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THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (GEOPAK).
Openroads / GEOPAK Computer Identification No. 112815



FHWA 534 DATA 43101
UPC 112815

STATE	ROUTE	PROJECT		SHEET NO.
		PROJECT		
VA.	621	6234-076-266, C-501, RW-201		1

VDOT FUNCTIONAL CLASSIFICATION LEGEND
GS-1 (Urban Freeway System)
GS-6 (Urban Minor Arterial System)

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

PRINCE WILLIAM PARKWAY INTERCHANGE AT REALIGNED BALLS FORD ROAD

VDOT Proj.No.6234-076-266

FROM: 0.6 MI.S.OF EXISTING BALLS FORD ROAD (RTE.621)
TO: EXISTING BALLS FORD ROAD (RTE.621)

SUPPLEMENTAL PUBLIC HEARING PLAN
AUGUST 2021

Notice of Design Change (NDC) #02
JUNE 2021

RFC SUBMISSION FINAL PLAN
MAY 2021

PROJECT LAND DISTURBANCE
Project Area: 129.57 Acres
Disturbed Area: 112.12 Acres
Impervious Area: 28.15 Acres

BOND AMOUNT \$57,980,000

DESCRIPTION REFERENCE
Begin Proj. 0.152 mi. W. of the intersection of Devlin Rd. and Balls Ford Rd. (Rte. 621) along Rte. 621's Constr. BL at Sta. 103+40.00.

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.

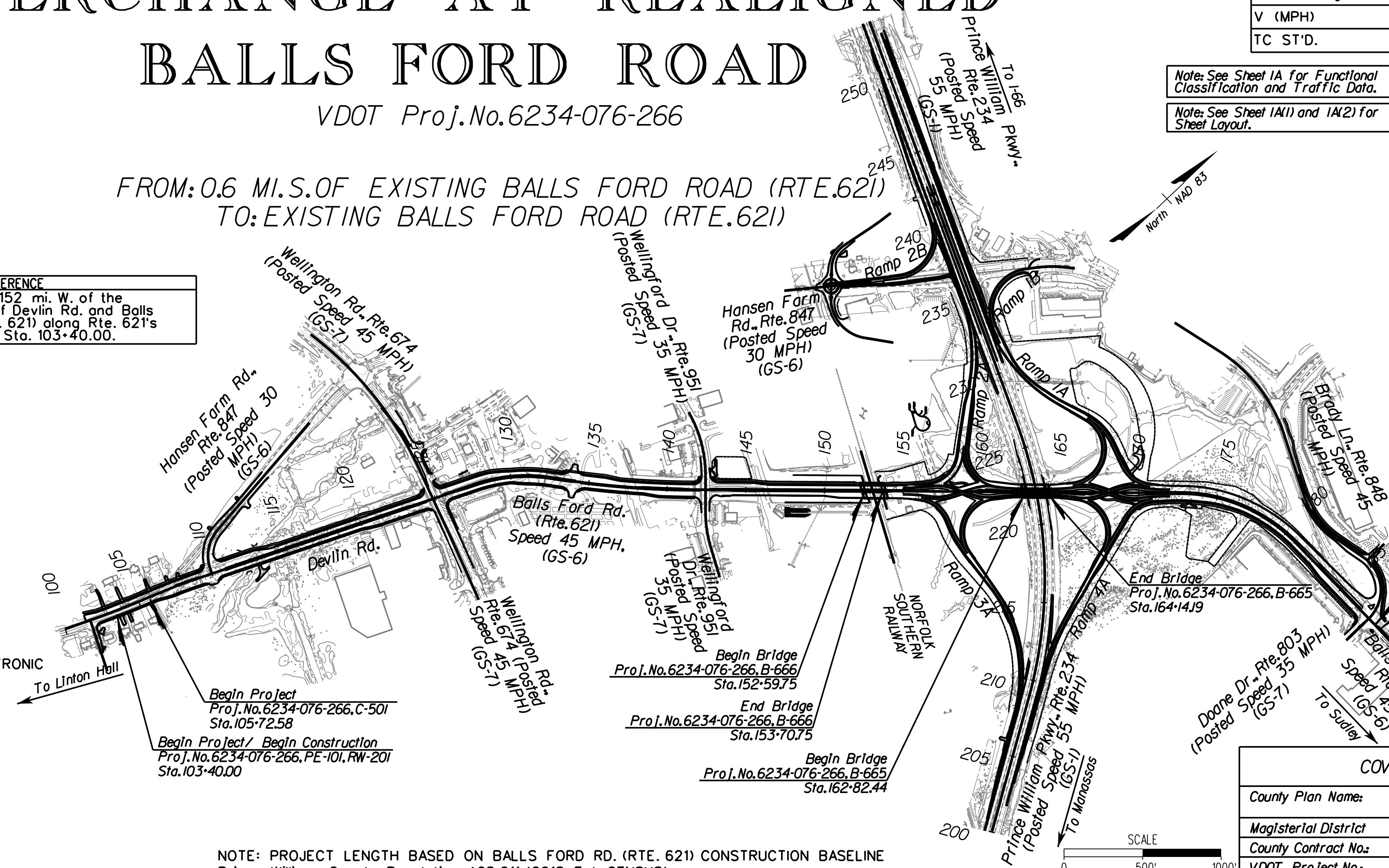
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S:
2016 ROAD AND BRIDGE SPECIFICATIONS,
2016 ROAD AND BRIDGE STANDARDS,
2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD),
2011 VIRGINIA SUPPLEMENT TO THE MUTCD,
2011 VIRGINIA WORK AREA PROTECTION MANUAL including Revision 2 (September 1, 2019).

AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC .PDF VERSION OF THE PLAN ASSEMBLY.

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

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



Note: See Sheet 1A for Functional Classification and Traffic Data.
Note: See Sheet 1A(1) and 1A(2) for Sheet Layout.

LOCALLY ADMINISTERED PROJECTS

PRINCE WILLIAM COUNTY DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION

DATE	ASSISTANT DIRECTOR OF TRANSPORTATION CAPITAL DESIGN AND CONSTRUCTION
------	--

LOCALLY ADMINISTERED PROJECTS

PRINCE WILLIAM COUNTY DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

DATE	ASSISTANT DIRECTOR OF TRANSPORTATION CAPITAL DESIGN AND CONSTRUCTION
------	--

End Project
Proj.No.6234-076-266,C-501
Sta.188+16.49

End Project
Proj.No.6234-076-266,RW-201
Sta.188+57.12

End Project/ End Construction
Proj.No.6234-076-266,PE-101
Sta.191+72.48

DESCRIPTION REFERENCE
End Proj. 0.079 mi. E. of the intersection of Doane Dr. (Rte. 803) and Balls Ford Rd. (Rte. 621) along Rte. 621's Constr. BL at Sta. 191+72.48.

COVER SHEET INFORMATION

County Plan Name:	PRINCE WILLIAM PARKWAY INTERCHANGE AT REALIGNED BALLS FORD ROAD
Magisterial District	Brentsville
County Contract No.:	
VDOT Project No.:	6234-076-266
County Project Manager	Mary Ankers
	Prince William Department of Transportation
Address and Phone	5 County Complex Court, Suite 290 Prince William, VA 22192, Phone: (703) 792-5276
Construction Contractor	The Lane Construction Corporation
	Design Build Project Manager, Richard McDonough, P.E.
Consultant Engineer	Rinker Design Associates, P.C.
	Design Build Design Manager, Mark Gunn, P.E.
Address and Phone	1100 Endeavor Court, Suite 200 Manassas, VA 20109, Phone: (703) 334-9300

NOTE: PROJECT LENGTH BASED ON BALLS FORD RD. (RTE. 621) CONSTRUCTION BASELINE
Prince William County Population 468,011 (2018 Est. CENSUS)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	PPMS NO.	LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		TYPE PROJECT	DESCRIPTION
					FEET	MILES	FEET	MILES		
6234-076-266	C-501	-	F000	-	8243.91	1.561	8001.16	1.515	Construction	From 0.107 mi. W. of Devlin Rd. to 0.012 mi. E. of Doane Dr. (Rte. 803)
	PE-101	-	PENG	-	8832.48	1.673	8589.73	1.627	Prelim. Engineering	From 0.152 mi. W. of Devlin Rd. to 0.079 mi. E. of Doane Dr. (Rte. 803)
	RW-201	-	ROWA	-	8517.12	1.613	8274.37	1.567	R/W	From 0.152 mi. W. of Devlin Rd. to 0.019 mi. E. of Doane Dr. (Rte. 803)
	B-666	-	X131-S	-	111.00	0.021	-	-	Bridge	Bridge passing over Railroad Tracks
	B-665	-	X231-S	-	131.75	0.025	-	-	Bridge	Bridge passing over Prince William Pkwy.

CONVENTIONAL SIGNS

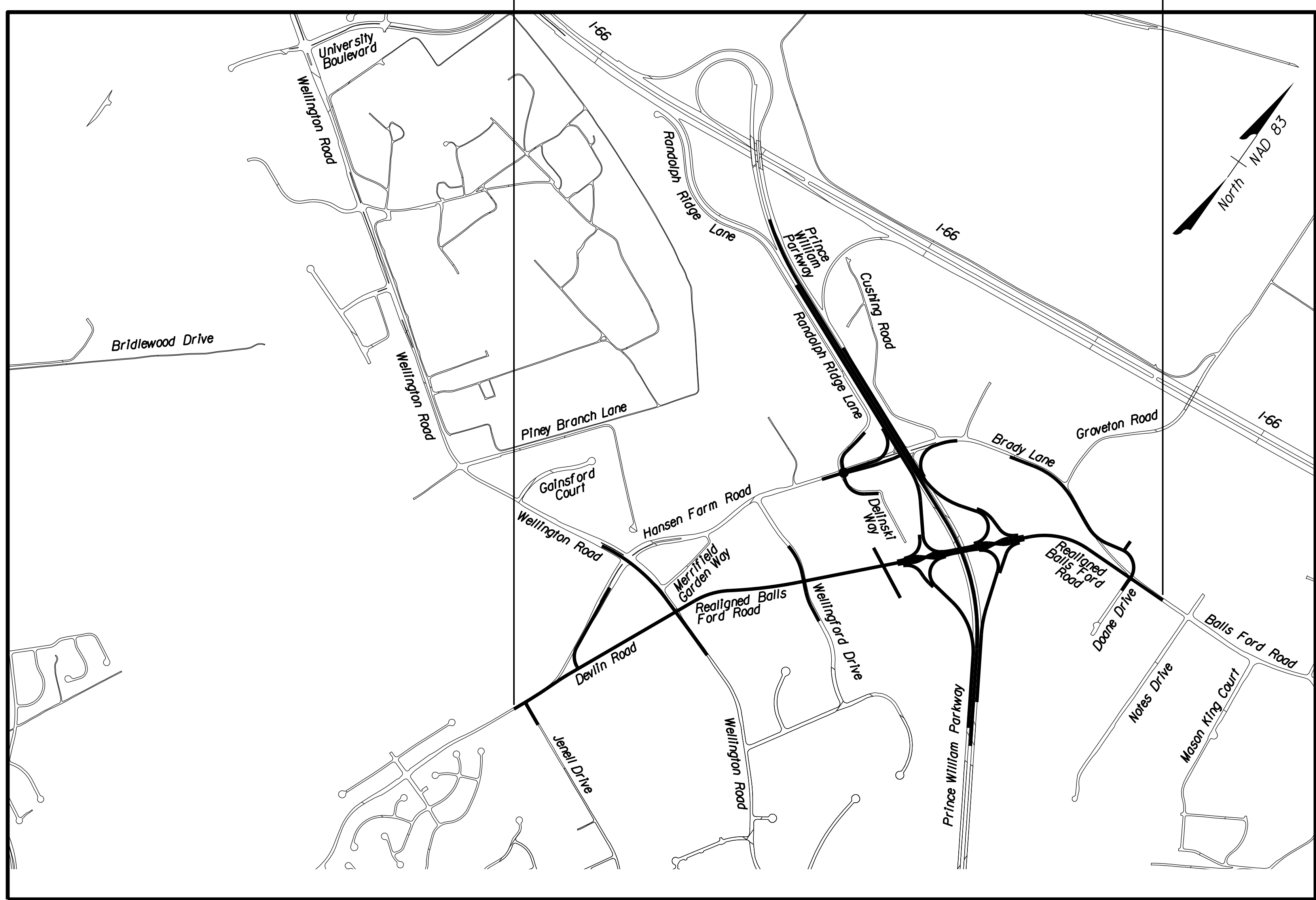
STATE LINE	LEVEE OR EMBANKMENT	
COUNTY LINE	BRIDGES	
CITY/TOWN OR VILLAGE	CULVERTS	
RIGHT OF WAY LINE	DROP INLET	
FENCE LINE	POWER POLES	
UNFENCED PROPERTY LINE	TELEPHONE OR TELEGRAPH POLES	
FENCED PROPERTY LINE	TELEPHONE OR TELEGRAPH LINES	
WATER LINE	HEDGE	
SANITARY SEWER LINE	TREES	
GAS LINE	HEAVY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

NOVA DISTRICT DESIGN UNIT
 PROJECT MANAGER: PMC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE: Rinker Design Associates, P.C. (703) 368-7373, April 2020
 DESIGN BY: Rinker Design Associates: Mark Gunn, PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE: AccuMark (703) 635-3060, May 2020
 Office Locations: Richmond, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Leesville, VA; Manassas, VA; Manassas Park, VA; Quantico, VA; Stafford, VA; Warrenton, OR; Washington, DC; York, VA
 Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning - Transportation - Right of Way Services

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

Project Location Map

Proposed Project: 6234-076-266
 (See Title Sheet for Section Info)



PRINCE WILLIAM PARKWAY INTERCHANGE - PROJECT LOCATION MAP

Prince William County, Virginia Population 468,011 (Est. 2018 Census)
 1" = 1000' Scale

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

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NON-NHS URBAN MINOR ARTERIAL STREET SYSTEM - ROLLING - GS-6 (DEVLIN RD.) PRINCE WILLIAM COUNTY STANDARD MA-1	
	Fr: Balls Ford Rd. To: Wellington Rd.
ADT (2017)	15,000
ADT (2040)	8,400
DHV	N/A
D (%) (design hour)	N/A
T (%) (design hour)	1
V (MPH)	⊕ 30 MPH (Posted 30 MPH)
TC ST'D.	TC-5.11U

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NON-NHS URBAN MINOR ARTERIAL STREET SYSTEM - ROLLING - GS-6 (CUSHING RD.) PRINCE WILLIAM COUNTY STANDARD MA-1	
	Fr: Cushing Rd. To: Balls Ford Rd.
ADT (2017)	19,000 (W. of Rte. 234) 17,000 (E. of Rte. 234)
ADT (2040)	10,000
DHV	1300
D (%) (design hour)	62
T (%) (design hour)	9
V (MPH)	⊕ 30 MPH (Posted 30 MPH)
TC ST'D.	TC-5.11U - TC-5.11ULS

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NON-NHS URBAN FREEWAY SYSTEM - ROLLING - GS-1 (234, PRINCE WILLIAM PKWY.) PRINCE WILLIAM COUNTY STANDARD PA-1	
	Fr: Wellington Rd. To: I-66
ADT (2017)	49,000 (N. of Balls Ford Rd.) 40,000 (S. of Balls Ford Rd.)
ADT (2040)	63,000 (N. of Balls Ford Rd.) 51,000 (S. of Balls Ford Rd.)
DHV	3,800
D (%) (design hour)	53 / 47
T (%) (design hour)	8
V (MPH)	⊕ 60 MPH (Posted 55 MPH)
TC ST'D.	TC-5.11R

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NON-NHS URBAN COLLECTOR STREET SYSTEM - ROLLING - GS-7 (RTE. 951, WELLINGTON DR.) PRINCE WILLIAM COUNTY STANDARD CI-1	
	Fr: Livingston Rd. To: Balls Ford Rd.
ADT (2017)	3,100
ADT (2040)	2,000
DHV	N/A
D (%) (design hour)	N/A
T (%) (design hour)	N/A
V (MPH)	⊕ 35 MPH (Posted 35 MPH)
TC ST'D.	TC-5.11U

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NON-NHS URBAN COLLECTOR STREET SYSTEM - ROLLING - GS-7 (RTE. 674, WELLINGTON RD.) PRINCE WILLIAM COUNTY STANDARD MA-1	
	Fr: Balls Ford Rd. To: Prince William Pkwy.
ADT (2017)	17,000
ADT (2040)	19,000
DHV	1,600
D (%) (design hour)	53 / 47
T (%) (design hour)	8%
V (MPH)	⊕ 45 MPH (Posted 45 MPH)
TC ST'D.	TC-5.11U

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

02 Revised sheet to include roundabout design.

6/24/2021 NOVA DISTRICT DESIGN UNIT

 Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation Engineering - Right of Way Services
 Office Locations: Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Springfield, VA; Vienna, VA; Woodbridge, VA; Yorktown, VA

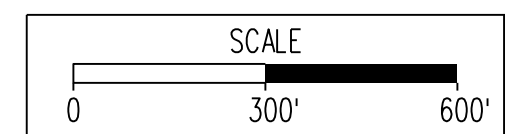
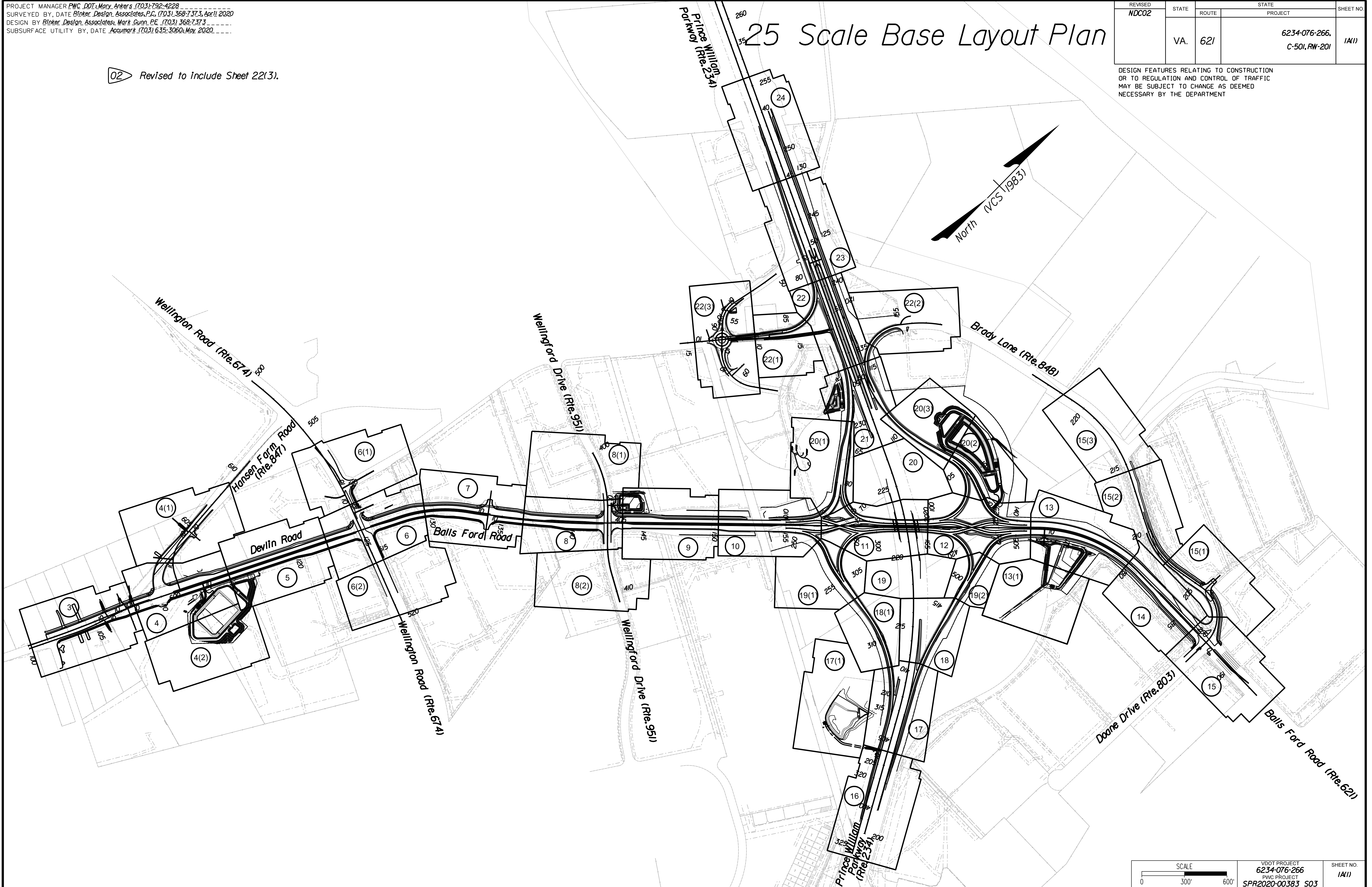
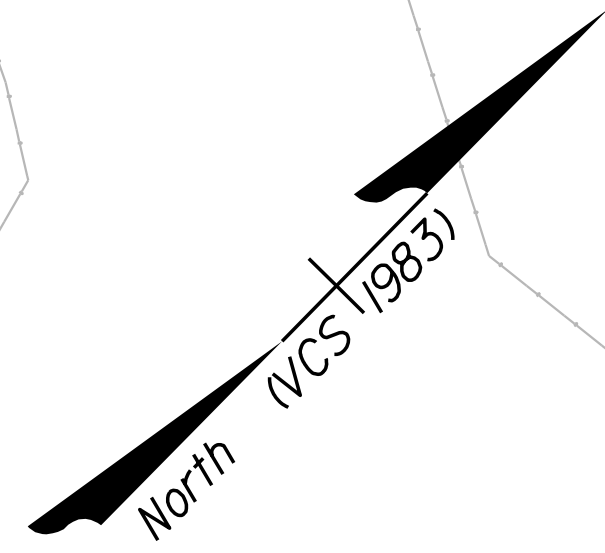
PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	1A(1)

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

25 Scale Base Layout Plan

02 Revised to include Sheet 22(3).



VDOT PROJECT
6234-076-266
PWC PROJECT
SPR2020-00383 S03

SHEET NO.
1A(1)

Office Locations
 Virginia: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 North Carolina: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Maryland: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Florida: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Pennsylvania: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Texas: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 California: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Colorado: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Arizona: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 New Mexico: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Utah: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Nevada: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Idaho: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Montana: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Wyoming: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Nebraska: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Kansas: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Oklahoma: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Missouri: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Illinois: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Indiana: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Ohio: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Michigan: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Wisconsin: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Minnesota: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Iowa: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Missouri: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Arkansas: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Louisiana: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Mississippi: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Alabama: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Georgia: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 South Carolina: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 North Carolina: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030
 Virginia: 10000 Old Dominion Blvd, Suite 100, Fairfax, VA 22030



Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation Engineering - Right of Way Services

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 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

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REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	62/	6234-076-266, C-501, RW-201	1B

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

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Sheet No. IQ(23)	Stormwater Management Facility Details - PL34-BMP-5 Detail Sheet
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Sheet No. IQ(29)	Stormwater Management Facility Profile - PL34-BMP-9 Detail Sheet
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Sheet No. IQ(32)	Stormwater Management Facility Checklist - PL34-BMP-9 Detail Sheet
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6/24/2021 NOVA DISTRICT DESIGN UNIT

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SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Index of Sheets

Table with columns: REVISED, STATE, ROUTE, PROJECT, SHEET NO. Values: NDC02, VA, 621, 6234-076-266, C-501, RW-201, 1B(1)

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

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INDEX OF SHEETS

Table with columns: SHEET NO., DESCRIPTION OF SHEETS. Lists sheets 2N(6) through 15(1) with descriptions like Storm Sewer Profiles, Underdrain Summary, Plan Sheet - Balls Ford Road, etc.

INDEX OF SHEETS

Table with columns: SHEET NO., DESCRIPTION OF SHEETS. Lists sheets 15(1)G through 25(7D) with descriptions like Grading Plan - Brady Lane, Profile Sheet - Brady Lane, etc.

Vertical text and logos: Office Locations, Design Associates, P.C., Rinker, LANE NOVA DISTRICT DESIGN UNIT

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 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Index of Sheets

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	62/	6234-076-266, C-501, RW-201	1B(2)

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INDEX PLAN SET NOTES:	
*** Denotes Sheets that are not included within this Plan Set and/or sheets that will be submitted separately for review and approval.	

Office Locations: Richmond, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Springfield, VA; Washington, DC; York, VA
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DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Revision Data Sheet

REVISED	STATE		STATE		SHEET NO.
	STATE	ROUTE	PROJECT		
	VA.	62/	6234-076-266, C-501, RW-201		ID

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

(RX) • Right of Way Revision

(XX) • Notice of Design Change and/or Field Change, as applicable.

State Project: 6234-076-266, PE-101, RW-201, C-501
Federal Aid Project: N/A
From: Balls Ford Road
To: Doane Drive
UPC Number: 112815

September 21, 2020 - AWP Plan Revision No.1

The following revisions were made by Luan Taqi to reflect changes to AWP MOT Plans. The revisions completed are as follows:

Sheet 11(0) - Revised MOT General Notes 3 and 4 to specify TTCs and to update LCAMs respectively.

Sheets 11(4) - Added TTC-6.2 Notes and Figure.
Sheet 11(1A) to 11(3A) - Added sheets for Phase 0 typicals to the MOT Plans to reflect barrier protection locations for the bridge work on Prince William Parkway.
Sheet 11(5A) to 11(8A) - Added sheets for Phase 0 to the MOT Plans to provide barrier protection for the bridge work on Prince William Parkway.

Note: Per Lanes request a Pre-Phase I effort (Phase 0) has been developed to permit construction activities outside the travelway without impacts to existing traffic on Prince William Parkway.

(R1) December 23, 2020 6234-076-266, RW-201

Sheet 1C(0): Added parcel 083 with Aerial Maintenance Easement. Revised Parcel 052 to add MDS Easement.
Sheet 1O(0): Added parcel number and owner information for Southern Railroad. Added Aerial Maintenance Easement over Railroad.
Sheet 21(0): Added MDS Easement to Parcel 052.

This revision was made at the request of Mark Gunn.

(R2) December 29, 2020 6234-076-266, RW-201

Sheet 1C(0): Revised Novac and VDOT Utility Easement on Parcels 017 and 018. Removed MDS Easement from Parcel 052 and Added MDS Easement to Parcel 057.
Sheet 4(1): Revised Novac and VDOT Utility Easement on Parcels 017 and 018.
Sheet 21(0): Removed MDS Easement from Parcel 052. Added MDS Easement to Parcel 057.
Sheet 22(0): Added MDS Easement to Parcel 057.

This revision was made at the request of Maggie Shelton.

(R3) February 02, 2021 6234-076-266, RW-201

Sheet 1C(0): Added parcel 075 with NOVEC easement. Revised property owner's names on parcels 068 and 081.
Sheets 14(0), 14(0)G, 15(2), 15(2)G, 15(3), 15(3)G - Revised property owner's name and GPIN for parcel 068.
Sheets 15(0) and 15(0)G - Added Novac easement to parcel 075. Revised property owner's name and GPIN on parcel 068.
Sheets 15(1) and 15(1)G - Revised property owner's names for parcels 068 and 081. Revised GPIN for parcel 068.

This revision was made at the request of Maggie Shelton (NOVEC easement addition) and Kevin Cloniger (property owner name revision).

June 04, 2021 6234-076-266, RW-201

Sheet 1A: Revised sheet to include roundabout design.
Sheet 1A(1): Revised to include Sheet 22(3).
Sheet 1B: Revised sheet.
Sheet 1B(1): Revised sheet.
Sheet 1B(2): Revised sheet.
Sheet 1C: Revised Parcel 037 to include additional Right of Way. Added Parcels 085 and 087 with permanent Right of Way and Temporary Construction Easement. Added Parcel 086 with Temporary Construction Easement.
Sheet 1E(2): Added demolition number 912 (Per FDC 01). Added demolition number 913.
Sheet 1G(1): Added sheet to include baselines for roundabout design.
Sheet 1G(1G): Added sheet to include data for roundabout design.
Sheet 1G(2G): Added sheet.
Sheet 1G(22): Revised sheet to include roundabout changes.
Sheet 1G(22(1)): Revised sheet to include roundabout changes.
Sheet 1G(22(3)): Added sheet to include roundabout changes.
Sheet 1G(23): Revised sheet to include changes due to crossover.
Sheet 1P: Revised soil map to include roundabout plan view.
Sheet 1Q: Revised land disturbance area.
Sheet 1Q(3): Revised SWPPP Drainage Area 10.
Sheet 1Q(37): Revised profiles to show new WSEL.
Sheet 1Q(38): Revised riser detail to 72" ID.
Sheet 1Q(39): Revised fact sheet.
Sheet 1R(1): Revised sheet to update land disturbance area due to roundabout design.
Sheet 1R(7): Revised sheet to include roundabout changes.
Sheet 1S(12(1)): Revised sheet to include roundabout ESC measure.
Sheet 1S(13): Revised to add 1P.
Sheet 1T(12): Revised ditch lining and grading around 20(3)-2. Added storm pipe 20(3)-1 to 20(3)-2. Removed 20(3)-3.
Sheet 1T(12(1)): Revised to include roundabout ESC measures.
Sheet 1T(13): Revised ditch lining. Added ditch and Culvert 31(3)-16.
Sheet 2A(4): Revised pavement on Ramp 1A typicals.
Sheet 2A(24): Added geotechnical recommendations for roundabout.
Sheet 2A(25): Added geotechnical recommendations for roundabout.
Sheet 2A(26): Added geotechnical recommendations for roundabout.
Sheet 2A(27): Added sheet for roundabout typical sections.
Sheet 2A(28): Added sheet for roundabout typical sections.
Sheet 2B(10): Added sheet for roundabout curb returns.
Sheet 2L(3): Revised 188 to 187 size.
Sheet 2L(4): Revised 189 to 188 size.
Sheet 2L(6): Revised descriptions. EX13 and 20(3)-3 removed.
Sheet 2L(7): Revised to include roundabout drainage descriptions.

Sheet 2M: Revised ditch typicals. Added roundabout ditches.
Sheet 2M(4): Added sheet to include roundabout ditch profiles.
Sheet 2N(5): Revised 22(1)-1 to 22-3.
Sheet 2N(6): Revised 22-5 to 22-1.
Sheet 2N(7): Revised 21-6 to 20(3)-1.
Sheet 2N(20): Revised Culvert 22-6.
Sheet 2N(21): Added sheet to include roundabout storm sewer profiles.
Sheet 2P(1): Added roundabout underdrain.
Sheet 2S: Revised to include roundabout data.
Sheet 20(3): Added storm pipe 20(3)-1 to 20(3)-2. Removed 20(3)-3. Realigned ditches around 20(3)-2.
Sheet 20(3)G: Added storm pipe 20(3)-1 to 20(3)-2. Removed 20(3)-3. Realigned ditches around 20(3)-2. Revised grading around 20(3)-2.
Sheet 21: Moved 20(3)-2. Added note to contractor. Removed 299' of fence from Parcel 052. (Per FDC 01)
Sheet 21G: Moved 20(3)-2. Added note to contractor. Revised grading around 20(3)-2.
Sheet 22: Revised cut/fill limits and ditch/storm sewer alignment.
Sheet 22G: Revised grading and ditch/storm sewer alignment.
Sheet 22A: Revised Ditch 44.
Sheet 22(1): Revised cut/fill limits and ditch alignment. Added emergency access entrance. Added Right of Way to Parcel 057.
Sheet 22(1)G: Revised grading and ditch alignment. Added emergency access entrance.
Sheet 22(3): Added sheet.
Sheet 22(3)G: Added sheet.
Sheet 22(3A): Added sheet.
Sheet 22(3B): Added sheet.
Sheet 22(3C): Added sheet.
Sheet 22(3D): Added sheet.
Sheet 23: Added crossover. Revised ditch. Added ditch and Culvert 31(3)-16.
Sheet 23G: Added crossover. Revised ditch. Added ditch and Culvert 31(3)-16. Revised grading.
Sheet 23A: Revised Ditch 44.
Sheet 25(4B): Revised Ditch 54 and 55.
Sheet 25(7C): Revised Ditch 62.
Sheet 25(8): Revised Ditch 45, 64, 65, and 43.
Sheet 25(13D): Added sheet.
Sheet 26(1J): Added sheet.
Sheet 26(2H): Added sheet.
Sheet 26(4(3)): Added sign 4304. Added sign 4305.
Sheet 26(12): Added sign 1221. Added sign 1222.
Sheet 26(12(1)): Revised sheet to include roundabout signage.
Sheet 26(13): Added sign 1308. Added sign 1309.
Sheet 27(12(1)): Revised sheet to include roundabout pavement marking.
Sheet x: Revised sheet.
Sheet x178 thru x189: Revised mill/overlay and full depth pavement.
Sheet x230 thru x234: Revised ditch grading.
Sheets 2A(9), 2A(10), 2A(14), 11, 19, 20, x356, x357, x360, x361, x362: Revised shoulder section in pavement in front of BPPS per geotechnical report. (Per FDC 01)
Sheets x500, x501, x502, x503, x504, x510, x511, x520, x530, x531, x532: Added sheet.

This revision was made at the request of Mark Gunn.

NOVA DISTRICT DESIGN UNIT
GDA Rinker
Civil Engineering, Surveying, Land Planning, Transportation, Environmental Services, Right of Way Services

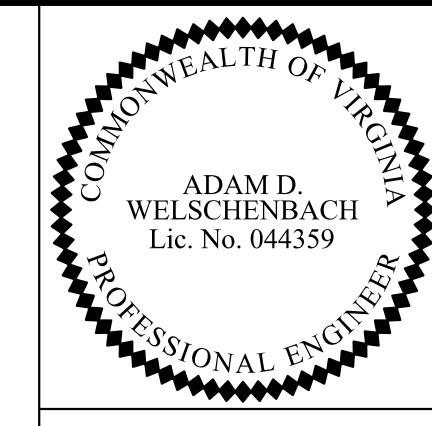


PROJECT MANAGER PWC_DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

Demolition Summary

02 Added demolition number 912 and 913.

DEMOLITION OF BUILDING / CLEARING OF PARCEL / UNDERGROUND STORAGE TANK REMOVAL SUMMARY



REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	1E(2)

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

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

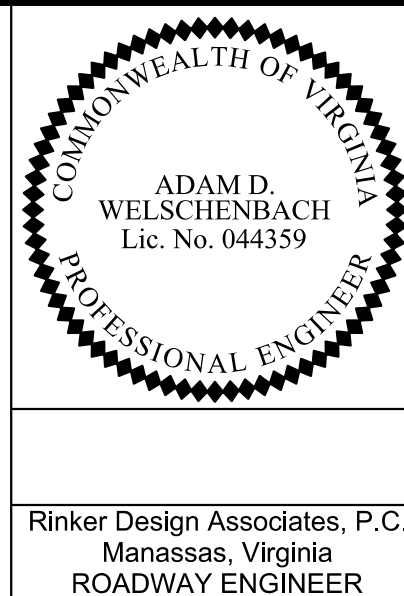
PROJECT NUMBER 6234-076-266, PE-101

SHEET NUMBER	PARCEL NUMBER	DEMOLITION NUMBER	LANDOWNER	WITHIN EXIST. R/W?	STATION Rt. OR Lt.	DESCRIPTION	INCLUDED IN CONTRACT						NOT IN CONTRACT ITEMS TO BE REMOVED BY OTHERS	
							DEMOLITION OF LIGHTS	DEMOLITION OF BUILDINGS *	CLEARING OF PARCEL	DEMOLITION OF SIGN	MISC. ITEMS	UNDERGROUND STORAGE TANK REMOVAL		
							LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	EACH	TYPE A EACH		TYPE B EACH
9	058	962	USF PROPCO I, LLC	No	149+47, 95' LT (Balls Ford Rd.)	Light	-	-	-	-	1	-	-	-
10	058	963	USF PROPCO I, LLC	No	150+49, 94' LT (Balls Ford Rd.)	Light	-	-	-	-	1	-	-	-
7	083	964	Wellington Rd. 40, LLC	Yes	134+93, 118' LT (Balls Ford Rd.)	Stockpile	-	-	-	-	1	-	-	-
21	052	912	Wilson Capital Properties, LLC	Yes	59+45, 85' RT (Ramp 2A)	299' Safety Fence	-	-	-	-	1	-	-	-
22(3)	087	913	Costa Investments, LLC	Yes	57+28, 53' LT (Delinski Wy.)	165' Fence	-	-	-	-	1	-	-	-

Office Locations
 Rinker Design Associates, P.C.
 Nova District Design Unit
 6/24/2021

PROJECT MANAGER PWC_DOT, Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

Proposed Baselines

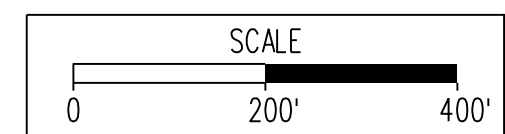
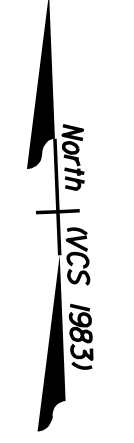
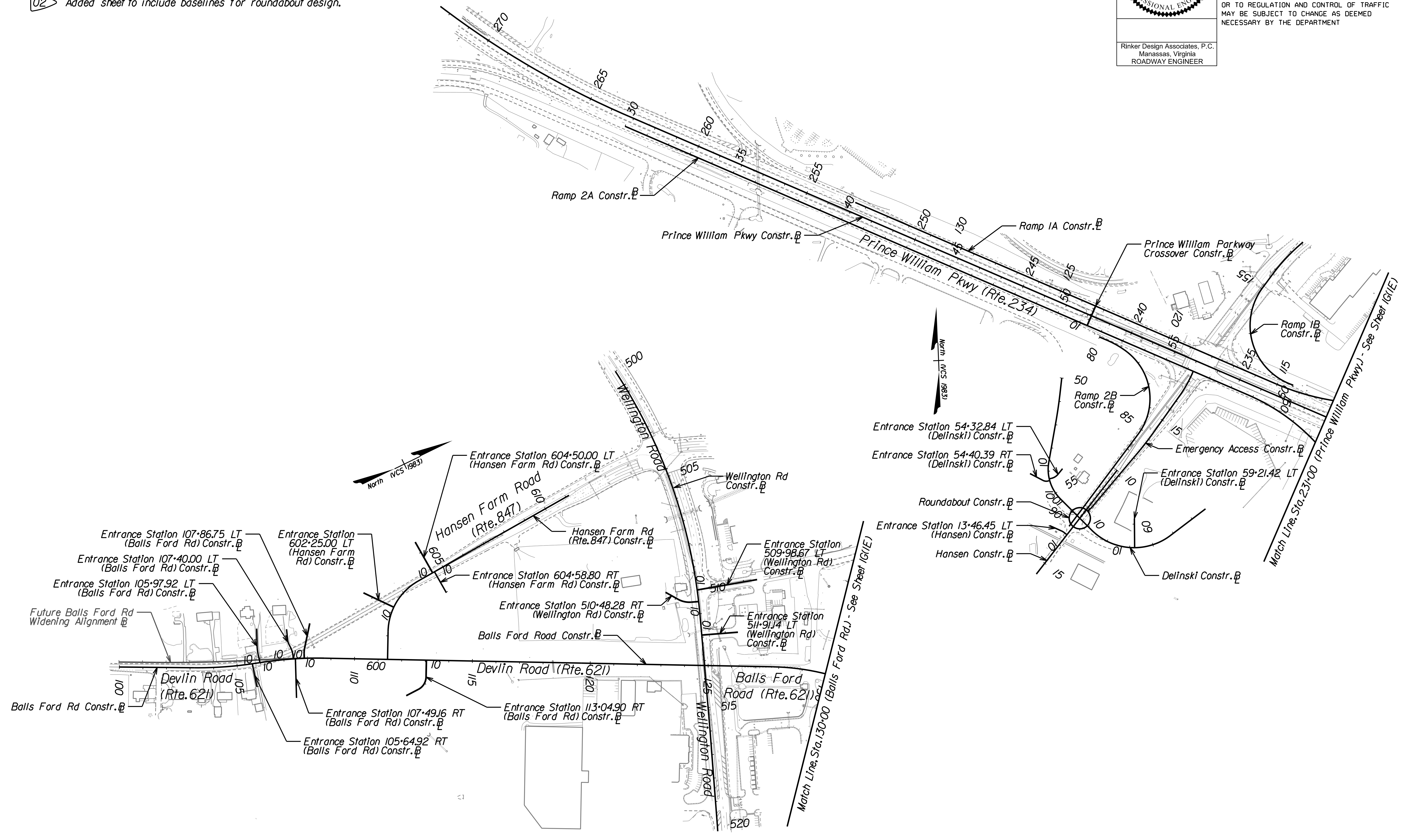


REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	IG(1F)

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 Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

02 Added sheet to include baselines for roundabout design.



VDOT PROJECT
6234-076-266
PNC PROJECT
SPR2020-00383 S03

SHEET NO.
IG(1F)

Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Right of Way Services

LANE

NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

Roundabout Horizontal Alignment Data

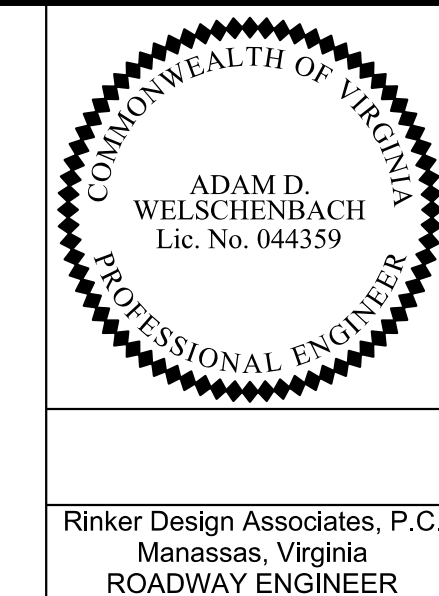


Table with columns: REVISED, STATE, ROUTE, PROJECT, SHEET NO. Values: NDC02, VA, 62I, 6234-076-266, 1G(1G)

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

EMERGENCY ACCESS

From Sta.10+00.00 to Sta.17+46.09
Chain ENTR12-03RT contains: 166 CUR C164 CUR C165 CUR C166 I67
Beginning chain ENTR12-03RT description
Point 166 N 6,972,227.57 E 11,750,770.35 Sta 10+00.00
Course from 166 to PC C164 N 48°15'05.65" E Dist 13.17
Curve C164 P.I. Station 10+20.28 N 6,972,241.07 E 11,750,785.48
Delta 8°07'52.21" (LT)
Degree 57°17'44.81"
Tangent 7.11
Length 14.19
Radius 100.00
External 0.25
Long Chord 14.18
Mid.Ord. 0.25
P.C. Station 10+13.17 N 6,972,236.33 E 11,750,780.17
P.T. Station 10+27.36 N 6,972,246.50 E 11,750,790.06
C.C. N 48°15'05.66" E 11,750,713.59
Back N 40°07'13.44" E
Ahead N 44°11'09.55" E
Chord Bear N 44°11'09.55" E
Course from PT C164 to PC C165 N 40°07'13.44" E Dist 290.37

Curve C165 P.I. Station 13+79.27 N 6,972,515.60 E 11,751,016.82
Delta 4°41'53.22" (LT)
Degree 3°49'10.99"
Tangent 61.53
Length 123.00
Radius 1,500.00
External 1.26
Long Chord 122.96
Mid.Ord. 1.26
P.C. Station 13+17.74 N 6,972,468.55 E 11,750,977.17
P.T. Station 14+46.23 N 6,972,563.75 E 11,751,052.49
C.C. N 40°07'13.44" E 11,749,830.13
Back N 40°07'13.44" E
Ahead N 35°25'20.22" E
Chord Bear N 37°46'16.83" E
Course from PT C165 to PC C166 N 35°25'20.22" E Dist 188.89

Curve C166 P.I. Station 16+82.56 N 6,972,762.81 E 11,751,192.65
Delta 12°05'15.71" (LT)
Degree 11°27'32.96"
Tangent 52.94
Length 105.49
Radius 500.00
External 2.79
Long Chord 105.29
Mid.Ord. 2.78
P.C. Station 16+29.62 N 6,972,719.67 E 11,751,161.97
P.T. Station 17+35.11 N 6,972,811.42 E 11,751,213.62
C.C. N 35°25'20.22" E 11,750,754.52
Back N 35°25'20.22" E
Ahead N 29°22'42.34" E
Chord Bear N 29°22'42.34" E
Course from PT C166 to 167 N 23°20'04.46" E Dist 10.98
Point 167 N 6,972,821.51 E 11,751,217.97 Sta 17+46.09
Ending chain ENTR12-03RT description

PRINCE WILLIAM PARKWAY CROSSOVER

From Sta.10+00.00 to Sta.10+90.00
CROSSOVER contains: 180 I81
Beginning chain CROSSOVER description
Point 180 N 6,973,015.51 E 11,750,768.25 Sta 10+00.00
Course from 180 to 181 N 23°20'04.46" E Dist 90.00
Point 181 N 6,973,098.15 E 11,750,803.90 Sta 10+90.00
Ending chain CROSSOVER description

Table with columns: VDOT PROJECT, SHEET NO. Values: 6234-076-266, 1G(1G)

DELINSKI

From Sta.50+00.00 to Sta.62+71.74
Chain DELINSKY_WAY contains: 152 CUR C150 CUR C153 CUR C154 I54

Beginning chain DELINSKY_WAY description
Point 152 N 6,972,792.87 E 11,750,660.34 Sta 50+00.00
Course from 152 to PC C150 S 6°17'03.21" W Dist 57.26
Curve C150 P.I. Station 51+22.24 N 6,972,671.37 E 11,750,646.96
Delta 3°43'16.79" (RT)
Degree 2°51'53.24"
Tangent 64.97
Length 129.90
Radius 2,000.00
External 1.06
Long Chord 129.88
Mid.Ord. 1.05
P.C. Station 50+57.26 N 6,972,735.95 E 11,750,654.07
P.T. Station 51+87.16 N 6,972,607.38 E 11,750,635.67
C.C. N 6°17'03.21" W 11,748,666.09
Back S 10°00'20.00" W
Ahead S 8°08'41.61" W
Chord Bear S 8°08'41.61" W
Course from PT C150 to PC C153 S 10°00'20.00" W Dist 174.79

Curve C153 P.I. Station 54+53.58 N 6,972,345.02 E 11,750,589.38
Delta 55°00'06.93" (LT)
Degree 32°33'15.91"
Tangent 91.62
Length 168.95
Radius 1,760.00
External 22.42
Long Chord 162.54
Mid.Ord. 19.89
P.C. Station 53+61.96 N 6,972,435.25 E 11,750,605.30
P.T. Station 55+30.91 N 6,972,280.22 E 11,750,654.16
C.C. N 10°00'20.00" W 6,972,404.67 E 11,750,778.62
Back S 44°59'46.93" E
Ahead S 17°29'43.46" E
Chord Bear S 17°29'43.46" E
Course from PT C153 to PC C154 S 44°59'46.93" E Dist 187.88

Curve C154 P.I. Station 59+41.33 N 6,971,990.00 E 11,750,944.35
Delta 82°13'21.72" (LT)
Degree 22°28'08.16"
Tangent 222.54
Length 365.94
Radius 2,550.00
External 83.45
Long Chord 335.34
Mid.Ord. 62.87
P.C. Station 57+18.79 N 6,972,147.37 E 11,750,787.00
P.T. Station 60+84.73 N 6,972,124.60 E 11,751,121.57
C.C. N 6°17'03.21" W 11,750,967.33
Back S 44°59'46.93" E
Ahead N 52°46'51.35" E
Chord Bear S 86°06'27.79" E
Course from PT C154 to I54 N 52°46'51.35" E Dist 186.66
Point 154 N 6,972,237.51 E 11,751,270.21 Sta 62+71.74
Ending chain DELINSKY_WAY description

HANSEN

From Sta.10+00.00 to Sta.15+57.87
Chain HANSENFARMRD contains: 150 I51

Beginning chain HANSENFARMRD description
Point 150 N 6,972,401.21 E 11,750,895.02 Sta 10+00.00
Course from 150 to 151 S 37°51'13.04" W Dist 557.87
Point 151 N 6,971,960.73 E 11,750,552.68 Sta 15+57.87
Ending chain HANSENFARMRD description

Added sheet to include data for roundabout design.

ROUNDAABOUT

From Sta.10+00.00 to Sta.12+82.74
ROUNDABOUT contains: CUR C151 CUR C152

Beginning chain ROUNDABOUT description
Curve C151 P.I. Station 239108+75.60 N -11,906,559.68 E -2,921,504.87
Delta 179°59'59.22" (LT)
Degree 127°19'26.24"
Tangent 23,909,875.60
Length 141.37
Radius 45.00
External 23,909,830.60
Long Chord 90.00
Mid.Ord. 45.00
P.C. Station 10+00.00 N 6,972,225.22 E 11,750,701.24
P.T. Station 11+41.37 N 6,972,169.99 E 11,750,772.31
C.C. N 6°17'03.21" W 11,750,736.78
Back S 37°51'13.04" W
Ahead N 37°51'13.04" E
Chord Bear S 52°08'46.57" E

Curve C152 P.I. Station 238507+43.02 N -11,858,968.58 E -2,884,517.89
Delta 180°00'00.78" (LT)
Degree 127°19'26.24"
Tangent 23,849,601.65
Length 141.37
Radius 45.00
External 23,849,646.55 N
Long Chord 90.00
Mid.Ord. 45.00
P.C. Station 10+00.00 N 6,972,169.99 E 11,750,772.31
P.T. Station 12+82.74 N 6,972,225.22 E 11,750,701.24
C.C. N 6°17'03.21" W 11,750,736.78
Back S 37°51'13.04" W
Ahead S 37°51'13.04" W
Chord Bear N 52°08'46.57" W

ENTRANCE STATION 54-32.84 LT (DELINSKI BL)

From Sta.10+00.00 to Sta.10+73.49
Chain ENTR54-32LT contains: 163 CUR C162 I69

Beginning chain ENTR54-32LT description
Point 168 N 6,972,364.87 E 11,750,607.18 Sta 10+00.00
Course from 168 to PC C162 N 76°55'50.79" E Dist 10.04
Curve C162 P.I. Station 10+27.22 N 6,972,371.02 E 11,750,633.69
Delta 37°55'19.67" (LT)
Degree 114°35'29.61"
Tangent 17.18
Length 33.09
Radius 50.00
External 2.87
Long Chord 32.49
Mid.Ord. 2.71
P.C. Station 10+10.04 N 6,972,367.14 E 11,750,616.96
P.T. Station 10+43.13 N 6,972,384.37 E 11,750,644.50
C.C. N 76°55'50.79" E 11,750,605.65
Back N 39°00'31.12" E
Ahead N 57°58'10.95" E
Chord Bear N 57°58'10.95" E
Course from PT C162 to 169 N 39°00'31.12" E Dist 30.36
Point 169 N 6,972,407.96 E 11,750,663.61 Sta 10+73.49
Ending chain ENTR54-32LT description

ENTRANCE STATION 54+40.39 RT (DELINSKI BL)

From Sta.10+00.00 to Sta.10+91.48
Chain ENTR54-40RT contains: 170 CUR C163 I71

Beginning chain ENTR54-40RT description
Point 170 N 6,972,357.56 E 11,750,609.04 Sta 10+00.00
Course from 170 to PC C163 S 74°28'24.61" W Dist 6.61
Curve C163 P.I. Station 10+18.49 N 6,972,352.61 E 11,750,591.23
Delta 43°11'58.62" (RT)
Degree 190°59'09.35"
Tangent 11.89
Length 22.62
Radius 30.00
External 2.27
Long Chord 22.09
Mid.Ord. 2.11
P.C. Station 10+06.61 N 6,972,355.78 E 11,750,602.67
P.T. Station 10+29.23 N 6,972,358.12 E 11,750,580.71
C.C. N 6°17'03.21" W 11,750,594.64
Back S 74°28'24.61" W
Ahead N 62°19'36.77" W
Chord Bear N 83°55'36.08" W
Course from PT C163 to 171 N 62°19'36.77" W Dist 62.24
Point 171 N 6,972,387.03 E 11,750,525.58 Sta 10+91.48
Ending chain ENTR54-40RT description

ENTRANCE STATION 59-21.42 LT (DELINSKI BL)

From Sta.10+00.00 to Sta.11+22.96
Chain ENTR_59-21LT contains: 157 I58

Beginning chain ENTR_59-21LT description
Point 157 N 6,972,072.68 E 11,750,969.67 Sta 10+00.00
Course from 157 to 158 N 0°31'30.77" W Dist 122.96
Point 158 N 6,972,195.63 E 11,750,968.54 Sta 11+22.96
Ending chain ENTR_59-21LT description

ENTRANCE STATION 13-46.45 LT (HANSEN BL)

From Sta.10+00.00 to Sta.10+83.24
Chain ENTR_13-46RT contains: 163 CUR C160 I64

Beginning chain ENTR_13-46RT description
Point 163 N 6,972,127.66 E 11,750,682.42 Sta 10+00.00
Course from 163 to PC C160 N 52°08'46.96" W Dist 16.37
Curve C160 P.I. Station 10+22.39 N 6,972,141.40 E 11,750,664.74
Delta 13°43'59.07" (LT)
Degree 114°35'29.61"
Tangent 6.02
Length 11.98
Radius 50.00
External 0.36
Long Chord 11.96
Mid.Ord. 0.36
P.C. Station 10+16.37 N 6,972,137.70 E 11,750,669.49
P.T. Station 10+28.35 N 6,972,143.86 E 11,750,659.24
C.C. N 52°08'46.96" W 11,750,638.81
Back N 52°08'46.96" W
Ahead N 65°52'46.03" W
Chord Bear N 59°00'46.50" W
Course from PT C160 to 164 N 65°52'46.03" W Dist 54.88
Point 164 N 6,972,166.29 E 11,750,609.15 Sta 10+83.24
Ending chain ENTR_13-46RT description

NOVA DISTRICT DESIGN UNIT
Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Temperature - Transportation - Right of Way Services

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
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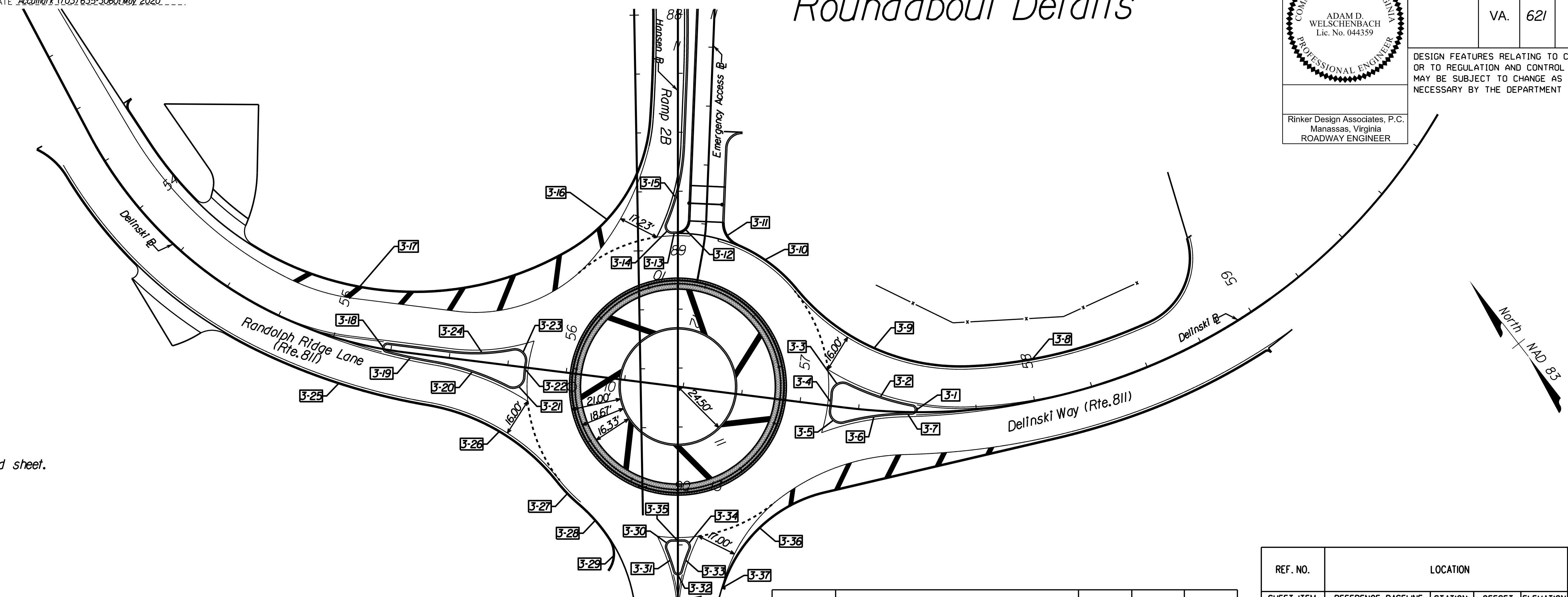
Roundabout Details

ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

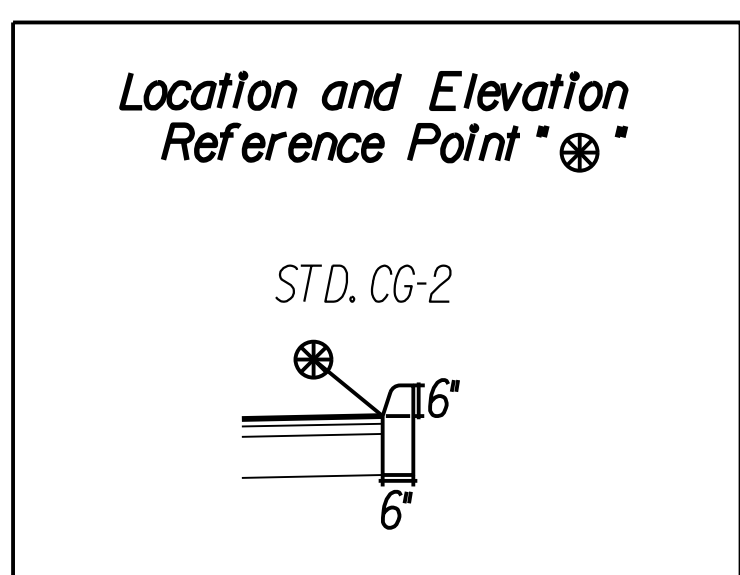
Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	1G(2G)

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



02 Added sheet.



REF. NO.	LOCATION	RADIUS	CHORD LENGTH	CURVE LENGTH
SHEET-ITEM	REFERENCE BASELINE	STATION	OFFSET	ELEVATION
3-1 (P.R.C.)	DELINSKI	57+47.70	0.91' RT	296.19
3-1 (P.R.C.)	DELINSKI	57+47.96	3.06' LT	296.10
3-2 (P.R.C.)	DELINSKI	57+47.96	3.06' LT	296.10
3-2 (P.R.C.)	DELINSKI	57+19.17	10.40' LT	297.09
3-3 (P.R.C.)	DELINSKI	57+19.17	10.40' LT	297.09
3-3 (P.R.C.)	DELINSKI	57+12.54	5.27' LT	297.34
3-4 (P.R.C.)	DELINSKI	57+12.54	5.27' LT	297.34
3-4 (P.R.C.)	DELINSKI	57+12.73	1.78' RT	297.38
3-5 (P.R.C.)	DELINSKI	57+12.73	1.78' RT	297.38
3-5 (P.R.C.)	DELINSKI	57+19.59	6.56' RT	297.24
3-6 (P.R.C.)	DELINSKI	57+19.59	6.56' RT	297.24
3-6 (P.R.C.)	DELINSKI	57+44.34	1.06' RT	296.34
3-7 (P.R.C.)	DELINSKI	57+44.34	1.06' RT	296.34
3-7 (P.R.C.)	DELINSKI	57+47.70	0.91' RT	296.19
3-8 (P.C.)	DELINSKI	58+30.98	17.00' LT	292.25
3-8 (P.T.)	DELINSKI	57+73.75	18.28' LT	294.61
3-9 (P.C.)	DELINSKI	57+73.75	18.28' LT	294.61
3-9 (P.R.C.)	DELINSKI	56+92.45	47.19' LT	297.49
3-10 (P.R.C.)	DELINSKI	56+92.45	47.19' LT	297.49
3-10 (P.R.C.)	DELINSKI	56+65.43	62.55' LT	298.00
3-11	HANSEN	11+98.01	25.33' LT	298.00
3-11	HANSEN	11+88.20	19.00' LT	297.39
3-12	HANSEN	11+87.60	5.02' LT	297.97
3-12	HANSEN	11+92.87	0.43' RT	298.26
3-13 (P.C.)	HANSEN	11+92.87	0.43' RT	298.26
3-13 (P.R.C.)	HANSEN	11+92.91	2.34' RT	298.18
3-14 (P.R.C.)	HANSEN	11+92.91	2.34' RT	298.18
3-14 (P.R.C.)	HANSEN	11+88.74	5.21' RT	298.12
3-15 (P.R.C.)	HANSEN	11+88.74	5.21' RT	298.12
3-15 (P.T.)	HANSEN	11+55.33	2.29' LT	297.83
3-16 (P.C.)	HANSEN	11+44.43	11.52' LT	297.29
3-16 (P.T.)	HANSEN	12+00.19	46.10' RT	298.02
3-17 (P.C.)	HANSEN	12+00.19	46.10' RT	298.02
3-17 (P.T.)	DELINSKI	54+48.09	20.33' LT	297.60
3-18 (P.C.)	DELINSKI	55+23.30	2.84' LT	297.50
3-18 (P.R.C.)	DELINSKI	55+23.22	1.15' RT	297.58

REF. NO.	LOCATION	RADIUS	CHORD LENGTH	CURVE LENGTH
SHEET-ITEM	REFERENCE BASELINE	STATION	OFFSET	ELEVATION
3-19 (P.R.C.)	DELINSKI	55+23.22	1.15' RT	297.58
3-19 (P.R.C.)	DELINSKI	55+43.93	2.77' RT	297.68
3-20 (P.R.C.)	DELINSKI	55+43.93	2.77' RT	297.68
3-20 (P.R.C.)	DELINSKI	55+76.18	9.19' RT	297.93
3-21 (P.R.C.)	DELINSKI	55+76.18	9.19' RT	297.93
3-21 (P.R.C.)	DELINSKI	55+82.88	4.17' RT	298.00
3-22 (P.R.C.)	DELINSKI	55+82.88	4.17' RT	298.00
3-22 (P.R.C.)	DELINSKI	55+82.79	2.24' LT	298.03
3-23 (P.R.C.)	DELINSKI	55+82.79	2.24' LT	298.03
3-23 (P.R.C.)	DELINSKI	55+76.23	7.17' LT	297.92
3-24 (P.R.C.)	DELINSKI	55+76.23	7.17' LT	297.92
3-24 (P.T.)	DELINSKI	55+50.26	3.00' LT	297.66
3-25 (P.C.)	DELINSKI	54+72.36	17.00' RT	298.06
3-25 (P.R.C.)	DELINSKI	55+43.15	20.75' RT	297.86
3-26 (P.R.C.)	DELINSKI	55+43.15	20.75' RT	297.86
3-26 (P.R.C.)	DELINSKI	56+02.24	46.41' RT	298.06
3-27 (P.R.C.)	HANSEN	12+98.25	50.93' RT	298.06
3-27 (P.R.C.)	HANSEN	13+07.57	41.89' RT	298.25
3-28 (P.R.C.)	HANSEN	13+07.58	41.89' RT	298.25
3-28 (P.T.)	HANSEN	13+22.35	28.87' RT	298.91
3-29 (P.R.C.)	HANSEN	13+22.36	28.87' RT	298.91
3-29 (P.R.C.)	HANSEN	13+36.08	29.37' RT	299.05
3-30 (P.R.C.)	HANSEN	13+22.83	2.23' RT	298.84
3-30 (P.R.C.)	HANSEN	13+26.96	5.11' RT	298.84
3-31 (P.R.C.)	HANSEN	13+26.96	5.11' RT	298.84
3-31 (P.R.C.)	HANSEN	13+36.24	1.93' RT	298.87
3-32 (P.R.C.)	HANSEN	13+36.24	1.93' RT	298.87
3-32 (P.R.C.)	HANSEN	13+36.24	1.93' LT	298.83
3-33 (P.R.C.)	HANSEN	13+36.24	1.93' LT	298.83
3-33 (P.R.C.)	HANSEN	13+26.96	5.11' LT	298.83
3-34 (P.R.C.)	HANSEN	13+26.96	5.11' LT	298.83
3-34 (P.R.C.)	HANSEN	13+22.83	2.23' LT	298.83
3-35 (P.R.C.)	HANSEN	13+22.83	2.23' LT	298.83
3-35 (P.R.C.)	HANSEN	13+22.83	2.23' RT	298.84
3-36 (P.C.)	DELINSKI	57+15.20	36.50' RT	297.64
3-36 (P.T.)	HANSEN	13+41.85	19.13' LT	298.79
3-37 (P.C.)	HANSEN	13+41.85	19.13' LT	298.79
3-37 (P.T.)	HANSEN	13+43.75	20.10' LT	299.34

SCALE 0 25' 50'

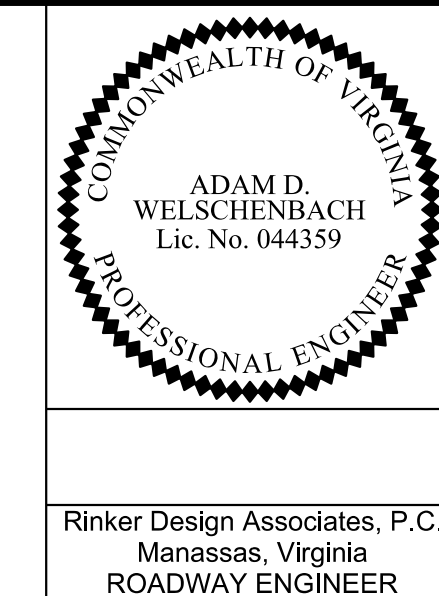
VDOT PROJECT 6234-076-266
 PNC PROJECT SPR2020-00383 S03

SHEET NO. 1G(2G)

PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

Geometric Data

THIS SHEET IS FOR GEOMETRIC DATA INFORMATION ONLY



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	IG(22)

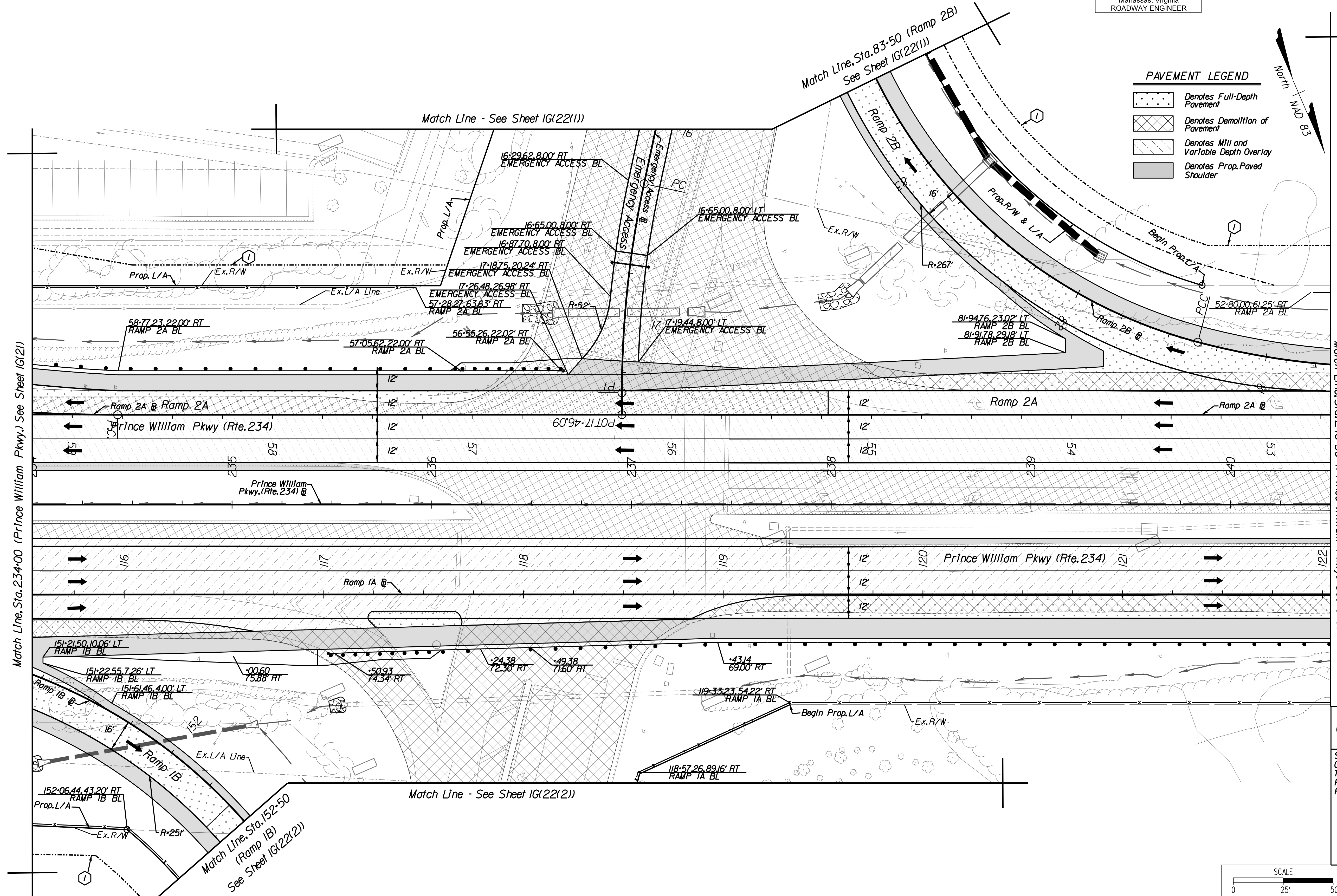
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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

02 Revised sheet to include roundabout changes.

PAVEMENT LEGEND

- Denotes Full-Depth Pavement
- Denotes Demolition of Pavement
- Denotes Mill and Variable Depth Overlay
- Denotes Prop. Paved Shoulder

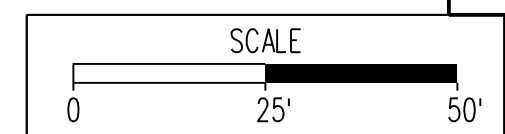


Match Line, Sta. 240+50 (Prince William Pkwy.) See Sheet IG(23)

REFERENCES

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

Survey Alignment Data	IF-1F(12)
Construction Alignment Data	IG(1)-(16)
Typical Sections	2A-2A(15)
Roundabout Typical Sections	2A(24)-2A(25)
Roadway Plan Sheet	22



VDOT PROJECT	6234-076-266	SHEET NO.	IG(22)
PINC PROJECT	SPR2020-00383 S03		

Office Locations
 Rinker Design Associates, P.C.
 10000 Woodloch Forest Dr., Suite 100
 Manassas, VA 20108
 (703) 369-7373
 www.rinker.com



NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

Geometric Data

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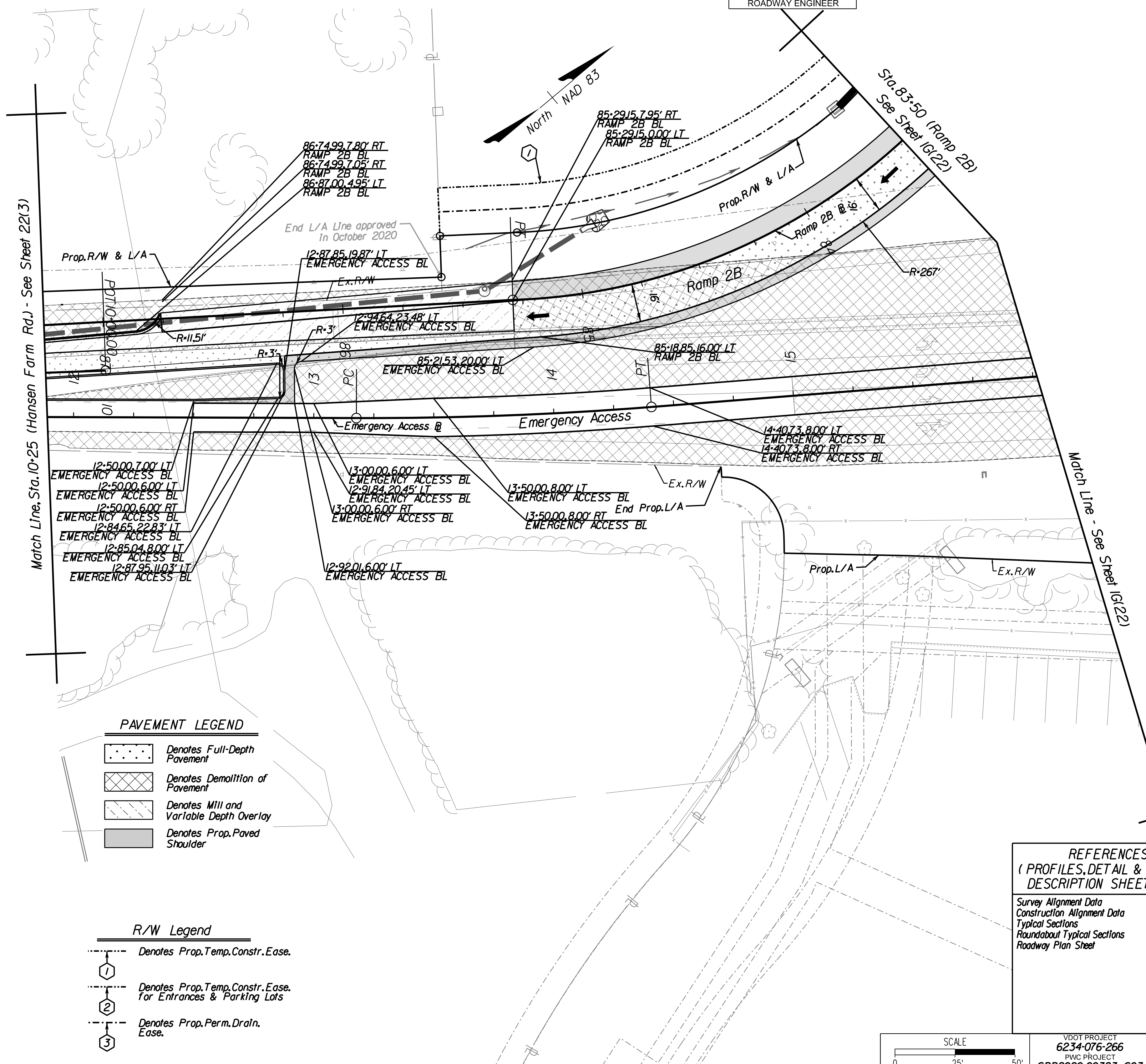
COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	1G(2211)

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

02 Revised sheet to include roundabout changes.



PAVEMENT LEGEND

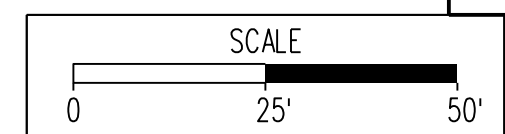
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- Denotes Demolition of Pavement
- Denotes Mill and Variable Depth Overlay
- Denotes Prop. Paved Shoulder

R/W Legend

- Denotes Prop. Temp. Constr. Ease.
- Denotes Prop. Temp. Constr. Ease for Entrances & Parking Lots
- Denotes Prop. Perm. Drain. Ease.

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

Survey Alignment Data	IF-1F(12)
Construction Alignment Data	1G(1)-(1G)
Typical Sections	2A-2A(15)
Roundabout Typical Sections	2A(24)-2A(25)
Roadway Plan Sheet	22(1)



VDOT PROJECT	6234-076-266	SHEET NO.	1G(2211)
PMC PROJECT	SPR2020-00383 S03		

6/24/2021 NOVA DISTRICT DESIGN UNIT

 Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation - Right of Way Services

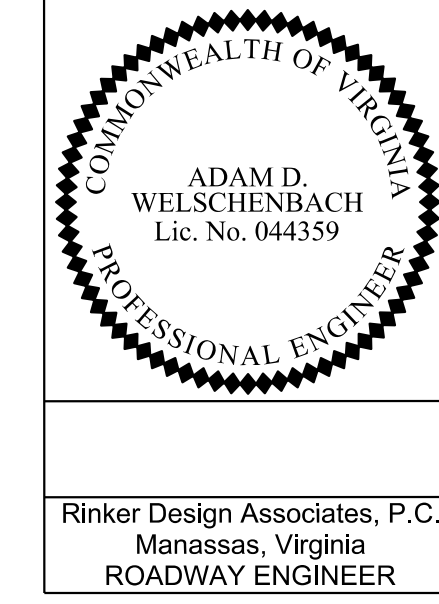


PROJECT MANAGER PWC DOT, Mary Anters (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

02 Added sheet to include roundabout changes.

Geometric Data

THIS SHEET IS FOR GEOMETRIC DATA INFORMATION ONLY

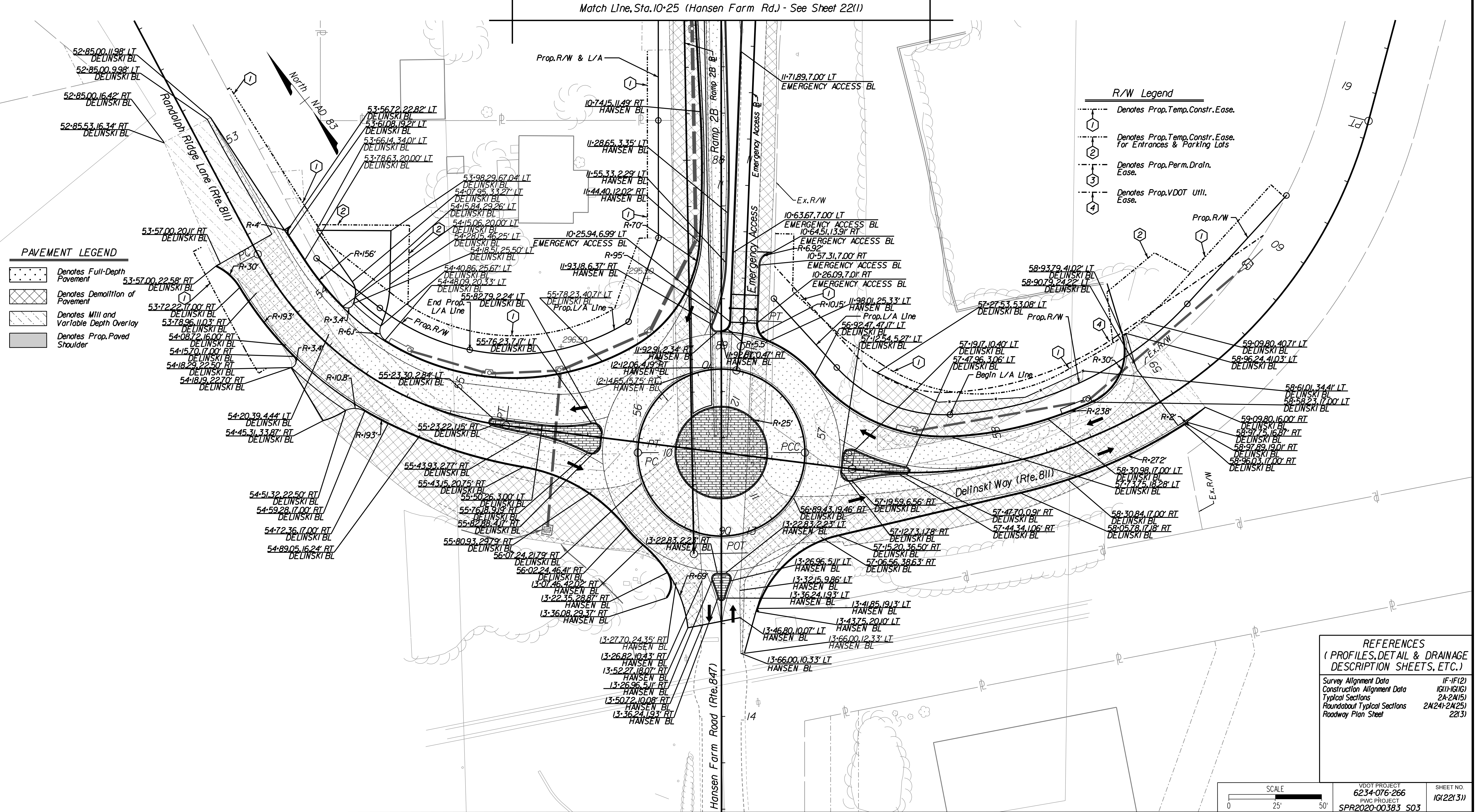


REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	1G(22/31)

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 Associates, P.C.
 Manassas, Virginia
 ROADWAY ENGINEER

Office Locations
 Design Associates, P.C.
 Lane District Design Unit
 6/24/2021



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

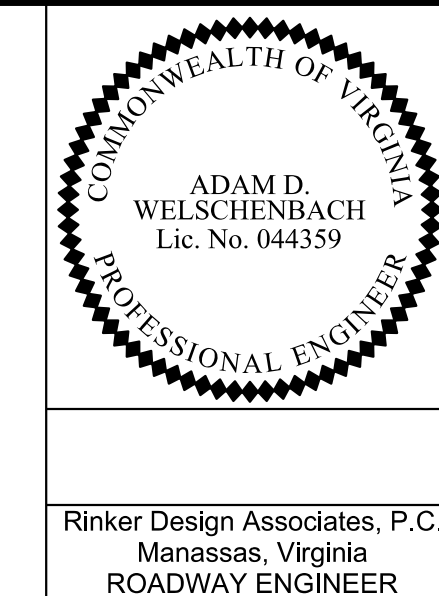
Survey Alignment Data	IF-1(2)
Construction Alignment Data	1G(11-11G)
Typical Sections	2A-2A(15)
Roundabout Typical Sections	2A(24)-2A(25)
Roadway Plan Sheet	22(3)

SCALE	VDOT PROJECT	SHEET NO.
0 25' 50'	6234-076-266 PWC PROJECT SPR2020-00383 S03	1G(22/31)

PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Geometric Data

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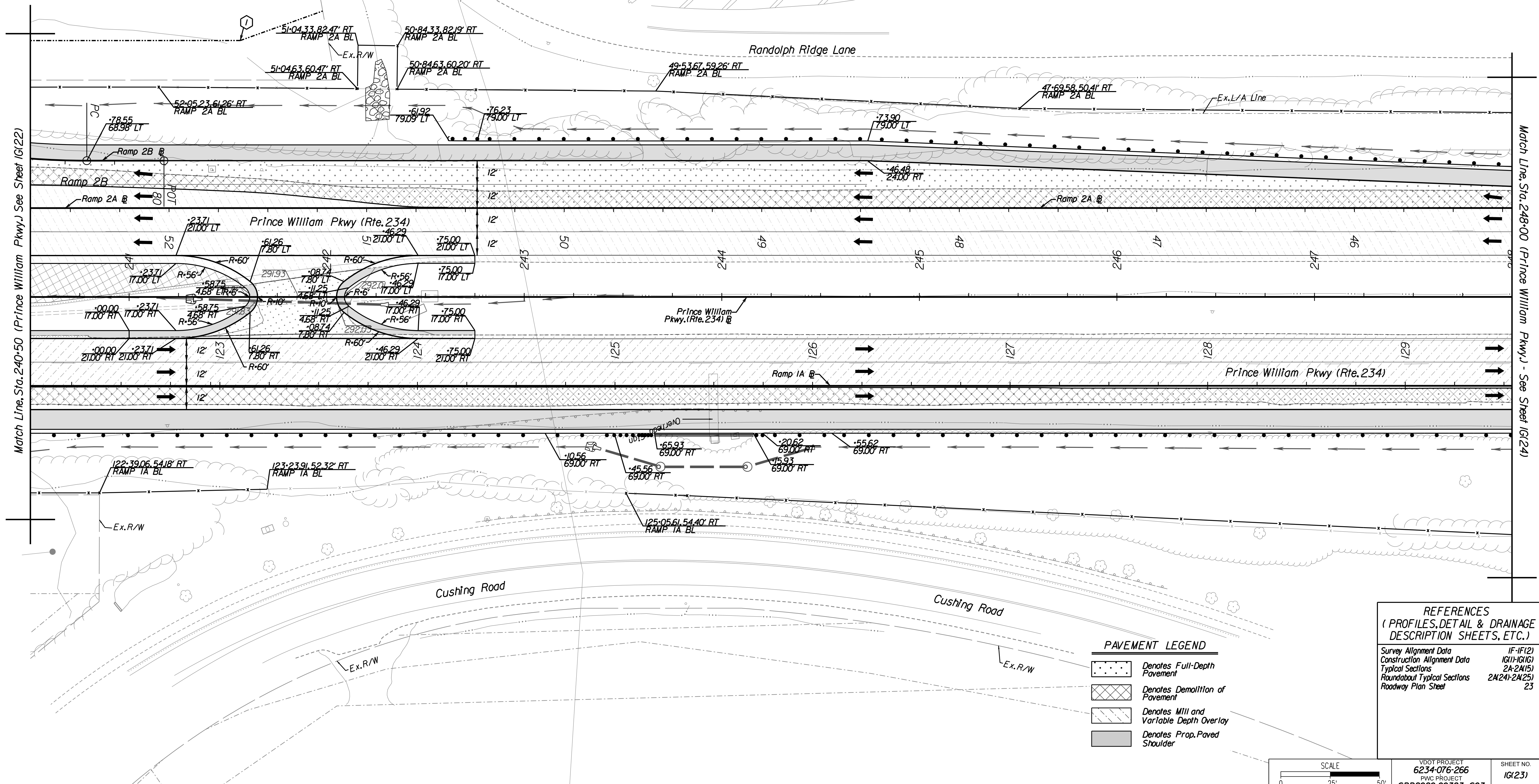
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	IG(23)

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 Associates, P.C.
 Manassas, Virginia
 ROADWAY ENGINEER

02 Revised sheet to include changes due to crossover.

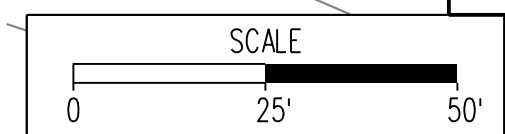
- R/W Legend**
- Denotes Prop. Temp. Constr. Ease.
 - Denotes Prop. Temp. Constr. Ease. for Entrances & Parking Lots
 - Denotes Prop. Perm. Drain. Ease.



- PAVEMENT LEGEND**
- Denotes Full-Depth Pavement
 - Denotes Demolition of Pavement
 - Denotes Mill and Variable Depth Overlay
 - Denotes Prop. Paved Shoulder

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

Survey Alignment Data	IF-1F(2)
Construction Alignment Data	IG(1)-(1G)
Typical Sections	2A-2A(15)
Roundabout Typical Sections	2A(24)-2A(25)
Roadway Plan Sheet	23



VDOT PROJECT	6234-076-266	SHEET NO.	IG(23)
PINC PROJECT	SPR2020-00383		

Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation - Temporary Construction
 Right of Way Services

LANE
 NOVA DISTRICT DESIGN UNIT

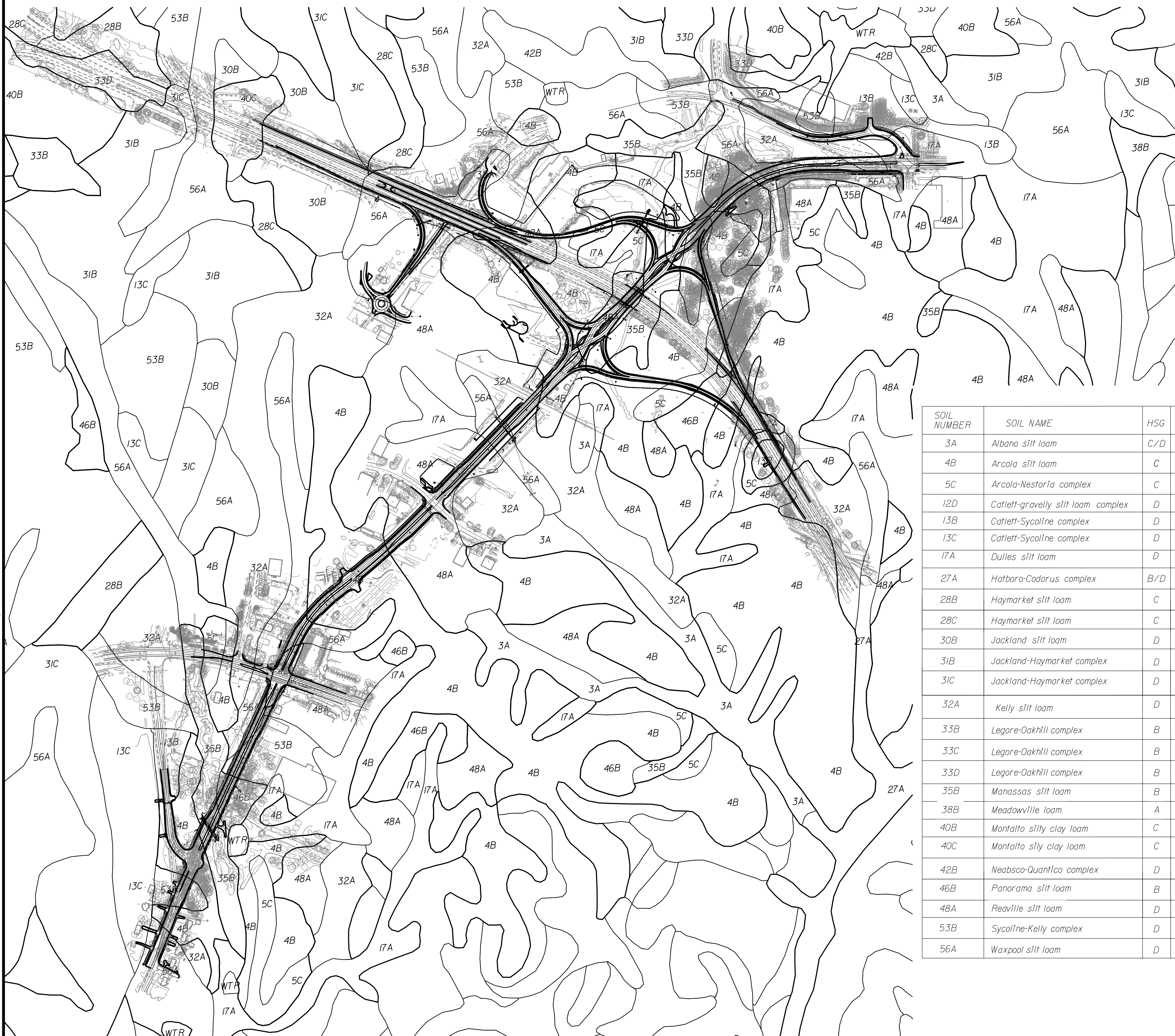
PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

Soils Map and Table

REVISED NDC02	STATE VA.	ROUTE 621	STATE PROJECT 6234-076-266, C-501, RW-201	SHEET NO. IP
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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

02 Revised soil map to include roundabout plan view.



SOIL NUMBER	SOIL NAME	HSG	K-FACTOR	DRAINAGE CLASS	SLOPES	RUNOFF CLASS	DEPTH TO BEDROCK	FLOODING	SHRINK/SWELL	EROSION HAZARD
3A	Albano silt loam	C/D	.49	Poorly drained	0-4%	High	40-60"	None	Moderate	Slight
4B	Arcola silt loam	C	.43	Well drained	2-7%	High	20-40"	None	Low	Slight
5C	Arcola-Nestoria complex	C	.43	Well drained	7-15%	High/Very High	20-40"/10-20"	None	Low/Very Low	Moderate
12D	Catlett-gravelly silt loam complex	D	.24	Well drained	15-25%	Very High	10-20"	None	Low	Severe
13B	Catlett-Sycaline complex	D	.43	Moderately well drained	2-7%	Very High/High	10-20"/20-40"	None	Very Low/Low	Slight
13C	Catlett-Sycaline complex	D	.43	Moderately well drained	7-15%	Very High/High	10-20"/20-40"	None	Very Low/Low	Slight
17A	Dulles silt loam	D	.43	Somewhat poorly drained	0-2%	-	40-42"	None	Low	Slight
27A	Hatboro-Codorus complex	B/D	.43	Poorly drained	0-2%	Low	>80"	Frequent	Moderate	Slight
28B	Haymarket silt loam	C	.43	Well drained	2-7%	High	>80"	None	Moderate	Moderate
28C	Haymarket silt loam	C	.43	Well drained	7-15%	High	>80"	None	Moderate	Severe
30B	Jackland silt loam	D	.49	Moderately well drained	2-7%	Very High	>80"	None	Moderate	Slight
31B	Jackland-Haymarket complex	D	.49	Moderately well drained	2-7%	Very High	>80"	None	High	Moderate
31C	Jackland-Haymarket complex	D	.49	Moderately well drained	7-15%	Very High	>80"	None	Moderate	Moderate
32A	Kelly silt loam	D	.49	Moderately well drained	0-2%	High	40-60"	None	Moderate	Slight
33B	Legore-Oakhill complex	B	.32	Well drained	2-7%	Medium	>80"	None	Low	Moderate
33C	Legore-Oakhill complex	B	.32	Well drained	7-15%	Medium	>80"	None	Low	Severe
33D	Legore-Oakhill complex	B	.32	Well drained	15-25%	High	>80"	None	Low	Severe
35B	Manassas silt loam	B	.37	Moderately well drained	2-7%	Low	40-60"	Rare	Moderate	Slight
38B	Meadowville loam	A	.28	Well drained	0-5%	Very Low	>80"	None	Low	Moderate
40B	Montalto silty clay loam	C	.43	Well drained	2-7%	High	60-120"	None	Moderate	Moderate
40C	Montalto silty clay loam	C	.43	Well drained	7-15%	High	60-120"	None	Moderate	Severe
42B	Neabsco-Quantico complex	D	.43	Moderately well drained	2-7%	Very High	14-30"	None	Low	Moderate
46B	Panorama silt loam	B	.43	Well drained	2-7%	Medium	40-60"	None	Low	Moderate
48A	Reaville silt loam	D	.43	Somewhat poorly drained	0-4%	High	20-40"	None	Low	Slight
53B	Sycaline-Kelly complex	D	.49	Moderately well drained	2-7%	Very High	20-40"	None	Low	Moderate
56A	Waxpool silt loam	D	.49	Poorly drained	0-2%	Very High	>80"	None	Moderate	Slight

LANE
 NOVA DISTRICT DESIGN UNIT
 Rinker Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation - Right of Way Services
 Office Locations: Fairfax, VA; Herndon, VA; Reston, VA; Springfield, VA; Warrenton, OR; Washington, DC

PROJECT MANAGER **PWC_DOT-Mary-Ankers (703) 792-4228**
 SURVEYED BY, DATE **Rinker, Design Associates, P.C. (703) 369-7373, April 2020**
 DESIGN BY **Rinker, Design Associates, Mark Gunn, P.E. (703) 369-7373**
 SUBSURFACE UTILITY BY, DATE **Accurmark (703) 635-3060, May 2020**

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET FOR INFORMATION ONLY

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

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

The VDOT RLD (as defined in the latest IIM 242) will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents) for the land disturbance (construction) activity.

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

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

* or ** Delegated Authority Signature*

Signature: _____
 Printed Name: _____
 Date: _____

(1) See Section 1, Item 11 relating to delegation of authority, and form LD-445H (Delegation of Authority).

ACRONYMS

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

SECTION I GENERAL INFORMATION

1. Activity Description - The project is for the design and construction of a Diverging Diamond Interchange (DDI) at the Prince William Parkway (Rte. 234) and realigned Balls Ford Road (Rte. 621) in Prince William County. The Balls Ford Road realignment begins approximately 2,200 feet west of the existing Devlin Road / Wellington Road intersection and extends eastward approximately 8,400 feet, on new alignment, to the existing Balls Ford Road / Doane Drive intersection. The Balls Ford Road design corresponds with VDOT GS-6 (Urban Minor Arterial) Standards with a 45 miles per hour design speed.

2. This land disturbance (construction) activity site is located in Prince William County and approximately 113.99 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: (List the impaired surface waters, when applicable)
 - Bull Run - impaired for recreational uses because of Escherichia coli.
 - Broad Run - impaired for recreational uses because of Escherichia coli.
 - Young's Branch - impaired for recreational uses because of Escherichia coli.

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
	RLD	Certify the SWPPP (with date & sig.)
	Certified Inspector	Sign (C-107) Inspection Form Part 1
	Certified Inspector	Sign (C-107) Inspection Form Part 2

✖✖ 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
Marian Carroll	NPDES	NPDES coordinator responsible for the oversight inspection in accordance with IIM-LD-256
Pawan Sarang	Dist. Hyd. Engineer	District Hydraulic Engineer or designee(s) responsible for the review & the coordination approval of ESC SWM plan modification(s).

02 Revised land disturbance area.

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	10

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

*VSMP PERMIT TO BE OBTAINED AND MAINTAINED BY PRINCE WILLIAM COUNTY

✖ 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 2016 R&B Specifications except for Section 107.16(e) 4.a. 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

VDOT PROJECT	SHEET NO.
6234-076-266 PWC PROJECT SPR2020-00383 S03	10

PROJECT MANAGER **PWC DOT-Mary Ankers (703) 792-4228**
 SURVEYED BY, DATE **Rinker Design Associates, P.C. (703) 369-7373, April 2020**
 DESIGN BY **Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373**
 SUBSURFACE UTILITY BY, DATE **Accurmark (703) 635-3060, May 2020**

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET FOR INFORMATION ONLY

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.

02 Revised SWPPP Drainage Area 10.

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	62/		6234-076-266, C-501, RW-201	103

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT
 *VSMP PERMIT TO BE OBTAINED AND MAINTAINED BY PRINCE WILLIAM COUNTY

SECTION VI - PERMANENT BMP INFORMATION Δ

* 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)		VA 6th Order HUC (7)	Receiving Water (2)	Name of Impaired Water (9)	Acres Treated Per BMP (3)			* BMP Maintenance ID Number (10)	BMP Maintenance Manual (11)	BMP Inspection Manual (11)
				LAT	LONG				Impervious	Pervious	TOTAL			
1Q(4)-1Q(11)		Retention Basin I (PL34-BMP-1)	Prince William	38.7794 N	77.5642 W	PL34	Unnamed Tributary to Broad Run	Broad Run	7.3	4.8	12.1		7	7
1Q(20)-1Q(27)		Extended Detention Basin (PL34-BMP-5)	Prince William	38.7867 N	77.5589 W	PL34	Dawkins Branch	Broad Run	2.1	1.4	3.5		7	7
1Q(28)-1Q(35)		Retention Basin I (PL34-BMP-9)	Prince William	38.7866 N	77.5517 W	PL34	Dawkins Branch	Broad Run	2.2	11.0	13.2		7	7
1Q(12)-1Q(19)		Extended Detention Basin (PL44-BMP-4)	Prince William	38.7924 N	77.5504 W	PL44	Unnamed Tributary to Youngs Branch	Youngs Branch	4.8	13.5	18.3		7	7
1Q(36)-1Q(44)		Retention Basin II (PL44-BMP-10)	Prince William	38.7922 N	77.5537 W	PL44	Unnamed Tributary to Youngs Branch	Youngs Branch	16.2	36.3	52.5		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)		VA 6th Order HUC (5) (7)	Receiving Water (2)	Name of Impaired Water (9)
				LAT	LONG			

Perpetual Nutrient Credits Acquired for Project

Name of Nutrient Credit Generating Entity (6)	Nutrient Credits (lbs./TP./year) Acquired (6) (12)
Overland VA II, LLC	2.49

Δ 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
- Grossed 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 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 hundredths acre.
- (4) Include agreements with off-site BMP owners.
- (5) Information pertains to the alternative BMP option location, where applicable. Exception - Not required for nutrient credit purchase option.
- (6) Applies to the purchase of nutrient credits only.
- (7) Virginia 6th Order HUC (VAHU6) Example - Y030.
- (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.

Table B: Alternative BMP Types

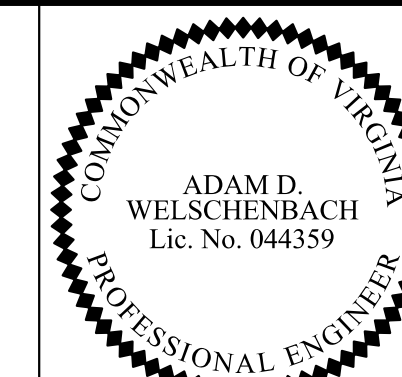
- Comprehensive SWM Plan (Regional) Facility
- Pollutant Loading Pro Rata Shore Program
- Other Approved Options (List Type) (4)



PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

STORMWATER MANAGEMENT FACILITY PLAN AND DETAIL

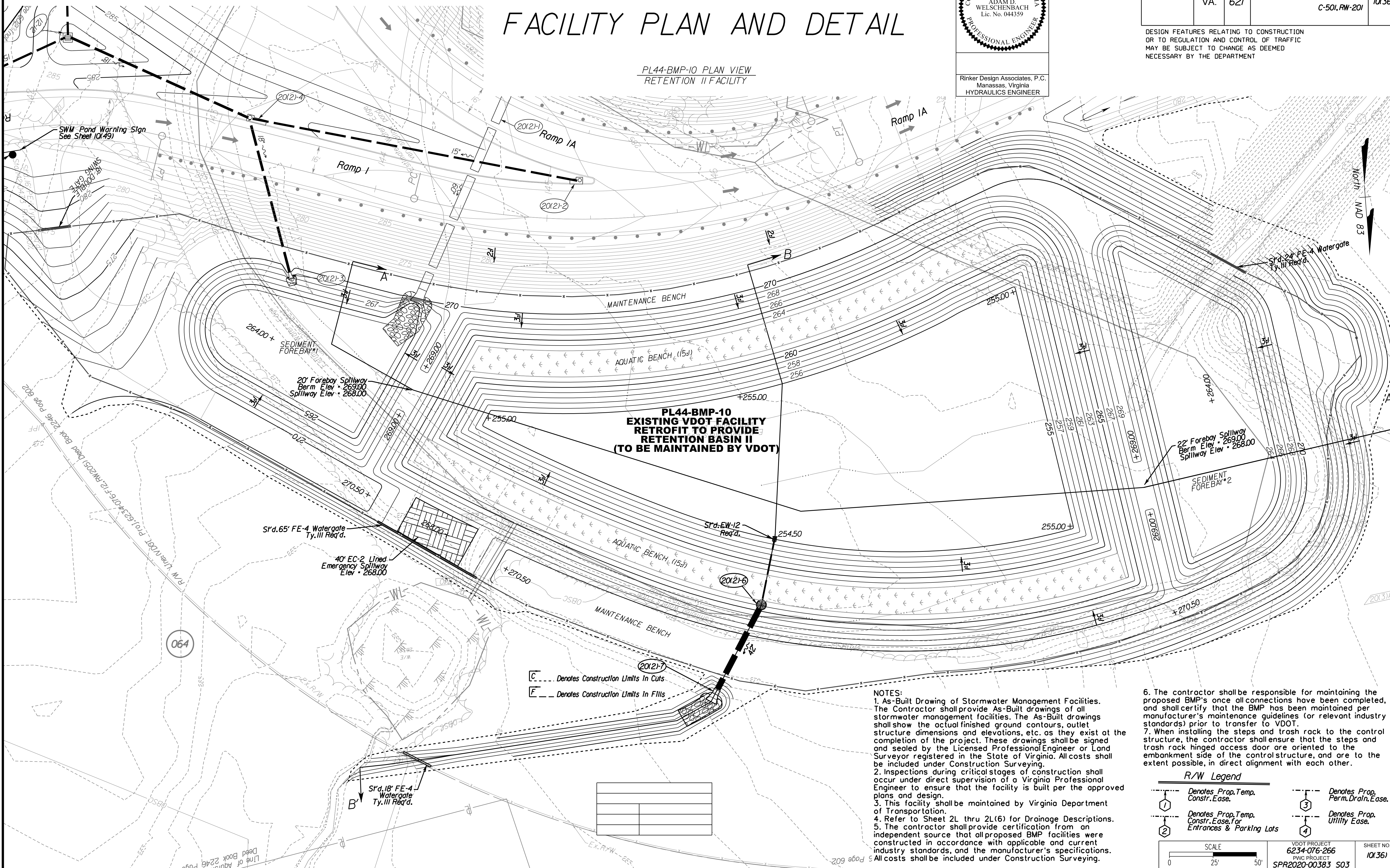
PL44-BMP-10 PLAN VIEW
 RETENTION II FACILITY



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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	621	6234-076-266, C-501, RW-201	10(36)

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



PL44-BMP-10 EXISTING VDOT FACILITY RETROFIT TO PROVIDE RETENTION BASIN II (TO BE MAINTAINED BY VDOT)

C --- Denotes Construction Limits in Cuts
 F --- Denotes Construction Limits in Fills

- NOTES:**
- As-Built Drawing of Stormwater Management Facilities. The Contractor shall provide As-Built drawings of all stormwater management facilities. The As-Built drawings shall show the actual finished ground contours, outlet structure dimensions and elevations, etc. as they exist at the completion of the project. These drawings shall be signed and sealed by the Licensed Professional Engineer or Land Surveyor registered in the State of Virginia. All costs shall be included under Construction Surveying.
 - Inspections during critical stages of construction shall occur under direct supervision of a Virginia Professional Engineer to ensure that the facility is built per the approved plans and design.
 - This facility shall be maintained by Virginia Department of Transportation.
 - Refer to Sheet 2L thru 2L(6) for Drainage Descriptions.
 - The contractor shall provide certification from an independent source that all proposed BMP facilities were constructed in accordance with applicable and current industry standards, and the manufacturer's specifications. All costs shall be included under Construction Surveying.

- The contractor shall be responsible for maintaining the proposed BMP's once all connections have been completed, and shall certify that the BMP has been maintained per manufacturer's maintenance guidelines (or relevant industry standards) prior to transfer to VDOT.
- When installing the steps and trash rack to the control structure, the contractor shall ensure that the steps and trash rack hinged access door are oriented to the embankment side of the control structure, and are to the extent possible, in direct alignment with each other.

R/W Legend

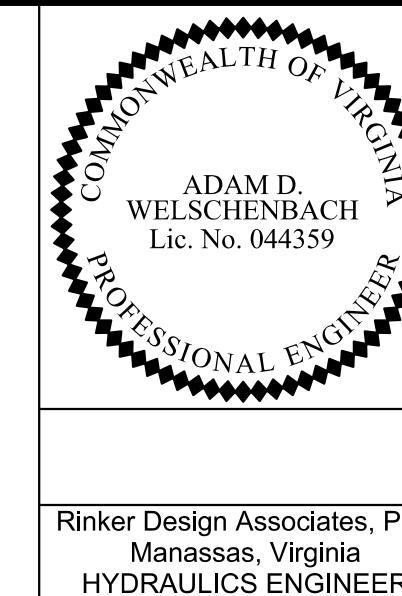
- ① --- Denotes Prop. Temp. Constr. Ease.
- ② --- Denotes Prop. Temp. Constr. Ease for Entrances & Parking Lots
- ③ --- Denotes Prop. Perm. Drain. Ease.
- ④ --- Denotes Prop. Utility Ease.

SCALE 0 25' 50'	VDOT PROJECT 6234-076-266 PING PROJECT SPR2020-00383 S03	SHEET NO. 10(36)
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6/24/2021 NOVA DISTRICT DESIGN UNIT
 Rinker Design Associates, P.C.
 Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Tyngsboro, VA; Warrenton, OR; Washington, DC; York, PA

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

STORMWATER MANAGEMENT FACILITY PLAN AND DETAIL



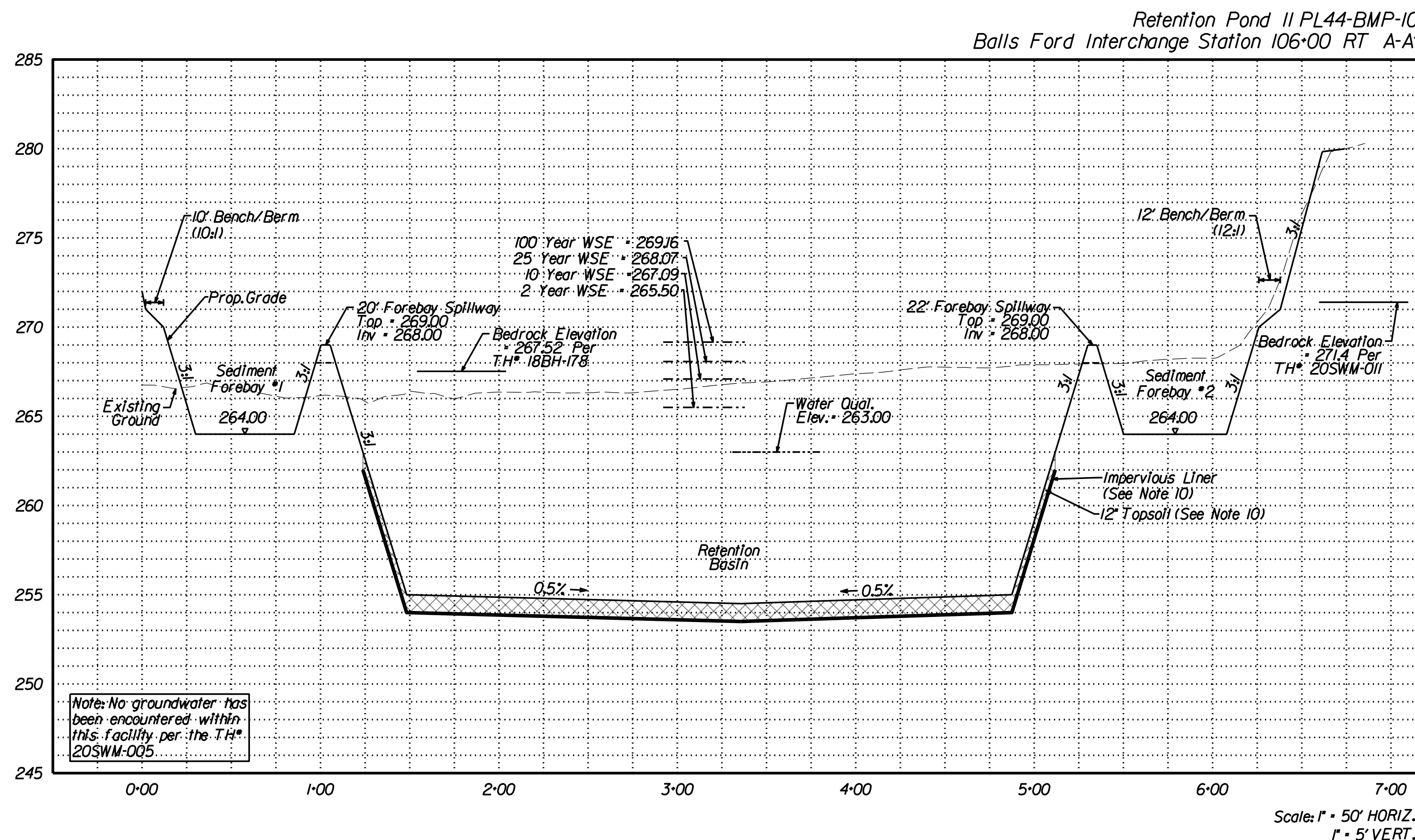
Rinker Design Associates, P.C.
 Manassas, Virginia
 HYDRAULICS ENGINEER

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	10(37)

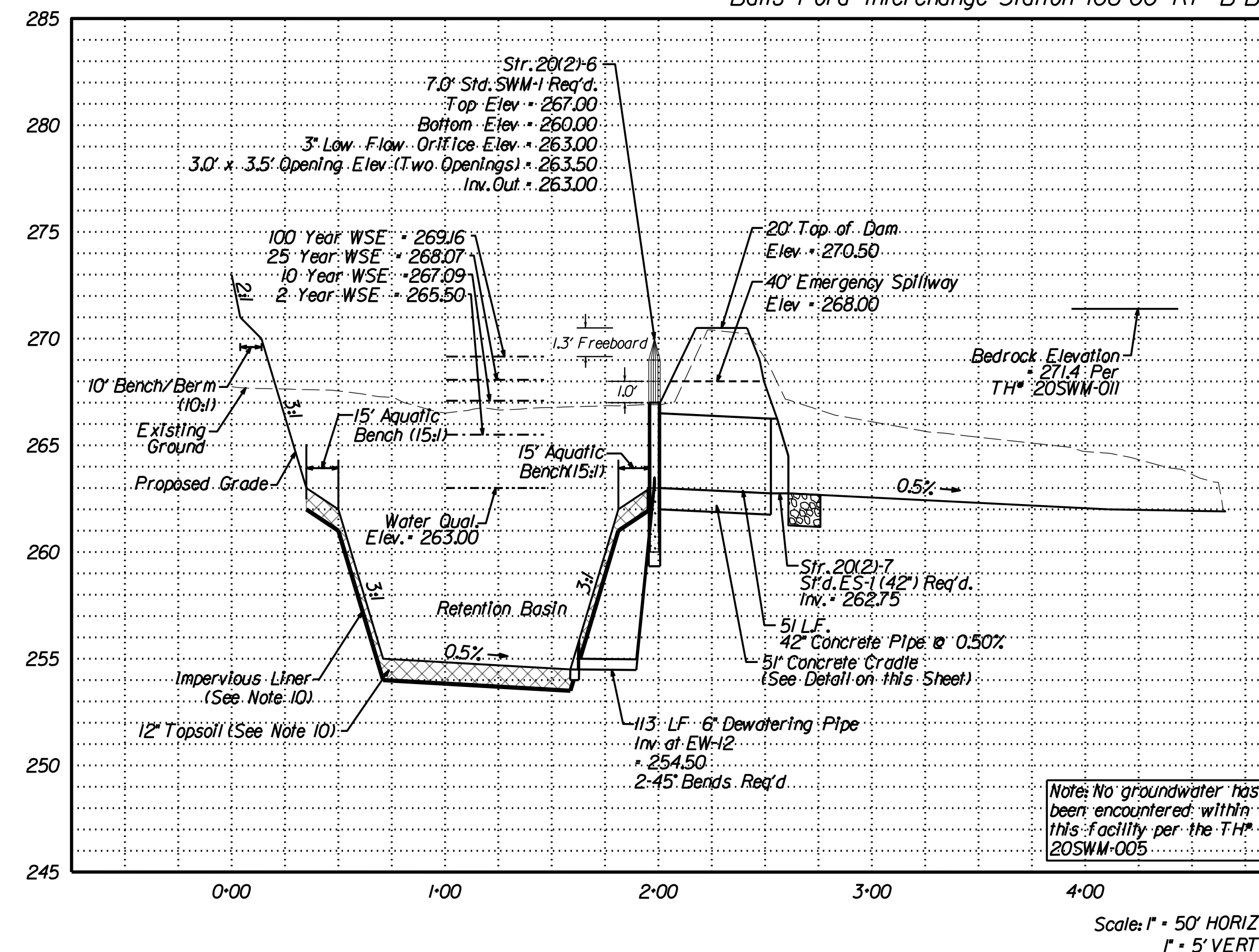
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

02 Revised profiles to show new WSEL.

PL44-BMP-10 PROFILE VIEW
 RETENTION II FACILITY



Retention Pond II PL44-BMP-10
 Balls Ford Interchange Station 106+00 RT B-B

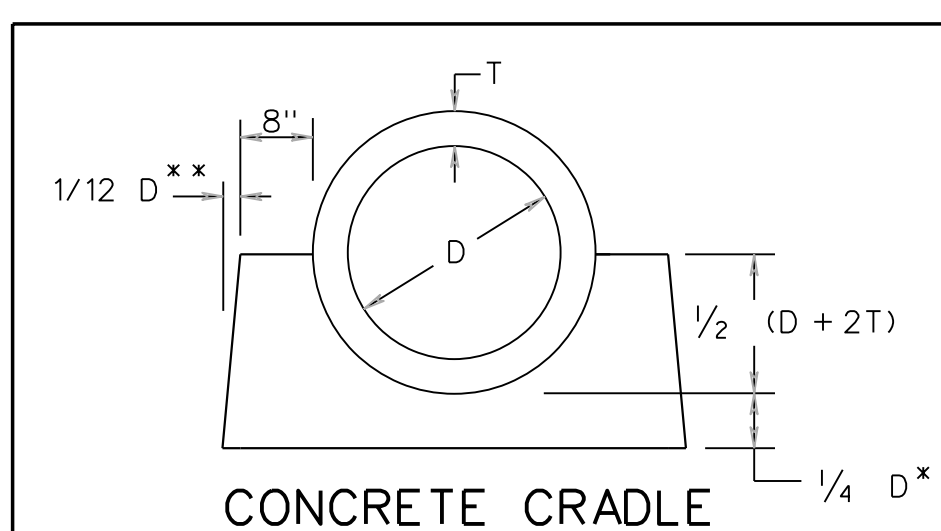


Note: No groundwater has been encountered within this facility per the TH# 20SWM-005.

Note: No groundwater has been encountered within this facility per the TH# 20SWM-005.

Scale: 1" = 50' HORIZ.
 1" = 5' VERT.

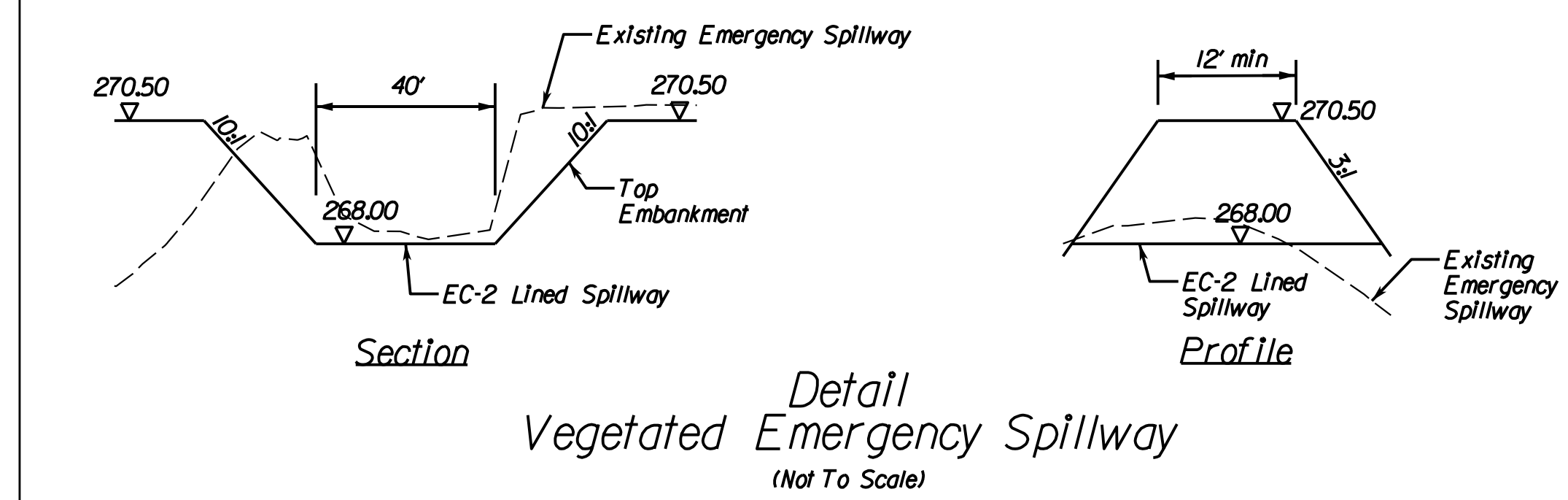
Scale: 1" = 50' HORIZ.
 1" = 5' VERT.



PIPE SIZE INCHES	CRADLE BOTTOM WIDTH (INCHES)	CRADLE HEIGHT (INCHES)	CRADLE TOP WIDTH (INCHES)	INCREMENT, IN CUBIC YARDS, PER LINEAR FOOT OF PIPE
12	34	14	32	0.093
15	38	15.75	35.5	0.110
18	42	17.5	39	0.129
24	50	21	46	0.168
30	58	26	53	0.233
36	66	31	60	0.307
42	74	36	67	0.390
48	82	41	74	...

* CONCRETE SHALL BE CLASS A3
 ** BUT NOT LESS THAN 6"
 IF THE PIPE IS LAID IN AN EXCAVATED TRENCH, THEN THE SIDE WALLS MAY CONFORM TO THE TRENCH SHAPE (IE THE TRENCH MAY BECOME THE CRADLE FORM).
 *** NON-STANDARD DESIGN
 CONCRETE CRADLE IS TO BE INSTALLED UNDER THE ENTIRE LENGTH OF CULVERT AT EACH STORMWATER MANAGEMENT BASIN.
 CONCRETE CRADLE IS TO BE PAID FOR AS MISCELLANEOUS CONCRETE AND SUMMARIZED IN CUBIC YARDS FOR EACH PIPE LOCATION

NOTE: For seeding specifications, please see the Roadside Development on sheet 1R(7).



NOTES:
 1. As-Built Drawing of Stormwater Management Facilities. The Contractor shall provide As-Built drawings of all stormwater management facilities. The As-Built drawings shall show the actual finished ground contours, outlet structure dimensions and elevations, etc. as they exist at the completion of the project. These drawings shall be signed and sealed by the Licensed Professional Engineer or Land Surveyor registered in the State of Virginia. All costs shall be included under Construction Surveying.

2. Inspections during critical stages of construction shall occur under direct supervision of a Virginia Professional Engineer to ensure that the facility is built per the approved plans and design.
 3. This facility shall be maintained by Virginia Department of Transportation.
 4. Refer to Sheet 2L thru 2L(6) for Drainage Descriptions.
 5. The contractor shall provide certification from an independent source that all proposed BMP facilities were constructed in accordance with applicable and current industry standards, and the manufacturer's specifications. All costs shall be included under Construction Surveying.
 6. The contractor shall be responsible for maintaining the proposed BMP's once all connections have been completed, and shall certify that the BMP has been maintained per manufacturer's maintenance guidelines (or relevant industry standards) prior to transfer to VDOT.
 7. When installing the steps and trash rack to the control structure, the contractor shall ensure that the steps and trash rack hinged access door are oriented to the embankment side of the control structure, and are to the extent possible, in direct alignment with each other.
 8. Groundwater and Bedrock Information was obtained from the Geotechnical Engineering Report by WSP dated January 26, 2021.
 9. Per the Geotechnical Report, cut-off trenches are not considered necessary for the pond design due to the existing cohesive soils at the pond locations.
 10. Compacted Clay Liner (12" minimum thickness) or Geosynthetic Clay Liner with 12" topsoil cover over Clay Liner shall be provided from normal pool to invert per VDOT Drainage Manual Part IIC BMP Design Manual of Practice, Section 4.3.1. Liner shall comply with VDOT Special Provision for "Low Permeability Liners for Stormwater Management Facilities" dated 10/7/11. Clay Liner details have been provided on sheet 1Q(40).

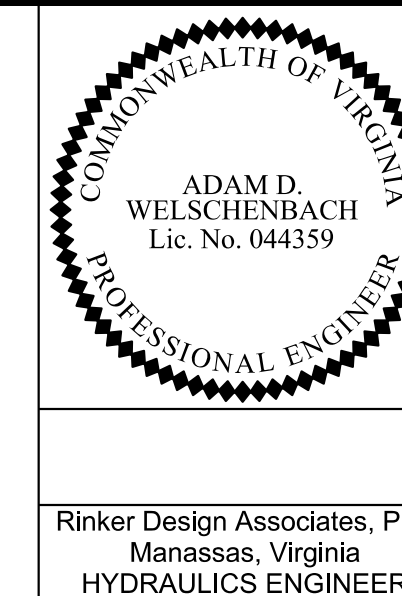
Design Associates, P.C.
 Civil Engineering, Surveying, Land Planning
 Transportation, Environmental Services
 Right of Way Services
 Rinker
 6234-076-266
 10(37)

LANE
 NOVA DISTRICT DESIGN UNIT
 6/24/2021

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

STORMWATER MANAGEMENT FACILITY PLAN AND DETAIL

PL44-BMP-10 DETAILS
 RETENTION II FACILITY



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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	62I	6234-076-266, C-50I, RW-20I	10(38)

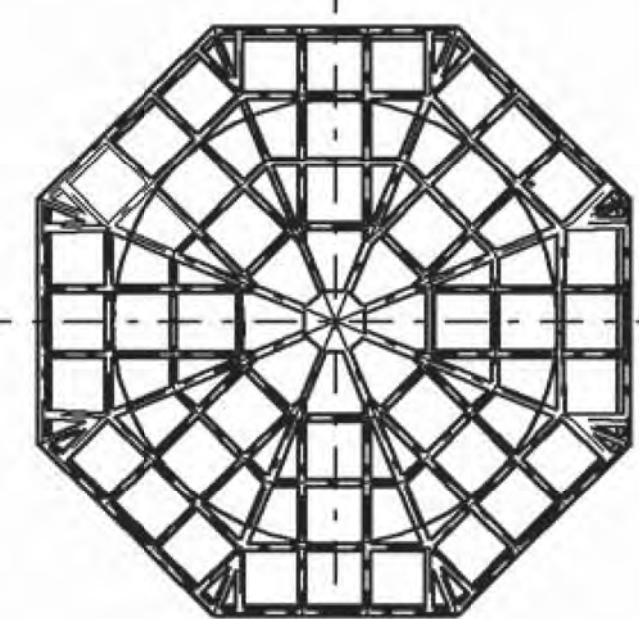
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

02 Revised riser detail to 72" ID.

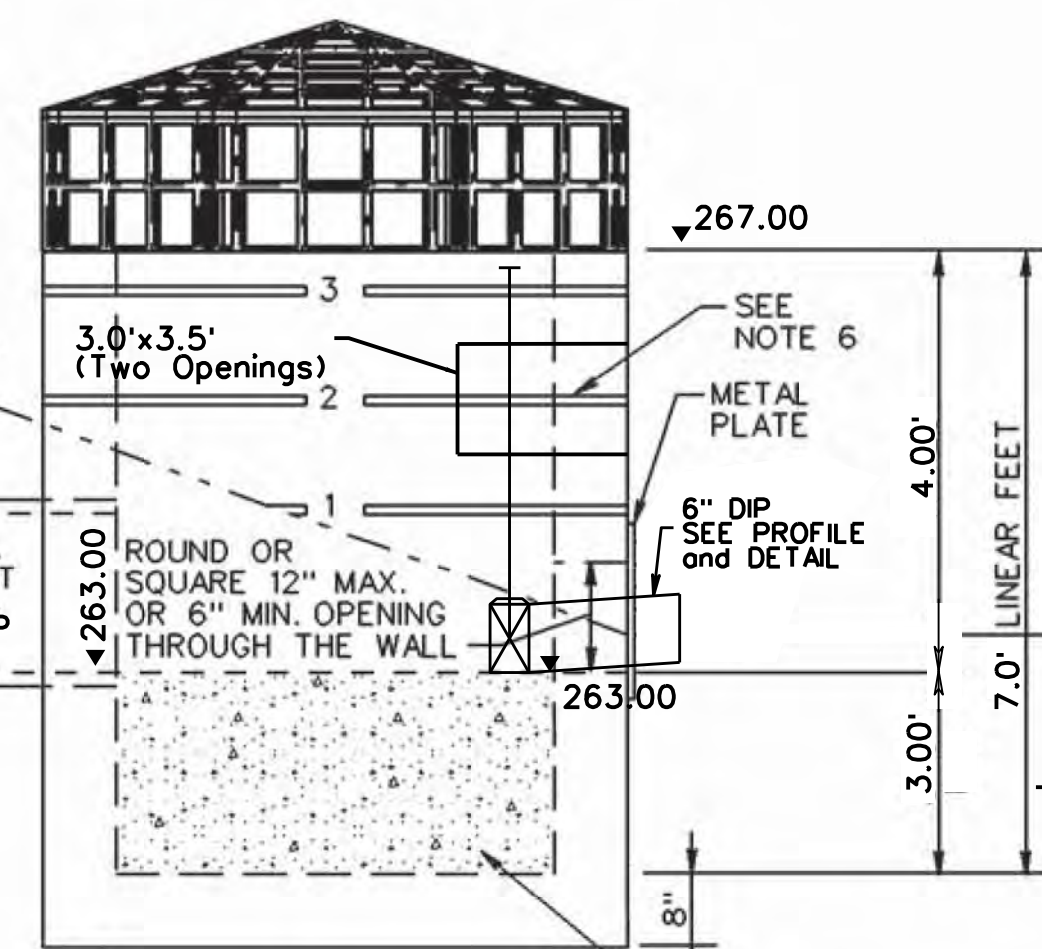
2016 ROAD & BRIDGE STANDARDS

NOTES:

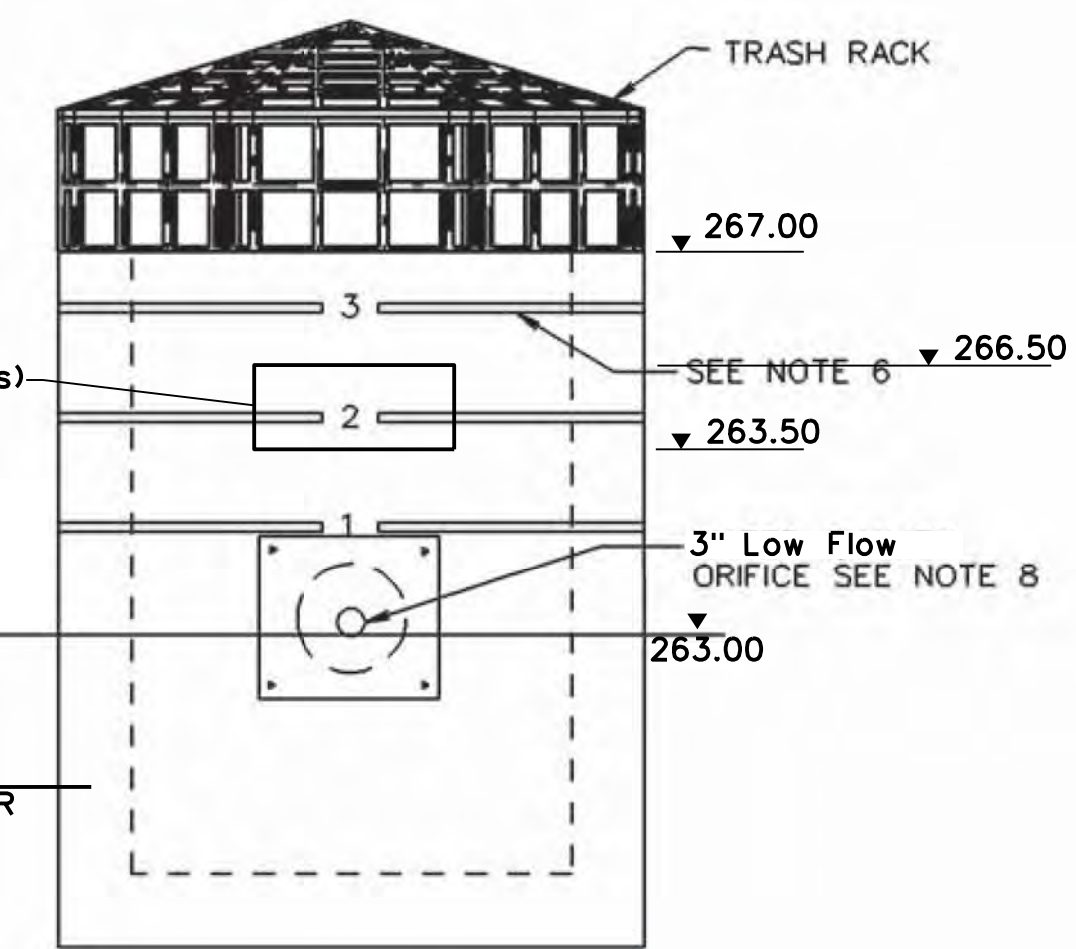
- COST OF TRASH RACK AND DEBRIS RACK ARE TO BE INCLUDED IN THE PRICE BID FOR THE STORMWATER MANAGEMENT DRAINAGE STRUCTURE.
- STRUCTURE MAY BE PRECAST OR CAST IN PLACE. SEE SHEET 1 OF 3 FOR DETAILS ON CAST IN PLACE STRUCTURE.
- WEEP HOLES SHALL NOT BE PROVIDED. ANY LIFT HOLES SHALL BE PLUGGED.
- STEPS ARE TO BE PROVIDED WHEN HEIGHT OF STRUCTURE IS 4'-0" OR GREATER ABOVE INVERT OF OUTLET PIPE. FOR STEP DETAILS SEE STANDARD ST-1.
- SEE STANDARD SWM-DR FOR DETAILS ON PLATE, DEBRIS RACK AND TRASH RACK.
- MARK HEIGHT OF STRUCTURE, IN BLACK, WITH 4" HIGH NUMERALS AND 1" WIDE HORIZONTAL STRIPES AT 1' INTERVALS FROM INVERT OF WATER QUALITY ORIFICE (ALL VISIBLE SIDES).
- THE PERMANENT STORMWATER MANAGEMENT DRAINAGE STRUCTURE, STANDARD SWM-1 MAY BE MODIFIED WHERE THE STORMWATER MANAGEMENT BASIN IS TO BE USED AS A TEMPORARY SEDIMENT BASIN DURING PROJECT CONSTRUCTION. SEE STANDARD SWM-DR, SHEET 1 OF 5 FOR TEMPORARY MODIFICATION DETAILS.
- THE SIZE OF THE Low Flow ORIFICE SHALL BE SPECIFIED ON THE PLANS. ADDITIONAL OPENINGS IN THE STORMWATER MANAGEMENT DRAINAGE STRUCTURE TO BE PROVIDED WHEN SPECIFIED ON THE PLANS.



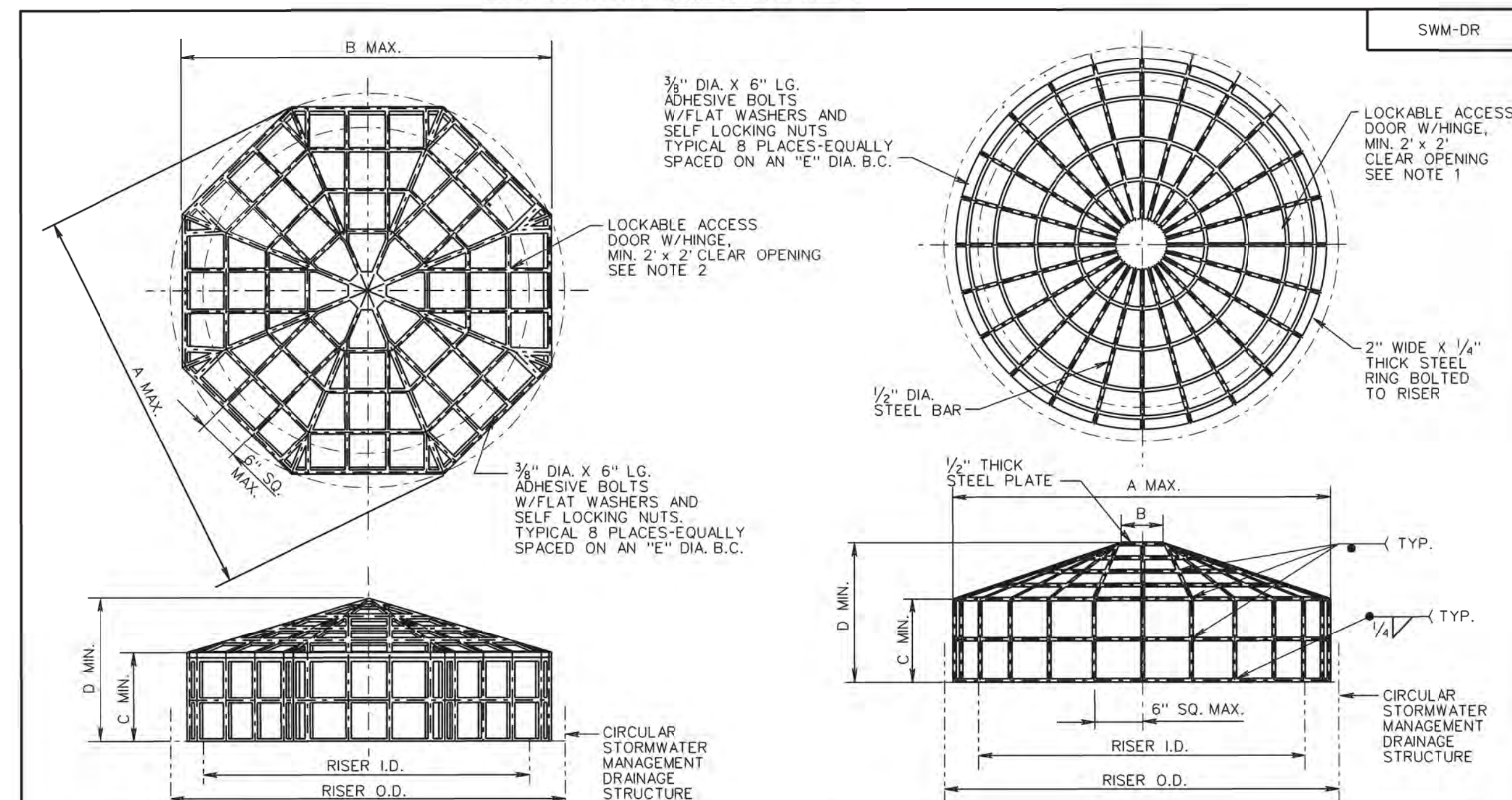
PLAN VIEW



SIDE VIEW
 SWM DRAINAGE STRUCTURE



FRONT VIEW
 (DEBRIS RACK NOT SHOWN)



RISER I.D.	O.D.	DIMENSION				
		A	B	C	D	E
24	30	31	28 5/8	7	11	27
36	44	45	41 1/2	13	19	40
48	58	59	54 1/2	13	21	53
60	72	73	67 1/2	17	28	66
72	86	87	80 3/4	23	35	79
84	100	101	93 1/4	25	39	92
96	114	115	106 1/4	22	38	105

RISER I.D.	O.D.	DIMENSION					APPROX. WT. (LBS.)	
		A	B	C	D	E		
24	30	30	5	7	10	27	15	46
36	44	42	6	13	18	40	22	82
48	58	55	9	13	20	53	29	120
60	72	68	9	17	26	66	36	169
72	86	81	9	23	34	79	42	227
84	100	94	12	25	37	92	49	290
96	114	107	12	22	36	105	56	341

- NOTES:
- ALL METAL TRASH RACKS 36" IN DIAMETER AND LARGER OR WITH A TOTAL WEIGHT OF 75 LBS OR GREATER SHALL HAVE A HINGED, LOCKABLE ACCESS DOOR WITH A MINIMUM 2' x 2' CLEAR OPENING.
 - ALL HIGH DENSITY POLYETHYLENE TRASH RACKS 48" IN DIAMETER AND LARGER SHALL HAVE A HINGED, LOCKABLE ACCESS DOOR WITH A MINIMUM 2' x 2' CLEAR OPENING.
 - ANTI-VORTEX PLATE IS TO BE USED WHEN SPECIFIED ON THE PLANS. COST OF FURNISHING AND PLACING THE ANTI-VORTEX PLATE IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.

STORMWATER MANAGEMENT DETAILS TRASH RACK FOR SWM DRAINAGE STRUCTURES

VIRGINIA DEPARTMENT OF TRANSPORTATION

ROAD AND BRIDGE STANDARDS

REVISION DATE: 07/16 SHEET 4 OF 5

2016 ROAD & BRIDGE STANDARDS

- NOTES:
- As-Built Drawing of Stormwater Management Facilities. The Contractor shall provide As-Built drawings of all stormwater management facilities. The As-Built drawings shall show the actual finished ground contours, outlet structure dimensions and elevations, etc. as they exist at the completion of the project. These drawings shall be signed and sealed by the Licensed Professional Engineer or Land Surveyor registered in the State of Virginia. All costs shall be included under Construction Surveying.
 - Inspections during critical stages of construction shall occur under direct supervision of a Virginia Professional Engineer to ensure that the facility is built per the approved plans and design.
 - This facility shall be maintained by Virginia Department of Transportation.
 - Refer to Sheet 2L thru 2L(6) for Drainage Descriptions.
 - The contractor shall provide certification from an independent source that all proposed BMP facilities were constructed in accordance with applicable and current industry standards, and the manufacturer's specifications. All costs shall be included under Construction Surveying.
 - The contractor shall be responsible for maintaining the proposed BMP's once all connections have been completed, and shall certify that the BMP has been maintained per manufacturer's maintenance guidelines (or relevant industry standards) prior to transfer to VDOT.
 - When installing the steps and trash rack to the control structure, the contractor shall ensure that the steps and trash rack hinged access door are oriented to the embankment side of the control structure, and are to the extent possible, in direct alignment with each other.

VDOT ROAD AND BRIDGE STANDARDS

PRECAST STORMWATER MANAGEMENT DRAINAGE STRUCTURE 20(2)-6

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE: 105, 302

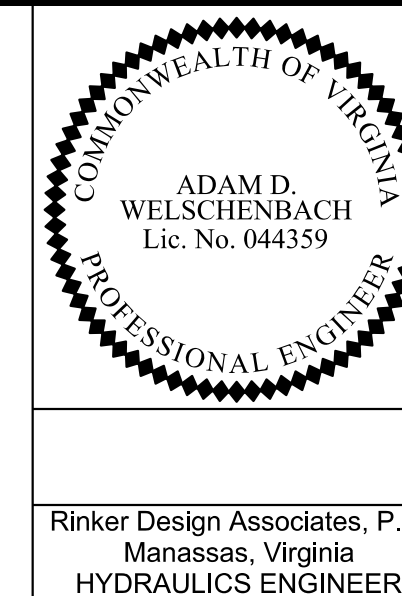
2016 ROAD & BRIDGE STANDARDS

SHEET 2 OF 3 REVISION DATE: 08/10

6/24/2021 NOVA DISTRICT DESIGN UNIT
 Rinker Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation - Right of Way Services
 Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Leesville, VA; Loudoun, VA; Reston, VA; Stafford, VA; Warrenton, OR; Washington, DC; York, PA

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

STORMWATER MANAGEMENT FACILITY PLAN AND DETAIL



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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	101391

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

02 Revised fact sheet.

PL44-BMP-10 DETAIL
RETENTION II FACILITY

DETAIL FOR DEBRIS RACK HOLDER
SIDE VIEW OF BOLT WELDED ON TO METAL PLATE
FRONT VIEW

DETAIL FOR DEBRIS RACK
METAL
FRONT VIEW
HIGH DENSITY POLYETHYLENE
TOP VIEW
SIDE VIEW

- COST OF DEBRIS RACK, METAL PLATE, AND DEBRIS RACK HOLDER TO BE INCLUDED IN THE BID PRICE FOR THE SWM DRAINAGE STRUCTURE.
- DEBRIS RACK MAY BE FABRICATED FROM WELDED 3/8" DIAMETER BARS OR 1/2" THICK HIGH DENSITY POLYETHYLENE. METAL COMPONENTS OF DEBRIS RACK MUST NOT BE GALVANIZED.
- DEBRIS RACK TO BE HINGED AS SHOWN OR CONTRACTOR MAY SUBSTITUTE A COMPARABLE DESIGN AS APPROVED BY THE ENGINEER.
- THE LOCATION OF THE DEBRIS RACK HOLDER MAY BE ADJUSTED FOR VARIABLE CONDITIONS. WHEN HOLDER BOLT IS LOCATED ON THE METAL PLATE THE 1/2" DIA. BOLT LENGTH IS TO BE REDUCED 1/4" L.C. AND WELDED TO THE PLATE. DEBRIS RACK HOLDER AND ALL HARDWARE IS TO BE GALVANIZED.

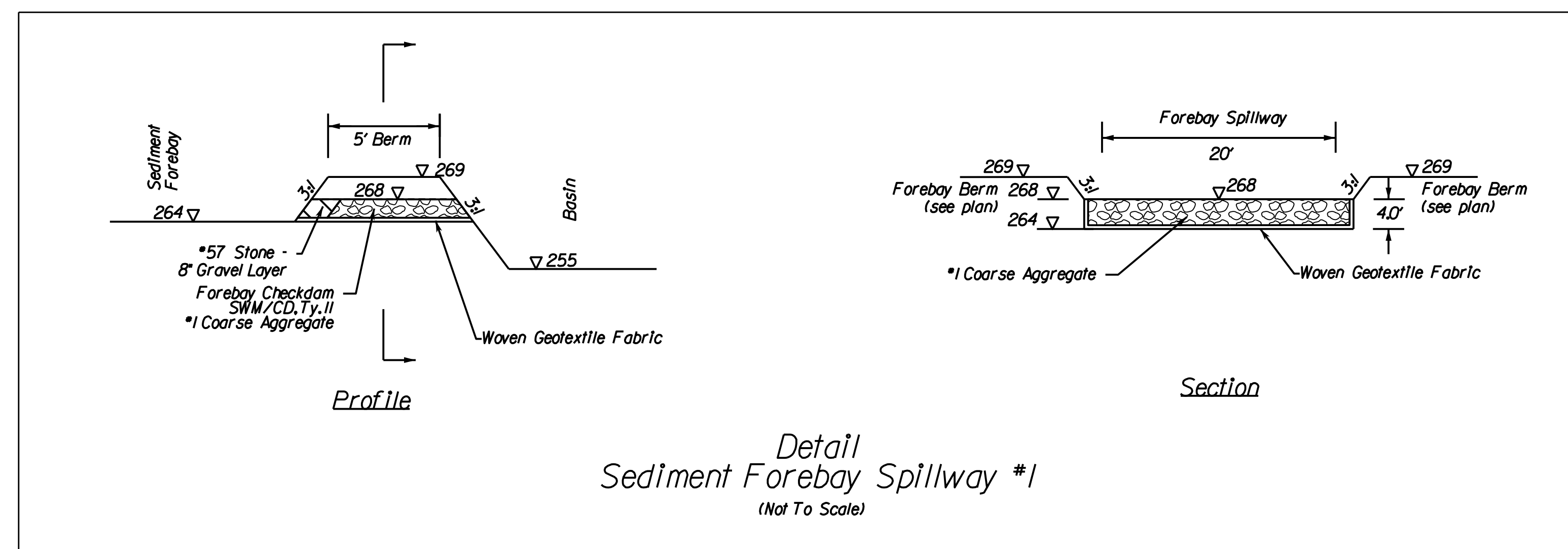
STORMWATER MANAGEMENT (SWM) DETAILS
DEBRIS RACK, METAL PLATE, WATER QUALITY ORIFICE, CONCRETE CRADLE (FOR SWM DRAINAGE STRUCTURES, SWM RISER PIPES AND SWM DAMS)
VIRGINIA DEPARTMENT OF TRANSPORTATION

SHEET 2 OF 5
REV. 3/03
116.05

PRINCE WILLIAM COUNTY		
STORMWATER MANAGEMENT FACT SHEET		
Date 5/7/2021		
SWM FACILITY INFORMATION	DESIGN INFORMATION (*)	MISCELLANEOUS
Basin Name PL44 - BMP 10	Were hydrologic & hydraulic models developed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is additional storage capacity necessary to correct an existing problem <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Subbasin # 020700100504	(a) Hydrologic Models HEC-1 TR-20 HEC-2 WSP-2	Does the facility incorporate BMP structural controls <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Stream Name Broad Run	Other Pondpack Other Pondpack	If no, does the facility regulate the 2-yr storm <input type="checkbox"/> Y <input type="checkbox"/> N
Drainage Area (acres) 73.50	Method used to develop hydrographs SCS Method	Is a description of the operation and maintenance needs of the facility included in the plans <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Draining to the facility	Hydrographs routing methodology SCS Method	Back up data location: plan <input checked="" type="checkbox"/> sheets 31(1Q(4))-31(1Q(12))
Avg. Basin Slope (R/F) 3.1	Reservoir routing methodology SCS Method	report <input checked="" type="checkbox"/> pages Section 5
Type of Facility: Retention Basin II	If the facility was not modeled, were Elevation - Discharge - Storage tables Developed <input type="checkbox"/> Yes <input type="checkbox"/> No	SWM Bond Estimates (\$) N/A
(a) Dry pond <input type="checkbox"/>	Outlet structure type Riser	TO BE COMPLETED BY COUNTY STAFF
(b) Wet pond <input checked="" type="checkbox"/>	Emergency spillway type Vegetated	Facility # _____
(c) Infiltration trench <input type="checkbox"/>	Were Elev. - Disch. Tables for the emergency spillway developed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Upstream POI _____
(d) Parking lot storage <input type="checkbox"/>	Dam height (ft) 16.00 Invert Elev UPST 254.50 DOWNST 262.75	Downstream POI _____
(e) Underground storage <input type="checkbox"/>	Rainfall Depth (Inches) 2-yr 3.00 , 10-yr 4.60 , 100-yr 7.91	Do the County H & H models need to be updated <input type="checkbox"/> Yes <input type="checkbox"/> No
(f) Porous pavement <input type="checkbox"/>	Rainfall Duration (hrs) 24 , Rainfall Distribution Type II	Model updated <input type="checkbox"/>
(g) Grass swales <input type="checkbox"/>	Exist Peak Inflows (cfs) 2-yr 50.60 , 10-yr 123.97 , 100-yr 301.74	Fac. Accepted by DPW _____
(h) Land cover control <input type="checkbox"/>	Devlp Peak Inflows (cfs) 2-yr 77.36 , 10-yr 149.09 , 100-yr 302.36	DPW Inspector _____
(i) Other <input type="checkbox"/>	Devlp Peak Outflow (cfs) 2-yr 24.64 , 10-yr 60.29 , 100-yr 254.03	DPW Inspector _____
Is the Facility ON - SITE <input checked="" type="checkbox"/>	Water Surface Elev. (ft) 2-yr 265.50 , 10-yr 267.09 , 100-yr 269.16	
Is the Facility OFF - SITE <input type="checkbox"/>	Reservoir Storage (ac-ft) 2-yr 10.96 , 10-yr 13.97 , 100-yr 18.60	
PWC File # N/A	Surface Area (acres) 2-yr 1.91 , 10-yr 2.12 , 100-yr 2.44	
Development Name N/A	Normal Pool - Elevation (ft) 263.00 Storage (ac-ft) 7.06 , Area (ac) 1.32	
GPIN N/A	BMP - Elevation (ft) 263.00 Storage (ac-ft) 7.06 , Area (ac) 1.32	
Magisterial District Brentsville		
Was a Floodplain Study Prepared Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
If yes, File # _____		
Facility Designed by: Rinker Design Associates (Engr. Firm)		
	*For facilities type (a) and (b). For other types, provide rainfall (intensities) data, storage, volume, and discharges, if applicable.	

Office Locations: ... Rinker Design Associates, P.C. ...

LANE NOVA DISTRICT DESIGN UNIT



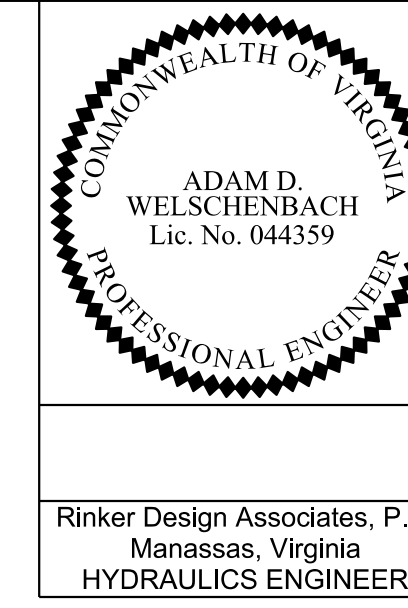
NOTES:

- As-Built Drawing of Stormwater Management Facilities. The Contractor shall provide As-Built drawings of all stormwater management facilities. The As-Built drawings shall show the actual finished ground contours, outlet structure dimensions and elevations, etc. as they exist at the completion of the project. These drawings shall be signed and sealed by the Licensed Professional Engineer or Land Surveyor registered in the State of Virginia. All costs shall be included under Construction Surveying.
- Inspections during critical stages of construction shall occur under direct supervision of a Virginia Professional Engineer to ensure that the facility is built per the approved plans and design.
- This facility shall be maintained by Virginia Department of Transportation.
- Refer to Sheet 2L thru 2L(6) for Drainage Descriptions.
- The contractor shall provide certification from an independent source that all proposed BMP facilities were constructed in accordance with applicable and current industry standards, and the manufacturer's specifications. All costs shall be included under Construction Surveying.
- The contractor shall be responsible for maintaining the proposed BMP's once all connections have been completed, and shall certify that the BMP has been maintained per manufacturer's maintenance guidelines (or relevant industry standards) prior to transfer to VDOT.
- When installing the steps and trash rack to the control structure, the contractor shall ensure that the steps and trash rack hinged access door are oriented to the embankment side of the control structure, and are to the extent possible, in direct alignment with each other.

PROJECT MANAGER PWC_DOT_Mary_Ankers (703)792-4228 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Revised sheet to update land disturbance area due to roundabout design.

Erosion and Sediment Control Plan VESCH Narrative and Checklist



REVISED	STATE	ROUTE	STATE	SHEET NO.
NDC02	VA.	62/	PROJECT	IR(1)
			6234-076-266, C-501, RW-201	

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

THE PROJECT IS FOR THE DESIGN AND CONSTRUCTION OF A DIVERGING DIAMOND INTERCHANGE (DDI) AT THE PRINCE WILLIAM COUNTY PARKWAY (RTE. 234) AND REALIGNED BALLS FORD ROAD (RTE. 62) IN PRINCE WILLIAM COUNTY. THE BALLS FORD ROAD REALIGNMENT BEGINS APPROXIMATELY 2,400 FEET WEST OF THE EXISTING DEVLIN ROAD/WELLINGTON ROAD INTERSECTION AND EXTENDS EASTWARD APPROXIMATELY 6,800 FEET ON NEW ALIGNMENT TO THE EXISTING BALLS FORD ROAD/DOANE DRIVE INTERSECTION. THE DESIGN ALSO INCLUDES IMPROVEMENTS TO THE RANDOLPH RIDGE LANE/DELENSKI WAY INTERSECTION. THE BALLS FORD ROAD DESIGN CORRESPONDS WITH VDOT GS-6 (URBAN MINOR ARTERIAL) STANDARDS WITH A 45 MILES PER HOUR DESIGN SPEED. THE PROPOSED SITE AREA FOR THE PROJECT IS 140 ACRES. THE PROPOSED LAND DISTURBANCE FOR THE PROJECT IS 113.99 ACRES.

EXISTING SITE CONDITIONS

TOPOGRAPHY FOR THE MAJORITY OF THE PROJECT AREA, PARTICULARLY AT THE TIE-INS TO EXISTING ROADWAYS, IS FAIRLY FLAT WITH OPEN GROUND COVER. THERE IS HEAVY TREE COVER FROM STA. 138 TO STA. 162, INCLUDING THE WESTERN SIDE OF THE DDI. WETLANDS HAVE BEEN IDENTIFIED WITHIN THE PROJECT LIMITS AT APPROXIMATELY STATIONS 108+25 TO 118+00 (RIGHT AND LEFT), 119+00 TO 124+25 (LEFT), 125+25 TO 127+25 (LEFT), 150+00 TO 152+50 (RIGHT AND LEFT), AND 175+75 TO 179+00 (RIGHT AND LEFT) ALONG BALLS FORD ROAD. ADDITIONAL WETLANDS HAVE BEEN IDENTIFIED ALONG PRINCE WILLIAM COUNTY PARKWAY AT APPROXIMATELY STATIONS 206+00 TO 209+25 (LEFT) AND 223+00 TO 229+00 (RIGHT).

THE PROJECT IS WITHIN THE LIMITS OF TWO WATERSHEDS: VAHU6 - PL34, HUC12 *020700100504, BROAD RUN - ROCKY BRANCH AND VAHU6 - PL44, HUC12 *020700100703, MIDDLE BULL RUN.

ADJACENT AREAS:

AREAS ADJACENT TO THE PROJECT LIMITS ARE COMMERCIAL, INDUSTRIAL, AGRICULTURAL, 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 SILT LOAM, C AND D SOILS. SEE SHEET 1P(0) FOR COMPLETE SOILS INFORMATION PROVIDED FROM USDA SOIL SURVEY.

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 FACILITIES 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 TWO NEW STORMWATER MANAGEMENT FACILITIES (PL34-BMP5 AND PL44-BMP4) AND MODIFICATIONS TO THREE EXISTING STORMWATER MANAGEMENT FACILITIES (PL34-BMP1, PL34-BMP9, AND PL44-BMP10) 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:

- HOLD PRECONSTRUCTION MEETING
- FLAG LIMITS OF CLEARING
- INSTALL TEMPORARY CONTROLS INCLUDING SILT FENCE, DIVERSION AND INLET PROTECTION. PROVIDE TEMPORARY DRAINAGE INSTALLATION WHETHER TEMPORARY PIPES OR PERMANENT PIPE INSTALLATION WITH DIVERSIONS.
- OBTAIN SITE INSPECTOR'S APPROVAL OF PERIMETER EROSION AND SEDIMENT CONTROLS.
- AFTER INSPECTOR'S APPROVAL OF INITIAL CONTROLS, CLEAR AND GRUB REMAINDER OF THE SITE AS NECESSARY.
- INSTALL SEDIMENT BASINS AND ASSOCIATED OUTFALLS.
- STABILIZE ALL DENUDED AREAS ACCORDING TO THE SECTION TEMPORARY AND PERMANENT STABILIZATION.

PHASE II LAND DISTURBING SEQUENCE:

- CONSTRUCT PROPOSED STORM SEWER SYSTEM AND PROPOSED CULVERTS AND CULVERT EXTENSIONS.
 - INSTALL INLET PROTECTIONS AT ALL APPLICABLE LOCATIONS, CONSTRUCT DITCH AND LINING AT ALL APPLICABLE LOCATIONS.
- ROUGH GRADE THE REMAINDER OF THE SITE.
- INSTALL ALL CURB AND GUTTER AND PLACE BASE STONE PAVEMENT.
- FINE GRADE SITE AND INSTALL ALL PERMANENT SEEDING AND FERTILIZE ALL GRASSED AREAS.
- REMOVE ALL EROSION CONTROL MEASURES.
- CLEAN SITE OF ALL TRASH AND DEBRIS.
- HAVE THE INSPECTOR INSPECT ALL AREAS TO DETERMINE IF THEY ARE 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 COORDINATED AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING INDEPENDENT E&S CONTROL PERMITS TO COVER ANY OFF-SITE IMPACTS.

1992

CHECKLIST

FOR EROSION AND SEDIMENT CONTROL PLANS

- Minimum Standards** - All applicable Minimum Standards must be addressed.
- NARRATIVE**
- Project description** - Briefly describes the nature and purpose of the land-disturbing activity, and the area (acres) to be disturbed.
- Existing site conditions** - A description of the existing topography, vegetation and drainage.
- Adjacent areas** - A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.
- Off-site areas** - Describe any off-site land-disturbing activities that will occur (including borrow sites, waste or surplus areas, etc.). Will any other areas be disturbed?
- Soils** - A brief description of the soils on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure.
- Critical areas** - A description of areas on the site which have potentially serious erosion problems (e.g., steep slopes, channels, wet weather/ underground springs, etc.).
- Erosion and sediment control measures** - A description of the methods which will be used to control erosion and sedimentation on the site. (Controls should meet the specifications in Chapter 3.)
- Permanent stabilization** - A brief description, including specifications, of how the site will be stabilized after construction is completed.
- Stormwater runoff considerations** - Will the development site cause an increase in peak runoff rates? Will the increase in runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff.
- Calculations** - Detailed calculations for the design of temporary sediment basins, permanent stormwater detention basins, diversions, channels, etc. Include calculations for pre- and post-development runoff.

VI - 13

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)

1992

Checklist (continued)

SITE PLAN

- Vicinity map** - A small map locating the site in relation to the surrounding area. Include any landmarks which might assist in locating the site.
- Indicate north** - The direction of north in relation to the site.
- Limits of clearing and grading** - Areas which are to be cleared and graded.
- Existing contours** - The existing contours of the site.
- Final contours** - Changes to the existing contours, including final drainage patterns.
- Existing vegetation** - The existing tree lines, grassed areas, or unique vegetation.
- Soils** - The boundaries of different soil types.
- Existing drainage patterns** - The dividing lines and the direction of flow for the different drainage areas. Include the size (acreage) of each drainage area.
- **N/A** **Critical erosion areas** - Areas with potentially serious erosion problems. (See Chapter 6 for criteria.)
- Site Development** - Show all improvements such as buildings, parking lots, access roads, utility construction, etc.
- Location of practices** - The locations of erosion and sediment controls and stormwater management practices used on the site. Use the standard symbols and abbreviations in Chapter 3 of this handbook.
- **N/A** **Off-site areas** - Identify any off-site land-disturbing activities (e.g., borrow sites, waste areas, etc.). Show location of erosion controls. (Is there sufficient information to assure adequate protection and stabilization?)
- **N/A** **Detail drawings** - Any structural practices used that are not referenced to the E&S handbook or local handbooks should be explained and illustrated with detail drawings.
- Maintenance** - A schedule of regular inspections and repair of erosion and sediment control structures should be set forth.

VI - 14

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-11)
- **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.

VDOT PROJECT 6234-076-266	SHEET NO. IR(1)
PNC PROJECT SPR2020-00363_503	

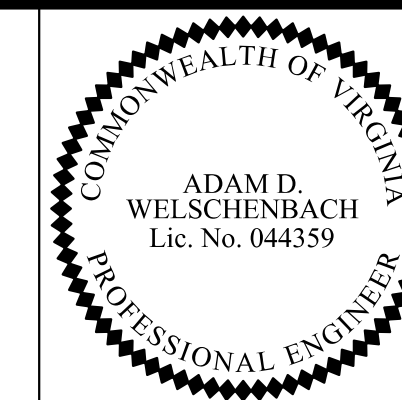
NOVA DISTRICT DESIGN UNIT
Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Professional Seal: Mark Gunn, P.E. (703) 368-7373
Professional Seal: Adam D. Welschenbach, P.E. (703) 368-7373
Professional Seal: Mary Ankers (703) 792-4228
Professional Seal: PWC_DOT (703) 792-4228



PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11, 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

EROSION CONTROL PHASE I

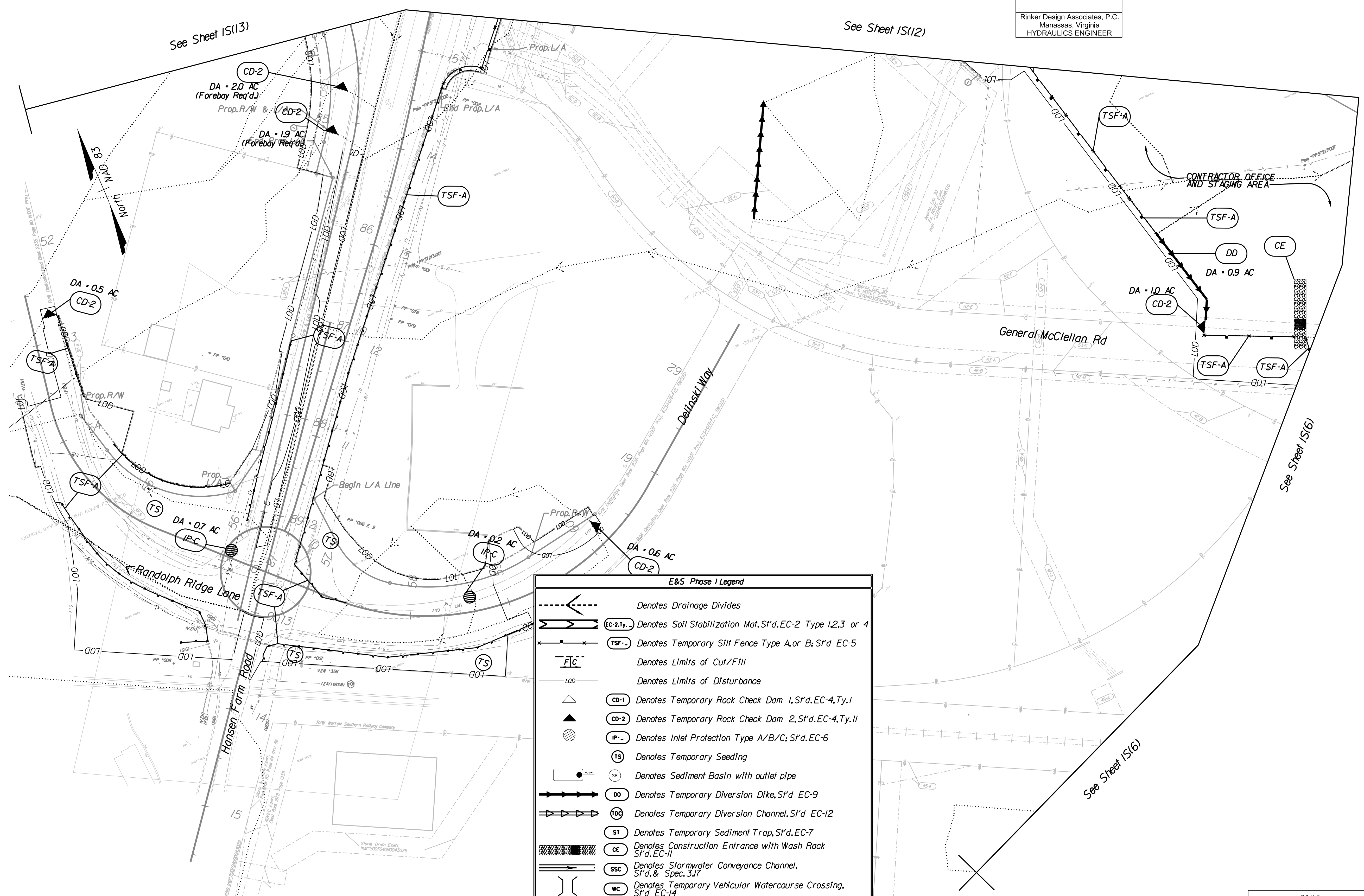
02 Revised sheet to include roundabout ESC measure.



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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	1S(12/11)

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



E&S Phase I Legend

	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd. EC-2 Type 1,2,3 or 4
	Denotes Temporary Silt Fence Type A or B; S'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Temporary Rock Check Dam 1, S'd. EC-4, Ty. I
	Denotes Temporary Rock Check Dam 2, S'd. EC-4, Ty. II
	Denotes Inlet Protection Type A/B/C; S'd. EC-6
	Denotes Temporary Seeding
	Denotes Sediment Basin with outlet pipe
	Denotes Temporary Diversion Dike, S'd. EC-9
	Denotes Temporary Diversion Channel, S'd. EC-12
	Denotes Temporary Sediment Trap, S'd. EC-7
	Denotes Construction Entrance with Wash Rack S'd. EC-11
	Denotes Stormwater Conveyance Channel, S'd. & Spec. 3.17
	Denotes Temporary Vehicular Watercourse Crossing, S'd. EC-14

6/24/2021 NOVA DISTRICT DESIGN UNIT

 Rinker Design Associates, P.C.
 Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Springfield, VA; Vienna, VA; Woodbridge, VA; Yorktown, VA

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, July 2019

EROSION CONTROL PHASE I

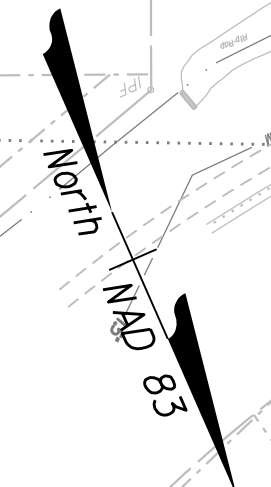
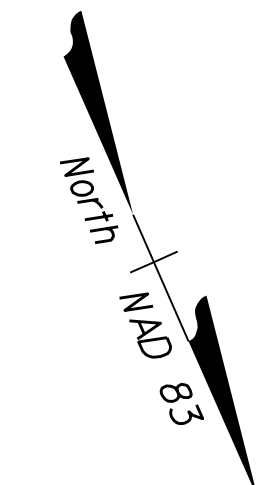
ADAM D. WELSCHENBACH
 Lic. No. 044359
 COMMONWEALTH OF VIRGINIA
 PROFESSIONAL ENGINEER

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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	15(13)

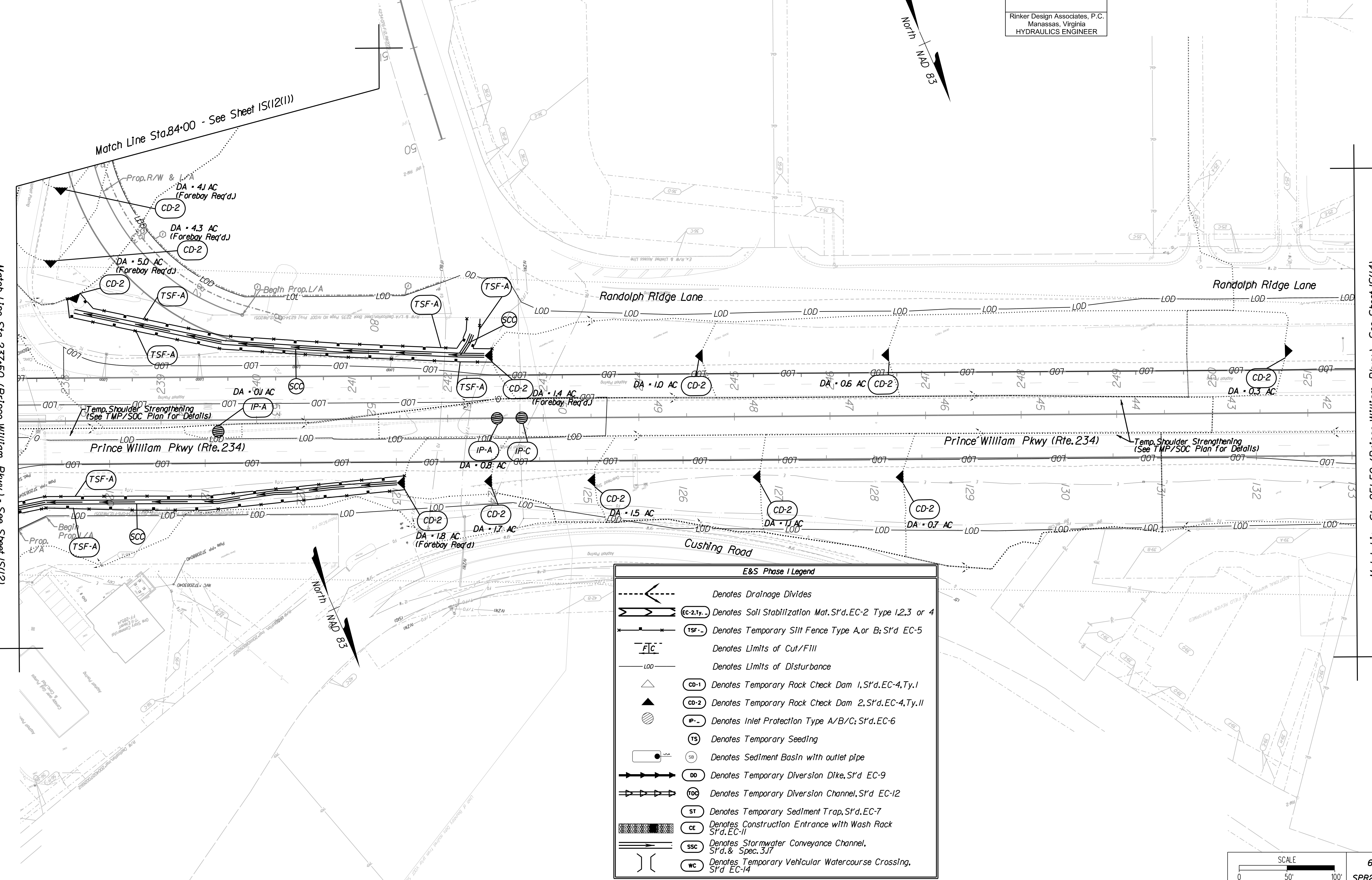
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

02 Revised to add IP.



E&S Phase I Legend

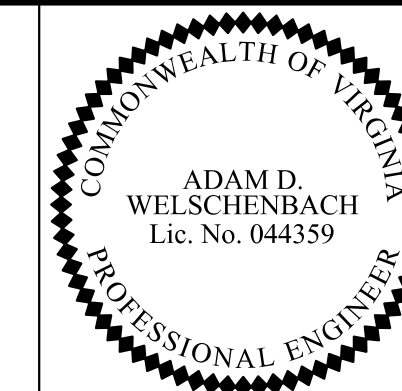
- Denotes Drainage Divides
- Denotes Soil Stabilization Mat, S'd. EC-2 Type 1, 2, 3 or 4
- Denotes Temporary Silt Fence Type A, or B; S'd. EC-5
- Denotes Limits of Cut/Fill
- Denotes Limits of Disturbance
- Denotes Temporary Rock Check Dam 1, S'd. EC-4, Ty. I
- Denotes Temporary Rock Check Dam 2, S'd. EC-4, Ty. II
- Denotes Inlet Protection Type A/B/C; S'd. EC-6
- Denotes Temporary Seeding
- Denotes Sediment Basin with outlet pipe
- Denotes Temporary Diversion Dike, S'd. EC-9
- Denotes Temporary Diversion Channel, S'd. EC-12
- Denotes Temporary Sediment Trap, S'd. EC-7
- Denotes Construction Entrance with Wash Rack S'd. EC-11
- Denotes Stormwater Conveyance Channel, S'd. & Spec. 3.17
- Denotes Temporary Vehicular Watercourse Crossing, S'd. EC-14



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PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, July 2019



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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	IT(12)

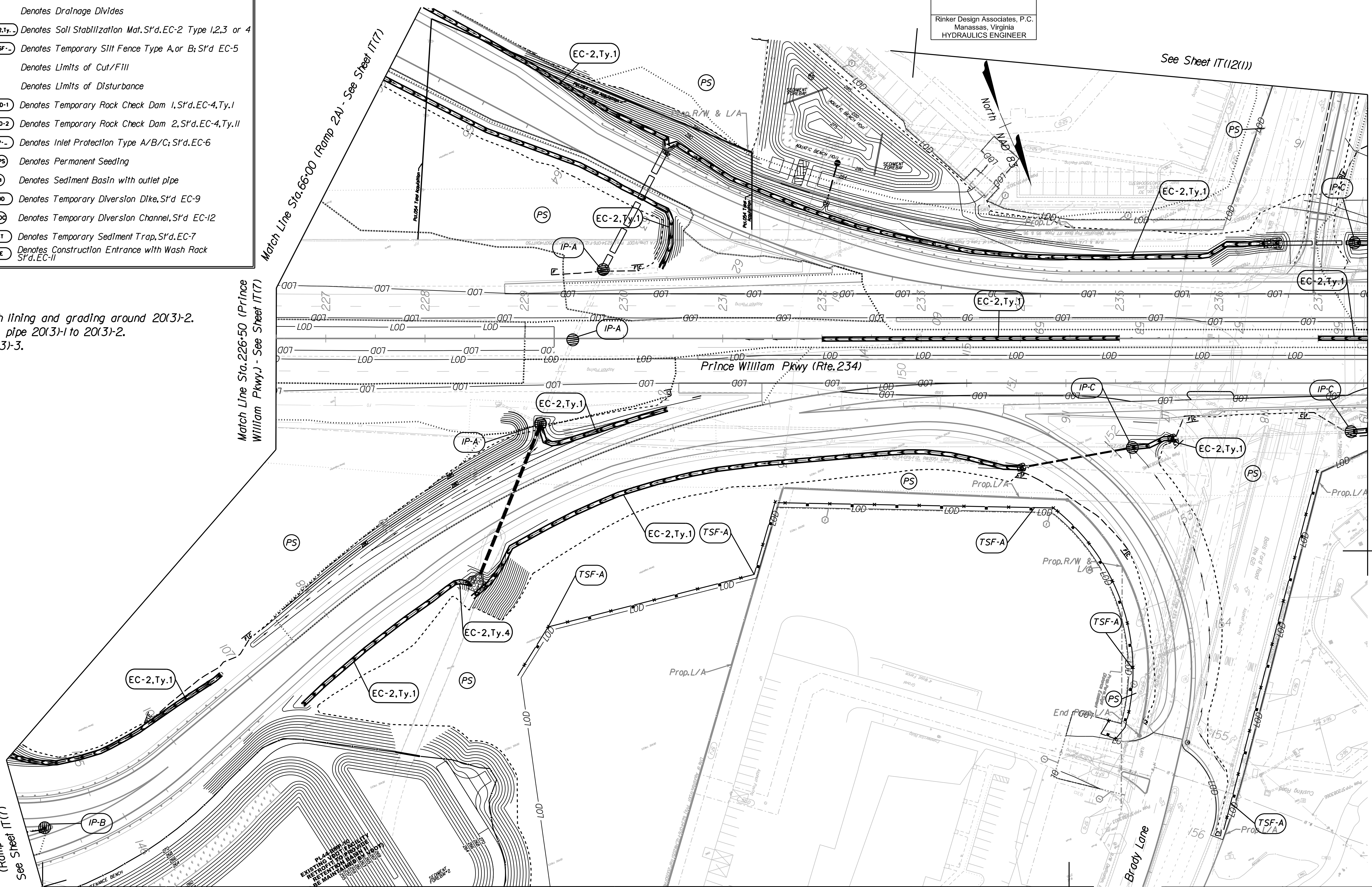
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

EROSION CONTROL PHASE 2

E&S Phase 2 Legend

	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S'd, EC-2 Type 1, 2, 3 or 4
	Denotes Temporary Silt Fence Type A, or B; S'd, EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Temporary Rock Check Dam 1, S'd, EC-4, Ty. 1
	Denotes Temporary Rock Check Dam 2, S'd, EC-4, Ty. 11
	Denotes Inlet Protection Type A/B/C; S'd, EC-6
	Denotes Permanent Seeding
	Denotes Sediment Basin with outlet pipe
	Denotes Temporary Diversion Dike, S'd, EC-9
	Denotes Temporary Diversion Channel, S'd, EC-12
	Denotes Temporary Sediment Trap, S'd, EC-7
	Denotes Construction Entrance with Wash Rack S'd, EC-11

02 Revised ditch lining and grading around 20(3)-2. Added storm pipe 20(3)-1 to 20(3)-2. Removed 20(3)-3.



Match Line Sta. 66+00 (Ramp 2A) - See Sheet IT(7)

Match Line Sta. 226+50 (Prince William Pkwy.) - See Sheet IT(7)

See Sheet IT(12)(11)

See Sheet IT(12)(2)

Match Line Sta. 237+50 (Prince William Pkwy.) - See Sheet IT(13)

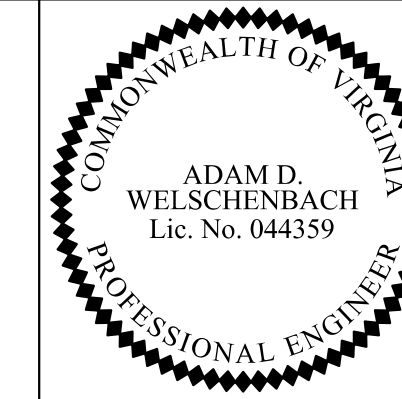
SCALE	VDOT PROJECT 6234-076-266 PWC PROJECT SPR2020-00383 S03	SHEET NO. IT(12)
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NOVA DISTRICT DESIGN UNIT

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PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11, 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

EROSION CONTROL PHASE 2

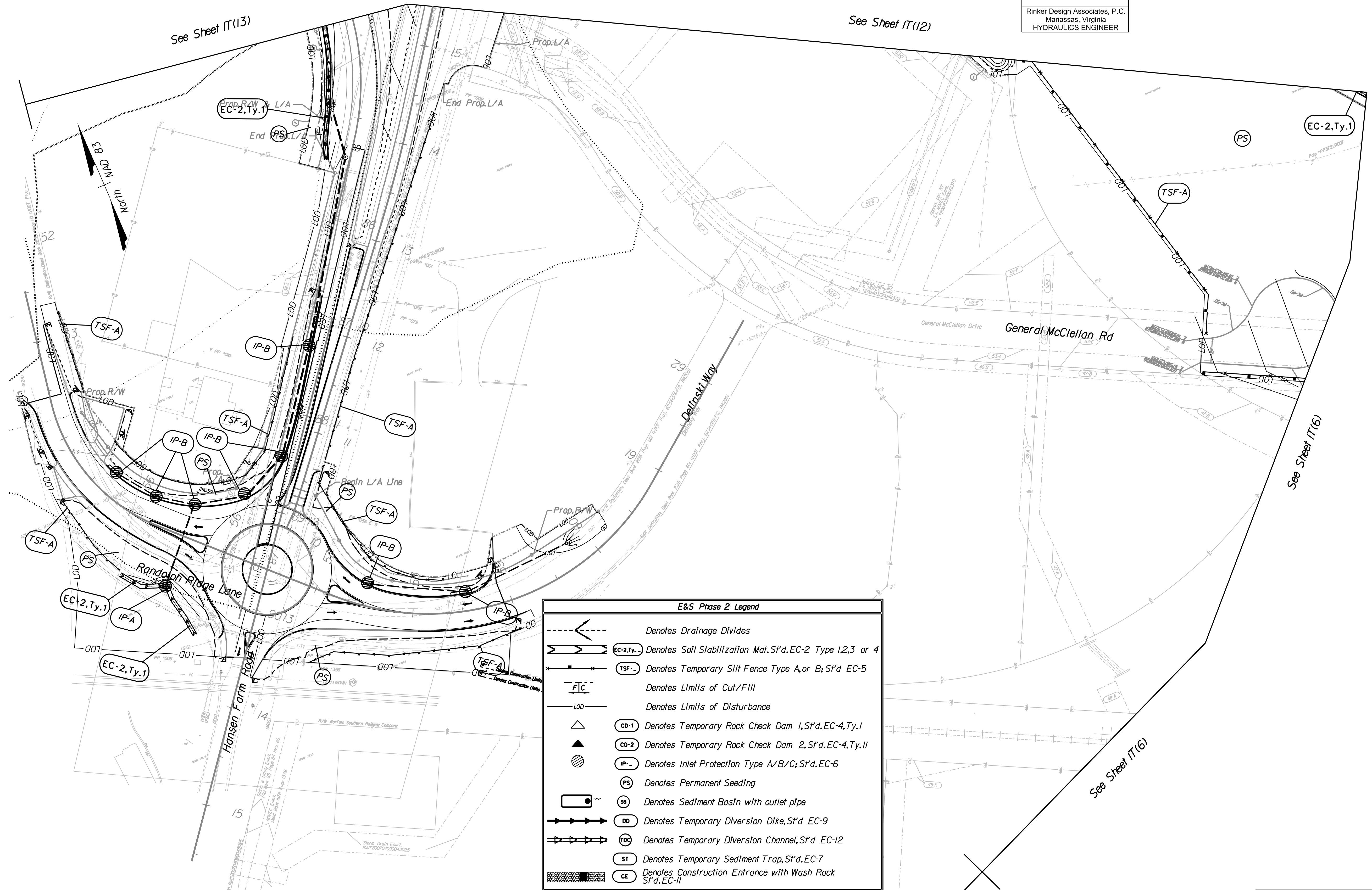


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REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	IT(12111)

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

02 Revised to include roundabout ESC measures.



E&S Phase 2 Legend

	Denotes Drainage Divides
	Denotes Soil Stabilization Mat, S't'd. EC-2 Type 1, 2, 3 or 4
	Denotes Temporary Silt Fence Type A, or B; S't'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Temporary Rock Check Dam 1, S't'd. EC-4, Ty. I
	Denotes Temporary Rock Check Dam 2, S't'd. EC-4, Ty. II
	Denotes Inlet Protection Type A/B/C; S't'd. EC-6
	Denotes Permanent Seeding
	Denotes Sediment Basin with outlet pipe
	Denotes Temporary Diversion Dike, S't'd. EC-9
	Denotes Temporary Diversion Channel, S't'd. EC-12
	Denotes Temporary Sediment Trap, S't'd. EC-7
	Denotes Construction Entrance with Wash Rack S't'd. EC-11

LANE
 NOVA DISTRICT DESIGN UNIT
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 Transportation • Right of Way Services

LIMITED ACCESS HIGHWAY

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, July 2019

EROSION CONTROL PHASE 2

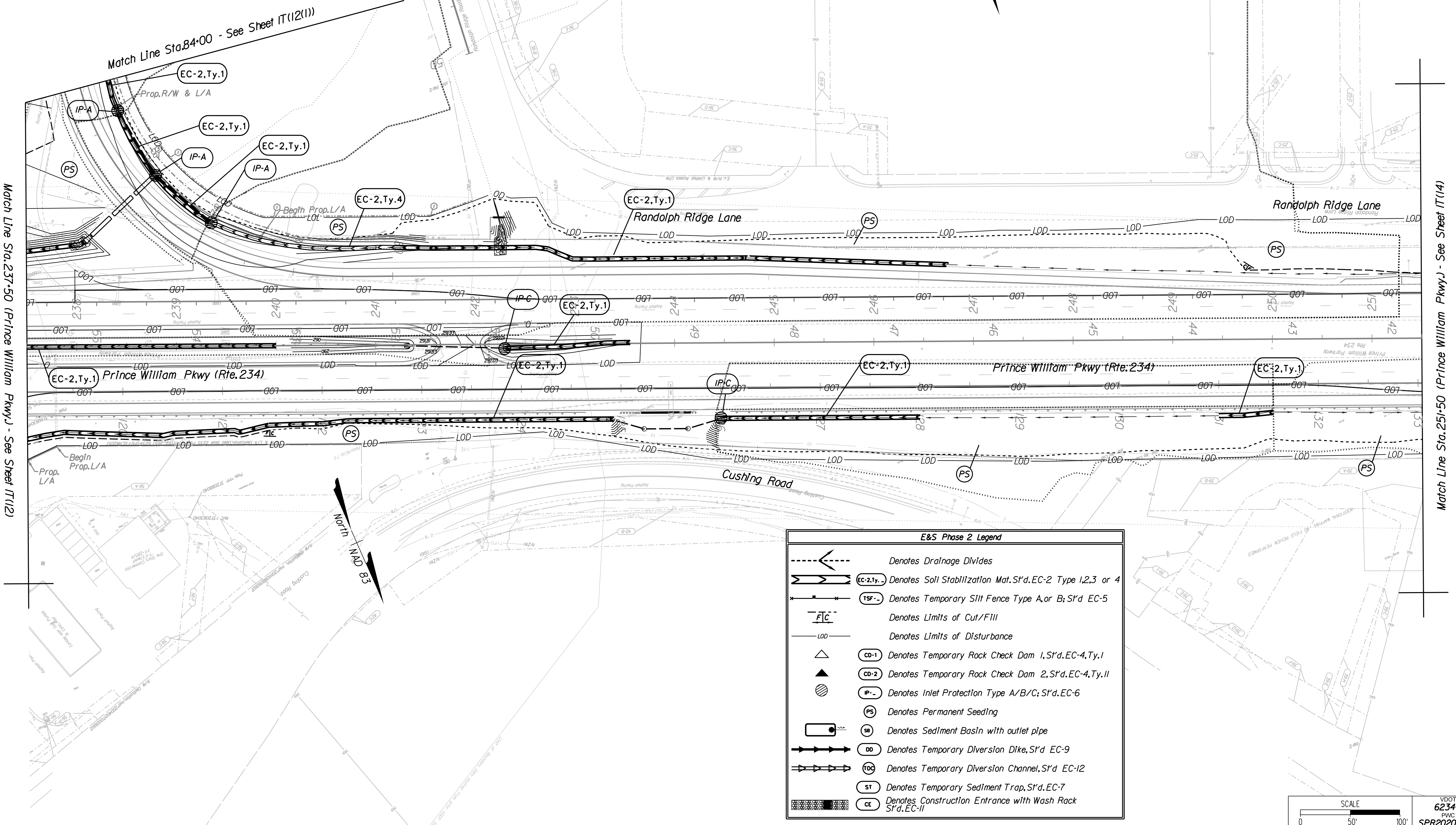
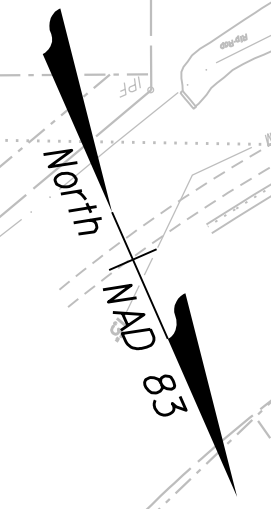
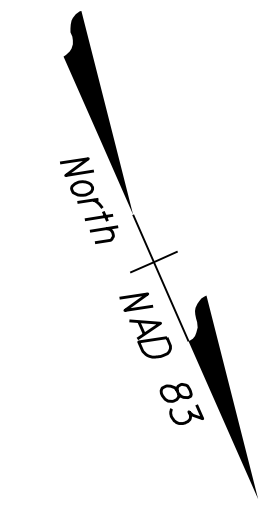
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 ADAM D. WELSCHENBACH
 Lic. No. 044359

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REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	IT(13)

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

02 Revised ditch lining, Added ditch and Culvert 3(13)-16.



E&S Phase 2 Legend

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	Denotes Soil Stabilization Mat, S'd. EC-2 Type 1, 2, 3 or 4
	Denotes Temporary Silt Fence Type A, or B; S'd. EC-5
	Denotes Limits of Cut/Fill
	Denotes Limits of Disturbance
	Denotes Temporary Rock Check Dam 1, S'd. EC-4, Ty. I
	Denotes Temporary Rock Check Dam 2, S'd. EC-4, Ty. II
	Denotes Inlet Protection Type A/B/C; S'd. EC-6
	Denotes Permanent Seeding
	Denotes Sediment Basin with outlet pipe
	Denotes Temporary Diversion Dike, S'd. EC-9
	Denotes Temporary Diversion Channel, S'd. EC-12
	Denotes Temporary Sediment Trap, S'd. EC-7
	Denotes Construction Entrance with Wash Rack S'd. EC-11

SCALE 0 50' 100'

VDOT PROJECT 6234-076-266
 PWC PROJECT
 SPR2020-00383 S03

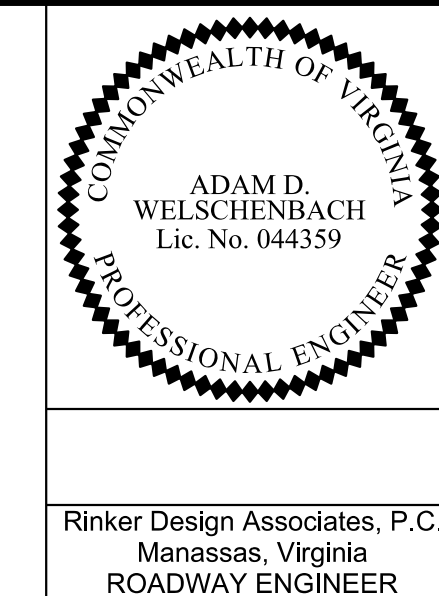
SHEET NO. IT(13)

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 Transportation - Right of Way Services
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PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Typical Sections

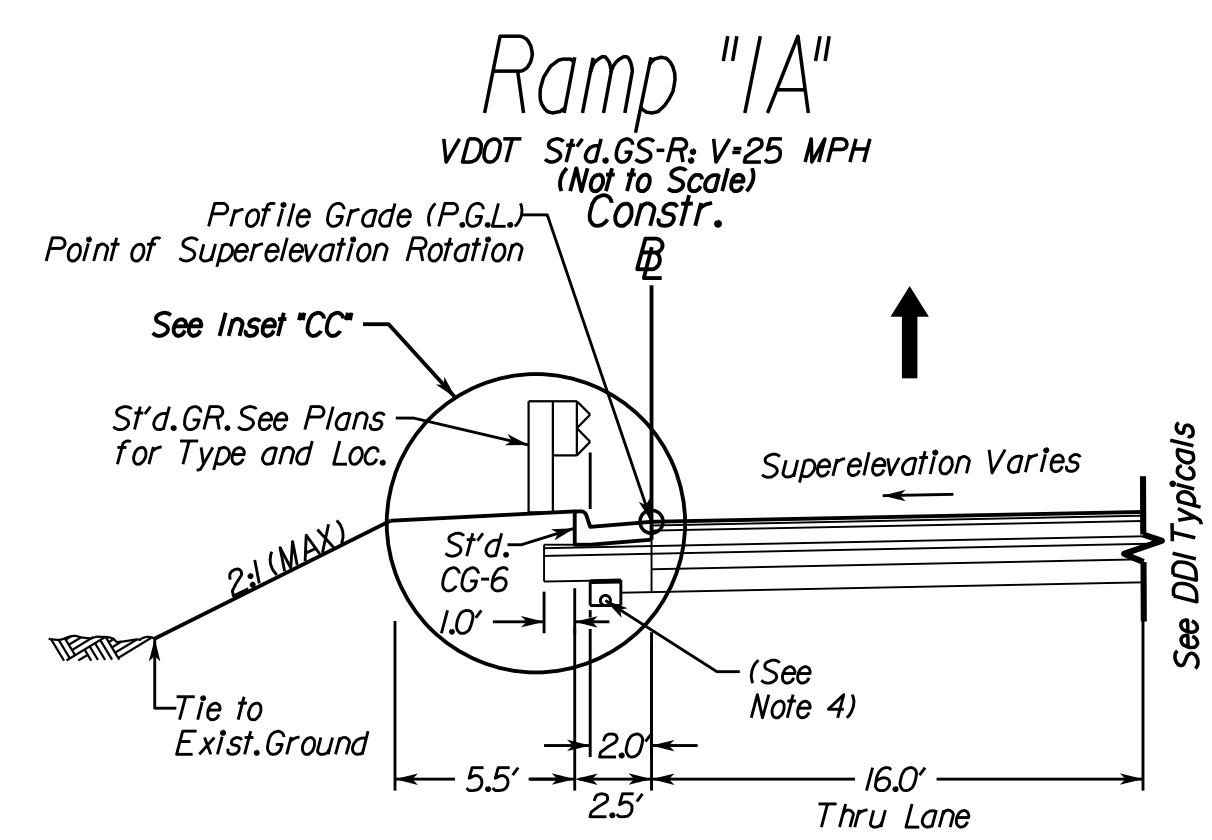


REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	62I	6234-076-266, C-501, RW-201	2A(4)

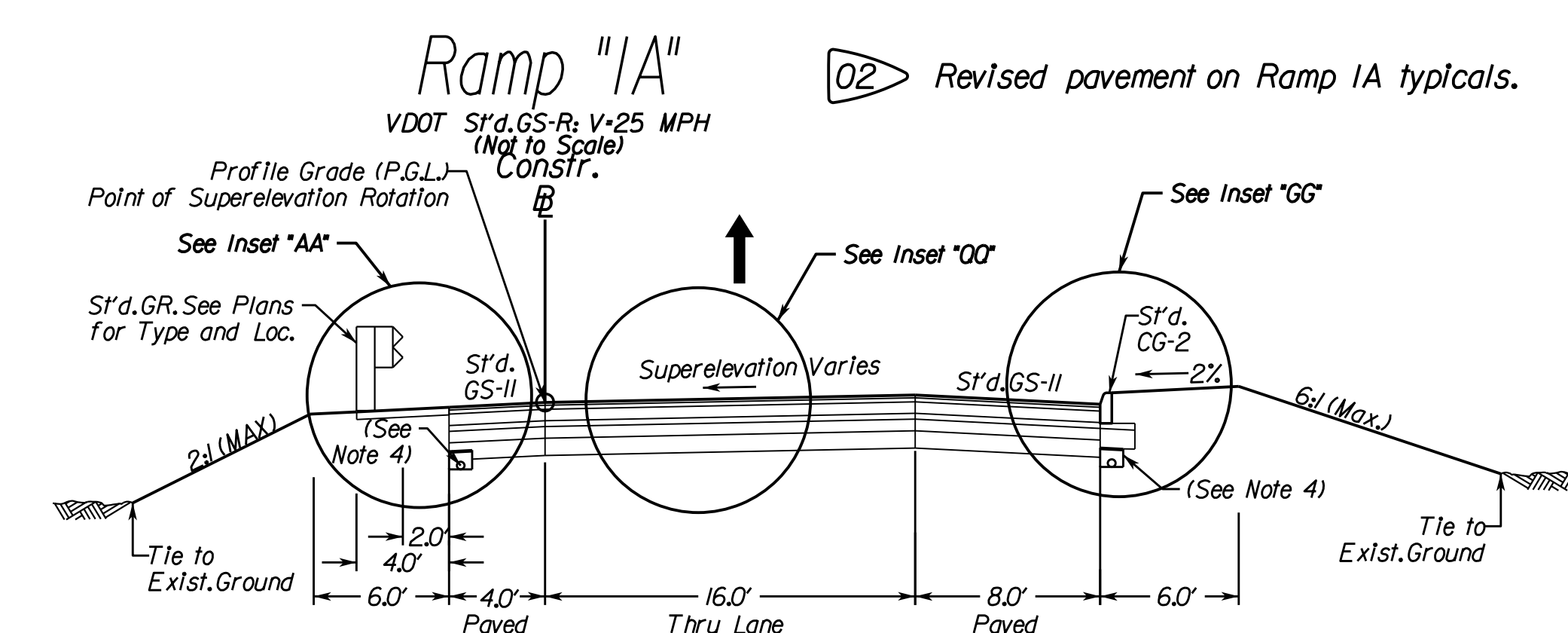
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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

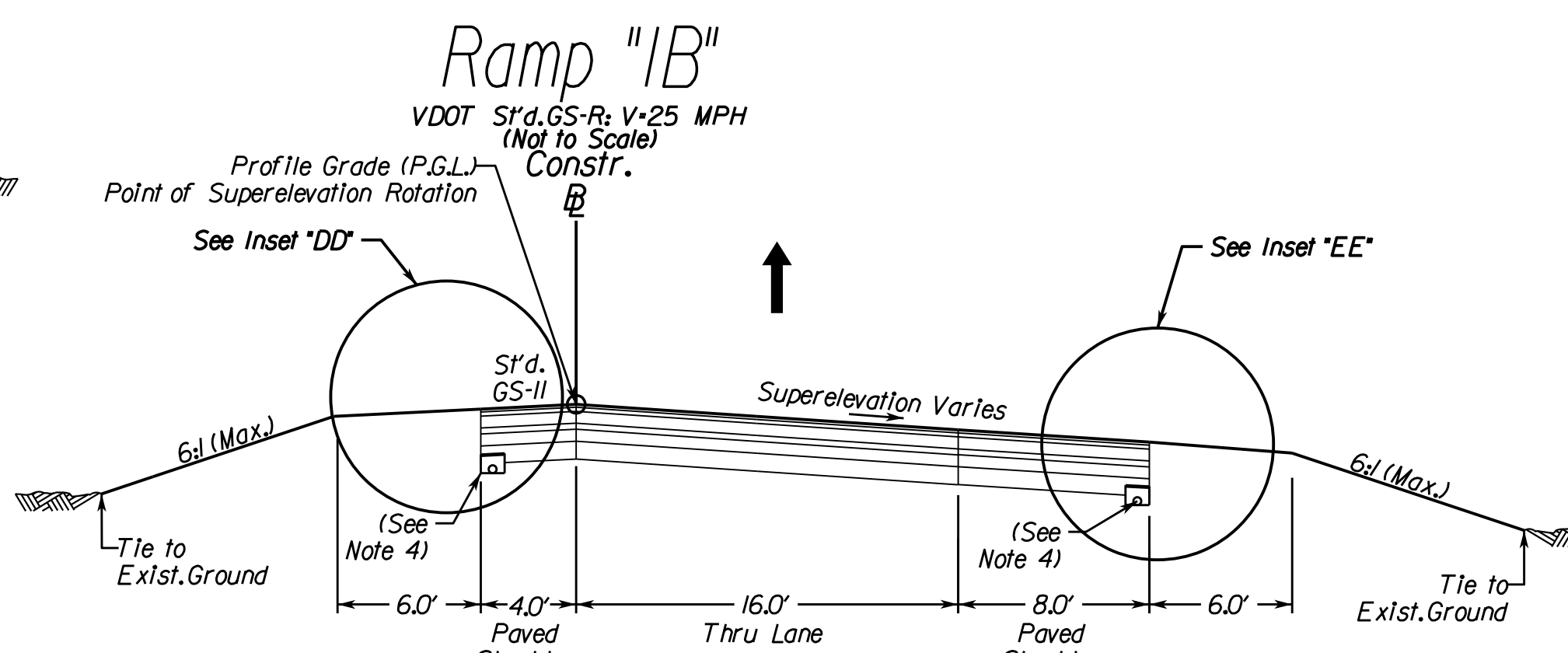
02 Revised pavement on Ramp IA typicals.



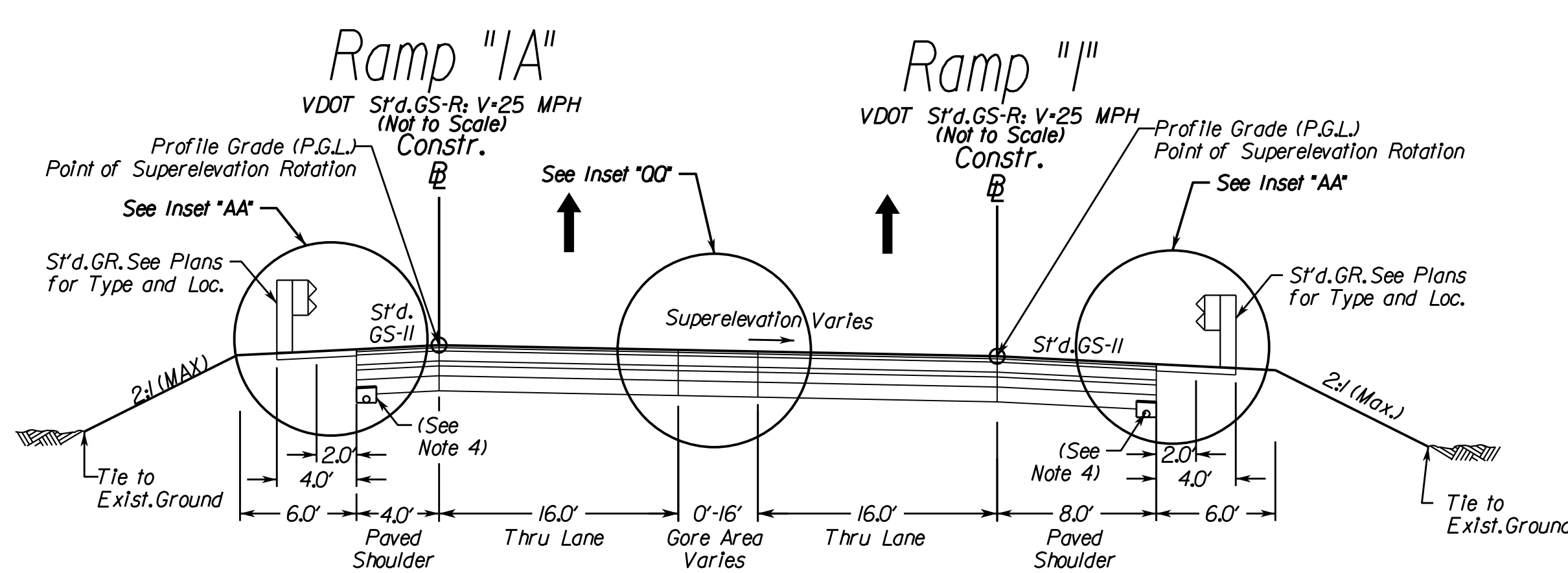
LOCATION: Ramp "IA" STATION: 100+42 TO 101+35



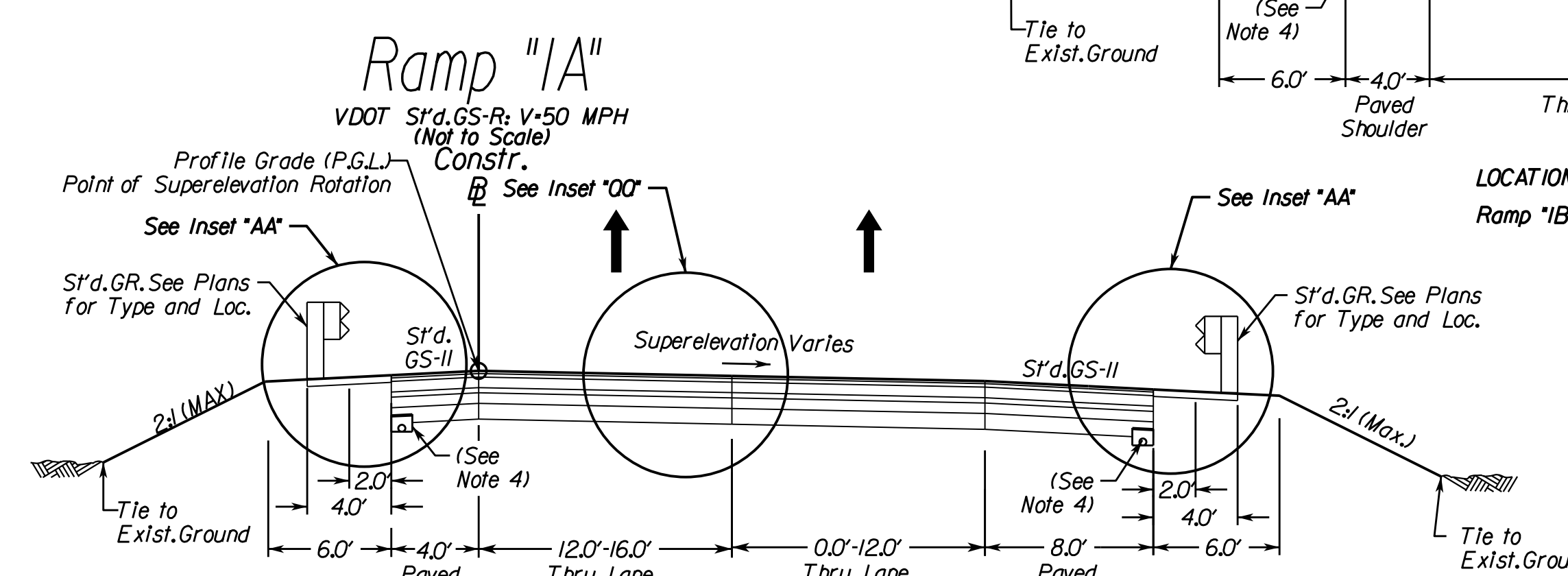
LOCATION: Ramp "IA" STATION: 101+35 TO 104+59



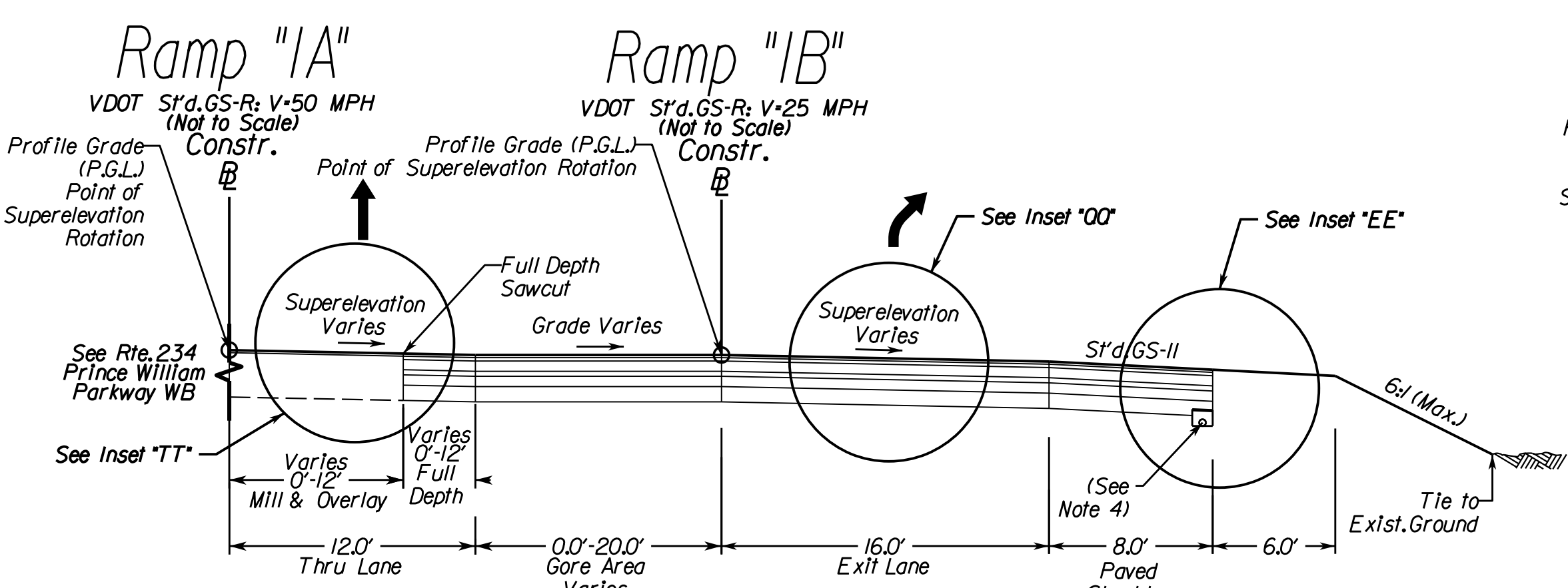
LOCATION: Ramp "IB" STATION: 151+08 TO 155+14



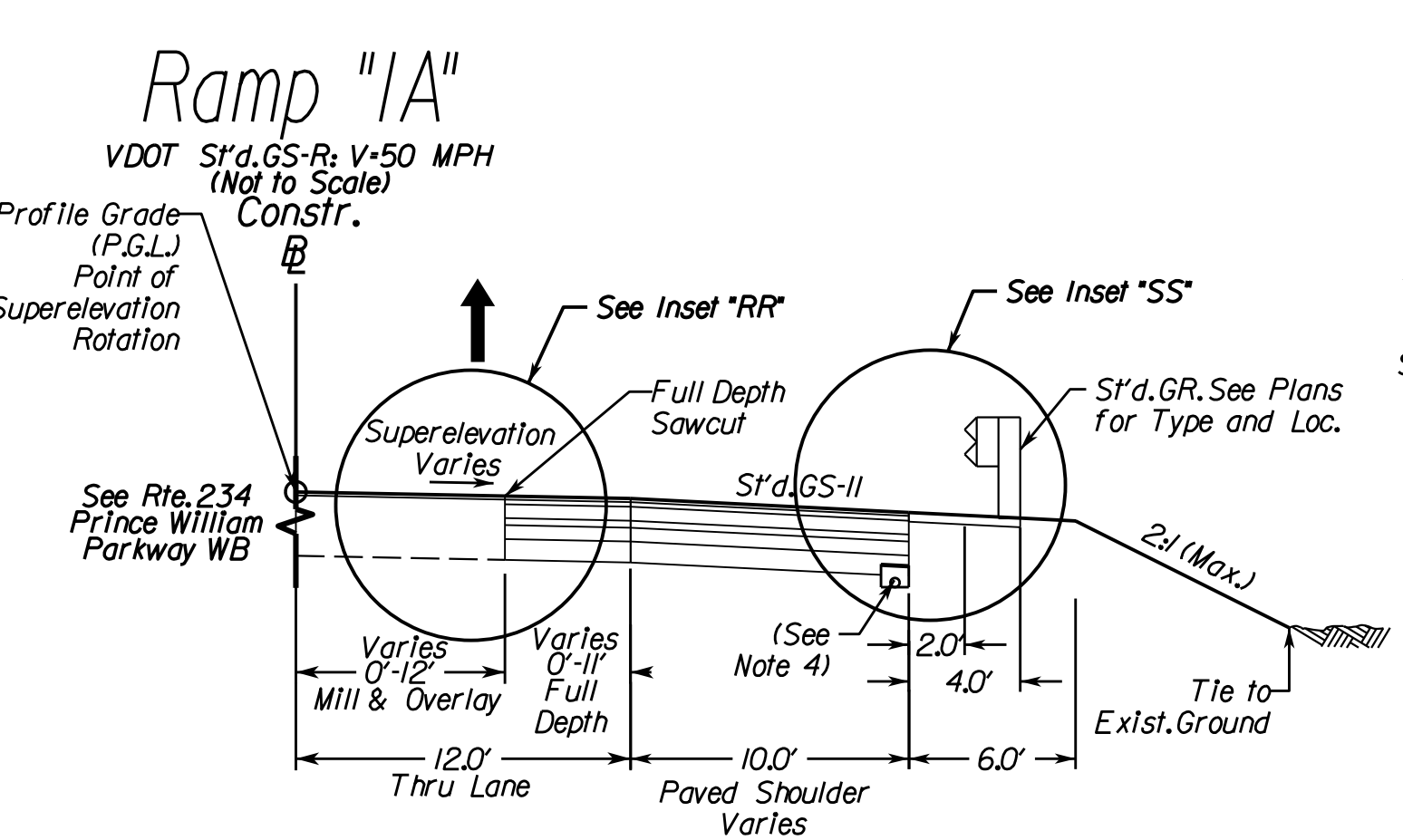
LOCATION: Ramp "IA" STATION: 104+59 TO 145+28



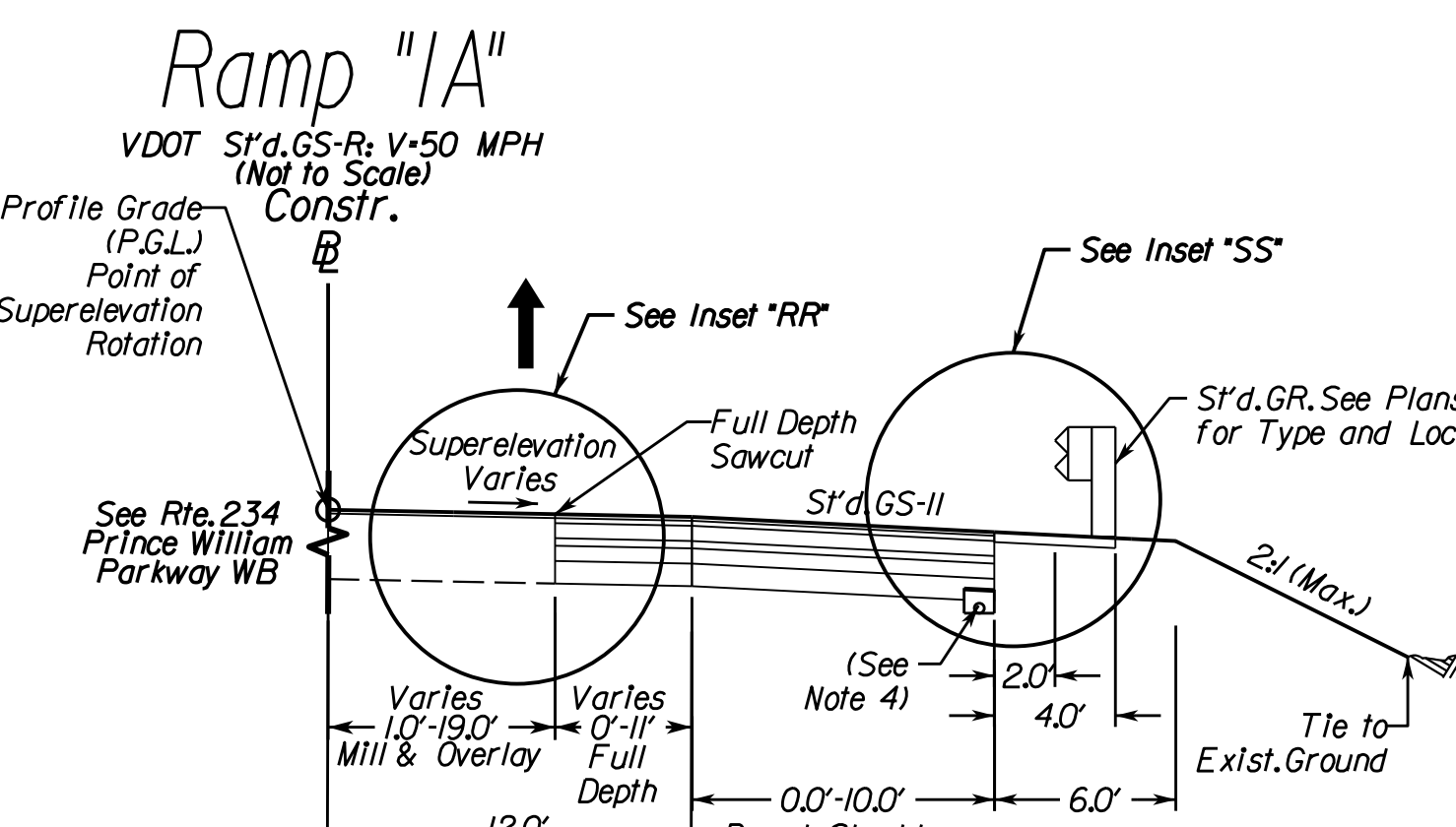
LOCATION: Ramp "IA" STATION: 105+97 TO 113+47



LOCATION: Ramp "IA" STATION: 113+47 TO 151+08



LOCATION: Ramp "IA" STATION: 115+05 TO 131+50



LOCATION: Ramp "IA" STATION: 131+50 TO 134+50

TYPICAL SECTION NOTES

- See Sheet 2A(14)-2A(15) for Pavement Inset Details.
- The mainline pavement section shall be applied up to the curb return of all connecting roads and entrances.
- Mill and Overlay/Variable Build-Up Limits shown on plan sheets 3 thru 24 govern over the typical ranges shown on this sheet.
- S'd. UD-4 Req'd. see plan sheets for detailed locations.
- All Pavement widening shall be performed in accordance with VDOT S'd. WP-2.
- See drainage descriptions sheet 2K series for ditch typicals.
- Contractor to provide positive drainage for subgrade course 2I-B for outside areas in shoulders and super-elevated sections.
- Guardrail Installation/Offset sets shall be in accordance with Standard GR-INS and VDOT's RDM.
- Roadway subbase shall be extended 12' behind the curb and gutter and 6' behind the curb on the median. SUP subbase shall be extended 6' on either side and Sidewalk subbase shall be extended 4' on either side.
- Milling of the existing pavement should consist of 1.5" Minimum mill prior to any resurfacing.
- See profile sheets for Super-elevation details.
- Pavement widths vary at turn lanes, tapers and connections. See plan sheets and cross sections for pavement lengths and widths. For I-lane ramps, Sub-Base No. 4B should be increased to 9" Select Material, Type I, Minimum CBR-30 connected to a standard UD-4 edg drain located beneath the outside edge of paved shoulder.

NOTE:
 -See sheets 2A(13) and 2A(15) for Inset details.
 -See sheet 2A(16) thru 2A(23) for geotechnical recommendations.

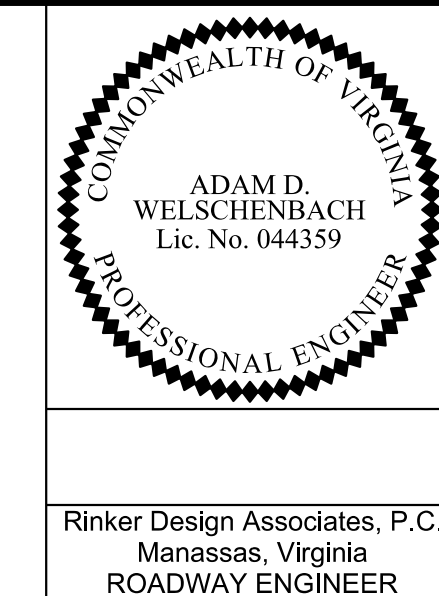
NOT TO SCALE	VDOT PROJECT 6234-076-266 PINC PROJECT SPR2020-00383 S03	SHEET NO. 2A(4)
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NOVA DISTRICT DESIGN UNIT
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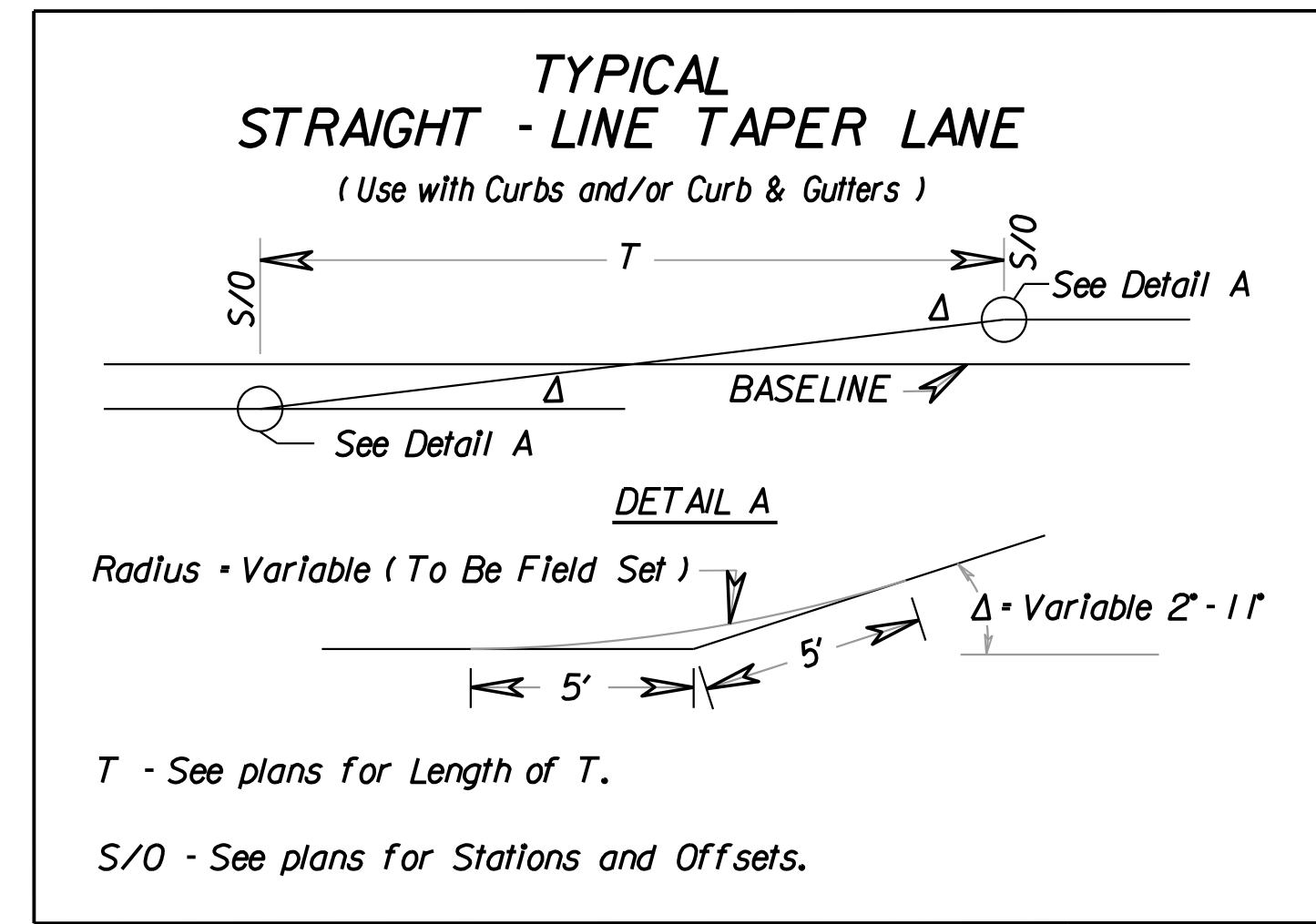
PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

Typical Sections

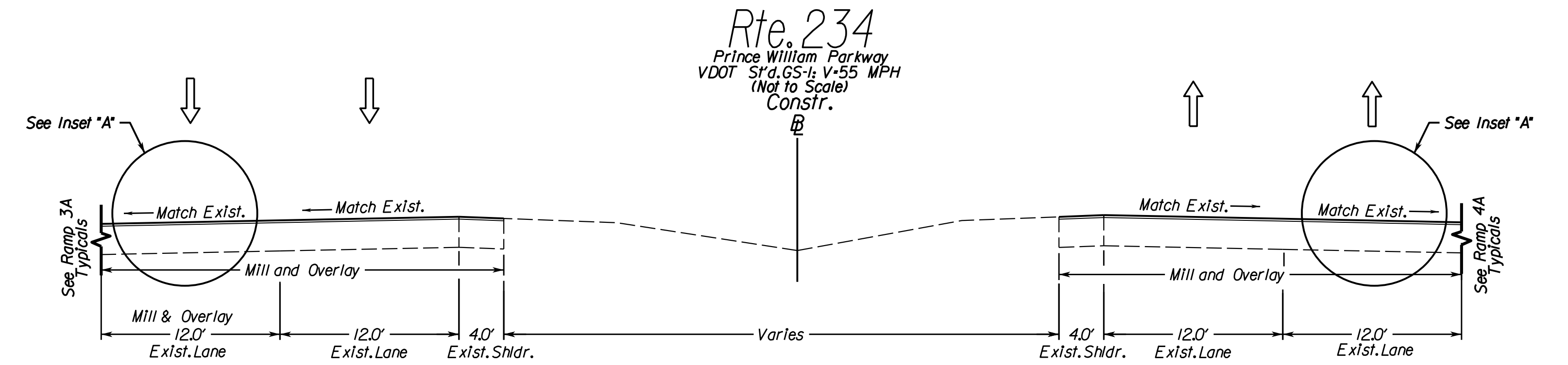


REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	2A(9)

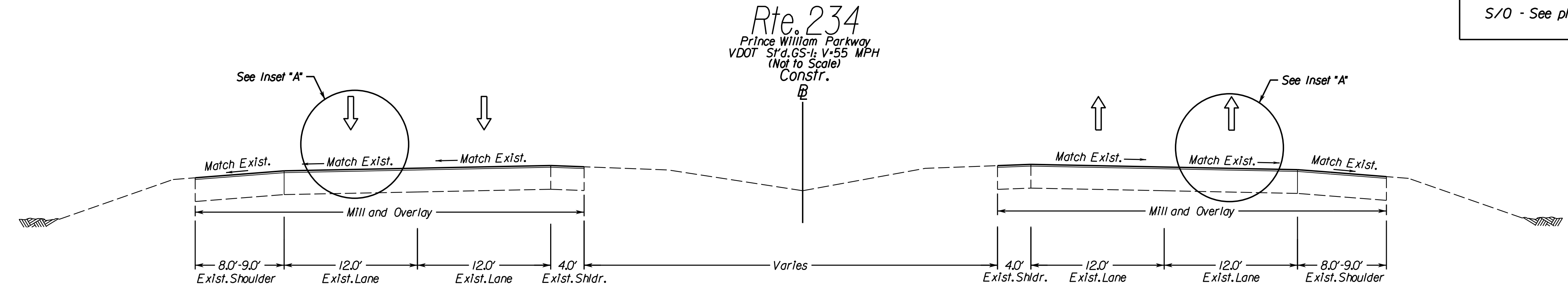
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



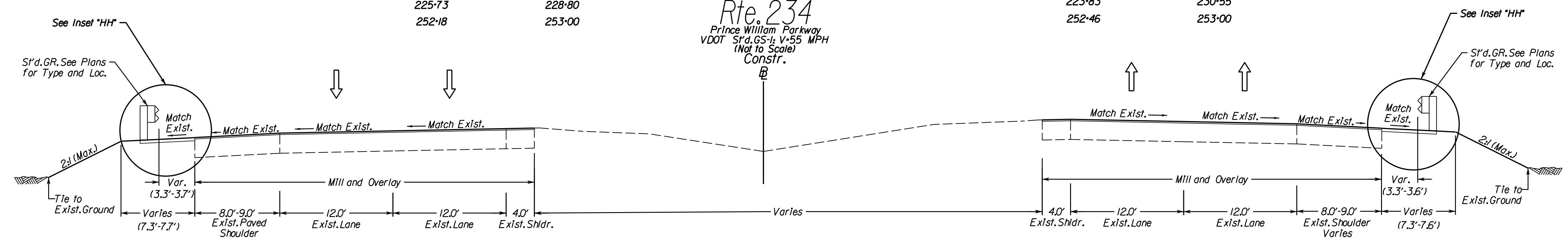
02 Revised shoulder section in pavement in front of BPPS.



LOCATION	STATION	TO	STATION	LOCATION	STATION	TO	STATION
Rte. 234	200+96		211+17	Rte. 234	203+80		215+54



LOCATION	STATION	TO	STATION	LOCATION	STATION	TO	STATION
Rte. 234	199+58		200+96	Rte. 234	198+38		401+97
	211+17		220+14		215+54		218+40
	225+73		228+80		223+83		230+55
	252+18		253+00		252+46		253+00



LOCATION	STATION	TO	STATION	LOCATION	STATION	TO	STATION
Rte. 234	223+37		224+62	Rte. 234	219+67		220+97

- TYPICAL SECTION NOTES**
1. Contractor to provide positive drainage for subgrade course 2'-B for outside areas in shoulders and super-elevated sections.
 2. Guardrail installation/Offsets shall be in accordance with Standard GR-INS and VDOT's RDM.
 3. Roadway subbase shall be extended 12" behind the curb and gutter and 6" behind the curb on the median. SUP subbase shall be extended 6" on either side and Sidewalk subbase shall be extended 4" on either side.
 4. Milling of the existing pavement should consist of 1.5" Minimum mill prior to any resurfacing.
 5. See profile sheets for Super-elevation details.

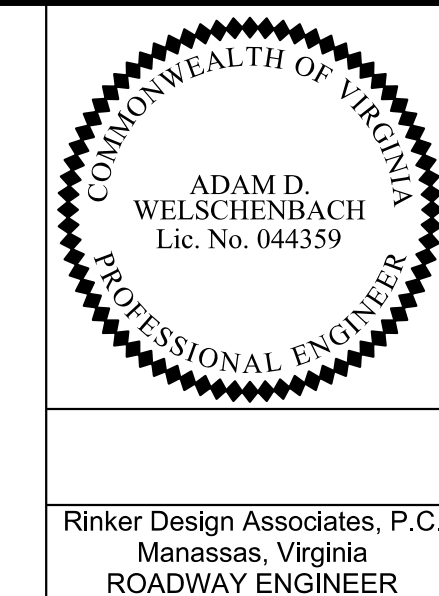
6. See drainage descriptions sheet 2K series for ditch typicals.
7. See Sheet 2A(14)-2A(15) for Pavement Inset Details.
8. The mainline pavement section shall be applied up to the curb return of all connecting roads and entrances.
9. Mill and Overlay/Variable Build-Up Limits shown on plan sheets 3 thru 24 govern over the typical ranges shown on this sheet.
10. S'd. UD-4 Req'd. see plan sheets for detailed locations.
11. All Pavement widening shall be performed in accordance with VDOT S'd.WP-2.
12. See drainage descriptions sheet 2K series for ditch typicals.
13. Contractor to provide positive drainage for subgrade course 2'-B for outside areas in shoulders and super-elevated sections.
14. Guardrail installation/Offsets shall be in accordance with Standard GR-INS and VDOT's RDM.
15. Roadway subbase shall be extended 12" behind the curb and gutter and 6" behind the curb on the median. SUP subbase shall be extended 6" on either side and Sidewalk subbase shall be extended 4" on either side.
16. Milling of the existing pavement should consist of 1.5" Minimum mill prior to any resurfacing.
17. See profile sheets for Super-elevation details.

18. Pavement widths vary at turn lanes, tapers and connections. See plan sheets and cross sections for pavement lengths and widths.
19. For 1-lane ramps, Sub-Base No. 4B should be increased to 9" Select Material, Type I, Minimum CBR-30 connected to a standard UD-4 edgedrain located beneath the outside edge of paved shoulder.

NOTE:
-See sheets 2A(13) and 2A(15) for Inset details.
-See sheet 2A(16) thru 2A(23) for geotechnical recommendations.

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Typical Sections

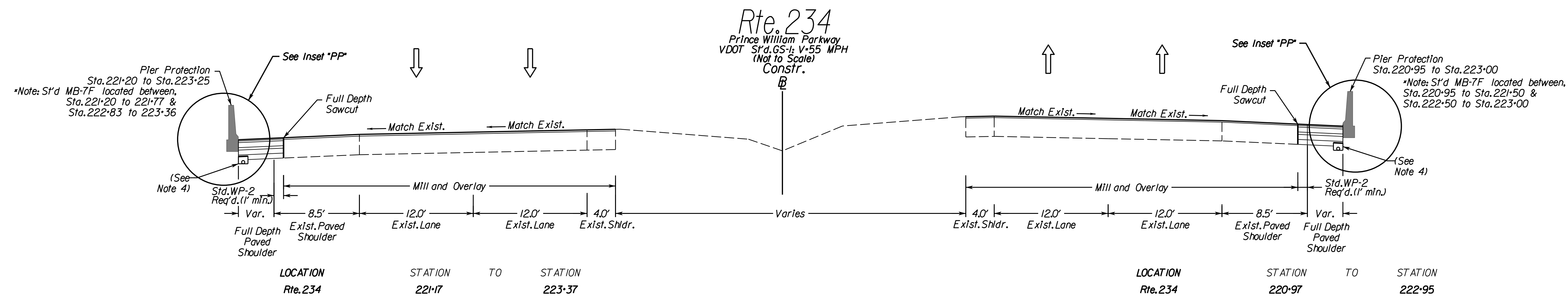


REVISED NDC02	STATE VA.	ROUTE 62/	STATE PROJECT 6234-076-266, C-501, RW-201	SHEET NO. 2A(10)
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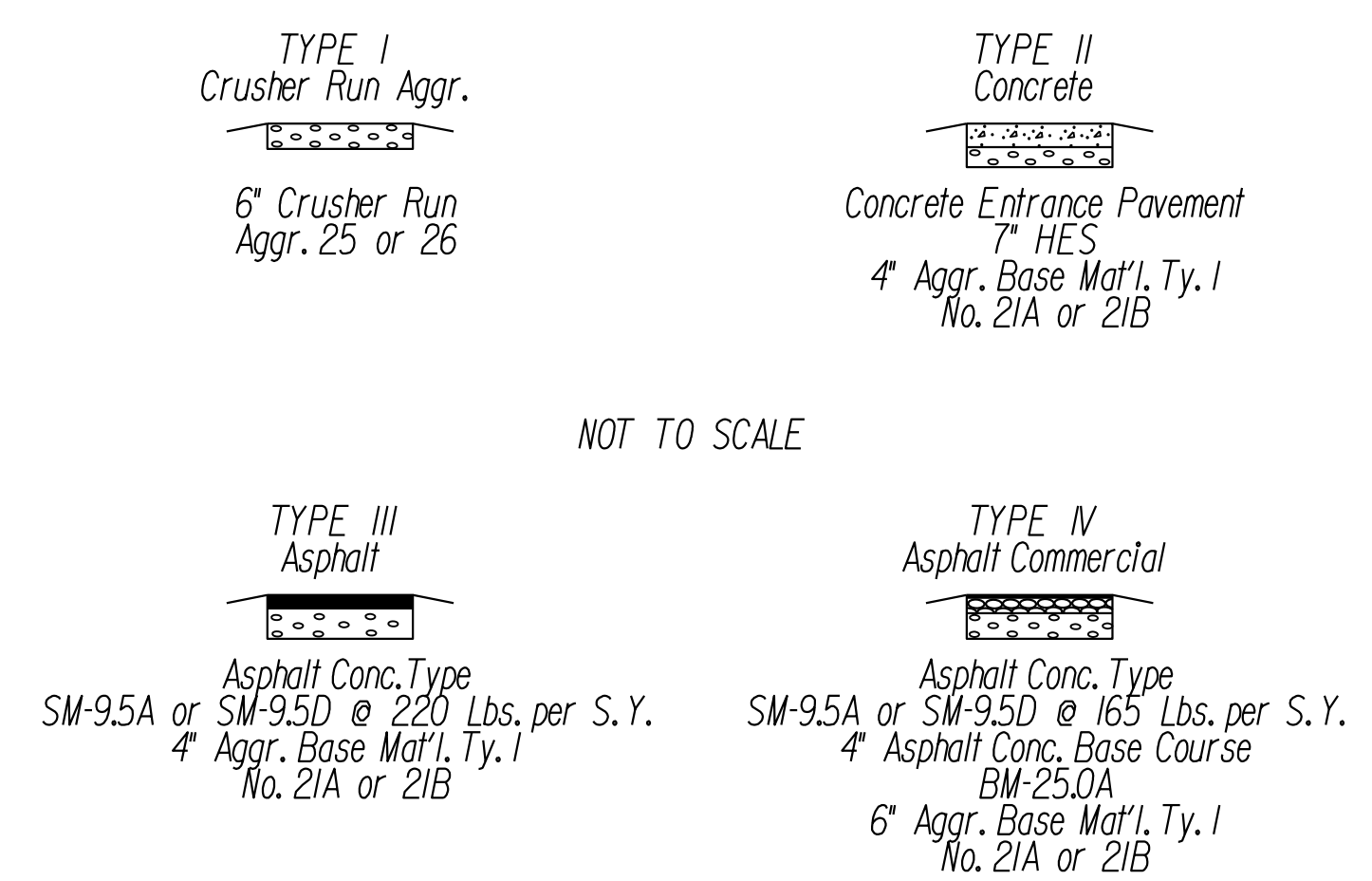
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

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Manassas, Virginia
ROADWAY ENGINEER

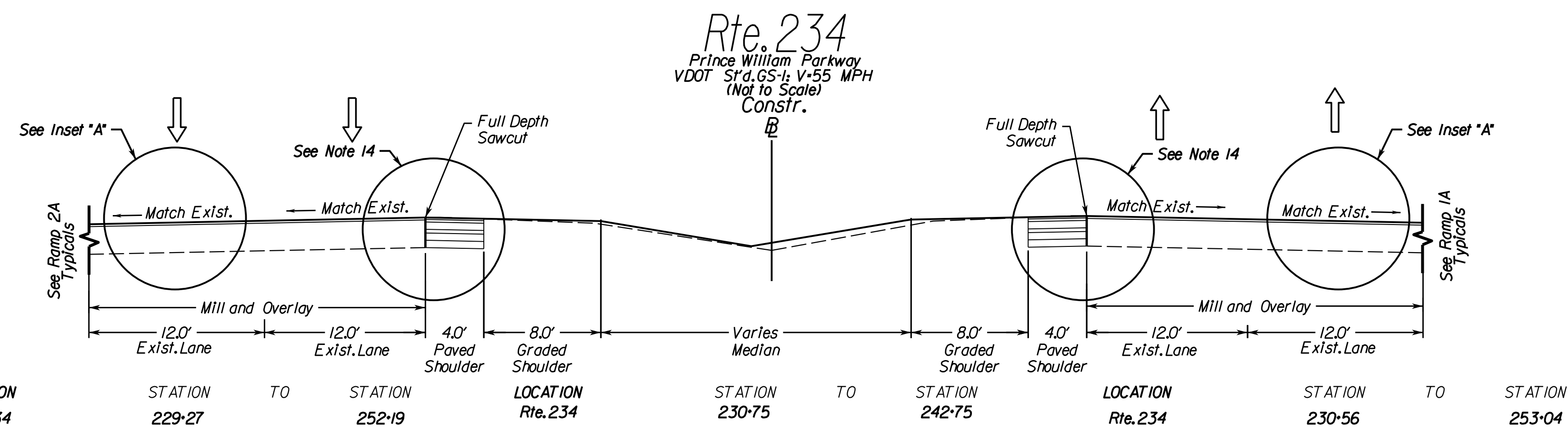
02 Revised shoulder section in pavement in front of BPPS.



PRIVATE AND COMMERCIAL ENTRANCES



The type of entrance (I, II, III, IV) to be constructed will be determined by the existing condition at the time of construction.



TYPICAL SECTION NOTES

- See Sheet 2A(14)-2A(15) for Pavement Inset Details.
- The mainline pavement section shall be applied up to the curb return of all connecting roads and entrances.
- Mill and Overlay/Variable Build-Up Limits shown on plan sheets 3 thru 24 govern over the typical ranges shown on this sheet.
- Std. UD-4 Req'd., see plan sheets for detailed locations.
- All Pavement widening shall be performed in accordance with VDOT Std. WP-2.
- See drainage descriptions sheet 2K series for ditch typicals.
- Contractor to provide positive drainage for subgrade course 21-B for outside areas in shoulders and super-elevated sections.
- Guardrail Installation/Offsets shall be in accordance with Standard GR-INS and VDOT's RDM.
- Roadway subbase shall be extended 12' behind the curb and gutter and 6' behind the curb on the median. SUP subbase shall be extended 6' on either side and Sidewalk subbase shall be extended 4' on either side.
- Milling of the existing pavement should consist of 1.5" Minimum mill prior to any resurfacing.
- See profile sheets for Super-elevation details.

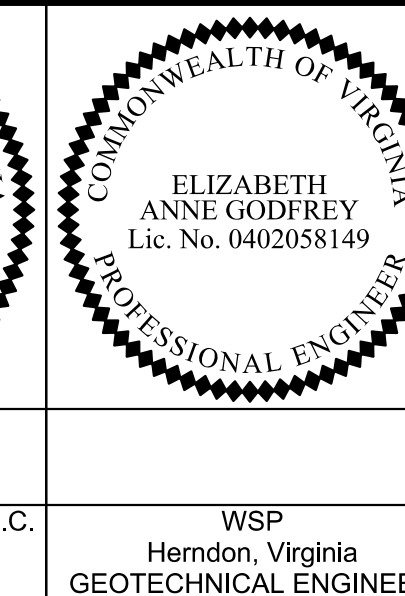
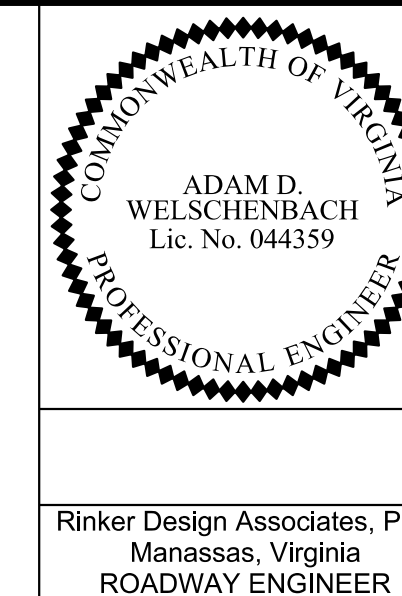
- Pavement widths vary at turn lanes, tapers and connections. See plan sheets and cross sections for pavement lengths and widths.
- For 1-lane ramps, Sub-Base No. 4B should be increased to 9" Select Material, Type I, Minimum CBR-30 connected to a standard UD-4 edg drain located beneath the outside edge of paved shoulder.
- See Sheet 1K(1A) of MOT plans for shoulder strengthening Inset.

NOTE:
-See sheets 2A(13) and 2A(15) for Inset details.
-See sheet 2A(16) thru 2A(23) for geotechnical recommendations.

NOT TO SCALE	VDOT PROJECT 6234-076-266 PNC PROJECT SPR2020-00383 S03	SHEET NO. 2A(10)
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 Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation - Right of Way Services
 LANE NOVA DISTRICT DESIGN UNIT
 6/24/2021

PROJECT MANAGER PWC_DOT_Mary_Ankers (703)792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
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 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020



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

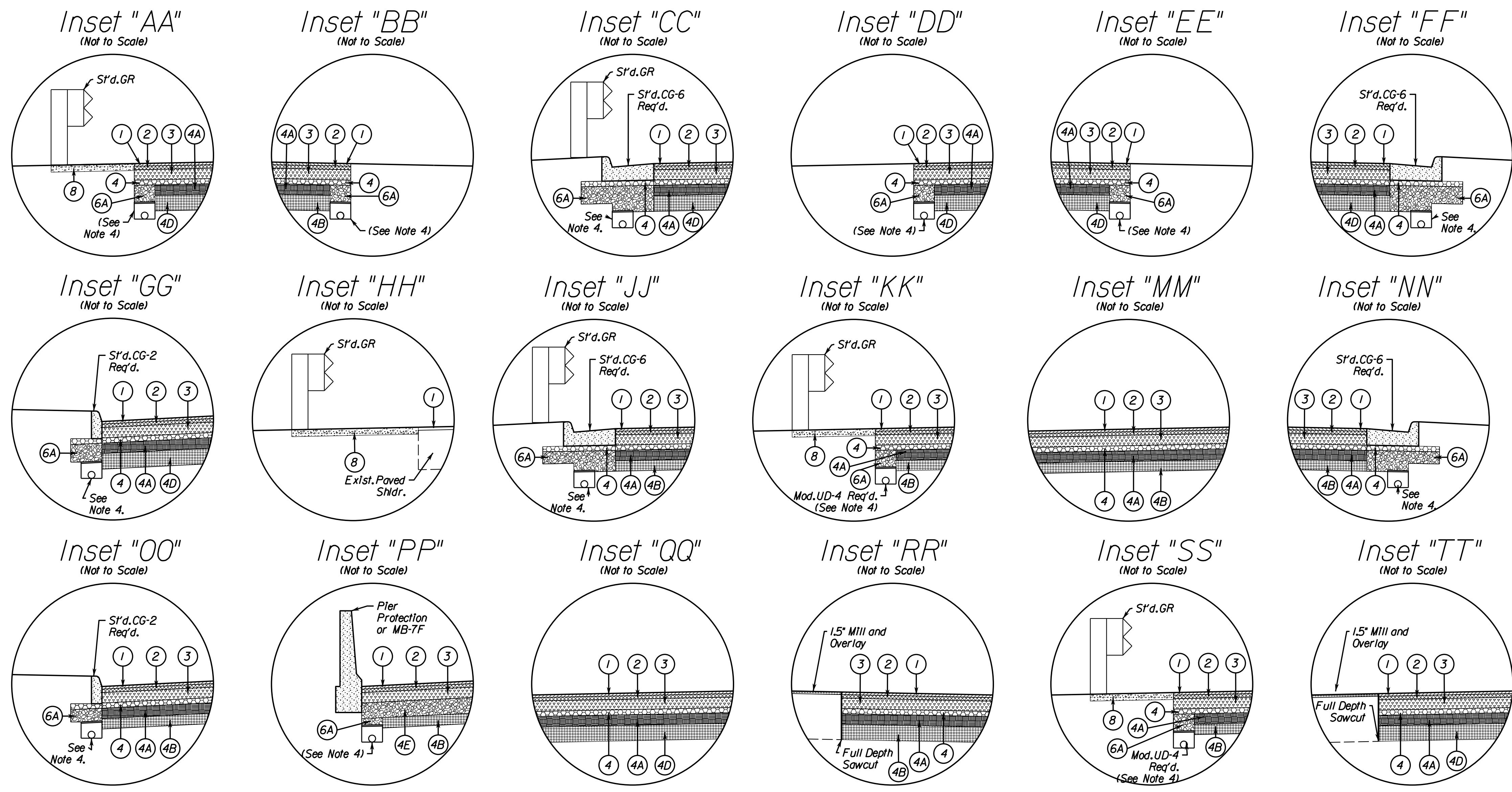
WSP
 Herndon, Virginia
 GEOTECHNICAL ENGINEER

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	62/		6234-076-266, C-501, RW-201	2A(14)

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

Typical Sections Inset details

02 Revised shoulder section in pavement in front of BPPS.



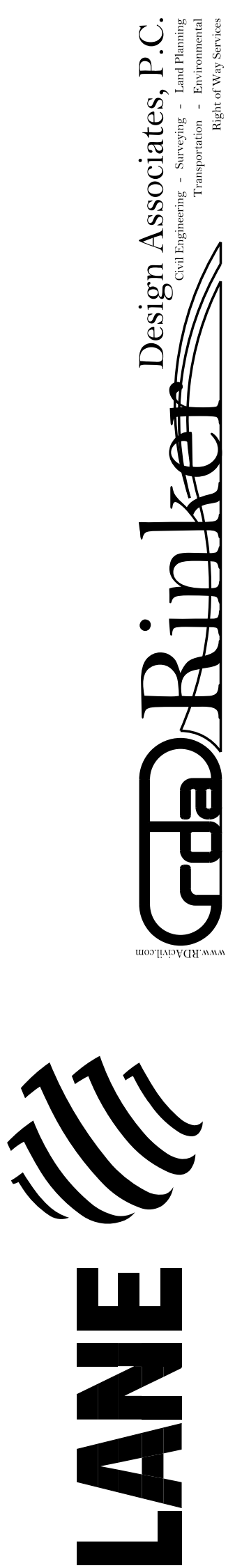
NOTE:
 -See sheet 2A(16) thru 2A(23) for geotechnical recommendations.

INSET DESIGN LEGEND			
1	Surface Course / Mill & Overlay - (1.5") Asph.Conc. Seal Coat, Type SM-9.5D estimated at 165 lbs./yd ²	4C	Sub-Base Course - (12") Aggr. Base Material, Type I, Size No. 21-B connected to a standard UD-4 edgedrain located beneath the C&G or beneath the outer edge of the paved shoulder.
1A	Surface Course - (2") Asph.Conc. Type SM-9.5A estimated at 240 lbs./yd ²	4D	9" Select Material, Type I, Minimum CBR 30 connected to a standard UD-4 edgedrain located beneath the outside edge of paved shoulder
2	Intermediate Course - (2") Asph.Conc. Type IM-19.0A estimated at 220 lbs./yd ²	4E	Sub-Base Course - (9") Aggr. Base Material, Type I, Size No. 21-B connected to a standard UD-4 edgedrain located beneath the C&G or beneath the outer edge of the paved shoulder.
3	Base Course - (6") Asph.Conc., BM-25.0A		
3A	Base Course - (8") Asph.Conc., BM-25.0A		
4	Sub-Base Course - (3") Stabilized Open Graded Drainage Layer connected to a standard UD-4 edgedrain located beneath the C&G or beneath the outer edge of the paved shoulder.		
4A	Sub-Base Course - (6") Cement Treated Aggregate in accordance with VDOT special provision for CTA, dated June 20, 2018.		
4B	Sub-Base Course - (6") Select Material, Type I, Minimum CBR-30 connected to a standard UD-4 edgedrain located beneath the outer edge of the paved shoulder. (See Note No.11)		
		5	Regular FIII Material to be compacted in accordance w/ VDOT Road and Bridge Specifications.
		6	(6") Plain Aggregate, Type I, Size No. 21-B extended 6" on either side of the surface.
		6A	(Variable Depth) Plain Aggregate, Type I, Size No. 21-B
		7	(4") Hydraulic Cement Conc. Class A3
		7A	(4") Aggr. Base Material, Type I, Size No. 21-B extended 4" on either side of the surface.
		8	(4") Plain Aggregate, Type I, Size No. 21-B

TYPICAL SECTION NOTES

- See Sheet 2A(14)-2A(15) for Pavement Inset Details.
- S'd.UD-4 Req'd., see plan sheets for detailed locations.
- Mill and Overlay/Variable Build-Up Limits shown on plan sheets 3 thru 24 govern over the typical ranges shown on this sheet.
- S'd.UD-4 Req'd., see plan sheets for detailed locations. Modified UD-4 shall be the same as standard UD-4 with a 6" perforated pipe instead of a 4" perforated pipe.
- Pavement widening to be performed in accordance with VDOT S'd.WP-2.
- See drainage descriptions sheet 2K series for ditch typicals.
- Contractor to provide positive drainage for subgrade course 21-B for outside areas in shoulders and super/elevated sections.
- Milling of the existing pavement should consist of 1.5" Minimum mill prior to any resurfacing.
- Pavement widths vary at turn lanes, tapers and connections. See plan sheets and cross sections for pavement lengths and widths. The mainline pavement section shall be applied up to the curb return of all connecting roads and entrances.
- For 1-lane ramps, Sub-Base No. 4B should be increased to 9" Select Material, Type I, Minimum CBR-30 connected to a standard UD-4 edgedrain located beneath the outside edge of paved shoulder.

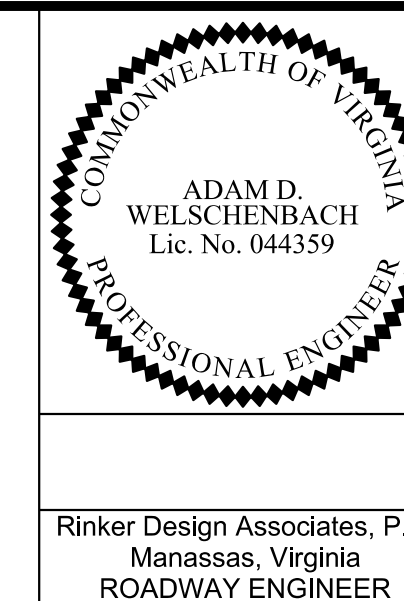
NOT TO SCALE	VDOT PROJECT 6234-076-266 PWC PROJECT SPR2020-00383 S03	SHEET NO. 2A(14)
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PROJECT MANAGER *PWC_DOT_Mary_Ankers (703) 792-4228*
SURVEYED BY, DATE *Rinker Design Associates, P.C. (703) 369-7373, April 2020*
DESIGN BY *Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373*
SUBSURFACE UTILITY BY, DATE *Accumark (703) 635-3060, May 2020*

Geotechnical Recommendations for the Roundabout

02 Added geotechnical recommendations for roundabout.



REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	2A(24)

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 Associates, P.C.
Manassas, Virginia
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Office Locations

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LANE

NOVA DISTRICT DESIGN UNIT

1 INTRODUCTION

This report addendum presents the results of our supplemental subsurface investigation and geotechnical analyses for the Delinski Way/ Randolph Ridge Lane roundabout. Supplemental work included 3 soil borings, 2 pavement cores, and developing pavement and subsurface preparation recommendations. The proposed roundabout connecting existing Balls Ford Rd, Randolph Ridge Lane, and Delinski Way has been added to the project scope subsequent to the final Geotechnical Engineering Report (GER) being submitted in January 2021. Refer to the final GER for a general project description, discussion of existing geotechnical data and subsurface conditions, and engineering recommendations for project elements other than the roundabout discussed herein. General recommendations for earthwork, stormwater facilities, and utility installation are also included in the final GER.

2 SUBSURFACE DATA

2.1 EXPLORATORY BORINGS

A supplemental geotechnical investigation consisting of 3 borings and 2 pavement cores was completed on April 19, 2021. Boring locations and depths were selected to meet requirements of Chapter 3 of VDOT Manual of Instructions (MOI) and generally augment and confirm geotechnical data presented in the final GER, dated January 2021. All horizontal coordinates are provided in State Plane Coordinates, Virginia North Zone. Elevations are provided in North American Vertical Datum of 1988 (NAVD88).

The investigation was performed by a subconsultant, DMY Engineering Consultants, Inc. An engineer from WSP observed and logged the boring operations, including classification of the recovered soils. Borings were drilled with an ATV CME-55 drill rig and were advanced using continuous flight hollow stem augers. The Standard Penetration Test (SPT) sampling was conducted by driving a split spoon sampler a distance of 24 inches with a 140-pound hammer falling 30 inches, in general accordance with ASTM D1586. The number of hammer blows that was required to advance the sampler in 6-inch increments was recorded to obtain the SPT N-value. Sampling was conducted continuously for the first ten feet and every five feet thereafter. Following field classification, representative samples of soil from each split spoon sample were sealed in glass jars and transported to DMY's laboratory for testing. Bulk samples were also collected from auger cuttings at multiple boring locations. All borings were backfilled with soil cuttings.

A supplemental Boring Location Plan is included in Appendix A and Boring Logs are included in Appendix B.

2.2 LABORATORY TESTING

Following review of the field boring logs from the additional borings supervised by WSP, representative split-spoon and bulk samples were selected for laboratory testing by DMY.

Supplemental laboratory testing included the following test methods:

- ASTM D-2216: Determination of moisture Content of Soils
- ASTM D-6913: Particle Size Analysis of Soils
- ASTM D-4318: Atterberg Limits
- VTM-1: Standard Proctor
- VTM-8: California Bearing Ratio (CBR)

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Prince William County Department of Transportation

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Results of the laboratory testing are included in Appendix C and were used to determine the Unified Soil Classification System (USCS) classification for soil samples and determine various properties of the soil encountered at the site.

3 SUBSURFACE CONDITIONS

3.1 SUBSURFACE STRATIGRAPHY

Based on available subsurface information the site of the proposed roundabout is underlain by the following major strata, in general order of their occurrence with depth:

Topsoil. Approximately four inches of topsoil were encountered at the supplemental borings

Residuum. This stratum comprises soils that retain the relic rock structure of the parent bedrock. Residuum was encountered at depths ranging from 0.3 feet to 8.2 feet below the existing ground surface, beneath topsoil. The residual soils are described as red-brown sandy lean CLAY, lean CLAY, and clayey SAND. Occasional rock fragments were encountered. The consistency of fine grained soils ranged from soft to very stiff. The consistency of coarse grained soils was very dense.

Intermediate Geomaterial (IGM). IGM is defined as material with SPT N_{60} values greater than 50 blows per 6 inches of penetration that has the retained the relic structure of the parent bedrock. IGM was encountered at depths ranging from 4.0 to 8.2 feet below the existing ground surface. The IGM samples are generally of low plasticity and are described as highly weathered SILTSTONE. The IGM materials often contain rock fragments. This stratum has a relative density of very hard.

Results of Standard Proctor tests per VTM-1 are summarized in Table 1. Results of California Bearing Ratio tests per VTM-8 are presented in Table 2.

Table 1: Standard Proctor Test Results

Test Boring No.	USCS Symbol	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
21BH-010 (0-5')	CL	116.1	12.2
21BH-011 (0-5')	SM	105.3	19.2

Table 2: California Bearing Ratio Test Results

Test Boring No.	USCS Symbol	CBR Value	Percent Swell (%)
21BH-010 (0-5')	CL	2.6	1.0
21BH-011 (0-5')	SM	1.7	0.3

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June 2021
Page 2

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Prince William County Department of Transportation

3.2 GROUNDWATER CONDITIONS

Groundwater was not encountered during drilling for 21BH-009, 21BH-010, and 21BH-011. Due to traffic control restrictions, borings were backfilled upon completion and 24-hour groundwater readings were not taken.

It is noted that fluctuations in groundwater levels will occur due to variations in rainfall, evaporation, construction activity, surface runoff, and other site specific factors. Perched water conditions are common in this area above cohesive layers and weathered rock. Groundwater flow could be anticipated in excavations at the interface of rock and soil. It is expected that groundwater flow can be controlled through trenching or sump pits and pumping during construction.

4 GEOTECHNICAL ANALYSES AND RECOMMENDATIONS

4.1 PAVEMENT

This section includes analyses for new pavement at the proposed Delinski Way/Randolph Ridge Way roundabout. The minimum pavement sections provided in the request for proposal documents were determined to be adequate for projected traffic and subsurface conditions.

4.1.1 EXISTING CONDITIONS

In order to assess existing conditions at Delinski Way and Randolph Ridge Lane, the mainline pavement was cored at selected locations. Average existing pavement conditions along existing Balls Ford Road are also summarized in Table 3. Refer to the Final GER for pavement core details along existing Balls Ford Road.

The thicknesses of the pavement materials presented are the measured thicknesses of recovered materials. It is likely that only partial recovery of the subbase material was achieved. Therefore, the actual thickness of these layers may vary in the field from what is shown in Table 3. Subbase material consisted of Cement Treated Aggregate (CTA), Open Graded Drainage Layer (OGDL), and plain aggregate. The pavement core logs are included in Appendix B.

Realigned Balls Ford Road
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Prince William County Department of Transportation

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June 2021
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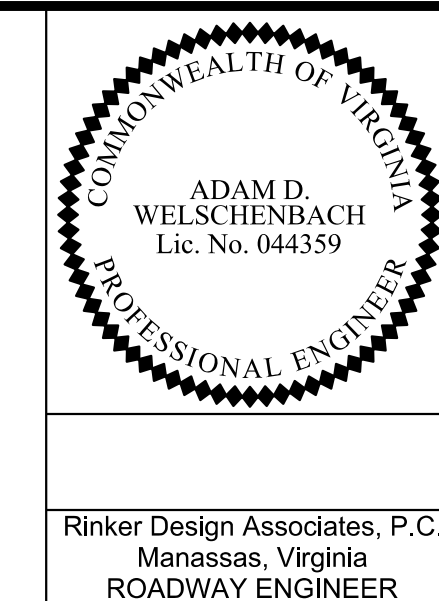
VDOT PROJECT
6234-076-266
PINC PROJECT
SPR2020-00383 S03

SHEET NO.
2A(24)

PROJECT MANAGER *PWC_DOT_Mary_Ankers (703) 792-4228*
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 DESIGN BY *Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373*
 SUBSURFACE UTILITY BY, DATE *Accumark (703) 635-3060, May 2020*

Geotechnical Recommendations for the Roundabout

02 Added geotechnical recommendations for roundabout.



REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	2A(25)

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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6/24/2021
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Table 3: Pavement Core Thicknesses

Pavement Core No.	Asphalt Thickness (inch)	Subbase Thickness (inch)	Total Section Thickness (inch)
Delinski Way			
21PC-004	5.0	4.0	9.0
Randolph Ridge Lane			
21PC-003	6.0	-	6.0
Balls Ford Road (Existing) - See Final GER for Pavement Core Details			
AVERAGE	10.5	10.3	20.8

4.1.2 TRAFFIC DATA

To assess traffic volumes at the proposed roundabout, traffic conditions have been estimated based on available data recorded by VDOT, presented in Table 4. A growth rate of 1% per year, consistent with project traffic data, was applied to recorded traffic volumes from 2019 to the construction year 2021. The breakdown of vehicle types for Delinski Way and Randolph Ridge Lane was assumed as 88% passenger vehicles, 8% single unit trucks, and 4% tractor trailer trucks based on the most conservative breakdown of traffic data provided for the overall project.

Table 4: Previous and Projected Traffic Counts along Prince William Parkway

	AADT		
	Randolph Ridge Lane	Delinski Way	Existing Balls Ford Rd
2019*	1,500	380	-
2021 (projected)	1,530	390	-
2040 (projected)	1,850	470	4,400**

*Data from <https://www.virginiadot.org/info/ct-TrafficCounts.asp>

**From traffic data provided for the project with the proposal documents. Breakdown of vehicle types is 96% passenger vehicles, 2.7% single unit trucks, and 1.3% tractor trailer trucks

4.1.3 PERMANENT PAVEMENT DESIGN

Pavement calculations were performed based on guidance provided for flexible pavement design provided in Chapter VI: Pavement Design and Evaluation of VDOT Materials Division Manual of Instructions (MOI). Pavement for Secondary Routes was also checked using VDOT's Pavement Design Guide for Subdivision and Secondary Roads in Virginia. Pavement designs are based upon a minimum soil subgrade CBR value of 5 (and all imported fill material shall have a minimum CBR value of

5), all subgrade is compacted in accordance with the applicable sections of the VDOT Road and Bridge specifications and applicable special provisions, and all unsuitable materials within 3 feet of the pavement subgrade have been removed or modified. The pavement section was checked using the most critical projected traffic volume presented in Table 4.

Pavement calculations are included in Appendix D. The minimum pavement section provided for the project at the proposal phase was determined to be adequate. Additionally, pavement conditions along existing Balls Ford Road were determined to be adequate for projected traffic volumes. However, the existing pavement sections along Randolph Ridge Lane and Delinski Way were not adequate for projected traffic volumes, and it is recommended existing full depth pavement is replaced with the below section within the limits of roundabout construction. The recommended pavement section is summarized below.

Balls Ford Road Widening, Randolph Ridge Lane, and Delinski Way

Surface	1.5" Asphalt Concrete, Type SM-9.5D
Intermediate	2" Asphalt Concrete, Type IM-19.0A
Base	8" Asphalt Concrete, Type BM-25.0A
Subbase	12" Aggregate Base Material, Type I, Size No. 21B connected to a standard UD-4 edgedrain beneath the curb and gutter. For widening on the high side of the existing pavement cross-slope, use 8" Cement Treated Aggregate in lieu of the 21B.

Notes:

- When widening existing pavement, the pavement subgrade slope shall be designed such that the existing pavement subbase material can properly drain to a standard UD-4 edge drain.
- When widening the existing pavement, the bottom of the new BM-25.0A shall be placed even with the bottom of the existing base asphalt where possible.
- When liquid asphalt is used as a curing material for the cement stabilized course, it shall be liquid asphalt CRS-1, CR-1h or CMS-2 applied at a rate of 0.2 gal/sy. Where necessary for maintenance of traffic, cover material consisting of No. 10 Aggregate or Grading B Sand shall be applied at a rate of 10 lbs./sy.
- All existing paved shoulders and existing gore areas shall be cut with a smooth vertical face to expose the original mainline pavement structure, demolished and reconstructed with the mainline pavement sections identified above.
- The final surface course shall be placed in a continuous operation across the full pavement width after all previous layers have been completed and shall include all areas where eradication of existing pavement markings has been performed for temporary tie-ins.
- Pavement widening shall be performed in accordance with VDOT WP-2 Standard.

The minimum pavement sections require that proper grading be maintained to direct surface water away from paved areas and to provide for efficient runoff from surrounding areas. Control of both surface and ground water is a very important consideration for design and construction with respect to the overall performance of these pavement designs.

Any utility excavations or excavations for storm drains within pavement areas shall be backfilled with compacted structural fill in accordance with applicable sections of the Road and Bridge specifications and applicable special provisions.

VDOT guidelines specify that edgedrains/underdrains be provided for all pavements with daily traffic volumes in excess of 1,000 vehicles per day. Therefore, standard UD-4 edgedrains will be required on the low side of the pavement cross-slope below the curb, curb and gutter and the outer edge of paved shoulders for all pavements on this project.

For preparation of the pavement subgrade and limits of unsuitable materials, see Section 4.2 of this addendum.

4.2 EARTHWORK

Areas to receive fill should be cleared, grubbed, and stripped of all topsoil to expose the natural ground in accordance with Section 301.02 of the 2016 VDOT Road and Bridge Specifications. Thereafter, the exposed soil surfaces should be proof-rolled with a fully loaded dump truck with a minimum axle weight of 10 tons or equivalent to reveal areas of soft or yielding soils that need to be undercut or stabilized. A qualified inspector under the direction of a licensed Professional Engineer shall perform an inspection of all subgrades and excavations immediately prior to placement of fill to identify areas that show signs of excessive pumping, weaving, or rutting under the weight of construction equipment. Such soils are also considered unsuitable and must be removed or modified in place to provide adequate support for embankment, paved area subgrade or minor structures.

4.2.1 UNSUITABLE MATERIALS

Unsuitable material is defined as material used as embankment fill, and in cut areas to a depth of 3 feet below subgrade directly beneath pavements, at least 2 feet beneath the bedding of minor structures, and laterally at least 2 feet beyond the outside edge of the pavement shoulders and bedding limits of the minor structures that meets one or more of the following criteria:

- Classifies as CH, MH, OH, or OL in accordance with Unified Soil Classification System (USCS)
- Contains more than 5% by weight organic matter
- Soft or very loose soils with SPT N-value less than or equal to four blows per foot
- Exhibits a swell greater than 5% as determined from CBR test using VTM-8
- Excessively wet soils defined as granular soils with natural moisture content greater than 13% and fine-grained soils with natural moisture content greater than 20%
- Exhibits strength, consolidation, durability of rock or any other characteristic deemed unsuitable

In addition to the criteria listed above, saturated or very dry or very soft/loose soils that exhibit excessive pumping, weaving, or rutting under the weight of construction equipment are also considered unsuitable unless they can be moisture conditioned through either mechanical or chemical means to an acceptable moisture content that allows adequate compaction, and classification testing indicates they are not otherwise unsuitable. Topsoil or other organic soils are also considered unsuitable for use in embankment fill other than as a cover for slopes for the purpose of establishing vegetative cover. When used as cover for slopes, the thickness of topsoil should not exceed 12 inches. All unsuitable material should be disposed of and/or treated as discussed in Section 106.04 of the VDOT 2016 Road and Bridge Specifications.

Unsuitable soils were encountered in all three supplemental borings, as summarized in Table 5. Limits of unsuitable soils within 3 feet of new pavement subgrade that will require treatment are summarized in Table 6.

Unsuitable soil should be removed to the depth specified and 2 feet beyond the outside edge of shoulder on each side of the paved areas. In areas of roadway widening, the limits of unsuitable soil treatment are from the edge of existing pavement to 2 feet beyond the outside edge of shoulder.

Unsuitable, soft, or yielding soils should be replaced with material that meets the following minimum criteria:

- California Bearing Ratio of 5.0 or greater
- Classifies as GW, GM, GC, SW, SP, SC, SM, CL, or ML in accordance with ASTM D-2487
- Liquid limit less than 40 and plasticity index less than 20
- Free of organics, debris, rock sizes greater than 4 inches, marine clay soils, or other deleterious material
- Less than 70% passing a U.S. Standard No. 200 sieve

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 SUBSURFACE UTILITY BY, DATE *Accumark* (703) 635-3060, May 2020

Geotechnical Recommendations for the Roundabout

02 Added geotechnical recommendations for roundabout.

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REVISED	STATE	STATE	SHEET NO.
NDC02	VA.	62/	24/261
		PROJECT	
		6234-076-266, C-501, RW-201	

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Limits of unsuitable soils are based on borings in specific locations and at the time of the investigation. If subsurface conditions are such that weathered rock or other unanticipated material is encountered during excavation of unsuitable materials, the Geotechnical Engineer of Record shall be contacted to re-evaluate limits of unsuitable materials.

Table 5: Unsuitable Soils Present in Soil Borings

Approx. Station	Boring	Top depth of Unsuitable Soils (ft)	Bottom depth of Unsuitable Soils (ft)	CBR Value Less than 5.0	High-plasticity Soils (CH, MH, OH)	Presence of Organics	SPT N-Value Less than or equal to 4 pbf	High Moisture Content (>20% for fines; >13% for coarse-grained soils)
55+10	21BH-009	0	4.7				x	x
55+70	21BH-010	0	5.0	x				x
57+10	21BH-011	0	8.3	x				x

Table 6: Minimum Limits of Unsuitable Soils to be Treated - For New Pavement Construction

Station Start	Station End	Depth Below Proposed Subgrade (feet)	Treatment Method
Delinski Way/Randolph Ridge Lane Roundabout			
53+00	59+00	3.0	Excavate and replace unsuitable soil with acceptable fill material

5 LIMITATIONS

The analyses and recommendations described in this report are based on the data obtained from the investigations and testing described herein.

The borings indicate subsurface conditions only at those specific locations and at the time of the investigation and do not necessarily reflect variations in subsurface conditions that may exist between borings. The recommendations made in this report are based in part on assumptions and interpretations by the geotechnical engineer regarding the subsurface conditions. If subsurface conditions that differ than those described or presented herein are encountered during construction, the recommendations in this report should be re-evaluated.

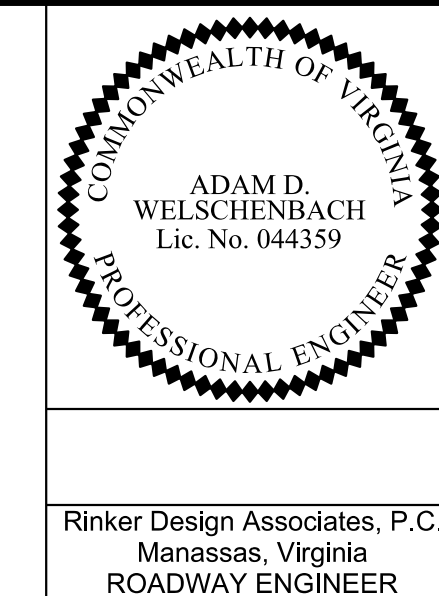
Office Locations
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PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
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SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Typical Sections - Roundabout

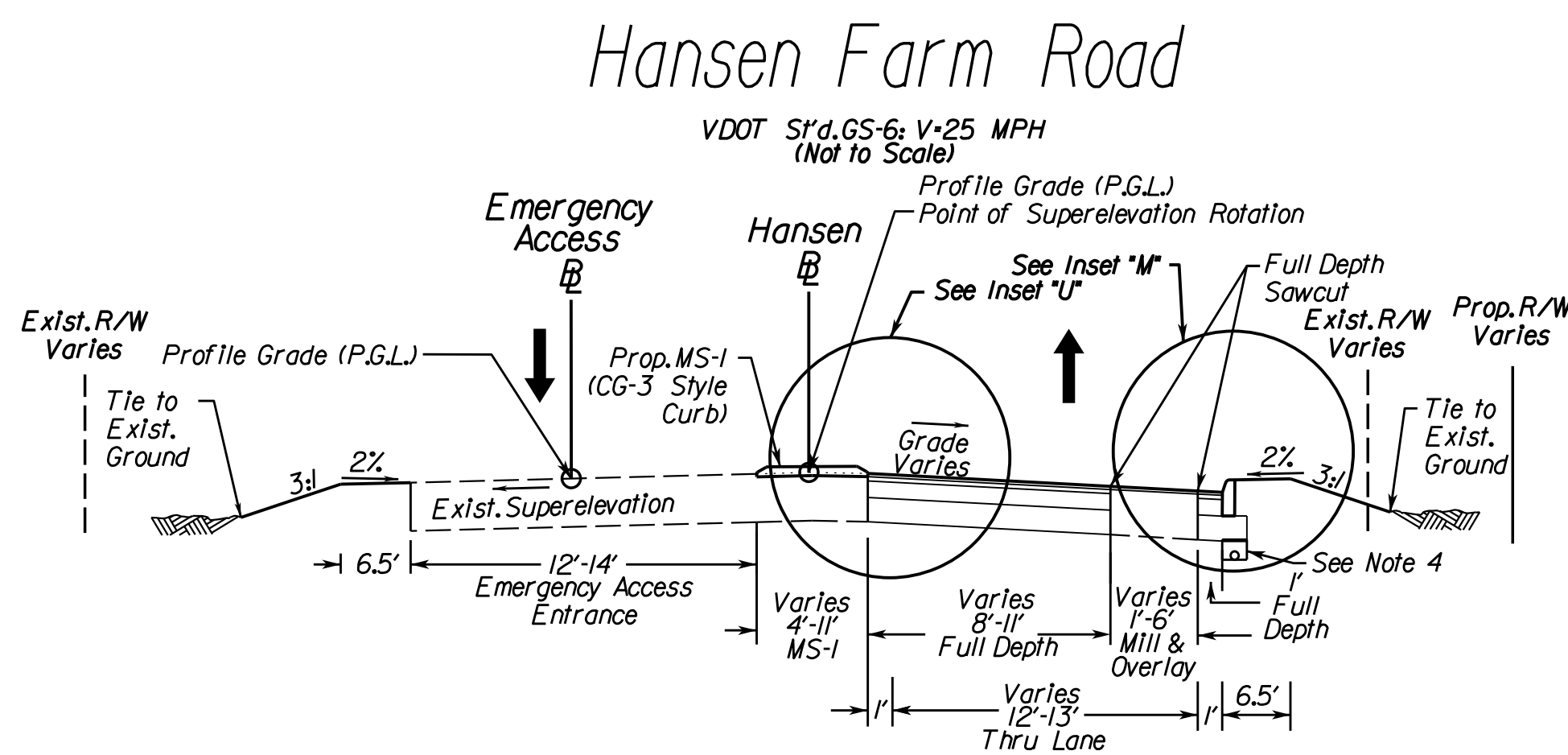


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NDC02	VA.	62I		6234-076-266, C-50I, RW-20I	2A(27)

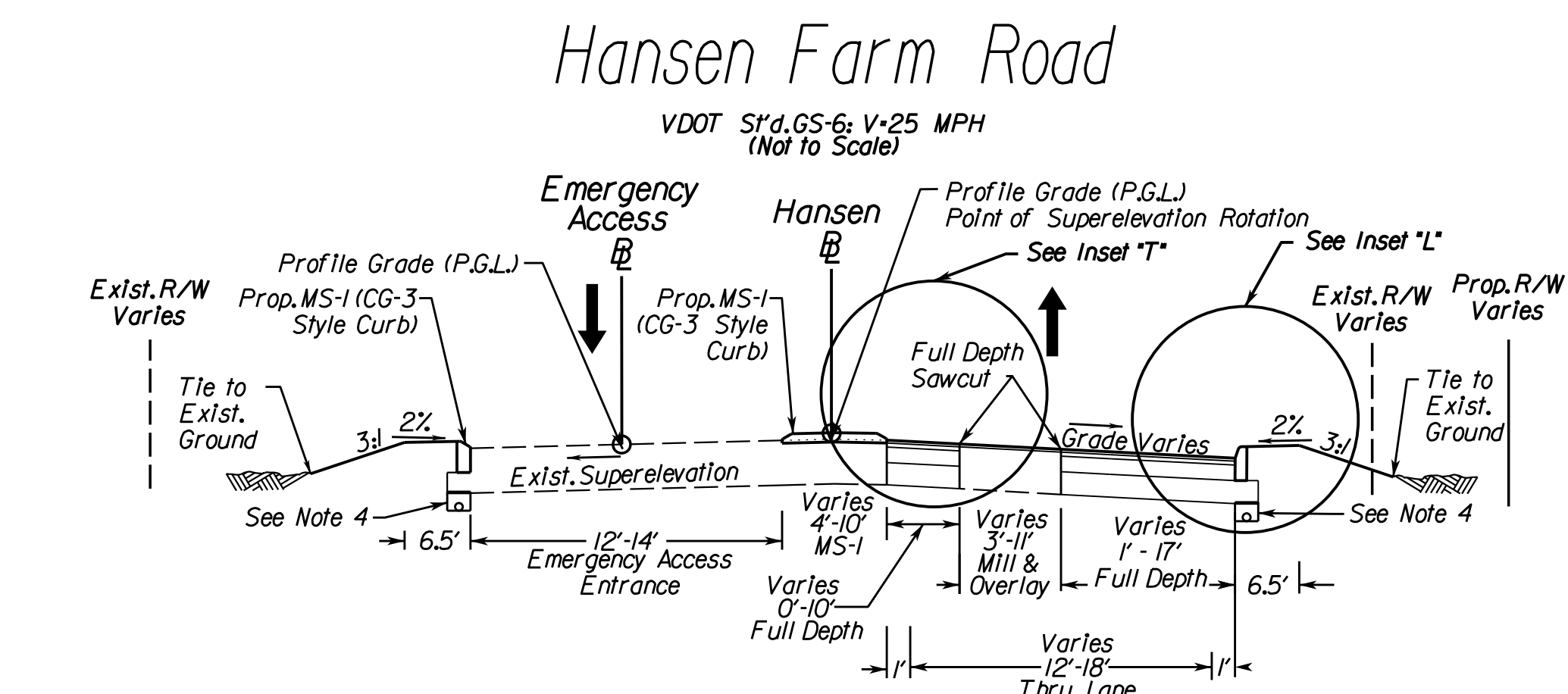
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Manassas, Virginia
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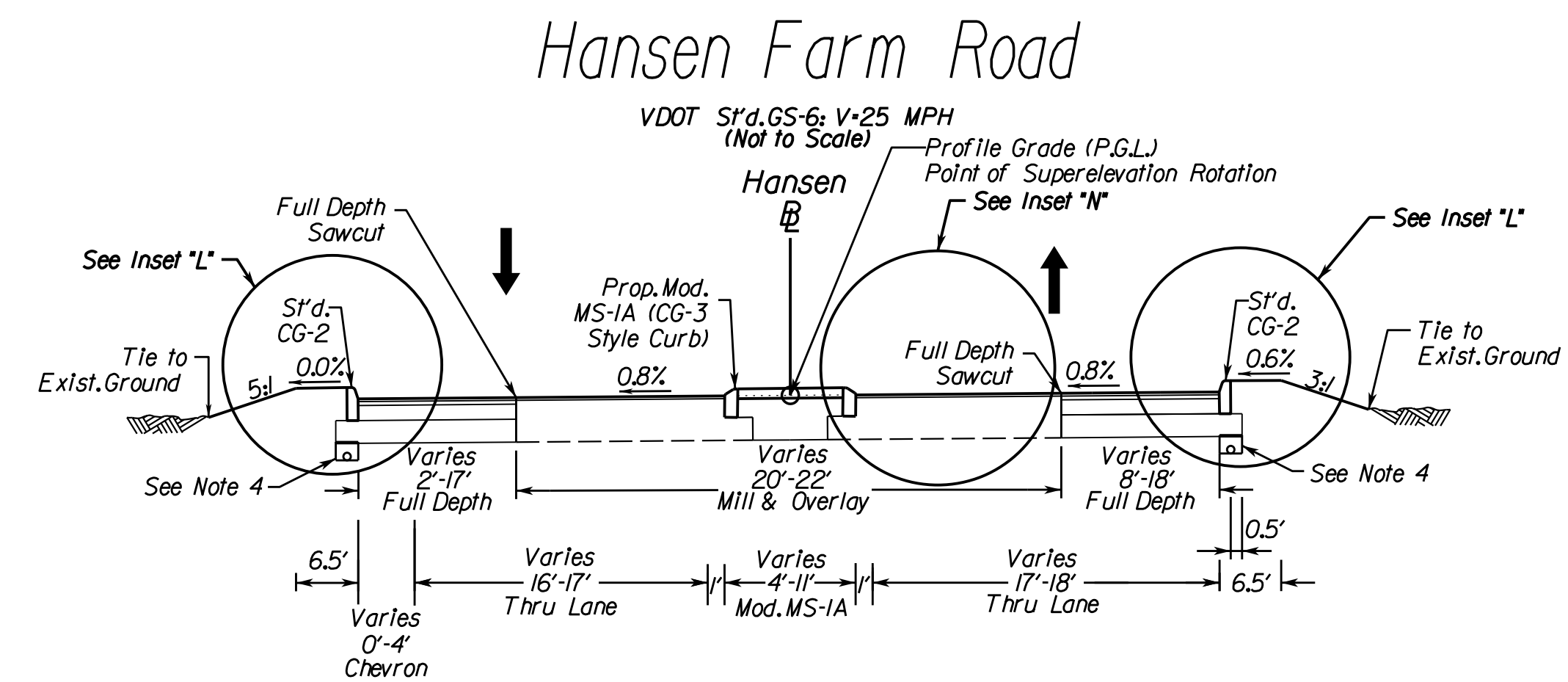
02 Added sheet for roundabout typical sections.



LOCATION	STATION	TO	STATION
Hansen Farm Road	10+00		11+25

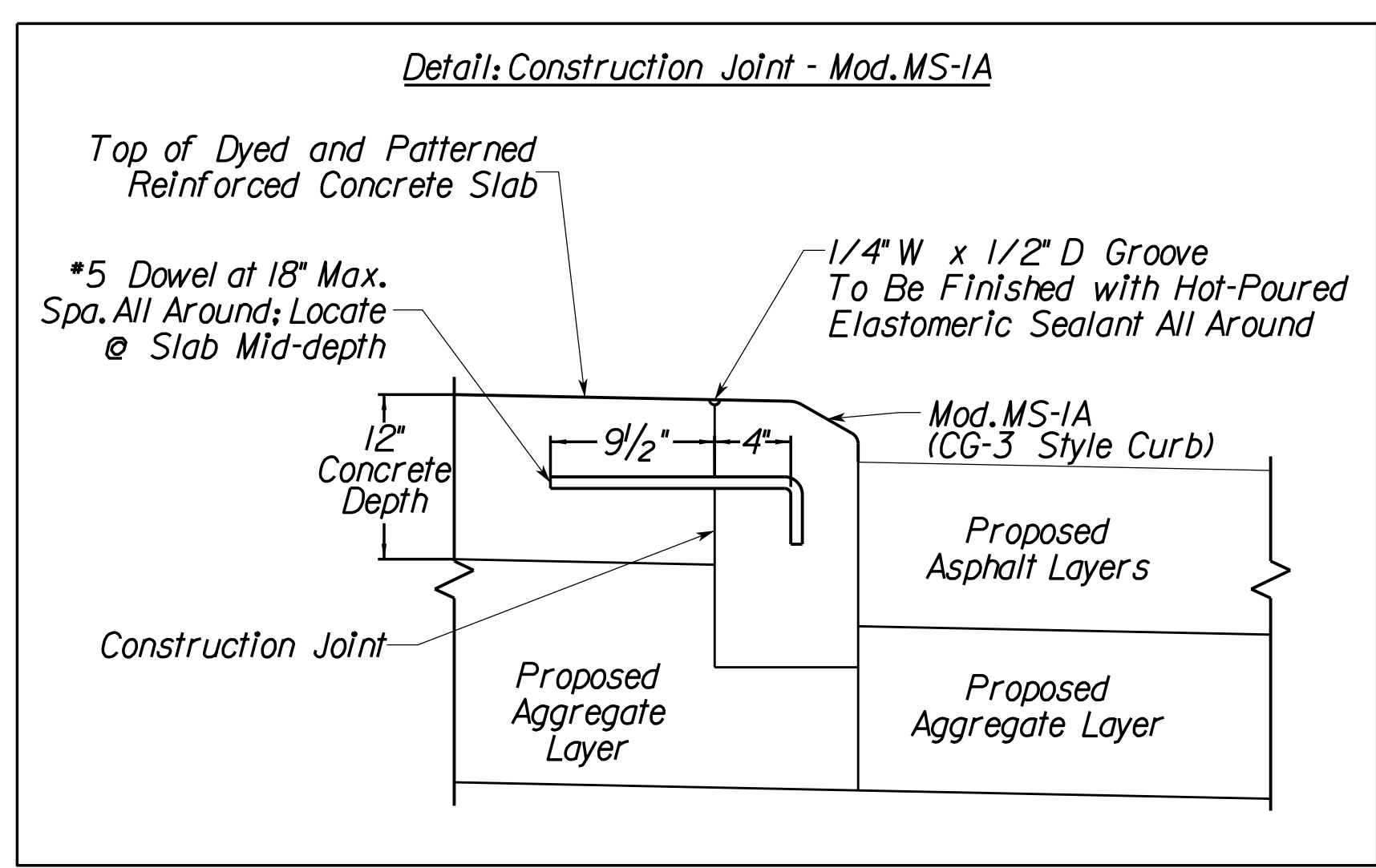
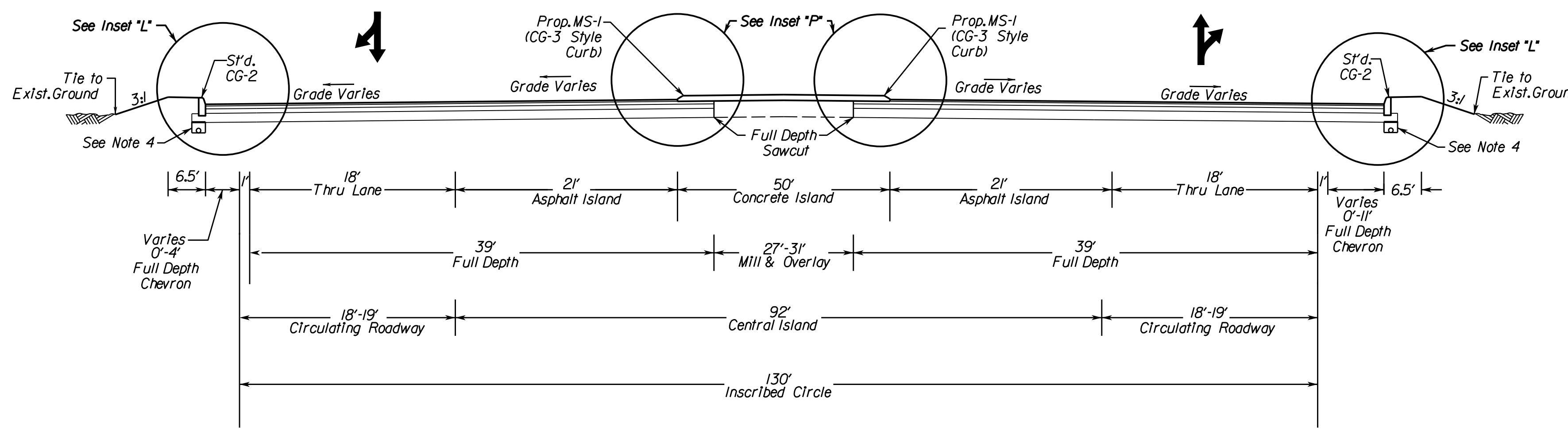


LOCATION	STATION	TO	STATION
Hansen Farm Road	11+50		11+90



LOCATION	STATION	TO	STATION
Hansen Farm Road	13+22		13+66

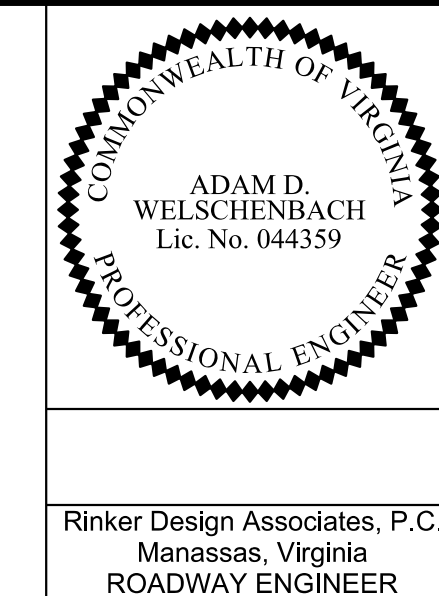
Hansen Farm Road at Delinski Way/Randolph Ridge Lane Roundabout with Curb and Gutter



- TYPICAL SECTION NOTES**
1. See Sheet 2A(28) for Pavement Inset Details.
 2. The mainline pavement section shall be applied up to the curb return of all connecting roads and entrances.
 3. Mill and Overlay/Variable Build-Up Limits shown on plan sheet 3 govern over the typical ranges shown on this sheet.
 4. S'd. UD-4 Req'd. see plan sheets for detailed locations.
 5. All Pavement widening shall be performed in accordance with VDOT S'd. WP-2.
 6. See drainage descriptions sheet 2M series for ditch typicals.
 7. Contractor to provide positive drainage for subgrade course 2I-B for outside areas in shoulders and super-elevated sections.
 8. Guardrail installation/Offsets shall be in accordance with Standard GR-INS and VDOT's RDM.
 9. Roadway subbase shall be extended 12" behind the curb and gutter and 6" behind the curb on the median. SUP subbase shall be extended 6" on either side and Sidewalk subbase shall be extended 4" on either side.
 10. Milling of the existing pavement should consist of 1.5" Minimum mill prior to any resurfacing.
 11. See profile sheets for Super-elevation details.
 12. Pavement widths vary at turn lanes, tapers and connections. See plan sheets and cross sections for pavement lengths and widths. For I-lane ramps, Sub-Base No. 4B should be increased to 9" Select Material, Type I, Minimum CBR-30 connected to a standard UD-4 edgedrain located beneath the outside edge of paved shoulder.

NOTE:
-See sheets 2A(28) for Inset details.
-See sheets 2A(24) thru 2A(26) for geotechnical recommendations.

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SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020



REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	2A(28)

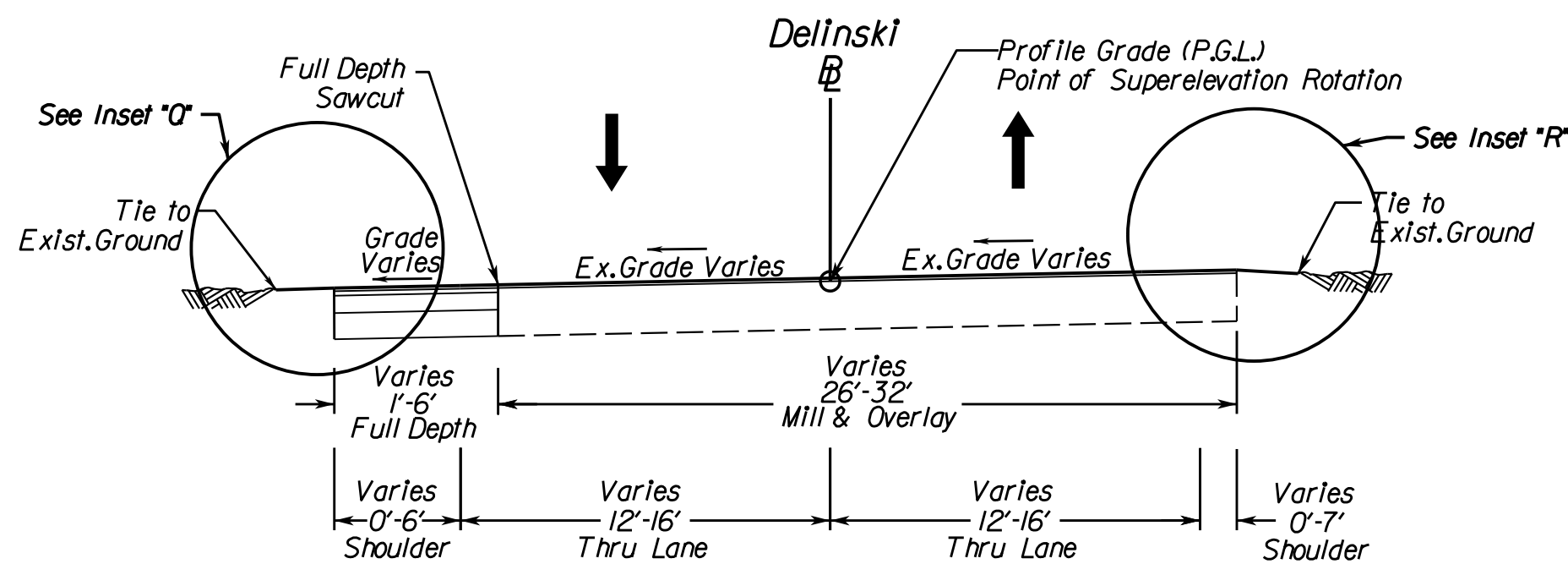
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Typical Sections and Inset Details - Roundabout

02 Added sheet for roundabout typical sections.

Randolph Ridge Lane

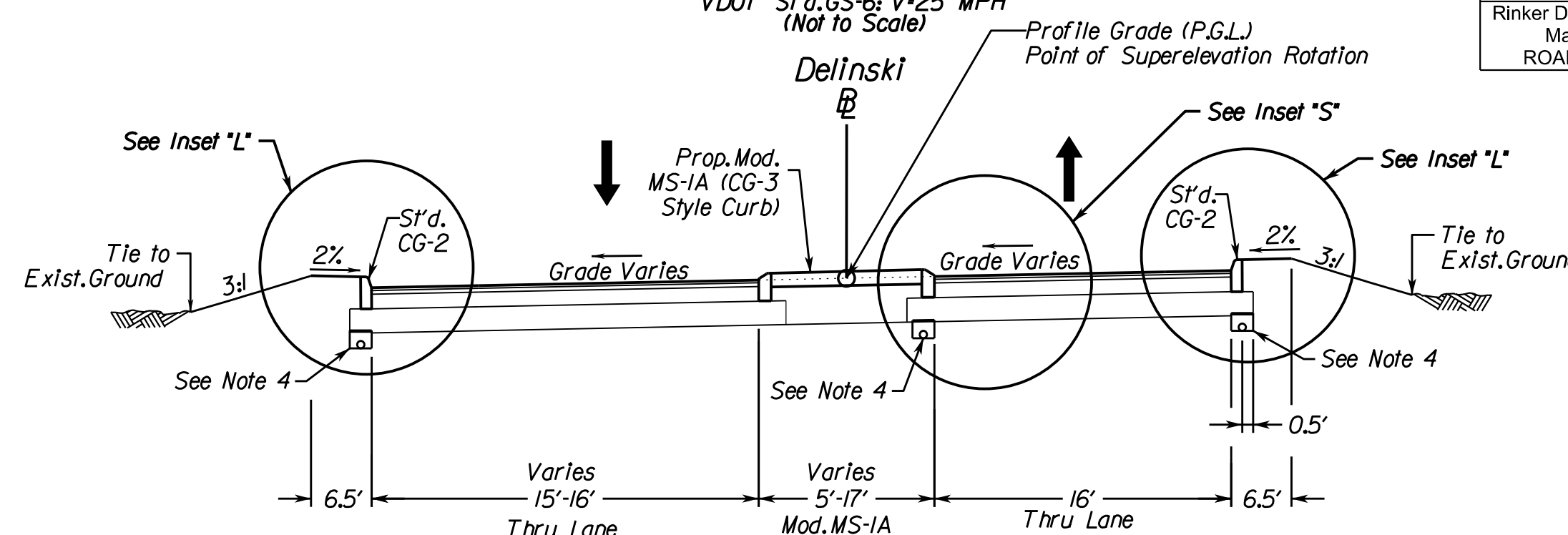
VDOT Std. GS-6; V-25 MPH
(Not to Scale)



LOCATION	STATION	TO	STATION
Randolph Ridge Lane	52+85		53+57

Randolph Ridge Lane

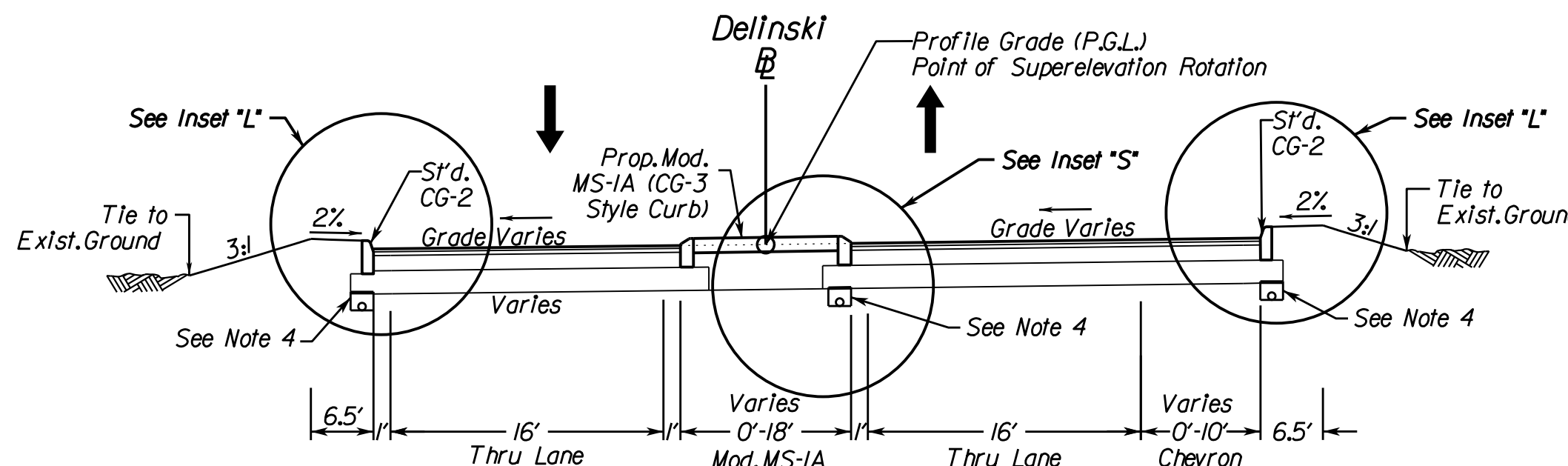
VDOT Std. GS-6; V-25 MPH
(Not to Scale)



LOCATION	STATION	TO	STATION
Randolph Ridge Lane	53+57		55+83

Delinski Way

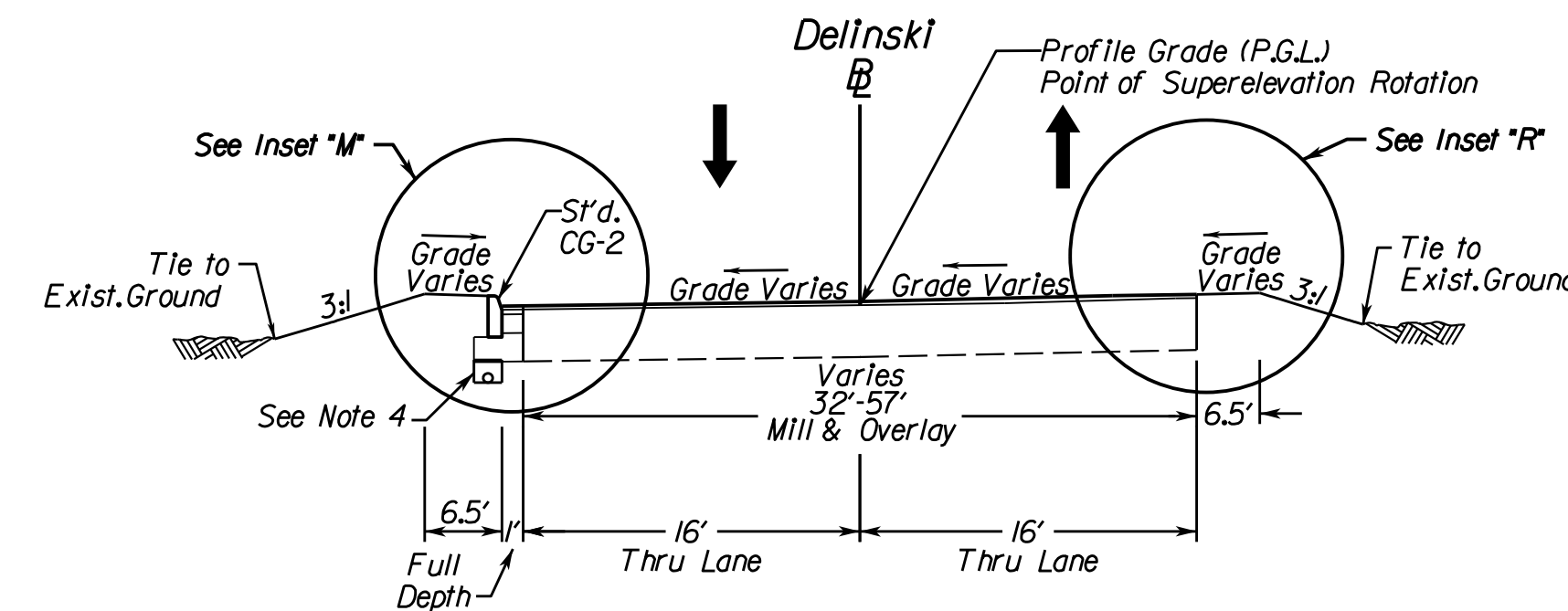
VDOT Std. GS-6; V-25 MPH
(Not to Scale)



LOCATION	STATION	TO	STATION
Delinski Way	57+13		58+92

Delinski Way

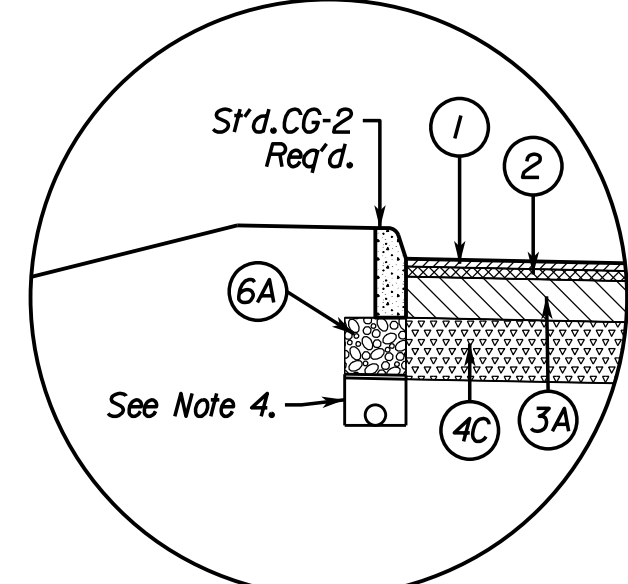
VDOT Std. GS-6; V-25 MPH
(Not to Scale)



LOCATION	STATION	TO	STATION
Delinski Way	58+92		59+10

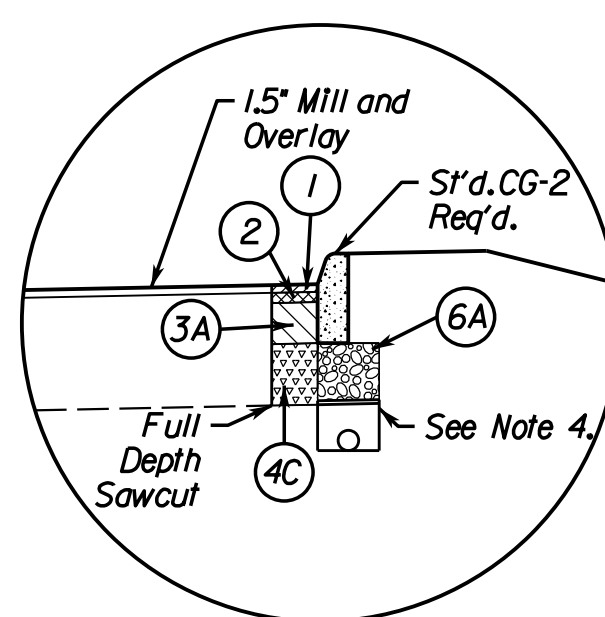
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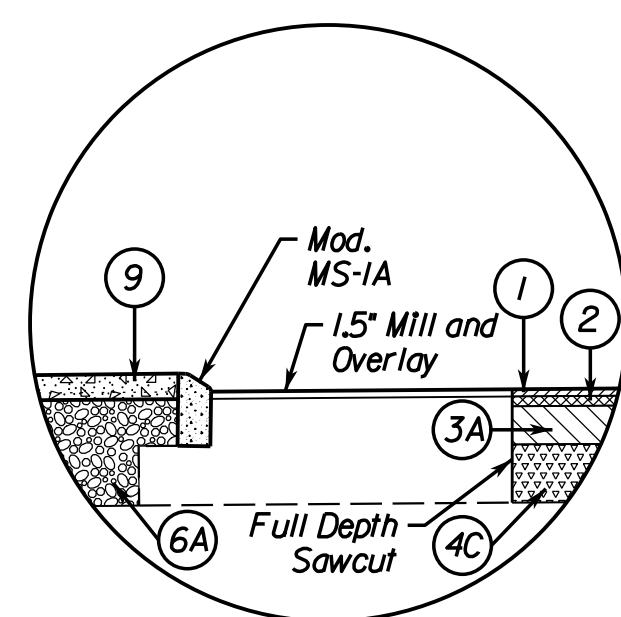
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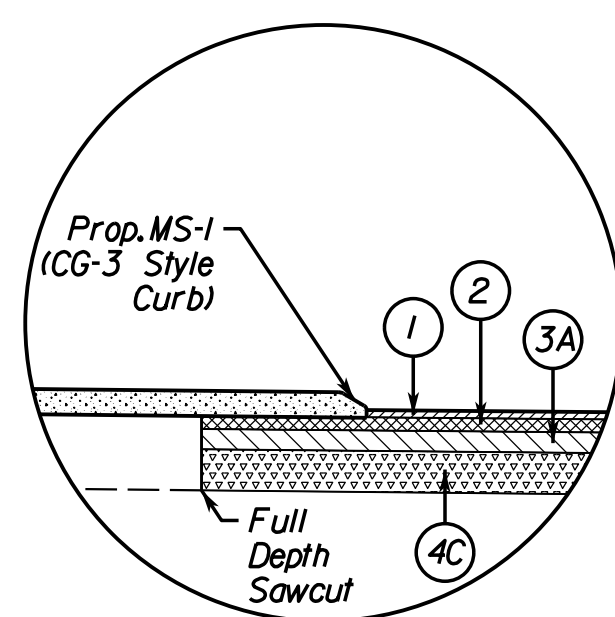
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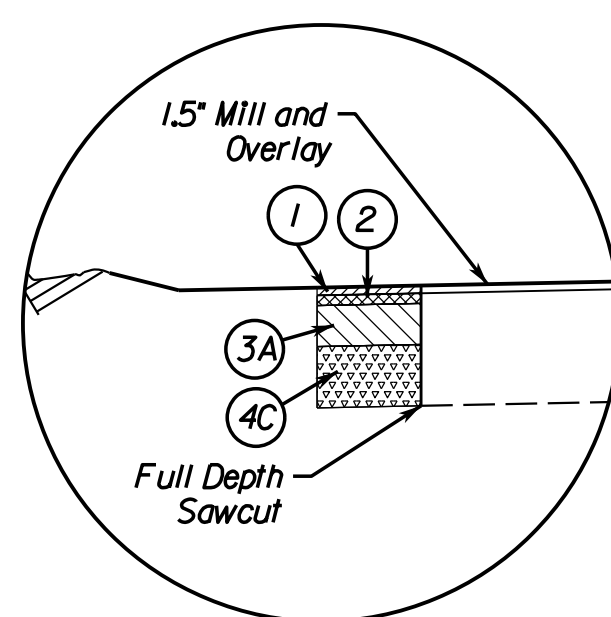
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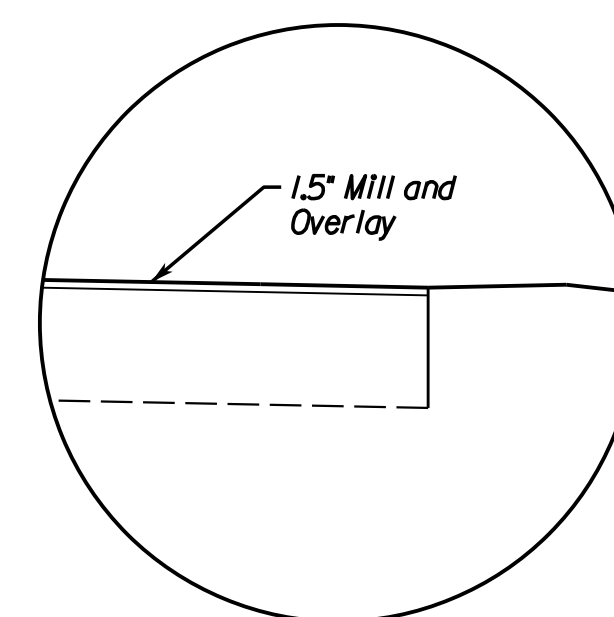
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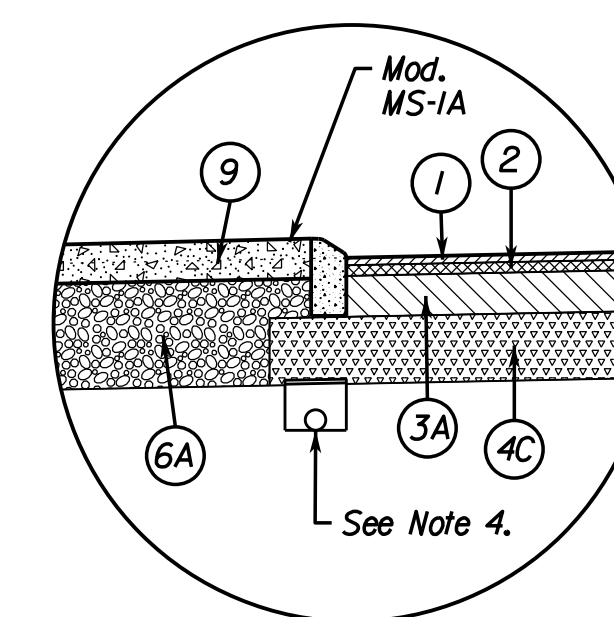
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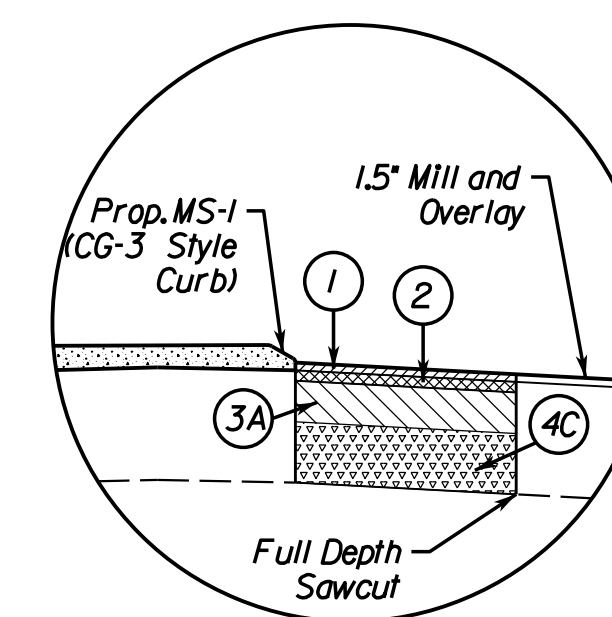
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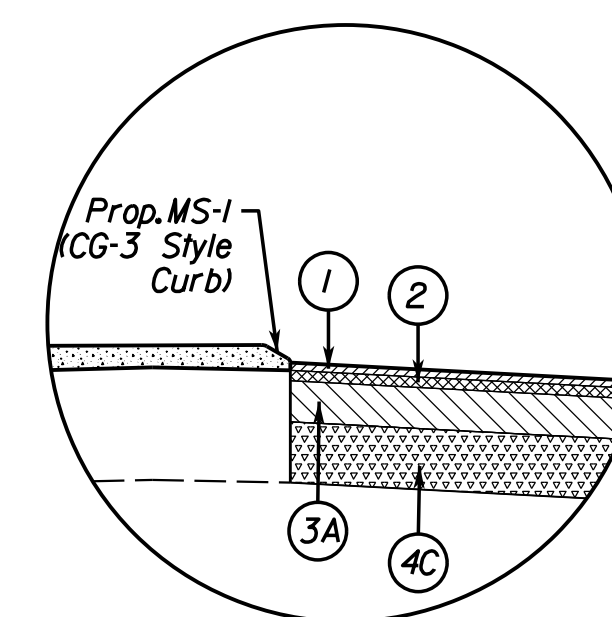
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(Not to Scale)



Inset "U"

(Not to Scale)



INSET DESIGN LEGEND

- 1 Surface Course / Mill & Overlay - Asph. Conc. Seal Coat, Type SM-9.5D estimated at 165 lbs/yd²*
- 2 Intermediate Course - Asph. Conc., Type IM-19.0A estimated at 220 lbs/yd²*
- 3A Base Course - Asph. Conc., BM-25.0A*
- 4C Sub-Base Course - Agr. Base Material, Type 1, Size No. 21-B connected to a standard UD-4 edgerain located beneath the C&G.* For widening on the high side of the existing pavement cross-slope, use Cement Treated Aggregate in lieu of the 21B.*
- 6A Plain Aggregate, Type 1, Size No. 21-B*
- 9 Concrete reinforced with Iron bars.*

Note: See geotechnical report, sheets 2A(24) thru 2A(26), for pavement details.

TYPICAL SECTION NOTES

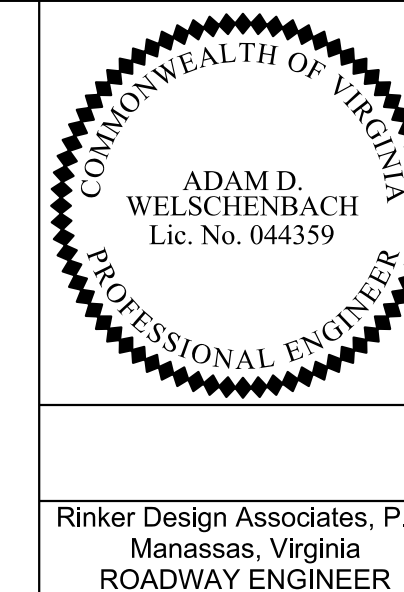
1. See Sheet 2A(28) for Pavement Inset Details.
2. The mainline pavement section shall be applied up to the curb return of all connecting roads and entrances.
3. Mill and Overlay/Variable Build-Up Limits shown on plan sheet 3 govern over the typical ranges shown on this sheet.
4. S'd. UD-4 Req'd., see plan sheets for detailed locations.
5. All Pavement widening shall be performed in accordance with VDOT Std. WP-2.
6. See drainage descriptions sheet 2M series for ditch typicals.
7. Contractor to provide positive drainage for subgrade course 21-B for outside areas in shoulders and super-elevated sections.
8. Guardrail Installation/Offsets shall be in accordance with Standard GR-INS and VDOT's RDM.
9. Roadway subbase shall be extended 12" behind the curb and gutter and 6" behind the curb on the median. SUP subbase shall be extended 6" on either side and Sidewalk subbase shall be extended 4" on either side.
10. Milling of the existing pavement should consist of 1.5" Minimum mill prior to any resurfacing.
11. See profile sheets for Superelevation details.
12. Pavement widths vary at turn lanes, tapers and connections. See plan sheets and cross sections for pavement lengths and widths.
13. For 1-lane ramps, Sub-Base No. 4B should be increased to 9" Select Material, Type 1, Minimum CBR-30 connected to a standard UD-4 edgerain located beneath the outside edge of paved shoulder.

NOTE:
-See sheets 2A(24) thru 2A(26) for geotechnical recommendations.

NOT TO SCALE	VDOT PROJECT 6234-076-266 PAC PROJECT SPR2020-00383 S03	SHEET NO. 2A(28)
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NOVA DISTRICT DESIGN UNIT
Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Geotechnical Engineering
Right of Way Services

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020



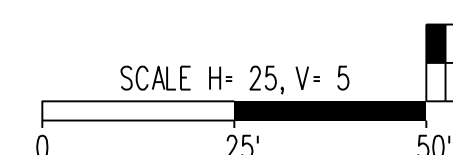
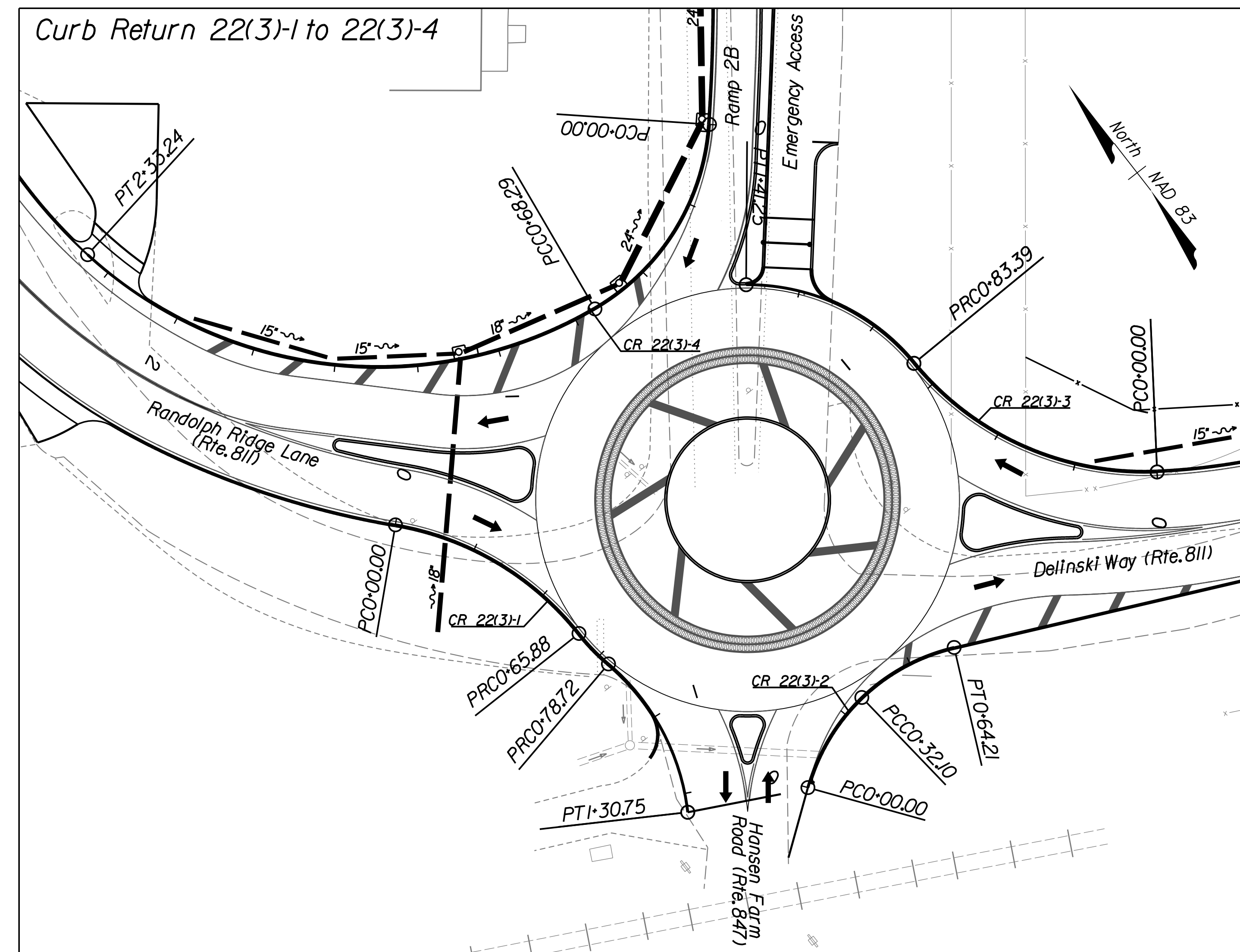
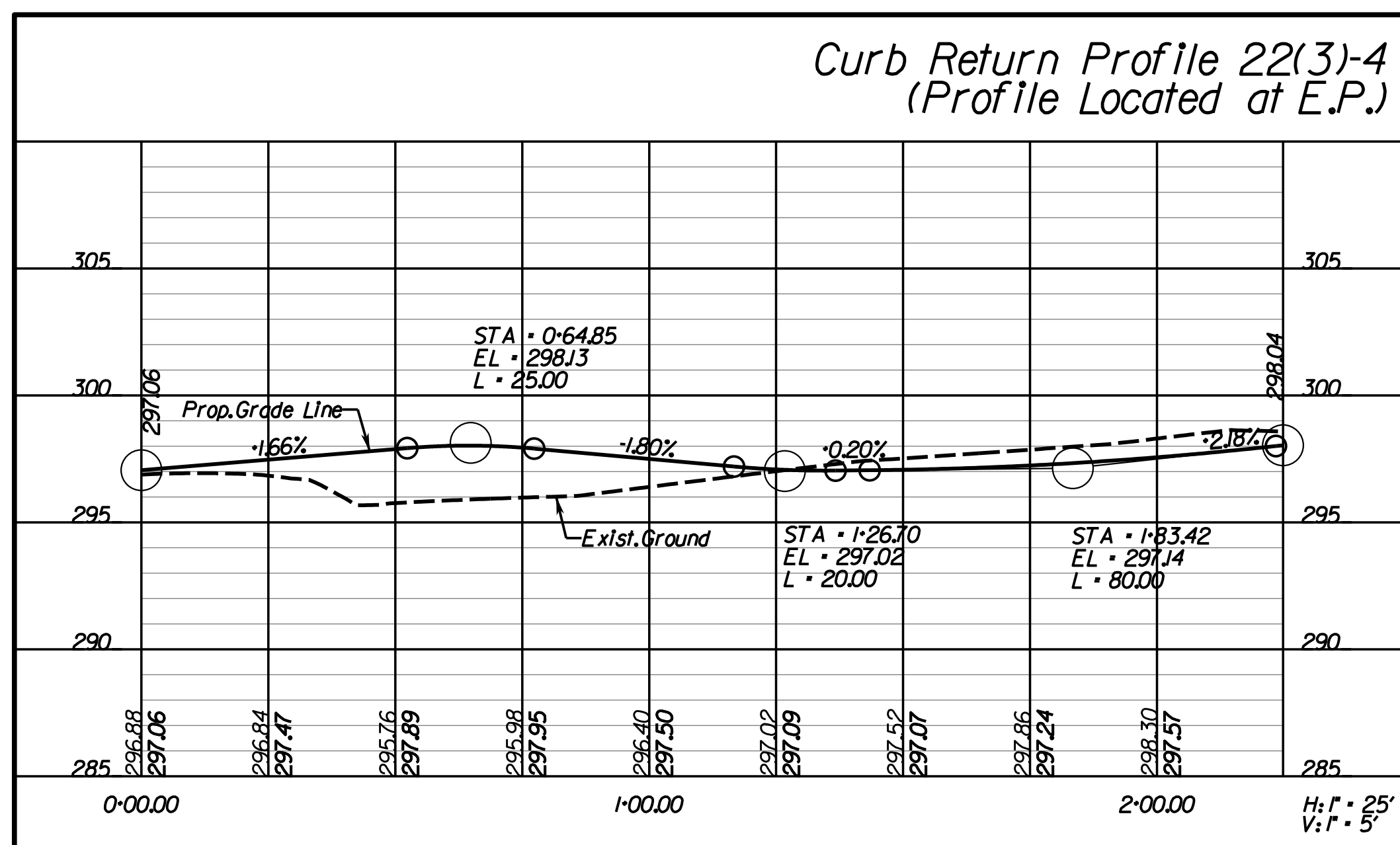
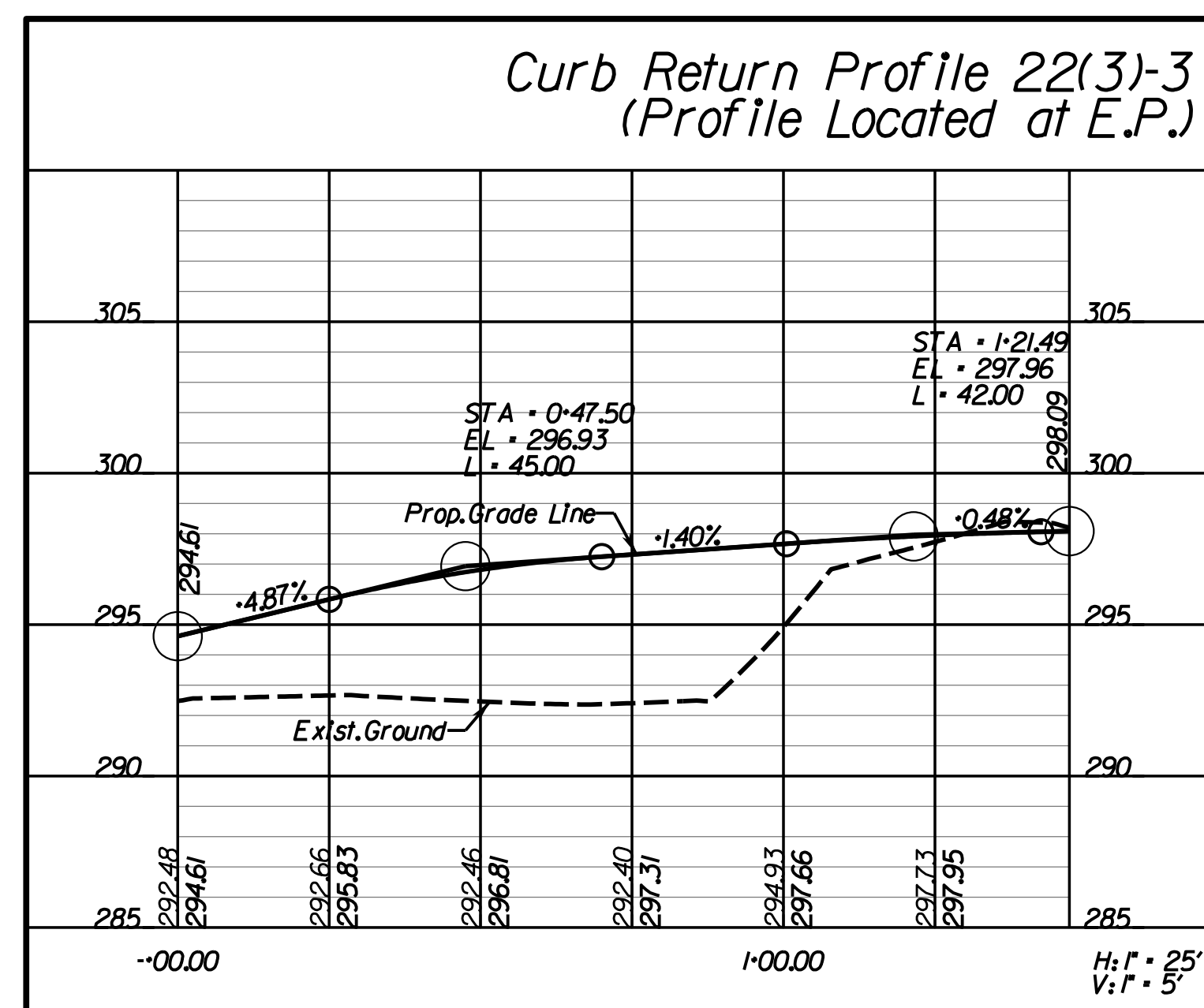
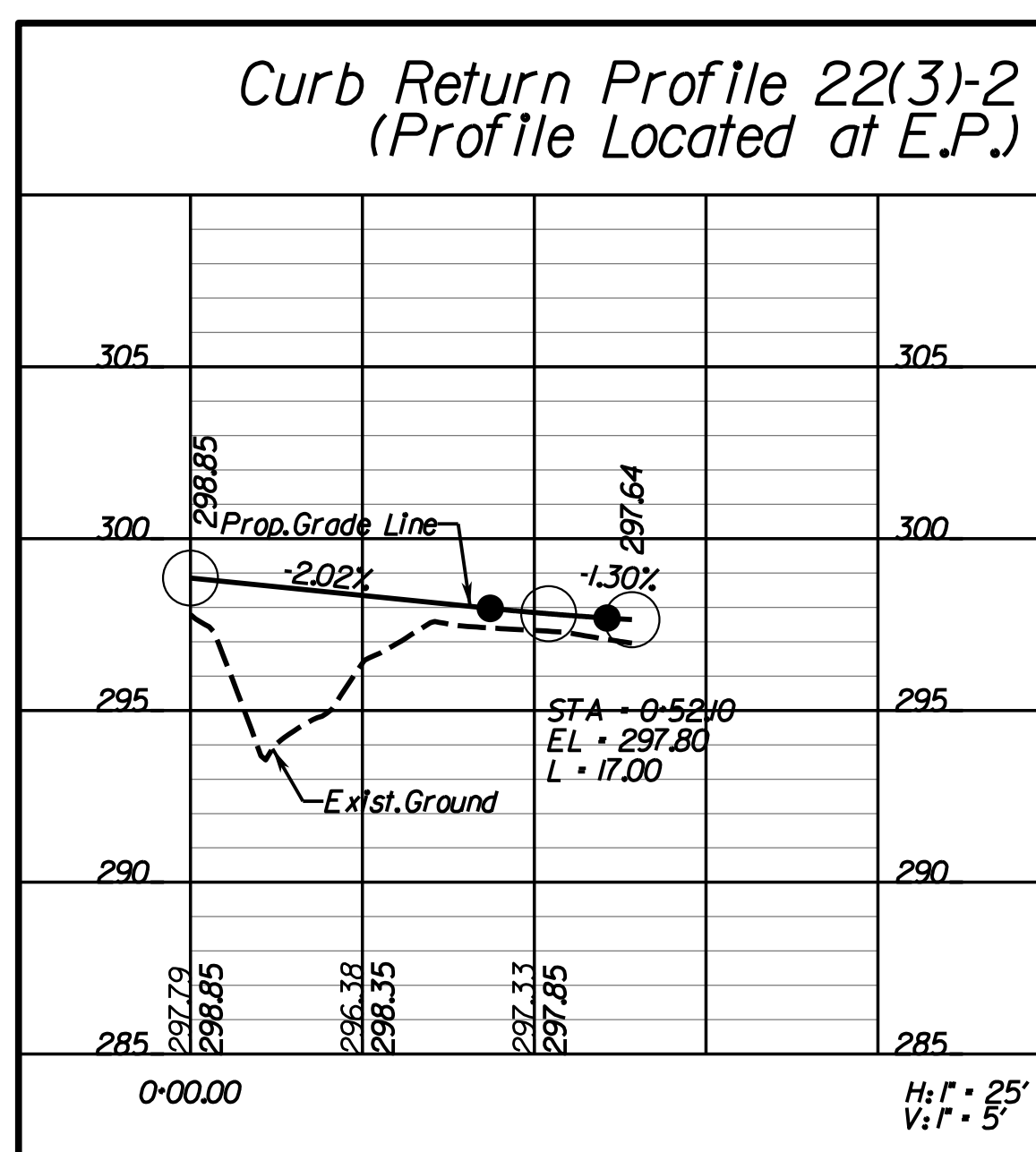
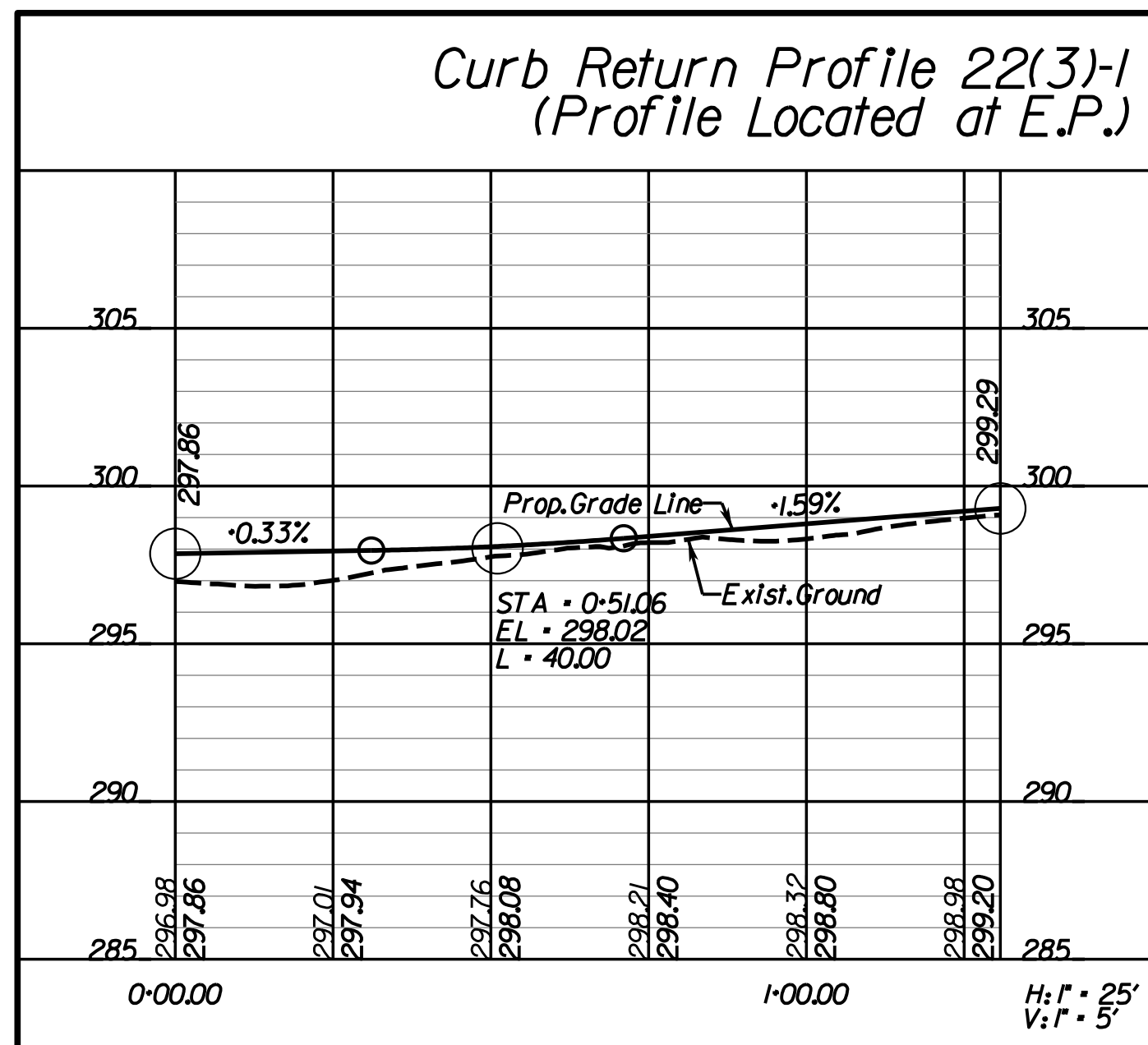
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	2B(10)

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 Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

Curb Return Profiles

02 Added sheet for roundabout curb returns.



SCALE	0 25' 50'	VDOT PROJECT 6234-076-266 PNC PROJECT SPR2020-00383 S03	SHEET NO. 2B(10)
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Office Locations

Design Associates, P.C.



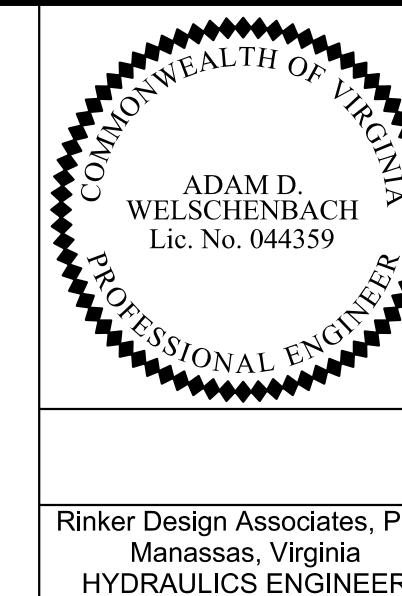
LANE

NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, Apr 11, 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

02 Revised 188 to 187 size.

DRAINAGE DESCRIPTIONS



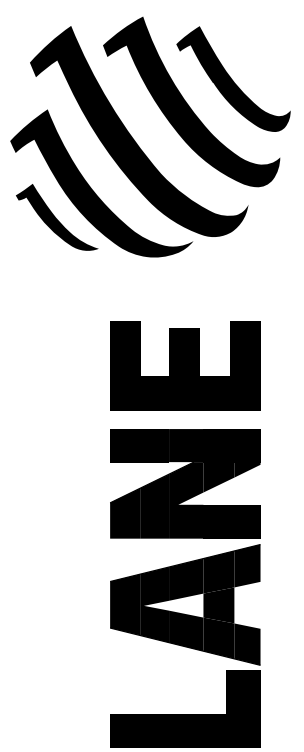
Rinker Design Associates, P.C.
 Manassas, Virginia
 HYDRAULICS ENGINEER

REVISED	STATE		STATE		SHEET NO.
	NDC02	ROUTE	PROJECT		
	VA.	62/	6234-076-266, C-501, RW-201		21(3)

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

Sheet #	Stationing	Description	Stationing	Description	Stationing	Description
II-1	I-S' d DI-3B Req'd. L-12' H-4' Inv.-297.10 Top-301.24 I-S' d IS-1 Req'd. Connect 3 UD-4 to DI	II-11	I-S' d DI-13 Ty I Req'd. I-S' d PI-1 Req'd. H+2.5' Inv.-297.08	II-20	10.2 Lin. Ft. S' d MH-1 or 2 Req'd. I S' d MH-1 Frame and Cover Req'd. Prop. Top-279.00 Inv.-268.10 I-S' d IS-1 Req'd.	
II-1 to II-4	115' - 15" Storm Sewer Pipe Req'd. (2' Cover) Silt-Tight Joint Type Req'd. Inv(In)297.10 Inv(out)294.00	II-12	I-S' d DI-7 Req'd. Grate A Type I Req'd. H+3.0' Inv.-291.50 Top-294.50	II-20 to II-21	17' - 36" Storm Sewer Pipe Req'd. (2' Cover) Silt-Tight Joint Type Req'd. Inv(In)268.10 Inv(out)268.00 Excavate 8" below bottom of storm sewer pipe and backfill with Bedding Material Aggregate #25 or 26 5 Tons Bedding Material Aggregate #25 or 26	
II-2	I-S' d DI-3B Req'd. L-10' H-4.6' Inv.-296.15 Top-300.72 Connect UD-4 to DI	II-12 to II-4	76' - 15" Storm Sewer Pipe Req'd. (2' Cover) Silt-Tight Joint Type Req'd. Inv(In)291.50 Inv(out)290.70	II-21	I-S' d ES-1 (36") Req'd. Inv.-268.00 10 CY EC-1 Class A Type B Installation Req'd.	
II-2 to II-8	92' - 15" Storm Sewer Pipe Req'd. (3' Cover) Silt-Tight Joint Type Req'd. Inv(In)296.15 Inv(out)294.15	II-13	I-S' d DI-7 Req'd. Grate A Type I Req'd. H+4.0' Inv.-269.54 Top-273.53 I-S' d IS-1 Req'd.	II-22	I-S' d DI-5 Type I Grate Req'd. S' d PG-2A Type E Cover H+3.5' Inv.-290.50 Top-294.00	
II-3	I-S' d DI-3B Req'd. L-10' H-5.0' Inv.-299.44 Top-304.44 Connect UD-4 to DI	II-13 to II-14	21' - 24" Storm Sewer Pipe Req'd. (2' Cover) Silt-Tight Joint Type Req'd. Inv(In)269.54 Inv(out)269.44	II-22 to II-8	67' - 15" Storm Sewer Pipe Req'd. (2' Cover) Silt-Tight Joint Type Req'd. Inv(In)290.50 Inv(out)290.10	
II-3 to II-5	70' - 15" Storm Sewer Pipe Req'd. (4' Cover) Silt-Tight Joint Type Req'd. Inv(In)299.44 Inv(out)295.00	II-14	I-S' d DI-10H (Type I) Req'd. L-4' H-6.2' Inv.-269.34 Top-275.52 I-S' d IS-1 Req'd. Connect 2 UD-4 to DI	II-23	I-S' d DI-5 Type I Grate Req'd. S' d PG-2A Type A Cover H+5.1' Inv.-270.80 Top-275.87	
II-4	I-S' d DI-3B Req'd. L-12' H-7.5' Inv.-290.60 Top-298.05 I-S' d IS-1 Req'd. Connect UD-4 to DI	II-15	I-S' d DI-7 Req'd. Grate A Type I Req'd. H+4' Inv.-270.42 Top-274.55 I-S' d IS-1 Req'd.	II-23 to II-15	91' - 18" Storm Sewer Pipe Req'd. (2' Cover) Silt-Tight Joint Type Req'd. Inv(In)270.80 Inv(out)270.52	
II-4 to II-5	44' - 15" Storm Sewer Pipe Req'd. (5' Cover) Silt-Tight Joint Type Req'd. Inv(In)290.60 Inv(out)290.35	II-15 to II-16	19' - 24" Storm Sewer Pipe Req'd. (2' Cover) Silt-Tight Joint Type Req'd. Inv(In)270.42 Inv(out)270.35	II-24	I-S' d DI-13 Ty I Req'd. I-S' d PI-1 Req'd. H+2.5' Inv.-300.94 175' - 15" Corrugated Pipe Req'd. (1' Cover) I-S' d ES-2 (15") Inv.-269.42 1 CY S' d EC-1 Class A Req'd. Type A Installation Req'd.	
II-5	I-S' d DI-2B Req'd. L-8' H-6.5' Inv.-290.11 Top-296.60 I-S' d IS-1 Req'd. Connect UD-4 to DI	II-16	I-S' d DI-10G (Type I) Req'd. H+6.2' Inv.-270.25 Top-276.42 I-S' d IS-1 Req'd. Connect UD-4 to DI	Sheet 12		
II-5 to II-6	15' - 15" Storm Sewer Pipe Req'd. (1' Cover) Silt-Tight Joint Type Req'd. Inv(In)290.11 Inv(out)289.66	II-16 to II-14	192' - 24" Storm Sewer Pipe Req'd. (4' Cover) Silt-Tight Joint Type Req'd. Inv(In)270.25 Inv(out)269.44	II-1	I-S' d DI-13 Ty I Req'd. I-S' d PI-1 Req'd. H+2.5' Inv.-300.37 130' - 15" Corrugated Pipe Req'd. (1' Cover) I-S' d ES-2 (15") Inv.-277.90 1 CY S' d EC-1 Class A Req'd. Type A Installation Req'd.	
II-6	I-S' d ES-1 (15") Req'd. Inv.-289.66 1 CY EC-1 Class I Type A Installation Req'd.	II-17	I-S' d DI-7 Req'd. Grate A Type I Req'd. H+3.0' Inv.-276.00 Top-279.00	II-2	Structure number not assigned	
II-7	I-S' d DI-13 Ty I Req'd. I-S' d PI-1 Req'd. H+2.5' Inv.-297.61 89' - 15" Corrugated Pipe Req'd. (1' Cover) I-S' d ES-2 (15") Inv.-281.66 1 CY S' d EC-1 Class I Req'd. Type A Installation Req'd.	II-17 to II-18	11' - 15" Storm Sewer Pipe Req'd. (2' Cover) Silt-Tight Joint Type Req'd. Inv(In)276.00 Inv(out)275.90	II-3	I-S' d DI-2B Req'd. L-6' H-4' Inv.-292.45 Top-296.53 Connect UD-4 to DI	
II-8	I-S' d DI-3BB Req'd. L-12' H-8.2' Inv.-290.00 Top-298.18 0.5" Steel Plate Req'd at Invert I-S' d IS-1 Req'd. Connect UD-4 to DI	II-18	I-S' d DI-10G (Type I) Req'd. H+5.5' Inv.-275.80 Top-281.32 I-S' d IS-1 Req'd. Connect UD-4 to DI	II-3 to II-4	115' - 15" Storm Sewer Pipe Req'd. (2' Cover) Silt-Tight Joint Type Req'd. Inv(In)292.45 Inv(out)288.95	
II-8 to II-9	50' - 15" Storm Sewer Pipe Req'd. (7' Cover) Silt-Tight Joint Type Req'd. Inv(In)290.00 Inv(out)288.00	II-18 to II-19	175' - 18" Storm Sewer Pipe Req'd. (4' Cover) Silt-Tight Joint Type Req'd. Inv(In)275.80 Inv(out)274.90	II-4	I-S' d DI-3B Req'd. L-6' H-4' Inv.-288.85 Top-292.96 I-S' d IS-1 Req'd. Connect UD-4 to DI	
II-9	I-S' d DI-2BB Req'd. L-6' H-9.7' Inv.-287.60 Top-297.33 I-S' d IS-1 Req'd. Connect 3 UD-4 to DI	II-19	I-S' d DI-10G (Type I) Req'd. H+9.4' Inv.-271.50 Top-280.86 I-S' d IS-1 Req'd. Connect 2 UD-4 to DI	II-4 to II-5	58' - 15" Storm Sewer Pipe Req'd. (2' Cover) Silt-Tight Joint Type Req'd. Inv(In)288.85 Inv(out)287.70	
II-9 to II-10	23' - 15" Storm Sewer Pipe Req'd. (1' Cover) Silt-Tight Joint Type Req'd. Inv(In)287.60 Inv(out)286.50	II-19 to II-20	46' - 18" Storm Sewer Pipe Req'd. (5' Cover) Silt-Tight Joint Type Req'd. Inv(In)271.50 Inv(out)270.50	Sheet 13		
				II-5	I-S' d DI-3B Req'd. L-10' H-7.7' Inv.-284.00 Top-291.73 I-S' d IS-1 Req'd. Connect 2 UD-4 to DI	
				EX188 to EX187	Existing 48"x76" Oval RCP To Be Repaired Purge from the Inside	

6/24/2021 NOVA DISTRICT DESIGN UNIT
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 703.369.7373
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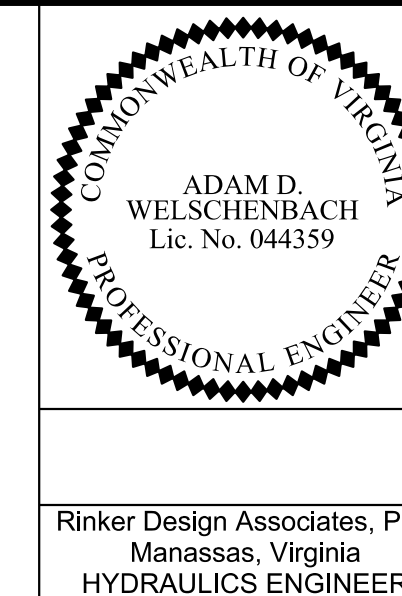


Office Locations
 Manassas, VA
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 Reston, VA
 Vienna, VA
 Washington, DC
 Arlington, VA
 Alexandria, VA
 Loudoun, VA
 Stafford, VA
 Leesburg, VA
 Warrenton, OR
 Portland, OR
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 San Diego, CA
 Los Angeles, CA
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 Houston, TX
 Austin, TX
 San Antonio, TX
 Fort Worth, TX

PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

02 Revised 189 to 188 size.

DRAINAGE DESCRIPTIONS



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

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	62/		6234-076-266, C-501, RW-201	2L(4)

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

EX189 to EX188	Existing 48"x76" Oval RCP To Be Repaired Place Repair Band at 2.7 LF from Ex.Str 188	13-10	1-SI'd DI-3B Req'd. L=4' H=5.3' Inv.=266.55 Top=271.86 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	14-2	1-SI'd DI-3B Req'd. Monobox shallow structure L=6' H=4.0' Inv.=274.40 Top=278.40 1-SI'd.IS-1 Req'd. Connect 2 UD-4 to DI See Sheet 2L(7) for Detail				
13-1	1-SI'd DI-3B Req'd. L=10' H=4.0' Inv.=271.40 Top=275.41 Connect 2 UD-4 to DI	13-10 to 13-11	53' - 24" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)266.55 Inv(out)265.80	14-2 to 14-3	50' - 18" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)274.40 Inv(out)274.15				
13-1 to 13-2	52' - 15" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)271.40 Inv(out)268.95	13-11	1-SI'd DI-4C Req'd. L=8' H=6.0' Inv.=265.70 Top=271.71 1-SI'd.IS-1 Req'd. Connect 2 UD-4 to DI	14-3	1-SI'd DI-3A Req'd. H=4.5' Inv.=274.05 Top=278.56 Connect 2 UD-4 to DI	15-2	4.0 Lin.Ft.SI'd MH-1 or 2 Req'd. 1 SI'd MH-1 Frame and Cover Req'd. Prop.Top=281.95 Inv.=277.25 1-SI'd.IS-1 Req'd.		
13-2	1-SI'd DI-3B Req'd. L=10' H=5.0' Inv.=268.70 Top=273.73 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	13-11 to 13-12	47' - 36" Storm Sewer Pipe Req'd.(1' Cover) Silt-Tight Joint Type Req'd. Inv(In)265.70 Inv(out)265.40 Excavate 4' below bottom of storm sewer pipe and backfill with Bedding Material Aggregate #25 or 26 7 Tons Bedding Material Aggregate #25 or 26	14-3 to 14-5	42' - 18" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)274.05 Inv(out)273.80	15-2 to 14-1	178' - 15" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)277.25 Inv(out)276.25		
13-2 to 13-3	110' - 18" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)268.70 Inv(out)266.95	13-12	1-SI'd.ES-1(36") Req'd. Inv.=265.40 13 CY EC-1 Class A Type B Installation Req'd.	14-4	Structure number not assigned	15-3	1-SI'd DI-3A Req'd. H=4.4' Inv.=278.00 Top=282.41 1-SI'd.IS-1 Req'd. Connect 2 UD-4 to DI		
13-3	1-SI'd DI-3B Req'd. L=4' H=5.0' Inv.=266.85 Top=271.86 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	13-13	400' - 36" Conc.Pipe Class III Req'd.(19' Cover)(20 Degree Skew) (Double Line - 200' each line) Silt-Tight Joint Type Req'd. Inv(In)262.0 Inv(out)260.3 Countersink Pipes 6' Below Specified Inverts 2-Sid.EW-6S (36") Req'd. 23 CY EC-1 Class I Type B Installation Req'd. Excavate 24' below bottom of culvert and backfill with 18" #57 Aggregate wrapped in Geotextile Stabilization Fabric topped with 6" Bedding Material Aggregate #25 or 26 1183 CY Minor Structure Excavation 228 Tons #57 Aggregate 80 Tons Bedding Material Aggregate #25 or 26	14-5	4.8 Lin.Ft.SI'd MH-1 or 2 Req'd. 1 SI'd MH-1 Frame and Cover Req'd Prop.Top=279.15 Inv.=273.70 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	15-3 to 15-4	67' - 15" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)278.00 Inv(out)276.70		
13-3 to 13-11	50' - 18" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)266.85 Inv(out)265.80	13-14	81' SI'd.SWM-1 Req'd. Top of Riser = 267.50, Bottom of Riser = 259.40 3" Water Quality Orifice Req., Inv = 262.50 1.0' x 3.0' Orifice (Two Openings) Req., Inv = 266.00 1-SI'd.IS-1 Req'd. See Sheet 10(12) - 10(19) For Details	14-5 to 14-6	243' - 18" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)273.70 Inv(out)272.55	15-4	1-SI'd DI-3C Req'd. L=12' H=3.9' Inv.=276.60 Top=280.53 1-SI'd.IS-1 Req'd. Connect 2 UD-4 to DI		
13-4	1-SI'd DI-3B Req'd. L=6' H=4.0' Inv.=269.90 Top=273.90	13-15	1-SI'd.ES-1(36") Req'd. Inv.=262.20 9 CY EC-1 Class A Type B Installation Req'd.	14-6	1-SI'd DI-3B Req'd. L=14' H=5.3' Inv.=272.45 Top=277.71 1-SI'd.IS-1 Req'd. Connect 2 UD-4 to DI	15-4 to 15(1-1)	52' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)276.60 Inv(out)276.25		
13-4 to 13-6	51' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)269.90 Inv(out)269.60	13-16	46' - 36" Concrete Pipe Req'd.(15' Cover) Leak Resistant Joint Type Req'd. Inv(In)262.40 Inv(out)262.20 46' Concrete Cradle Pipe-Spec. Section 232 (AASHTO M170) Gasket- Spec. Section 212 (ASTM C443)	14-6 to 13-7	201' - 18" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)272.45 Inv(out)271.25	15-5	1-SI'd DI-3B Req'd. L=18' H=4.1' Inv.=278.15 Top=282.20 Connect UD-4 to DI		
13-5	1-SI'd DI-3B Req'd. L=8' H=4.0' Inv.=269.90 Top=273.89	13-17	40' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)271.15 Inv(out)270.80	14-7	1-SI'd DI-3B Req'd. L=8' H=4.5' Inv.=274.60 Top=279.09 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	15-5 to 15-6	50' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)278.15 Inv(out)277.85		
13-5 to 13-6	53' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)269.90 Inv(out)269.60	13-18	1-SI'd DI-3B Req'd. L=6' H=5.2' Inv.=269.00 Top=274.24 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	14-7 to 14-8	114' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)274.60 Inv(out)274.00	15-6	1-SI'd DI-3B Req'd. L=6' H=4.9' Inv.=277.75 Top=282.61 1-SI'd.IS-1 Req'd. Connect UD-4 to DI		
13-6	1-SI'd DI-3C Req'd. L=6' H=5.9' Inv.=267.90 Top=273.76 1-SI'd.IS-1 Req'd. Connect 2 UD-4 to DI Connect CD-2 to DI	13-19	125' - 24" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)269.00 Inv(out)268.00	13-19	1-SI'd DI-3B Req'd. L=6' H=5.2' Inv.=269.90 Top=273.76 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	14-8	1-SI'd DI-3B Req'd. L=8' H=4.5' Inv.=273.90 Top=278.39 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	15-6 to 14-7	275' - 15" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)277.75 Inv(out)274.70
13-6 to 13-11	54' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)267.90 Inv(out)266.60	13-20	1-SI'd DI-3B Req'd. L=6' H=5.2' Inv.=269.00 Top=274.24 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	13-20	1-SI'd DI-3B Req'd. L=6' H=5.2' Inv.=269.00 Top=273.76 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	14-8 to 14-9	225' - 18" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)273.90 Inv(out)272.56	15-7	1-SI'd Doghouse MH Req'd.(4.8 Lin.Ft.) 1 SI'd MH-1 Frame and Cover Req'd. Prop.Top=282.07 Inv.=276.59 1-SI'd.IS-1 Req'd.
13-7	1-SI'd DI-3B Req'd. L=8' H=4.8' Inv.=271.15 Top=275.96 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	13-21	40' - 18" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)271.15 Inv(out)270.80	13-21	40' - 18" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)271.15 Inv(out)270.80	14-9	1-SI'd DI-3B Req'd. Monobox shallow structure L=8' H=3.5' Inv.=272.46 Top=275.99 1-SI'd.IS-1 Req'd. Connect UD-4 to DI See Sheet 2L(7) for Detail.	15-8	1-SI'd DI-3B Req'd. Monobox shallow structure L=4' H=2.7' Inv.=280.70 Top=283.43 See Sheet 2L(7) for Detail.
13-7 to 13-8	40' - 18" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)271.15 Inv(out)270.80	13-22	1-SI'd DI-3A Req'd. H=3.9' Inv.=271.11 Top=275.03	13-22	1-SI'd DI-3A Req'd. H=3.9' Inv.=271.11 Top=275.03	14-9 to 13-8	195' - 18" Storm Sewer Pipe Req'd.(1' Cover) Silt-Tight Joint Type Req'd. Inv(In)272.46 Inv(out)271.35	15-8 to 15-7	71' - 15" Storm Sewer Pipe Req'd.(1' Cover) Silt-Tight Joint Type Req'd. Inv(In)280.70 Inv(out)279.93
13-8	1-SI'd DI-3B Req'd. L=6' H=5.2' Inv.=269.00 Top=274.24 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	13-23	40' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)271.11 Inv(out)268.00	13-23	40' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)271.11 Inv(out)268.00	15-9	Adjust Existing Drop Inlet Adjust to Grade, Raise 0.26' 1 SI'd MH-1 Frame and Cover Req'd. Prop.Top=282.26 Ex. Inv.=277.08		
13-8 to 13-9	125' - 24" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)269.00 Inv(out)268.00	13-24	1-SI'd DI-3B Req'd. L=10' H=4.0' Inv.=276.15 Top=280.17 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	13-24	1-SI'd DI-3B Req'd. L=10' H=4.0' Inv.=276.15 Top=280.17 1-SI'd.IS-1 Req'd. Connect UD-4 to DI				
13-9	1-SI'd DI-3B Req'd. L=6' H=5.2' Inv.=269.90 Top=273.76 1-SI'd.IS-1 Req'd. Connect UD-4 to DI	13-25	231' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)276.15 Inv(out)274.50	13-25	231' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)276.15 Inv(out)274.50	15-1	1-SI'd Doghouse MH Req'd.(1.34 Lin.Ft.) 1-SI'd DI-3B Top Req'd. L=4' H=4.1' Inv.=279.35 Top=283.40 Connect UD-4 to DI		
13-9 to 13-10	135' - 24" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)267.90 Inv(out)266.65	13-26	231' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)276.15 Inv(out)274.50	13-26	231' - 15" Storm Sewer Pipe Req'd.(3' Cover) Silt-Tight Joint Type Req'd. Inv(In)276.15 Inv(out)274.50	15-1 to 15-2	61' - 15" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)279.35 Inv(out)277.35		

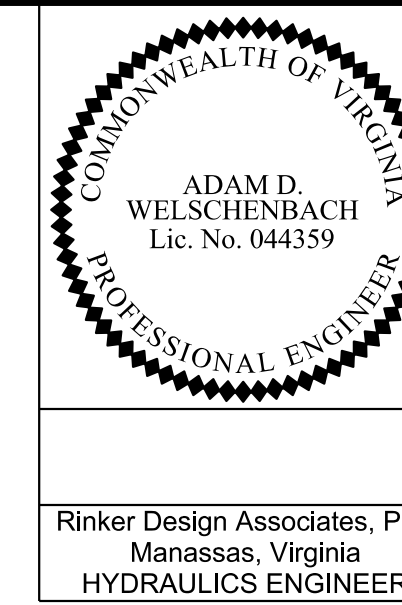
VDOT PROJECT	SHEET NO.
6234-076-266 PNC PROJECT SPR2020-00383 S03	2L(4)

6/24/2021 NOVA DISTRICT DESIGN UNIT
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 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

02 Revised descriptions, EX131 and 20X3-3 removed.

DRAINAGE DESCRIPTIONS AND ALLOWABLE PIPE TABLES



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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	62/	6234-076-266, C-501, RW-201	2L16

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

NOTE:

PER THE VDOT 2016 ROAD AND BRIDGE STANDARDS SUPPLEMENTAL SPECIFICATION, SECTION 302.03(d), VDOT IS TO PERFORM VISUAL INSPECTION DURING THE INITIAL INSTALLATION OF STORM SEWER AND CULVERT PIPES. NO SOONER THAN 30 DAYS AFTER COMPLETION OF THE PIPE INSTALLATION AND PLACEMENT OF FINAL COVER, THE CONTRACTOR IS TO PROVIDE POST INSTALLATION VISUAL/VIDEO CAMERA INSPECTIONS ON ALL STORM SEWER PIPES AND A SELECT NUMBER OF CULVERTS. VISUAL AND VIDEO INSPECTIONS MUST BE IN ACCORDANCE WITH THE VDOT 2016 ROAD AND BRIDGE STANDARDS SUPPLEMENTAL SPECIFICATIONS, SECTION 302.03(d), AND VTM 123.

Sheet 24

No Structures

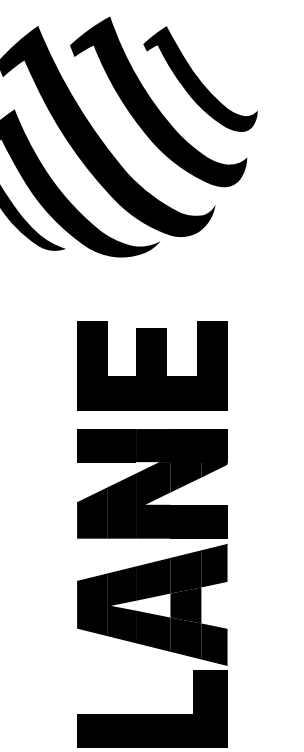
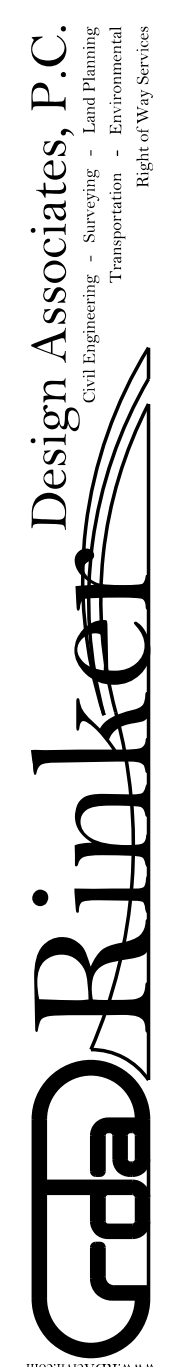
ALLOWABLE TYPE OF STORM SEWER PIPE (UNLESS OTHERWISE SHOWN IN DRAINAGE DESCRIPTIONS) (SEE ROAD AND BRIDGE STANDARD PC-1 FOR HEIGHT OF COVER LIMITATIONS FOR EACH TYPE)

LOCATION	CONCRETE	ALUMINUM COATED TYPE 2 STEEL SPIRAL RIB	POLYMER COATED (10/10) CORRUGATED STEEL SPIRAL RIB	POLYMER COATED (10/10) CORRUGATED STEEL DOUBLE WALL (SMOOTH INTERIOR)	ALUMINUM SPIRAL RIB	POLYVINYLCHLORIDE (PVC) RIBBED PIPE (SMOOTH INTERIOR)	POLYETHYLENE (PE) CORRUGATED TYPE S	POLYPROPYLENE (PP) TYPE D OR S
BALLS FORD ROAD	X			X		X	X	X
DEVLIN ROAD	X			X		X	X	X
WELLINGTON ROAD	X			X		X	X	X
WELLINGFORD DRIVE	X	X	X	X	X	X	X	X
PRINCE WILLIAM PARKWAY	X			X		X	X	X
OLD BALLS FORD ROAD	X			X		X	X	X

ALLOWABLE TYPE OF PIPE CULVERT (UNLESS OTHERWISE SHOWN IN DRAINAGE DESCRIPTIONS) (SEE ROAD AND BRIDGE STANDARD PC-1 FOR HEIGHT OF COVER LIMITATIONS FOR EACH TYPE)

LOCATION	CONCRETE	ALUMINUM COATED TYPE 2 CORRUGATED STEEL	POLYMER COATED (10/10) CORRUGATED STEEL	UNCOATED GALVANIZED CORRUGATED STEEL	GALVANIZED STEEL STRUCTURAL PLATE	GALVANIZED STEEL STRUCTURAL PLATE WITH THICKENED INVERT	CORRUGATED ALUMINUM ALLOY	CORRUGATED ALUMINUM ALLOY STRUCTURAL PLATE	POLYVINYLCHLORIDE (PVC) RIBBED PIPE (SMOOTH INTERIOR)	POLYETHYLENE (PE) CORRUGATED TYPE C	POLYETHYLENE (PE) CORRUGATED TYPE S	POLYPROPYLENE (PP) TYPE D OR S
BALLS FORD ROAD	X	X	X			X	X	X	X	X	X	X
DEVLIN ROAD	X	X	X			X	X	X	X	X	X	X
WELLINGTON ROAD	X	X	X		X	X	X	X	X	X	X	X
WELLINGFORD DRIVE	X	X	X		X	X	X	X	X	X	X	X
PRINCE WILLIAM PARKWAY	X	X	X			X	X	X	X	X	X	X
OLD BALLS FORD ROAD	X	X	X			X	X	X	X	X	X	X
ENTRANCE	X	X	X	X	X	X	X	X	X	X	X	X
DI-13 *See PI-1104.37 in the Road and Bridge Standards				X								

20X2-6	7.0' S1'd, SWM-1 Req'd. Top of Riser • 267.00, Bottom of Riser • 260.00 3" Low Flow Orifice Req., Inv • 263.00 3.0'x3.5' Orifice (Two Openings) Req., Inv • 263.50 113 LF 6" Dewatering Pipe, Inv at Connection • 263.00 1 S1'd, EW-12 Req'd., Inv • 254.50 1 S1'd, IS-1 Req'd. See Sheet 10(36) - 10(44) For Details	21-7	4J Lin. Ft. Precast MH with 96" Base Req'd. 1 S1'd, T-DI-7 Grate A Type I Req'd. Manobox shallow structure Prop. Top • 277.98 Inv • 273.22 1 S1'd, IS-1 Req'd. Remove Existing Grate Inlet EX133, Connect to existing 42" RCP. Connect UD-4 to DI	22(2)-2	Modify Existing Drop Inlet Adjust to Grade 1 S1'd MH-1 Frame and Cover Req'd. Ex. Inv. • 280.52
20X2-6 to 20X2-7	51' - 42" Concrete Pipe Req'd. (4' Cover) Leak Resistant Joint Type Req'd. Inv (In) 263.00 Inv (Out) 262.75 51' Concrete Cradle Pipe Spec. Section 232 (AASHTO M170) Gasket - Spec. Section 212 (ASTM C443)	21-7 to EX 132	Existing 42" RCP To Be Repaired Parge from the Inside	22(2)-3	Modify Existing Drop Inlet Adjust to Grade 1 S1'd MH-1 Frame and Cover Req'd. Ex. Inv. • 279.99
20X2-7	1 S1'd, ES-1 (42") Req'd. Inv. • 262.75 17 CY EC-1 Class I Type B Installation Req'd.	Sheet 22		23-1	1 S1'd, ES-1 (15') Req'd. Inv. • 291.95
Sheet 20(3)				23-1 to 23-2	29' - 15" Storm Sewer Pipe Req'd. (1' Cover) S111-Tight Joint Type Req'd. Inv (In) 291.95 Inv (Out) 291.65
20X3-1	1 S1'd, EW-2 (42") Req'd. Inv. • 269.05 12 CY EC-1 Class A Type B Installation Req'd.	22-1 to 22-3	87' - 45'x29" Elliptical Conc. Pipe Class III Req'd. (1' Cover) S111-Tight Joint Type Req'd. Inv (In) 282.00 Inv (Out) 281.25 Excavate 2' below bottom of storm sewer pipe and backfill with Bedding Material Aggregate *25 or 26 82 Tons Bedding Material Aggregate *25 or 26	23-2	7.3 Lin. Ft. S1'd MH-1 or 2 Req'd. 1 S1'd MH-1 Frame and Cover Req'd Prop. Top • 299.55 Inv. • 291.55 1 S1'd, IS-1 Req'd.
20X3-2	1 S1'd, DI-5 Type I Grate Req'd. S1'd, PG-2A Type B3 Cover Prop. Top • 276.50 Inv. • 270.15 1 S1'd, IS-1 Req'd.	22-2	100' - 24" Conc. Pipe Class III Req'd. (2' Cover) (44 Degree Skew) S111-Tight Joint Type Req'd. Inv (In) 277.20 Inv (Out) 276.35 2-Std. ES-1 (24") Req'd. 3 CY S1'd, EC-1 Class A Req'd. Type A Installation	23-2 to 23-3	40' - 15" Storm Sewer Pipe Req'd. (7' Cover) S111-Tight Joint Type Req'd. Inv (In) 291.55 Inv (Out) 291.10
20X3-2 to 20X3-1	162' - 42" Concrete Pipe Req'd. (1' Cover) S111-Tight Joint Type Req'd. Inv (In) 270.15 Inv (Out) 269.05 Excavate 8' below bottom of culvert and backfill with Bedding Material Aggregate *25 or 26 49 Tons Bedding Material Aggregate *25 or 26	22-3	1 S1'd, ES-1A (45'x29") Req'd. Inv. • 281.25 13 CY EC-1 Class I Type B Installation Req'd.	23-3	7.4 Lin. Ft. S1'd MH-1 or 2 Req'd. 1 S1'd MH-1 Frame and Cover Req'd Prop. Top • 299.10 Inv. • 291.00 1 S1'd, IS-1 Req'd.
Sheet 21		22-4	Structure number not assigned	23-3 to 23-4	30' - 15" Storm Sewer Pipe Req'd. (1' Cover) S111-Tight Joint Type Req'd. Inv (In) 291.00 Inv (Out) 290.70
EX131 to EX130	Existing 42" RCP To Be Repaired Parge from the Inside	22-5	1 S1'd DI-5 Type I Grate Req'd. S1'd, PG-2A Type A Cover H • 3.7' Inv. • 282.45 Top • 286.12	23-4	1 S1'd, ES-1 (15') Req'd. Inv. • 290.70 2 CY EC-1 Class A Type A Installation Req'd.
EX132 to EX131	Existing 42" RCP To Be Repaired Parge from the Inside	22-5 to 22-1	70' - 42'x27" Elliptical Conc. Pipe Class III Req'd. (1' Cover) S111-Tight Joint Type Req'd. Inv (In) 282.45 Inv (Out) 282.10 Excavate 2' below bottom of storm sewer pipe and backfill with Bedding Material Aggregate *25 or 26 64 Tons Bedding Material Aggregate *25 or 26		
21-1	4J S1'd, SWM-1 Req'd. Top of Riser • 282.13, Bottom of Riser • 278.00 12" Low Flow Orifice Req., Inv • 280.00 1 S1'd, IS-1 Req'd. See Sheet 10(45) - 10(48) For Details	22-6	60' - 45'x29" Elliptical Conc. Pipe Class III Req'd. (2' Cover) S111-Tight Joint Type Req'd. Inv (In) 280.78 Inv (Out) 280.28 2-Std. ES-1A (45'x29") Req'd. 12 CY S1'd, EC-1 Class I Req'd. Type B Installation Excavate 2' below bottom of culvert and backfill with Bedding Material Aggregate *25 or 26 57 Tons Bedding Material Aggregate *25 or 26		
21-1 to 21-2	35' - 18" Concrete Pipe Req'd. (4' Cover) Leak Resistant Joint Type Req'd. Inv (In) 280.00 Inv (Out) 279.00 35' Concrete Cradle Pipe Spec. Section 232 (AASHTO M170) Gasket - Spec. Section 212 (ASTM C443)	Sheet 22(1)			
21-2	1 S1'd, ES-1 (18") Req'd. Inv. • 279.00 2 CY S1'd, EC-1 Class A Req'd. Type A Installation	22(1)-1	1 S1'd DI-5 Type I Grate Req'd. S1'd, PG-2A Type B1 Cover H • 3.9' Inv. • 282.45 Top • 286.37		
21-3	Structure number not assigned	22(1)-1 to 22-1	71' - 42'x27" Elliptical Conc. Pipe Class III Req'd. (1' Cover) S111-Tight Joint Type Req'd. Inv (In) 282.45 Inv (Out) 282.10		
21-4	Structure number not assigned	Sheet 22(2)			
21-5	1 S1'd, ES-1 (18") Req'd. Inv. • 279.47 2 CY S1'd, EC-1 Class A Req'd. Type A Installation	22(2)-1	Modify Existing Drop Inlet Adjust to Grade, Lower 1.02' 1 S1'd MH-1 Frame and Cover Req'd. Prop. Top • 278.00 Ex. Inv. • Unknown		
21-6	Structure number not assigned				



NOVA DISTRICT DESIGN UNIT

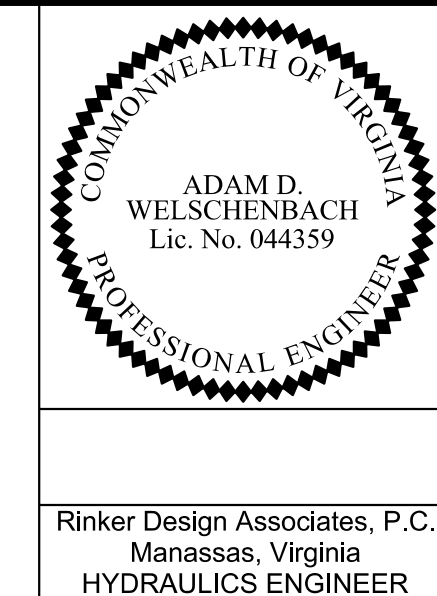
PROJECT MANAGER PWC DOT-Mary Ankers (703)792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

DRAINAGE DESCRIPTIONS AND DETAILS

Hansen Farm Road at DelInski Way/Randolph Ridge Drive Roundabout

31(3)-1	I-S' d, DI-7 Req'd, Grate A Type I Req'd. H+3.3', Inv.+292.75 Top+296.00	31(3)-12	I-S' d DI-3B Req'd. L+10' H+5.1' Inv.+291.00 Top+296.11 Connect 2 UD-4 to DI
31(3)-1 to 31(3)-6	83' - 18" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)292.75 Inv(out)291.70	31(3)-12 to 31(3)-14	93' - 15" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)291.00 Inv(out)288.40
31(3)-2	Structure number not assigned	31(3)-13	Structure number not assigned
31(3)-3	Structure number not assigned	31(3)-14	I-S' d DI-3B Req'd. Manobox shallow structure L+16' H+3.8' Inv.+288.30 Top+292.08 I-S' d, IS-I Req'd. Connect UD-4 to DI
31(3)-4	I-S' d DI-3B Req'd. L+12' H+4.8' Inv.+293.15 Top+297.92 Connect UD-4 to DI	31(3)-14 to 31(3)-15	107' - 15" Storm Sewer Pipe Req'd.(1' Cover) Silt-Tight Joint Type Req'd. Inv(In)288.30 Inv(out)287.70
31(3)-4 to 31(3)-5	43' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)293.15 Inv(out)292.72	31(3)-15	I-S' d, ES-I (15') Req'd. Inv.+287.70 2 CY EC-I Class A I Type A Installation Req'd.
31(3)-5	I-S' d DI-3C Req'd. L+6' H+5.0' Inv.+292.62 Top+297.58 I-S' d, IS-I Req'd. Connect 3 UD-4 to DI Connect CD-2 to DI	31(3)-16	91' - 15" Conc. Pipe Class III Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)289.40 Inv(out)289.00 2-Std, ES-I (15') Req'd. 1 CY S' d, EC-I Class A I Req'd, Type A Installation
31(3)-5 to 31(3)-6	36' - 15" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)292.62 Inv(out)292.26		
31(3)-6	I-S' d DI-3B Req'd. L+6' H+6.4' Inv.+291.60 Top+297.98 I-S' d, IS-I Req'd. Connect 3 UD-4 to DI		
31(3)-6 to 31(3)-7	50' - 18" Storm Sewer Pipe Req'd.(15' Cover) Silt-Tight Joint Type Req'd. Inv(In)291.60 Inv(out)290.60		
31(3)-7	I-S' d DI-3A Req'd. H+8.0' Inv.+290.50 Top+298.47 I-S' d, IS-I Req'd. Connect 2 UD-4 to DI		
31(3)-7 to 31(3)-8	54' - 24" Storm Sewer Pipe Req'd.(15' Cover) Silt-Tight Joint Type Req'd. Inv(In)290.50 Inv(out)290.10		
31(3)-8	I-S' d DI-3B Req'd. L+4' H+7.8' Inv.+290.00 Top+297.81 I-S' d, IS-I Req'd. Connect UD-4 to DI		
31(3)-8 to 31(3)-9	111' - 24" Storm Sewer Pipe Req'd.(4' Cover) Silt-Tight Joint Type Req'd. Inv(In)290.00 Inv(out)289.40		
31(3)-9	I-S' d DI-3B Req'd. L+6' H+6.8' Inv.+289.30 Top+296.05 I-S' d, IS-I Req'd. Connect UD-4 to DI		
31(3)-9 to 31(3)-10	186' - 24" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)289.30 Inv(out)287.70		
31(3)-10	I-Precast Monolithic Structure with I-S' d MH-I Frame and Cover Req'd. 3.9 Lin. Ft., Inv.+287.60 I-S' d, IS-I Req'd.		
31(3)-10 to 31(3)-11	46' - 24" Storm Sewer Pipe Req'd.(2' Cover) Silt-Tight Joint Type Req'd. Inv(In)287.60 Inv(out)287.30		
31(3)-11	I-S' d, ES-I (24') Req'd. Inv.+287.30 3 CY EC-I Class A I Type A Installation Req'd.		

02 Revised to include roundabout drainage descriptions.



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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	62/	6234-076-266, C-501, RW-201	21(7)

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

Notes

- This design is intended for precast structures produced by CP&P only, not for cast-in-place construction.
- Concrete compressive strength: 4,000 psi minimum.
- Bar reinforcement conforms to ASTM A615 or A706, Grade 60 minimum. Other reinforcement conforms to ASTM A1064, Grade 65 minimum. Cover c_c of $1\frac{1}{2}$ " minimum unless otherwise noted.
- Throat and gutter pan to be poured in field by others.
- $\frac{3}{4}$ " Diameter x 4" Deep Dowel Holes provided @ 12" Centers to prevent settlement of adjacent concrete.
- Steps provided when height is 4'-0" or greater.
- $2\frac{1}{2}$ " Extended Base may be provided at producer's option to facilitate form-work.
- Reinforcing may be increased as necessary for handling considerations.
- Non-Traffic loading only.

VDOT Shallow DI-3,4 Curb Inlet
 Precast - DI-3 or 4, A, B, C, D, E, or F

Sheet 1 of 1

Dwg: VDOT-DI-3,4-Shallow	DATE: 11/12/2015 Rev: 11/13/2015	UIC: 20151112HJG03
VIRGINIA DEPARTMENT OF TRANSPORTATION REVIEW OF WORKING DRAWINGS Working drawings have been reviewed in accordance with Section 102.10 of the Specifications with the following comments: <input checked="" type="checkbox"/> Correct and Complete (C, C, L, D) <input type="checkbox"/> Correct and Revisions (C, R, L, D) <input type="checkbox"/> Rejected - See Remarks Reviewed by: C. P. BATTERS Date: 5/12/16		COMMONWEALTH OF VIRGINIA 11/18/15 Edward C. Page Lic. No. 32848 PROFESSIONAL ENGINEER

CP&P
 CONCRETE PIPE & PRECAST, LLC

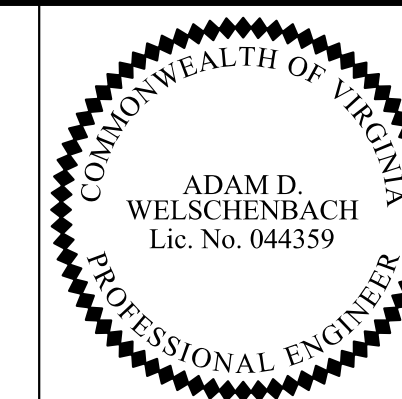
Office Locations
 Design Associates, P.C.
 Rinker
 Civil Engineering - Surveying - Land Planning
 Transportation - Right of Way Services



NOVA DISTRICT DESIGN UNIT
 6/24/2021

PROJECT MANAGER PWC_DOT_Mary_Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

DITCH PROFILES

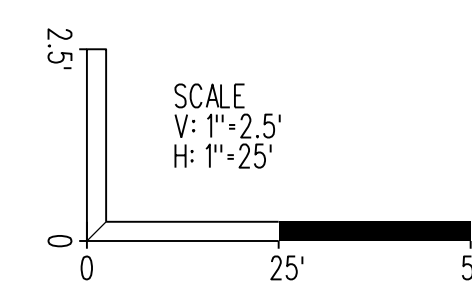
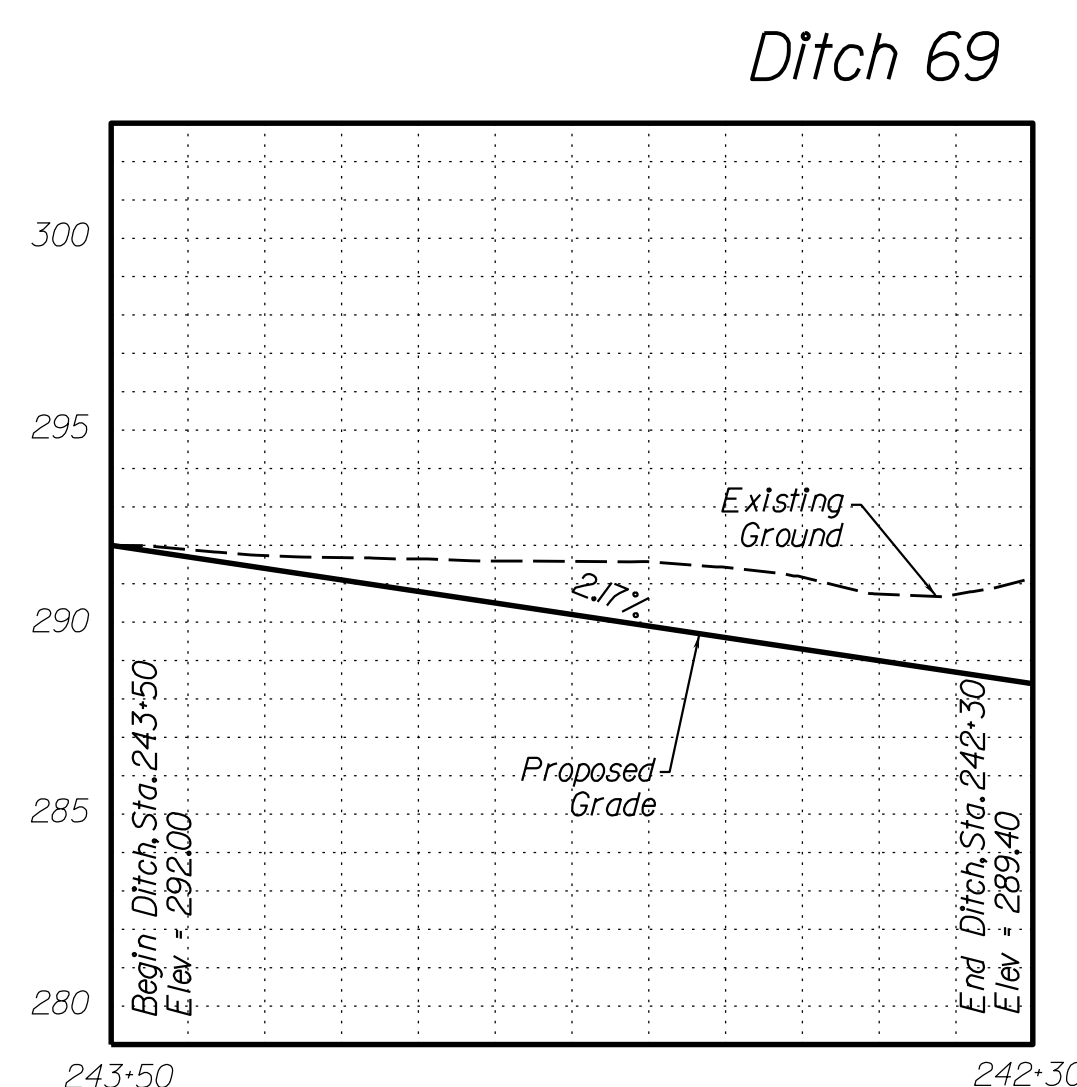
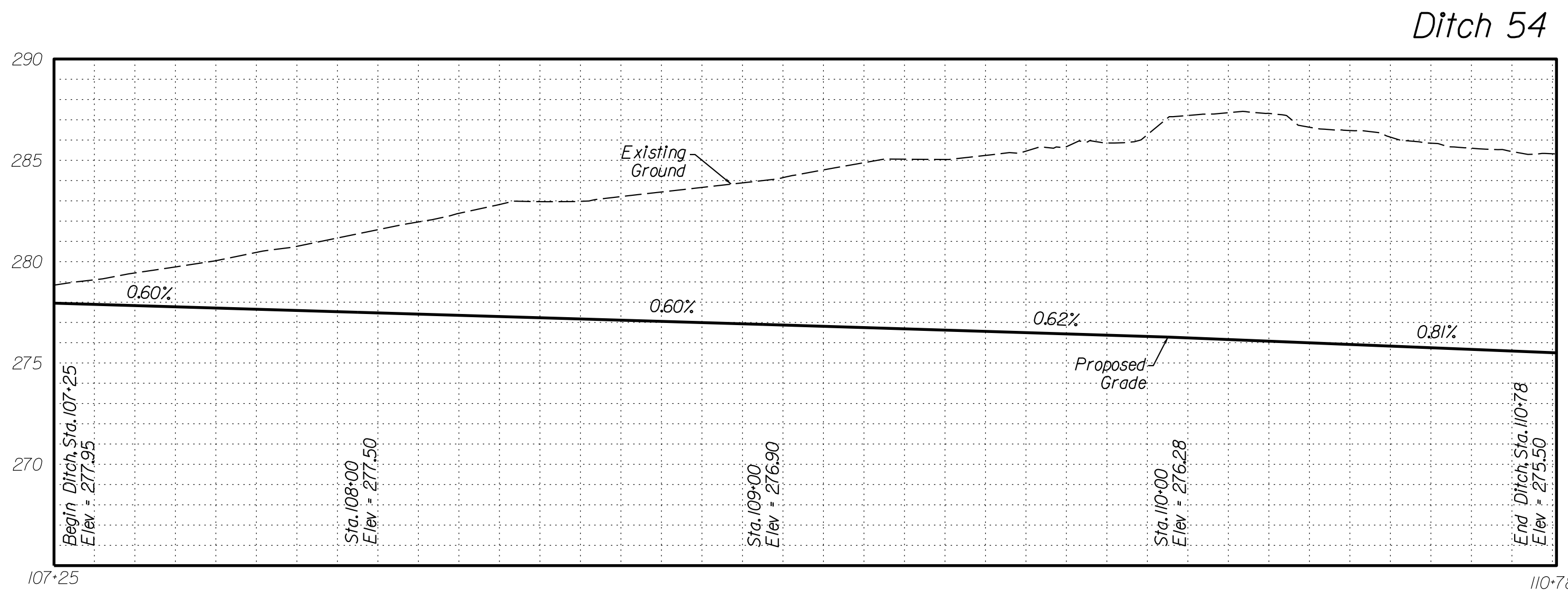
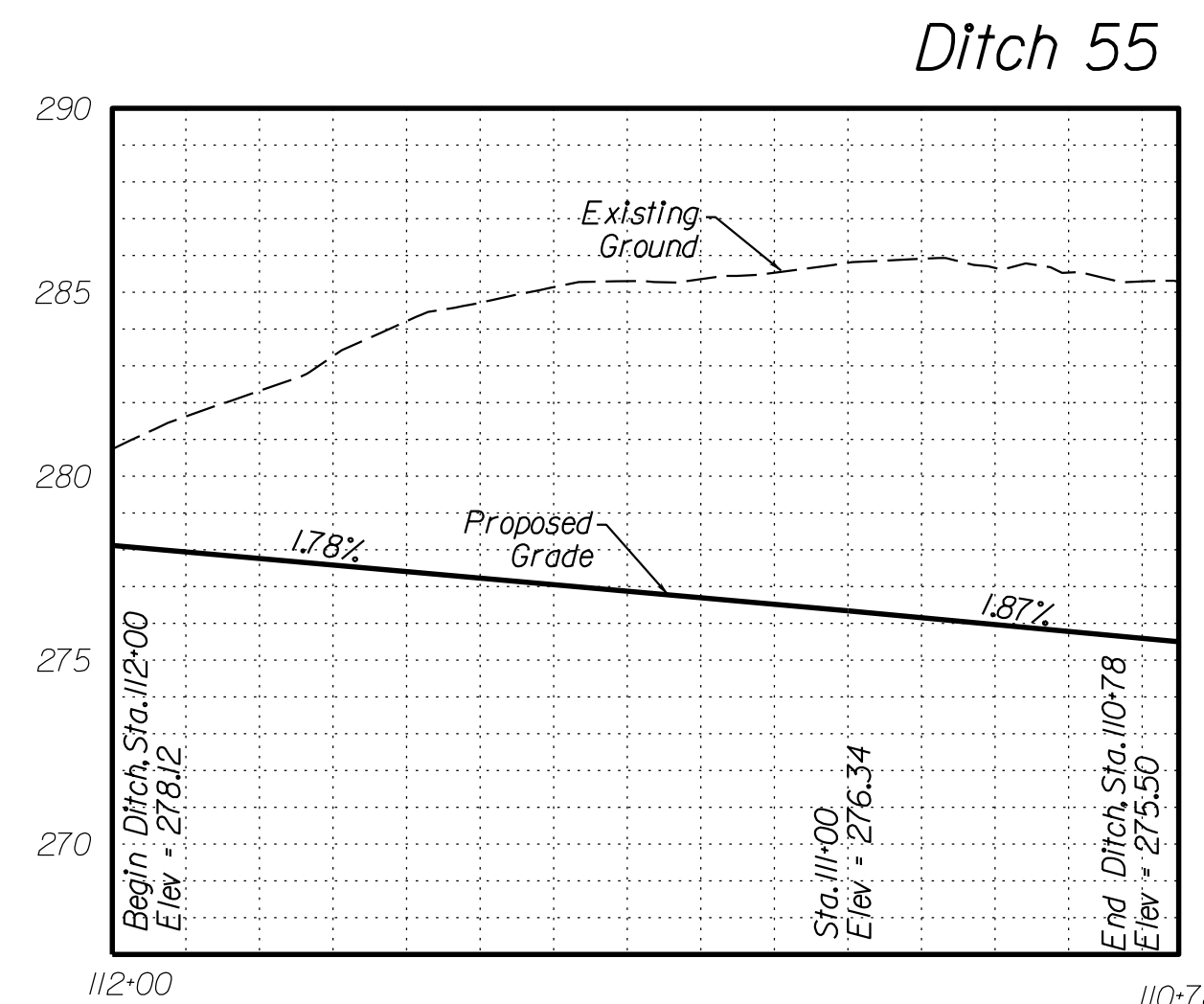
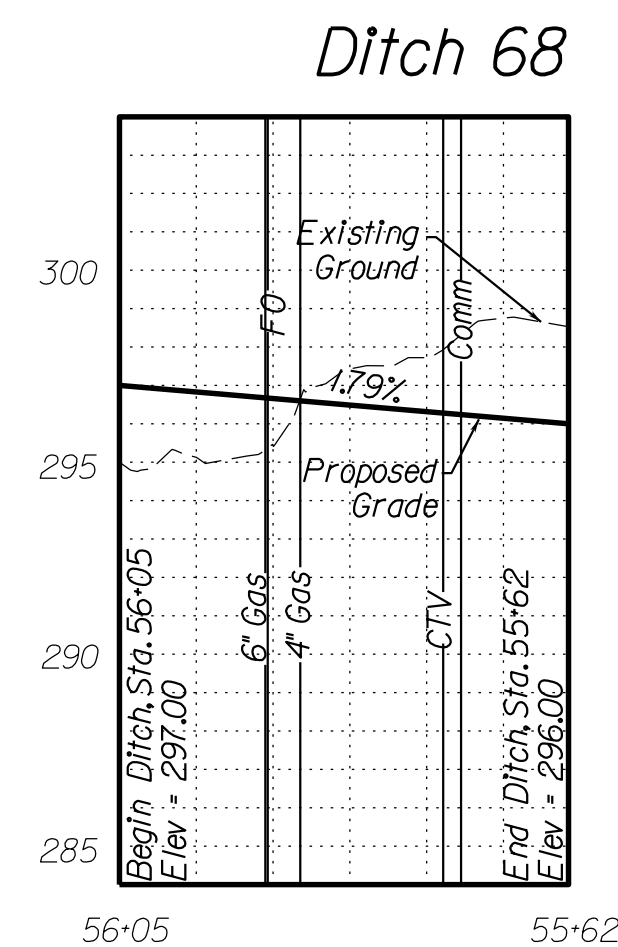
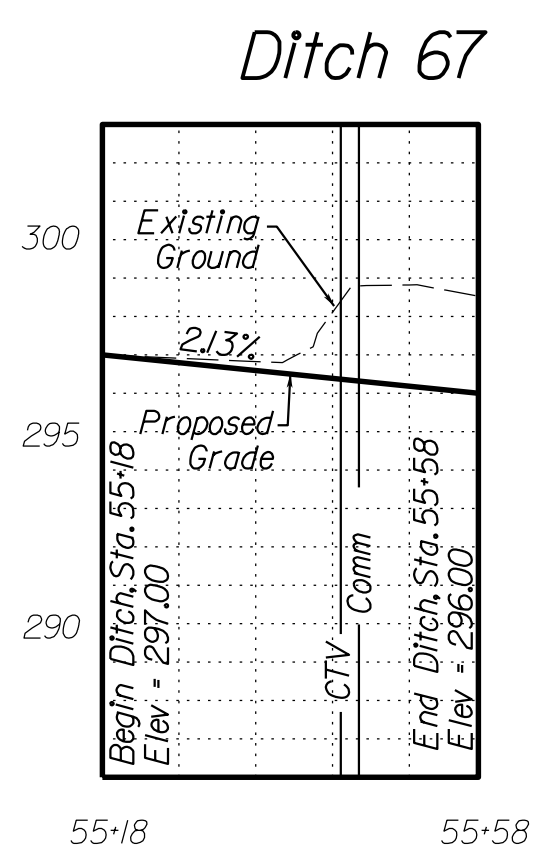


Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	2M(4)

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

02 Added sheet to include roundabout ditch profiles.



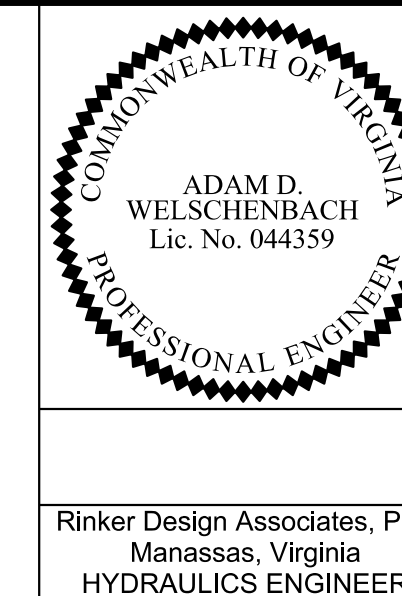
Office Locations
Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Right of Way Services



NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

STORM SEWER PROFILES



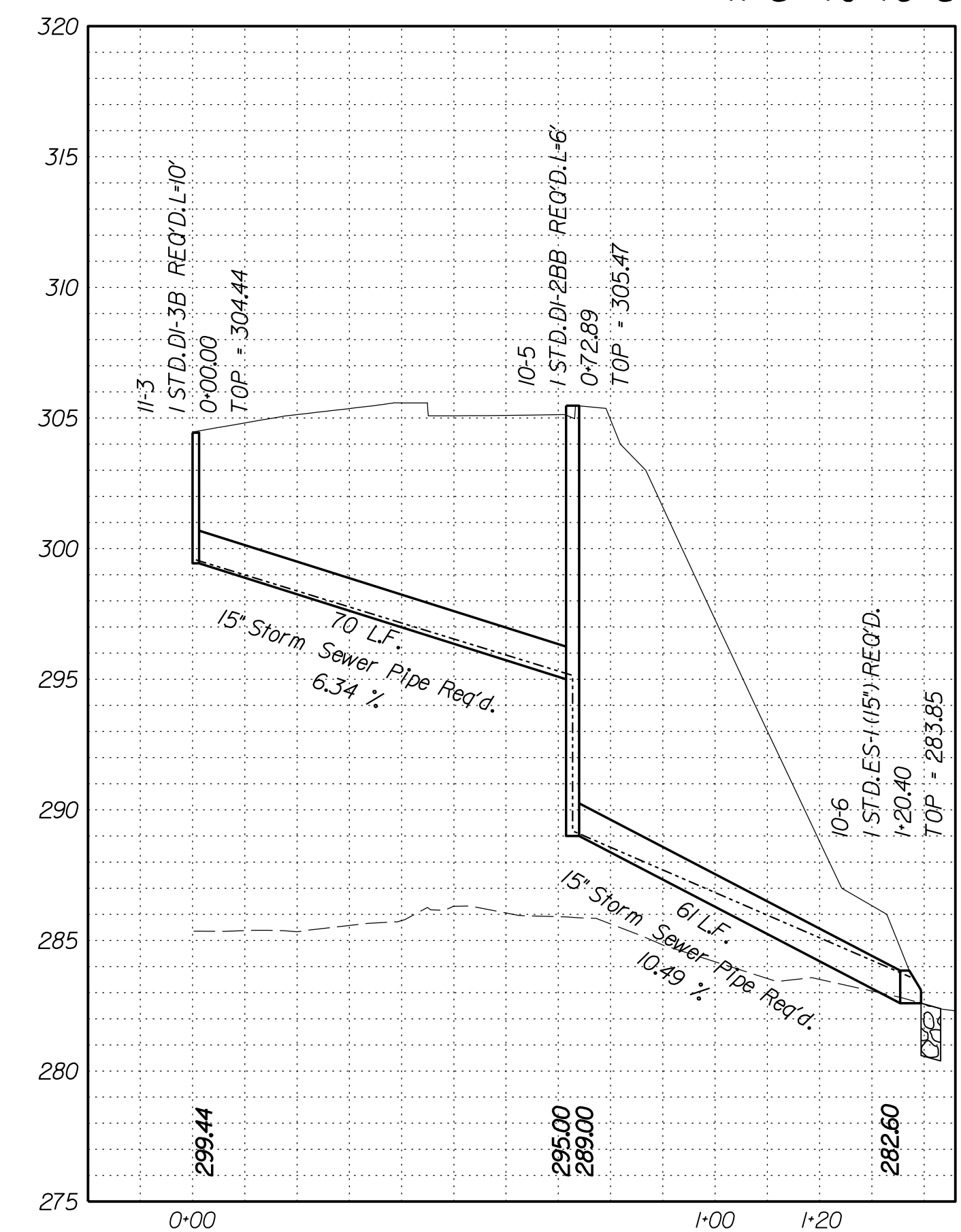
Rinker Design Associates, P.C.
 Manassas, Virginia
 HYDRAULICS ENGINEER

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	2N(5)

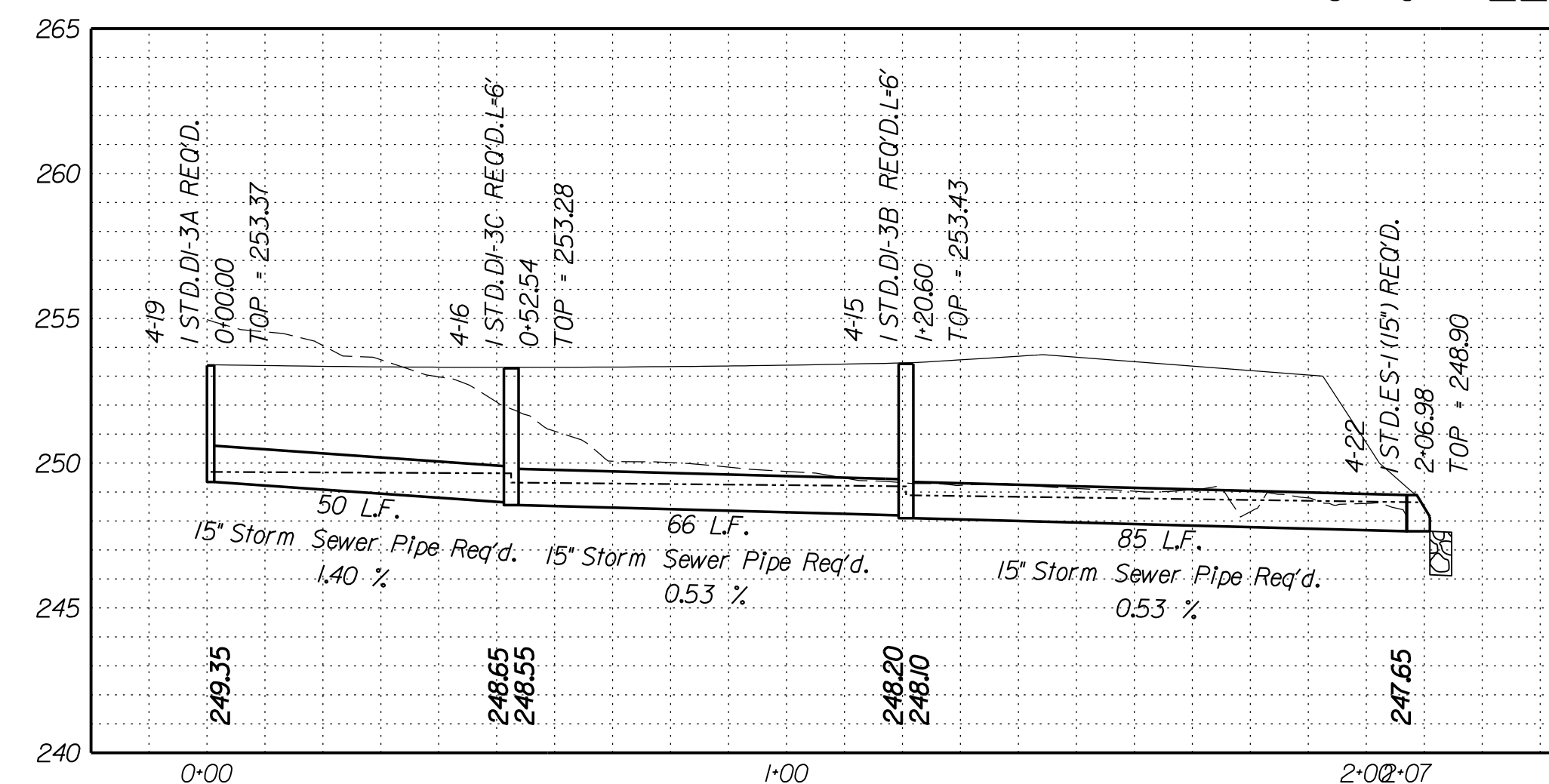
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02 Revised 22(1)-1 to 22-3.

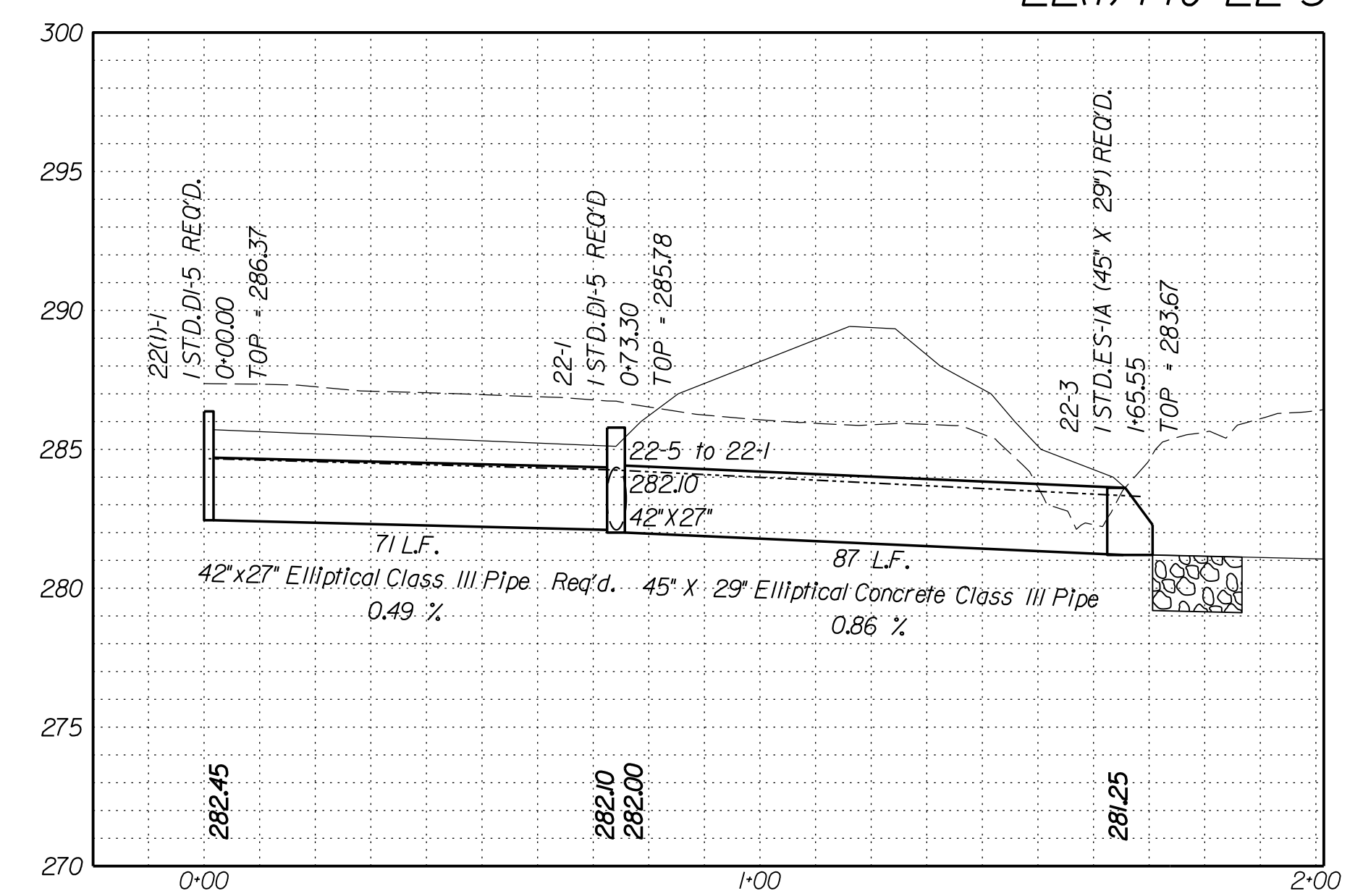
11-3 to 10-6



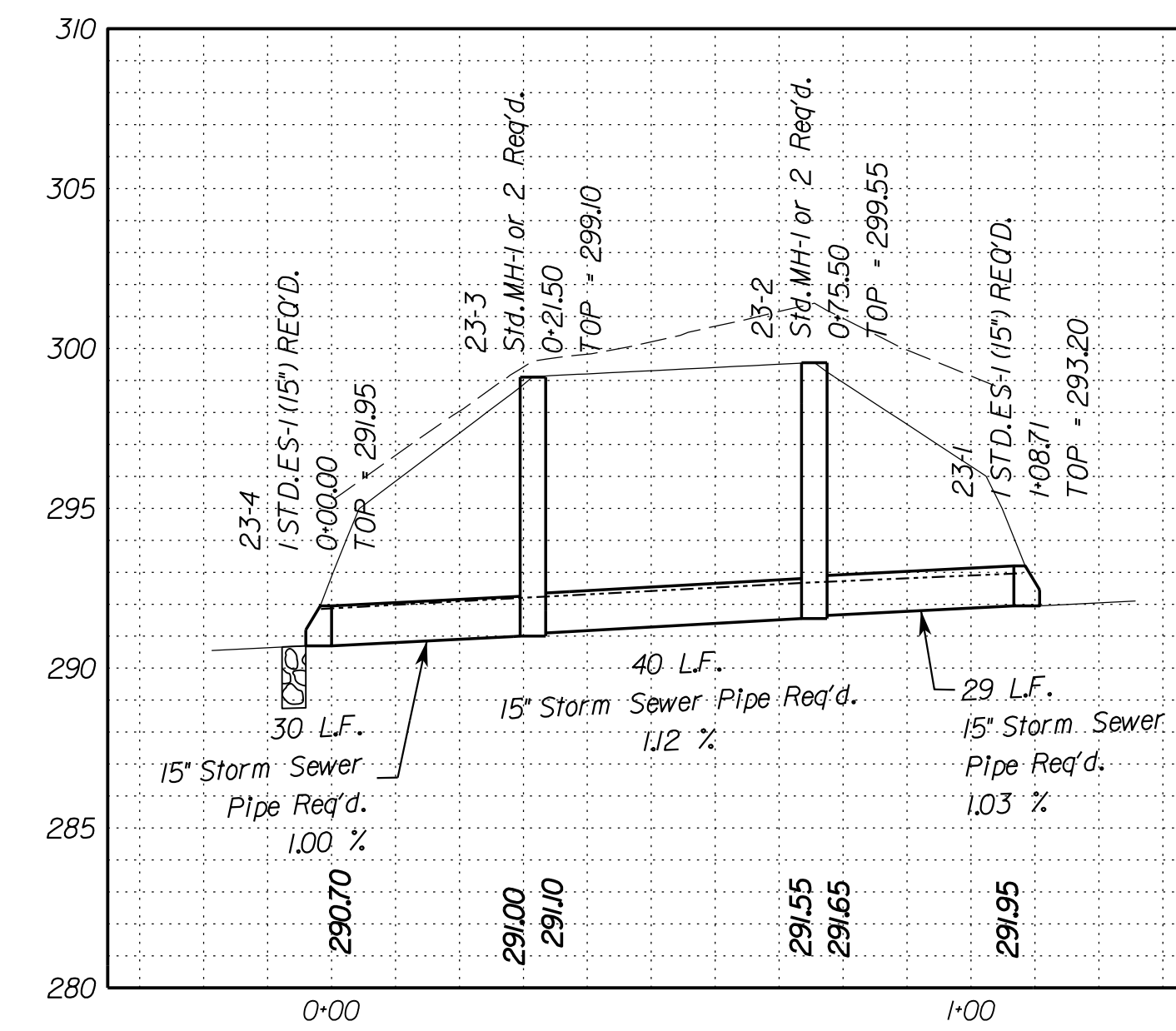
4-19 to 4-22



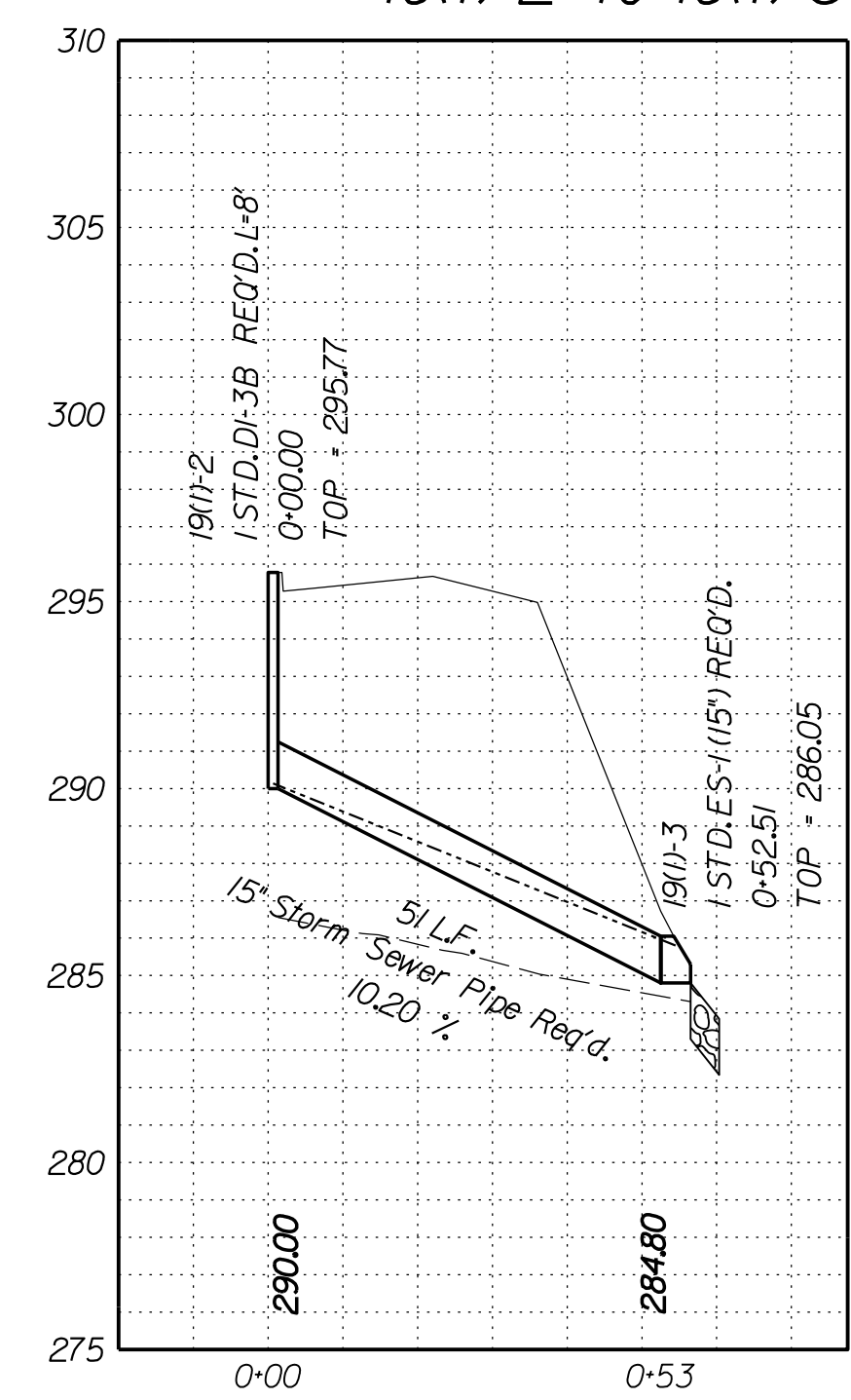
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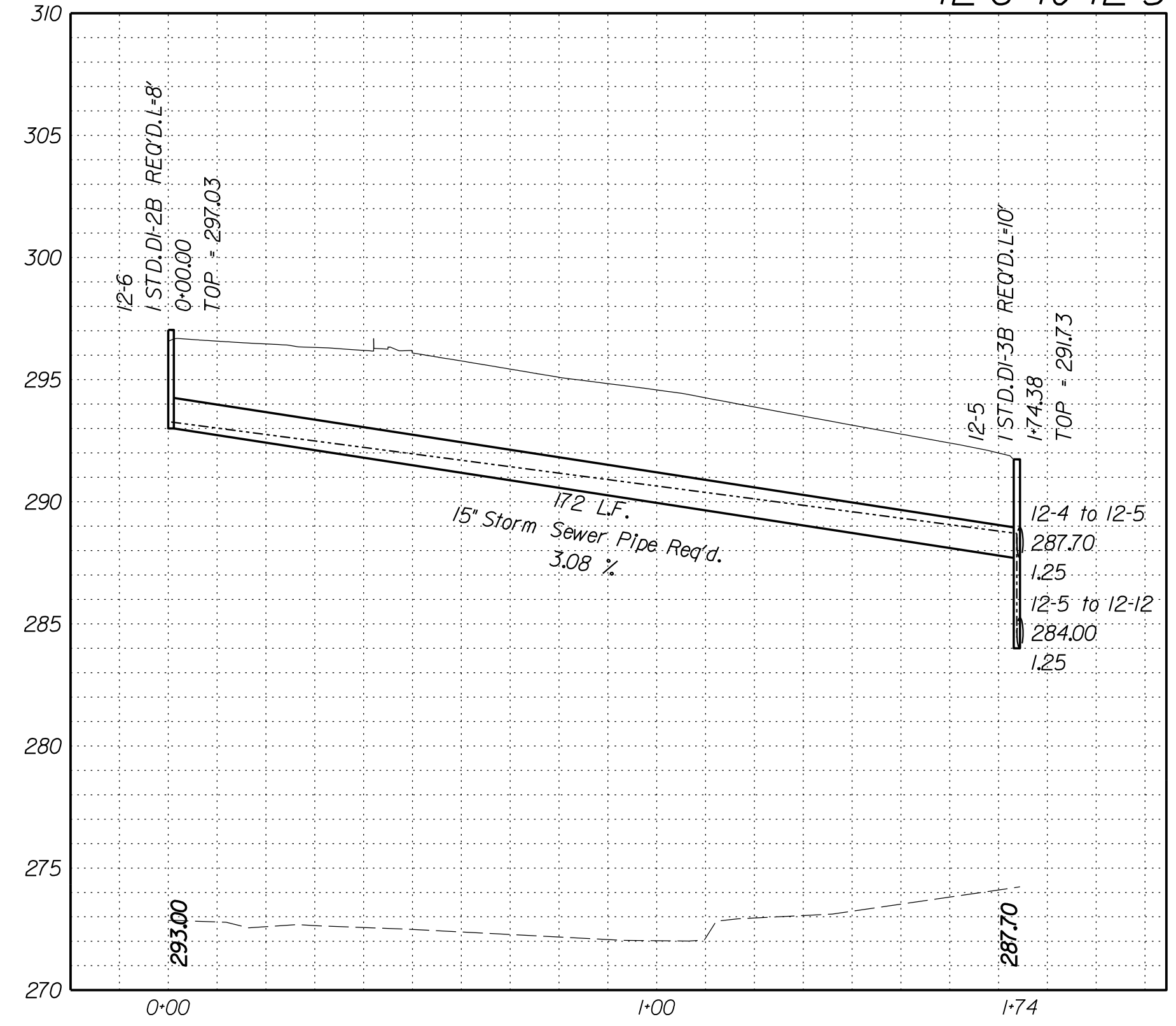
23-1 to 23-4



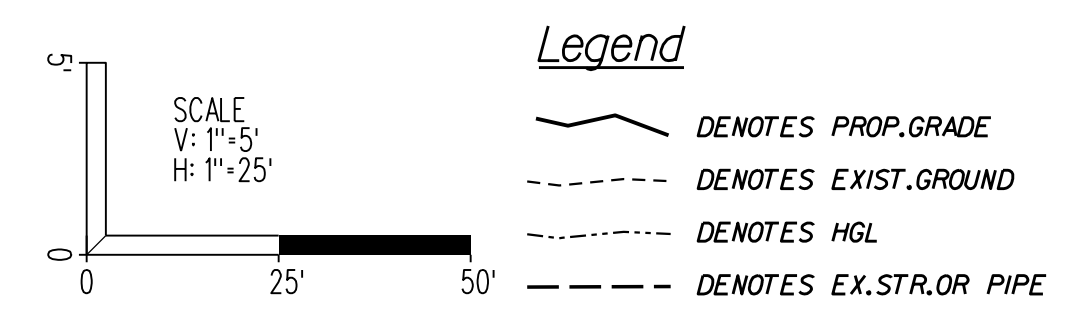
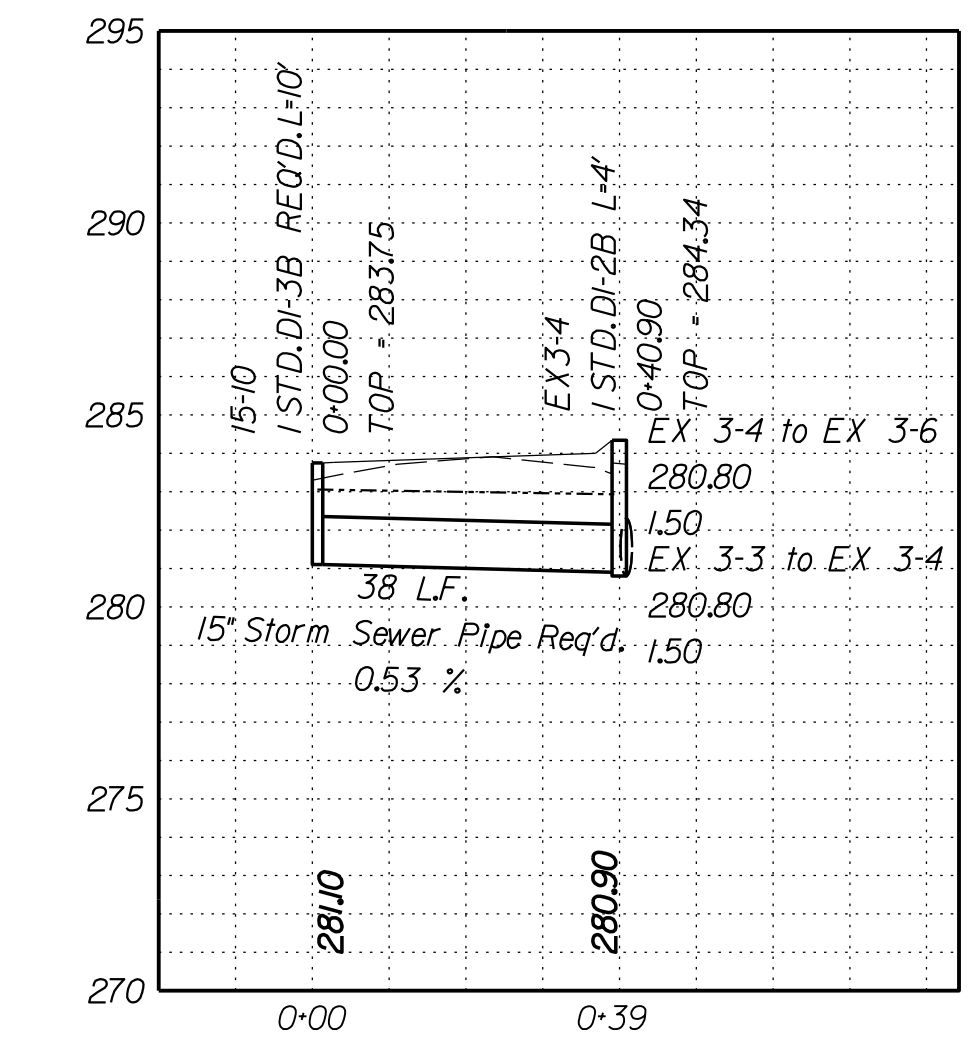
19(1)-2 to 19(1)-3



12-6 to 12-5



15-10 to EX 3-4



VDOT PROJECT 6234-076-266	SHEET NO. 2N(5)
PNC PROJECT SPR2020-00383 S03	

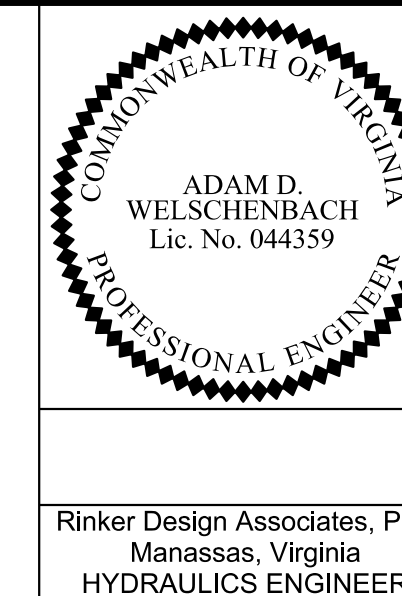
Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Leesville, VA; Loudoun, VA; Northern Virginia; Reston, VA; Tyngsboro, VA; Washington, DC
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PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

02 Revised 22-5 to 22-1.

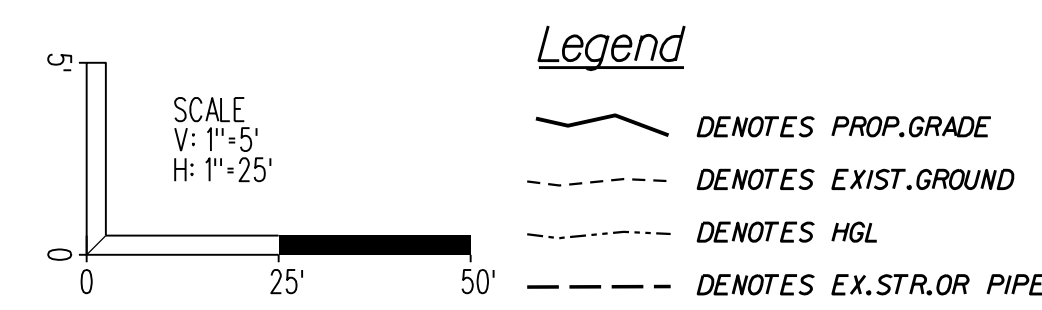
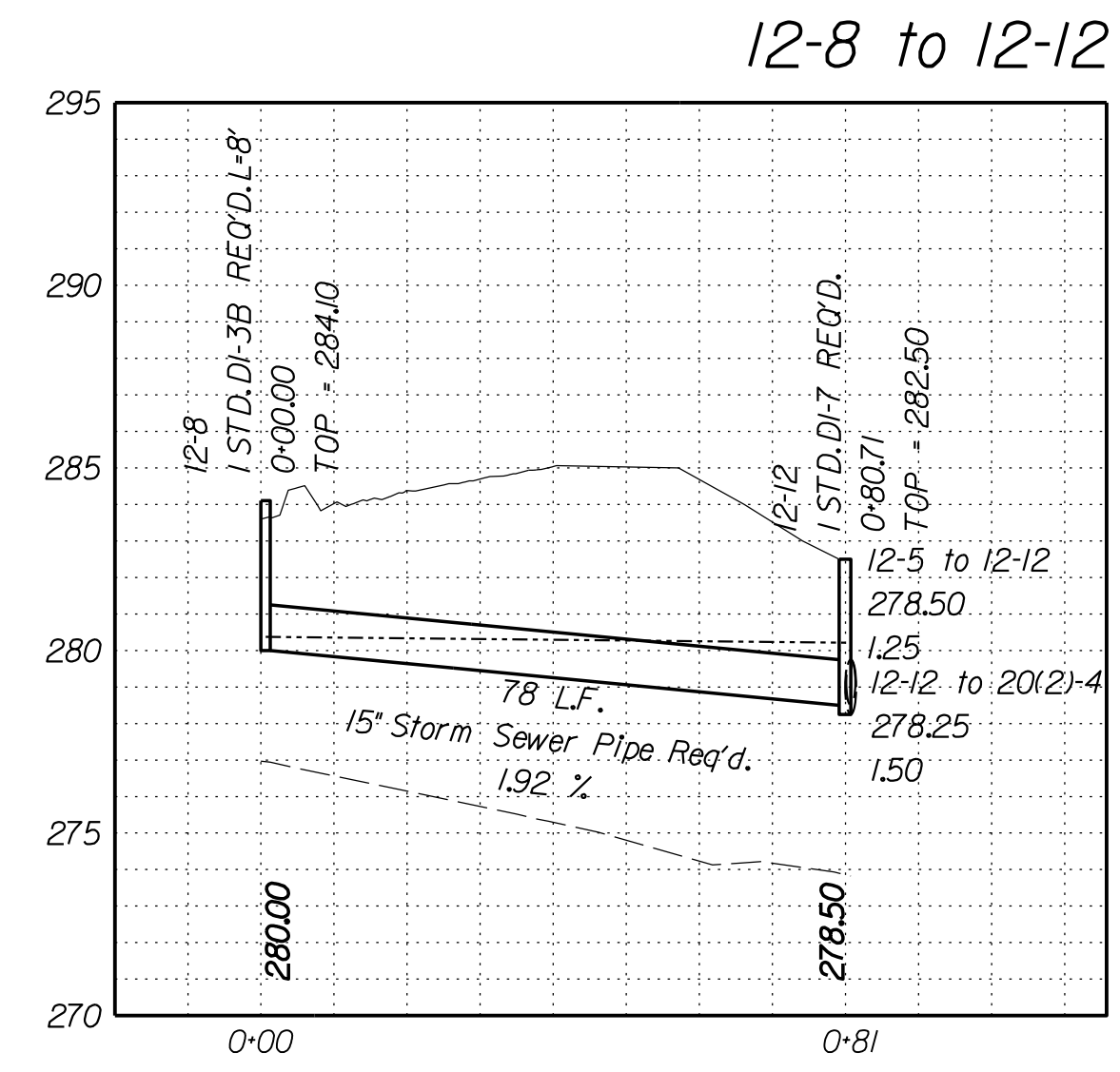
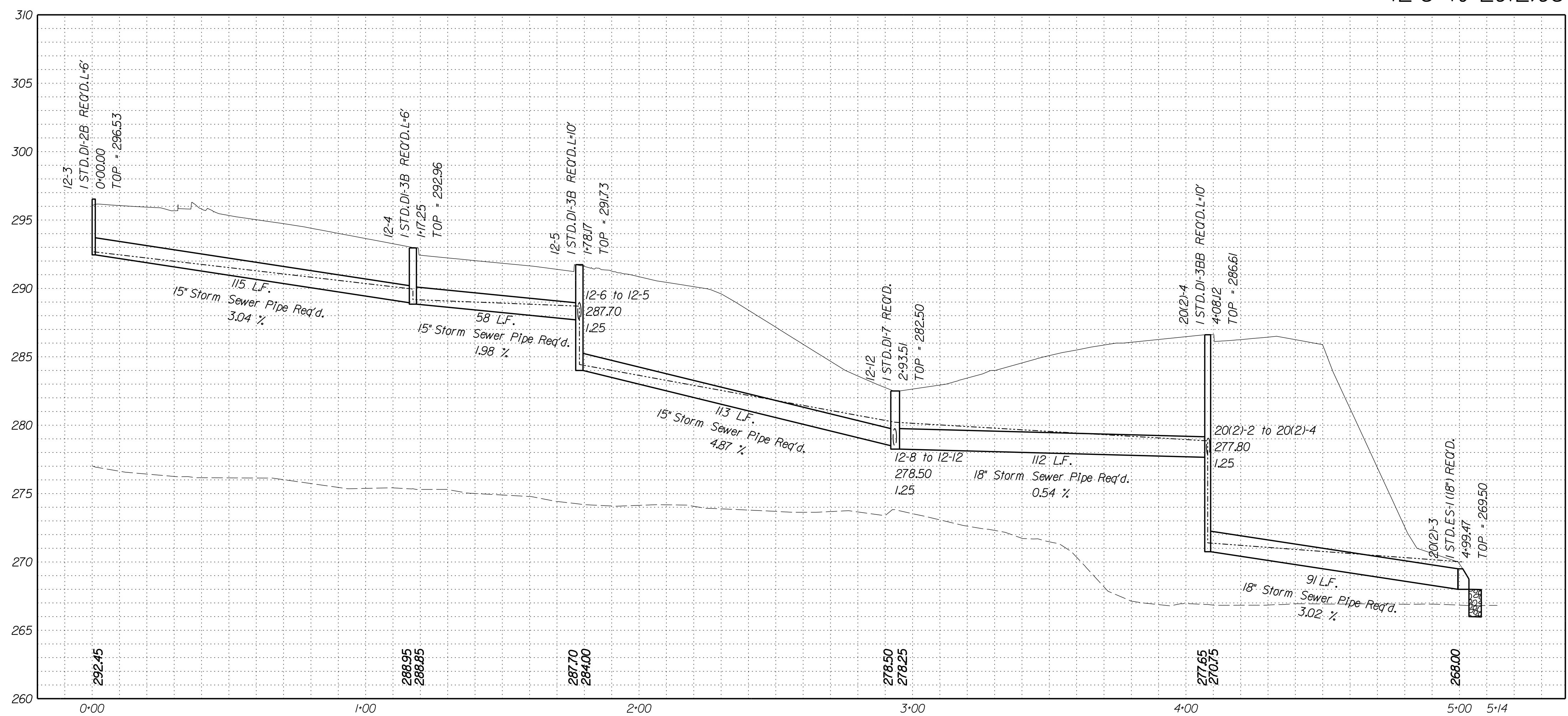
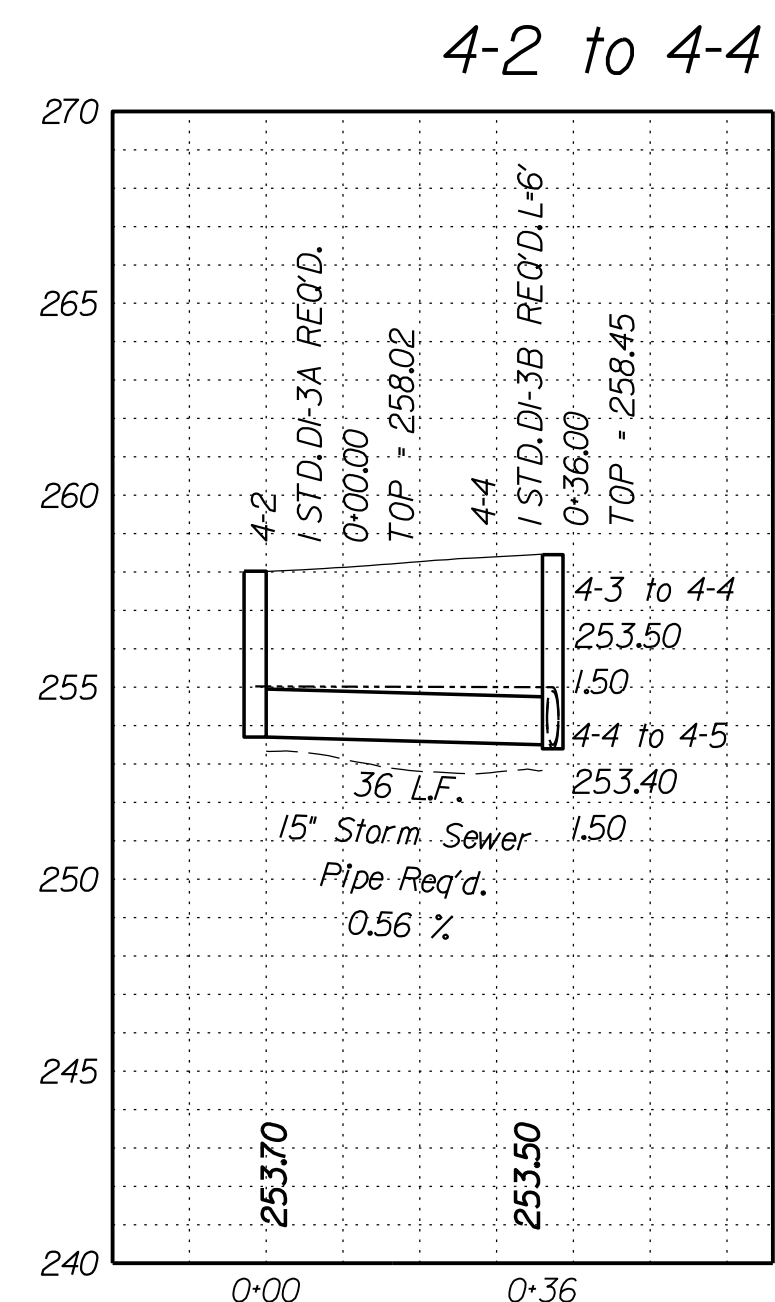
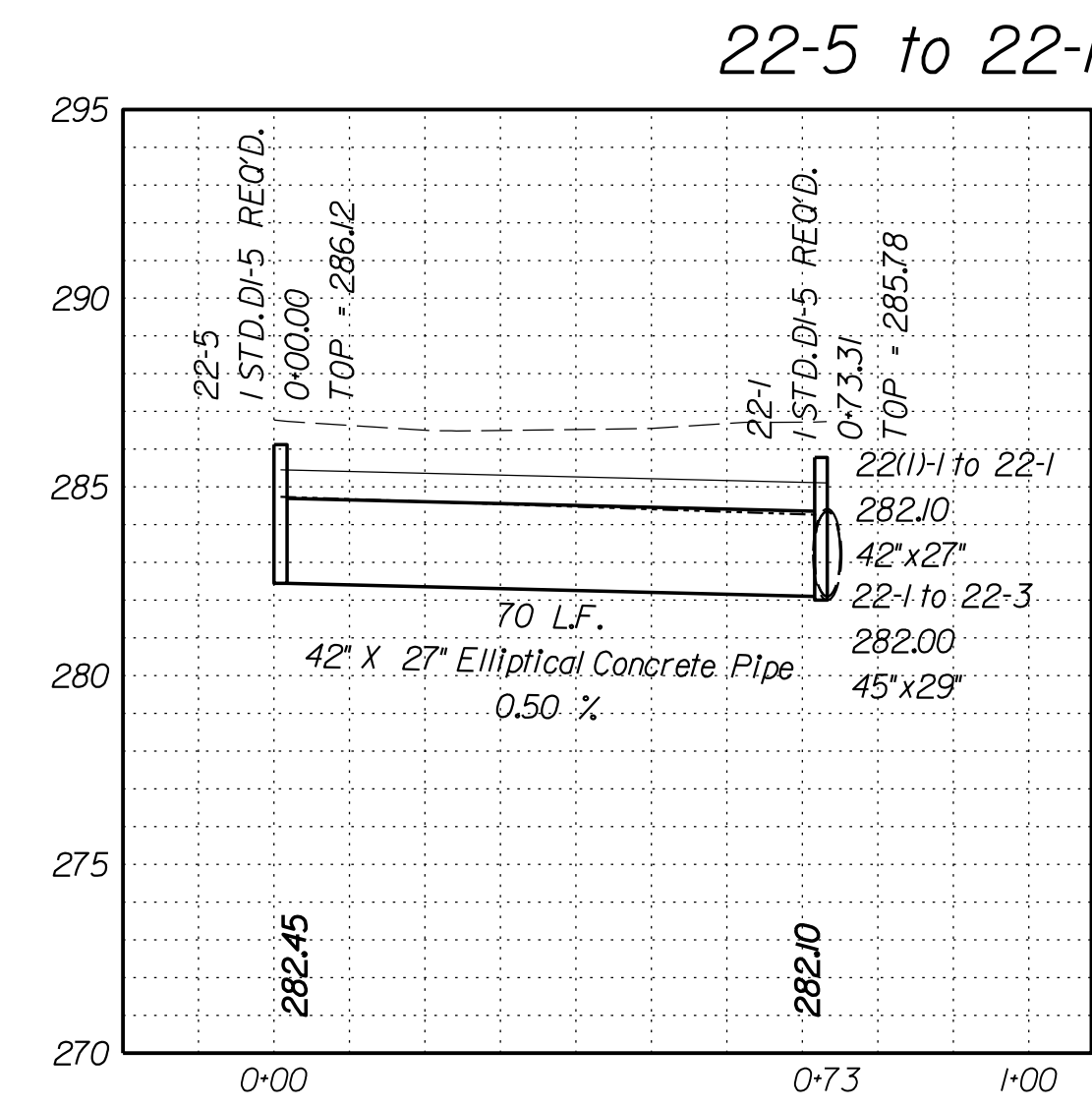
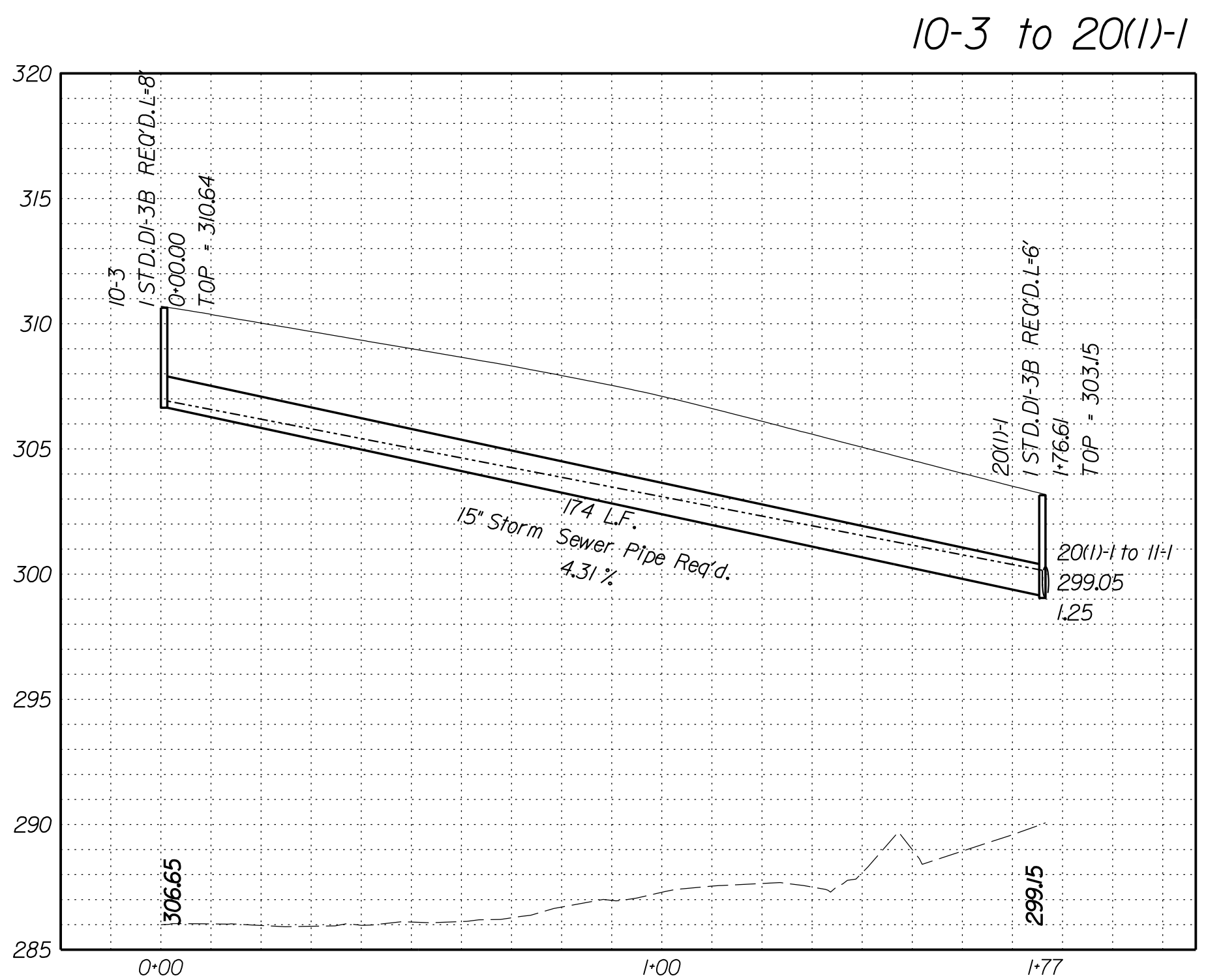
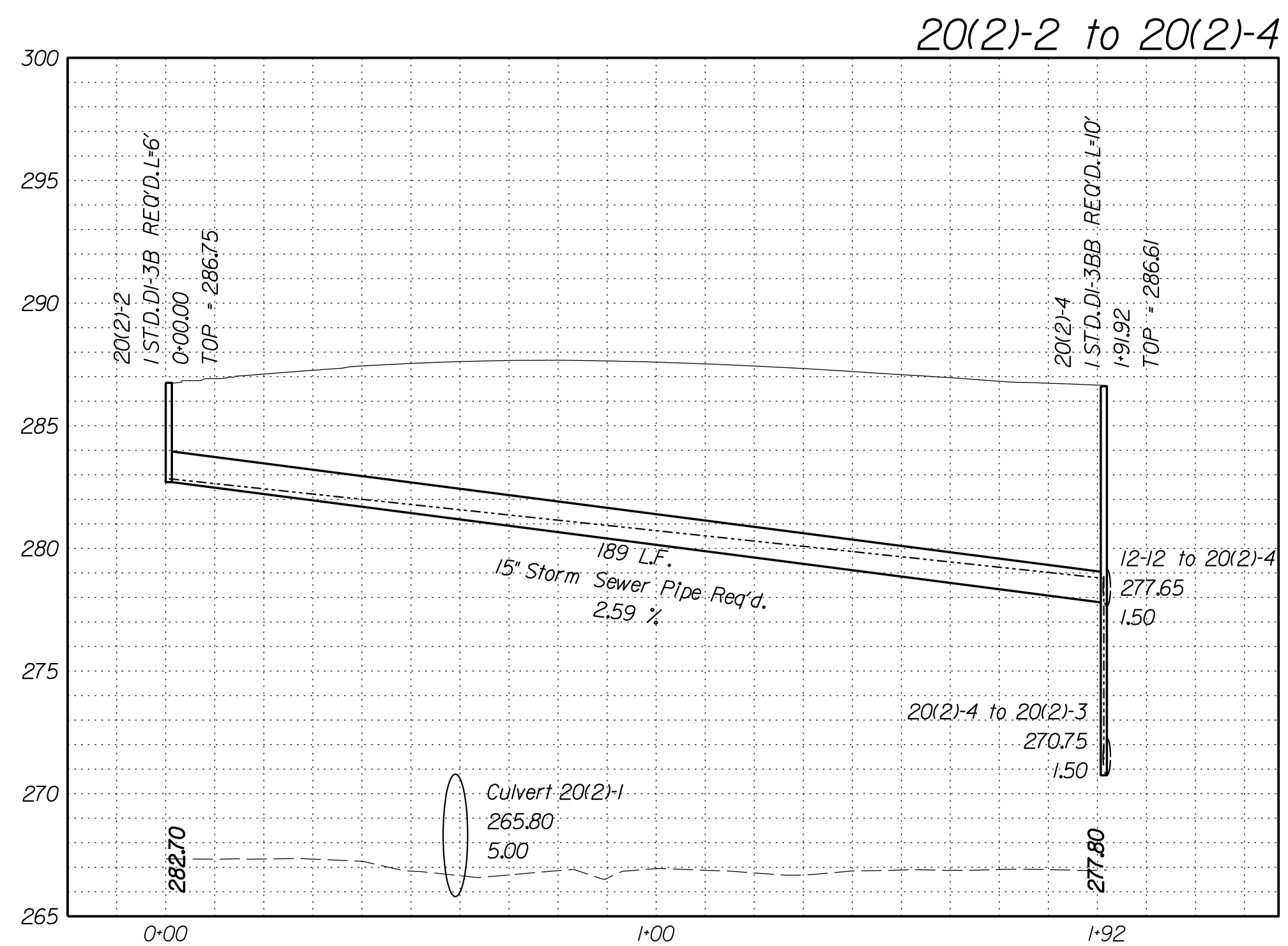
STORM SEWER PROFILES



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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	2N(6)

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



VDOT PROJECT 6234-076-266	SHEET NO. 2N(6)
PNC PROJECT SPR2020-00383 S03	

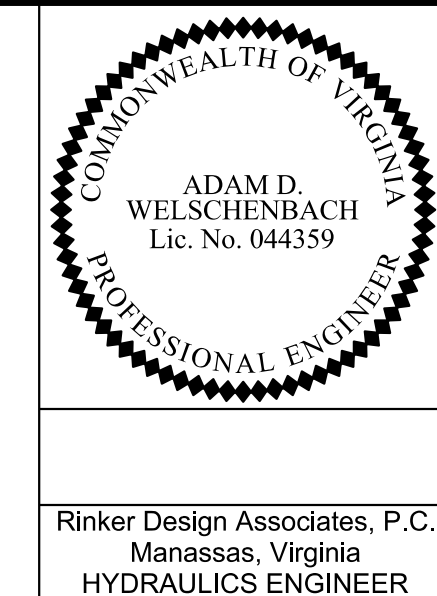
Office Locations
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NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC DOT, Mary Ankers (703)792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

STORM SEWER PROFILES



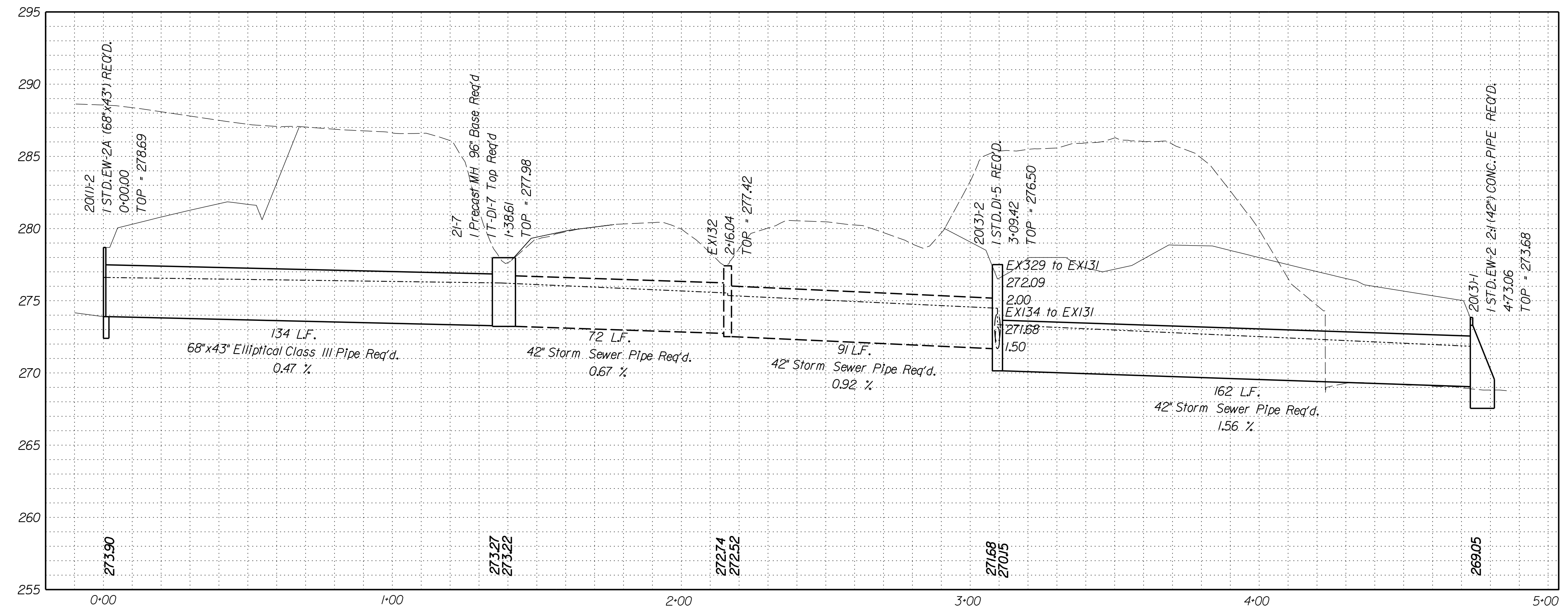
Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	2N(7)

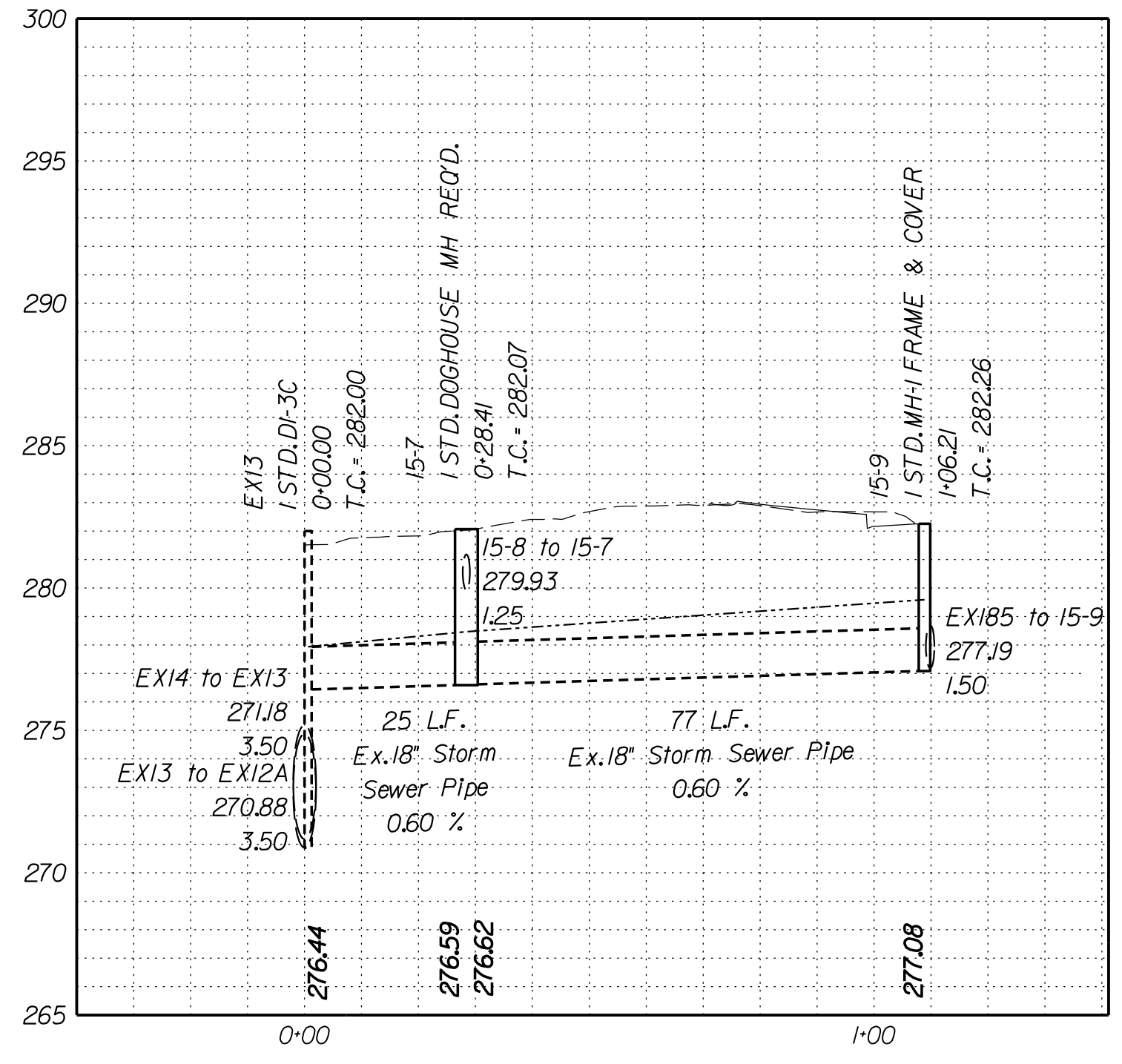
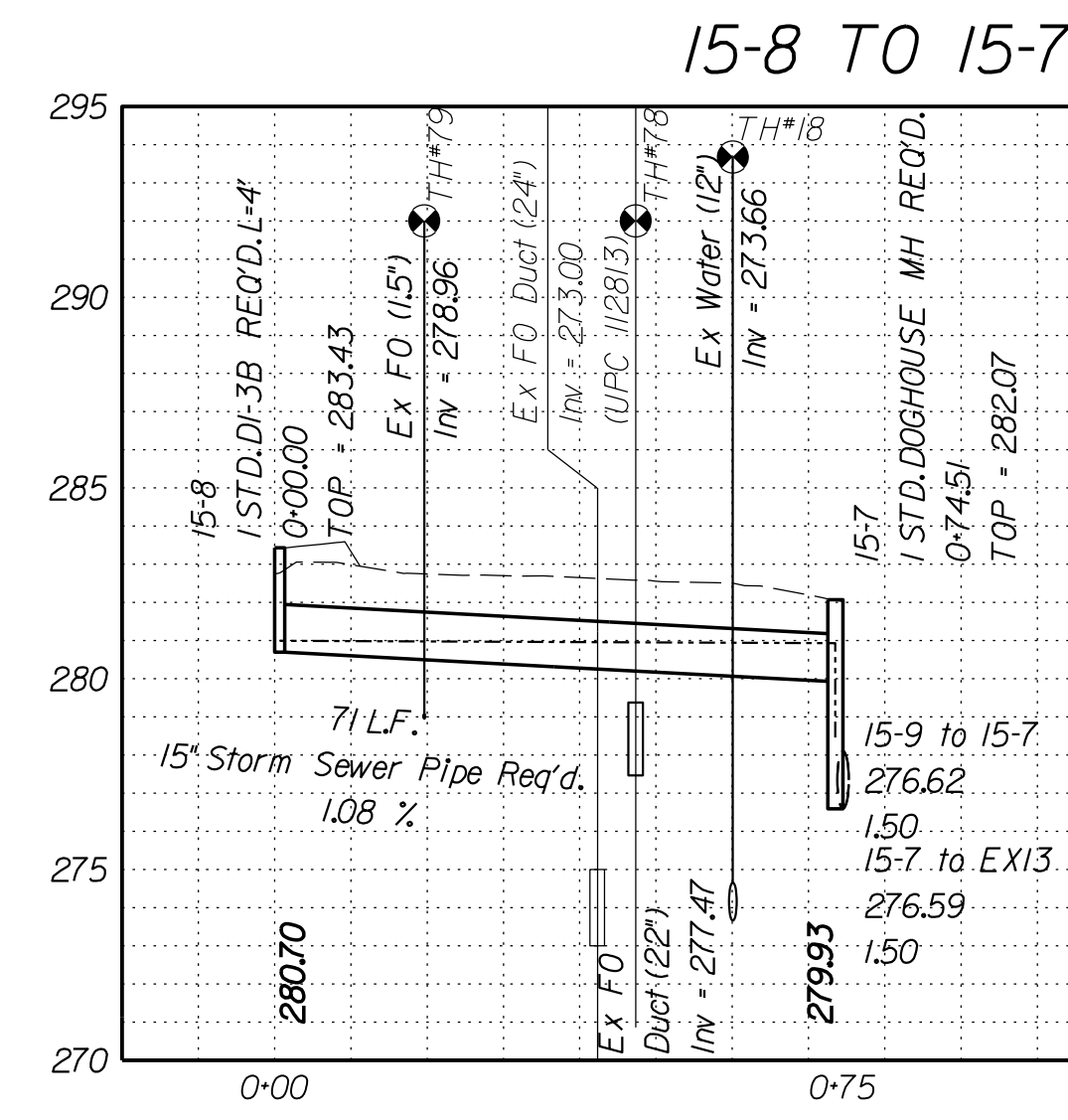
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

02 Revised 21-6 to 20(3)-1.

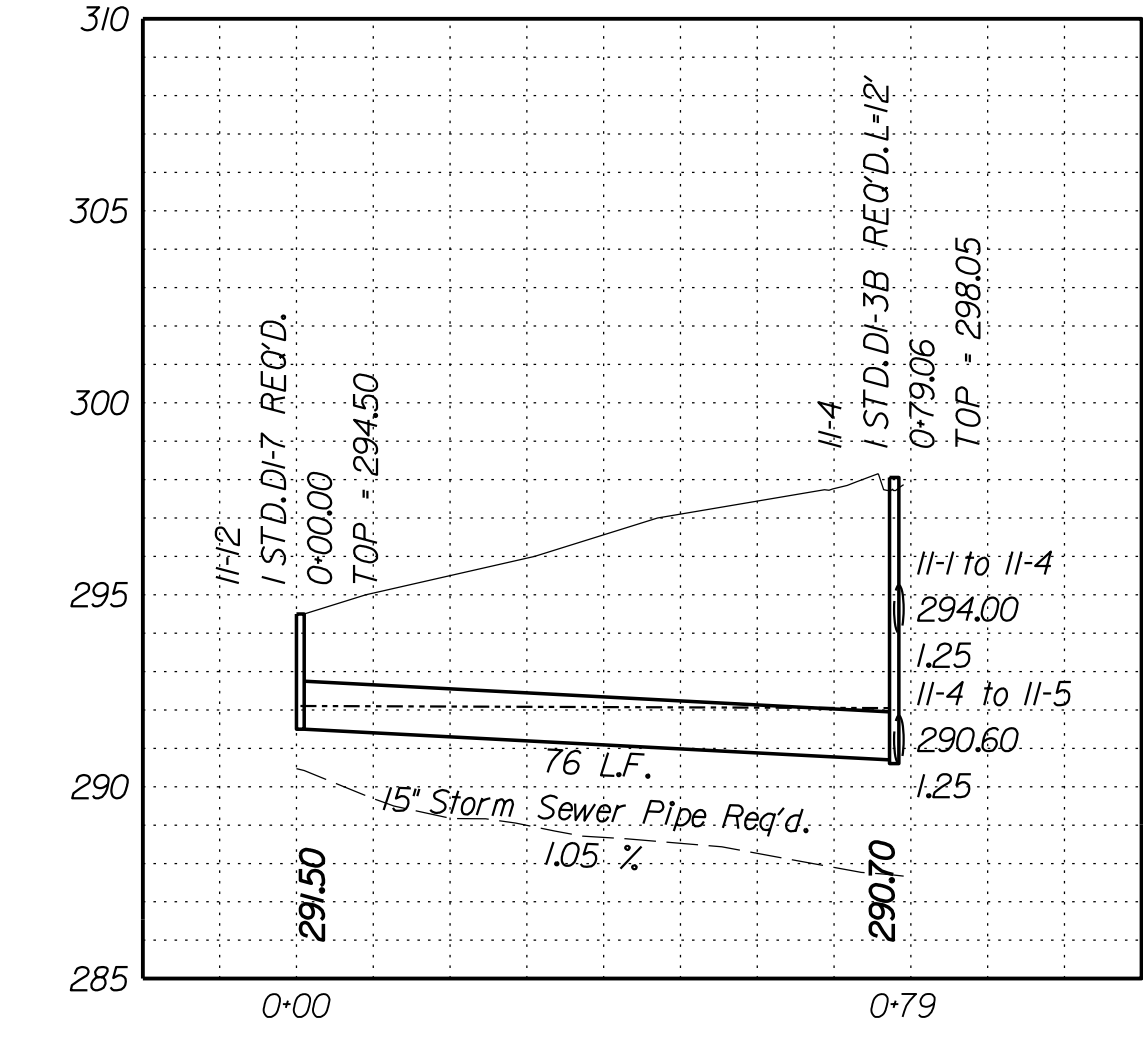
20(1)-2 to 20(3)-1



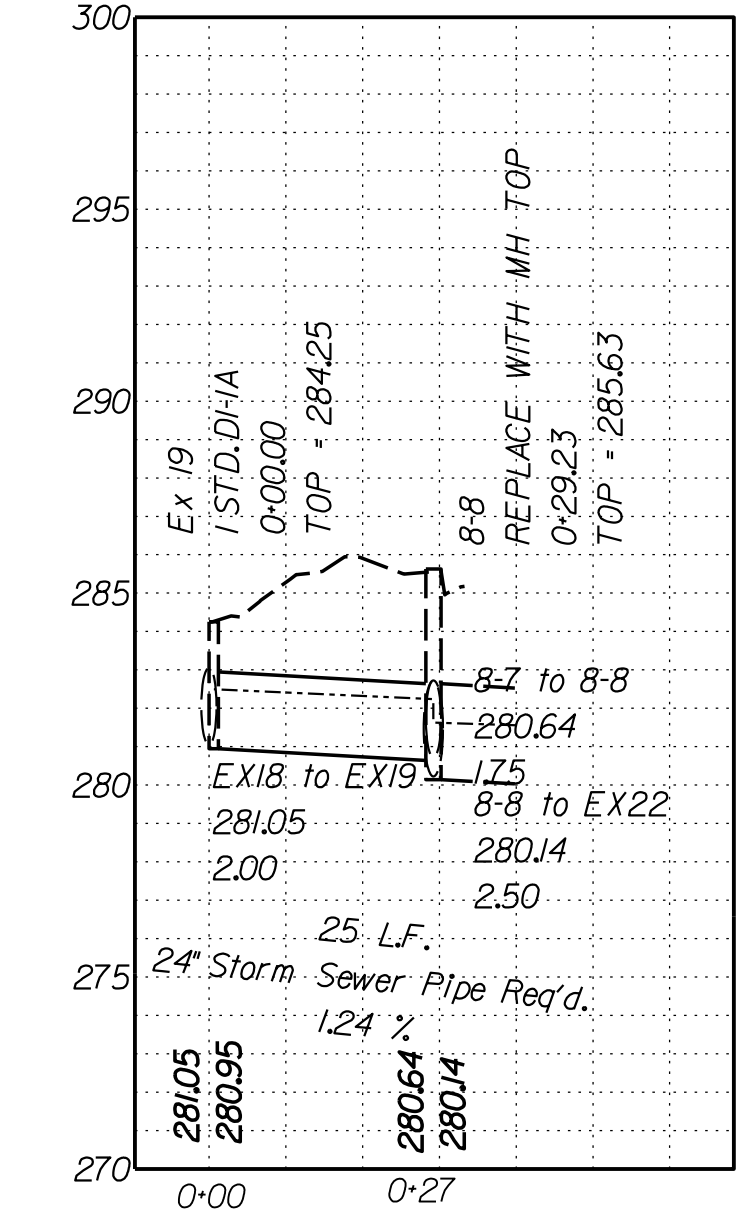
15-9 to EX13



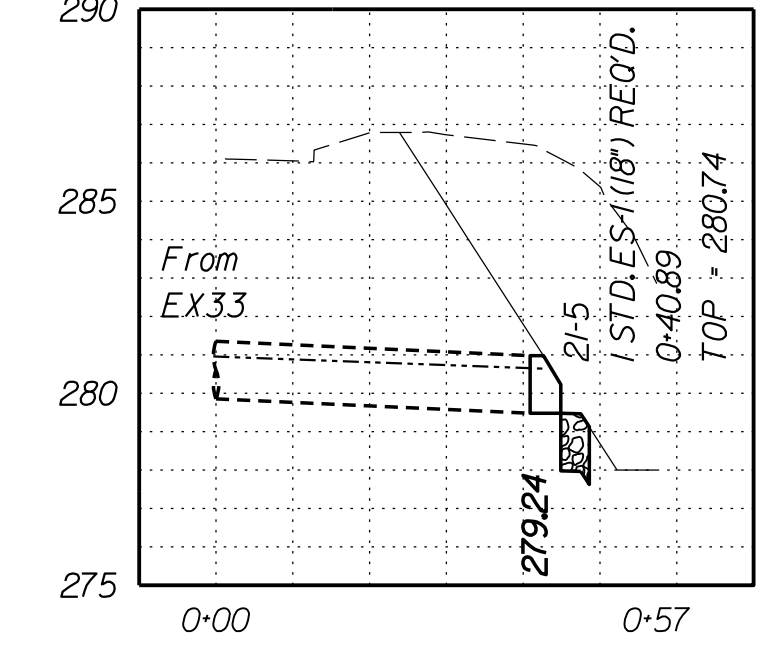
11-12 to 11-4



Ex.19 to 8-8



EX33 to 21-5



Legend

- DENOTES PROP.GRADE
- - - DENOTES EXIST.GROUND
- DENOTES HGL
- - - DENOTES EX.STR.OR PIPE

SCALE
V: 1"=5'
H: 1"=25'

VDOT PROJECT 6234-076-266 PNC PROJECT SPR2020-00383 S03	SHEET NO. 2N(7)
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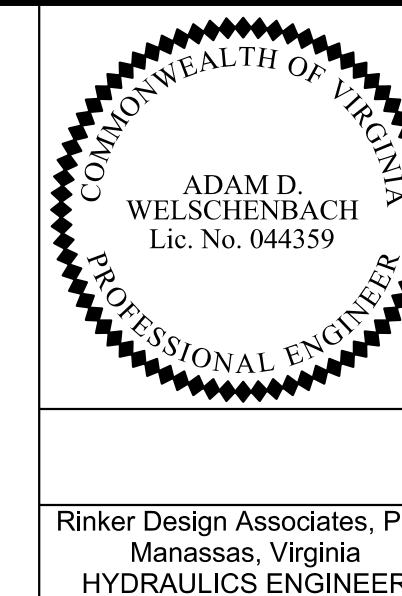
Office Locations
Rinker Design Associates, P.C.
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LANE NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC_DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

STORM SEWER PROFILES

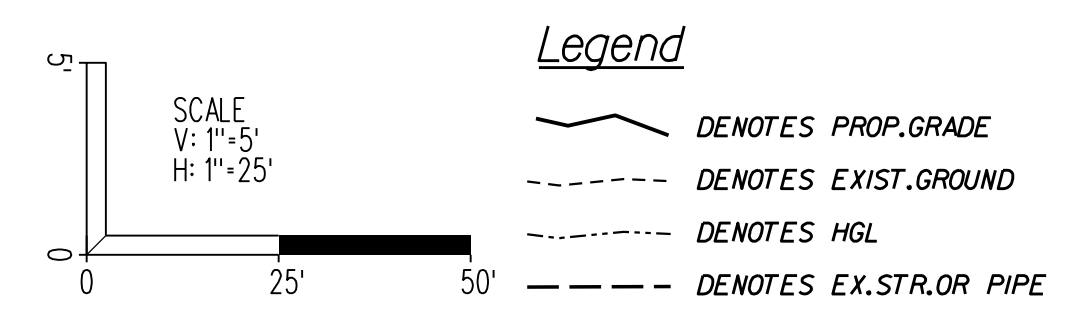
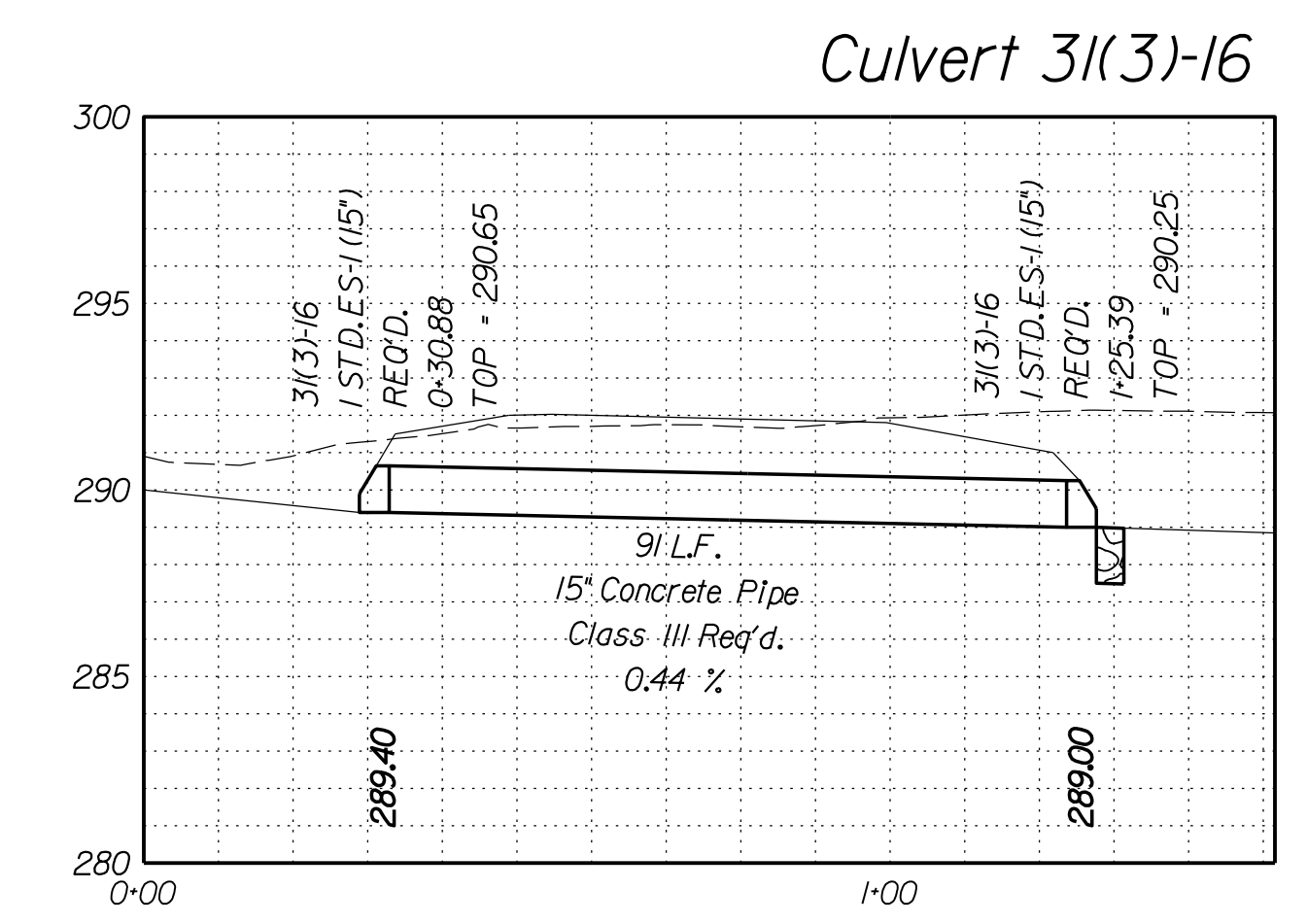
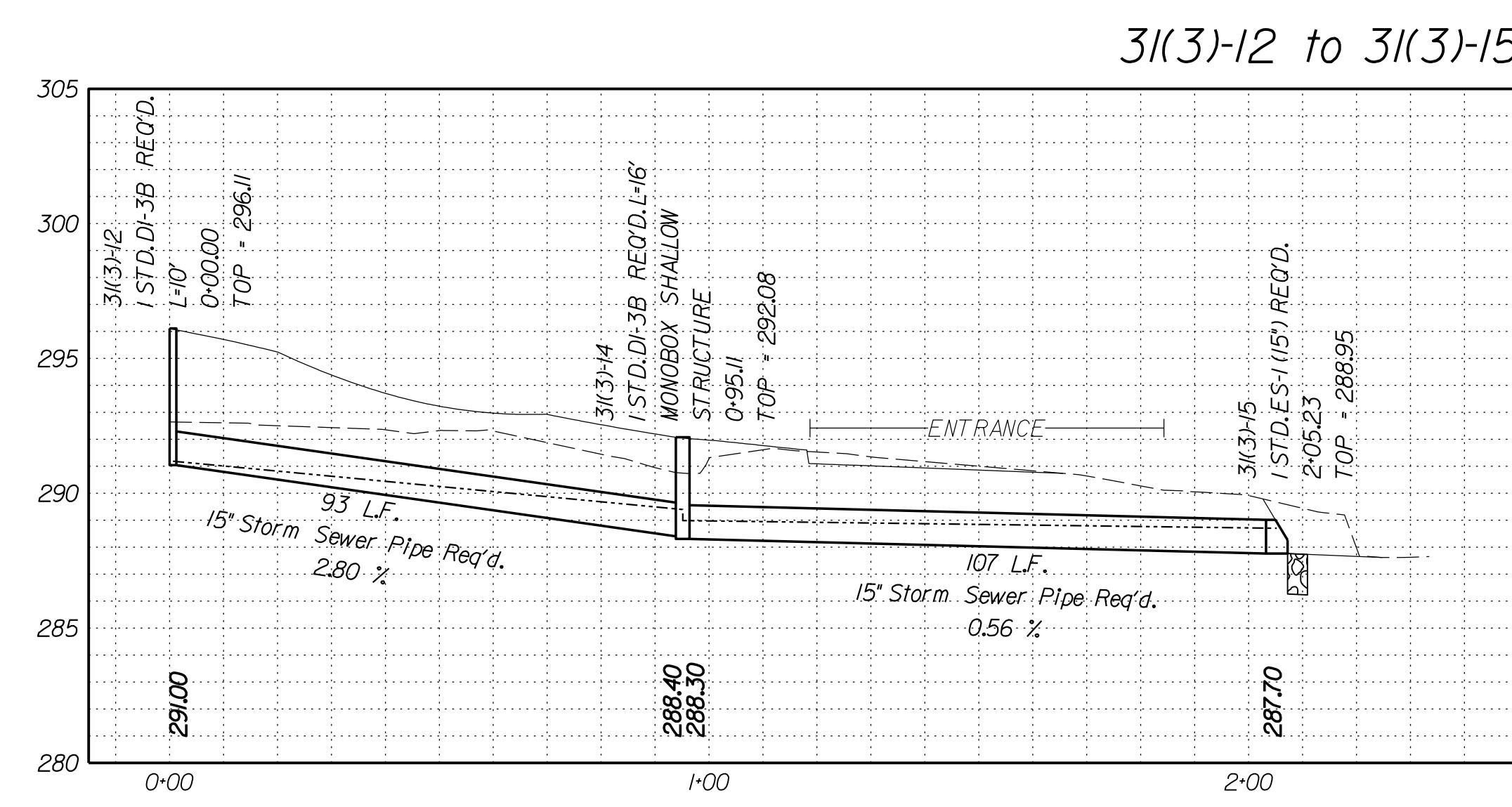
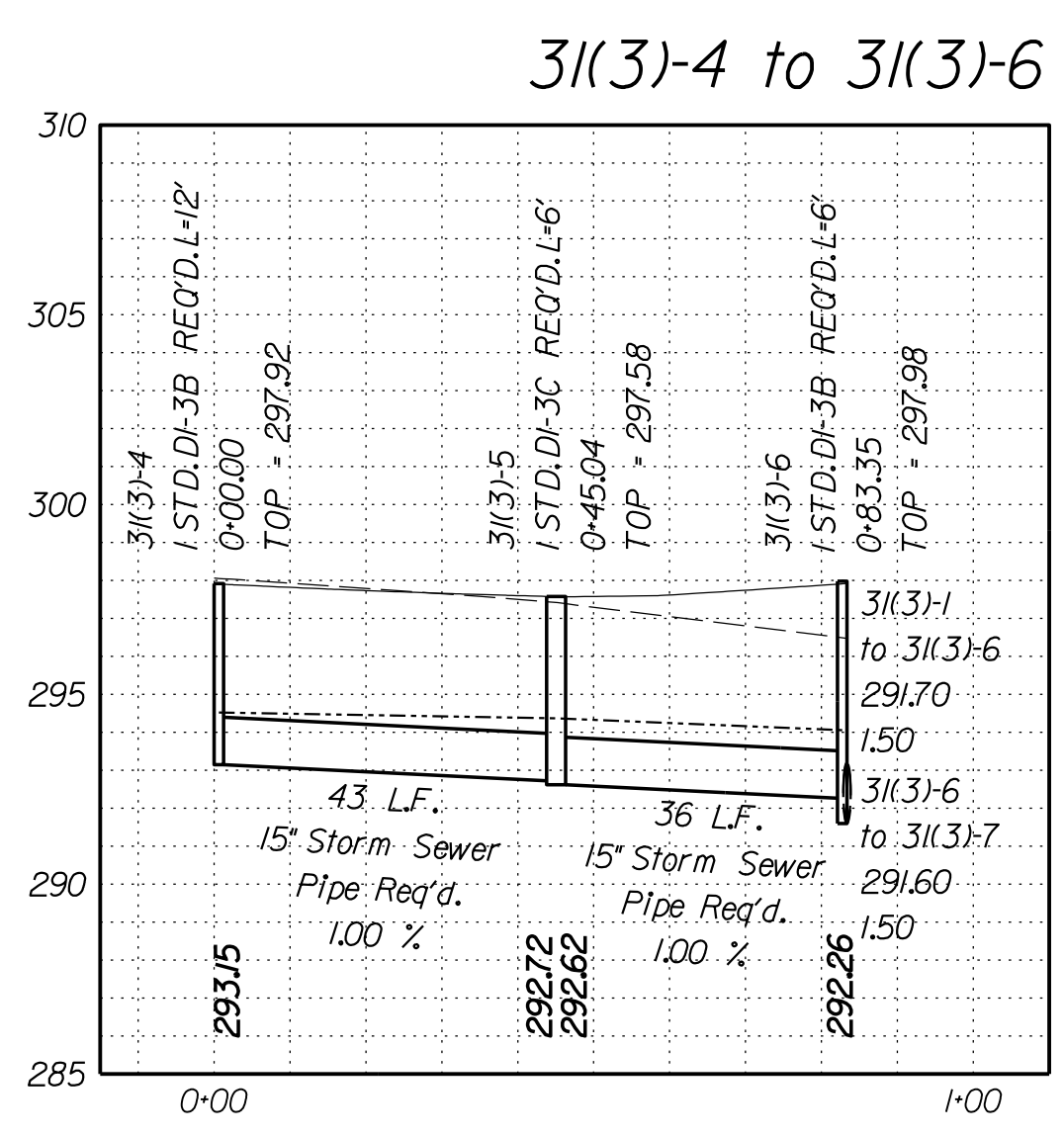
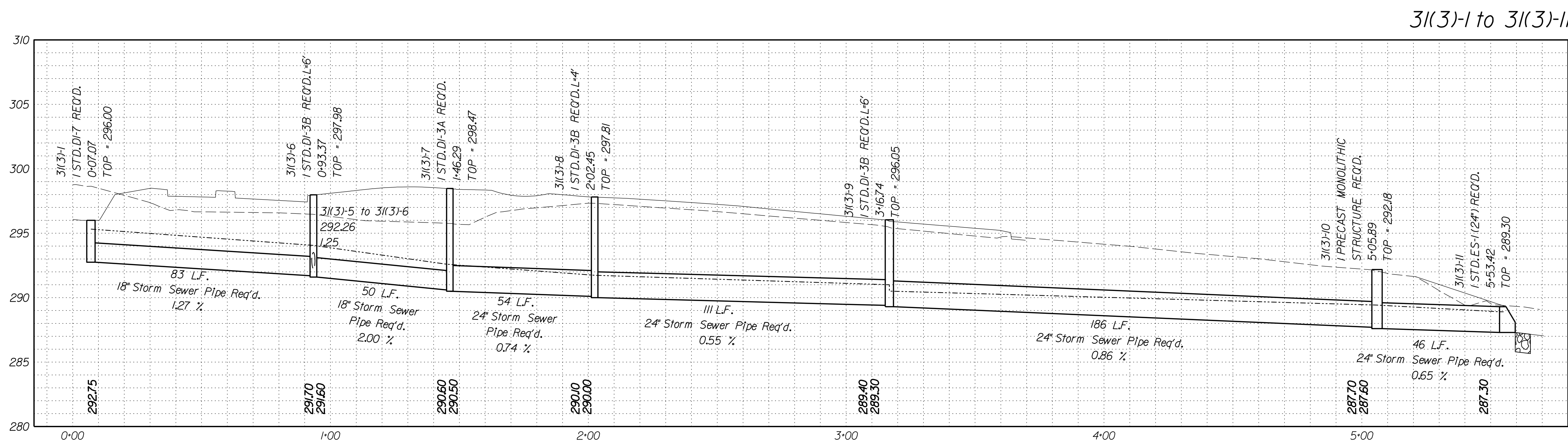
02 Added sheet to include roundabout storm sewer profiles.



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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	21(21)

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



VDOT PROJECT 6234-076-266 PNC PROJECT SPR2020-00383 S03	SHEET NO. 21(21)
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Office Locations
 Virginia
 North Carolina
 South Carolina
 Florida
 Georgia
 Alabama
 Mississippi
 Louisiana
 Texas
 Oklahoma
 Arkansas
 Missouri
 Illinois
 Indiana
 Ohio
 Pennsylvania
 Maryland
 Delaware
 New Jersey
 New York
 Connecticut
 Massachusetts
 Rhode Island
 Vermont
 New Hampshire
 Maine
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NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Professional Engineer seals for Adam D. Welschenbach, License No. 044359, Manassas, Virginia. Includes Rinker Design Associates, P.C. Hydraulic and Roadway Engineer information.

Table with columns: REVISED, STATE, ROUTE, PROJECT, SHEET NO. Row 1: NDC02, VA, 621, 6234-076-266, C-501, RW-201, II

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

- Curve C2: PI=12-45.35, DELTA=23°07'49.90"(RT), D=20'59"15", T=55.87', L=110.21', R=273.00', PC=11-89.49, PT=12-99.70, V=30 mph, Lr=N/A, E=ULS
- Curve C3: PI=15-26.74, DELTA=23°07'49.90"(LT), D=20'59"15", T=55.87', L=110.21', R=273.00', PC=14-70.88, PT=15-81.09, V=30 mph, Lr=N/A, E=ULS
- Curve C4: PI=16-90.57, DELTA=6°37'49.90"(RT), D=5'43"46", T=57.93', L=115.72', R=1000.00', PC=16-32.64, PT=17-48.37, V=30 mph, Lr=N/A, E=ULS
- Curve C5: PI=20-20.69, DELTA=6°37'49.90"(RT), D=5'43"46", T=57.93', L=115.72', R=1000.00', PC=19-62.77, PT=20-78.49, V=30 mph, Lr=N/A, E=ULS
- Curve C10: PI=12-45.35, DELTA=23°07'49.90"(LT), D=20'59"15", T=55.87', L=110.21', R=273.00', PC=14-70.88, PT=15-81.09, V=30 mph, Lr=N/A, E=ULS
- Curve C11: PI=15-26.74, DELTA=23°07'49.90"(RT), D=20'59"15", T=55.87', L=110.21', R=273.00', PC=19-62.77, PT=20-78.49, V=30 mph, Lr=N/A, E=ULS
- Curve C12: PI=16-90.57, DELTA=6°37'49.90"(LT), D=5'43"46", T=57.93', L=115.72', R=1000.00', PC=16-32.64, PT=17-48.37, V=30 mph, Lr=N/A, E=ULS
- Curve C13: PI=20-20.69, DELTA=6°37'49.90"(LT), D=5'43"46", T=57.93', L=115.72', R=1000.00', PC=19-62.77, PT=20-78.49, V=30 mph, Lr=N/A, E=ULS
- Curve C18: PI=69-82.87, DELTA=90°16'47.8"(LT), D=24'54"40", T=231.3', L=362.41', R=230.00', PC=71-14.15, PT=71-14.15, V=25 mph, Lr=N/A, E=ULS
- Curve C35: PI=304-23.57, DELTA=118°29'31.5"(LT), D=26'38"57", T=361.33', L=444.64', R=215.00', PC=300-62.24, PT=305-06.88, V=25 mph, Lr=N/A, E=ULS
- Curve PWP-3: PI=217-98.96, DELTA=35°32'53.73"(LT), D=2'00"00", T=918.36', L=1777.41', R=2864.79', PC=208-80.61, PT=226-58.02, V=60 mph, E=Match Existing

BOARD OF COUNTY SUPERVISORS OF PRINCE WILLIAM COUNTY, VIRGINIA
Deed Book 1776 Page 526
GPIN 7597-12-9712
8.2658 AC.

Roadway Design Legend

- 27 - Denotes S'd.GR-FOA-2 Ty.I Req'd.
- 28 - Denotes S'd.CPSR-2 AT with Moment Slab Req'd.
- 31 - Denotes S'd.MB-7F Barrier Req'd.
- 32 - Denotes Prop.Mod.Chain Link Fence Req'd. See Sheet 24(13) for details
- 33 - Denotes S'd.GR-10 Type I Req'd.
- 34 - Denotes S'd.CG-7 Req'd.
- 34a - Denotes S'd.CG-7 end point 15' transition to CG-6 Req'd.

PAVEMENT LEGEND

- Denotes Full-Depth Pavement
- Denotes Demolition of Pavement
- Denotes Mill and Variable Depth Overlay
- Denotes Prop. Paved Shoulder

Roadway Design Legend

- 1 - Denotes S'd.CG-6 Req'd.
- 2 - Denotes S'd.Radial CG-6 Req'd.
- 3 - Denotes S'd.CG-12 Ty.B Req'd.
- 4 - Denotes Detectable Wearing Surface
- 5 - Denotes 10' Shared Use Path Req'd.
- 6 - Denotes Saw Cut Pavement Full Depth Req'd.
- 8 - Denotes S'd.CG-2 Req'd.
- 9 - Denotes S'd.Radial CG-2 Req'd.
- 12 - Denotes S'd.CG-3 Req'd.
- 15 - Denotes S'd.GR-MGS1 Req'd.
- 16 - Denotes S'd.GR-MGS2 Req'd.
- 18 - Denotes Retaining Wall Req'd.
- 19 - Denotes S'd.GR-FOA-1 Ty.II Req'd.
- 20 - Denotes S'd.BPPS Req'd.
- 23 - Denotes S'd.35' Transition MGS4 Req'd.
- 26 - Denotes S'd.GR-FOA-5 Req'd.

Drainage Design Legend

- Denotes Mod.UD-4 Req'd.
- Denotes UD-4 Req'd.
- Denotes CD-2 Req'd.
- Denotes S'd.CD-1 Req'd.
- Denotes S'd.EW-12 Req'd.
- To Be Abandoned
- To Be Removed
- To Be Cleaned Out
- Denotes Outlet Pipe

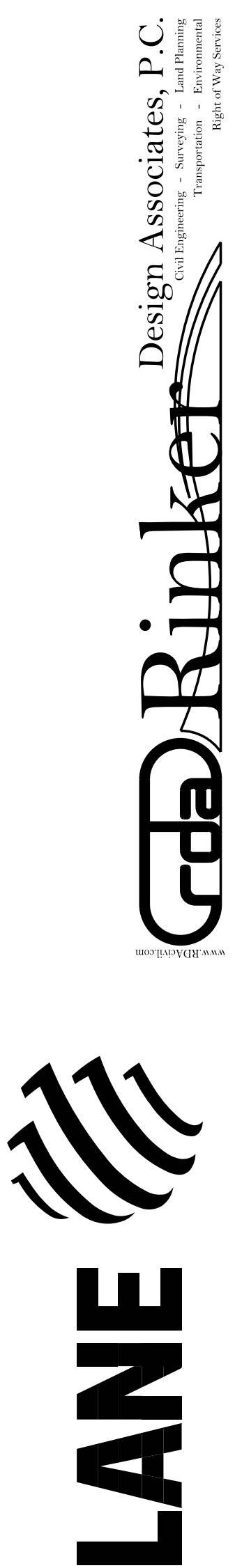
REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Table with columns: Property Owner Information, Demolition Summary, Survey Control Data Sheet, DDI Crossover Details, Geometric Data, Erosion Control Phase 1, Erosion Control Phase 2, Typical Sections, Roundabout Typical Sections, Profile Route 621, Profile Route 234, Profile DDI & Ramps, Grading Plan. Includes sheet numbers like IC11, IC12, IE, IF, IG(2), IG(2C), IG(11), IS, IT, 2A, 2A(15), 2M(24), 2A(25), II, II(B), 25, II(6).

Guardrail Note: At locations where GR-MGS1 is to be installed adjacent to a DI-2 series drop inlet, the Contractor shall install guardrail with 16" depth blockouts (combination of 12" and 4" blockout or two MASH approved 8" blockouts) to ensure guardrail posts do not conflict with the drop inlet. Blockout depth of 16" may be used for a series of posts.

Alternatively, double standard blockouts or combinations of blockouts greater than 16" up to 24" may also be utilized to avoid conflict with a drainage inlet, as needed, but shall be limited to one in any 100 ft. length of guardrail.

SCALE 0 25' 50'. VDOT PROJECT 6234-076-266. SHEET NO. II



PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

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

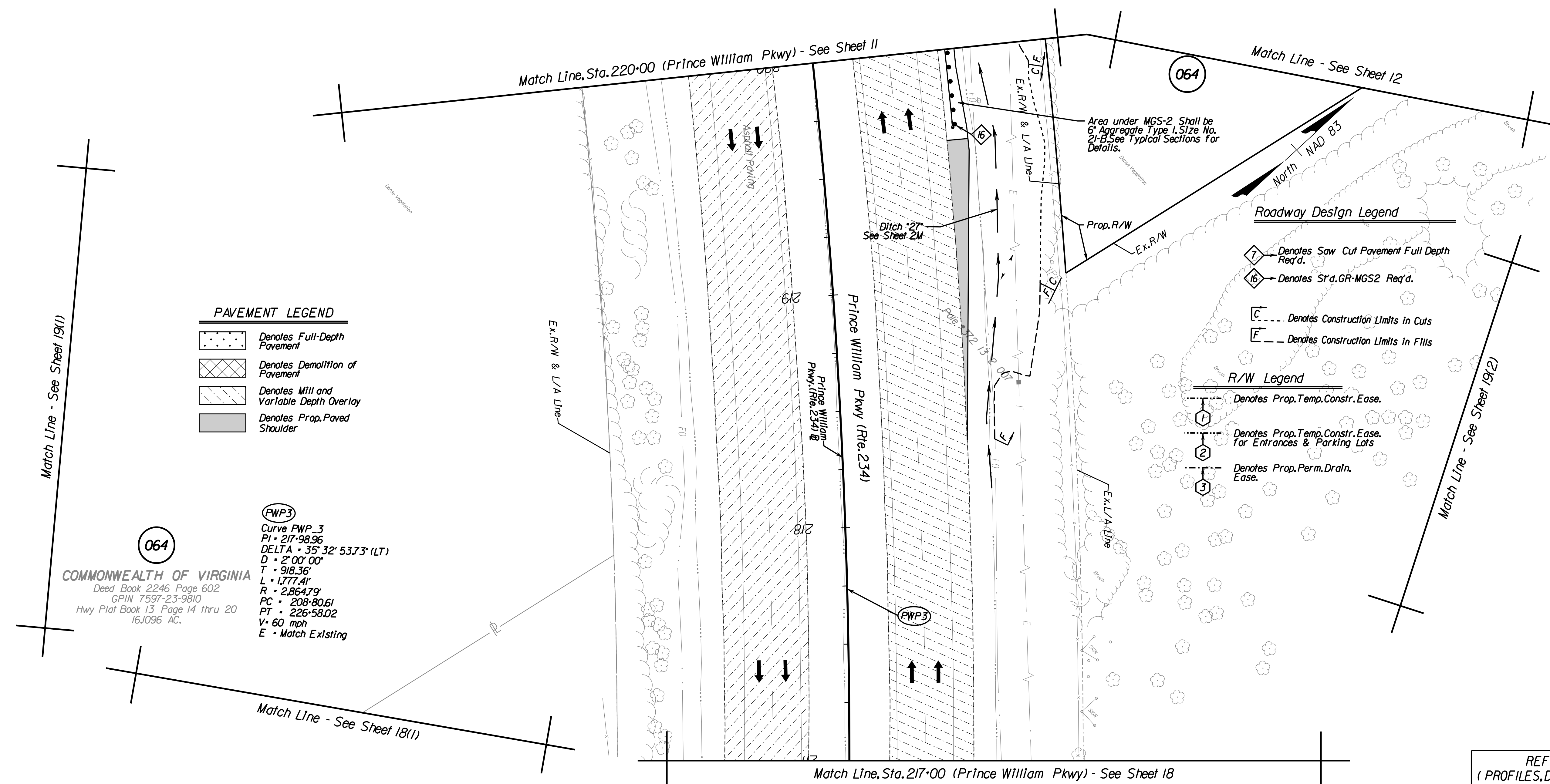
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	62/		6234-076-266, C-501, RW-201	19

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

02 Revised shoulder section in pavement in front of BPPS.

6/24/2021 NOVA DISTRICT DESIGN UNIT

 Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation Engineering - Right of Way Services
 Office Locations:
 Manassas, VA
 Falls Church, VA
 Fairfax, VA
 Herndon, VA
 Reston, VA
 Vienna, VA
 Washington, DC



PAVEMENT LEGEND

	Denotes Full-Depth Pavement
	Denotes Demolition of Pavement
	Denotes Mill and Variable Depth Overlay
	Denotes Prop. Paved Shoulder

Roadway Design Legend

	Denotes Saw Cut Pavement Full Depth Req'd.
	Denotes S'd.GR-MGS2 Req'd.
	Denotes Construction Limits in Cuts
	Denotes Construction Limits in Fills

R/W Legend

	Denotes Prop. Temp. Constr. Ease.
	Denotes Prop. Temp. Constr. Ease. For Entrances & Parking Lots
	Denotes Prop. Perm. Drain. Ease.

064
 COMMONWEALTH OF VIRGINIA
 Deed Book 2246 Page 602
 GPIN 7597-23-9810
 Hwy Plat Book 13 Page 14 thru 20
 16.1096 AC.

(PWP3)
 Curve PWP_3
 PI = 217+98.96
 DELTA = 35° 32' 53.7" (LT)
 D = 2' 00" 00"
 T = 918.36'
 L = 1777.41'
 R = 2864.79'
 PC = 208+80.61
 PT = 226+58.02
 V = 60 mph
 E = Match Existing

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

Property Owner Information	IC11, IC12
Demolition Summary	IE - IE12
Survey Control Data Sheet	IF - IF12
Geometric Data	IG19
Erosion Control Phase 1	IS Series
Erosion Control Phase 2	IT Series
Typical Sections	2A - 2A15
Roundabout Typical Sections	2A24 - 2A25
Profile Route 234	19A
Grading Plan	19G

SCALE 0 25' 50'

VDOT PROJECT 6234-076-266	SHEET NO. 19
PINC PROJECT SPR2020-00383 S03	

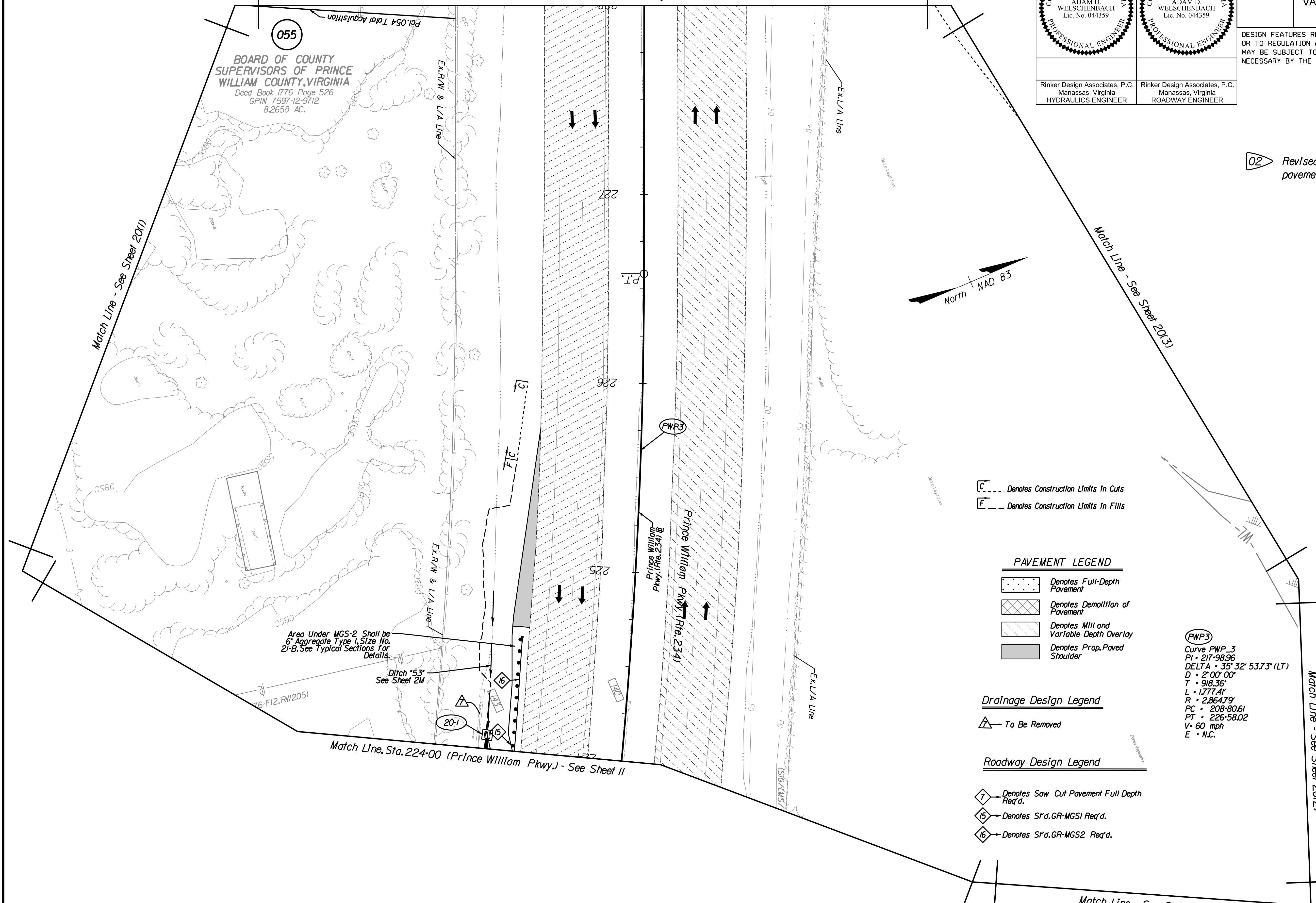
PROJECT MANAGER PWC_DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Match Line, Sta. 228+00 (Prince William Pkwy.) - See Sheet 21

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	20

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

02 Revised shoulder section in pavement in front of BPPS.



C --- Denotes Construction Limits In Cuts
 E --- Denotes Construction Limits In Fills

PAVEMENT LEGEND

- Denotes Full-Depth Pavement
- Denotes Demolition of Pavement
- Denotes Mill and Variable Depth Overlay
- Denotes Prop. Paved Shoulder

Drainage Design Legend

- To Be Removed

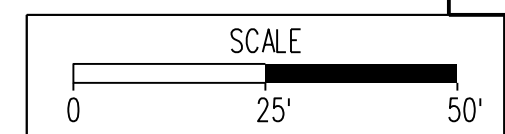
Roadway Design Legend

- Denotes Saw Cut Pavement Full Depth Req'd.
- Denotes S'd.GR-MGS1 Req'd.
- Denotes S'd.GR-MGS2 Req'd.

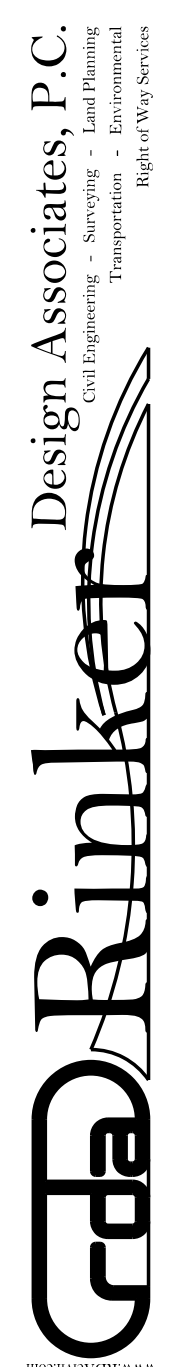
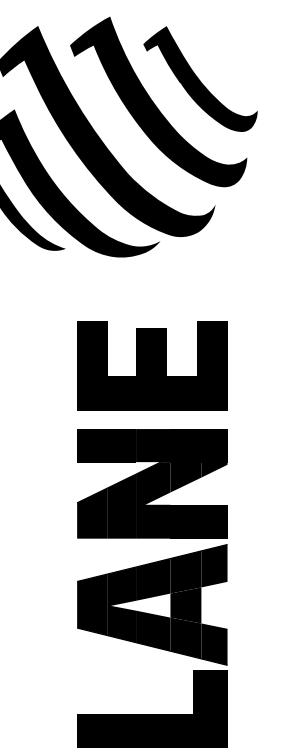
(PWP3)
 Curve PWP_3
 PI - 217+98.96
 DELTA - 35° 32' 53.73" (LT)
 D - 2' 00' 00"
 T - 918.36'
 L - 1777.41'
 R - 2,864.79'
 PC - 208+80.61
 PT - 226+58.02
 V - 60 mph
 E - N.C.

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

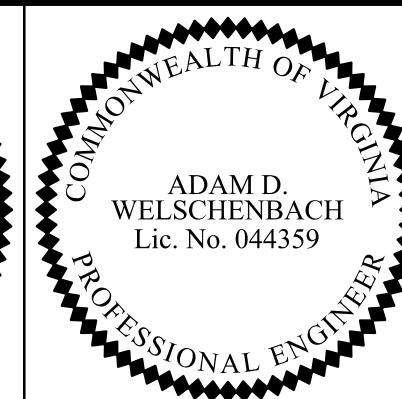
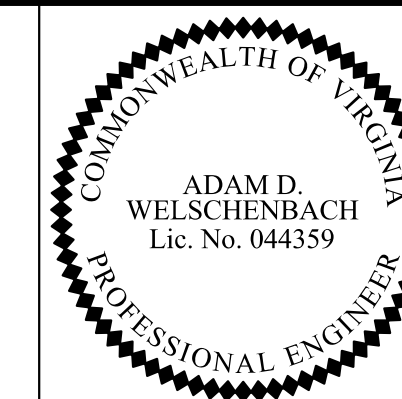
Property Owner Information	IC11, IC12
Demolition Summary	IE - IE12
Survey Control Data Sheet	IF - IF12
Geometric Data	IG1201
Erosion Control Phase 1	IS Series
Erosion Control Phase 2	IT Series
Typical Sections	2A - 2A15
Roundabout Typical Sections	2A24 - 2A25
Profile Route 234	20A
Grading Plan	20G



VDOT PROJECT 6234-076-266	SHEET NO. 20
PNC PROJECT SPR2020-00383 S03	



PROJECT MANAGER PWC_DOT_Mary_Ankers (703)792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020



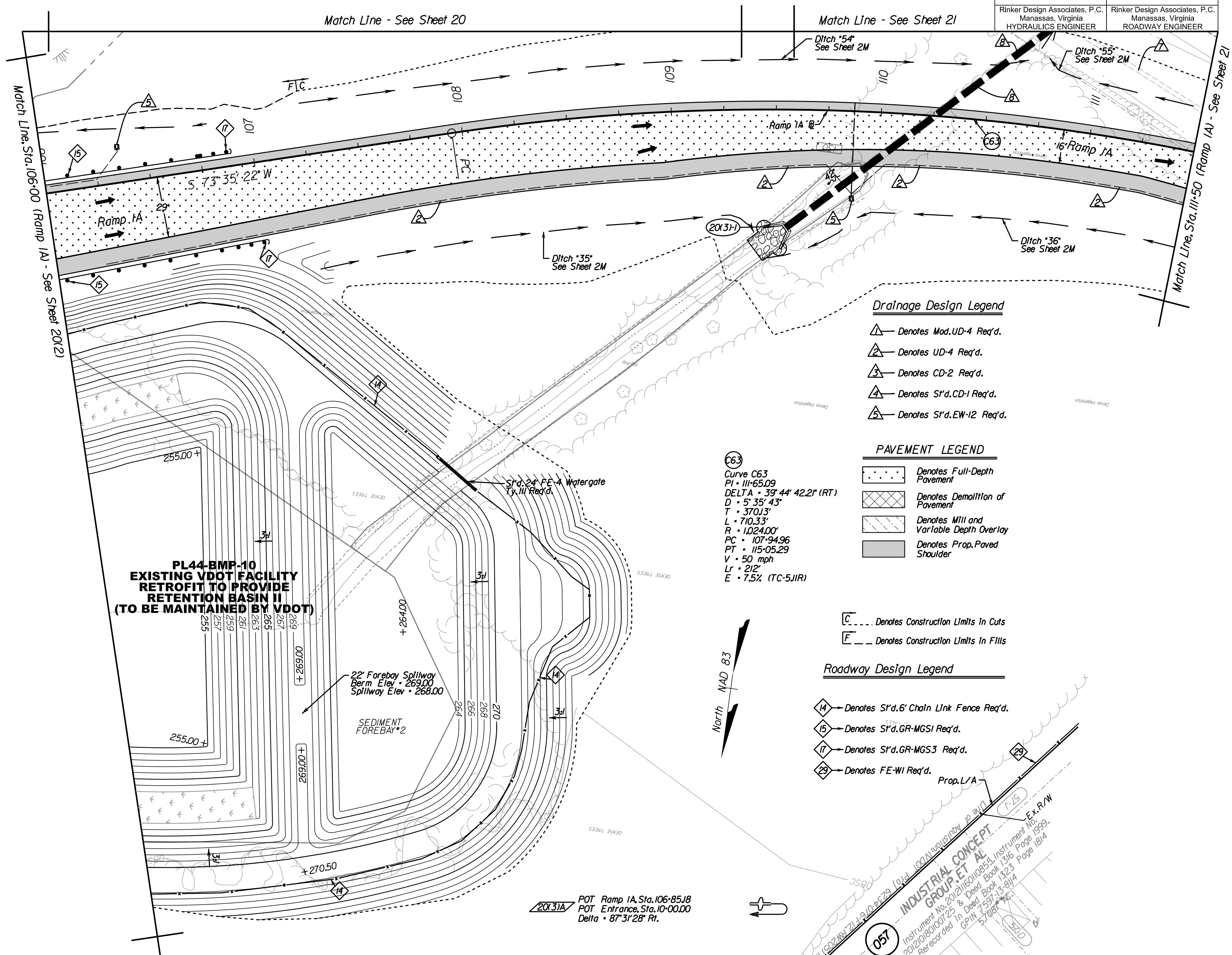
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	20(3)

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

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

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

02 Added storm pipe 20(3)-1 to 20(3)-2. Removed 20(3)-3.
Realigned ditches around 20(3)-2.



Drainage Design Legend

- ▲ Denotes Mod.UD-4 Req'd.
- ▲ Denotes UD-4 Req'd.
- ▲ Denotes CD-2 Req'd.
- ▲ Denotes S'd.CD-1 Req'd.
- ▲ Denotes S'd.EW-12 Req'd.

PAVEMENT LEGEND

- Denotes Full-Depth Pavement
- Denotes Demolition of Pavement
- Denotes Mill and Variable Depth Overlay
- Denotes Prop. Paved Shoulder

Curve C63
 PI • 111+65.09
 DELTA • 39° 44' 42.21" (RT)
 D • 5° 35' 43"
 T • 370.33'
 L • 710.33'
 R • 1,024.00'
 PC • 107+94.96
 PT • 115+05.29
 V • 50 mph
 Lr • 212'
 E • 7.5% (TC-5JIR)

- C Denotes Construction Limits In Cuts
- F Denotes Construction Limits In Fills

Roadway Design Legend

- 14 Denotes S'd.6' Chain Link Fence Req'd.
- 15 Denotes S'd.GR-MGS1 Req'd.
- 17 Denotes S'd.GR-MGS3 Req'd.
- 29 Denotes FE-WI Req'd.

PL44-BMP-10 EXISTING VDOT FACILITY RETROFIT TO PROVIDE RETENTION BASIN II (TO BE MAINTAINED BY VDOT)

22' Forebay Spillway
Berm Elev • 269.00
Spillway Elev • 268.00

SEDIMENT FOREBAY #2

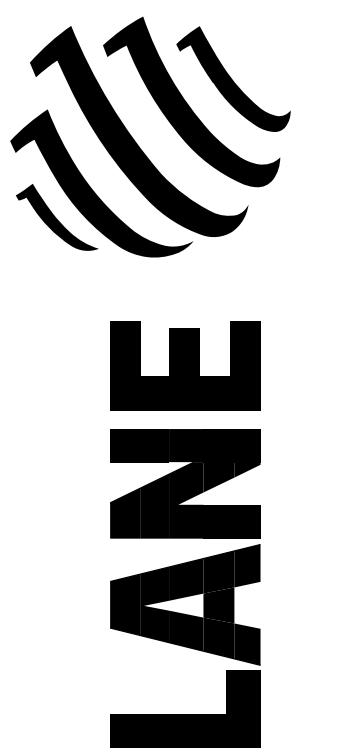
POT Ramp IA Sta. 106+85.18
POT Entrance Sta. 10+00.00
Delta • 87° 31' 28" Rt.

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

Property Owner Information	IC(11), IC(12)
Demolition Summary	IE - IE(12)
Survey Control Data Sheet	IF - IF(12)
Geometric Data	IG(20(3))
Erosion Control Phase 1	IS Series
Erosion Control Phase 2	IT Series
Typical Sections	2A - 2A(15)
Roundabout Typical Sections	2A(24) - 2A(25)
Profile DDI & Ramps	25 Series
Grading Plan	20(3)G

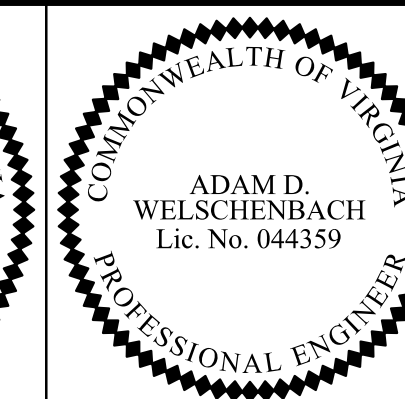
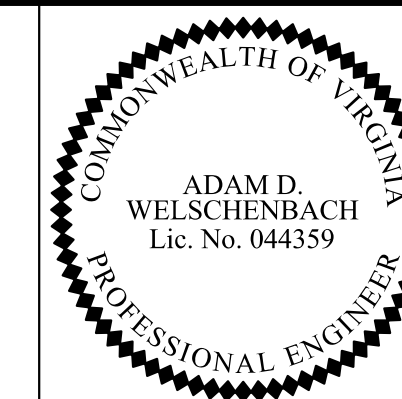
SCALE	VDOT PROJECT	SHEET NO.
0 25' 50'	6234-076-266 PINC PROJECT SPR2020-00383 S03	20(3)

6/24/2021 NOVA DISTRICT DESIGN UNIT
 Rinker Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation - Right of Way Services
 Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Washington, DC



PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Grading Plan



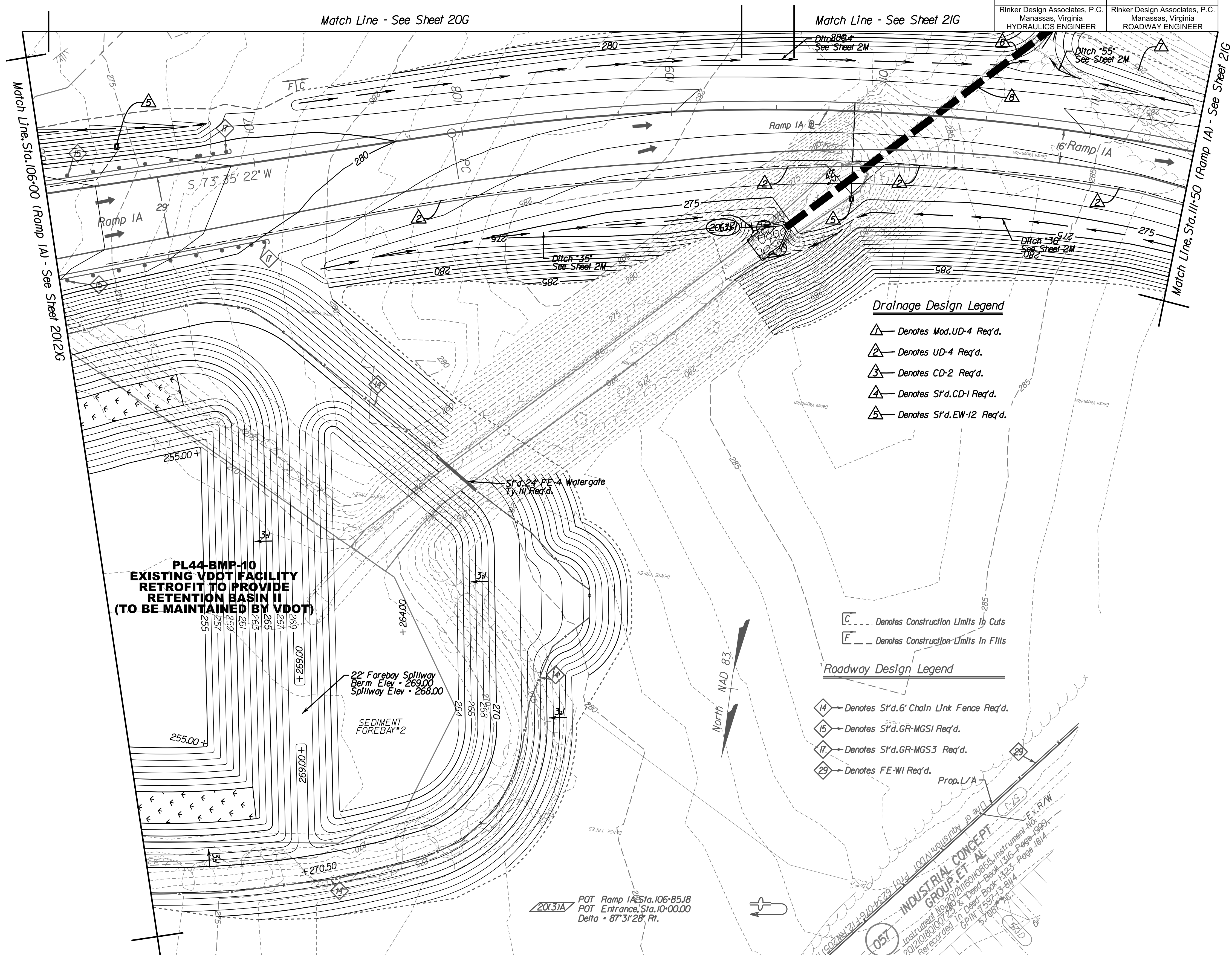
Rinker Design Associates, P.C.
 Manassas, Virginia
 HYDRAULICS ENGINEER

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

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	20X31G

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

02 Added storm pipe 20(3)-1 to 20(3)-2. Removed 20(3)-3. Realigned ditches around 20(3)-2. Revised grading around 20(3)-2.



Office Locations
 Design Associates, P.C.
 Rinker

LANE

NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC_DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

BOARD OF COUNTY SUPERVISORS OF PRINCE WILLIAM COUNTY, VIRGINIA
 Deed Book 1776 Page 526
 GPIN 7597-12-9712
 8,2658 AC.

- | | | |
|--|---|--|
| C17
Curve C17
PI = 60° 87.86
DELTA = 27° 29' 15.3" (RT)
D = 6' 39' 44"
T = 210.34'
L = 412.58'
R = 860.00'
PC = 58-77.52
PT = 62-90.00
V = 50 mph
Lr = 25'
E = 7.9% (TC-5JIR) | C37
Curve C37
PI = 153° 48.45
DELTA = 105° 04' 41.3" (RT)
D = 2' 27' 33"
T = 348.45'
L = 489.67'
R = 267.00'
PC = 150-00.00
PT = 154-89.67
V = 30 mph
Lr = 169'
E = 7.9% (TC-5JIR) | C63
Curve C63
PI = 111° 65.09
DELTA = 39° 44' 42.2" (RT)
D = 5' 35' 43"
T = 370.13'
L = 710.33'
R = 1024.00'
PC = 107-94.96
PT = 115-05.29
V = 50 mph
Lr = 21'
E = 7.5% (TC-5JIR) |
|--|---|--|

PAVEMENT LEGEND

- Denotes Full-Depth Pavement
- Denotes Demolition of Pavement
- Denotes Mill and Variable Depth Overlay
- Denotes Prop. Paved Shoulder

BOARD OF COUNTY SUPERVISORS OF PRINCE WILLIAM COUNTY, VIRGINIA
 Deed Book 1776 Page 526
 GPIN 7597-12-8842
 11,290 AC.

- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills

Roadway Design Legend

- Denotes Saw Cut Pavement Full Depth Req'd.
- Denotes S1d, GR-MGSI Req'd.
- Denotes S1d, GR-MGS2 Req'd.
- Denotes FE-WI Req'd.
- Denotes S1d, GR-10 Type I Req'd.

R/W Legend

- Denotes Prop. Temp. Constr. Ease.
- Denotes Prop. Temp. Constr. Ease. For Entrances & Parking Lots
- Denotes Prop. Perm. Drain. Ease.

Drainage Design Legend

- Denotes Mod. UD-4 Req'd.
- Denotes UD-4 Req'd.
- Denotes CD-2 Req'd.
- Denotes S1d, CD-1 Req'd.
- Denotes S1d, EW-12 Req'd.
- To Be Abandoned
- To Be Removed
- To Be Cleaned Out

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

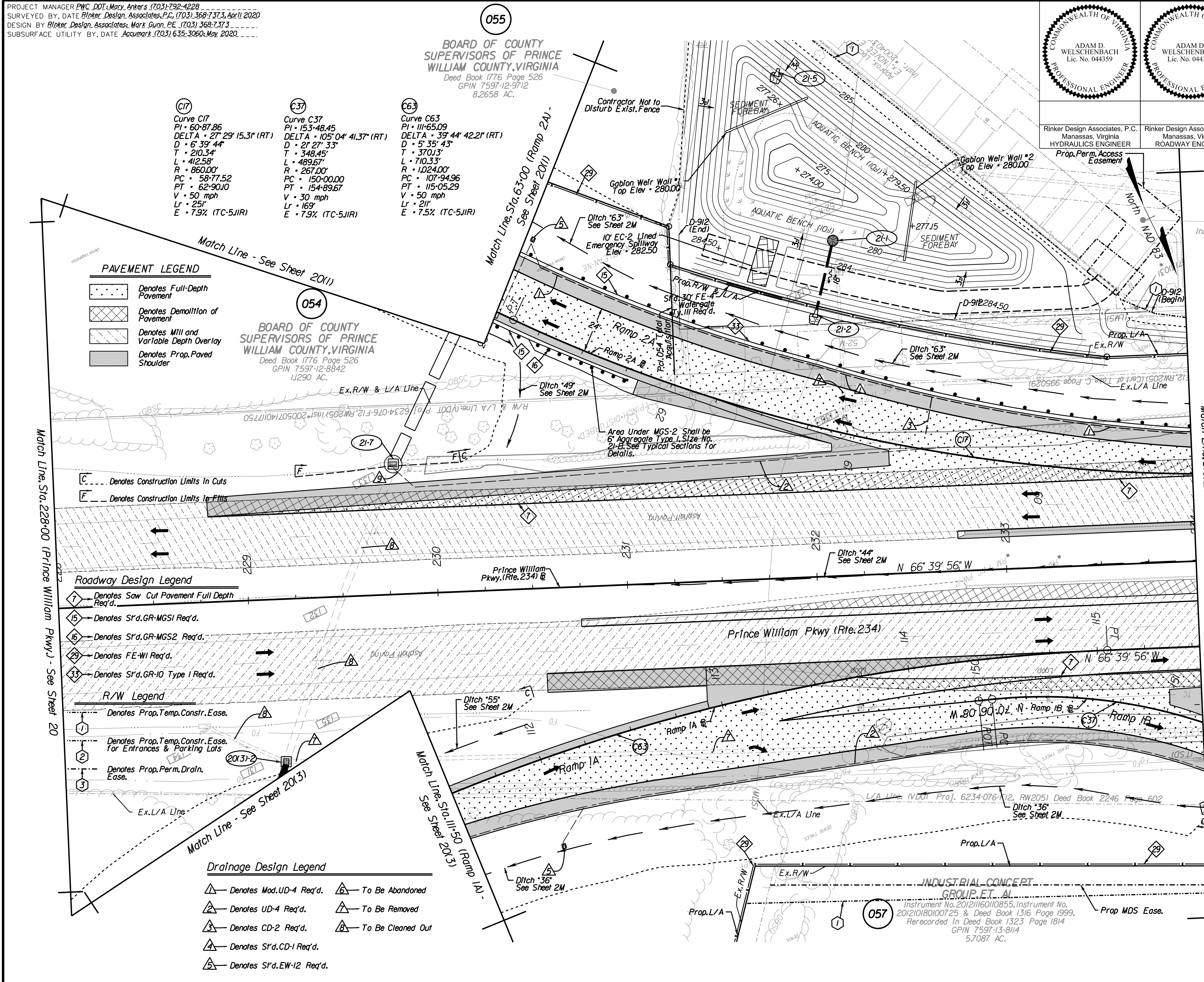
COMMONWEALTH OF VIRGINIA
 ADAM D. WELSCHENBACH
 Lic. No. 044359
 PROFESSIONAL ENGINEER

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
REV01 REV02 NDC02	VA.	621	6234-076-266, C-501, RW-201	21

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

WILSON CAPITAL PROPERTIES, LLC
 Instrument 200305070082521
 GPIN 7597-12-4139
 Instrument 200103290029449 Plat 4.4548 AC.

- Added MDS Easement to Parcel 052.
- Removed MDS Easement from Parcel 052. Added MDS Easement to Parcel 057.
- Moved 20(3)-2. Added note to contractor. Removed 299' of fence from Parcel 052.



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

Property Owner Information	IC11, IC12
Demolition Summary	IE - IE12
Survey Control Data Sheet	IF - IF12
Geometric Data	IG121
Erosion Control Phase 1	IS Series
Erosion Control Phase 2	IT Series
Typical Sections	2A - 2A15
Roundabout Typical Sections	2A24 - 2A25
Profile Route 234	21A
Profile DDI & Ramps	25 Series
Grading Plan	21G

SCALE	VDOT PROJECT	SHEET NO.
0 25' 50'	6234-076-266	21
	SPR2020-00363 S03	

Office Locations: Virginia, North Carolina, South Carolina, Florida, Georgia, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Kansas, Nebraska, Minnesota, Iowa, Missouri, Arkansas, Louisiana, Mississippi, Alabama, Georgia, Florida, South Carolina, North Carolina, Virginia
 Design Associates, P.C.
 NOVA DISTRICT DESIGN UNIT
 6/24/2021

PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

055
 BOARD OF COUNTY SUPERVISORS OF PRINCE WILLIAM COUNTY, VIRGINIA
 Deed Book 1776 Page 526
 GPIN 7597-12-9712
 8.2658 AC.

054
 BOARD OF COUNTY SUPERVISORS OF PRINCE WILLIAM COUNTY, VIRGINIA
 Deed Book 1776 Page 526
 GPIN 7597-12-8842
 11290 AC.

052
 WILSON CAPITAL PROPERTIES, LLC
 Instrument 200305070082521
 GPIN 7597-12-4139
 Instrument 200103290029449 Plat 4.4548 AC.

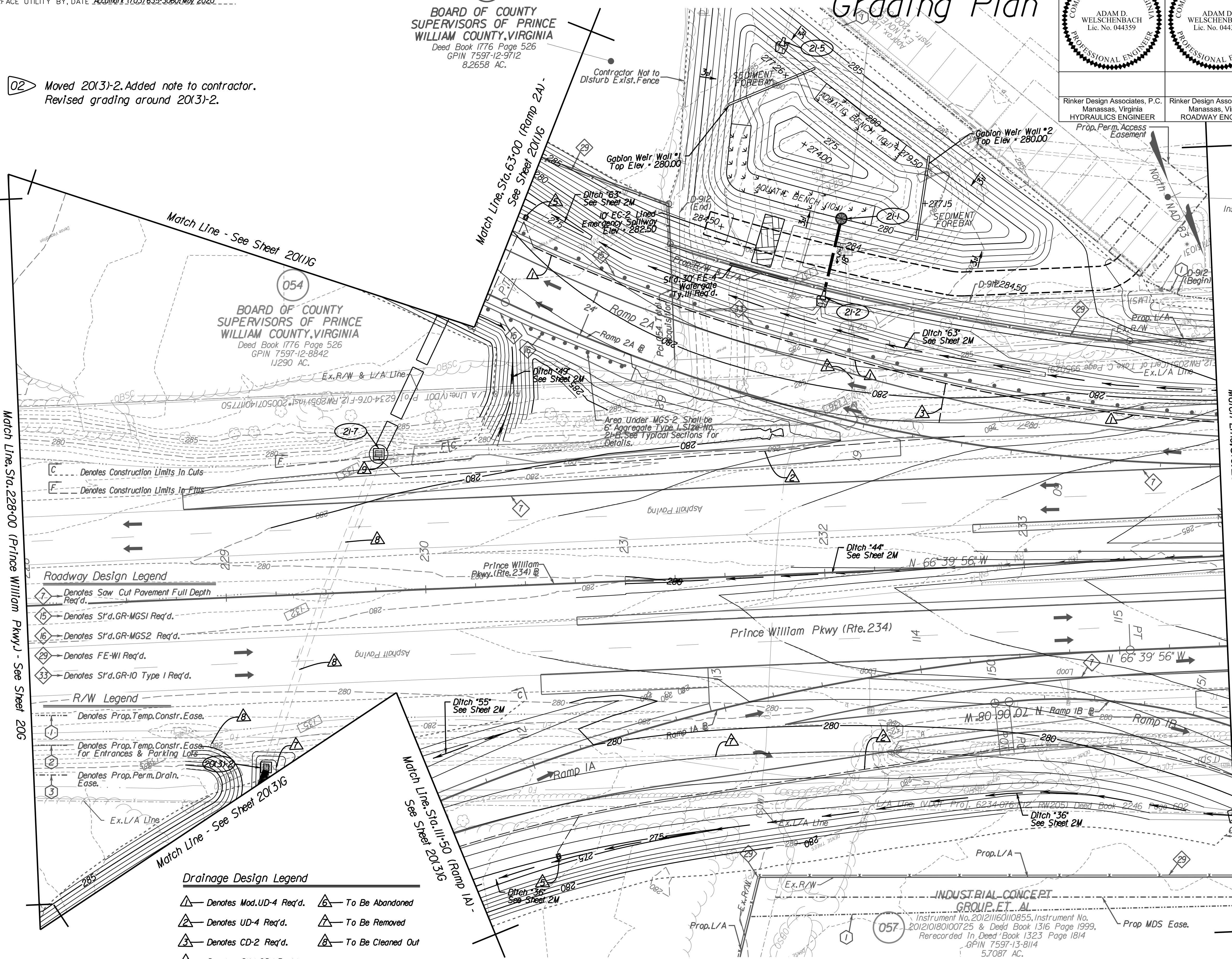
Grading Plan

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

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	21G

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

02 Moved 20(3)-2. Added note to contractor. Revised grading around 20(3)-2.



--- Denotes Construction Limits in Cuts
 --- Denotes Construction Limits in Fills

- Roadway Design Legend**
- Denotes Saw Cut Pavement Full Depth Req'd.
 - Denotes S'd.GR-MGS1 Req'd.
 - Denotes S'd.GR-MGS2 Req'd.
 - Denotes FE-WI Req'd.
 - Denotes S'd.GR-10 Type I Req'd.

- R/W Legend**
- Denotes Prop. Temp. Constr. Ease.
 - Denotes Prop. Temp. Constr. Ease for Entrances & Parking Lots
 - Denotes Prop. Perm. Drain. Ease.

- Drainage Design Legend**
- Denotes Mod. UD-4 Req'd.
 - Denotes UD-4 Req'd.
 - Denotes CD-2 Req'd.
 - Denotes S'd.CD-1 Req'd.
 - Denotes S'd.EW-12 Req'd.
 - To Be Abandoned
 - To Be Removed
 - To Be Cleaned Out

INDUSTRIAL CONCEPT GROUP, ET. AL
 Instrument No. 201211610855, Instrument No. 201210180100725 & Deed Book 1316 Page 1999, Rerecorded in Deed Book 1323 Page 1814
 GPIN 7597-13-8114
 5.7087 AC.

6/24/2021 NOVA DISTRICT DESIGN UNIT

 Design Associates, P.C.
 Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Springfield, VA; Vienna, VA; Woodbridge, VA; Yorktown, VA
 Services: Surveying, Land Planning, Transportation, Right of Way Services

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
REV02 NDC02	VA.	62/	6234-076-266, C-501, RW-201	22

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

- | | | | | |
|---|---|--|---|--|
| <p>(C17)
Curve C17
PI • 60-87.86
DELTA • 27° 29' 15.31" (RT)
D • 6' 39' 44"
T • 210.34'
L • 412.58'
R • 860.00'
PC • 58-77.52
PT • 62-90.10
V • 50 mph
Lr • 25'
E • 7.9% (TC-5JIR)</p> | <p>(C22)
Curve C22
PI • 80-87.33
DELTA • 14° 48' 39.40" (RT)
D • 15' 25' 39"
T • 48.27'
L • 96.00'
R • 371.39'
PC • 80-39.06
PT • 81-35.07
V • 30 mph
E • 2.0% (TC-5JIR)</p> | <p>(C23)
Curve C23
PI • 83-85.88
DELTA • 89° 57' 26.70" (RT)
D • 22' 49' 37"
T • 250.81'
L • 394.08'
R • 251.00'
PCC • 81-35.07
PT • 85-29.15
V • 30 mph
E • 7.9% (TC-5JIR)</p> | <p>(C37)
Curve C37
PI • 153-48.45
DELTA • 105° 04' 41.37" (RT)
D • 21' 27' 33"
T • 348.45'
L • 489.67'
R • 267.00'
PC • 150-00.00
PT • 154-89.67
V • 30 mph
Lr • 169'
E • 7.9% (TC-5JIR)</p> | <p>(C166)
Curve C166
PI • 16-82.56
DELTA • 12° 05' 15.77" (LT)
D • 11' 27' 33"
T • 52.94'
L • 105.49'
R • 500.00'
PC • 16-29.62
PT • 17-35.11</p> |
|---|---|--|---|--|

Drainage Design Legend

- △ Denotes Mod.UD-4 Req'd.
- △ Denotes UD-4 Req'd.
- △ Denotes CD-2 Req'd.
- △ Denotes St'd.CD-1 Req'd.
- △ Denotes St'd.EW-12 Req'd.
- △ To Be Abandoned
- △ To Be Removed
- △ To Be Cleaned Out

R/W Legend

- ① Denotes Prop.Temp.Constr.Ease.
- ② Denotes Prop.Temp.Constr.Ease. for Entrances & Parking Lots
- ③ Denotes Prop.Perm.Drain. Ease.

PAVEMENT LEGEND

- Denotes Full-Depth Pavement
- ▨ Denotes Demolition of Pavement
- ▨ Denotes Mill and Variable Depth Overlay
- ▨ Denotes Prop.Paved Shoulder

Roadway Design Legend

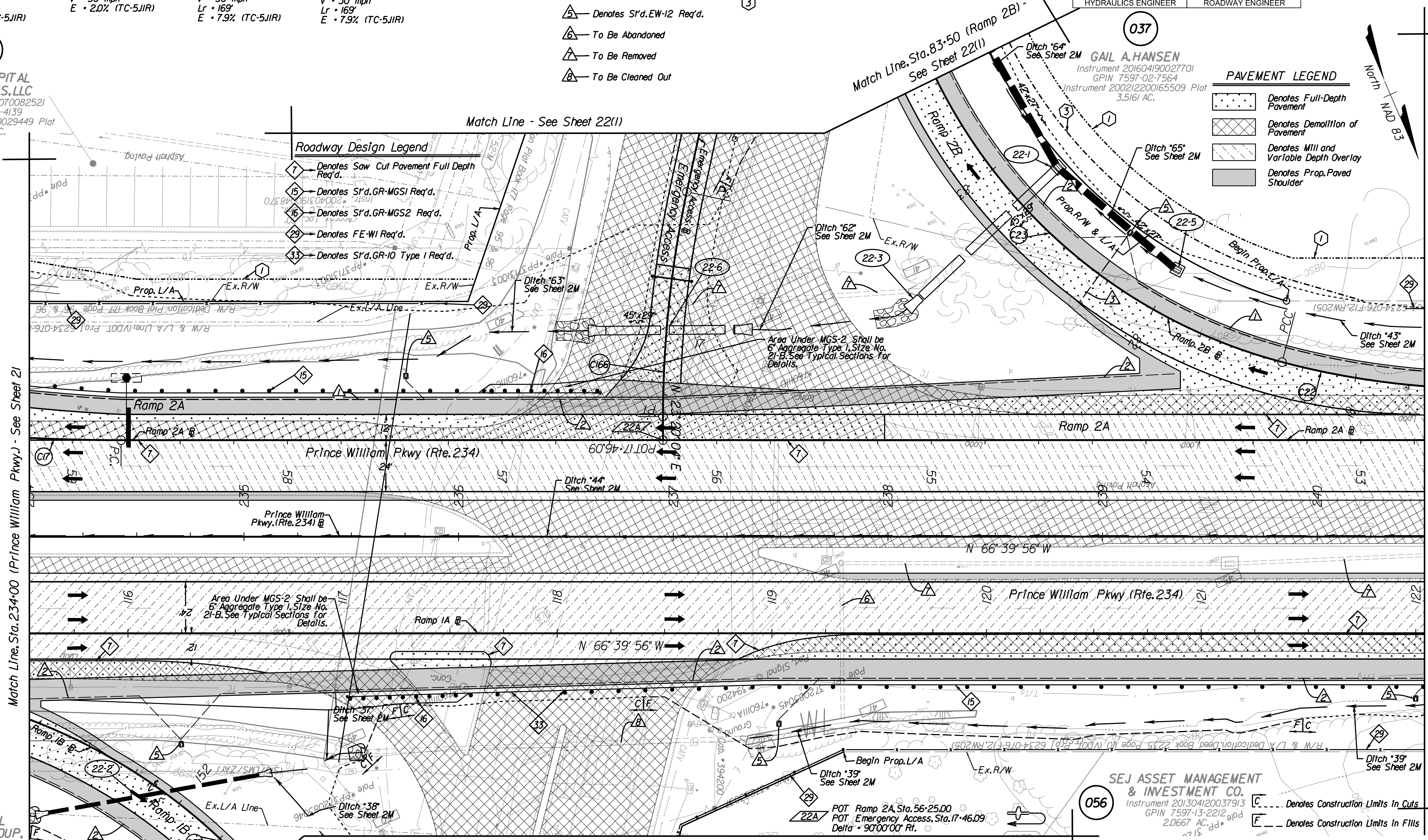
- ⑦ Denotes Saw Cut Pavement Full Depth Req'd.
- ⑮ Denotes St'd.GR-MGS1 Req'd.
- ⑯ Denotes St'd.GR-MGS2 Req'd.
- ⑲ Denotes FE-WI Req'd.
- ⑳ Denotes St'd.GR-10 Type I Req'd.

052
WILSON CAPITAL PROPERTIES, LLC
Instrument 200305070082521
GPIN 7597-12-4139
Instrument 200103290029449 Plat 4.4548 AC.

037
GAIL A. HANSEN
Instrument 201604190027701
GPIN 7597-02-7564
Instrument 200212200165509 Plat 3.5161 AC.

Match Line, Sta. 234+00 (Prince William Pkwy.) - See Sheet 21

Match Line, Sta. 240+50 (Prince William Pkwy.) - See Sheet 23



057
INDUSTRIAL CONCEPT GROUP, ET AL
Instrument No. 20121160110855,
Instrument No. 201210180100725 & Deed Book 1323 Page 1814
GPIN 7597-13-8114 5.7087 AC.

056
SEJ ASSET MANAGEMENT & INVESTMENT CO.
Instrument 201304120037913
GPIN 7597-13-2212, add 2.0667 AC. add

- (R2) Added MDS Easement to Parcel 057.
- (O2) Revised cut/fill limits and ditch/storm sewer alignment.

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

Property Owner Information	IC111, IC121
Demolition Summary	IE - IE12
Survey Control Data Sheet	IF - IF12
Gore Grading Detail	IG2F1
Geometric Data	IG221
Erosion Control Phase 1	IS Series
Erosion Control Phase 2	IT Series
Typical Sections	2A - 2A15
Roundabout Typical Sections	2A24 - 2A25
Profile Route 234	22A
Profile Emergency Access	221, 301
Profile DDI & Ramps	25 Series
Grading Plan	22G

SCALE	VDOT PROJECT	SHEET NO.
0 25' 50'	6234-076-266	22
	SPR2020-00383 S03	

NOVA DISTRICT DESIGN UNIT
 Rinker Design Associates, P.C.
 Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Springfield, VA; Vienna, VA; Woodbridge, VA



PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Grading Plan

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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	226

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

Drainage Design Legend

- Denotes Srd.UD-1 Req'd.
- Denotes UD-4 Req'd.
- Denotes CD-2 Req'd.
- Denotes Srd.CD-1 Req'd.
- Denotes Srd.EW-12 Req'd.
- To Be Abandoned
- To Be Removed
- To Be Cleaned Out

R/W Legend

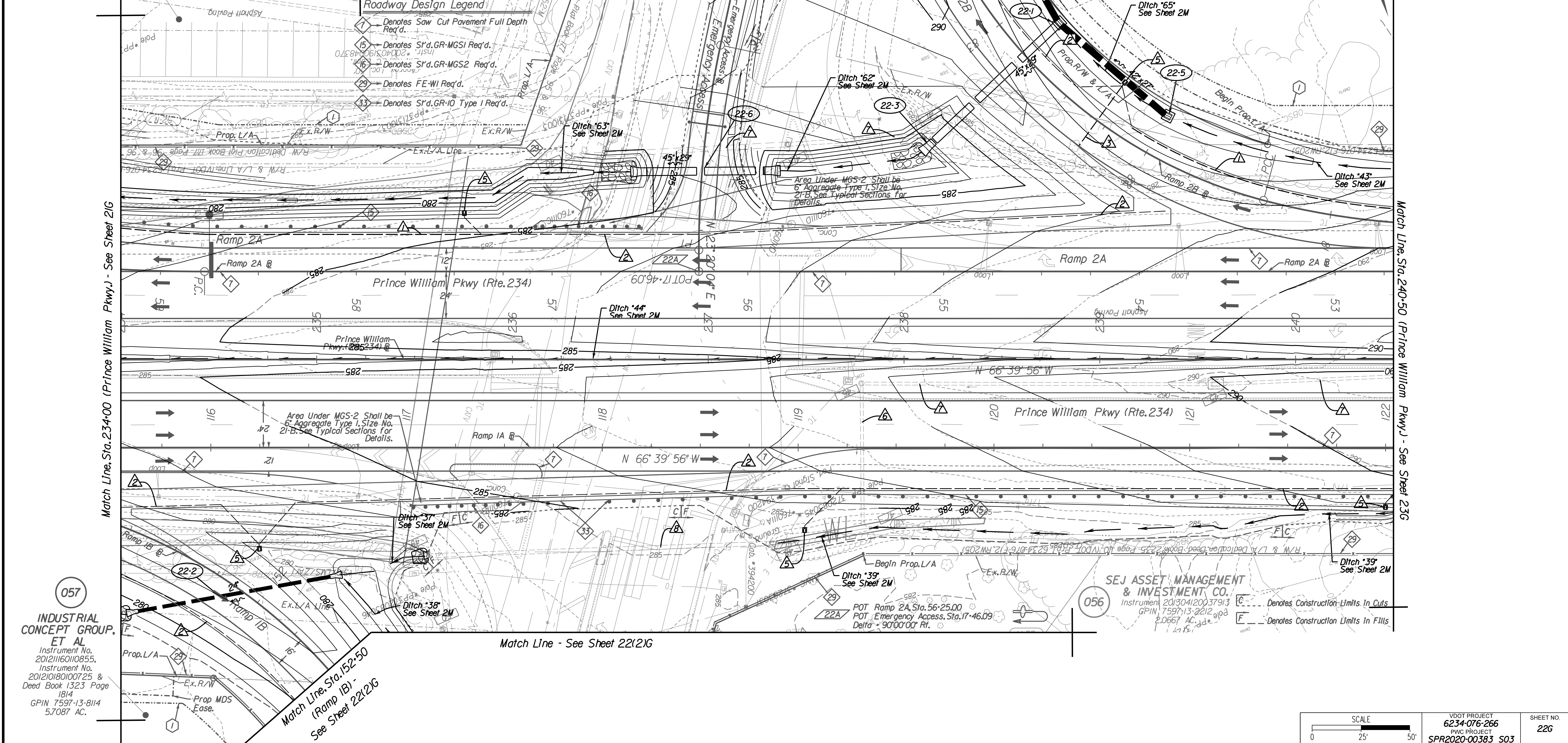
- Denotes Prop.Temp.Constr.Ease.
- Denotes Prop.Temp.Constr.Ease. For Entrances & Parking Lots
- Denotes Prop.Perm.Drain. Ease.

02 Revised grading and ditch/storm sewer alignment.

052
WILSON CAPITAL PROPERTIES, LLC
Instrument 200305070082521
GPI# 7597-12-4139
Instrument 200103290029449 Plat 4.4548 AC.

Roadway Design Legend

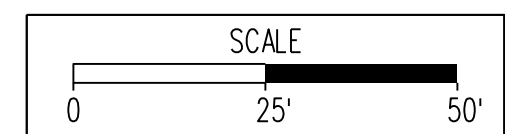
- Denotes Saw Cut Pavement Full Depth Req'd.
- Denotes Srd.GR-MGS1 Req'd.
- Denotes Srd.GR-MGS2 Req'd.
- Denotes FE-WI Req'd.
- Denotes Srd.GR-10 Type I Req'd.



057
INDUSTRIAL CONCEPT GROUP, ET AL
Instrument No. 20121160110855,
Instrument No. 201210180100725 & Deed Book 1323 Page 1814
GPI# 7597-13-8114
5.7087 AC.

SEJ ASSET MANAGEMENT & INVESTMENT CO.
Instrument 201304120037913
GPI# 7597-13-2212
2.0667 AC.

- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills



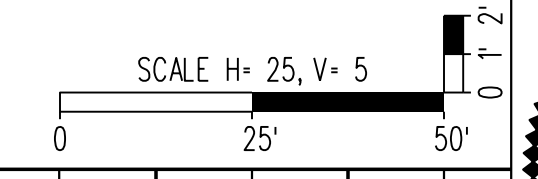
6/24/2021 NOVA DISTRICT DESIGN UNIT

 Design Associates, P.C.

 Office Locations: Virginia, North Carolina, South Carolina, Florida, Georgia, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Kansas, Nebraska, Iowa, Missouri, Arkansas, Louisiana, Mississippi, Alabama, Georgia, Florida, South Carolina, North Carolina, Virginia

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11 2020
DESIGN BY Rinker Design Associates, Mark Gunn PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

02 Revised Ditch 44.



Professional Engineer seals for Adam D. Welschenbach, Lic. No. 044359, Commonwealth of Virginia.

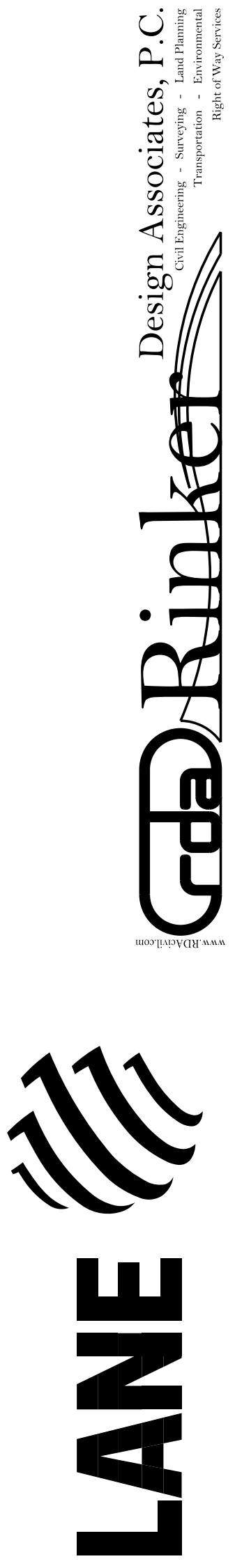
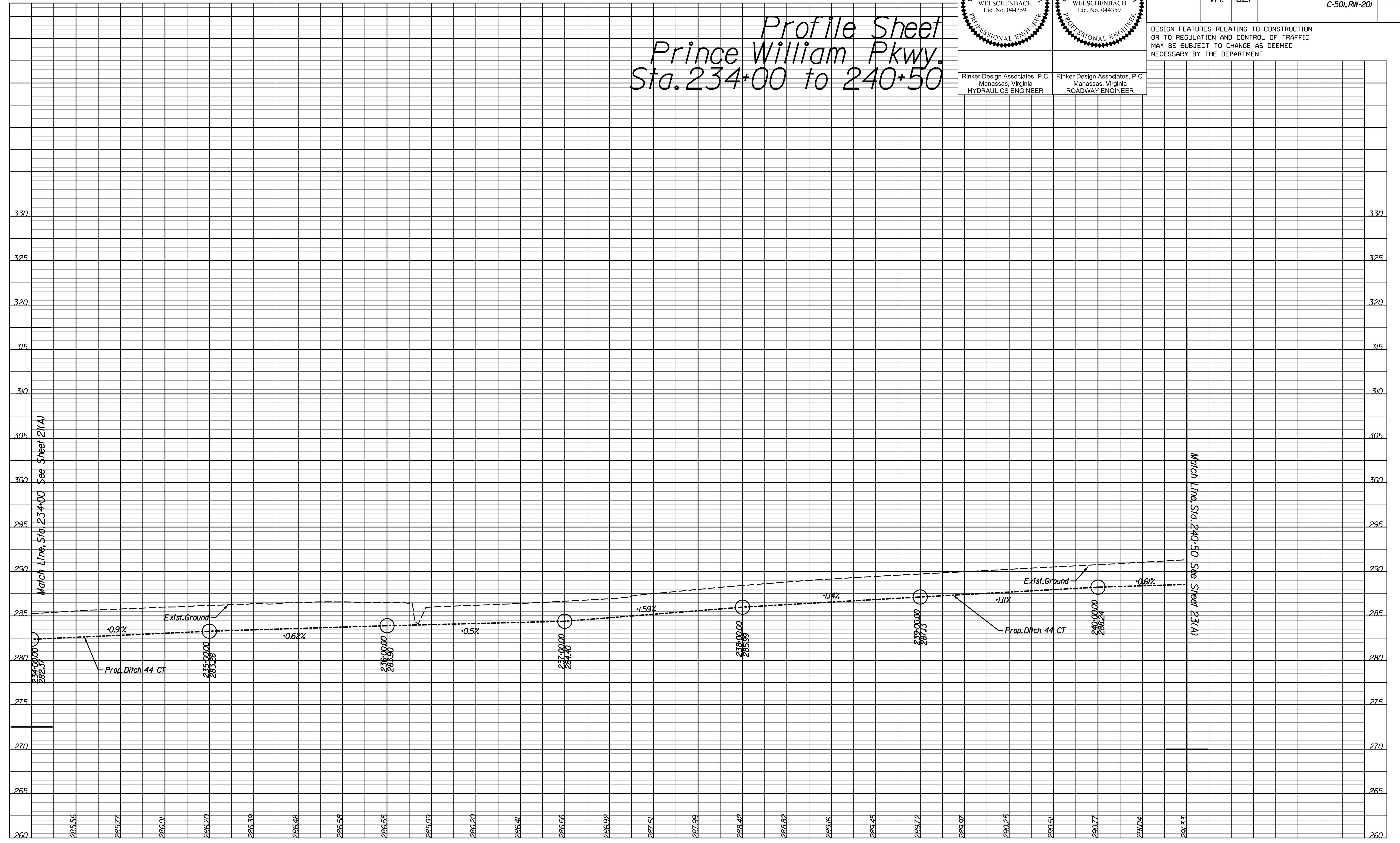
Rinker Design Associates, P.C. Manassas, Virginia
HYDRAULICS ENGINEER

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

REVISED NDC02	STATE VA.	ROUTE 621	STATE PROJECT 6234-076-266, C-501, RW-201	SHEET NO. 22A
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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

Profile Sheet Prince William Pkwy. Sta. 234+00 to 240+50



PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

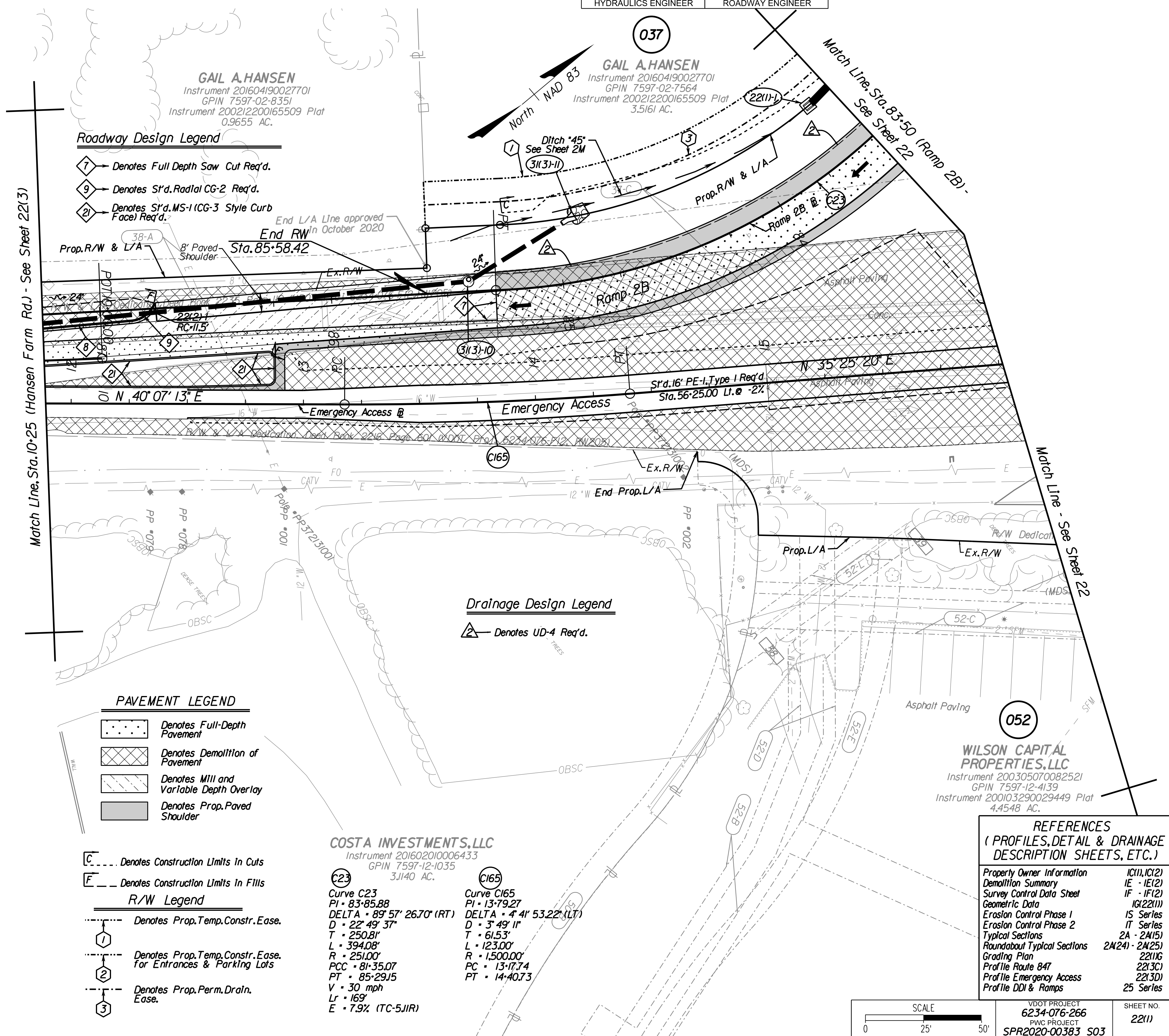
COMMONWEALTH OF VIRGINIA
 ADAM D. WELSCHENBACH
 Lic. No. 044359
 PROFESSIONAL ENGINEER

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

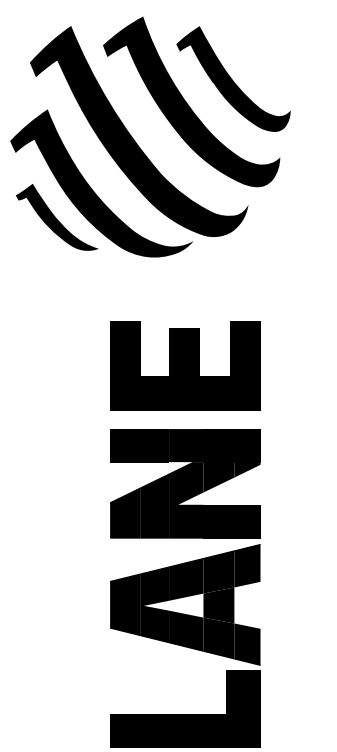
REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	62I		6234-076-266, C-501, RW-201	22(1)

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

02 Revised cut/fill limits and ditch alignment. Added emergency access entrance. Added Right of Way to Parcel 037.



6/24/2021 NOVA DISTRICT DESIGN UNIT
 Rinker Design Associates, P.C.
 Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Springfield, VA; Washington, DC; York, VA
 Services: Surveying, Land Planning, Transportation, Right of Way Services



PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

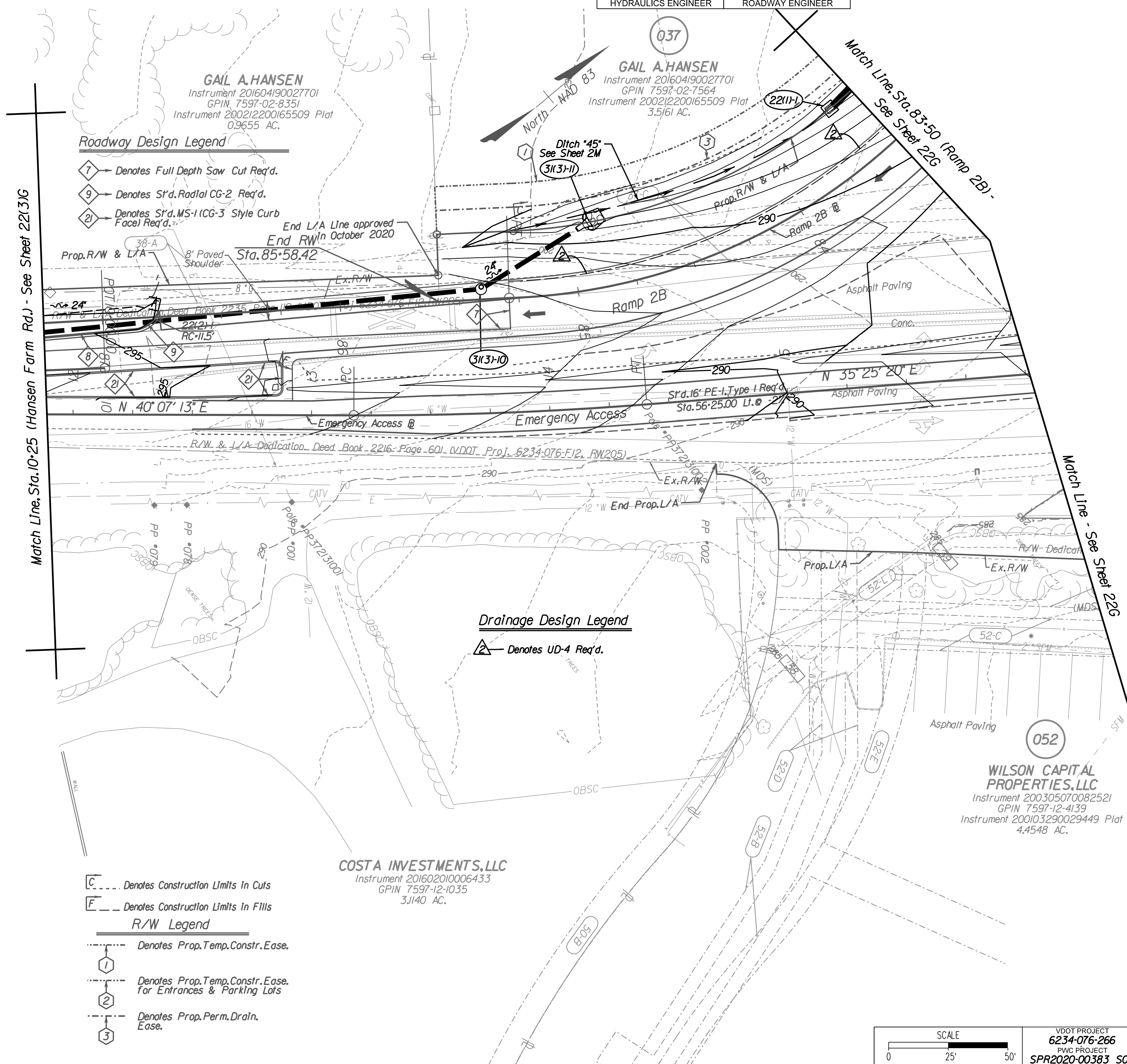
Grading Plan

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

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	62I		6234-076-266, C-501, RW-201	2211G

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

02 Revised grading and ditch alignment.
 Added emergency access entrance.



- ### Roadway Design Legend
- Denotes Full Depth Saw Cut Req'd.
 - Denotes Str'd. Radial CG-2 Req'd.
 - Denotes Str'd. MS-1 (CG-3 Style Curb Face) Req'd.

- ### Drainage Design Legend
- Denotes UD-4 Req'd.

- ### R/W Legend
- Denotes Construction Limits in Cuts
 - Denotes Construction Limits in Fills
 - Denotes Prop. Temp. Constr. Ease.
 - Denotes Prop. Temp. Constr. Ease for Entrances & Parking Lots
 - Denotes Prop. Perm. Drain. Ease.

SCALE 0 25' 50'

VDOT PROJECT 6234-076-266	SHEET NO. 2211G
PNC PROJECT SPR2020-00383 S03	

6/24/2021 NOVA DISTRICT DESIGN UNIT

 Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation - Right of Way Services
 Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Washington, DC

PROJECT MANAGER PWC_DOT: Mary Ankers (703)792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

02 Added sheet.

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	62/	6234-076-266, C-501, RW-201	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

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

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

Drainage Design Legend

- Denotes UD-4 Req'd.
- Denotes CD-2 Req'd.
- Denotes Outlet Pipe

PAVEMENT LEGEND

- Denotes Full-Depth Pavement
- Denotes Demolition of Pavement
- Denotes Mill and Variable Depth Overlay
- Denotes Prop. Paved Shoulder

R/W Legend

- Denotes Prop. Temp. Constr. Easement
- Denotes Prop. Temp. Constr. Easement for Entrances & Parking Lots
- Denotes Prop. Perm. Drain. Easement
- Denotes Prop. VDOT Util. Easement

Curve C154
PI • 59+41.33
DELTA • 82°13'21.72" (LT)
D • 222.28'08"
T • 365.94'
L • 255.00'
PC • 57+18.79
PT • 60+84.73
V • 25 mph
LR • N/A
E • ULS

Curve C153
PI • 54+53.58
DELTA • 55°00'06.93" (LT)
D • 32'33"16"
T • 91.62'
L • 168.95'
R • 176.00'
PC • 53+61.96
PT • 55+30.91
V • 25 mph
LR • N/A
E • ULS

Curve C150
PI • 51+22.24
DELTA • 3°43'16.79" (RT)
D • 2'51"53"
T • 64.97'
L • 129.00'
PC • 50+57.26
PT • 51+87.16

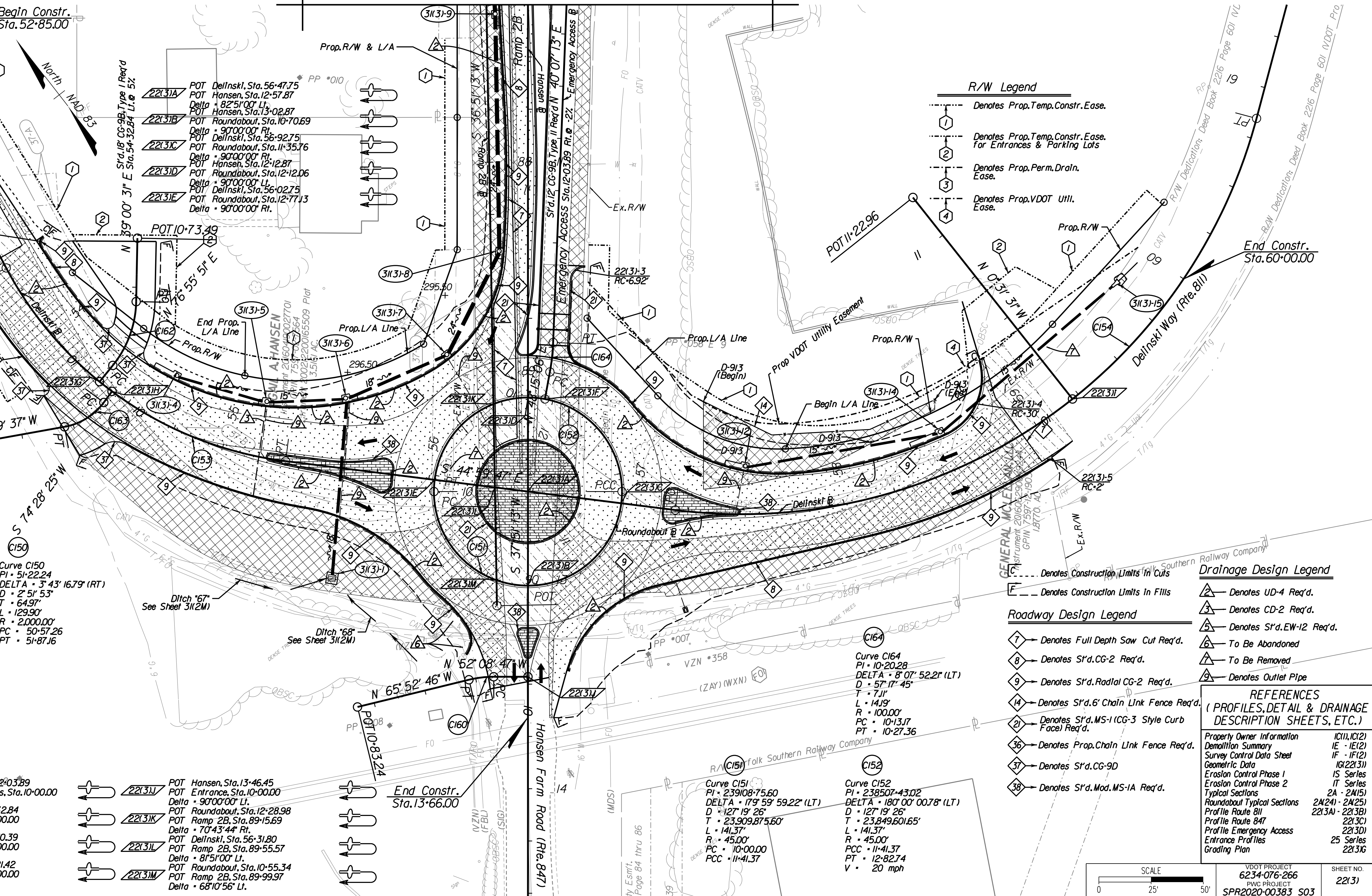
Curve C163
PI • 10+18.49
DELTA • 43°11'58.62" (RT)
D • 190'59"09"
T • 11.88'
L • 22.62'
R • 30.00'
PC • 10+06.61
PT • 10+29.23

Curve C162
PI • 10+27.22
DELTA • 37°55'19.67" (LT)
D • 114'35"30"
T • 17.18'
L • 33.09'
R • 50.00'
PC • 10+10.04
PT • 10+43.13

Curve C163
PI • 10+18.49
DELTA • 43°11'58.62" (RT)
D • 190'59"09"
T • 11.88'
L • 22.62'
R • 30.00'
PC • 10+06.61
PT • 10+29.23

Curve C164
PI • 10+20.28
DELTA • 8°07'52.21" (LT)
D • 57'17"45"
T • 7.11'
L • 14.19'
R • 100.00'
PC • 10+13.17
PT • 10+27.36

Curve C152
PI • 238507+43.02
DELTA • 180°00'00.78" (LT)
D • 127'19"26"
T • 23,849,601.65'
L • 141.37'
R • 45.00'
PC • 10+00.00
PT • 12+82.74
V • 20 mph



Drainage Design Legend

- Denotes UD-4 Req'd.
- Denotes CD-2 Req'd.
- Denotes S'd. EW-12 Req'd.
- To Be Abandoned
- To Be Removed
- Denotes Outlet Pipe

Roadway Design Legend

- Denotes Full Depth Saw Cut Req'd.
- Denotes S'd. CG-2 Req'd.
- Denotes S'd. Radial CG-2 Req'd.
- Denotes S'd. 6' Chain Link Fence Req'd.
- Denotes S'd. MS-1 (CG-3 Style Curb Face) Req'd.
- Denotes Prop. Chain Link Fence Req'd.
- Denotes S'd. CG-9D
- Denotes S'd. Mod. MS-1A Req'd.

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

Property Owner Information IC(11), IC(12)
Demolition Summary IE - IE(12)
Survey Control Data Sheet IF - IF(12)
Geometric Data IG(22)(31)
Erosion Control Phase 1 IS Series
Erosion Control Phase 2 IT Series
Typical Sections 2A - 2A(15)
Roundabout Typical Sections 2A(24) - 2A(25)
Profile Route 811 22(3A) - 22(3B)
Profile Route 847 22(3C)
Profile Emergency Access 22(3D)
Entrance Profiles 25 Series
Grading Plan 22(3G)

SCALE
0 25' 50'

VDOT PROJECT
6234-076-266
PNC PROJECT
SPR2020-00383 S03

SHEET NO.
22(3)

NOVA DISTRICT DESIGN UNIT

LANE

Design Associates, P.C.

Office Locations:
Manassas, VA
Falls Church, VA
Reston, VA
Sterling, VA
Warrenton, OR
Portland, OR
Seattle, WA
Tacoma, WA
Spokane, WA
Portland, ME
Portland, NH
Portland, VT
Portland, CT
Portland, RI
Portland, NJ
Portland, DE
Portland, MD
Portland, DC
Portland, VA
Portland, NC
Portland, SC
Portland, GA
Portland, FL
Portland, HI

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

02 Added sheet.

Grading Plan

		REVISION	STATE	ROUTE	PROJECT	SHEET NO.
		NDC02	VA.	62/	6234-076-266, C-501, RW-201	22(3)G
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 Associates, P.C. Manassas, Virginia HYDRAULICS ENGINEER		Rinker Design Associates, P.C. Manassas, Virginia ROADWAY ENGINEER				

NOVA DISTRICT DESIGN UNIT

Design Associates, P.C.
Civil Engineering - Surveying - Land Planning - Transportation - Environmental Engineering - Public Works Services

Drainage Design Legend

- Denotes UD-4 Req'd.
- Denotes CD-2 Req'd.
- Denotes Outlet Pipe

R/W Legend

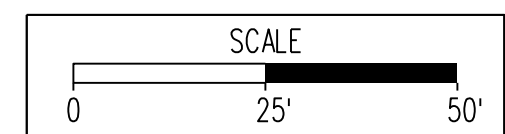
- Denotes Prop.Temp.Constr.Ease.
- Denotes Prop.Temp.Constr.Ease. for Entrances & Parking Lots
- Denotes Prop.Perm.Drain. Ease.
- Denotes Prop.VDOT UTIL. Ease.

Construction Limits Legend

- Denotes Construction Limits in Cuts
- Denotes Construction Limits in Fills

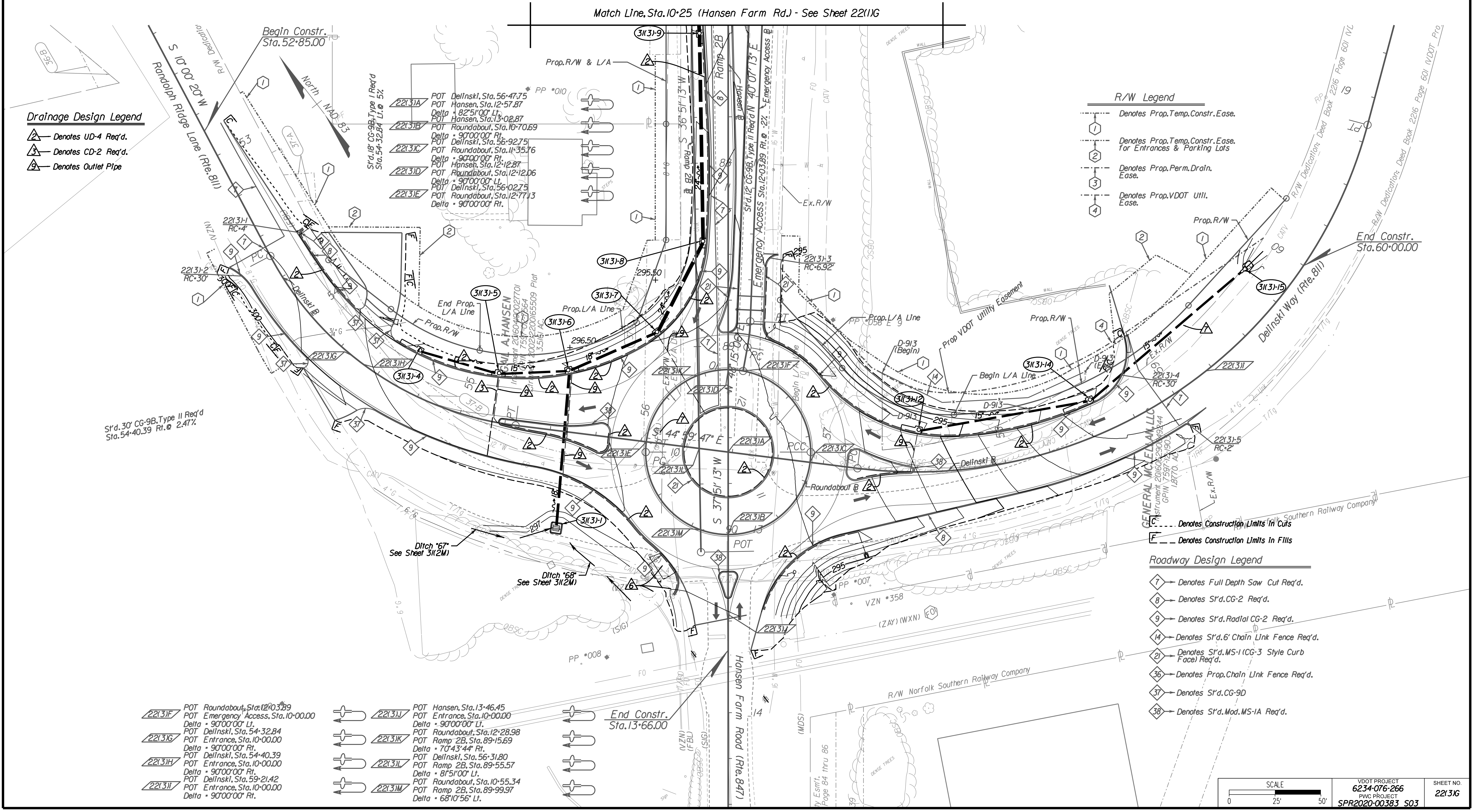
Roadway Design Legend

- Denotes Full Depth Saw Cut Req'd.
- Denotes S'd.CG-2 Req'd.
- Denotes S'd.Radial CG-2 Req'd.
- Denotes S'd.6' Chain Link Fence Req'd.
- Denotes S'd.MS-1 (CG-3 Style Curb Face) Req'd.
- Denotes Prop.Chain Link Fence Req'd.
- Denotes S'd.CG-9D
- Denotes S'd.Mod.MS-1A Req'd.



VDOT PROJECT
6234-076-266
PNC PROJECT
SPR2020-00383 S03

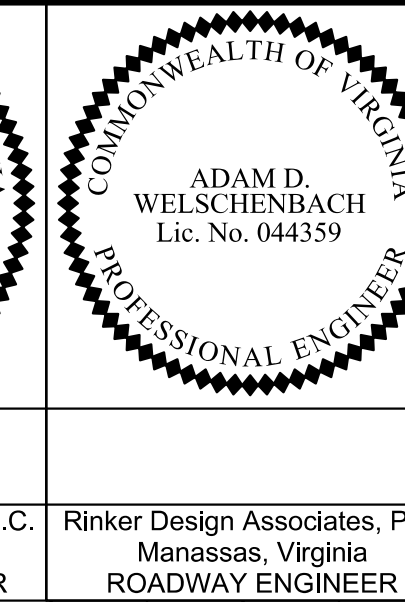
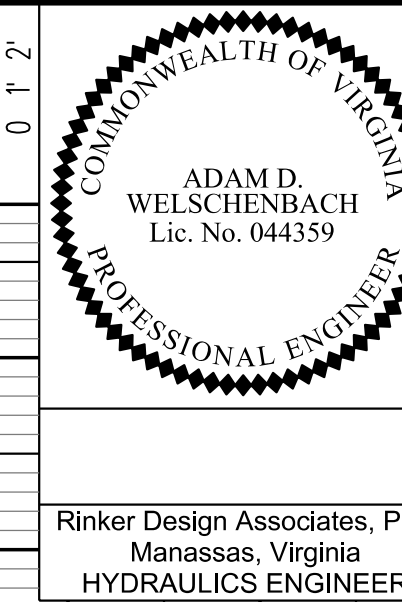
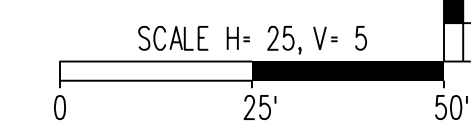
SHEET NO.
22(3)G



- | | | |
|--|---|--|
| <ul style="list-style-type: none"> 22(3)F POT Roundabout, Sta. 12+03.89 22(3)G POT Emergency Access, Sta. 10+00.00 22(3)H POT Delinski, Sta. 54+40.39 22(3)I POT Entrance, Sta. 10+00.00 22(3)J POT Entrance, Sta. 10+00.00 22(3)K POT Ramp 2B, Sta. 89+55.57 22(3)L POT Delinski, Sta. 56+31.80 22(3)M POT Ramp 2B, Sta. 89+55.57 | <ul style="list-style-type: none"> 22(3)N POT Hansen, Sta. 13+46.45 22(3)O POT Entrance, Sta. 10+00.00 22(3)P POT Roundabout, Sta. 12+28.98 22(3)Q POT Ramp 2B, Sta. 89+55.57 22(3)R POT Delinski, Sta. 56+31.80 22(3)S POT Ramp 2B, Sta. 89+55.57 22(3)T POT Entrance, Sta. 10+00.00 22(3)U POT Ramp 2B, Sta. 89+99.97 | <ul style="list-style-type: none"> 31(3)A POT Delinski, Sta. 56+47.75 31(3)B POT Hansen, Sta. 12+57.87 31(3)C POT Roundabout, Sta. 10+70.69 31(3)D POT Roundabout, Sta. 11+35.76 31(3)E POT Delinski, Sta. 56+02.75 31(3)F POT Roundabout, Sta. 12+77.13 31(3)G End Prop. L/A Line 31(3)H Prop. L/A Line 31(3)I Ditch #57 See Sheet 31(2)M 31(3)J Ditch #68 See Sheet 31(2)M 31(3)K End Constr. Sta. 13+66.00 |
|--|---|--|

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11, 2020
DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

02 Added sheet.



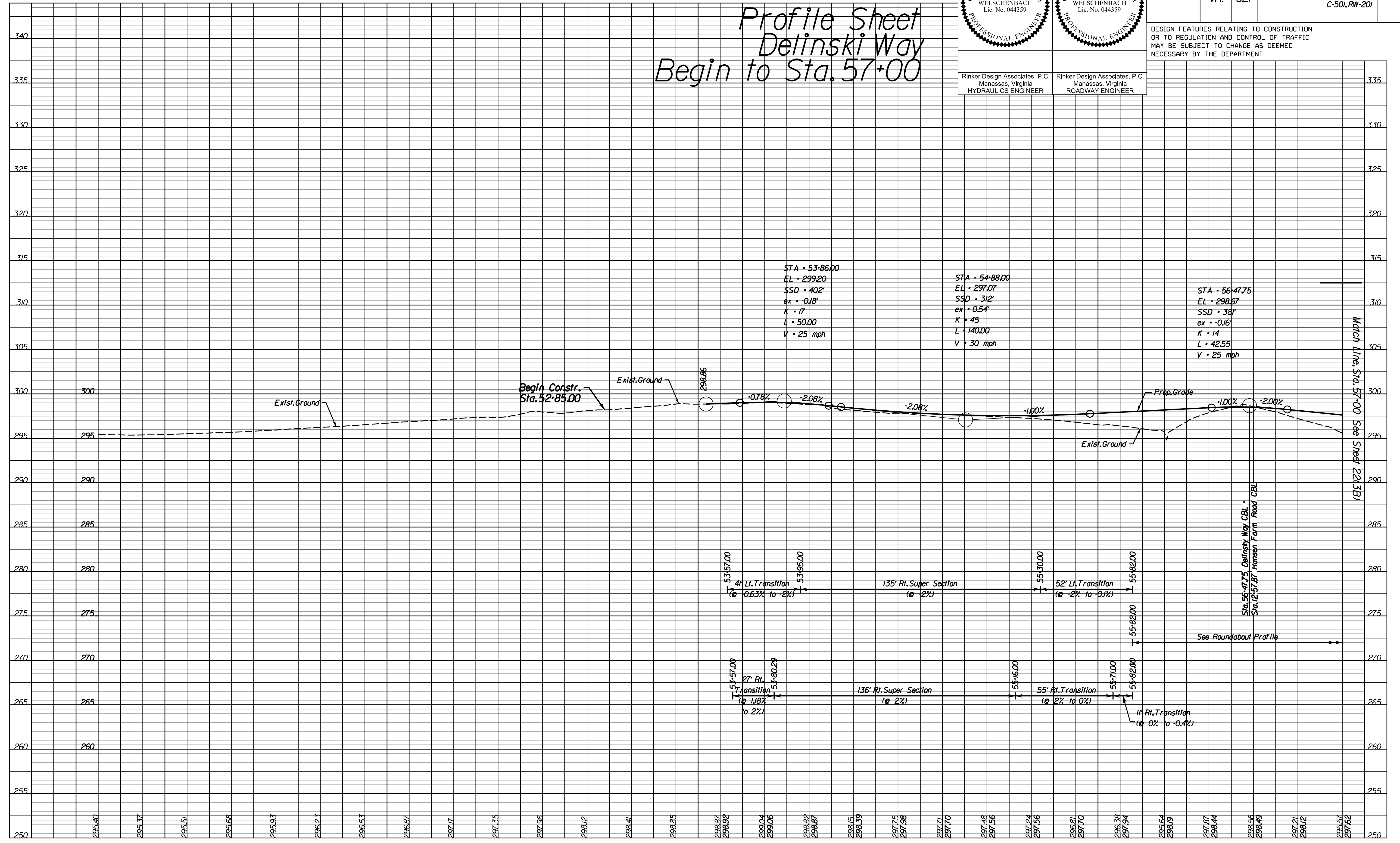
REVISED NDC02	STATE VA.	ROUTE 621	STATE PROJECT 6234-076-266, C-501, RW-201	SHEET NO. 2213A1
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DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

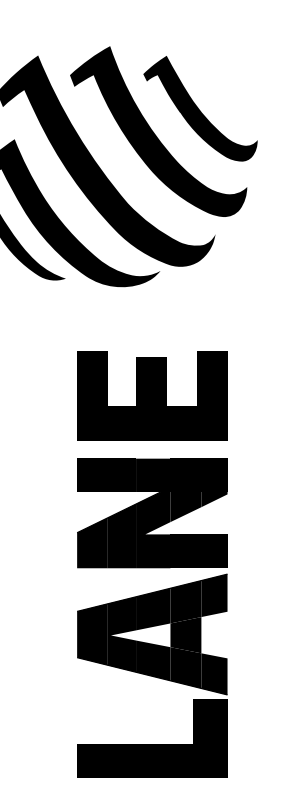
Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

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

Profile Sheet
Delinski Way
Begin to Sta. 57+00

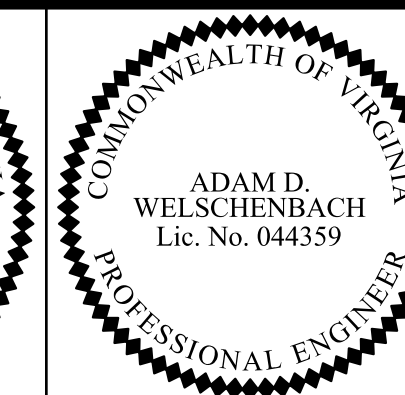
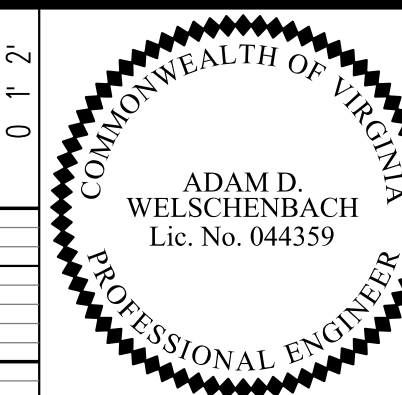
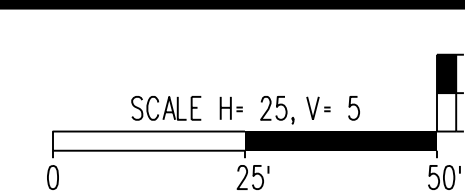


NOVA DISTRICT DESIGN UNIT
Rinker Design Associates, P.C.



PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11 2020
DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

02 Added sheet.



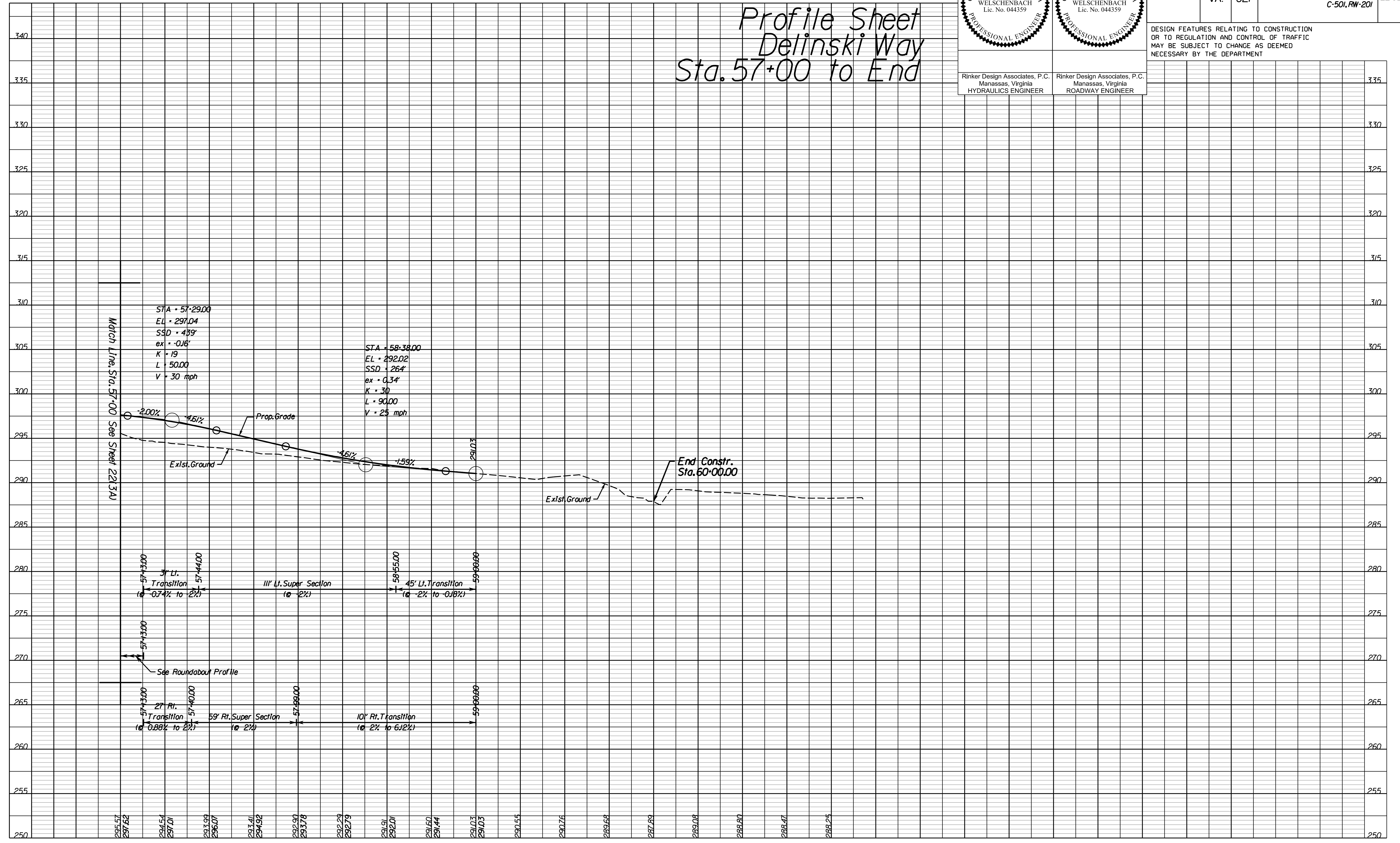
Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

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

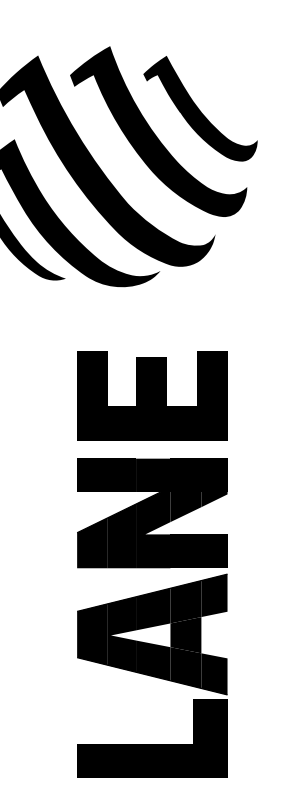
REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	221(3B)

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

Profile Sheet
Delinski Way
Sta. 57+00 to End



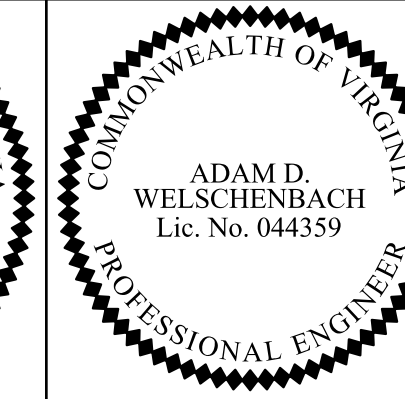
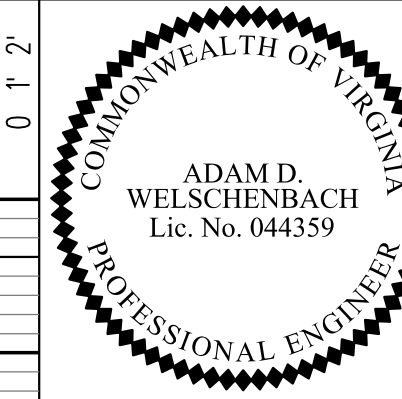
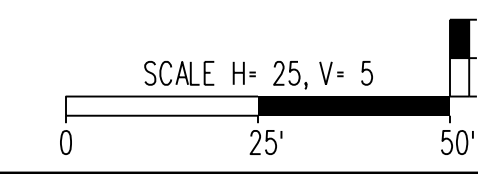
Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Right of Way Services



NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11, 2020
DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

02 Added sheet.



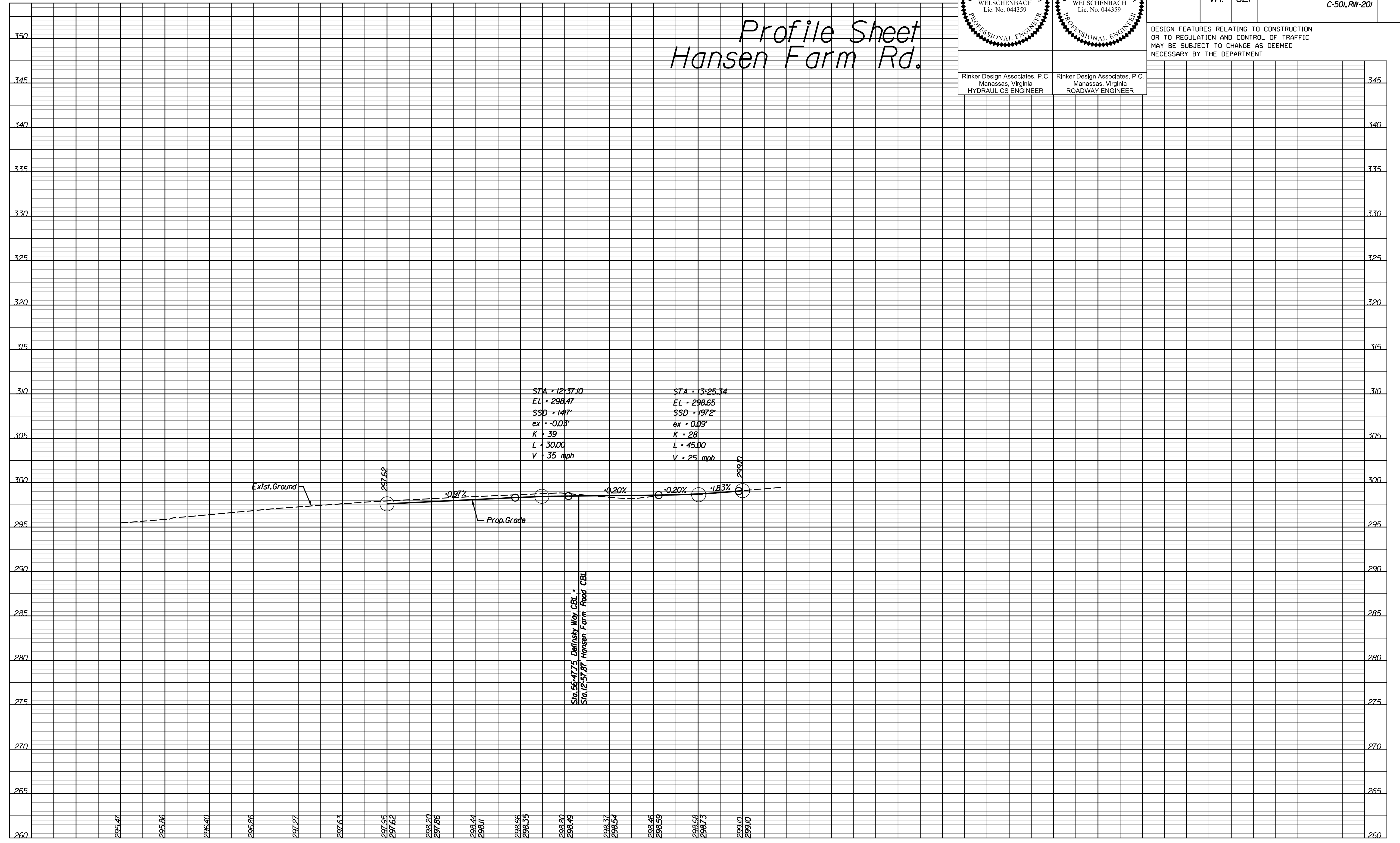
Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

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

REVISED NDC02	STATE VA.	ROUTE 621	STATE PROJECT 6234-076-266, C-501, RW-201	SHEET NO. 2213C1
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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

Profile Sheet Hansen Farm Rd.



Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Right of Way Services

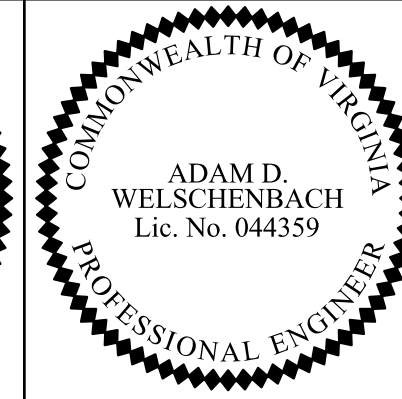
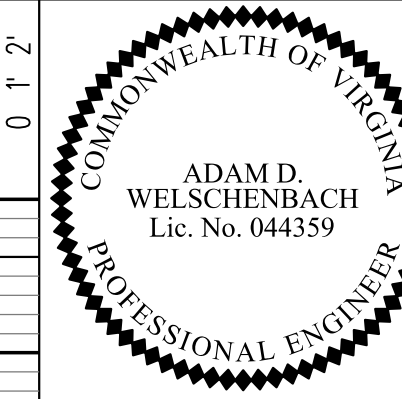
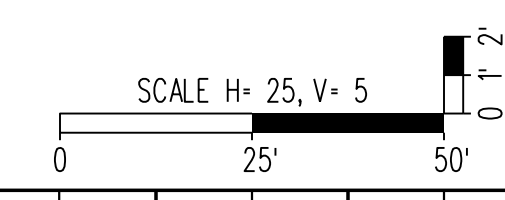


LANE

NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11 2020
DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

02 Added sheet.



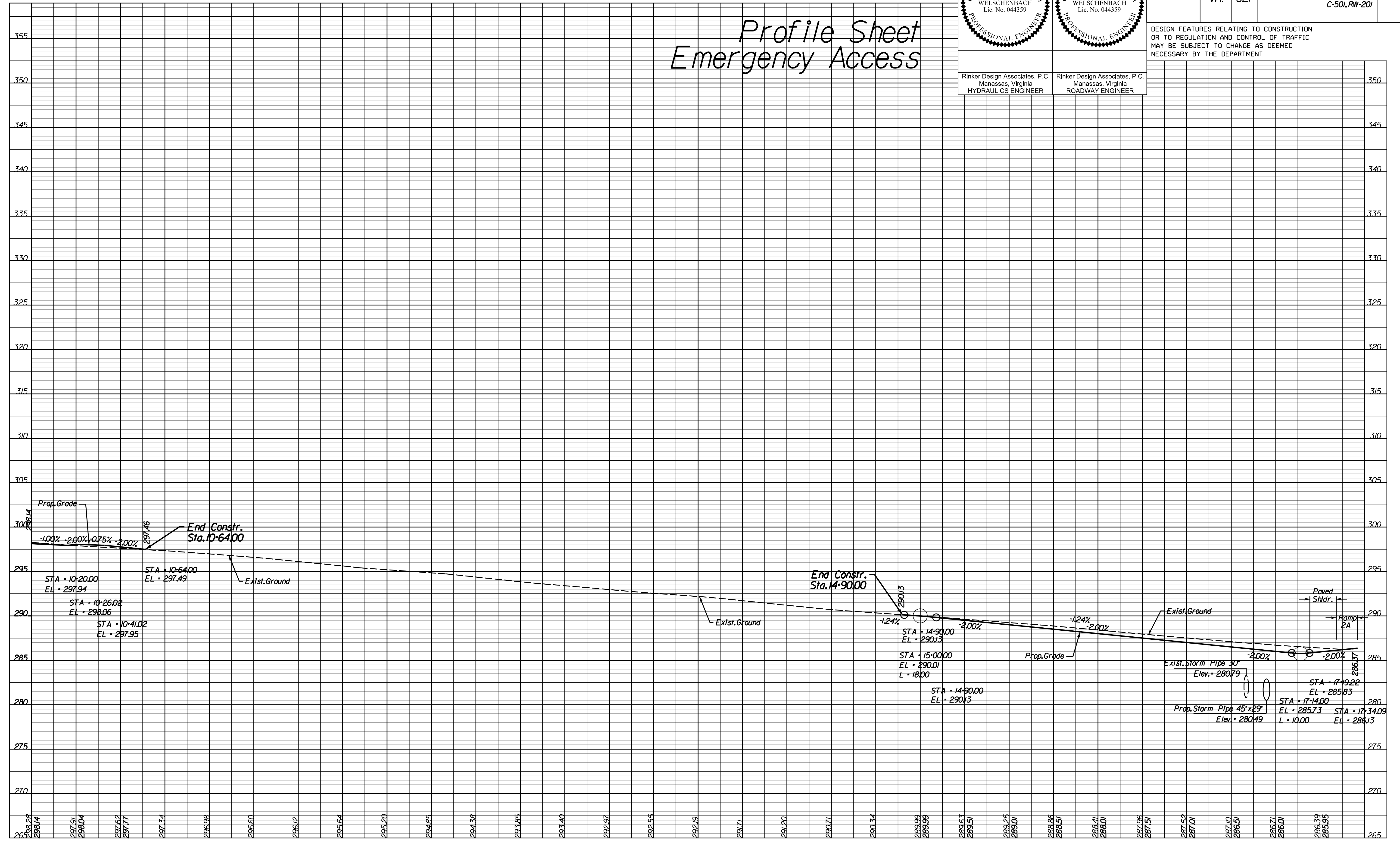
Rinker Design Associates, P.C.
Manassas, Virginia
HYDRAULICS ENGINEER

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

REVISED NDC02	STATE VA.	ROUTE 621	STATE PROJECT 6234-076-266, C-501, RW-201	SHEET NO. 2213D1
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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

Profile Sheet Emergency Access



Design Associates, P.C.

LANE

NOVA DISTRICT DESIGN UNIT

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	23

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

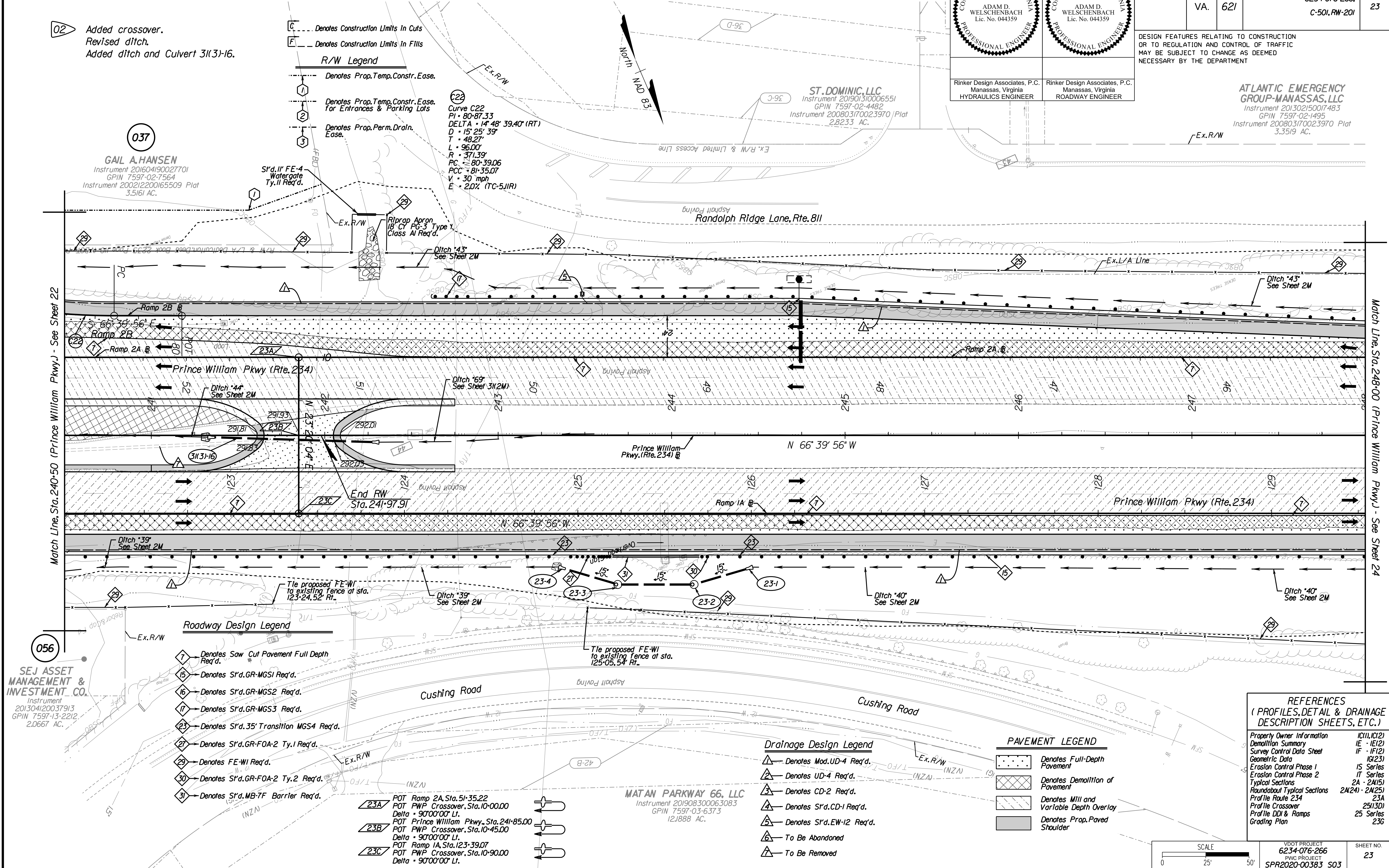
ATLANTIC EMERGENCY GROUP-MANASSAS, LLC
 Instrument 201302150017483
 GPIN 7597-02-1495
 Instrument 200803170023970 Plat 3.3519 AC.

- R/W Legend**
- Denotes Construction Limits In Cuts
 - Denotes Construction Limits In Fills
 - Denotes Prop. Temp. Constr. Ease.
 - Denotes Prop. Temp. Constr. Ease. for Entrances & Parking Lots
 - Denotes Prop. Perm. Drain. Ease.

Curve C22
 PI = 80+87.33
 DELTA = 14° 48' 39.40" (RT)
 D = 15' 25' 39"
 T = 48.27'
 L = 96.00'
 R = 371.39'
 PC = 80+39.06
 PCC = 81+35.07
 V = 30 mph
 E = 2.0% (TC-5JIR)

037 GAIL A. HANSEN
 Instrument 201604190027701
 GPIN 7597-02-7564
 Instrument 200212200165509 Plat 3.5161 AC.

ST. DOMINIC, LLC
 Instrument 201901310006551
 GPIN 7597-02-4482
 Instrument 200803170023970 Plat 2.8233 AC.



- Roadway Design Legend**
- Denotes Saw Cut Pavement Full Depth Req'd.
 - Denotes S'd. GR-MGS1 Req'd.
 - Denotes S'd. GR-MGS2 Req'd.
 - Denotes S'd. GR-MGS3 Req'd.
 - Denotes S'd. 35' Transition MGS4 Req'd.
 - Denotes S'd. GR-FOA-2 Ty.1 Req'd.
 - Denotes FE-WI Req'd.
 - Denotes S'd. GR-FOA-2 Ty.2 Req'd.
 - Denotes S'd. MB-7F Barrier Req'd.

- 23A** POT Ramp 2A, Sta. 51+35.22
POT PWP Crossover, Sta. 10+00.00
Delta = 90°00'00" Lt.
- 23B** POT Prince William Pkwy, Sta. 241+85.00
POT PWP Crossover, Sta. 10+45.00
Delta = 90°00'00" Lt.
- 23C** POT Ramp 1A, Sta. 123+39.07
POT PWP Crossover, Sta. 10+90.00
Delta = 90°00'00" Lt.

- Drainage Design Legend**
- Denotes Mod. UD-4 Req'd.
 - Denotes UD-4 Req'd.
 - Denotes CD-2 Req'd.
 - Denotes S'd. CD-1 Req'd.
 - Denotes S'd. EW-12 Req'd.
 - To Be Abandoned
 - To Be Removed

- PAVEMENT LEGEND**
- Denotes Full-Depth Pavement
 - Denotes Demolition of Pavement
 - Denotes Mill and Variable Depth Overlay
 - Denotes Prop. Paved Shoulder

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

Property Owner Information	IC(11), IC(12)
Demolition Summary	IE - IE(12)
Survey Control Data Sheet	IF - IF(12)
Geometric Data	IG(23)
Erosion Control Phase 1	IS Series
Erosion Control Phase 2	IT Series
Typical Sections	2A - 2A(15)
Roundabout Typical Sections	2A(24) - 2A(25)
Profile Route 234	23A
Profile Crossover	25(13D)
Profile DDI & Ramps	25 Series
Grading Plan	23G

SCALE	VDOT PROJECT	SHEET NO.
0 25' 50'	6234-076-266	23
	SPR2020-00383 S03	

NOVA DISTRICT DESIGN UNIT

 Design Associates, P.C.

 Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Springfield, VA; Vienna, VA; Woodbridge, VA; Yorktown, VA

PROJECT MANAGER PWC DOT, Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 369-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Acumark (703) 635-3060, May 2020

Grading Plan

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

REVISED	STATE	ROUTE	STATE	PROJECT	SHEET NO.
NDC02	VA.	621		6234-076-266, C-501, RW-201	236

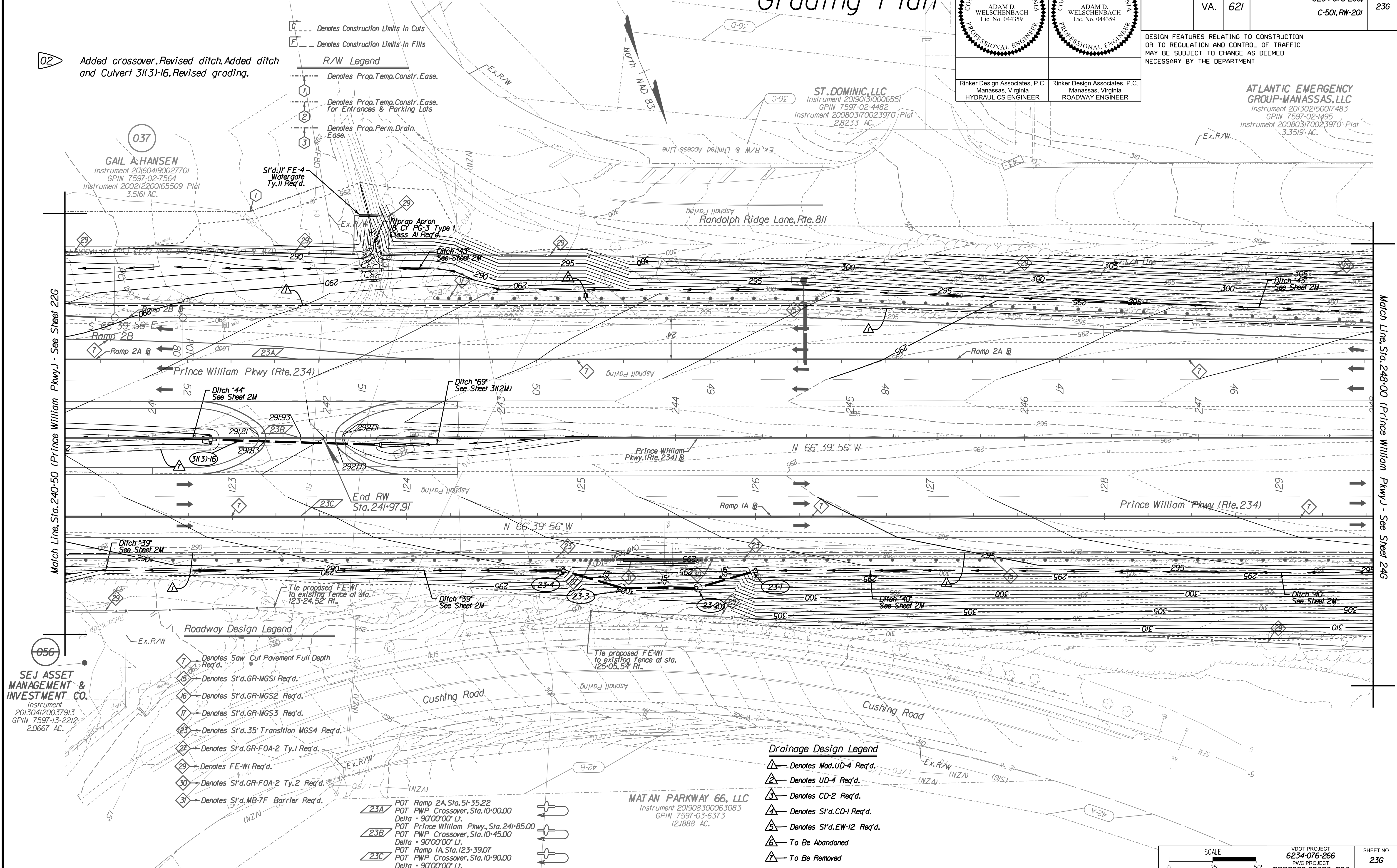
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

ATLANTIC EMERGENCY GROUP-MANASSAS, LLC
 Instrument 201302150017483
 GPIIN 7597-02-1495
 Instrument 200803170023970-Plat 3.3519 AC.

6/24/2021 NOVA DISTRICT DESIGN UNIT

 Design Associates, P.C.

 Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Springfield, VA; Stafford, VA; Warrenton, OR; Washington, DC; York, PA



02 Added crossover. Revised ditch. Added ditch and Culvert 31(3)-16. Revised grading.

- R/W Legend**
- Denotes Construction Limits In Cuts
 - Denotes Construction Limits In Fills
 - Denotes Prop. Temp. Constr. Ease.
 - Denotes Prop. Temp. Constr. Ease. for Entrances & Parking Lots
 - Denotes Prop. Perm. Drain. Ease.

037 **GAIL A. HANSEN**
 Instrument 201604190027701
 GPIIN 7597-02-7564
 Instrument 200212200165509 Plat 3.5161 AC.

ST. DOMINIC, LLC
 Instrument 201901310006551
 GPIIN 7597-02-4482
 Instrument 200803170023970 Plat 2.8233 AC.

Match Line, Sta. 240+50 (Prince William Pkwy.) - See Sheet 226

Match Line, Sta. 248+00 (Prince William Pkwy.) - See Sheet 246

- Roadway Design Legend**
- 17 Denotes Saw Cut Pavement Full Depth Req'd.
 - 15 Denotes Sr'd. GR-MGS1 Req'd.
 - 16 Denotes Sr'd. GR-MGS2 Req'd.
 - 17 Denotes Sr'd. GR-MGS3 Req'd.
 - 23 Denotes Sr'd. 35' Transition MGS4 Req'd.
 - 27 Denotes Sr'd. GR-FOA-2 Ty. 1 Req'd.
 - 29 Denotes FE-WI Req'd.
 - 30 Denotes Sr'd. GR-FOA-2 Ty. 2 Req'd.
 - 31 Denotes Sr'd. MB-7F Barrier Req'd.

- Drainage Design Legend**
- ▲ Denotes Mod. UD-4 Req'd.
 - ▲ Denotes UD-4 Req'd.
 - ▲ Denotes CD-2 Req'd.
 - ▲ Denotes Sr'd. CD-1 Req'd.
 - ▲ Denotes Sr'd. EW-I2 Req'd.
 - ▲ To Be Abandoned
 - ▲ To Be Removed

- 23A POT Ramp 2A, Sta. 51+35.22
POT PWP Crossover, Sta. 10+00.00
Delta = 90'00"00" Lt.
- 23B POT Prince William Pkwy, Sta. 241+85.00
POT PWP Crossover, Sta. 10+45.00
Delta = 90'00"00" Lt.
- 23C POT Ramp IA, Sta. 123+39.07
POT PWP Crossover, Sta. 10+90.00
Delta = 90'00"00" Lt.

MATAN PARKWAY 66, LLC
 Instrument 201908300063083
 GPIIN 7597-03-6373
 12.1888 AC.

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11, 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

02 Revised Ditch 44.

LIMITED ACCESS HIGHWAY

SCALE H: 25, V: 5

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

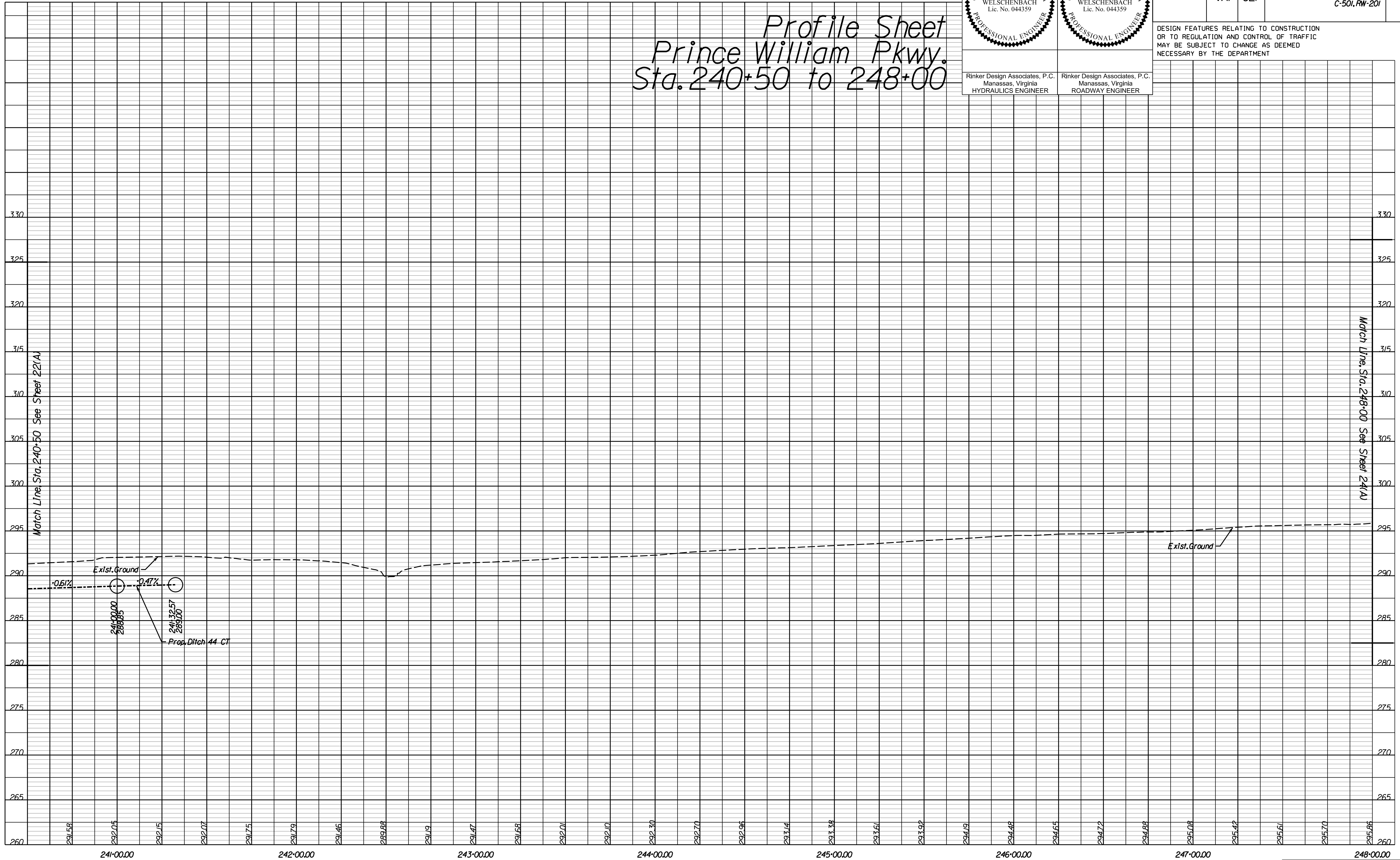
ADAM D. WELSCHENBACH Lic. No. 044359
 COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER

REVISED NDC02	STATE VA.	ROUTE 621	STATE PROJECT 6234-076-266, C-501, RW-201	SHEET NO. 23A
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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

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

Profile Sheet
 Prince William Pkwy.
 Sta. 240+50 to 248+00



6/24/2021 NOVA DISTRICT DESIGN UNIT

LANE

Rinker

Design Associates, P.C.

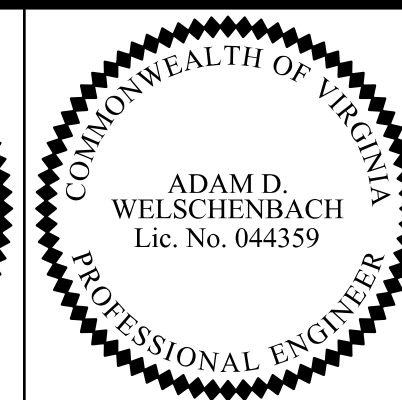
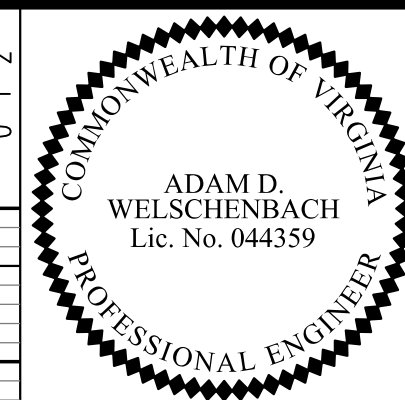
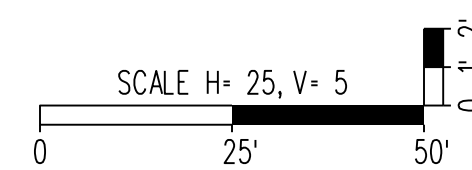
www.Rinker.com

Office Locations: Norfolk, VA; Richmond, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Manassas, VA; Reston, VA; Tyngsboro, VA; Washington, DC; York, VA

Services: Civil Engineering - Surveying - Land Planning - Transportation - Right of Way Services

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, July 2019

02 Added Ditch 54 and 55.



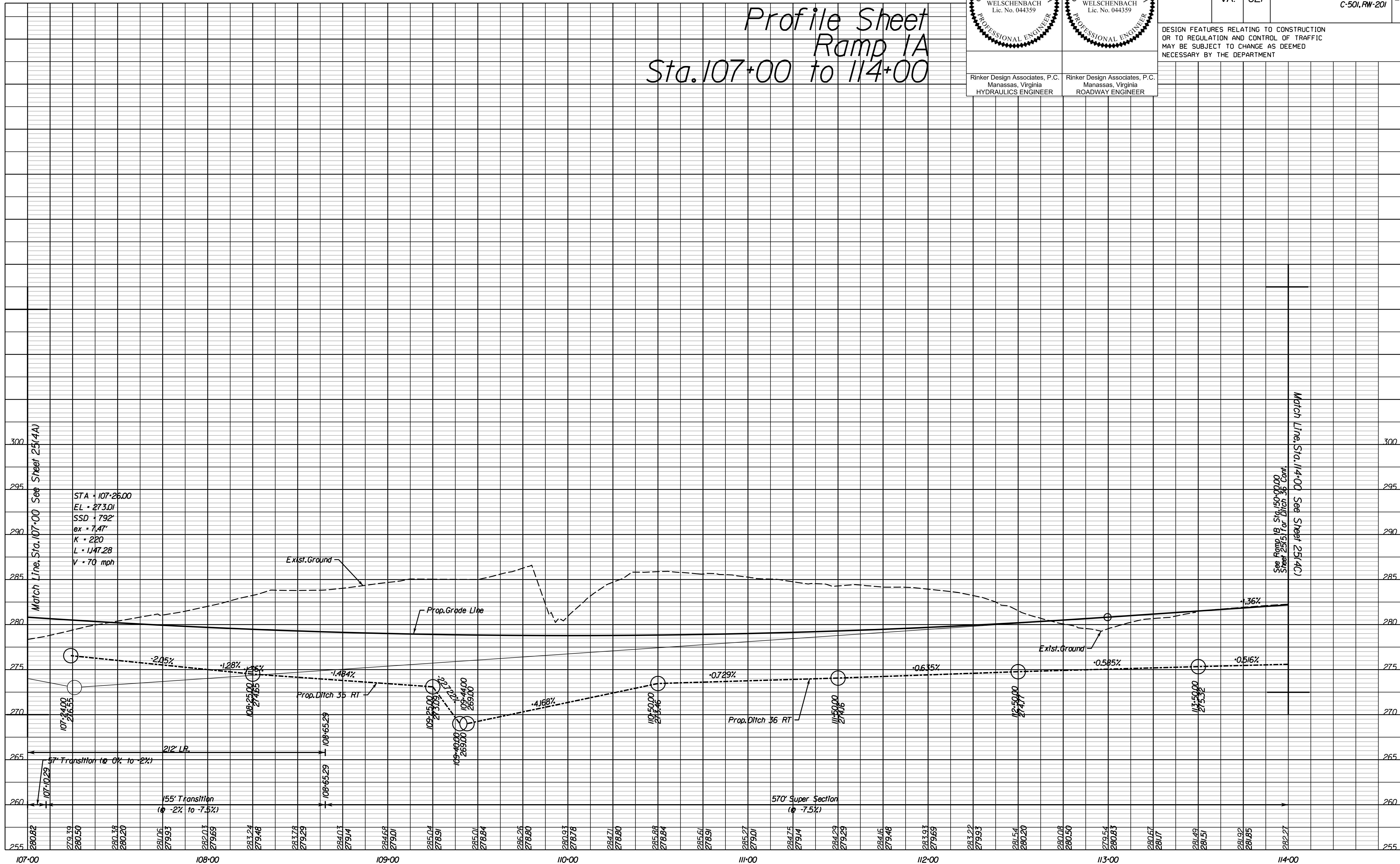
Rinker Design Associates, P.C.
 Manassas, Virginia
 HYDRAULICS ENGINEER

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

REVISED NDC02	STATE VA.	ROUTE 621	STATE VA.	PROJECT 6234-076-266, C-501, RW-201	SHEET NO. 25(4B)
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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

Profile Sheet
 Ramp 1A
 Sta. 107+00 to 114+00



Match Line, Sta. 107+00 See Sheet 25(4A)

Match Line, Sta. 114+00 See Sheet 25(4C)
 See Ramp 1B Sta. 150+00.00 Sheet 25(5) For Ditch 36 Cont.

6/24/2021 NOVA DISTRICT DESIGN UNIT

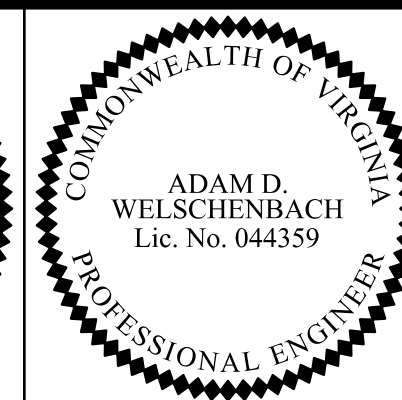
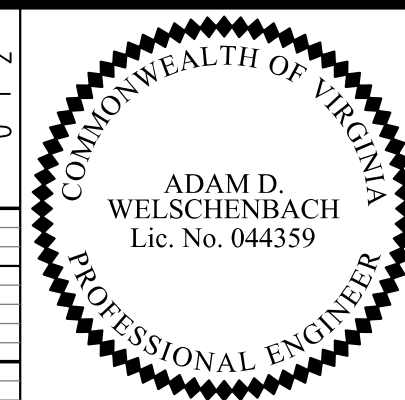
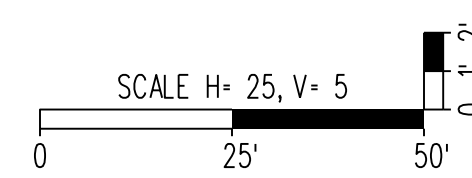
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Services: Civil Engineering, Surveying, Land Planning, Transportation, Right-of-Way Services

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11, 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

02 Revised Ditch 62.



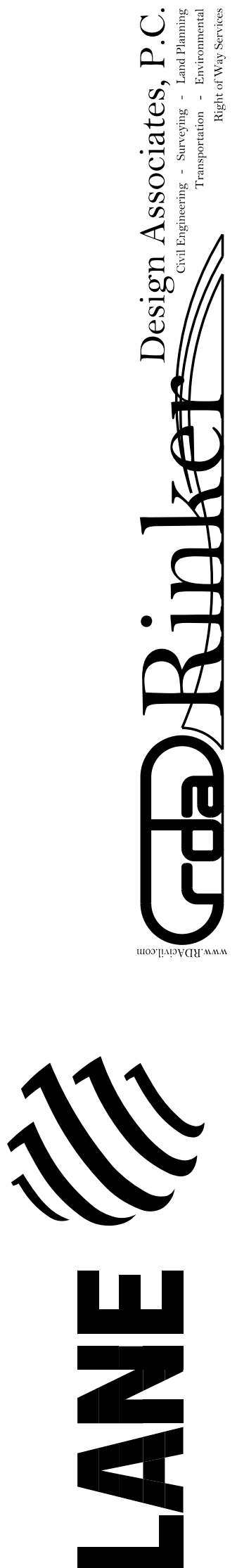
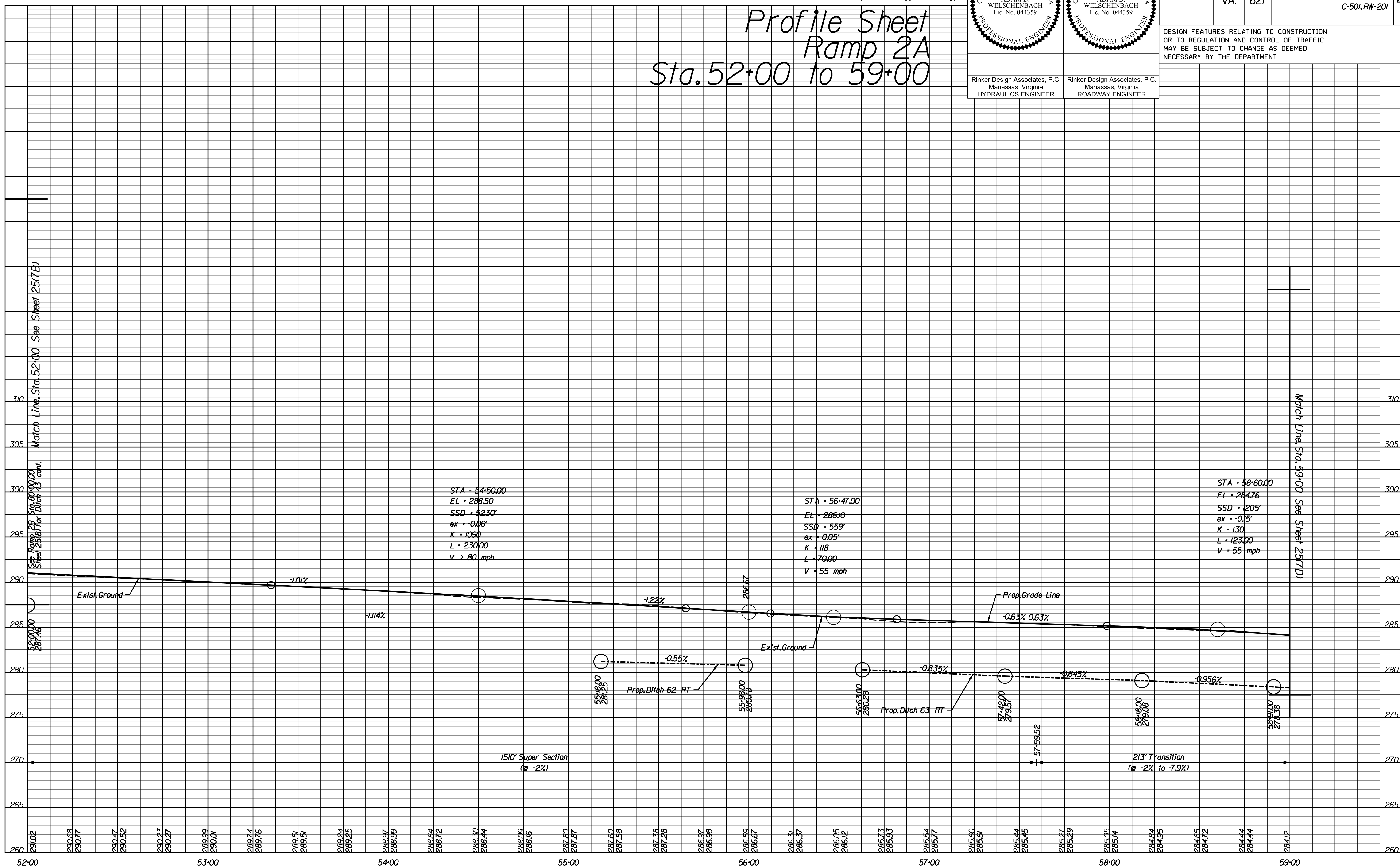
Rinker Design Associates, P.C.
 Manassas, Virginia
 HYDRAULICS ENGINEER

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

REVISED NDC02	STATE VA.	ROUTE 621	STATE VA.	PROJECT 6234-076-266, C-501, RW-201	SHEET NO. 25(7C)
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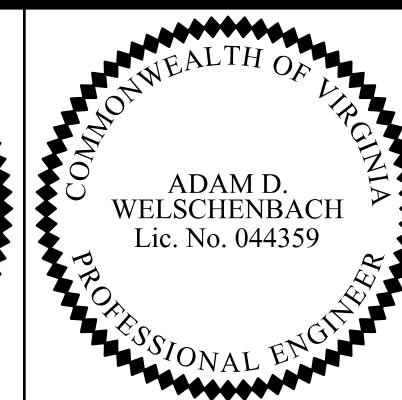
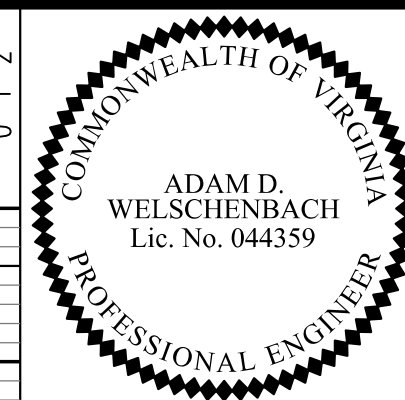
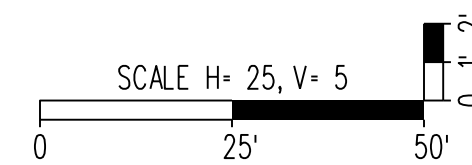
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Profile Sheet Ramp 2A Sta. 52+00 to 59+00



PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11, 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

02 Revised Ditch 45, 64, 65, and 43.



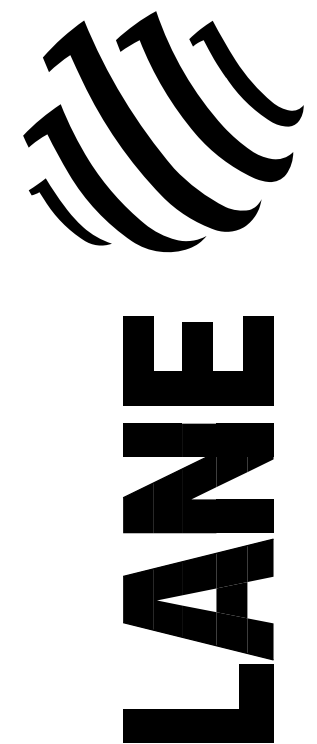
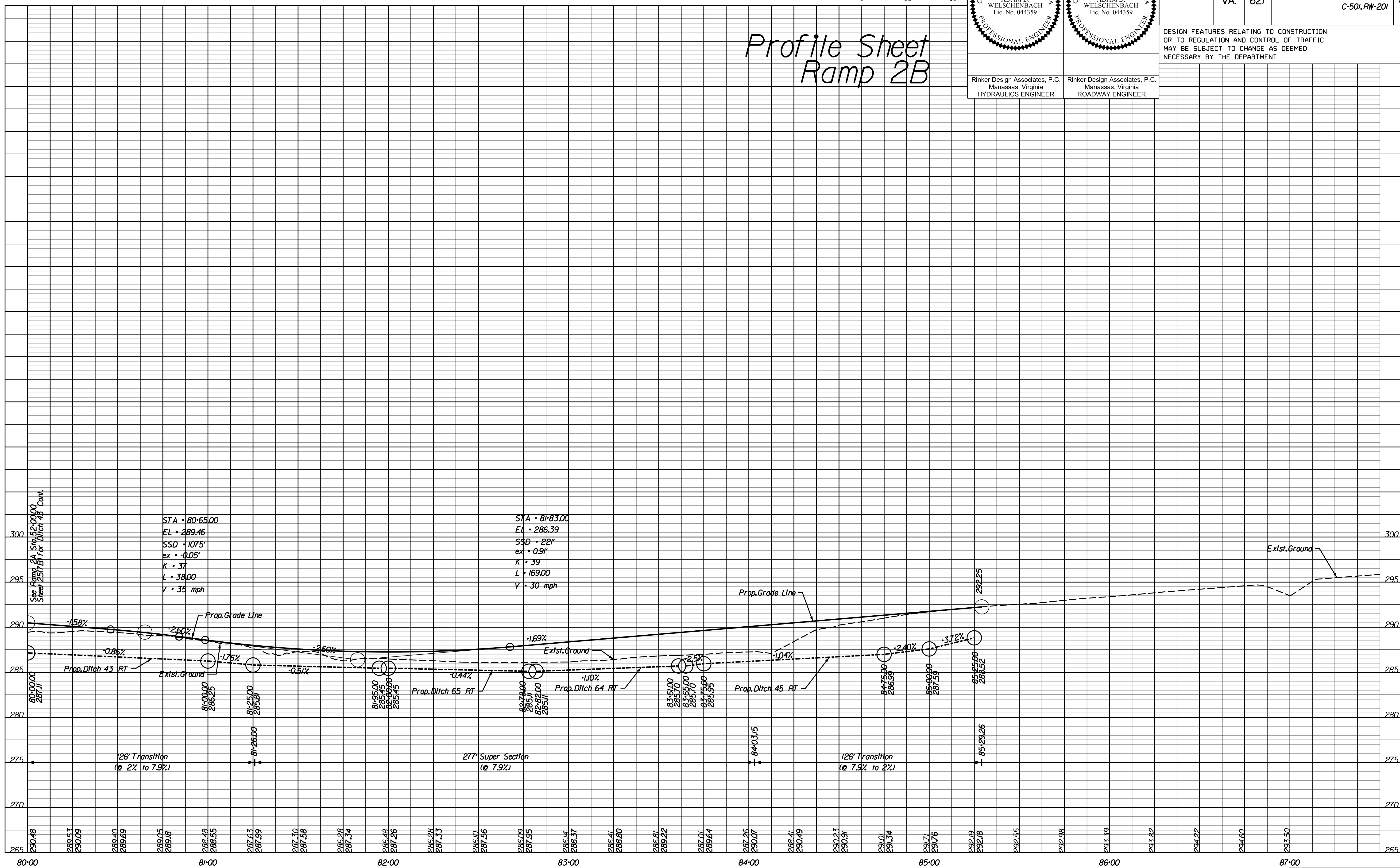
Rinker Design Associates, P.C.
 Manassas, Virginia
 HYDRAULICS ENGINEER

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

REVISED NDC02	STATE VA.	ROUTE 621	STATE PROJECT 6234-076-266, C-501, RW-201	SHEET NO. 25(8)
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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

Profile Sheet
 Ramp 2B



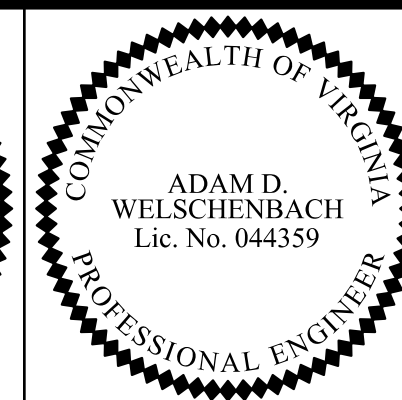
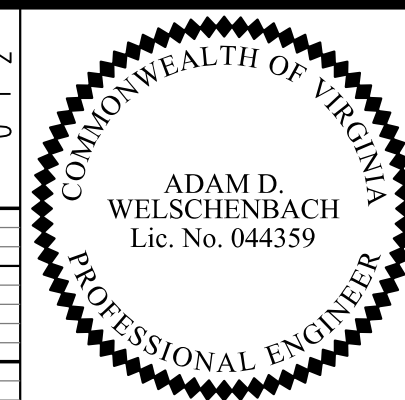
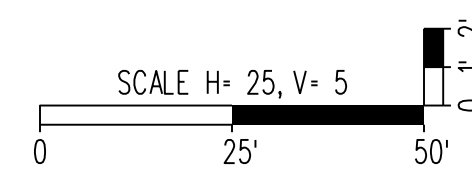
NOVA DISTRICT DESIGN UNIT

Design Associates, P.C.

Office Locations: Manassas, VA, Reston, VA, Fairfax, VA, Herndon, VA, Leesville, VA, Norfolk, VA, Quantico, VA, Suffolk, VA, Virginia Beach, VA, York, VA

PROJECT MANAGER PWC_DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 11, 2020
 DESIGN BY Rinker Design Associates, Mark Gunn, P.E. (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, July 2019

02 Added sheet.



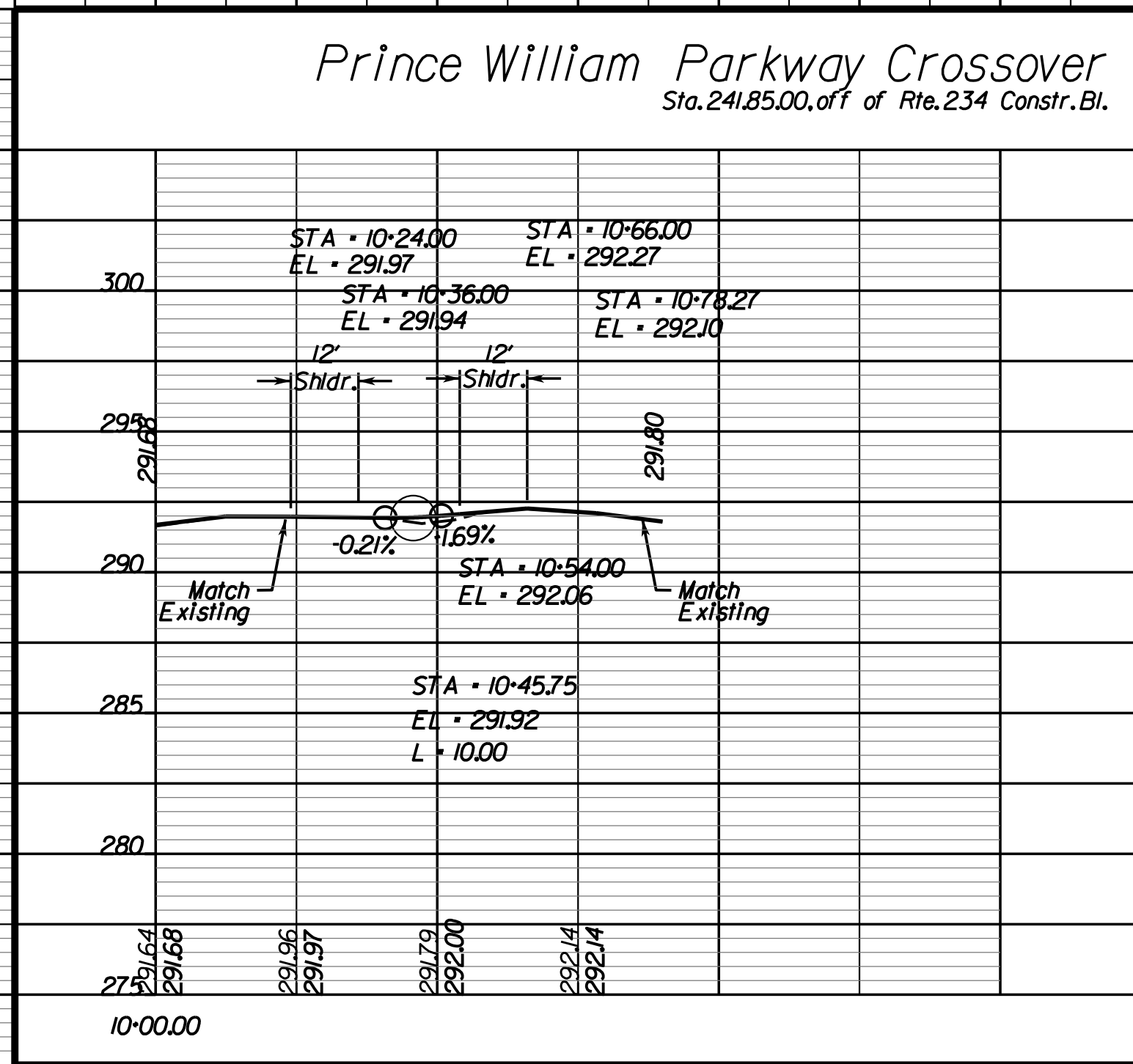
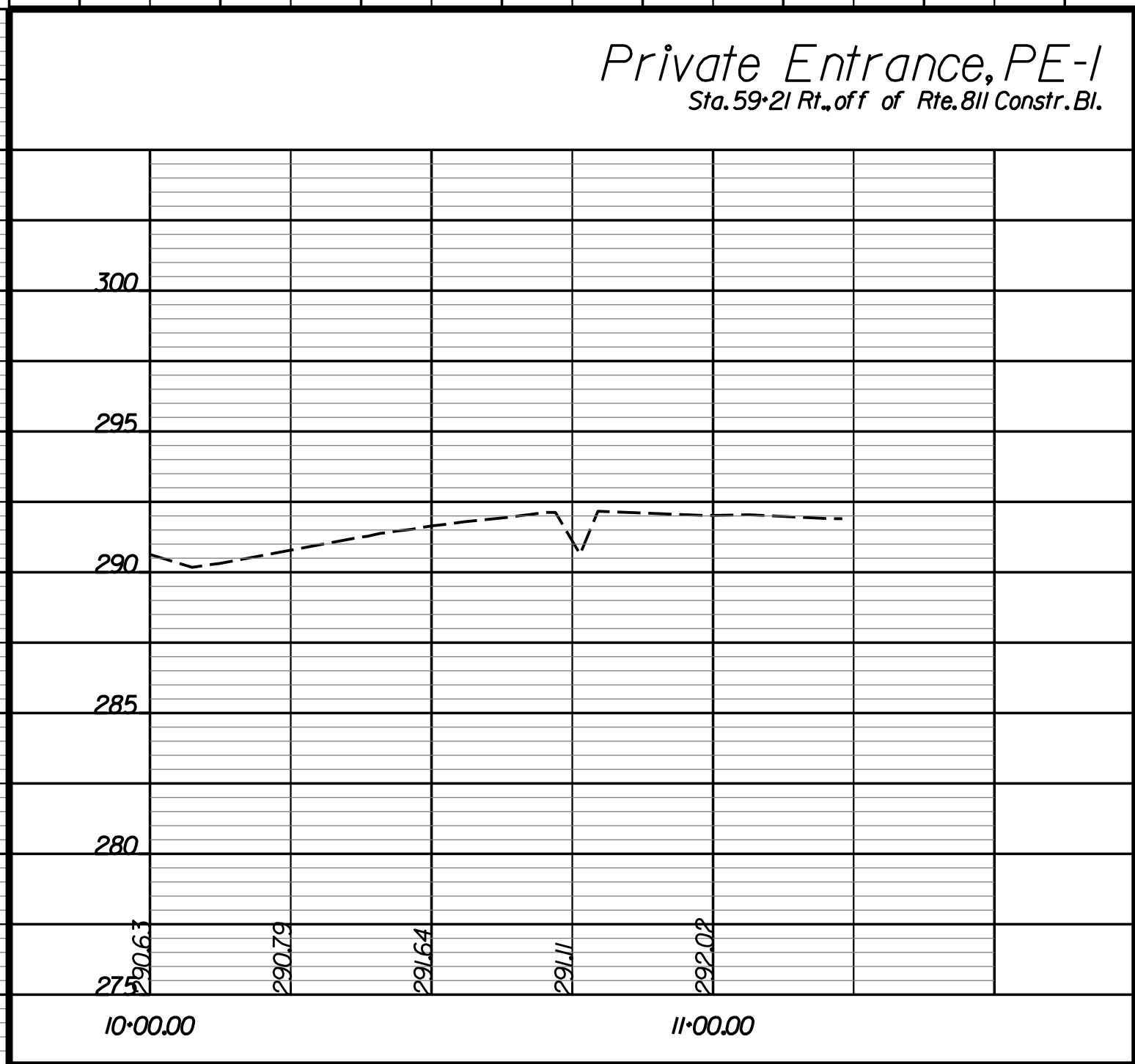
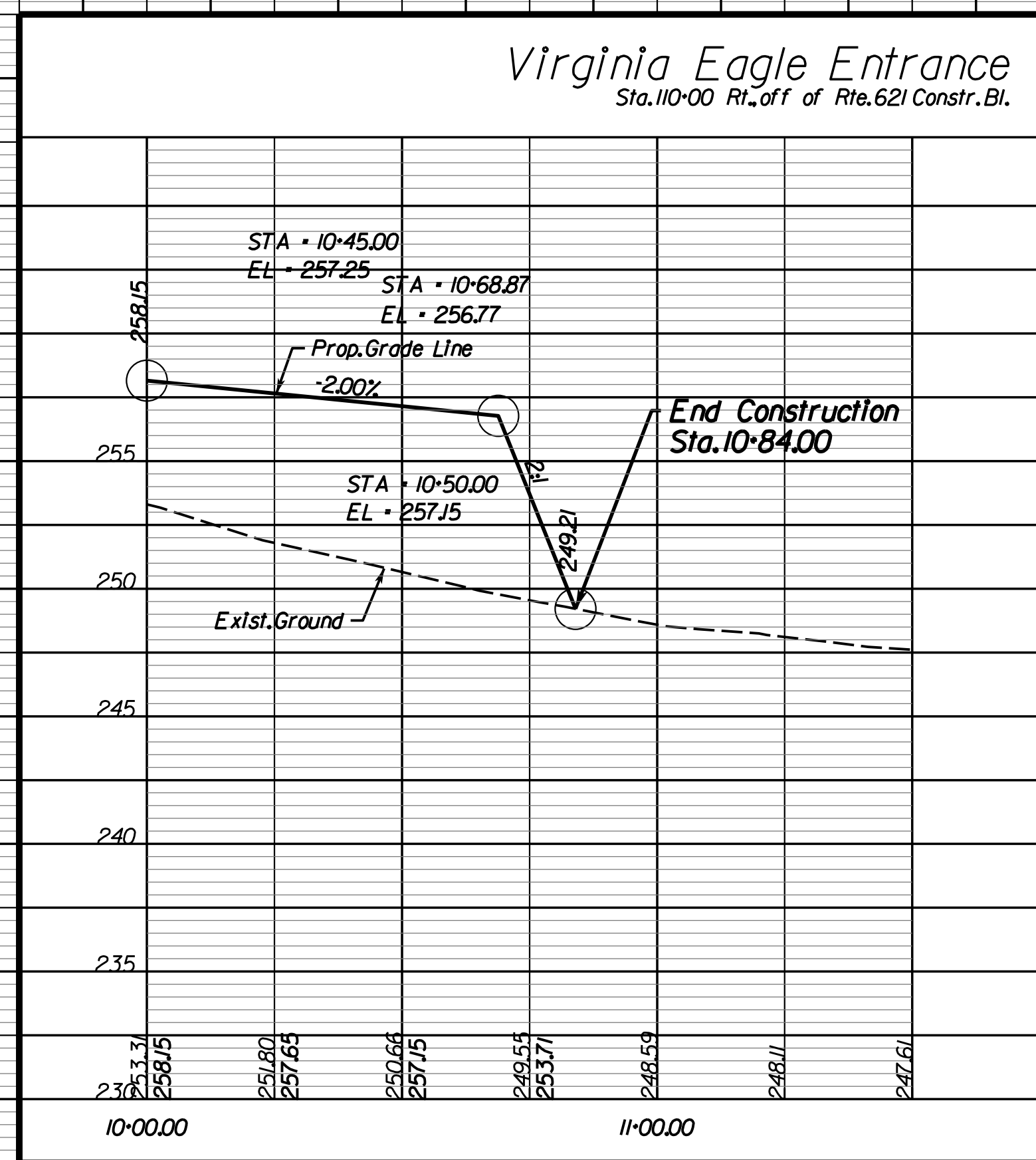
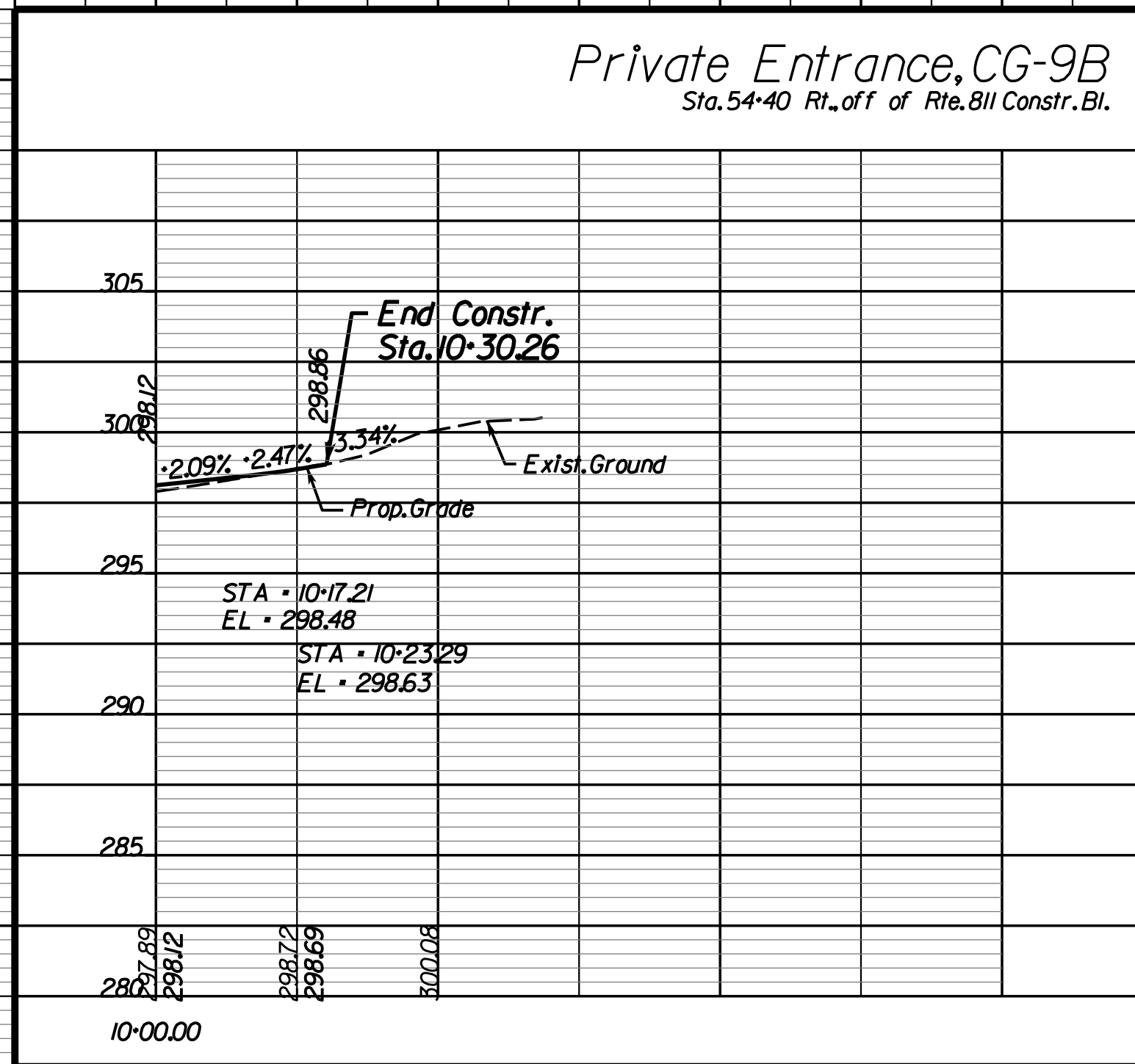
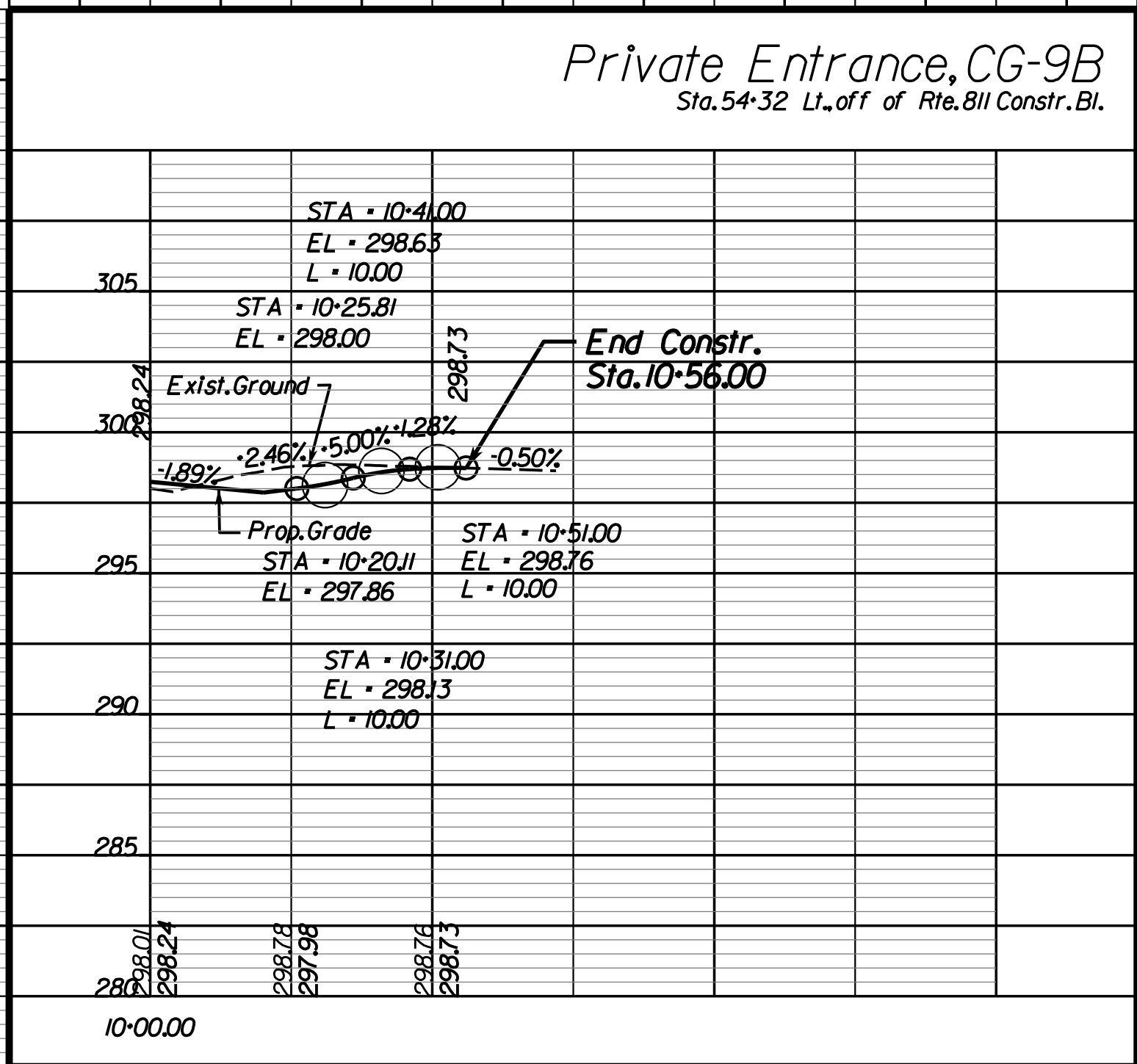
Rinker Design Associates, P.C.
 Manassas, Virginia
 HYDRAULICS ENGINEER

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

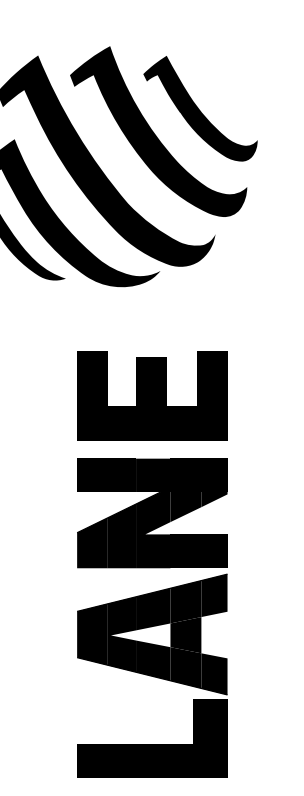
REVISION	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA	621	6234-076-266, C-501, RW-201	25(13D)

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

Profile Sheet Entrances



Rinker Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation - Right of Way Services



NOVA DISTRICT DESIGN UNIT

6/24/2021

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020

SIGNAGE PLAN

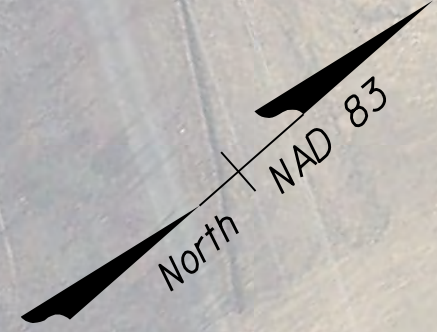
COMMONWEALTH OF VIRGINIA
 ADAM D. WELSCHENBACH
 Lic. No. 044359
 PROFESSIONAL ENGINEER

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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	26(4/31)

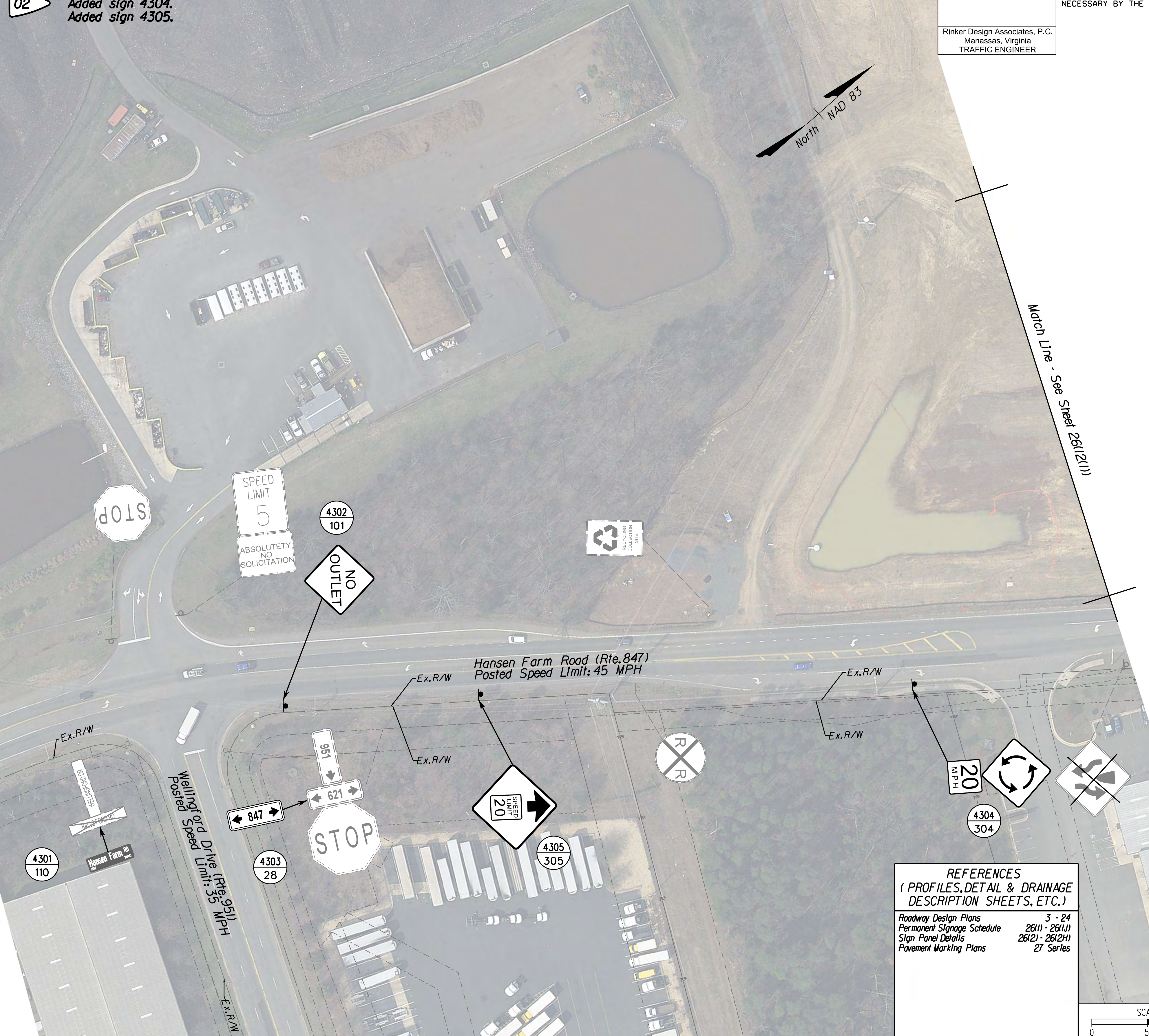
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

02 Added sign 4304.
 Added sign 4305.



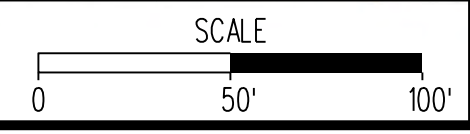
Match Line - See Sheet 26(4/21)

Match Line - See Sheet 26(4/31)



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

Roadway Design Plans	3 - 24
Permanent Signage Schedule	26(1) - 26(11)
Sign Panel Details	26(2) - 26(24)
Pavement Marking Plans	27 Series



VDOT PROJECT
 6234-076-266
 PWC PROJECT
 SPR2020-00383 S03

SHEET NO.
 26(4/31)

Design Associates, P.C.
 Civil Engineering - Surveying - Land Planning
 Transportation - Right of Way Services

LANE

NOVA DISTRICT DESIGN UNIT

Office Locations

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PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn PE (703) 368-7373
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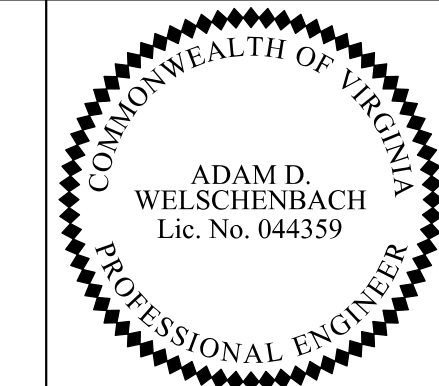
Office Locations
 Virginia, VA
 North Carolina, NC
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 South Carolina, SC
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NOVA DISTRICT DESIGN UNIT
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 Transportation - Traffic Engineering - Right of Way Surveying



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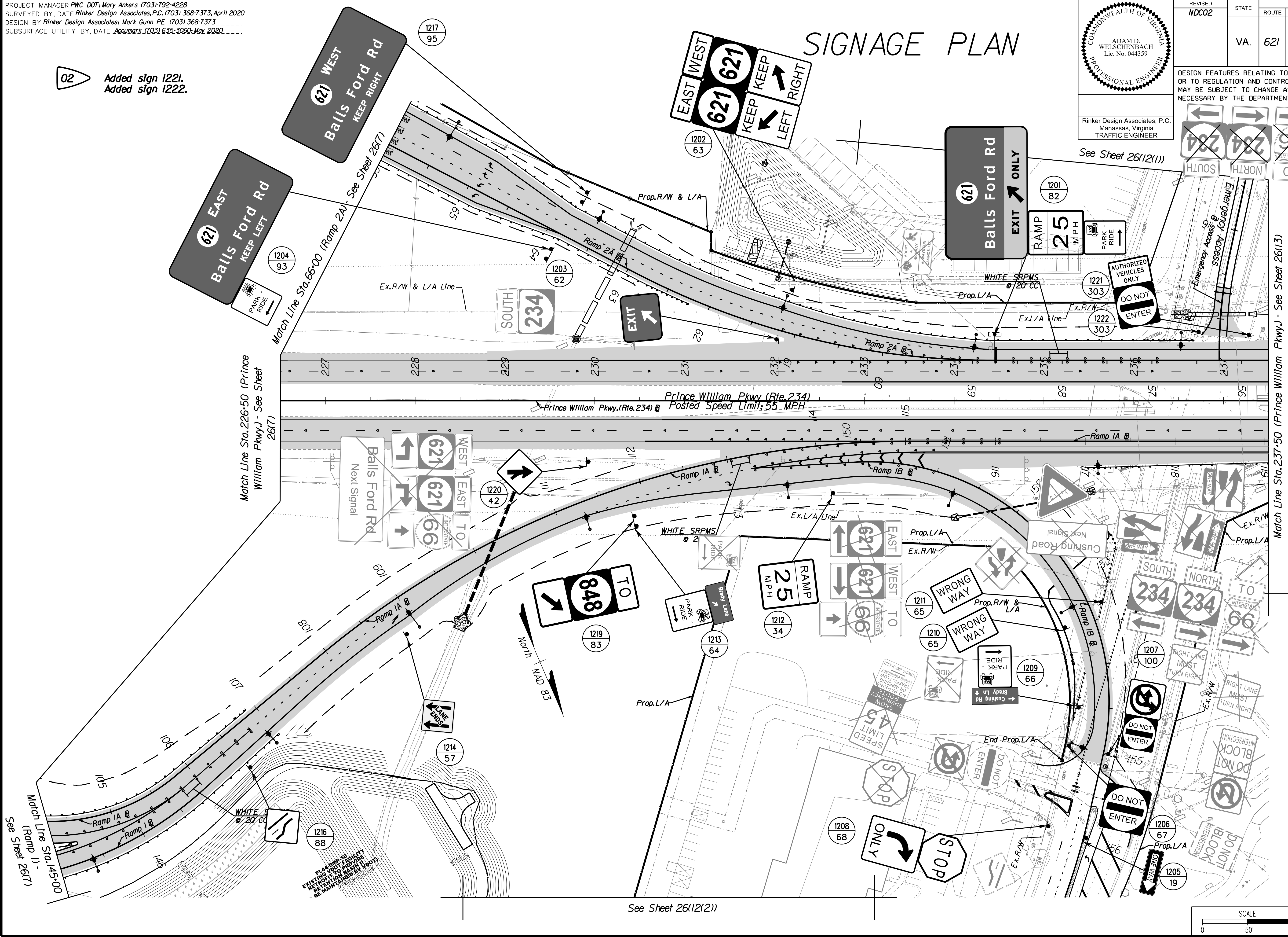
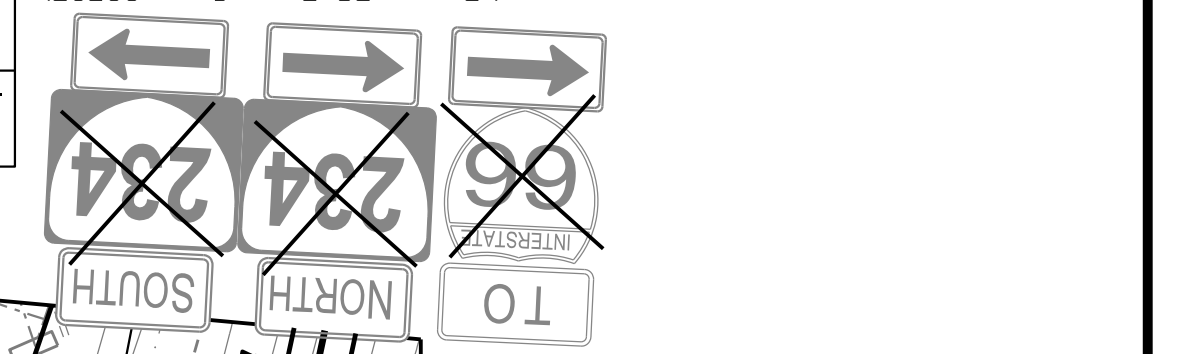
SIGNAGE PLAN



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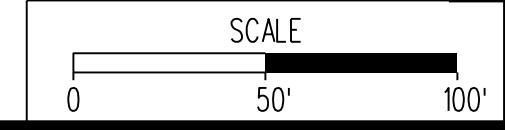
REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	26(12)

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



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

Roadway Design Plans	3 - 24
Permanent Signage Schedule	26(1) - 26(11)
Sign Panel Details	26(2) - 26(2H)
Pavement Marking Plans	27 Series



VDOT PROJECT
 6234-076-266
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 SPR2020-00383 S03

SHEET NO.
 26(12)

SIGNAGE PLAN

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 PROFESSIONAL ENGINEER

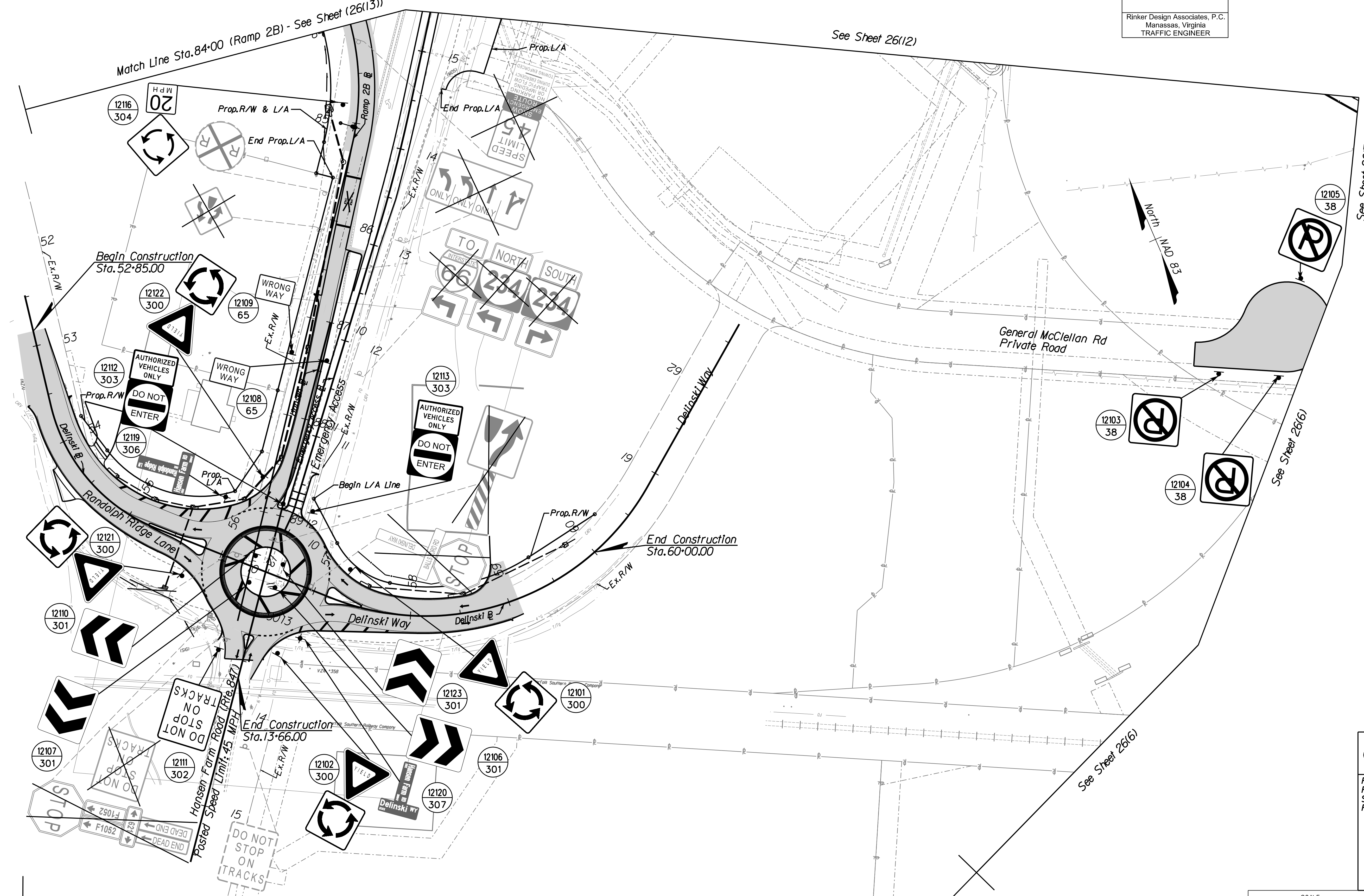
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REVISED NDC02	STATE VA.	ROUTE 621	STATE PROJECT 6234-076-266, C-501, RW-201	SHEET NO. 26(12/11)
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PROJECT MANAGER PWC, DOT: Mary Ankers (703) 792-4228
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 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

02 Revised sheet to include roundabout signage.



See Sheet 26(12)

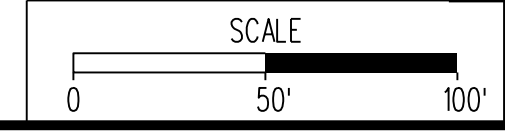
See Sheet 26(6)

See Sheet 26(6)

See Sheet 26(4(3))

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

Roadway Design Plans	3 - 24
Permanent Signage Schedule	26(1) - 26(11)
Sign Panel Details	26(2) - 26(2H)
Pavement Marking Plans	27 Series



VDOT PROJECT 6234-076-266 PWC PROJECT SPR2020-00383 S03	SHEET NO. 26(12/11)
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NOVA DISTRICT DESIGN UNIT

LANE

Rinker

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Office Locations

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SIGNAGE PLAN

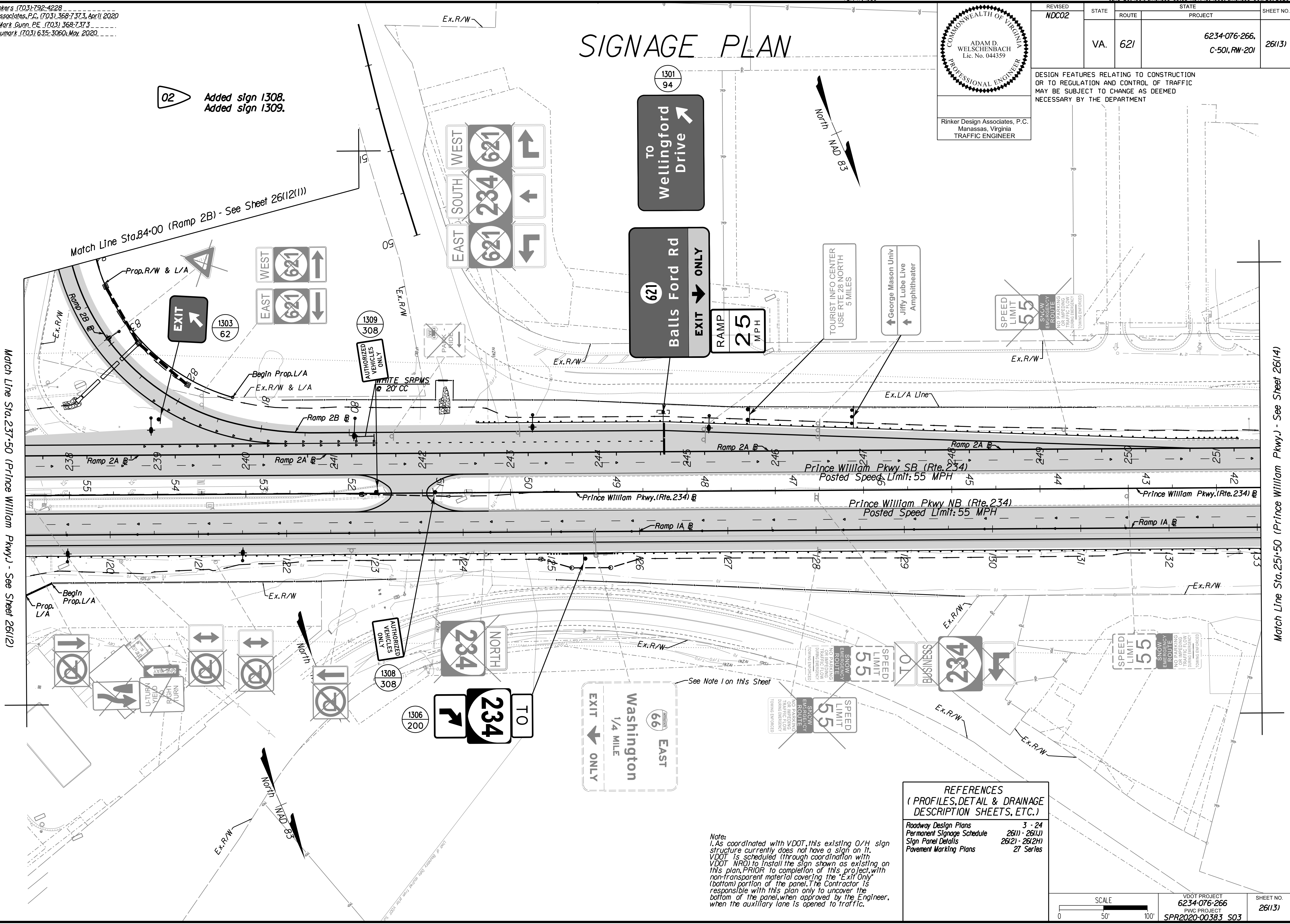
COMMONWEALTH OF VIRGINIA
 ADAM D. WELSCHENBACH
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 Manassas, Virginia
 TRAFFIC ENGINEER

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	261(13)

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

PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
 SURVEYED BY, DATE Rinker Design Associates, P.C. (703) 368-7373, April 2020
 DESIGN BY Rinker Design Associates, Mark Gunn PE (703) 368-7373
 SUBSURFACE UTILITY BY, DATE AccuMark (703) 635-3060, May 2020



02 Added sign 1308.
 Added sign 1309.

Note:
 1. As coordinated with VDOT, this existing O/H sign structure currently does not have a sign on it. VDOT is scheduled through coordination with VDOT NRO to install the sign shown as existing on this plan. PRIOR to completion of this project, with non-transparent material covering the 'Exit Only' (bottom) portion of the panel. The Contractor is responsible with this plan only to uncover the bottom of the panel, when approved by the Engineer, when the auxiliary lane is opened to traffic.

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

Roadway Design Plans	3 - 24
Permanent Signage Schedule	26(11) - 26(11)
Sign Panel Details	26(2) - 26(2)
Pavement Marking Plans	27 Series

SCALE	0 50' 100'
VDOT PROJECT	6234-076-266
PWC PROJECT	SPR2020-00383 S03
SHEET NO.	261(13)

NOVA DISTRICT DESIGN UNIT

LANE

Rinker

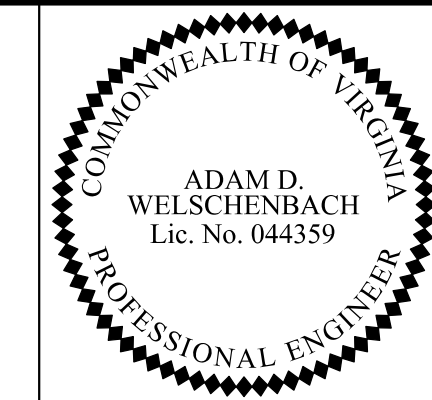
Design Associates, P.C.

Office Locations: Manassas, VA; Fairfax, VA; Falls Church, VA; Herndon, VA; Reston, VA; Springfield, VA; Vienna, VA; Woodbridge, VA



PROJECT MANAGER PWC DOT: Mary Ankers (703) 792-4228
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 SUBSURFACE UTILITY BY, DATE Accurmark (703) 635-3060, May 2020

PAVEMENT MARKING PLAN

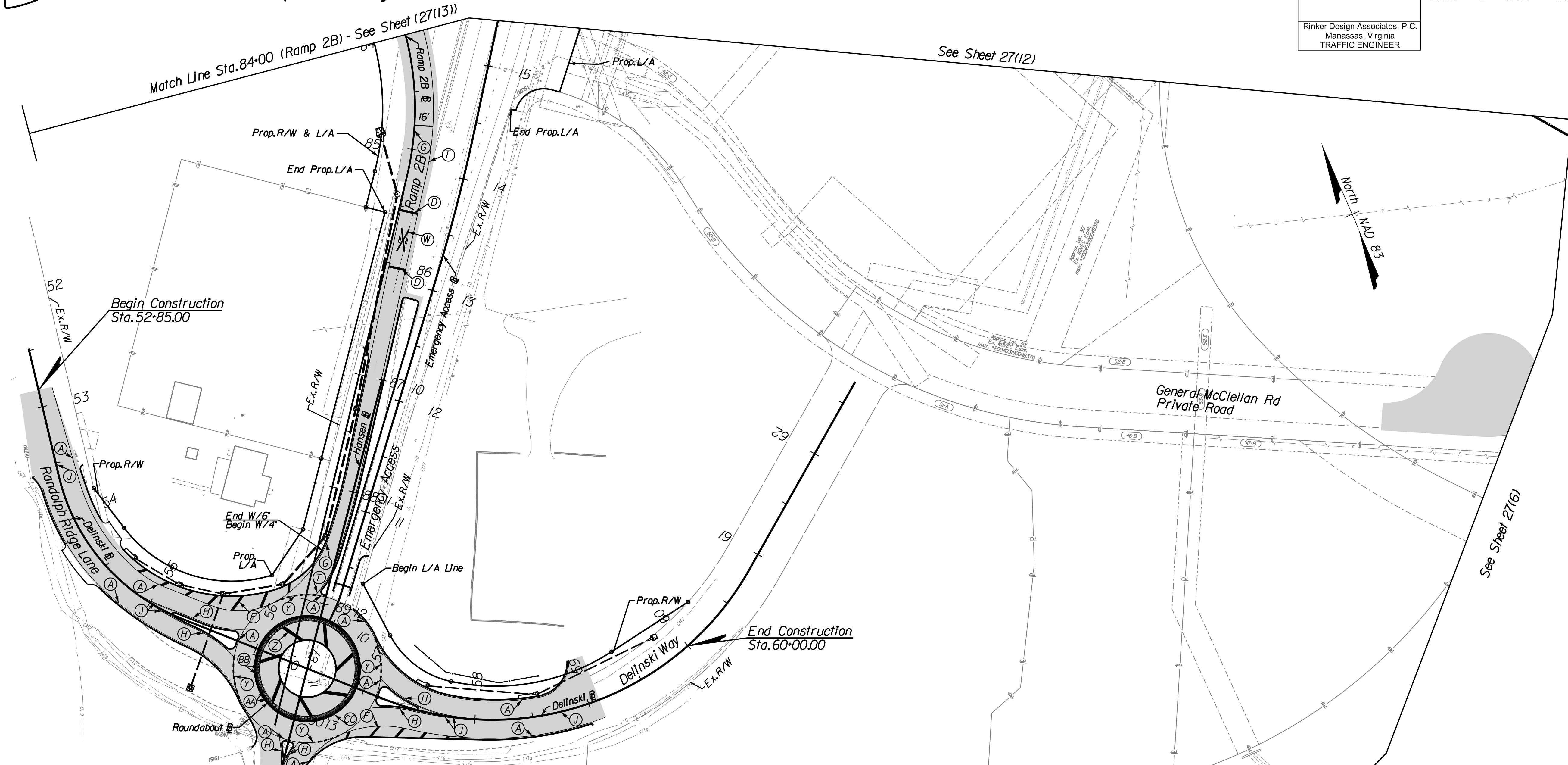


REVISED	STATE	ROUTE	PROJECT	SHEET NO.
NDC02	VA.	621	6234-076-266, C-501, RW-201	27(12/11)

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 Associates, P.C.
 Manassas, Virginia
 TRAFFIC ENGINEER

02 Revised sheet to include roundabout pavement marking.



** Pavement Marking Legend **

A Type B, Class I, White, 4" Width	P Type B, Class I, White, 12" Width
B Type B, Class I, White, 4" Width, 10' Long, 30' Spacing	S Type B, Class I, White, 6" Width, 10' Long, 30' Space
C Type B, Class I, White, 8" Width, 3' Long, 9' Spacing	T Type B, Class I, Yellow, 6" Width
D Type B, Class I, White, 24" Width	W Type B, Class I, White, Railroad Crossing Marking
E Type B, Class I, White, 24" Width, 10' Length, 24" Spacing	Y Type B, Class I, White, 4" Width, 3' Long, 9' Spacing
F Type B, Class I, White, 24" Width, 20' Spacing @ 45°	Z Type B, Class I, Yellow, 24" Width, @ 45°
G Type B, Class I, White, 6" Width	AA Rumble Strip, Asphalt, 16" Width, 7" Length, 12" Spacing
H Type B, Class I, Yellow, 4" Width	BB Type B, Class I, White, 8" Width
I Type B, Class I, Yellow, 24" Width, 20' Spacing @ 45°	CC Type B, Class I, Yellow, 8" Width
J Type B, Class I, Yellow, 4" Width, Double Line, 4" Spacing	TE Denotes Tie to Existing Pavement Marking
K Type B, Class I, White, Turn Lane Use Arrow	◊ Snow-Plowable, Raised Pavement Marker, One-Sided
L Type B, Class I, White, "Only" Pavement Marking	■ Shading Denotes Areas of New Surface Pavement / Concrete
Q Type B, Class I, White, 4" Width, 2' Long, 6' Spacing	

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

Roadway Design Plans	3 thru 24
Signage Plans	26 Series

SCALE 0 50' 100'

VDOT PROJECT 6234-076-266
 PWC PROJECT SPR2020-00383 S03

SHEET NO. 27(12/11)

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