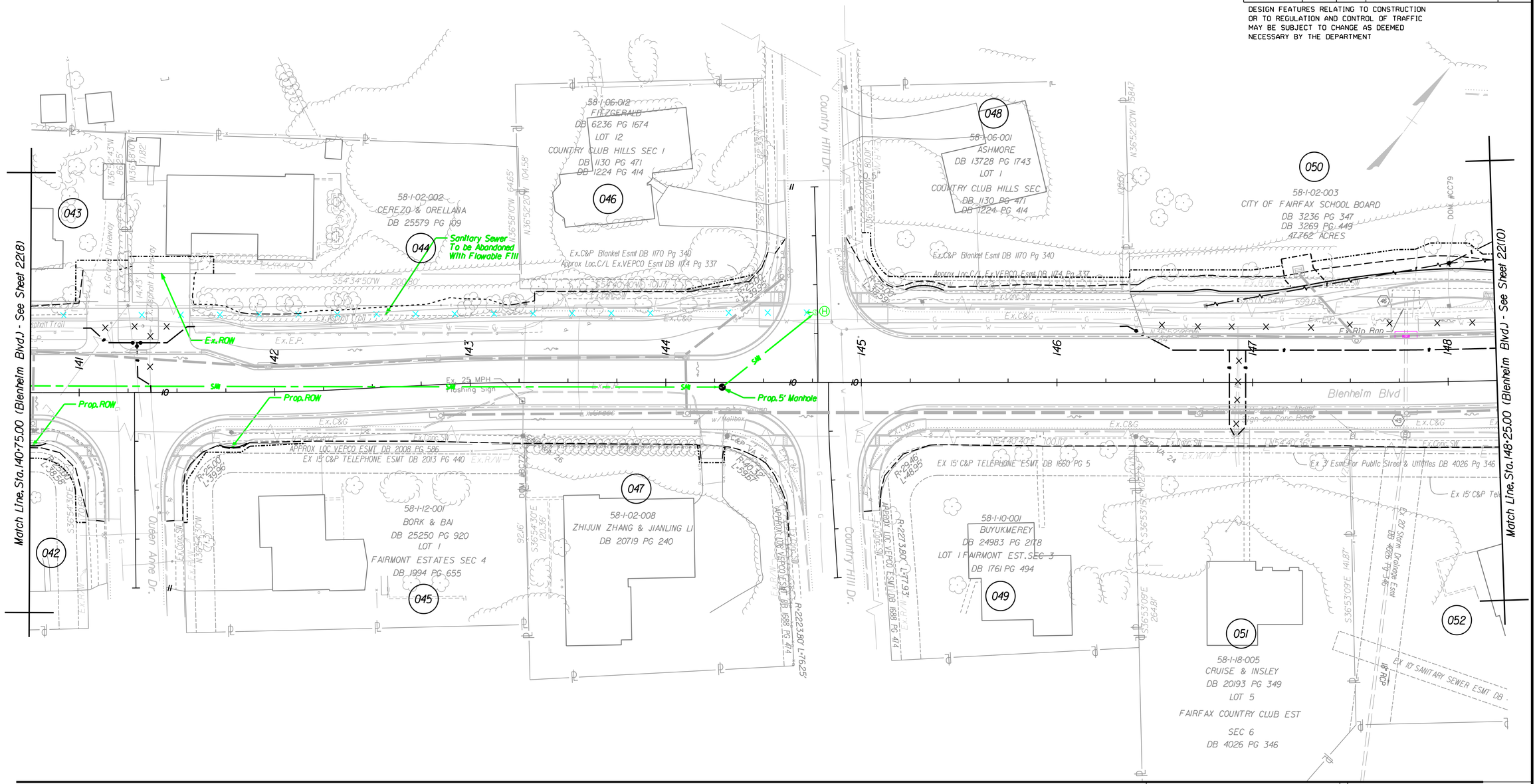
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	22(9)

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



SANITARY SEWER 30% PLANS

Legend

- Exist. Sanitary Main
- Exist. San Abandon
- Prop. Sanitary Main
- Prop. Manhole
- Exist. Right of Way
- Prop. Utility Easement

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(9)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	9A
Profile Queen Anne Dr., Country Hill Dr.	9B

SCALE 0 25' 50'

PROJECT	SHEET NO.
U000-154-R94	22(9)

3/24/2023

30% PLANS

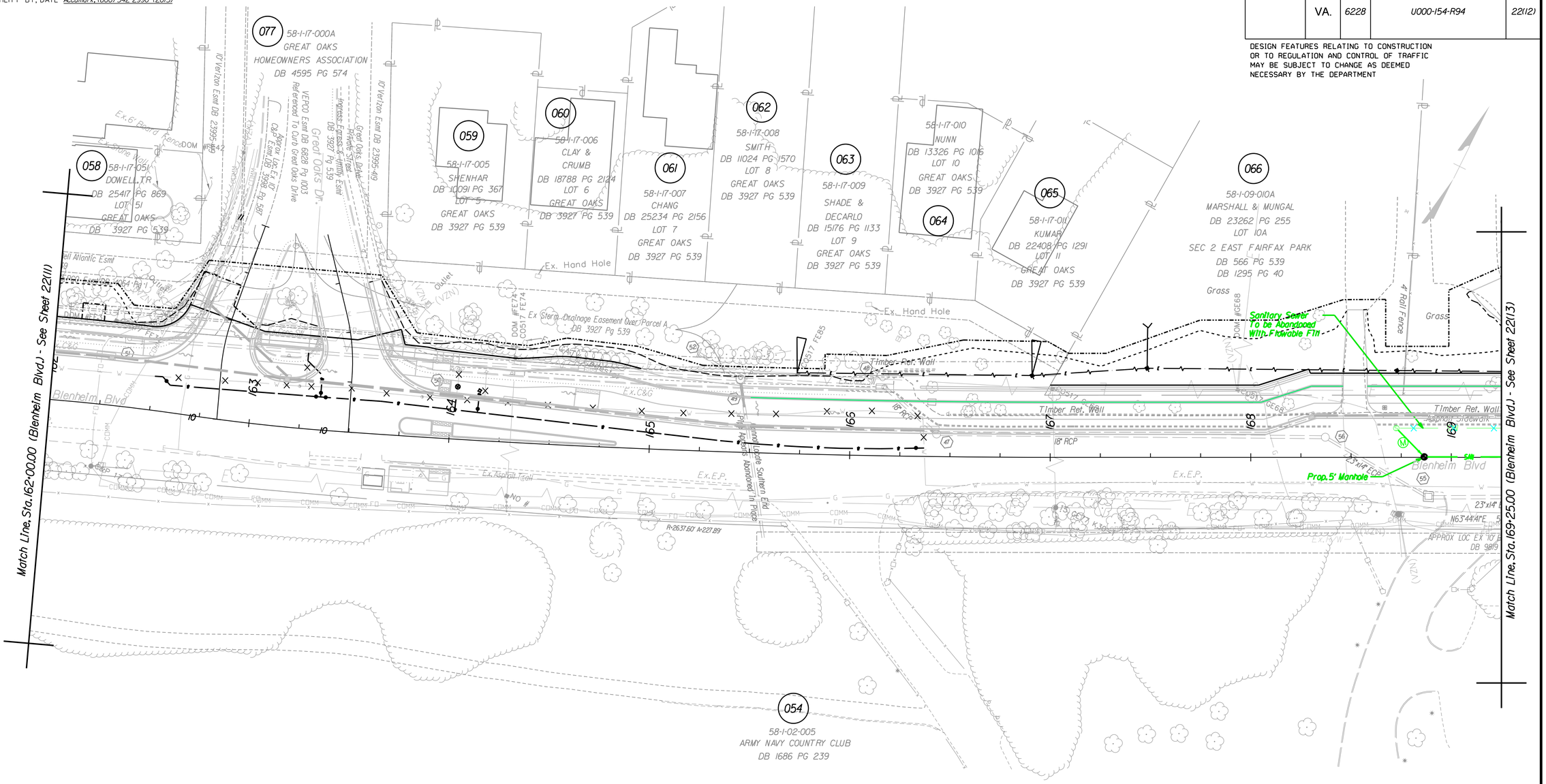
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	22(12)

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



SANITARY SEWER 30% PLANS

Legend

- Exist. Sanitary Main
- Exist. San Abandon
- Prop. Sanitary Main
- Prop. Manhole
- Exist. Right of Way
- Prop. Utility Easement

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(12)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	12A
Profile Great Oaks Dr., Entrances	12B

SCALE 0 25' 50' | PROJECT U000-154-R94 | SHEET NO. 22(12)

30% PLANS

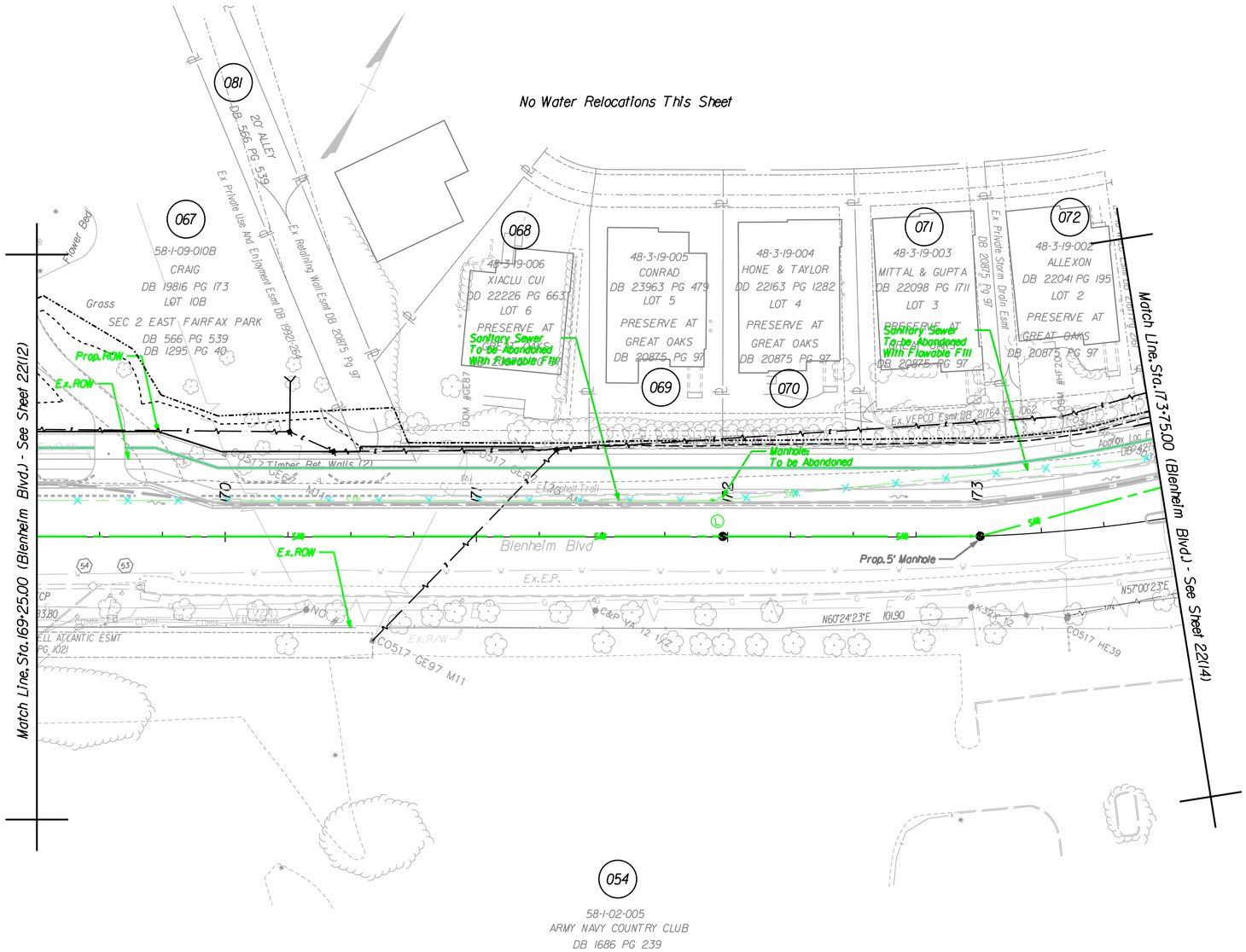
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE 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.	6228	U000-154-R94	22(13)

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



SANITARY SEWER 30% PLANS

Legend

Exist. Sanitary Main	
Exist. San Abandon	× ×
Prop. Sanitary Main	
Prop. Manhole	
Exist. Right of Way	
Prop. Utility Easement	

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

Survey Control Data Sheet	1F
Geometric Data Sheet	1G(13)
Horizontal Constr. Alignment Data	1G(1A) - 1G(1E)
Erosion Controls Ph1 & Ph2	TBD
Typical Sections	2A - 2A(5)
Drainage Descriptions	TBD
Profile Blenheim Blvd	13A
Profile Entrances	13B

SCALE	PROJECT	SHEET NO.
0 25' 50'	U000-154-R94	22(13)

3/24/2023

30% PLANS

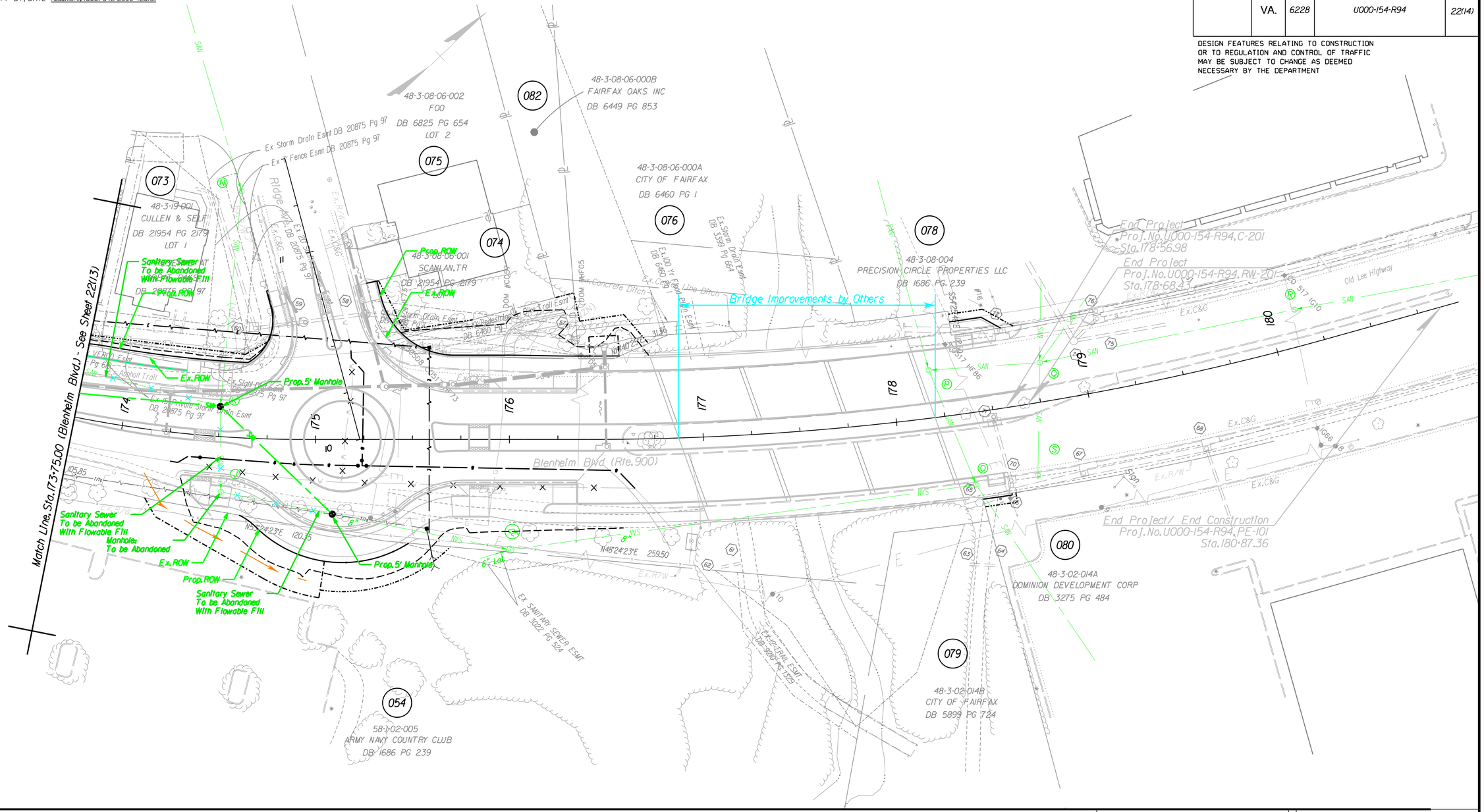
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ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6228	U000-154-R94	22(14)

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.173+75.00 (Blenheim Blvd.) - See Sheet 22(13)
Blenheim Blvd. (Rte.900)
Ridge Ave
Old Lee Highway
Bridge Improvements by Others
End Project
Proj.No.U000-154-R94,C-201
Sta.178+56.98
End Project
Proj.No.U000-154-R94,RW-201
Sta.178+68.43
End Project/ End Construction
Proj.No.U000-154-R94,PE-101
Sta.180+87.36
Sanitary Sewer To be Abandoned With Flowable Fill
Manhole To be Abandoned
Ex.ROW
Prop.ROW
Prop.5' Manhole
Sanitary Sewer To be Abandoned With Flowable Fill
Ex Storm Drain Esmt DB 20875 Pg 97
Ex Fence Esmt DB 20875 Pg 97
Ex Asphalt Trail Esmt DB 20875 Pg 97
Ex Concrete Ditch
Ex Storm Drain Esmt DB 6460 Pg 1
Ex Pedestrian Bridge
Ex Asphalt Trail Esmt
Ex Storm Drain Esmt DB 3399 Pg 664
Ex 100 Yr Flood Line
Ex Storm Drain Esmt
Ex Storm Drain Esmt DB 20875 Pg 97
Ex Storm Drain Esmt DB 21954 Pg 2179
Ex Storm Drain Esmt DB 6460 Pg 1
Ex Storm Drain Esmt DB 20875 Pg 97
Ex Storm Drain Esmt DB 20875 Pg 97
Ex Storm Drain Esmt DB 20875 Pg 97

3/24/2023
2:57:00 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)

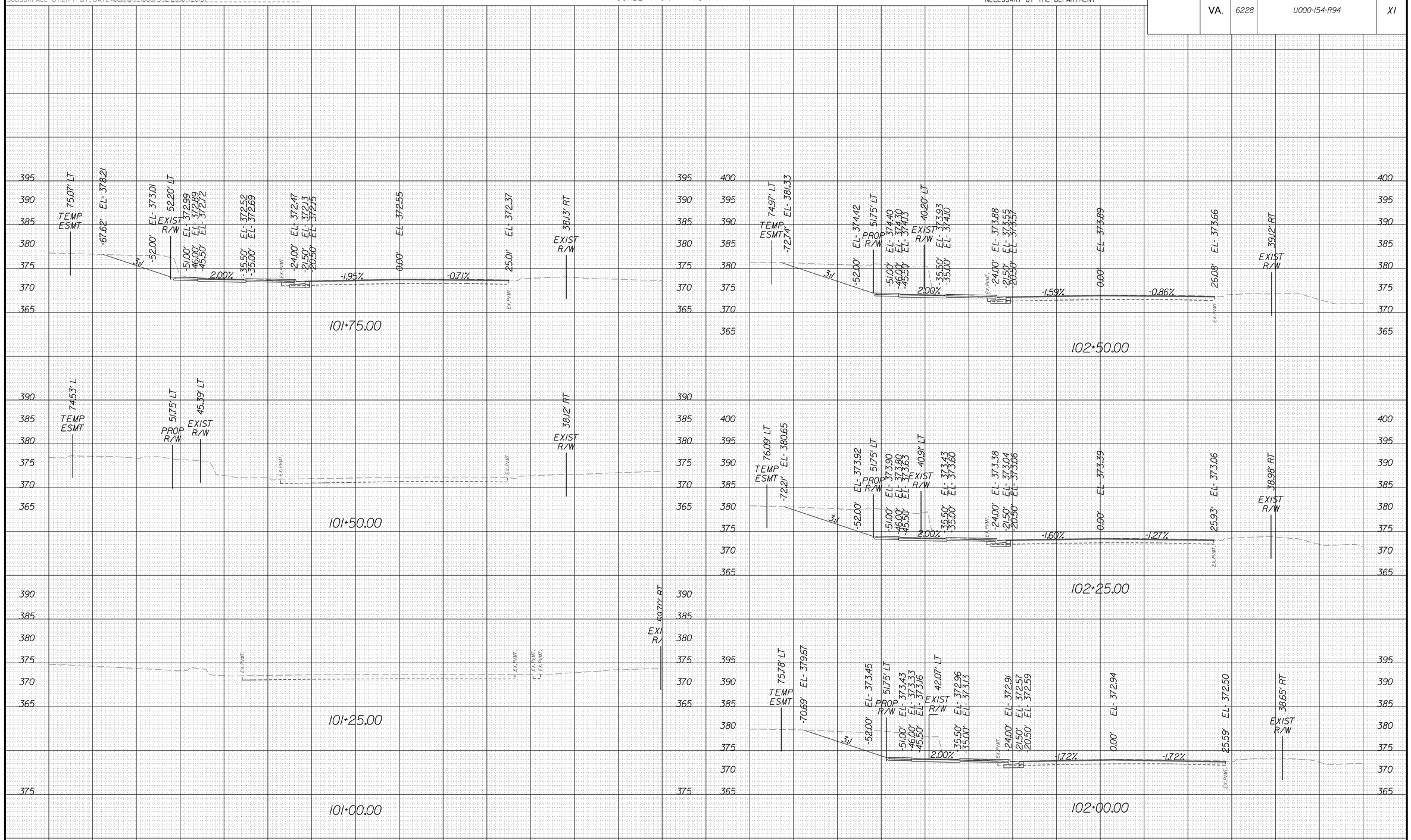
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	XI



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	XI

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
2:57:14 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)

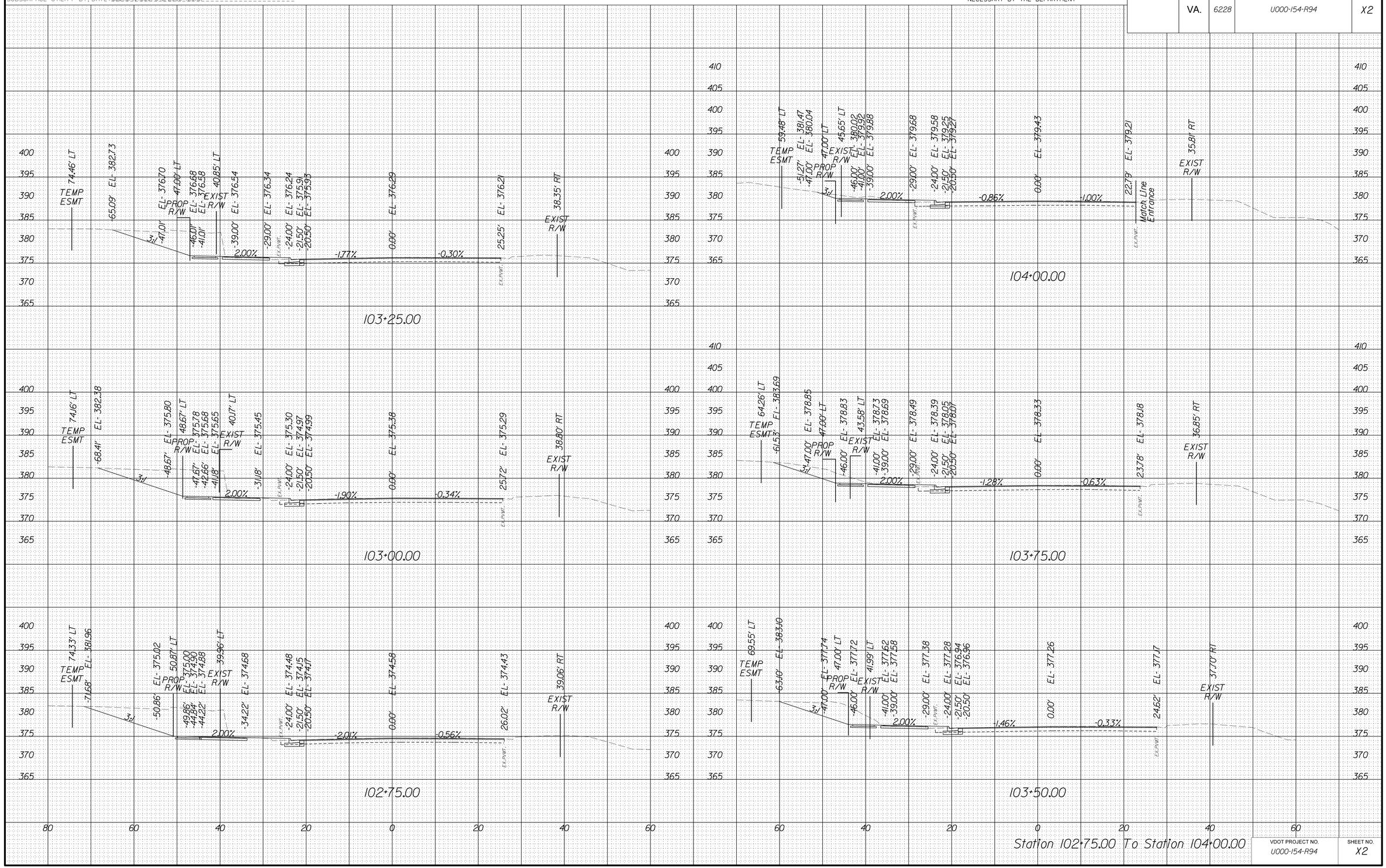
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X2



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X2

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
2:57:29 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)

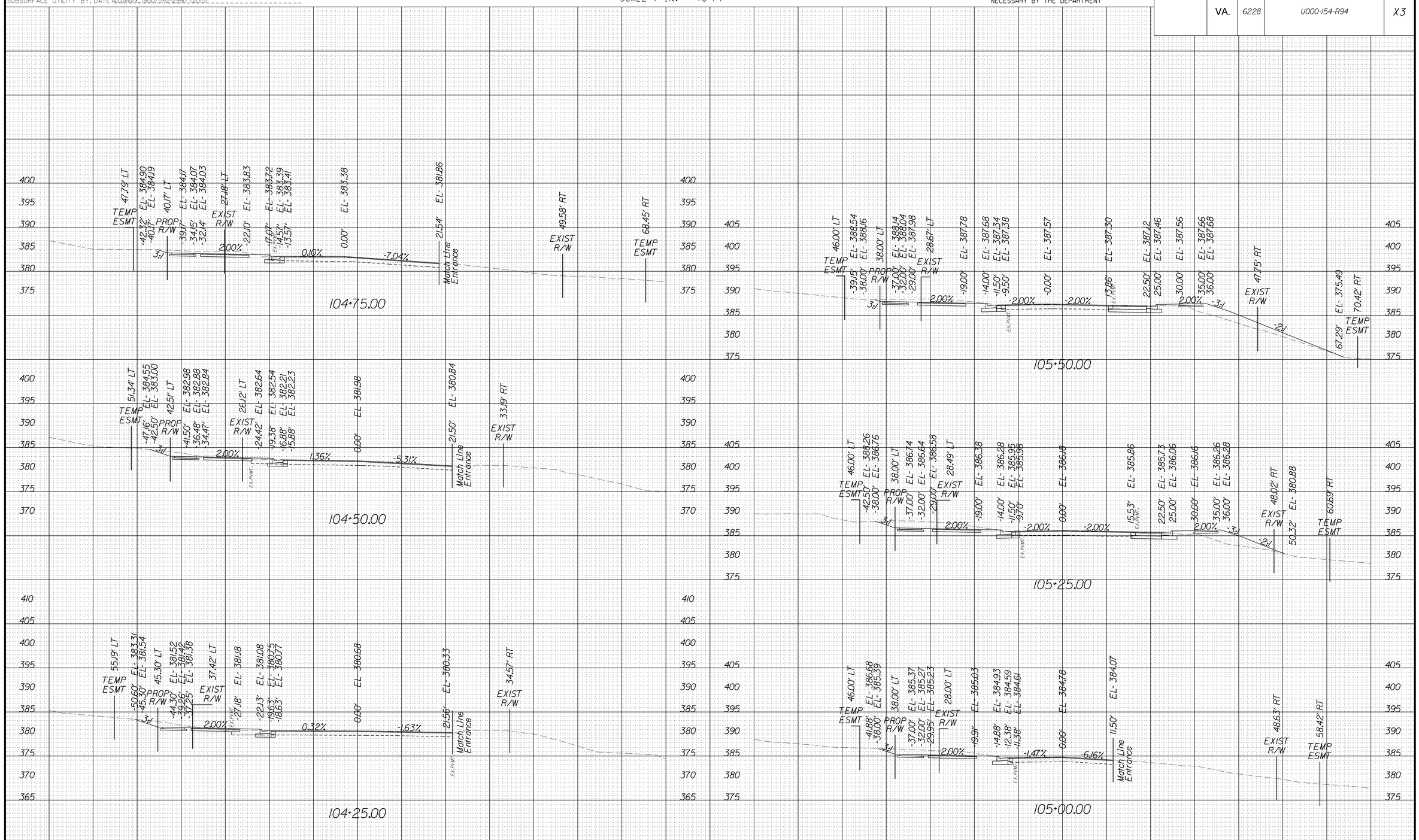
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X3



VDOT PROJECT NO. U000-154-R94 | SHEET NO. X3

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

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2:57:43 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)

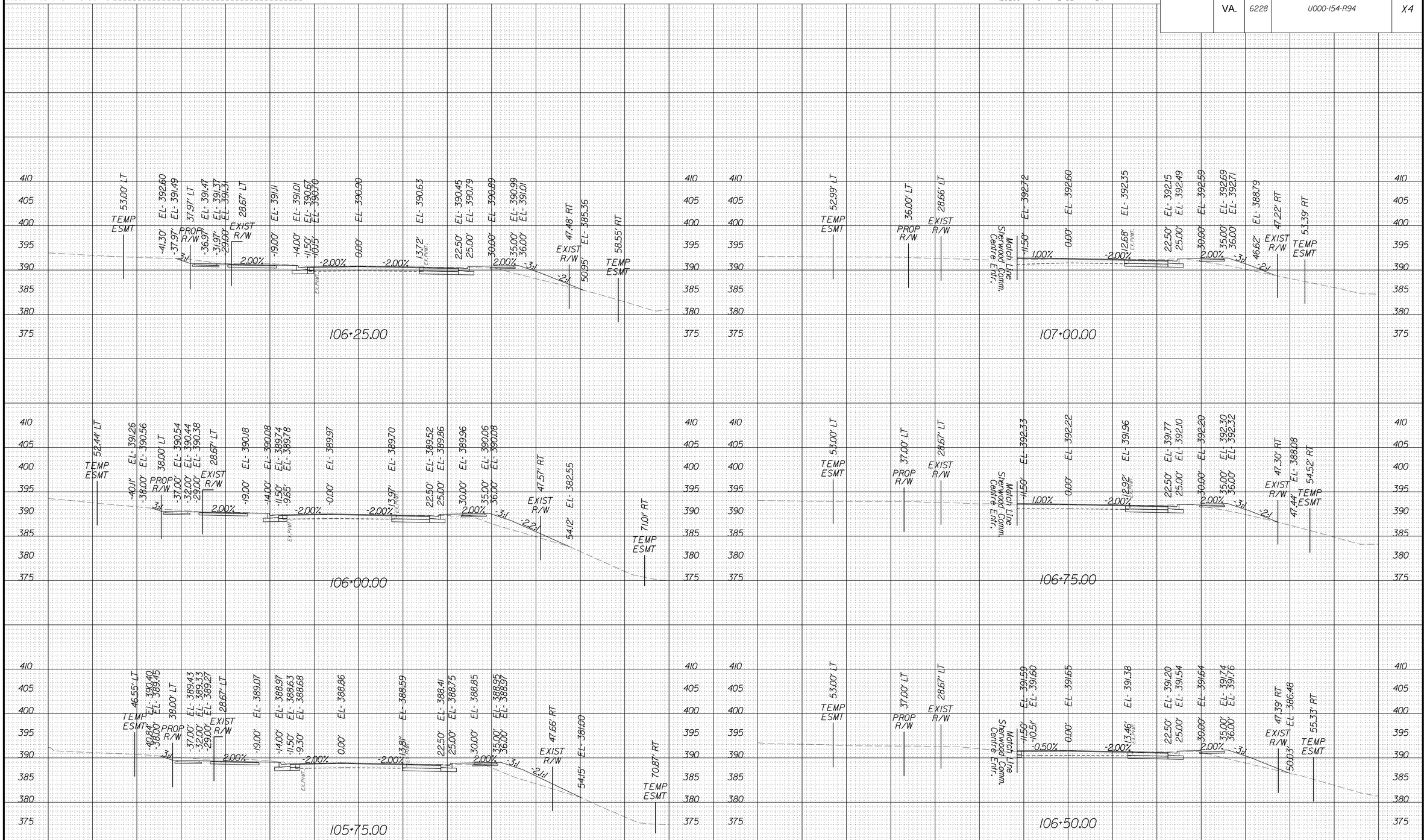
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X4



Station 105+75.00 To Station 107+00.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X4

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
2:57:57 PM

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kaugalis 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)

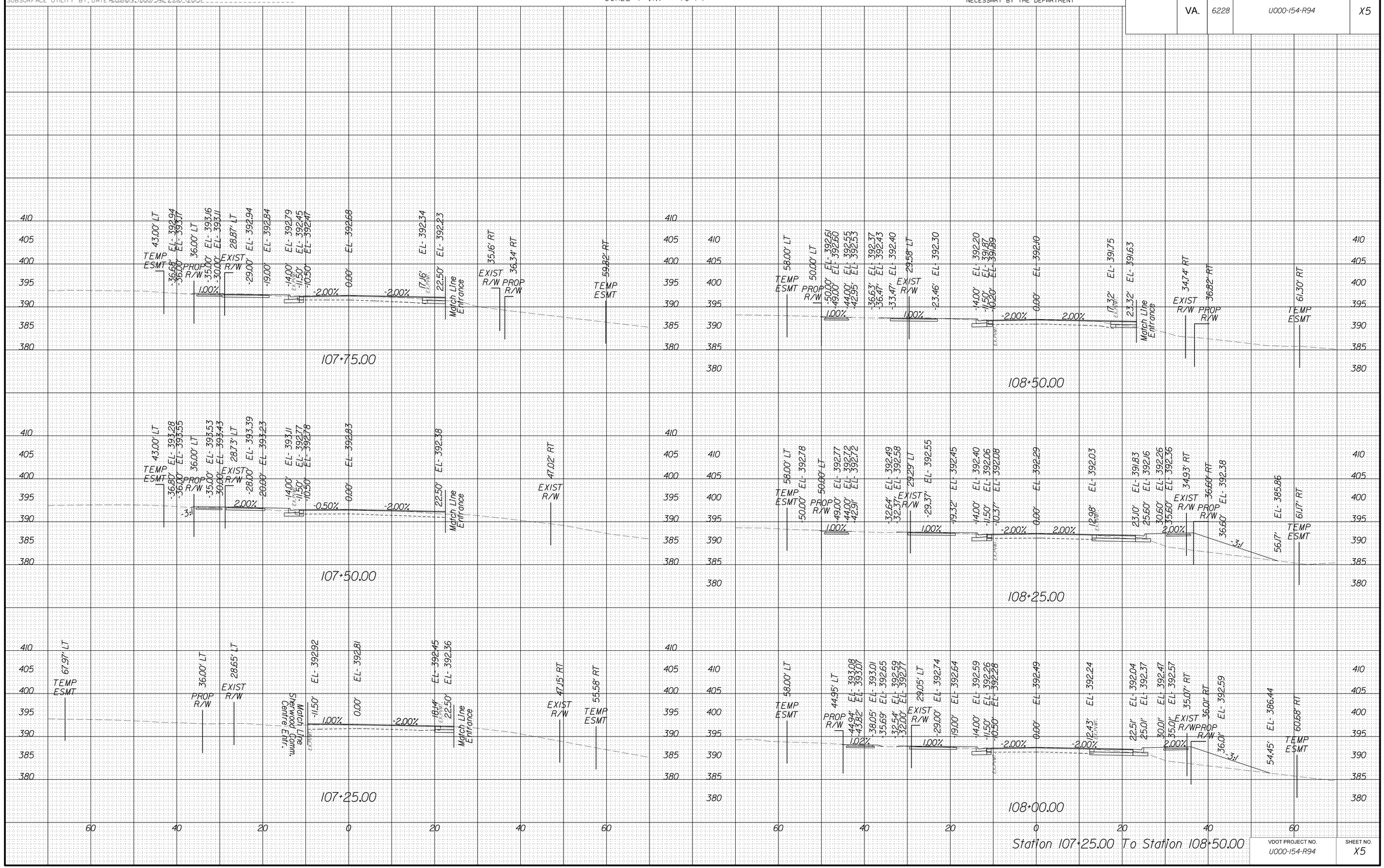
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X5



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X5

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
2:58:12 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)

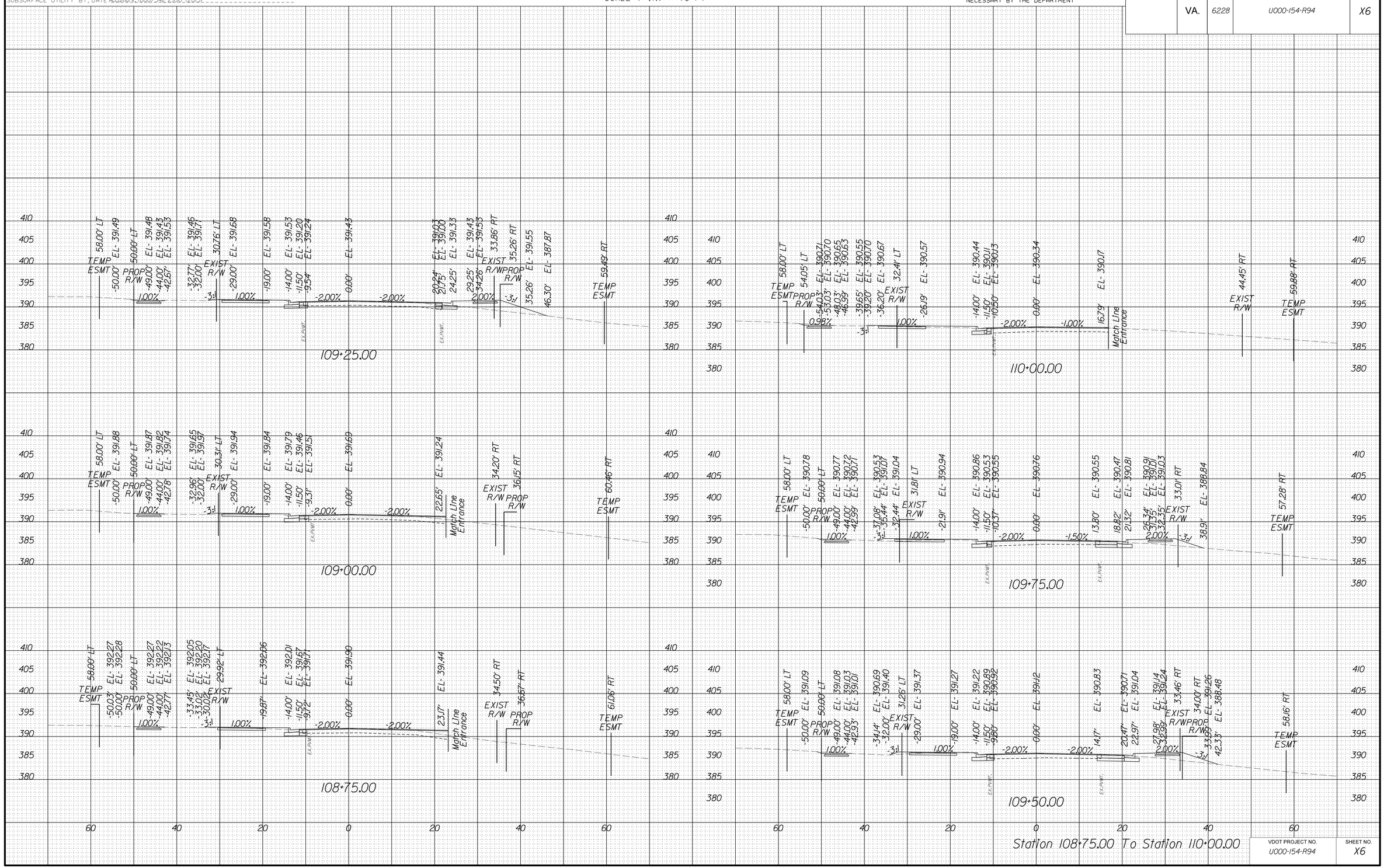
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X6



PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X6

3/24/2023
2:58:27 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)

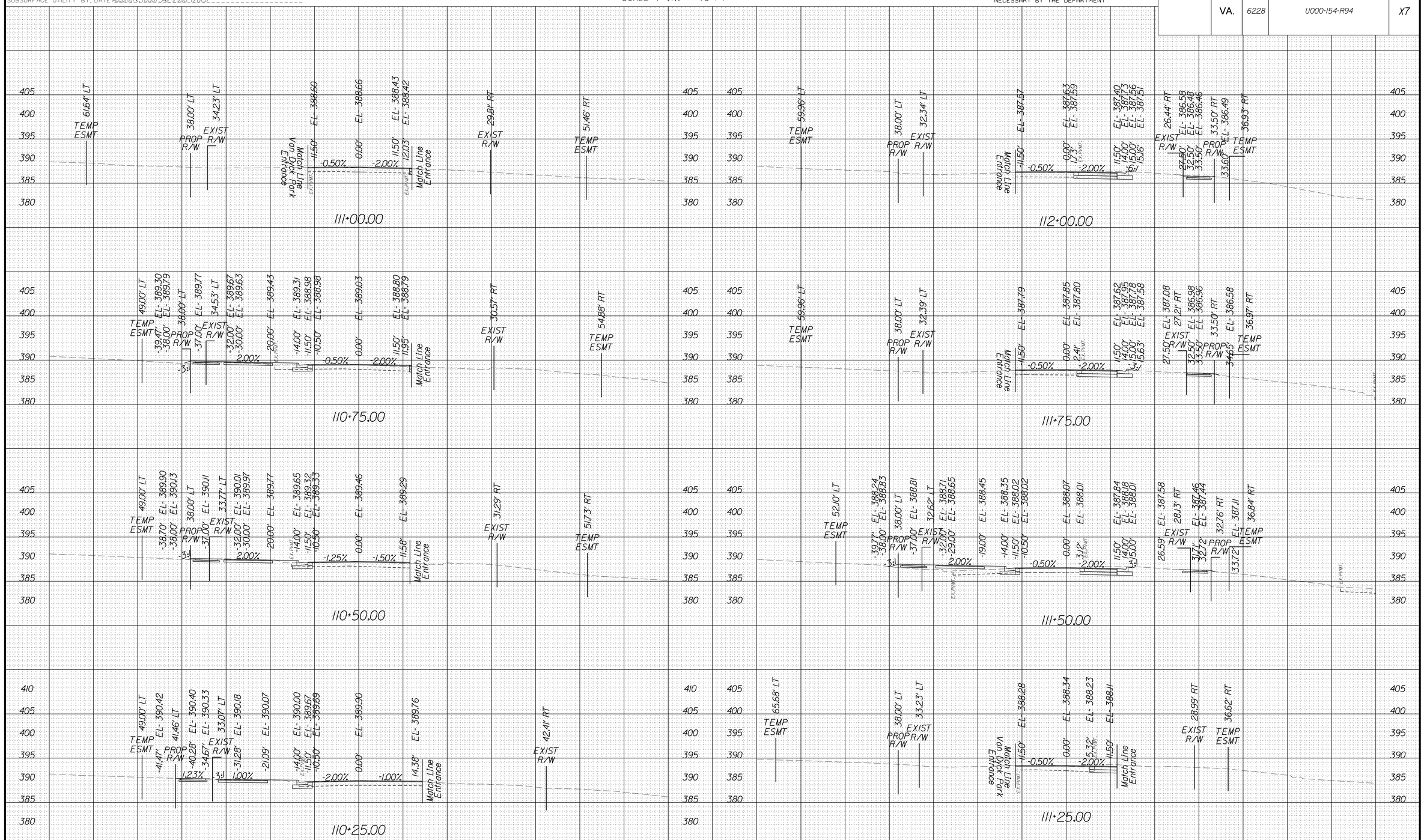
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X7



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X7

PH PLANS

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3/24/2023
2:58:42 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)

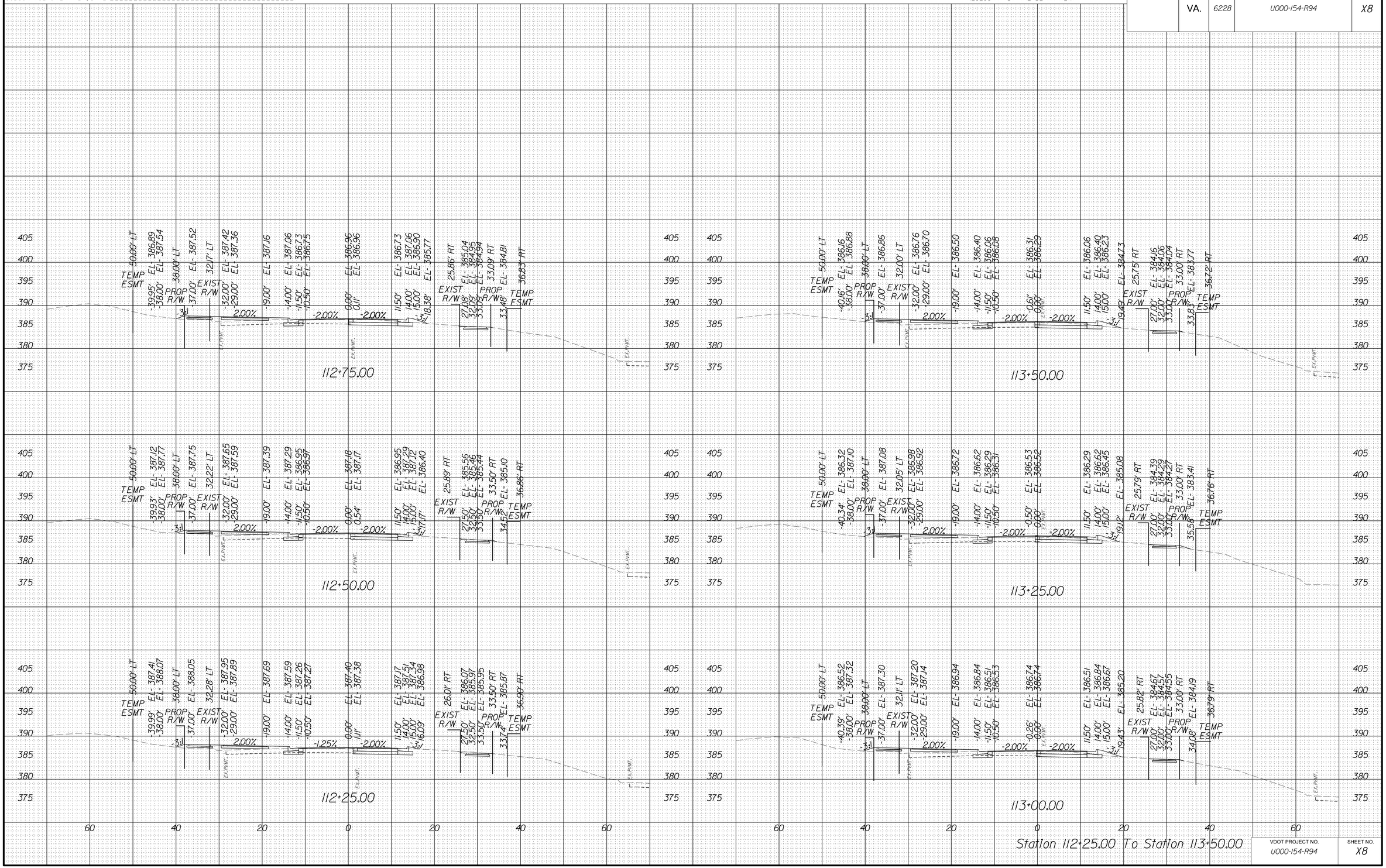
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X8



Station 112+25.00 To Station 113+50.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X8

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
2:58:56 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)

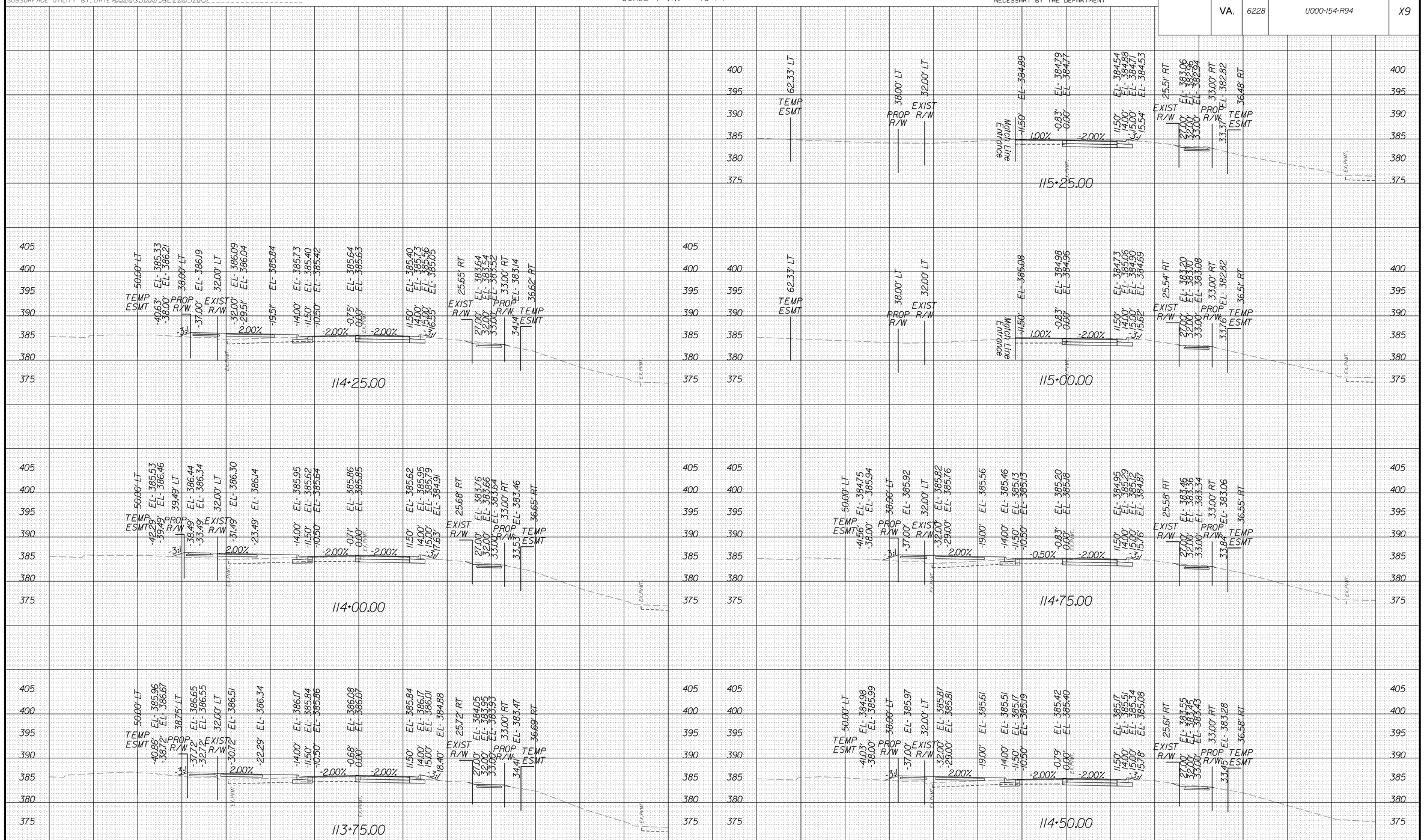
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X9



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X9

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
2:59:11 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)

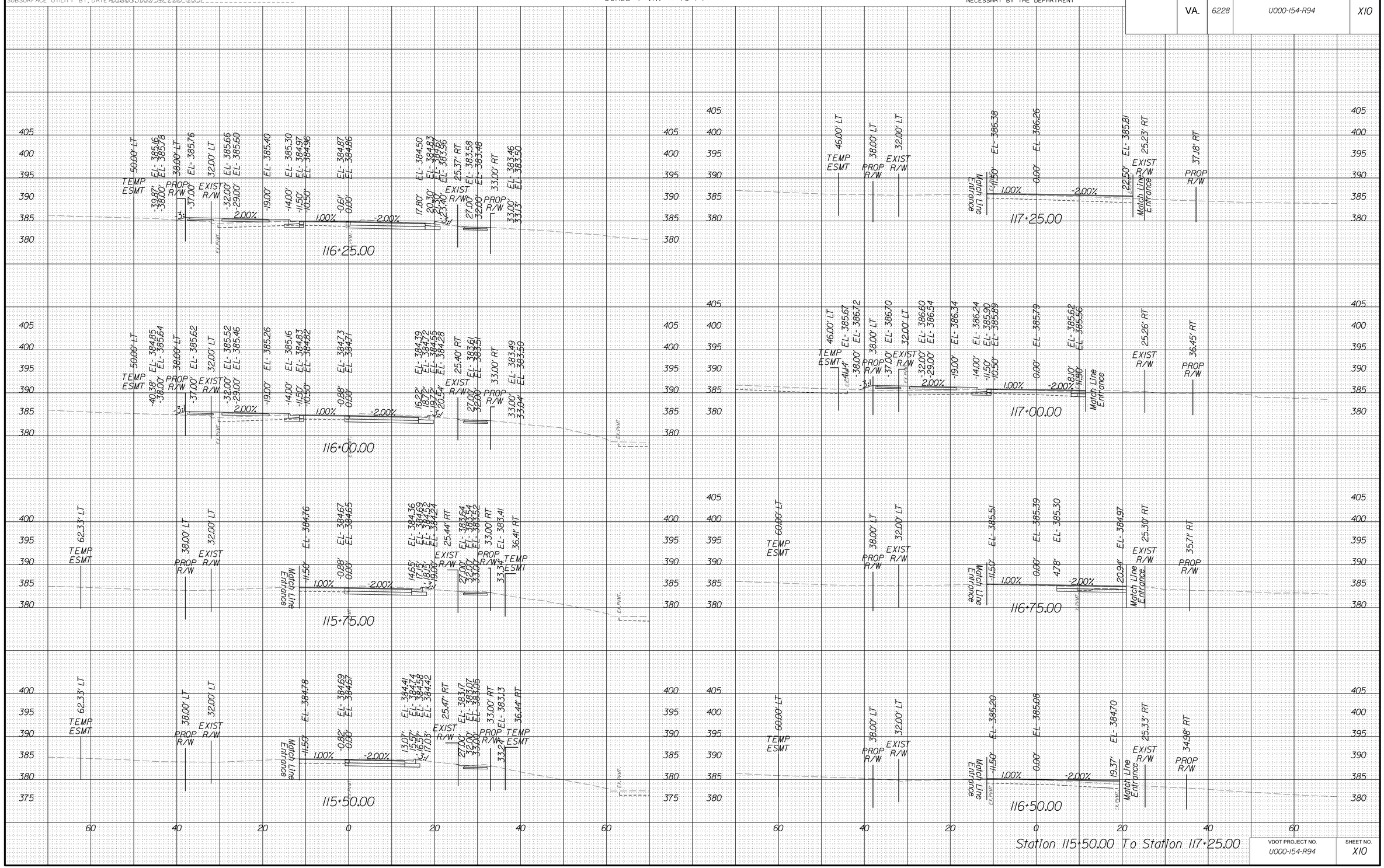
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X10



PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X10

3/24/2023
2:59:25 PM

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kowgalis 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)

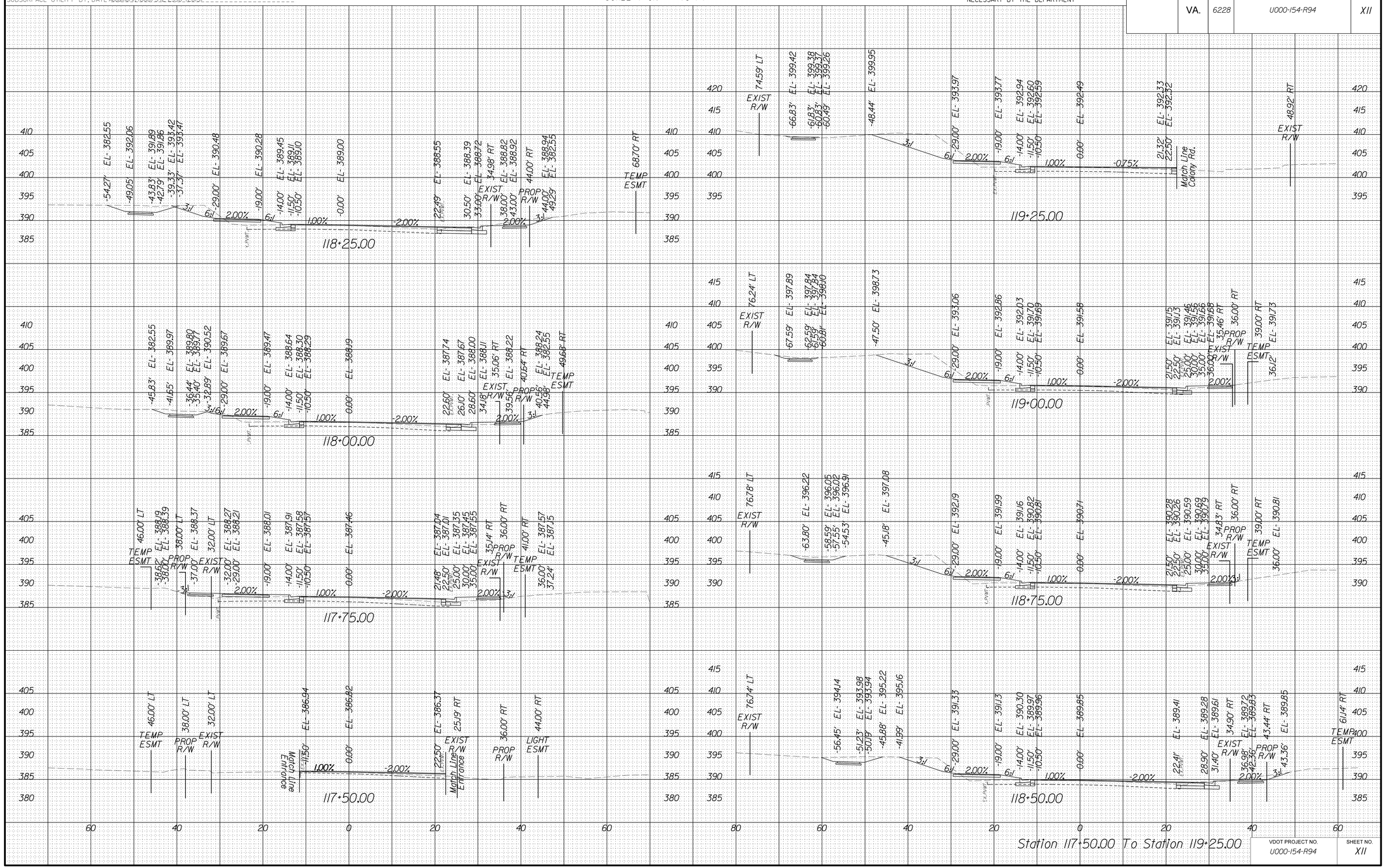
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	XII



VDOT PROJECT NO. U000-154-R94 | SHEET NO. XII

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
2:59:40 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)

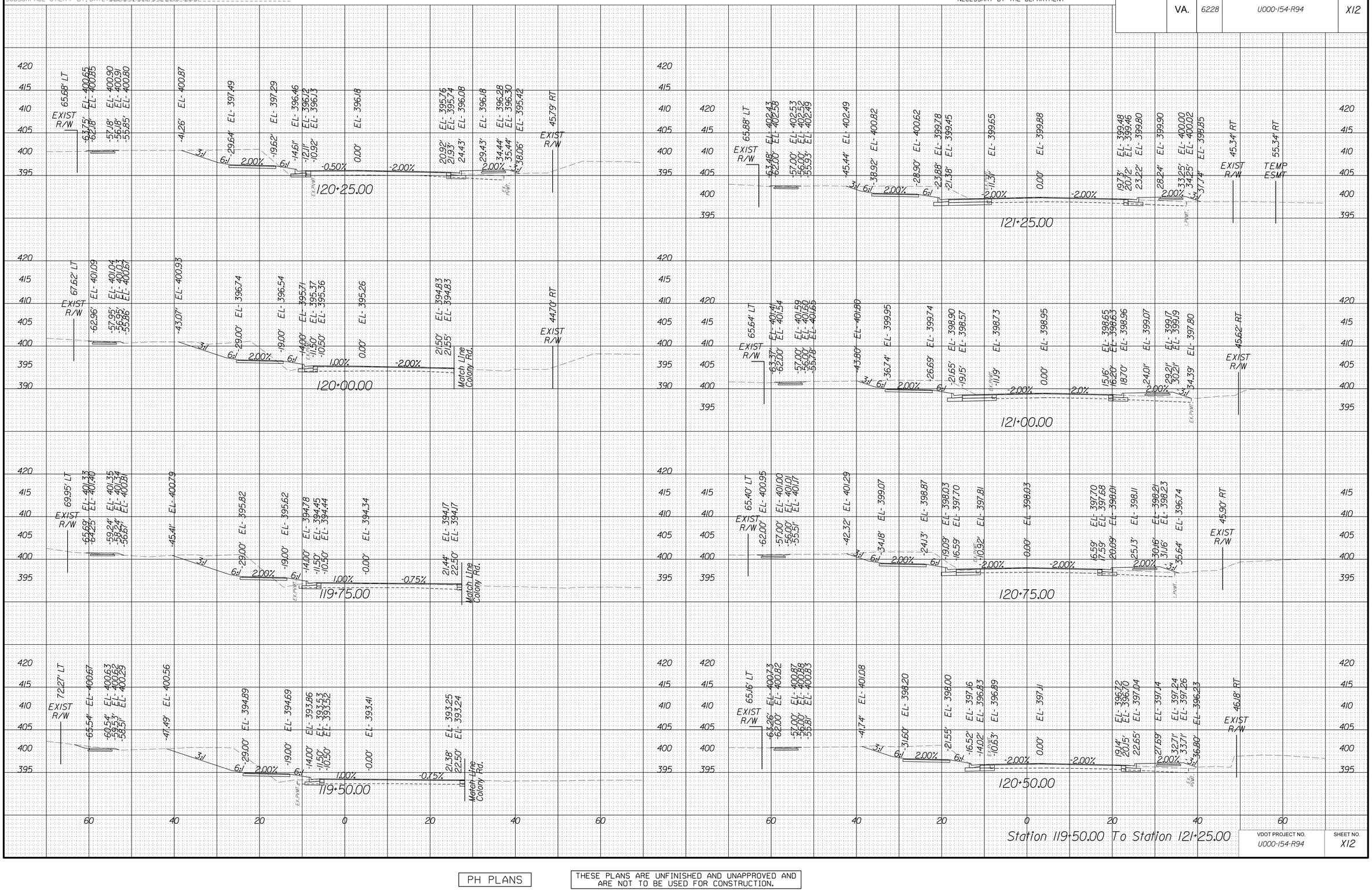
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X12



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X12

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
2:59:55 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)

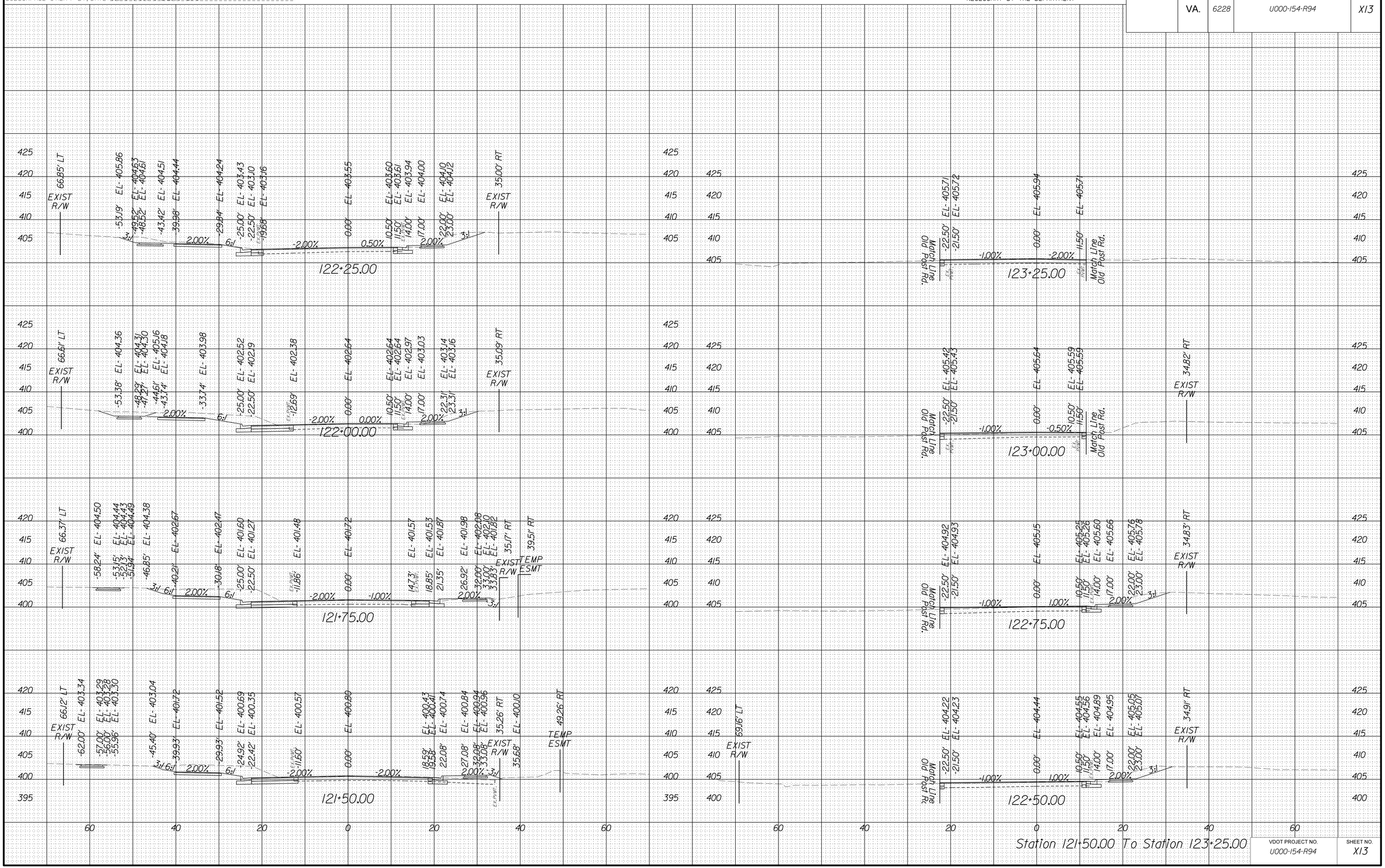
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X13



PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X13

3/24/2023
3:00:10 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)

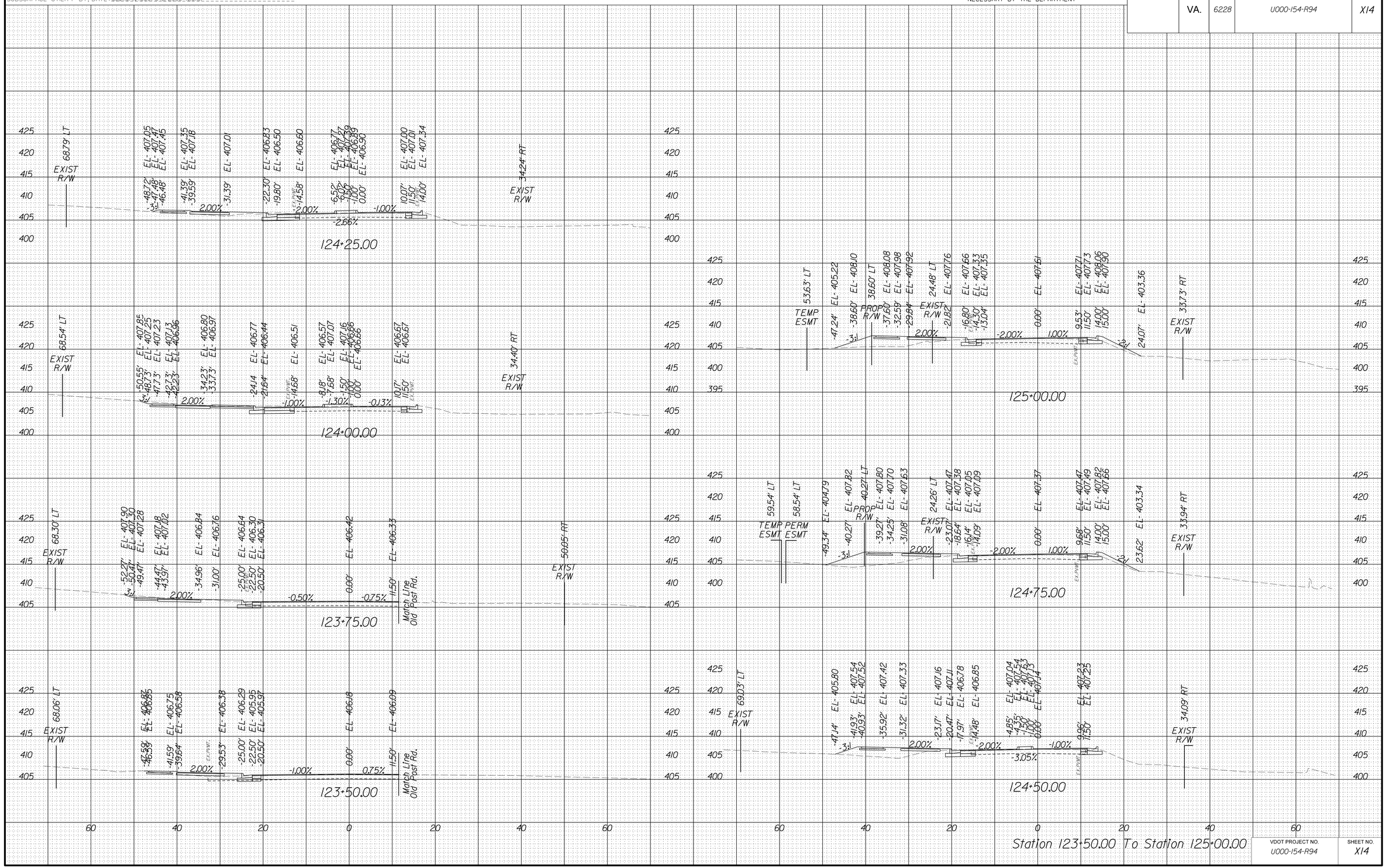
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X14



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X14

PH PLANS

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3/24/2023
3:00:25 PM

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kougalis L.S., (703) 368-7373 (2020)
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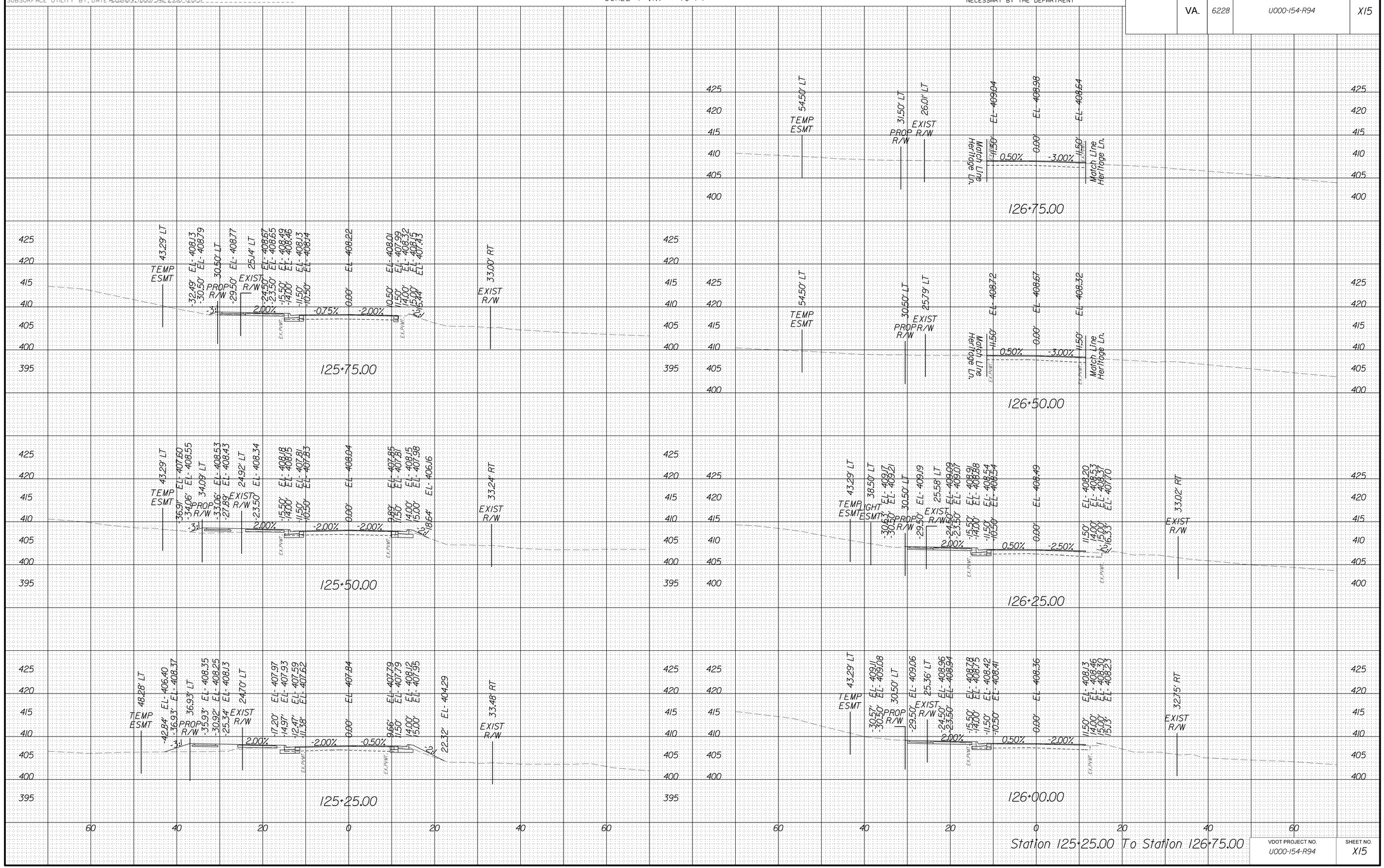
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X15



Station 125+25.00 To Station 126+75.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X15

PH PLANS

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3/24/2023
3:00:40 PM

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)

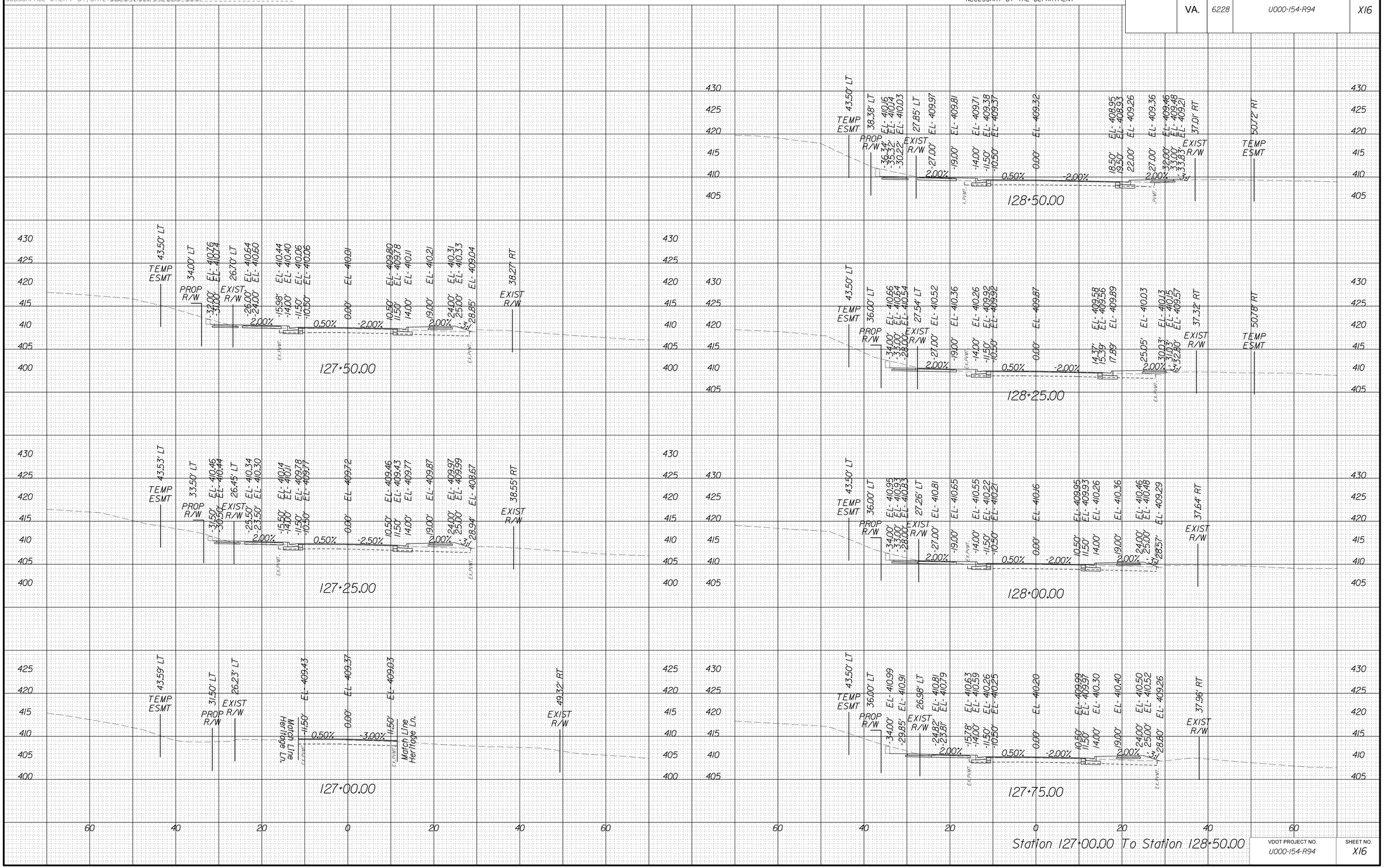
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X16



Station 127+00.00 To Station 128+50.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X16

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:00:56 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)

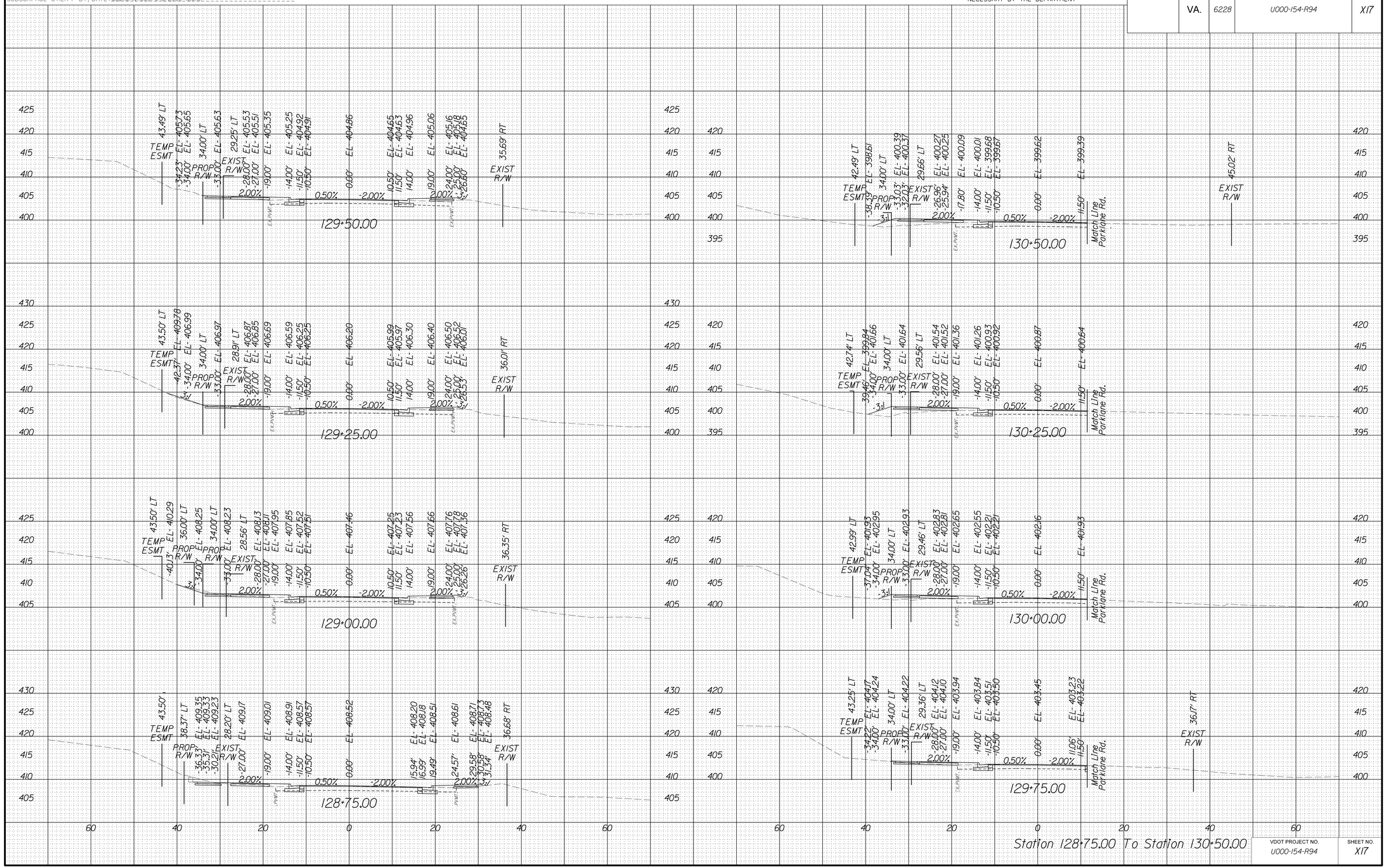
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X17



Station 128+75.00 To Station 130+50.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X17

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:01:11 PM

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kaugalis 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)

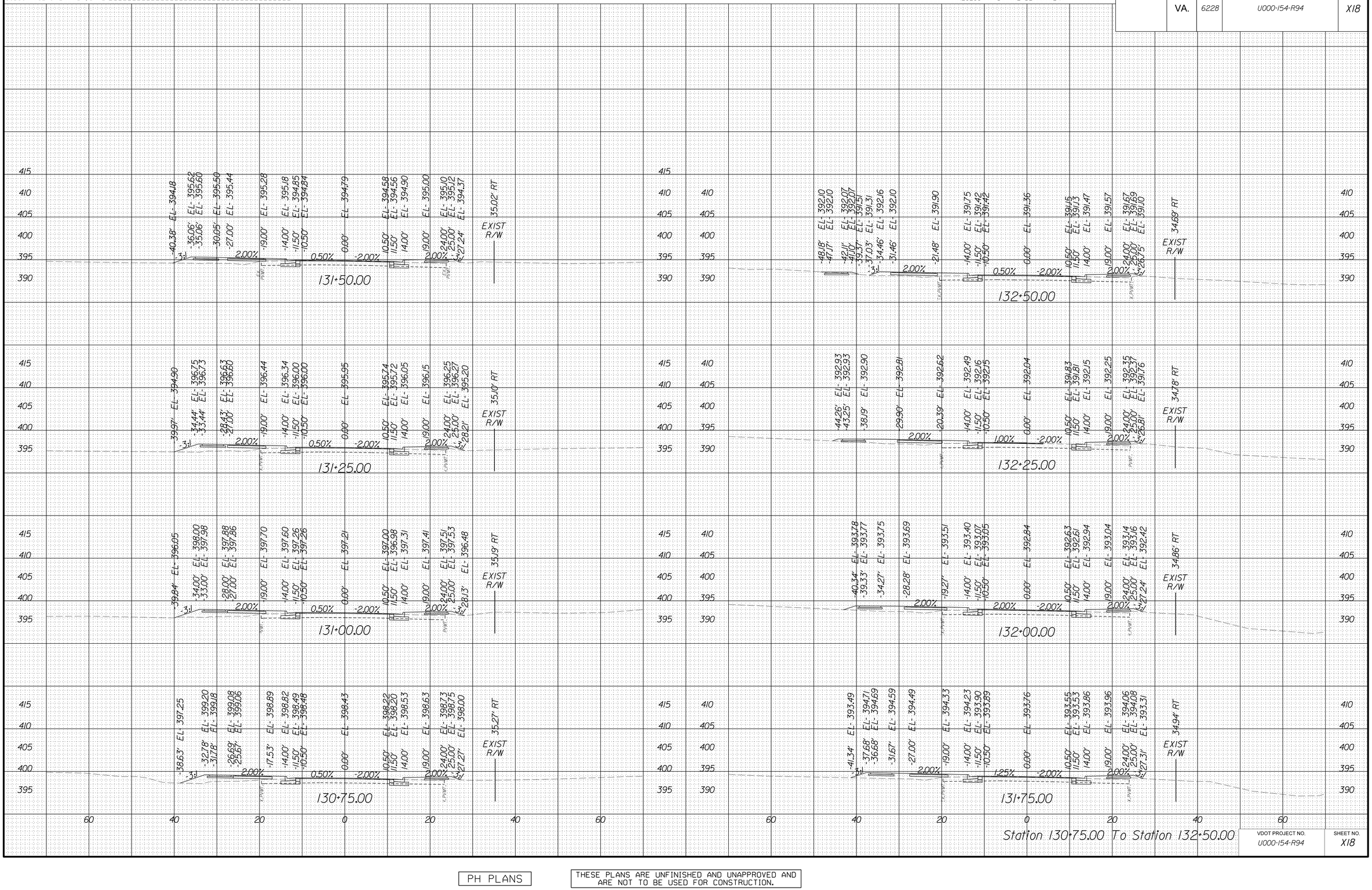
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X18



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X18

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:01:26 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)

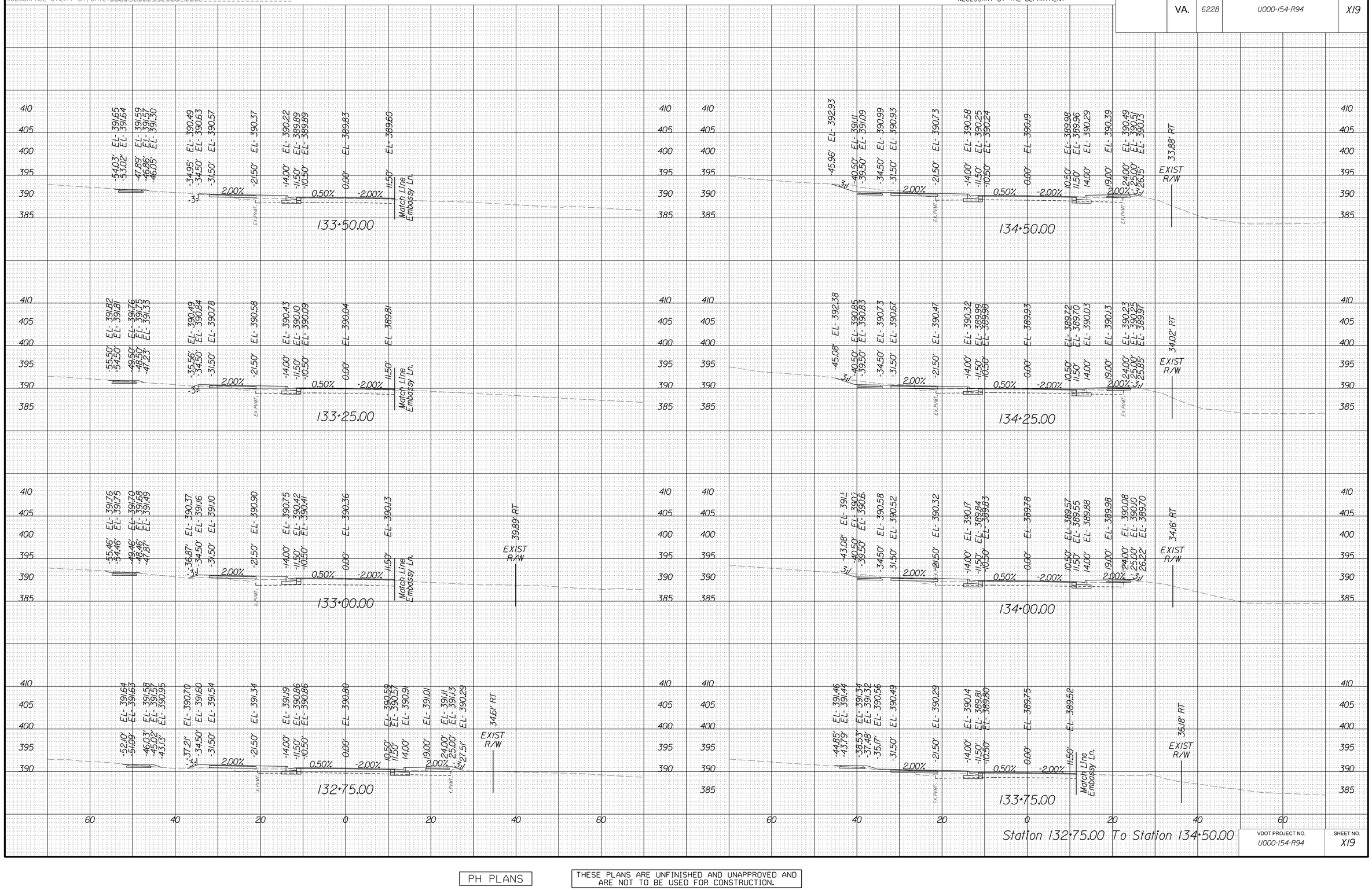
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X19



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X19

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:01:42 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)

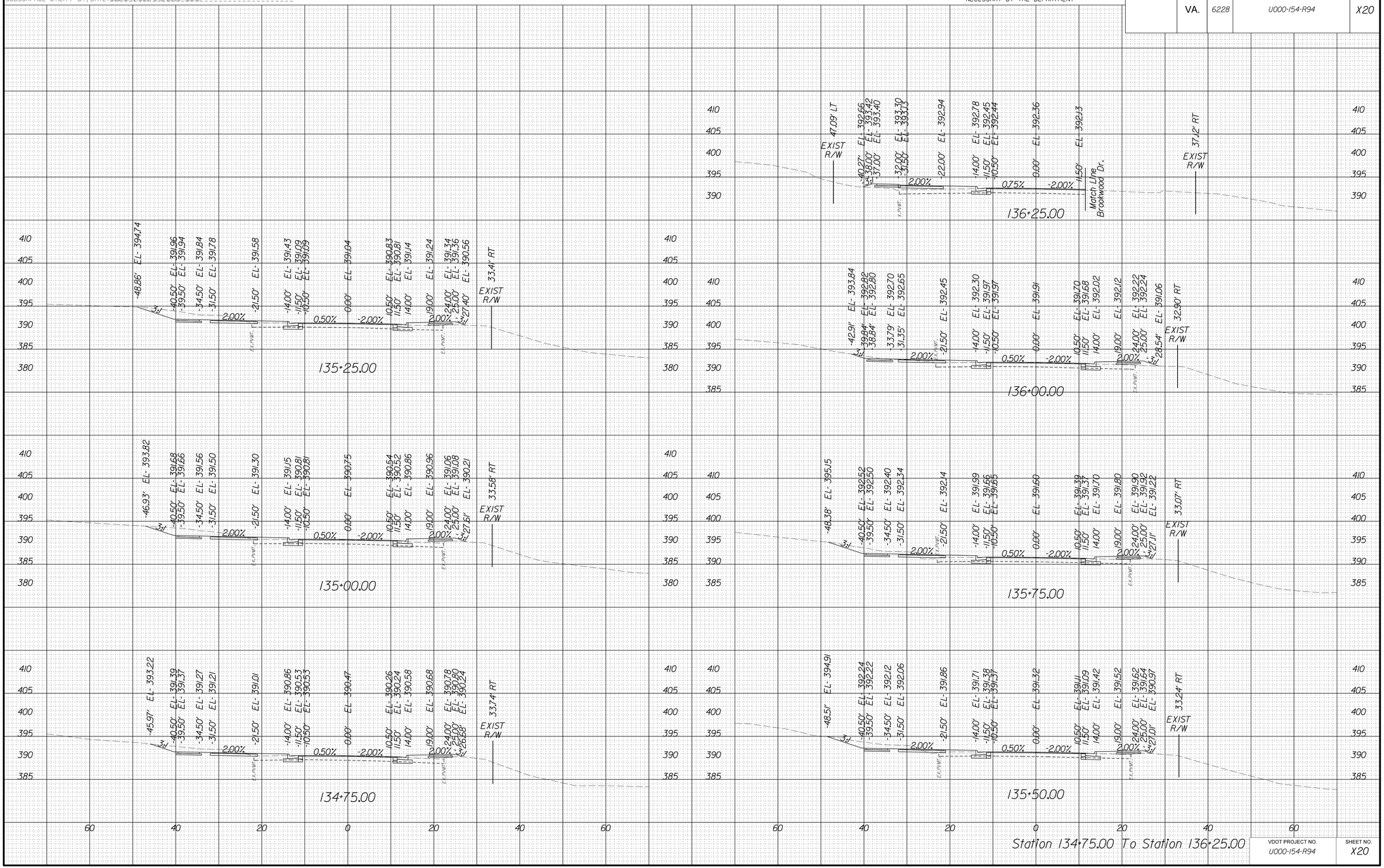
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X20



Station 134+75.00 To Station 136+25.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X20

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:01:57 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)

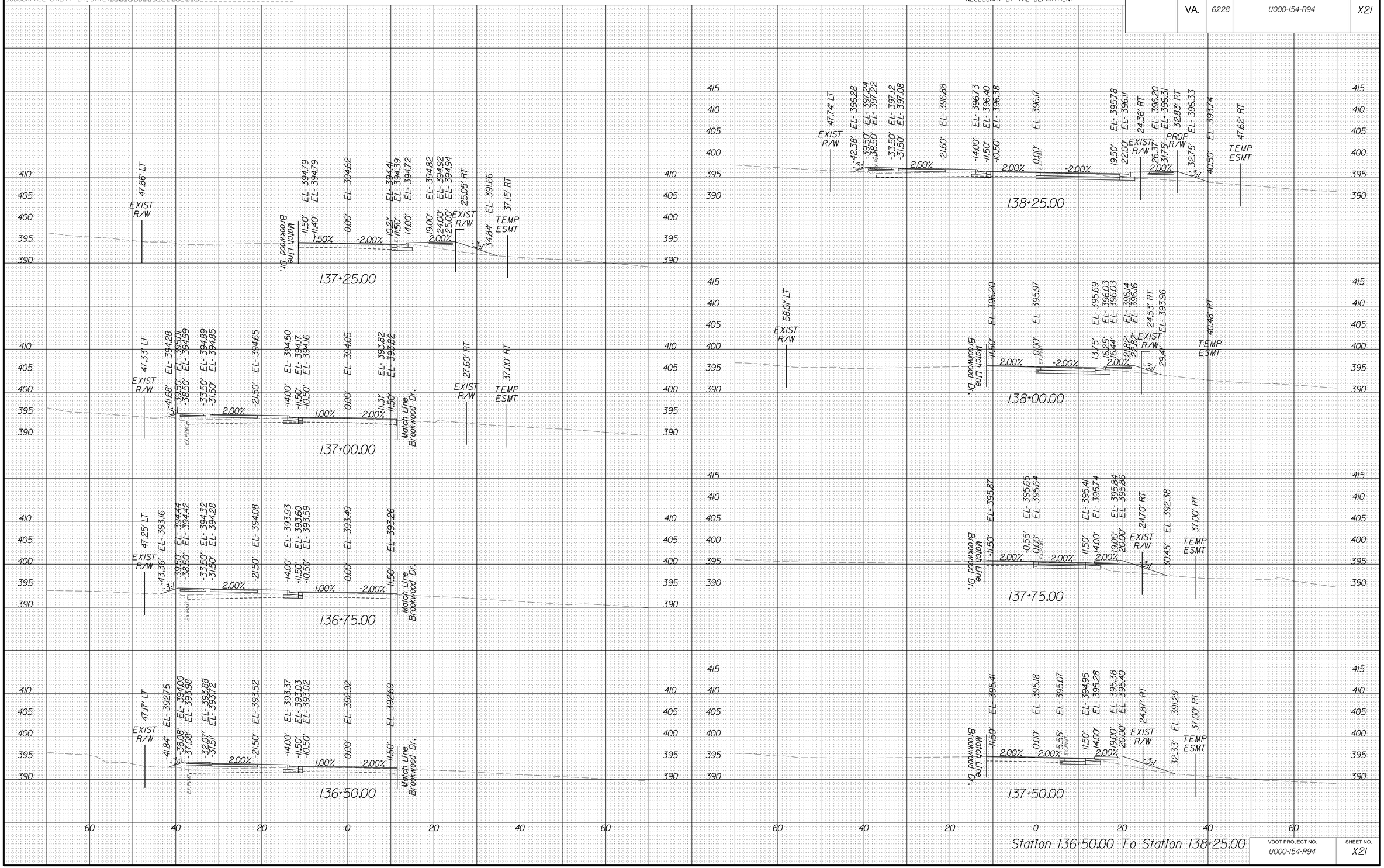
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X21



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X21

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:02:13 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)

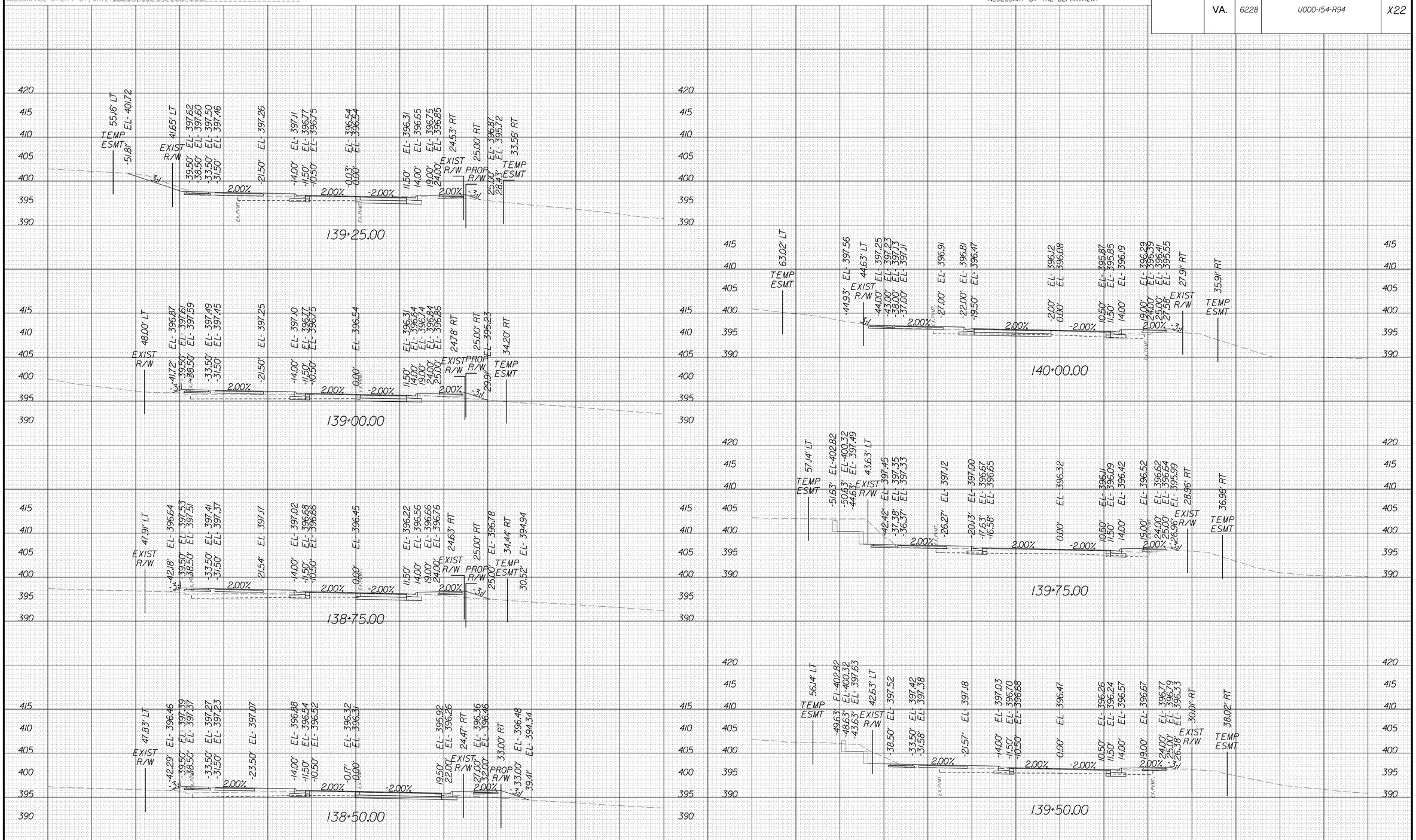
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X22



Station 138+50.00 To Station 140+00.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X22

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:02:28 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)

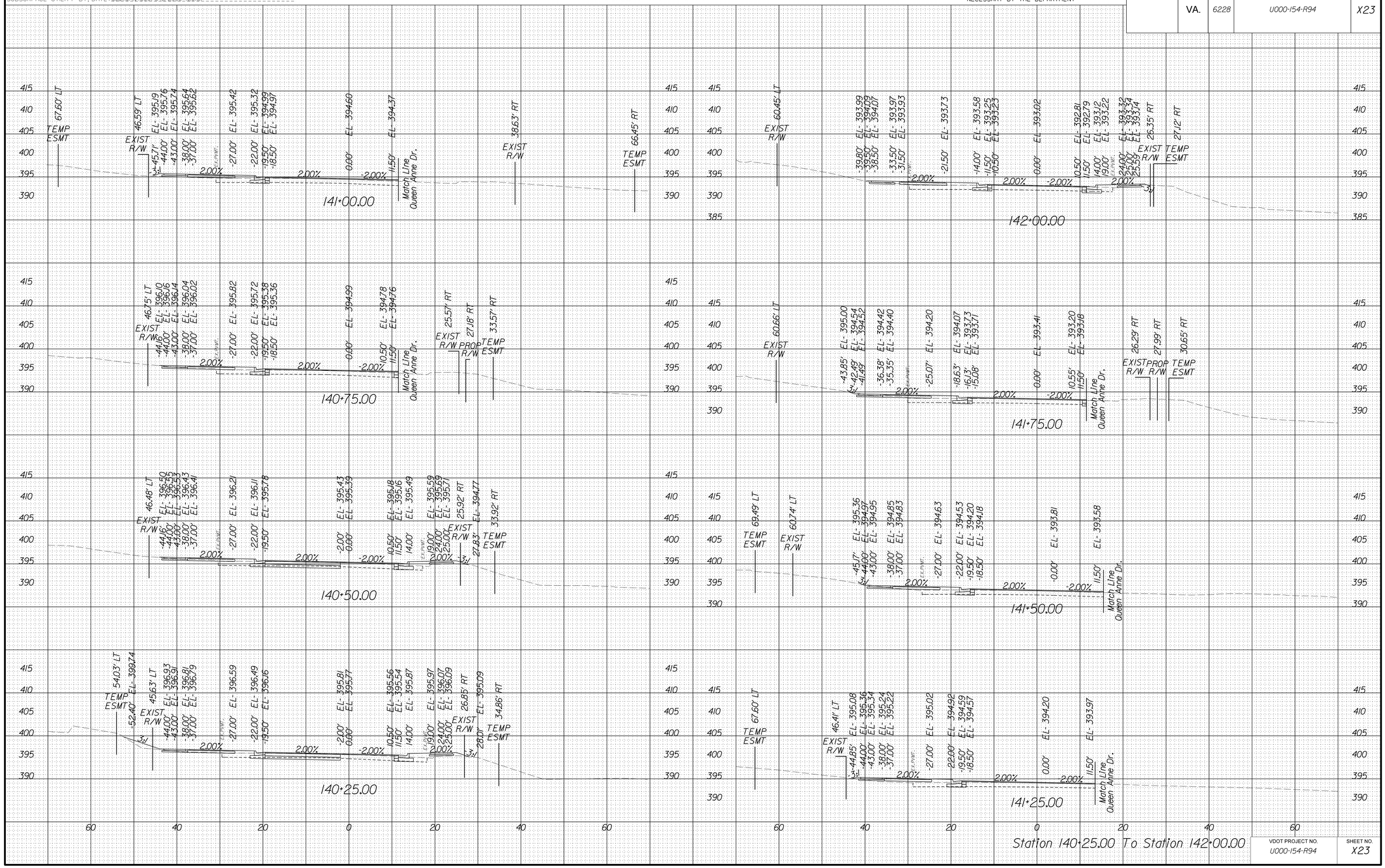
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X23



Station 140+25.00 To Station 142+00.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X23

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:02:44 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)

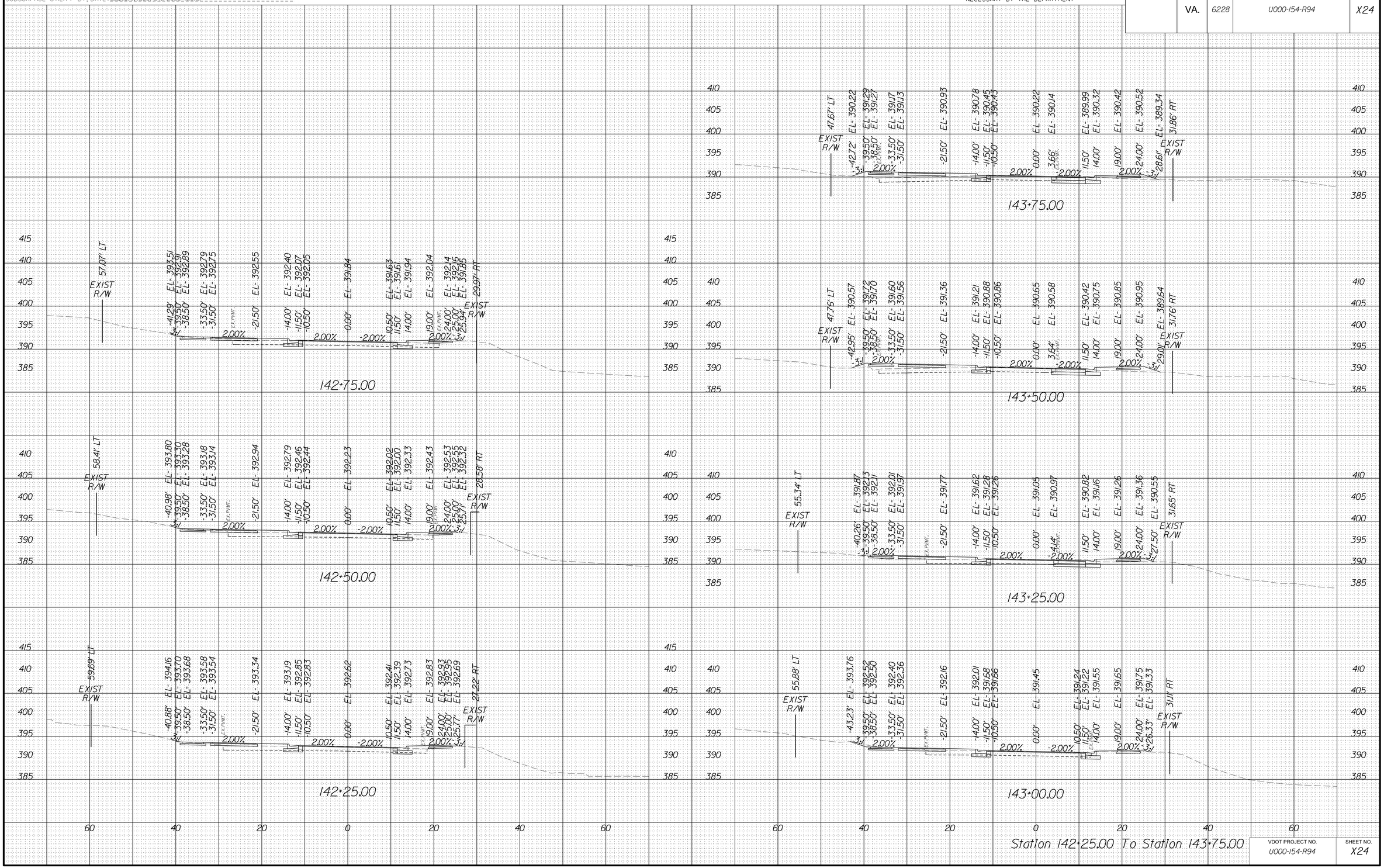
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X24



Station 142+25.00 To Station 143+75.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X24

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:02:59 PM

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kaugalis 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)

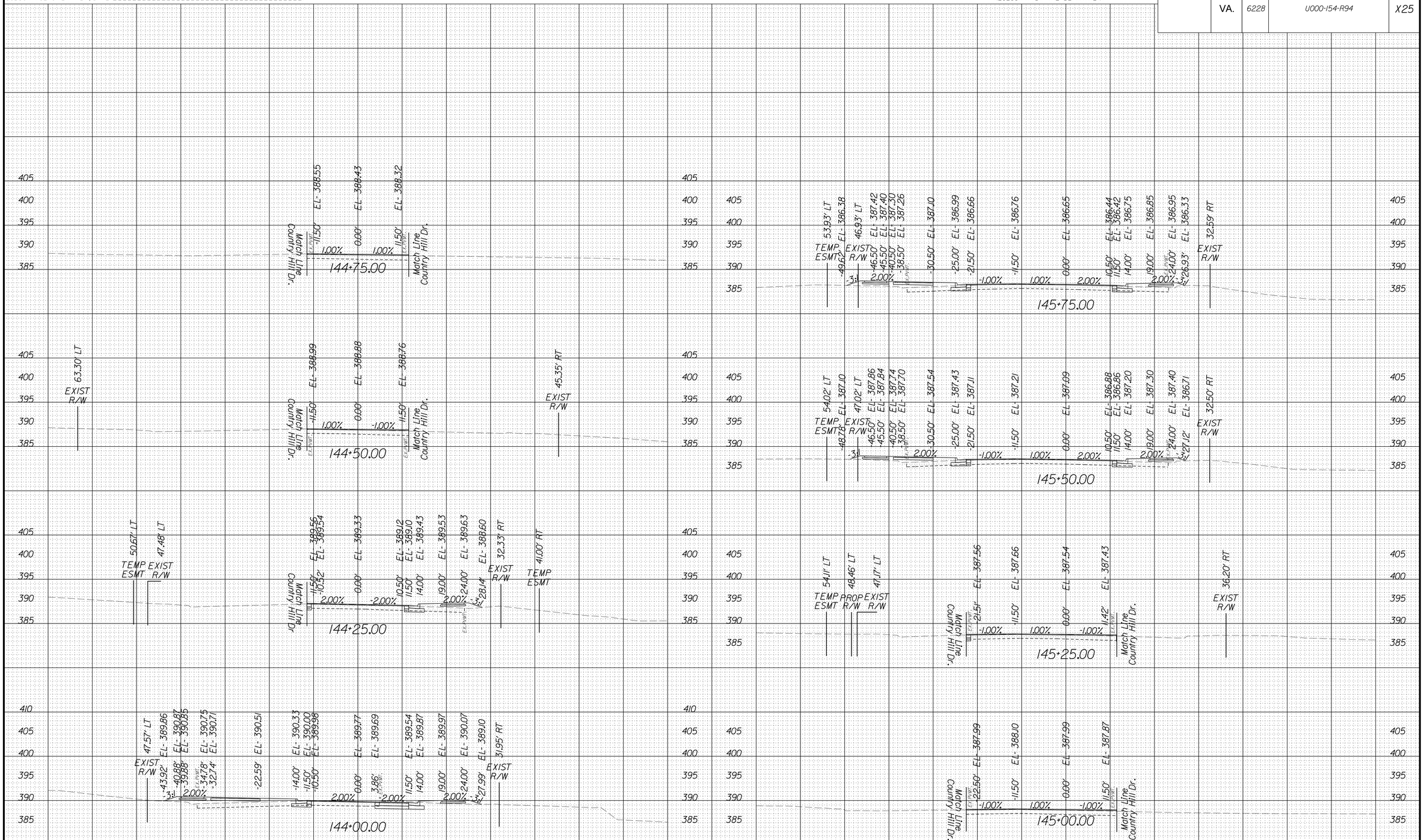
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X25



PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X25

3/24/2023
3:03:5 PM

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kavgalis 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)

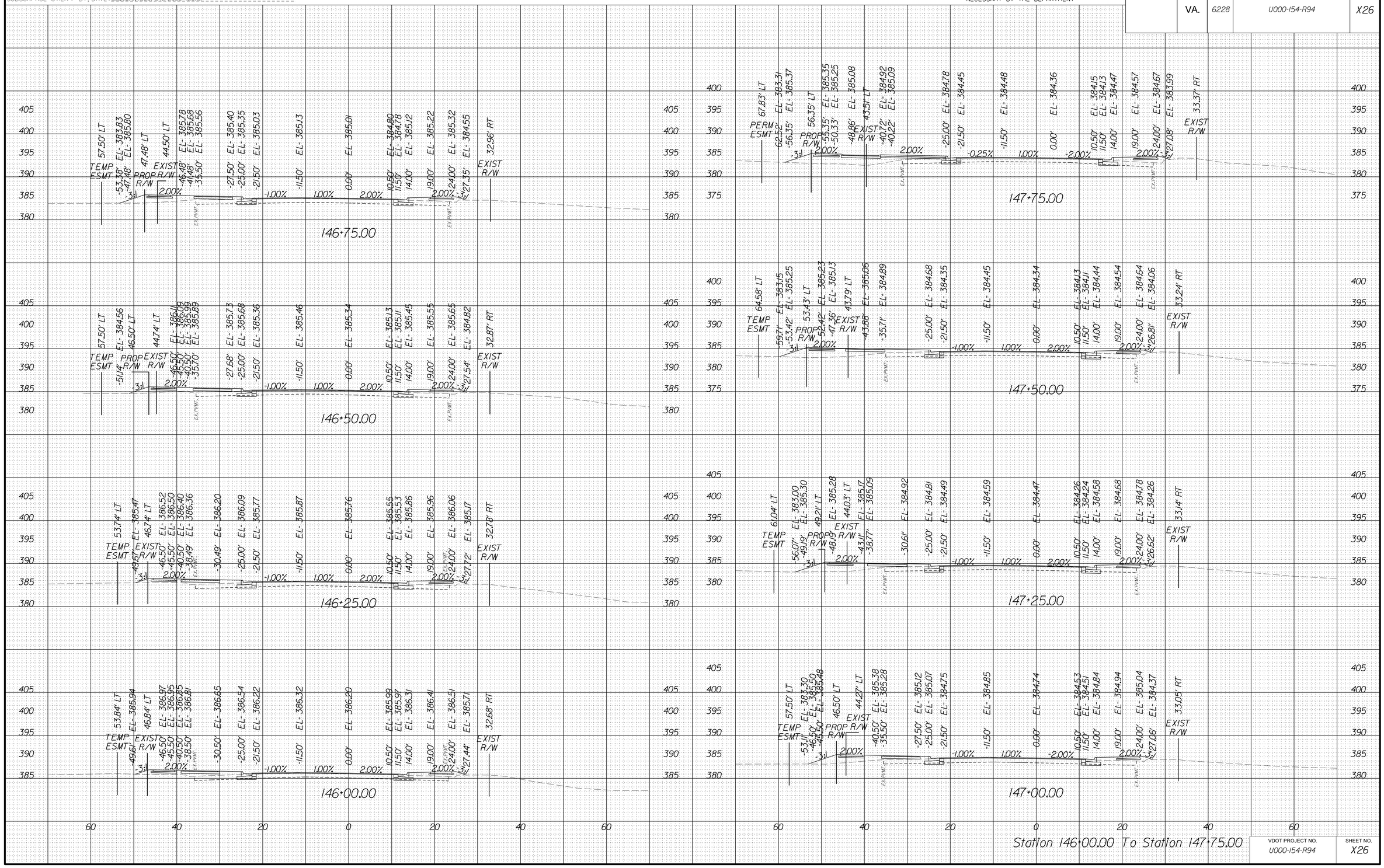
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X26



Station 146+00.00 To Station 147+75.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X26

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:03:30 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)

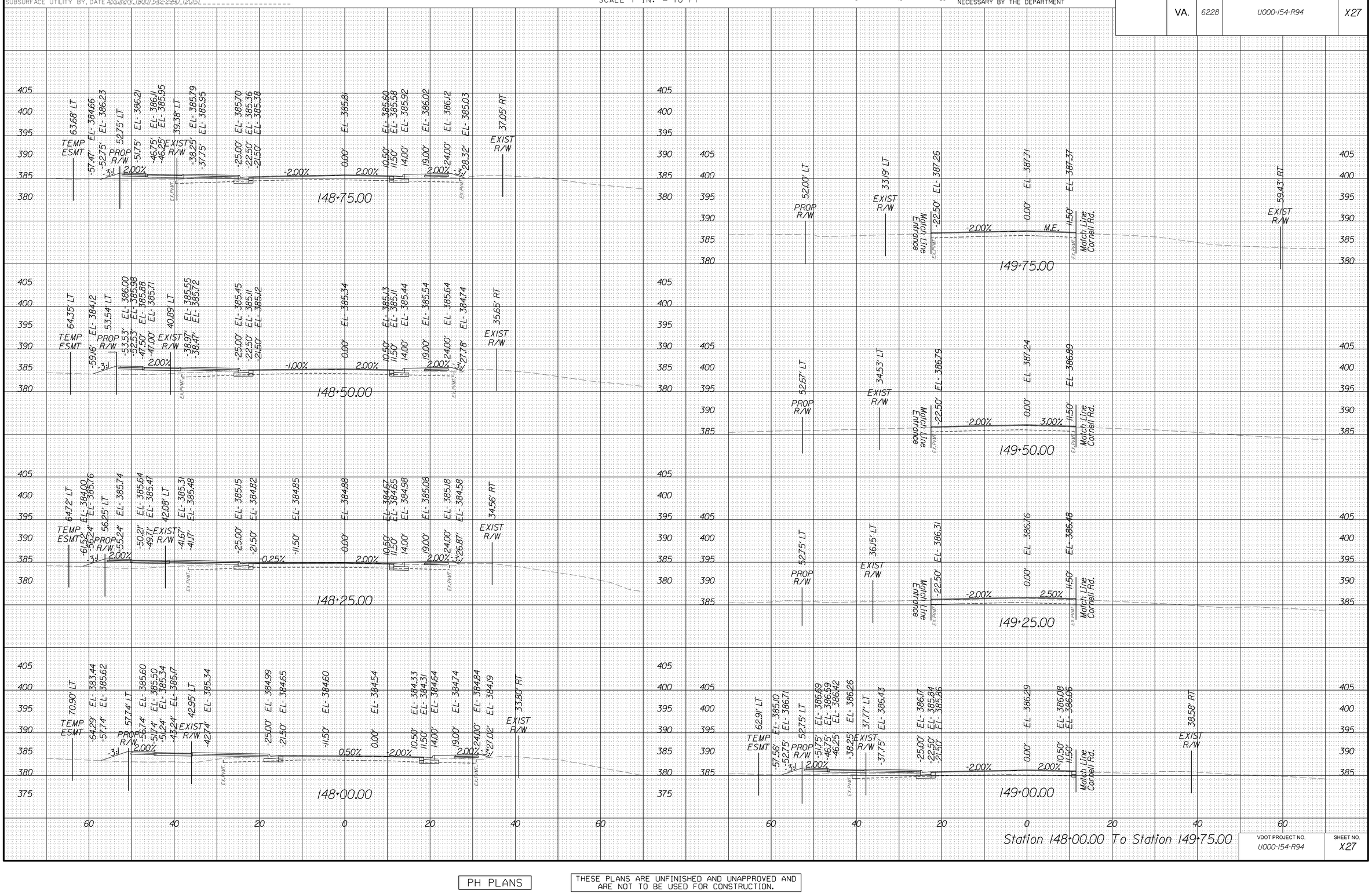
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X27



Station 148+00.00 To Station 149+75.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X27

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:03:46 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)

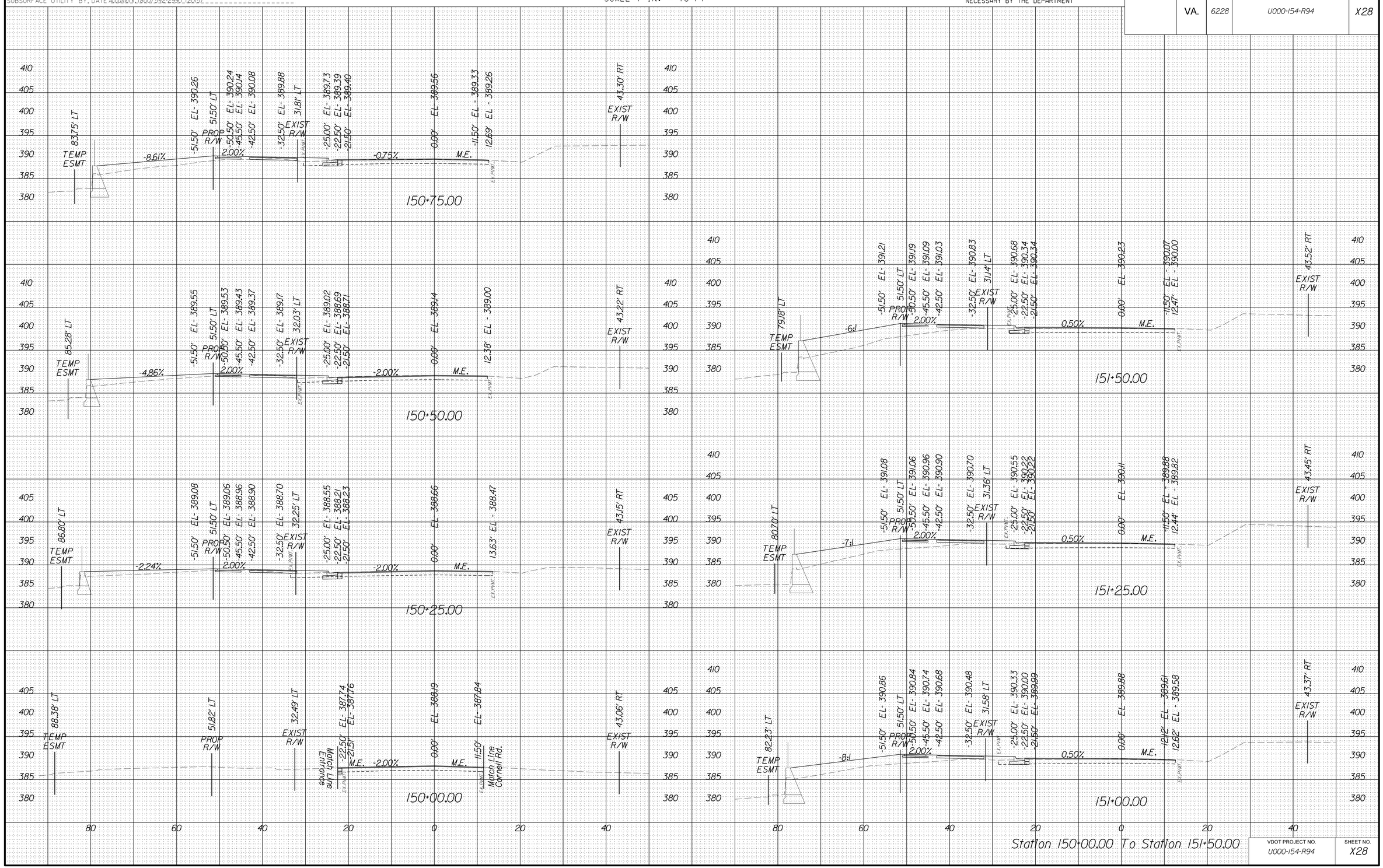
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X28



VDOT PROJECT NO. U000-154-R94 | SHEET NO. X28

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:04:02 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)

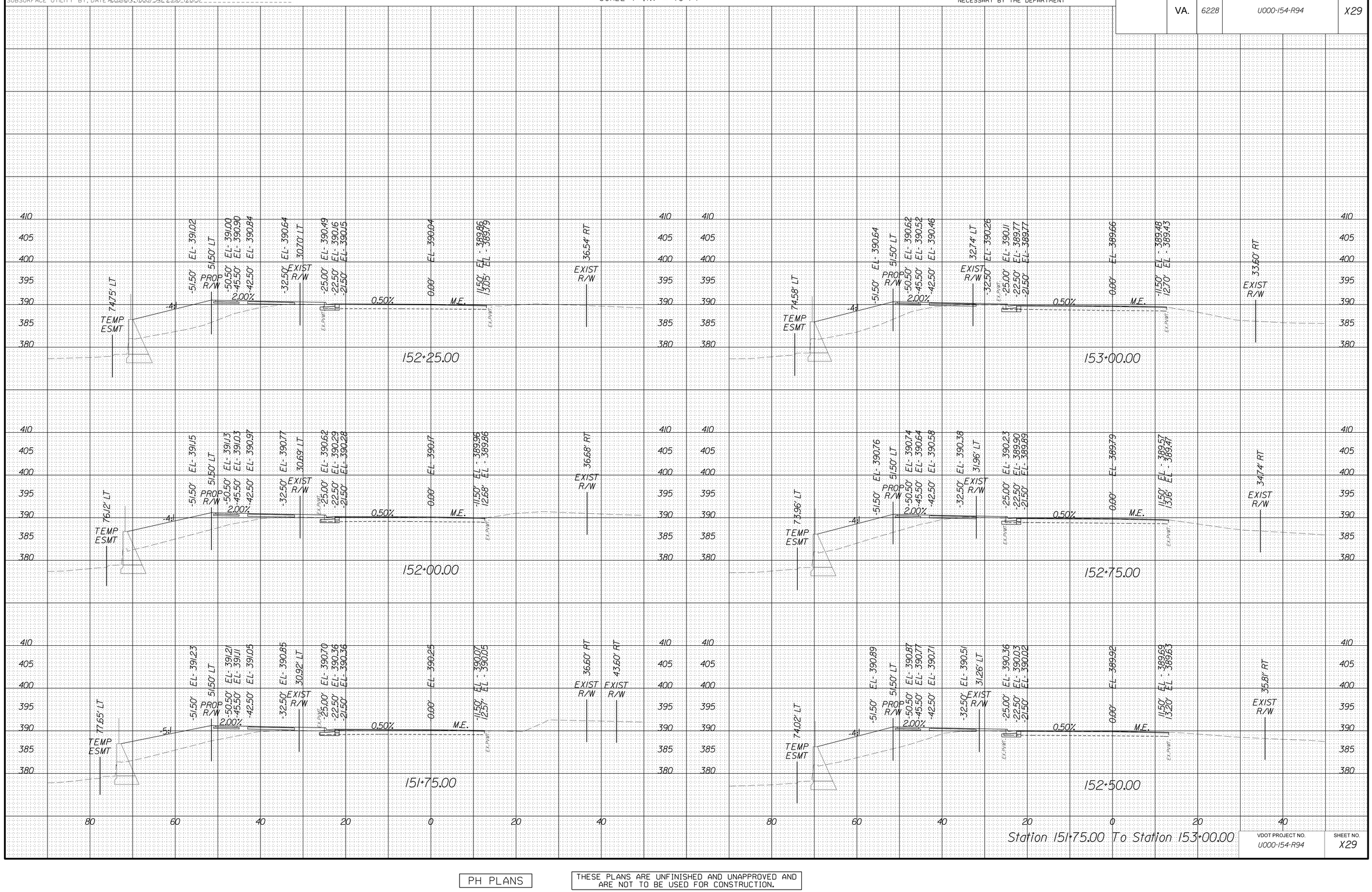
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X29



Station 151+75.00 To Station 153+00.00

VDOT PROJECT NO. U000-154-R94 | SHEET NO. X29

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:04:17 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)

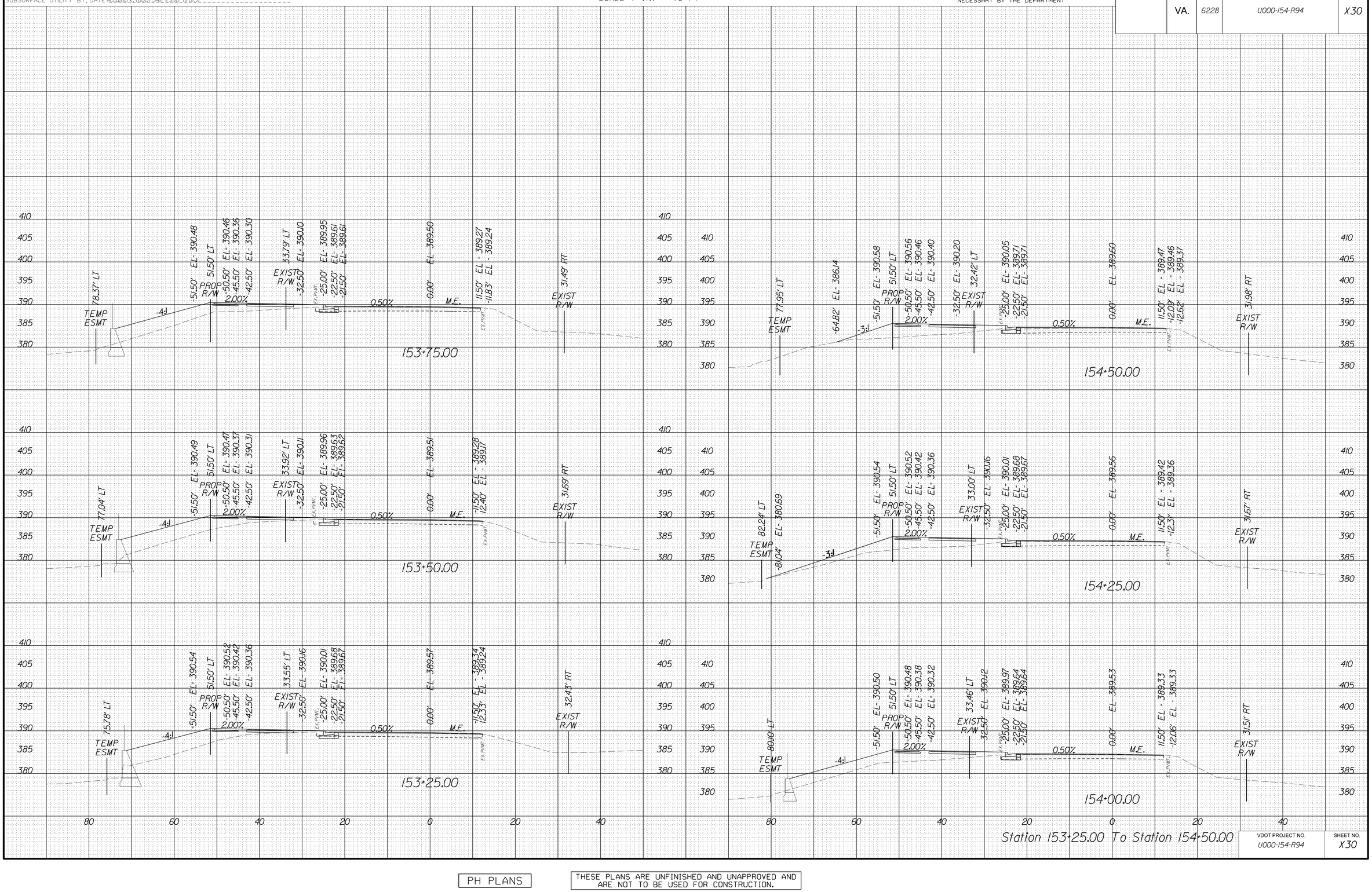
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X30



Station 153+25.00 To Station 154+50.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X30

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:04:33 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)

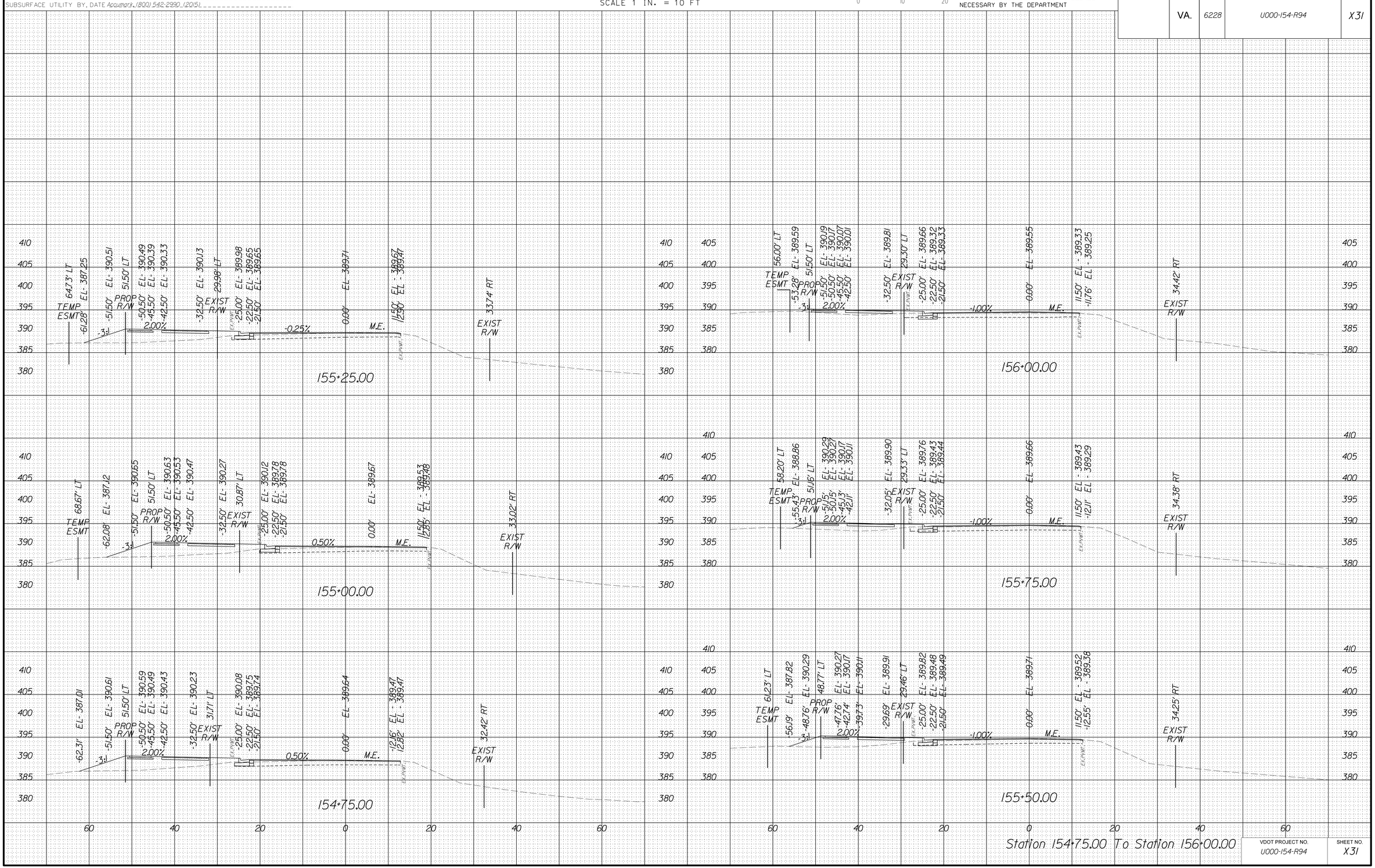
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X31



Station 154+75.00 To Station 156+00.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X31

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:04:49 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)

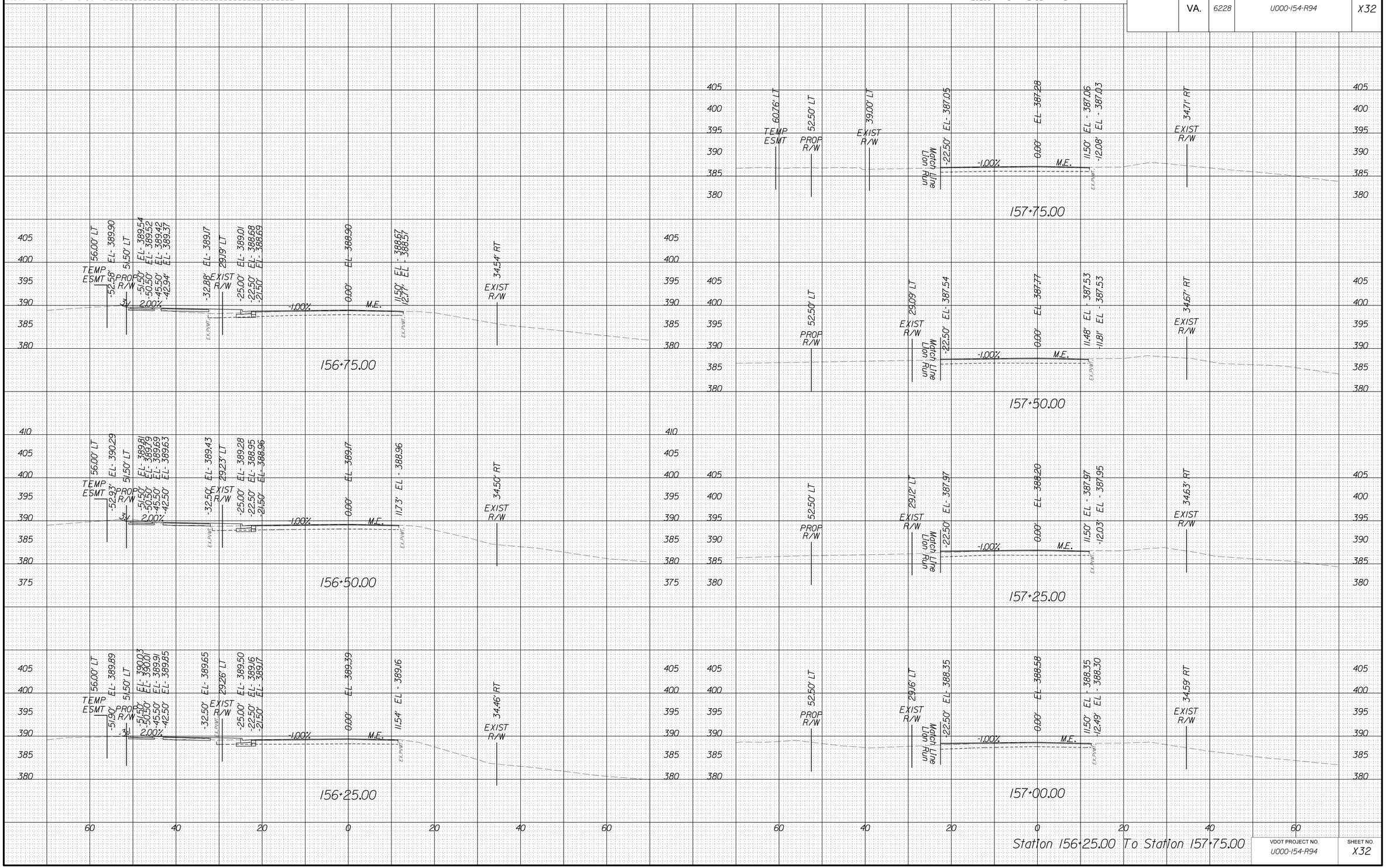
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X32



Station 156+25.00 To Station 157+75.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X32

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:05:04 PM

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kavgalis 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)

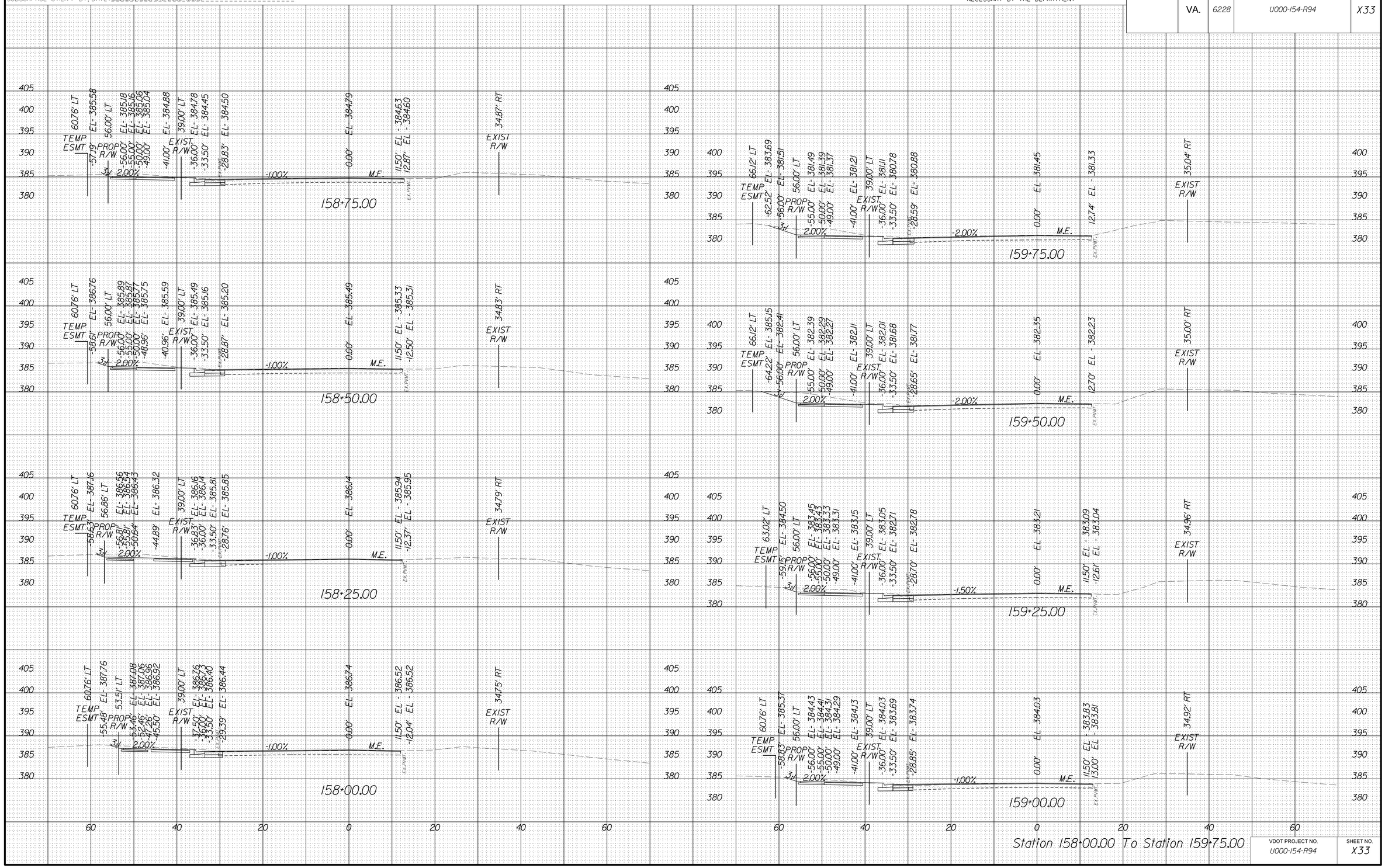
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X33



VDOT PROJECT NO. U000-154-R94 | SHEET NO. X33

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:05:20 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)

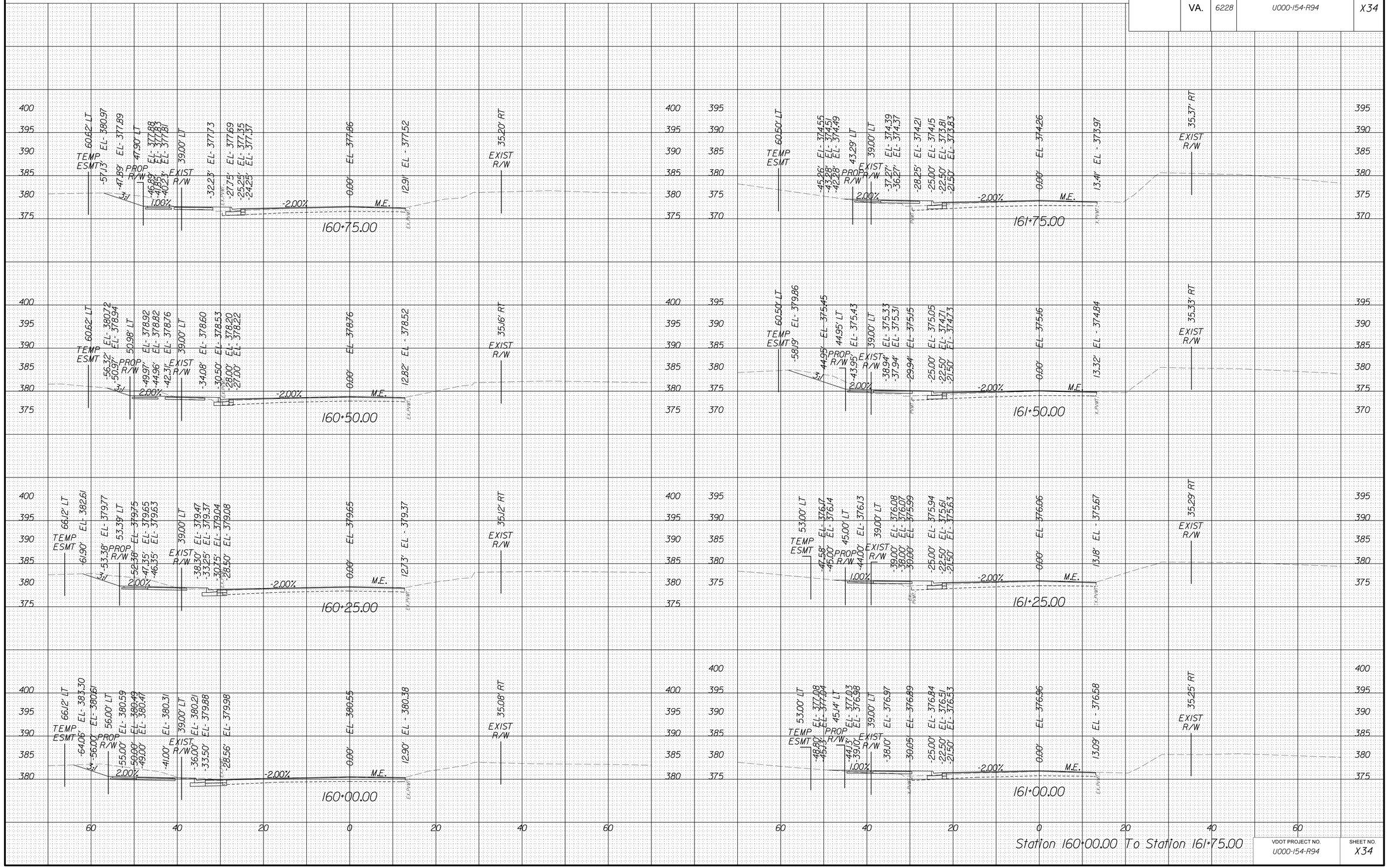
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X34



PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X34

3/24/2023
3:05:36 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)

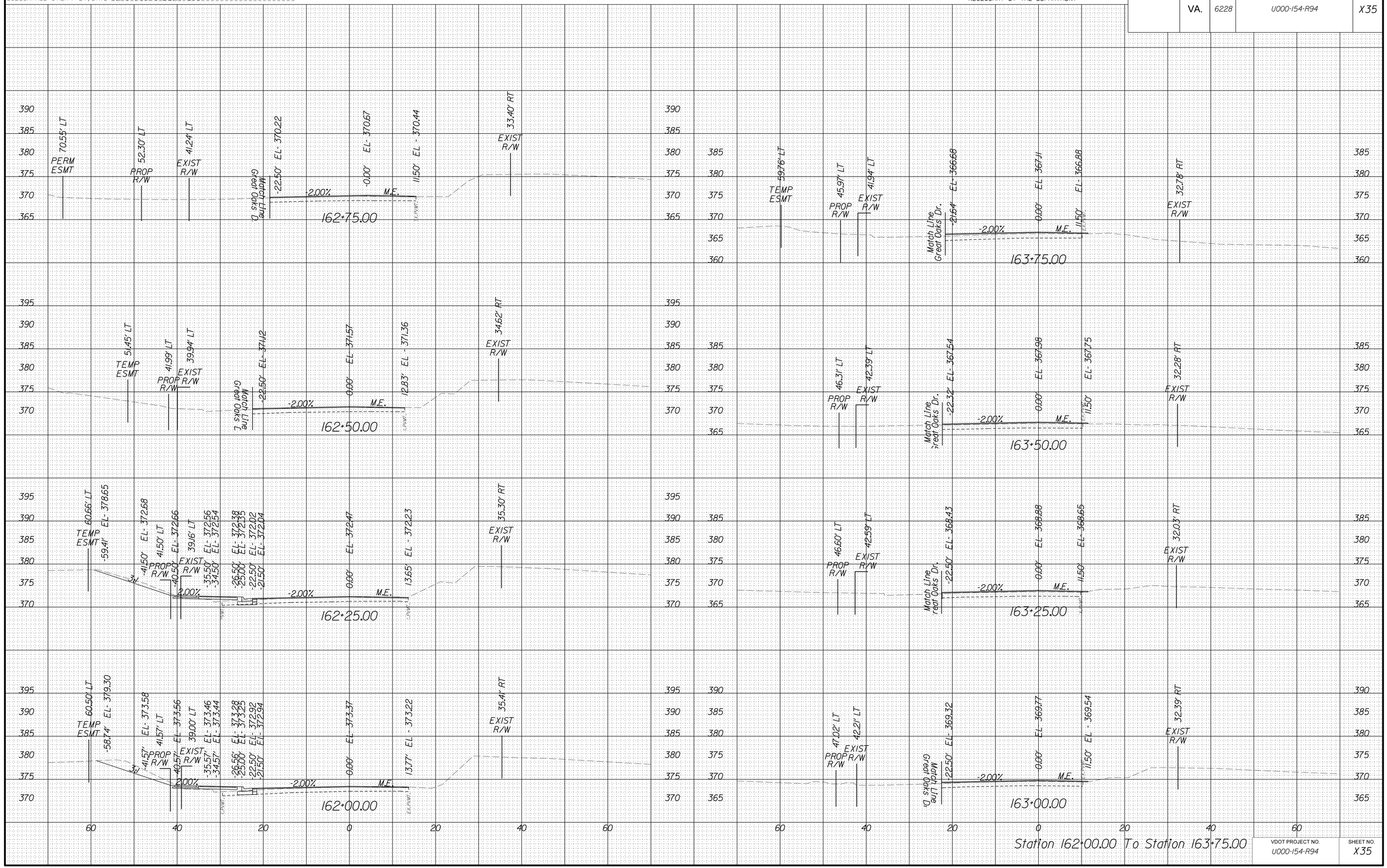
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X35



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X35

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:05:51 PM

PROJECT MANAGER Wendy Block Sanford, (703) 385-7889
SURVEYED BY, DATE Nick Kavgalis 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)

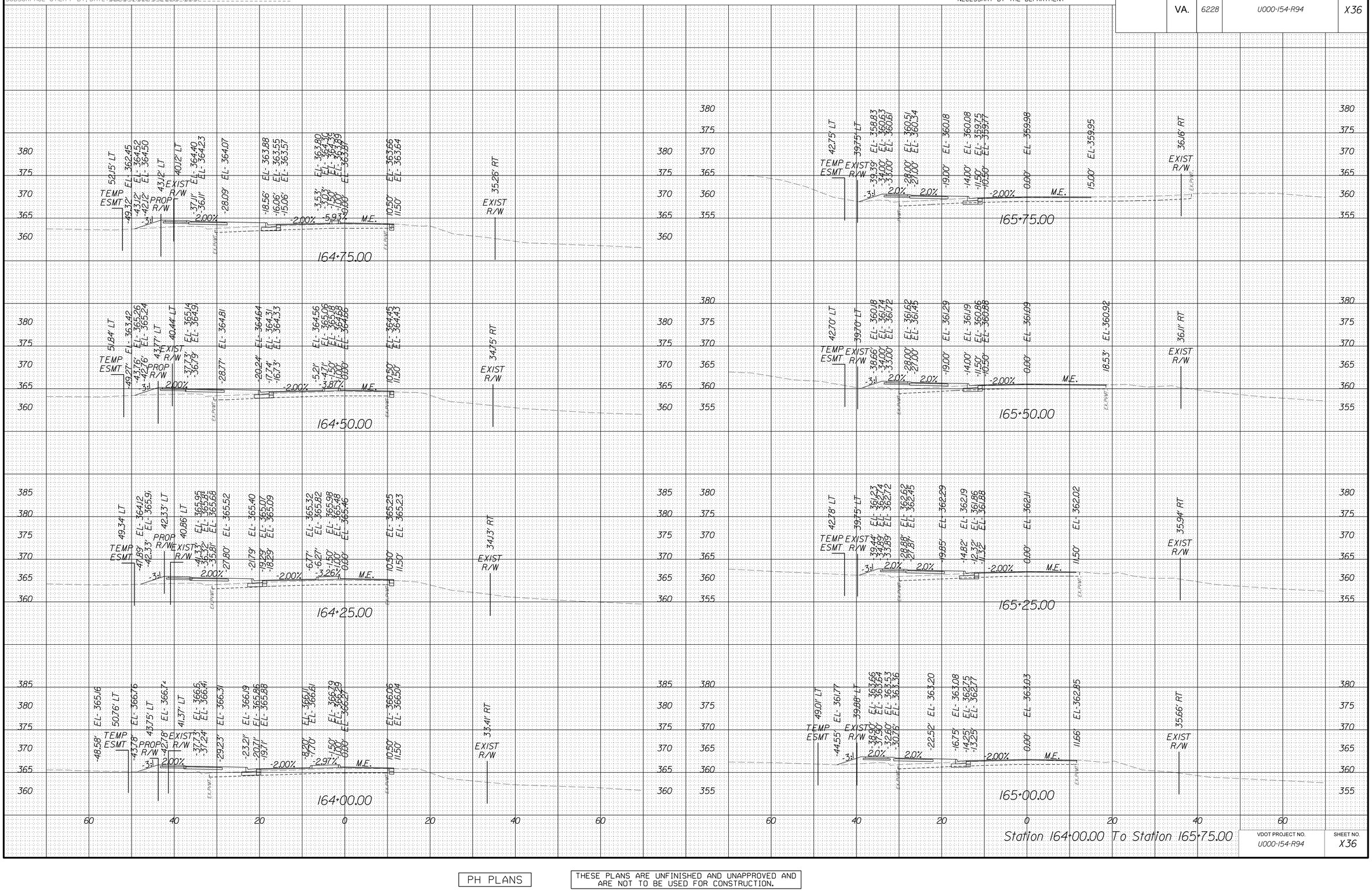
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X36



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X36

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:06:07 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)

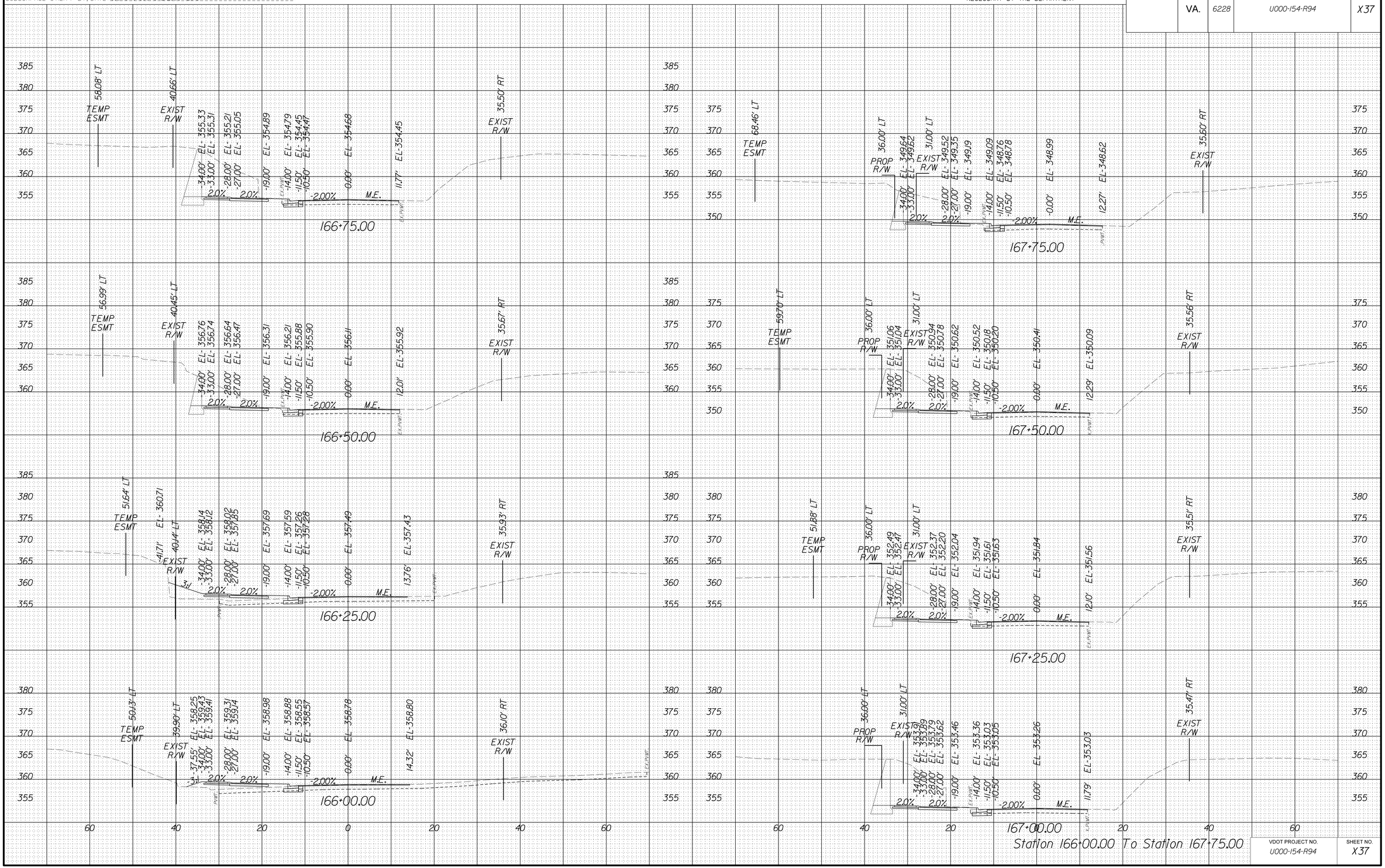
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X37



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X37

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:06:23 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)

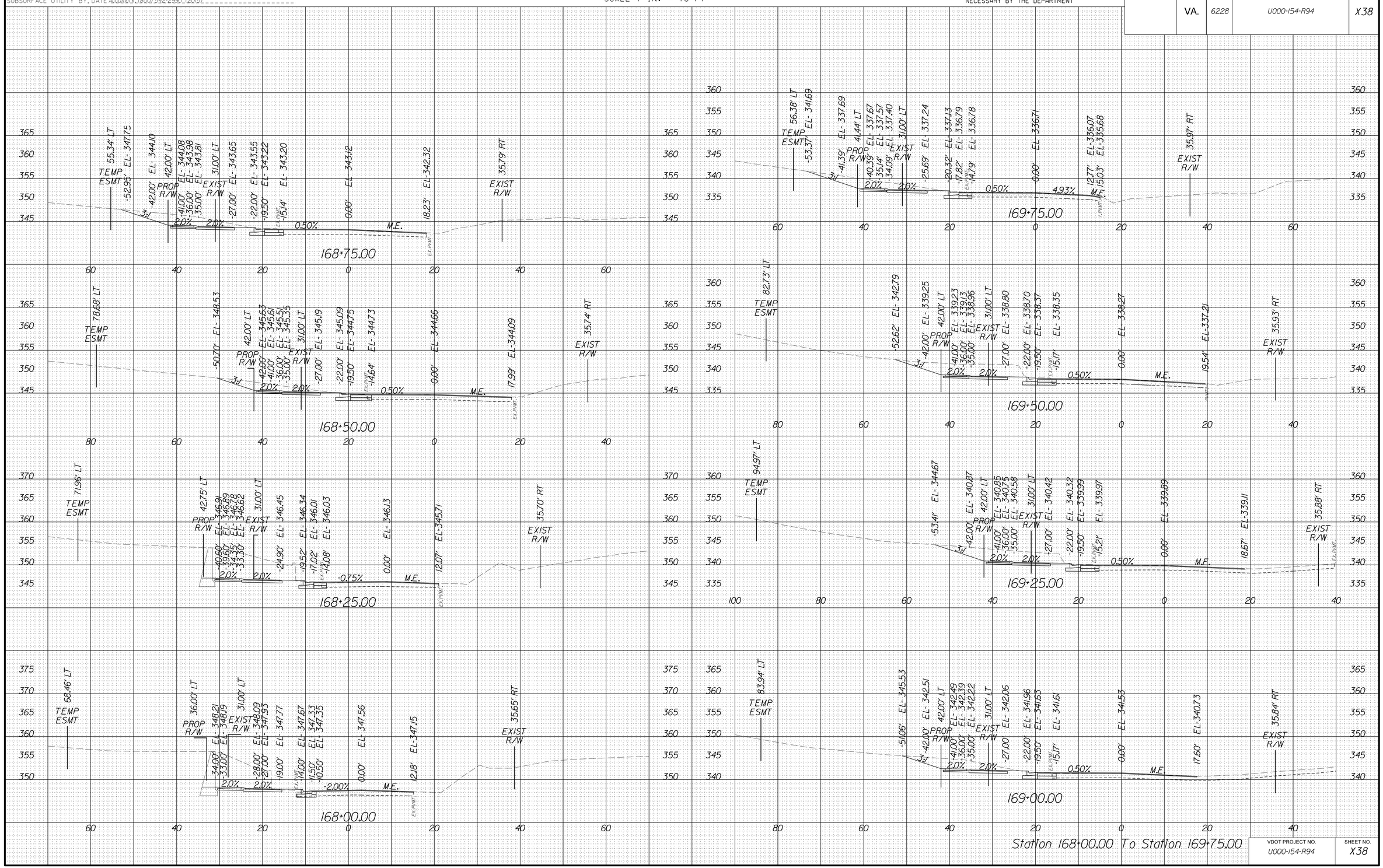
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X38



Station 168+00.00 To Station 169+75.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X38

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:06:38 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)

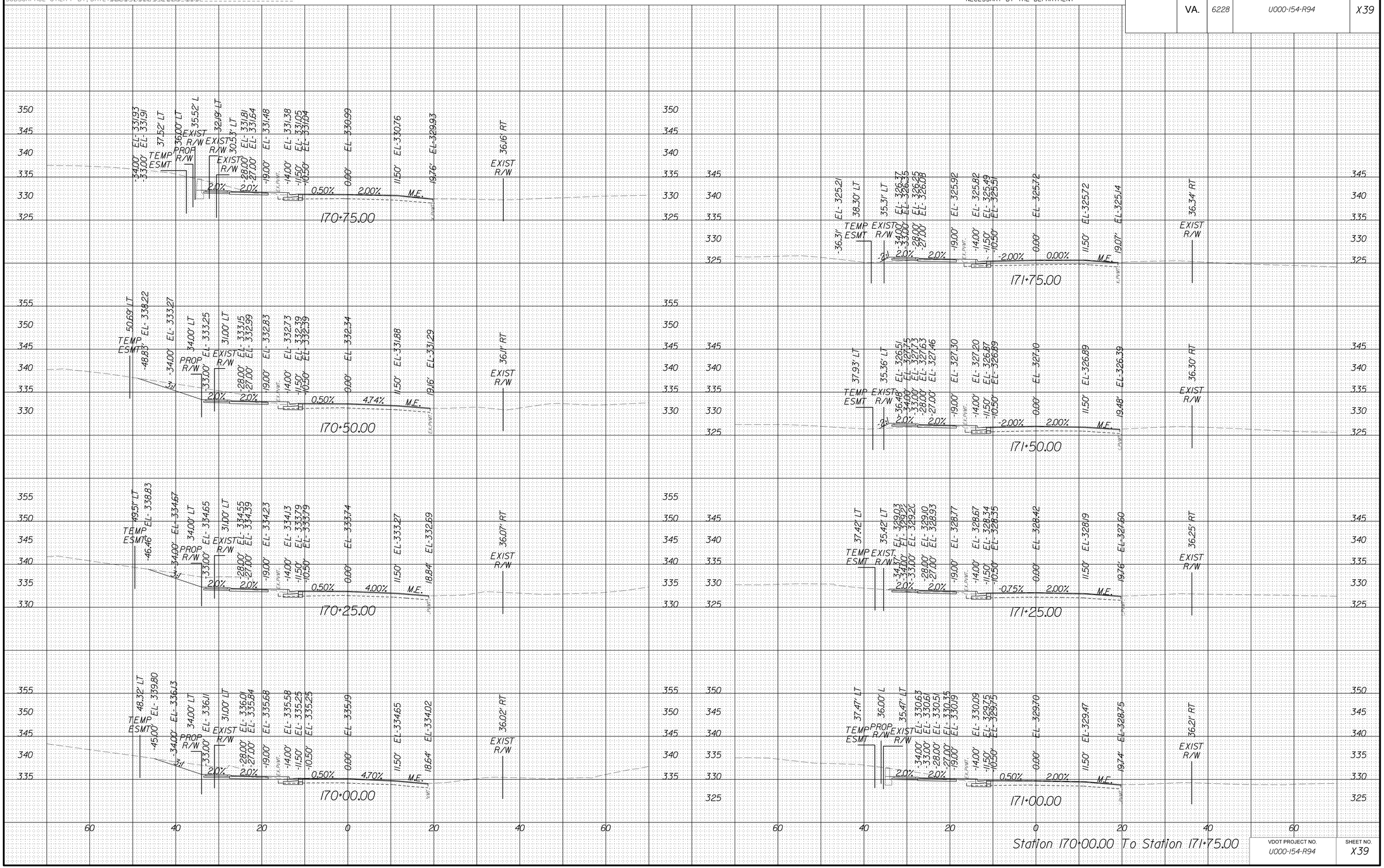
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X39



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X39

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:06:54 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)

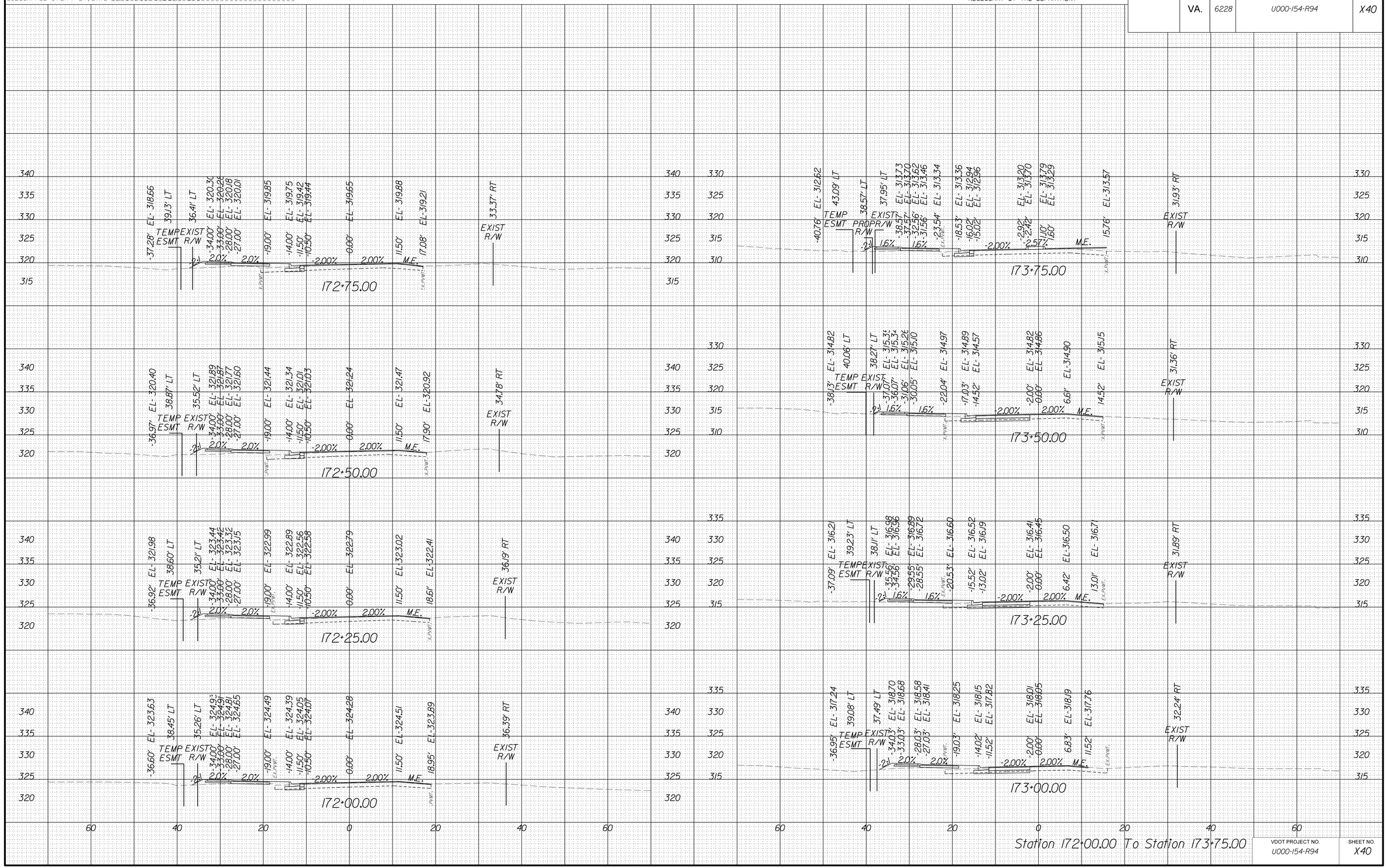
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X40



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X40

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:07:09 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)

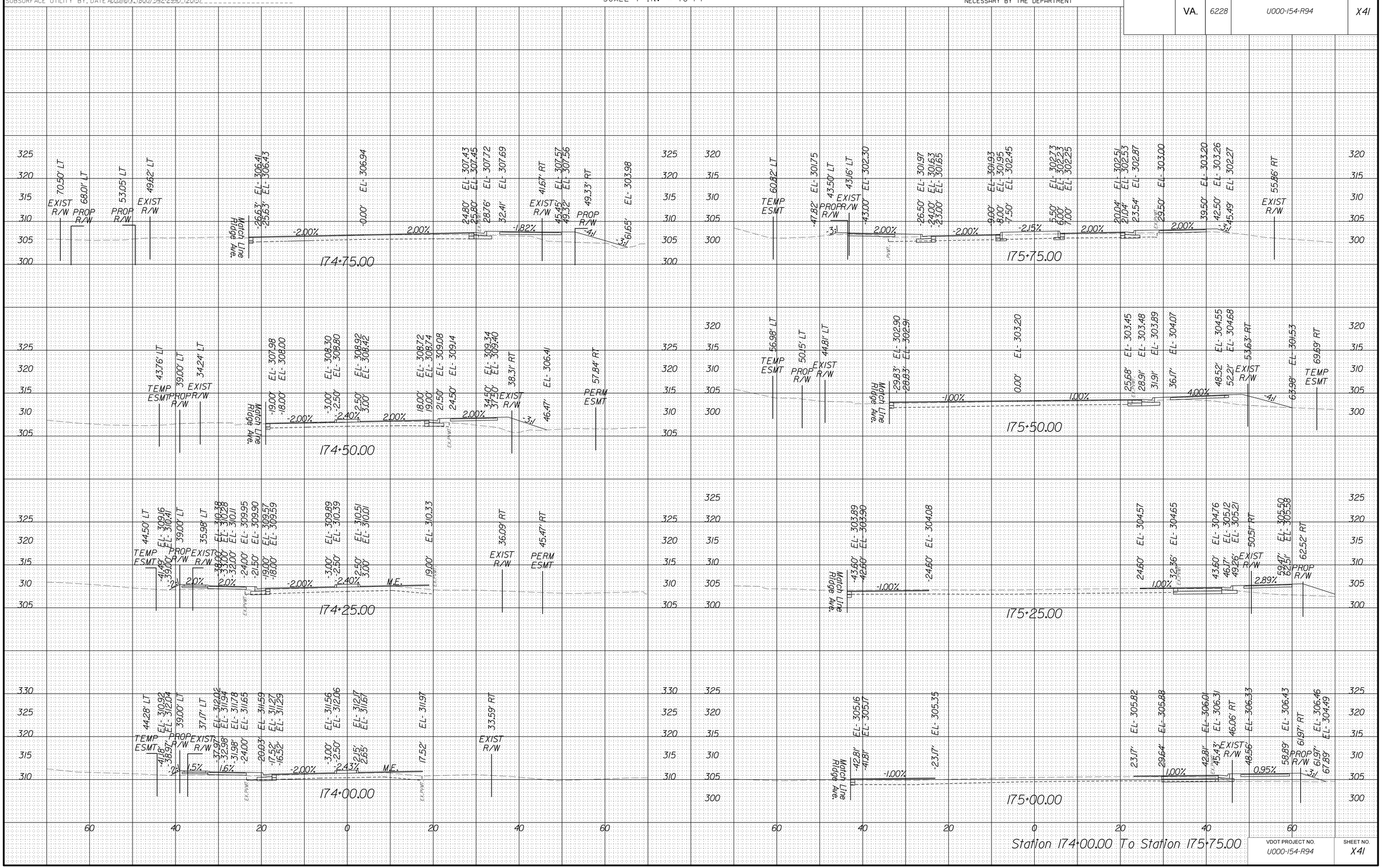
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X41



Station 174+00.00 To Station 175+75.00

VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X41

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:07:24 PM

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

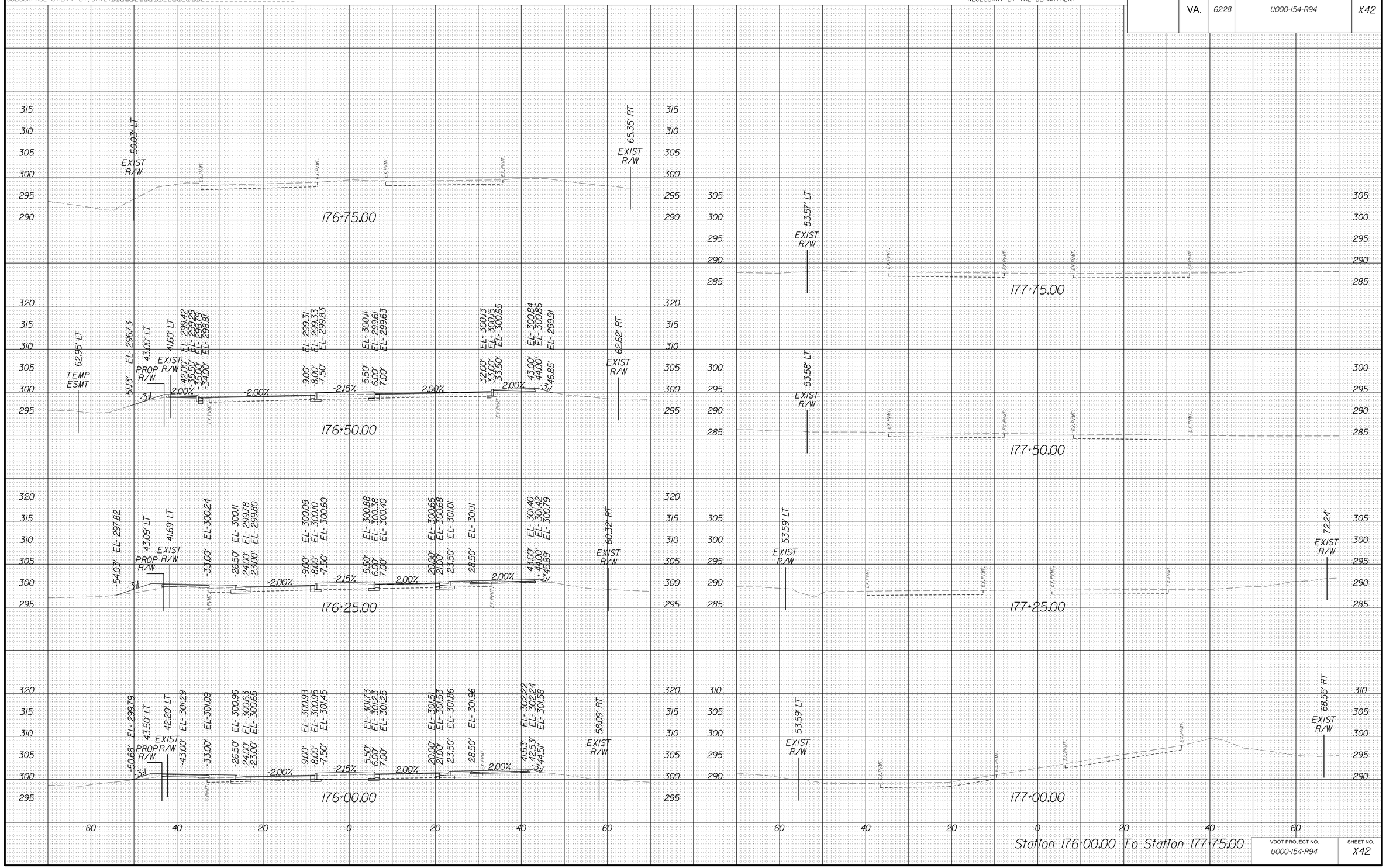
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X42



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X42

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.

3/24/2023
3:07:40 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)

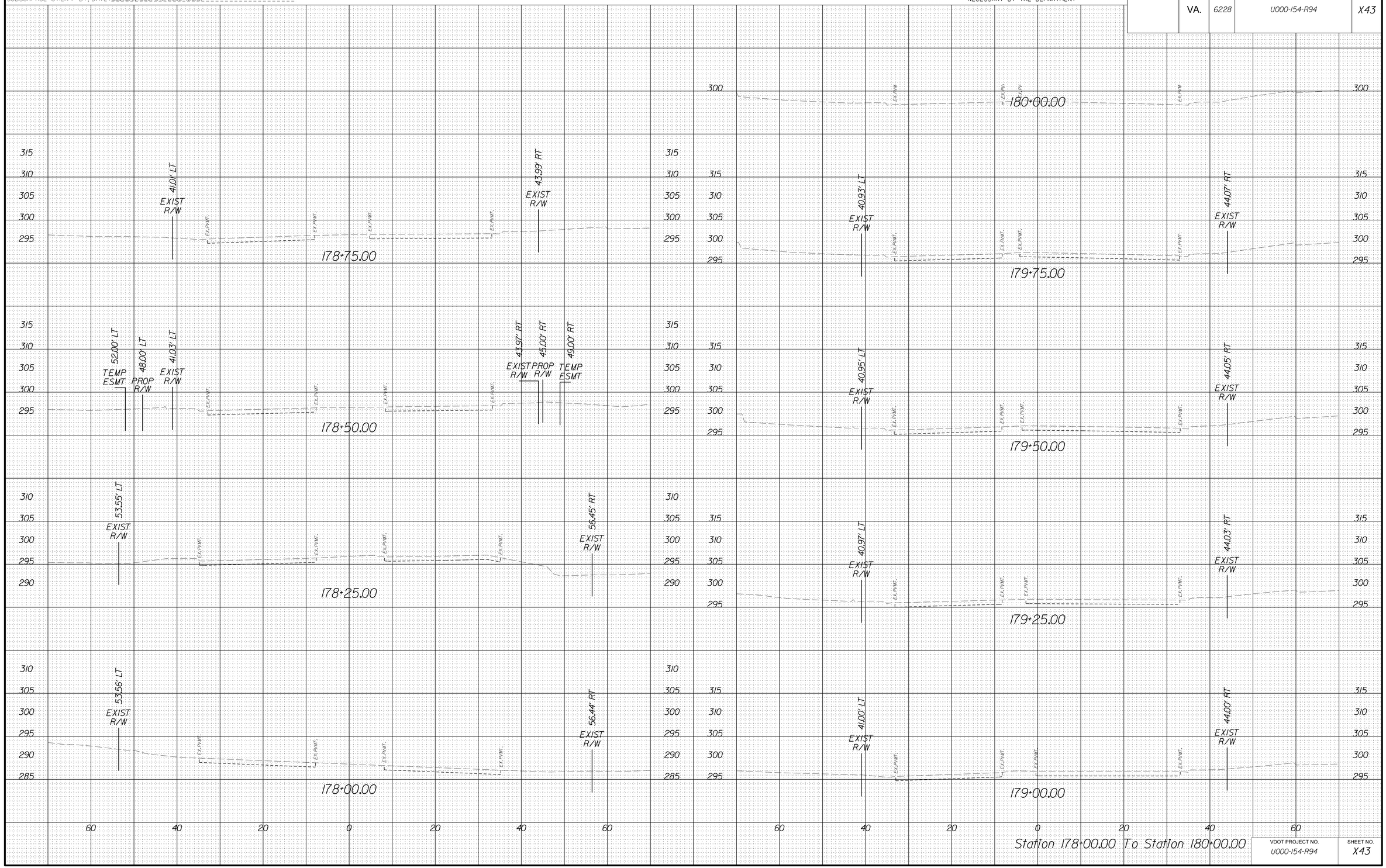
CROSS SECTIONS

SCALE 1 IN. = 10 FT

SCALE 0 10' 20'

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	U000-154-R94	X43



VDOT PROJECT NO.	SHEET NO.
U000-154-R94	X43

PH PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR CONSTRUCTION.