

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
 SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
 DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
 DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

FOR INDEX OF SHEETS SEE SHEET 1B

CITY OF FAIRFAX
 DEPARTMENT OF PUBLIC WORKS

PLAN AND PROFILE OF PROPOSED
 INTERSECTION IMPROVEMENTS

FAIRFAX BOULEVARD (U.S. ROUTE 50) AT
 JERMANTOWN ROAD (CITY ROUTE 6634)
 (PHASE II)

REVISED	STATE	FEDERAL AID	STATE	SHEET NO.
	VA.	PROJECT OWNER	PROJECT	
			Jermantown Road Phase II Improvements	1
FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA				
URBAN PRINCIPAL ARTERIAL (GS-5) - ROLLING - 40 MPH				
Fr: Jermantown Road (City Rte 6634)				
To: Bevan Drive				
ADT	41,000 (2008)			
ADT	45,000 (2012)			
DHV	74,000 (2032)			
D (%) (design hour)	60%			
T (%) (design hour)	1%			
V (MPH)	**			

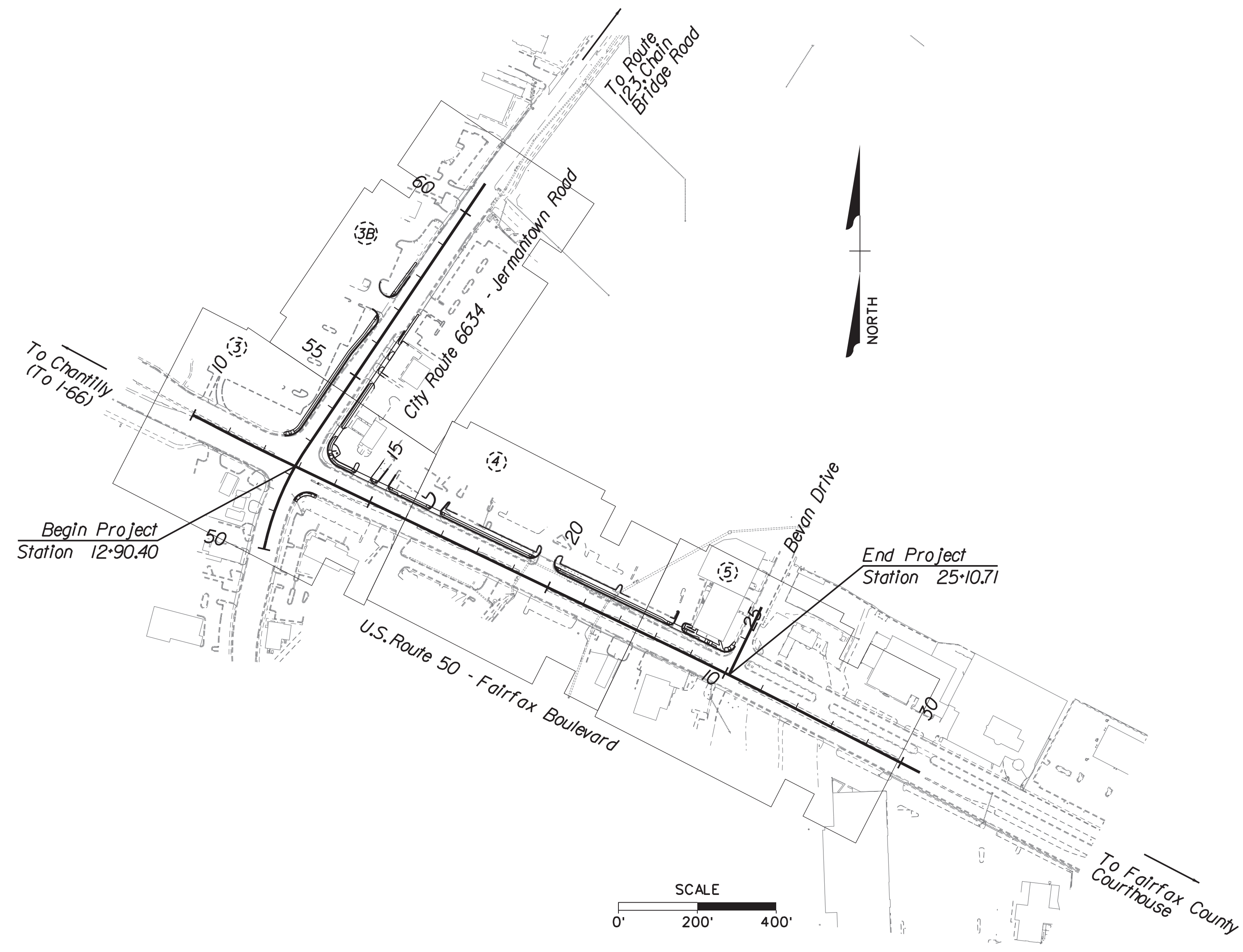
** See Plan & Profile for Horizontal and Vertical Curve Design Speed

Rinker Design Associates, P.C.
 Civil Engineers, Surveyors, Environmental Planners, Transportation Engineers, Right of Way Services
 10000 Lee Highway, Suite 1000, Manassas, VA 20108
 Phone: (703) 368-7373 Fax: (703) 368-7373
 www.rinker.com

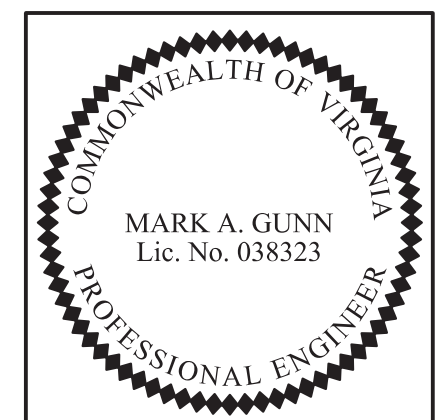
CITY OF FAIRFAX

CONVENTIONAL SIGNS

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



FINAL PLAN SUBMISSION
 AUGUST 2014



Mark A Gunn
 2014.08.15 13:59:34 -04'00'
 Rinker Design Associates, P.C.
 Manassas, Virginia
 PROFESSIONAL ENGINEER

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 2007 ROAD AND BRIDGE SPECIFICATIONS, 2008 ROAD AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL 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 IC-5.11(L)LS, EXCEPT WHERE OTHERWISE NOTED.

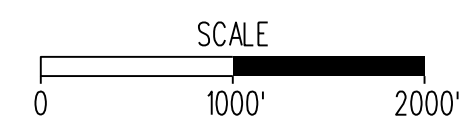
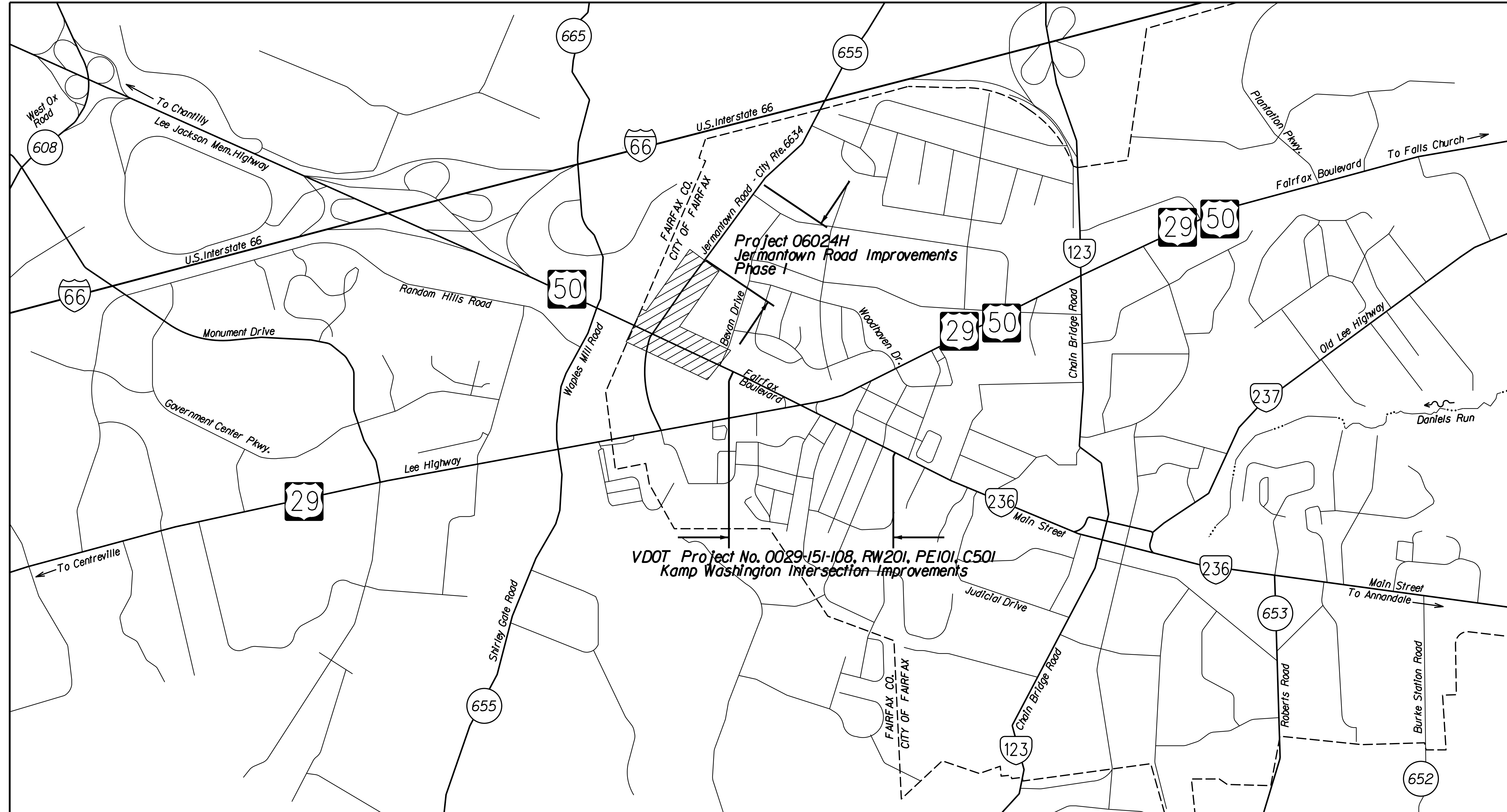
FINAL PLAN

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	1

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REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	1A

PROJECT LOCATION MAP



JERMANTOWN ROAD PHASE II IMPROVEMENTS
PROJECT LOCATION MAP
CITY OF FAIRFAX, VIRGINIA

- - - - - CITY LIMITS
- PROJECT LOCATION

Office Locations
Rinker Design Associates, P.C.
10000 Old Dominion Boulevard
Suite 1000
Falls Church, VA 22041
Phone: (703) 368-7373
Fax: (703) 368-7373

Design Associates, P.C.
Civil Engineers
Transportation - Environmental
Right of Way Services

CITY OF FAIRFAX

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	1A

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
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PROJECT INDEX OF SHEETS

REVISED	STATE	FEDERAL AID	STATE	SHEET NO.
		PROJECT OWNER	PROJECT	
	VA.	-	Jermantown Road Phase II Improvements	1B

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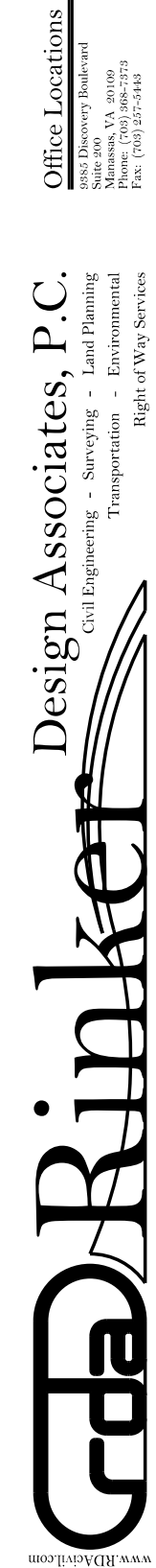
Geopak Project * 0050

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Index Notes
20 total cross section sheets



CITY OF FAIRFAX

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	1B

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SURVEY CONTROL DATA SHEET

REVISED	STATE	FEDERAL AID	STATE	SHEET NO.
	VA.	PROJECT OWNER	PROJECT	
			Jermantown Road Phase II Improvements	IF

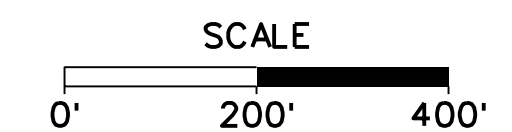
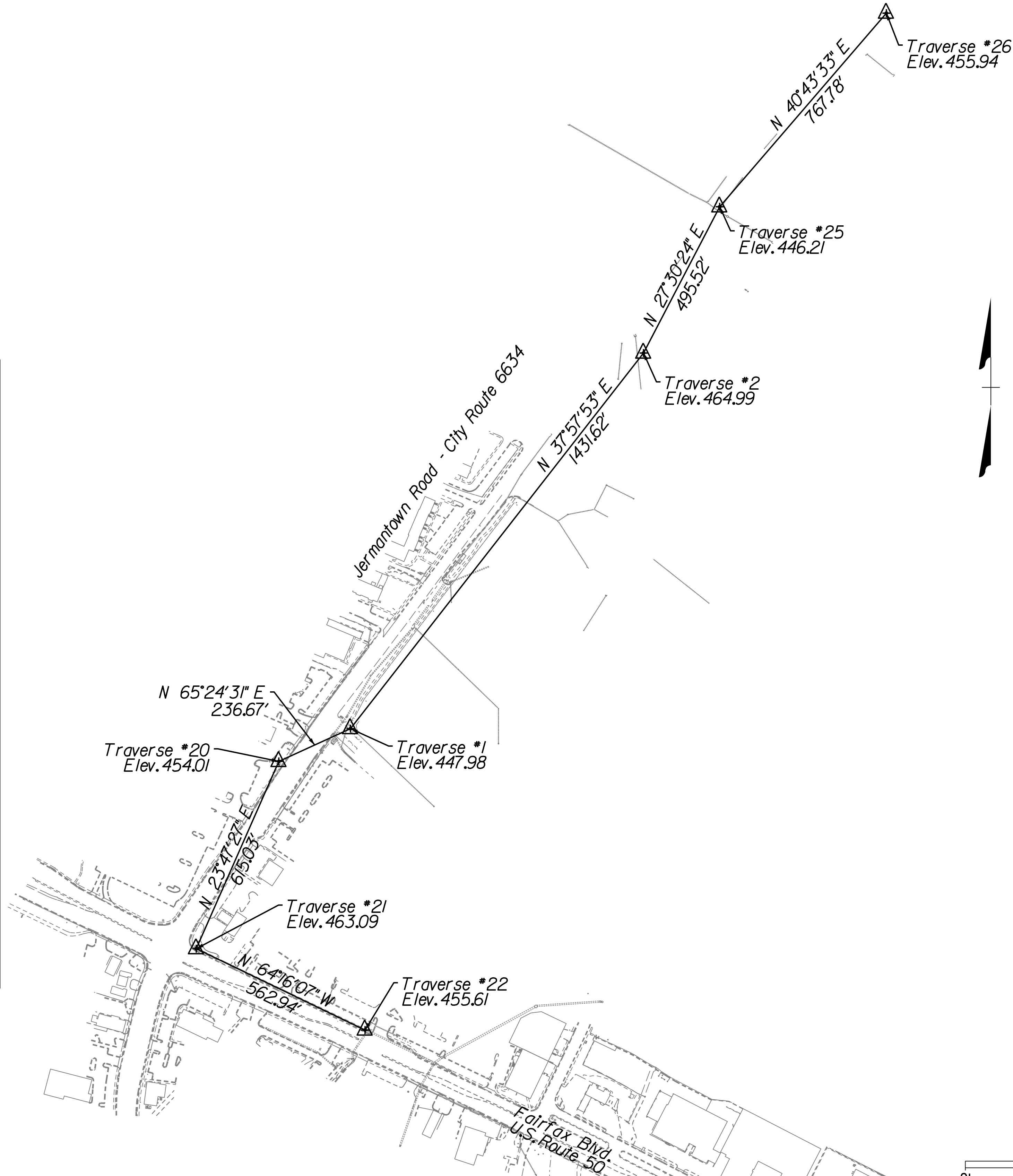
Route : 50-6634
 Project : Jermantown Road Phase II Improvements.
 District : City of Fairfax
 County : N/A
 Horizontal Datum Based On NAD 1983
 Vertical Datum Based On NGVD 1929 Datum
 Survey By : Sidney Thomas, L.S., Rinker Design Associates, P.C.
 Operator : RDA
 Date :
 Scale : 1" = 200'

Note: To Convert Va. State Plane Coordinates NAD 83 Metric Values to Va. D. O. T. Project Coordinates.
 1. Reduce the Eastings 2.5 Million Meters and the South and North Zone Northings by 1 and 2 Million Respectively.
 2. Multiply by the U. S. Survey Foot (3,280833333333).
 3. Multiply These Values by the Combined Scale and Elevation Factor (1.000016) for this County.
 A Reverse of this Procedure will Transform VDOT Project Coordinates to NAD 83 Values.

Note: This map was compiled to meet the Commonwealth of Virginia Standard for Class I map accuracy as of 2004.

Traverse Tabulation By RDA

Traverse Numbers	Project Coordinates				Elevation	Remarks
	Bearing	Distance	Northing	Eastng		
22			6996704.939	11816018.5052	455.61	Iron Rod with Cap
	N 64°16'07" W	562.94				
21			6996948.5952	11815511.3884	463.09	Iron Rod with Cap
	N 23°47'27" E	615.03				
20			6997511.3583	11815759.4885	454.01	Iron Rod with Cap
	N 65°24'31" E	236.67				
1			6997609.8480	11815974.6930	447.98	Iron Rod with Cap
	N 37°57'53" E	1431.62				
2			6998738.5253	11816855.3947	464.99	Iron Rod with Cap
	N 27°30'24" E	495.52				
25			6999178.0272	11817084.2509	446.21	Iron Rod with Cap
	N 40°43'33" E	767.78				
26			6999759.8798	11817585.1802	455.94	Iron Rod with Cap



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IF

FINAL PLAN

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CONSTRUCTION ALIGNMENT DATA SHEET

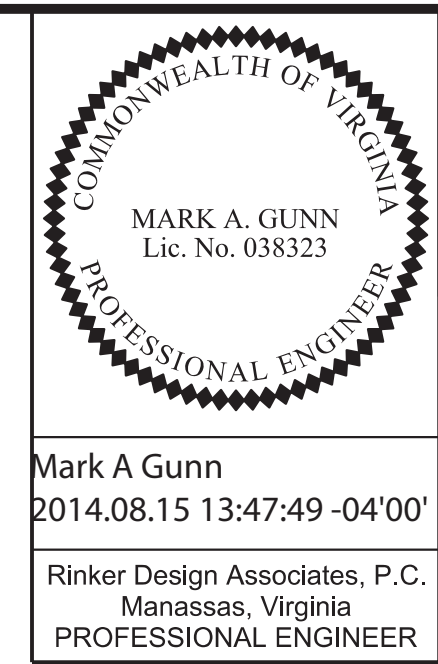


Table with columns: REVISION, STATE, FEDERAL AID, PROJECT OWNER, PROJECT, SHEET NO. Row 1: VA., Jermantown Road Phase II Improvements, IG

Mark A Gunn
2014.08.15 13:47:49 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

FAIRFAX BOULEVARD - U.S. ROUTE 50

Chain ROUTE50 contains: ROUTE5001 CUR CURRT5001 CUR CURRT5002 ROUTE5004

Beginning chain ROUTE50 description

Point ROUTE5001 N 6,997,072.8272 E 11,815,171.1667 Sta 10+00.00
Course from ROUTE5001 to PC CURRT5001 S 62° 21' 16.3977" E Dist 54.6869

Curve Data

Curve CURRT5001
P.I. Station 11+51.31 N 6,997,002.6190 E 11,815,305.2036
Delta 2° 00' 46.6023" (LT)
Degree 1° 02' 30.2692"
Tangent 96.6244
Length 193.2289
Radius 5,500.0000
External 0.8487
Long Chord 193.2189
Mid. Ord. 0.8486
P.C. Station 10+54.69 N 6,997,047.4526 E 11,815,219.6103
P.T. Station 12+47.92 N 6,996,960.8195 E 11,815,392.3189
C.C. N 7,001,919.5496 E 11,817,771.6037
Back S 62° 21' 16.3977" E
Ahead S 64° 22' 03.0000" E
Chord Bear S 63° 21' 39.6989" E

Course from PT CURRT5001 to PC CURRT5002 S 64° 22' 03.0000" E Dist 1,093.2937

Curve Data

Curve CURRT5002
P.I. Station 24+97.28 N 6,996,420.3499 E 11,816,518.7261
Delta 1° 33' 18.0899" (RT)
Degree 0° 29' 53.6070"
Tangent 156.0663
Length 312.1135
Radius 11,500.0000
External 1.0589
Long Chord 312.1039
Mid. Ord. 1.0588
P.C. Station 23+41.21 N 6,996,487.8637 E 11,816,378.0186
P.T. Station 26+53.32 N 6,996,349.0425 E 11,816,657.5496
C.C. N 6,996,986.119.6099 E 11,811,403.1505
Back S 64° 22' 03.0000" E
Ahead S 62° 48' 44.9101" E
Chord Bear S 63° 35' 23.9551" E

Course from PT CURRT5002 to ROUTE5004 S 62° 48' 44.9101" E Dist 401.1197

Point ROUTE5004 N 6,996,165.7692 E 11,817,014.3519 Sta 30+54.44

Ending chain ROUTE50 description

JERMANTOWN ROAD - CITY ROUTE 6634

Chain JERMAN contains: JERMAN01 CUR CURJERMAN01 JERMAN03

Beginning chain JERMAN description

Point JERMAN01 N 6,996,732.6669 E 11,815,351.4495 Sta 50+00.00

Course from JERMAN01 to PC CURJERMAN01 N 13° 15' 37.6841" E Dist 22.3937

Curve Data

Curve CURJERMAN01
P.I. Station 51+51.46 N 6,996,880.0868 E 11,815,386.1908
Delta 20° 44' 54.7733" (RT)
Degree 8° 07' 37.4193"
Tangent 129.0645
Length 255.3020
Radius 705.0000
External 11.7166
Long Chord 253.9093
Mid. Ord. 11.5250
P.C. Station 50+22.39 N 6,996,754.4635 E 11,815,356.5862
P.T. Station 52+77.70 N 6,996,987.0748 E 11,815,458.3796
C.C. N 6,996,592.7519 E 11,816,042.7890
Back N 13° 15' 37.6841" E
Ahead N 34° 00' 32.4574" E
Chord Bear N 23° 38' 05.0707" E

Course from PT CURJERMAN01 to JERMAN03 N 34° 00' 32.4574" E Dist 811.4516

Point JERMAN03 N 6,997,659.7272 E 11,815,912.2434 Sta 60+89.15

Ending chain JERMAN description

BEVAN DRIVE

Chain BEVAN contains: BEVAN01 BEVAN02

Beginning chain BEVAN description

Point BEVAN01 N 6,996,413.4128 E 11,816,530.2960 Sta 10+00.00

Course from BEVAN01 to BEVAN02 N 25° 43' 31.9903" E Dist 190.8607

Point BEVAN02 N 6,996,585.3561 E 11,816,613.1412 Sta 11+90.86

CURB RETURN FOR CURB 3-1

Chain CURB31 contains: CURB3101 CUR CURB31C CURB3103

Beginning chain CURB31 description

Point CURB3101 N 6,997,089.2691 E 11,815,480.8896 Sta 1+00.00

Course from CURB3101 to PC CURB31C S 34° 00' 32.4575" W Dist 57.2751

Curve Data

Curve CURB31C
P.I. Station 1+86.37 N 6,997,017.6726 E 11,815,432.5807
Delta 58° 27' 21.1167" (RT)
Degree 110° 11' 03.0889"
Tangent 29.0951
Length 53.0529
Radius 52.0000
External 7.5863
Long Chord 50.7817
Mid. Ord. 6.6204
P.C. Station 1+57.28 N 6,997,041.7910 E 11,815,448.8543
P.T. Station 2+10.33 N 6,997,018.9239 E 11,815,403.5125
C.C. N 6,997,070.8758 E 11,815,405.7489
Back S 34° 00' 32.4575" W
Ahead N 87° 32' 06.4258" W
Chord Bear S 63° 14' 13.0158" W

Course from PT CURB31C to CURB3103 N 87° 32' 06.4258" W Dist 6.5750

Point CURB3103 N 6,997,019.2067 E 11,815,396.9436 Sta 2+16.90

Ending chain CURB31 description

CURB RETURN FOR CURB 3-2

Chain CURBRETURN contains: CURB01 CUR CURB01 CURB02

Beginning chain CURBRETURN description

Point CURB01 N 6,996,913.9699 E 11,815,593.9825 Sta 1+00.00

Course from CURB01 to PC CURB01 N 64° 22' 03.0000" W Dist 61.6076

Curve Data

Curve CURB01
P.I. Station 2+16.04 N 6,996,964.1663 E 11,815,489.3667
Delta 98° 22' 35.4574" (RT)
Degree 121° 54' 21.2899"
Tangent 54.4275
Length 80.6987
Radius 47.0000
External 24.9121
Long Chord 71.1449
Mid. Ord. 16.2819
P.C. Station 1+61.61 N 6,996,940.6212 E 11,815,538.4378
P.T. Station 2+42.31 N 6,997,009.2840 E 11,815,519.8092
C.C. N 6,996,982.9958 E 11,815,558.7699
Back N 64° 22' 03.0000" W
Ahead N 34° 00' 32.4573" E
Chord Bear N 15° 10' 45.2713" W

Course from PT CURB01 to CURB02 N 34° 00' 32.4573" E Dist 44.5350

Point CURB02 N 6,997,046.2012 E 11,815,544.7187 Sta 2+86.84

Ending chain CURBRETURN description

CURB RETURN FOR CURB 3B-1

Chain ENT CURBLEFT contains: ENT CURB01 CUR ENT CURB01 ENT CURB02

Beginning chain ENT CURBLEFT description

Point ENT CURB01 N 6,997,272.2032 E 11,815,612.0425 Sta 1+00.00

Course from ENT CURB01 to PC ENT CURB01 N 40° 17' 10.7331" E Dist 37.0892

Curve Data

Curve ENT CURB01
P.I. Station 1+73.93 N 6,997,328.5991 E 11,815,659.8466
Delta 107° 31' 36.0151" (LT)
Degree 212° 12' 23.7268"
Tangent 36.8413
Length 50.6707
Radius 27.0000
External 18.6759
Long Chord 43.5554
Mid. Ord. 11.0397
P.C. Station 1+37.09 N 6,997,300.4957 E 11,815,636.0247
P.T. Station 1+87.76 N 6,997,342.8518 E 11,815,625.8739
C.C. N 6,997,317.9541 E 11,815,615.4285
Back N 40° 17' 10.7331" E
Ahead N 67° 27' 58.6951" W
Chord Bear N 13° 28' 37.2757" W

Course from PT ENT CURB01 to ENT CURB02 N 67° 27' 58.6951" W Dist 24.2410

Point ENT CURB02 N 6,997,352.1415 E 11,815,603.4836 Sta 2+12.00

Ending chain ENT CURBLEFT description

CURB RETURN FOR CURB 3B-2 AND 3B-3

Chain ENT CURBRIGHT contains: ENT CURB03 CUR ENT CURB02 CUR ENT CURB03 ENT CURB04

Beginning chain ENT CURBRIGHT description

Point ENT CURB03 N 6,997,413.7141 E 11,815,715.1932 Sta 1+00.00

Course from ENT CURB03 to PC ENT CURB02 S 36° 09' 05.6174" W Dist 39.1008

Curve Data

Curve ENT CURB02
P.I. Station 1+61.08 N 6,997,364.3969 E 11,815,679.1624
Delta 78° 17' 11.9102" (RT)
Degree 212° 12' 23.7267"
Tangent 21.9762
Length 36.8917
Radius 27.0000
External 7.8131
Long Chord 34.0882
Mid. Ord. 6.0596
P.C. Station 1+39.10 N 6,997,382.1418 E 11,815,692.1267
P.T. Station 1+75.99 N 6,997,373.4887 E 11,815,659.1551
C.C. N 6,997,398.0697 E 11,815,670.3253
Back S 36° 09' 05.6174" W
Ahead N 65° 40' 25.7583" W
Chord Bear S 75° 17' 41.5726" W

Course from PT ENT CURB02 to PC ENT CURB03 N 65° 40' 25.7583" W Dist 1.5362

Curve Data

Curve ENT CURB03
P.I. Station 2+03.93 N 6,997,384.9821 E 11,815,633.6867
Delta 88° 43' 27.9799" (RT)
Degree 212° 12' 23.7268"
Tangent 26.4055
Length 41.8104
Radius 27.0000
External 10.7657
Long Chord 37.7564
Mid. Ord. 7.6968
P.C. Station 1+77.53 N 6,997,374.1215 E 11,815,657.7553
P.T. Station 2+19.34 N 6,997,409.2865 E 11,815,644.0088
C.C. N 6,997,398.7320 E 11,815,668.8604
Back N 65° 40' 25.7583" W
Ahead N 23° 00' 39.1832" E
Chord Bear N 21° 21' 04.7995" W

Course from PT ENT CURB03 to ENT CURB04 N 23° 00' 39.1832" E Dist 3.3368

Point ENT CURB04 N 6,997,412.3578 E 11,815,645.3131 Sta 2+22.68

Ending chain ENT CURBRIGHT description

CURB RETURN FOR CURB 5-1

Chain BEVAN CURB contains: BEVAN CURB01 CUR CURBEVAN BEVAN CURB03

Beginning chain BEVAN CURB description

Point BEVAN CURB01 N 6,996,494.9237 E 11,816,466.9691 Sta 1+00.00

Course from BEVAN CURB01 to PC CURBEVAN S 63° 43' 08.2727" E Dist 48.6614

Curve Data

Curve CURBEVAN
P.I. Station 1+75.83 N 6,996,461.3465 E 11,816,534.9639
Delta 90° 21' 50.5911" (LT)
Degree 212° 12' 23.7268"
Tangent 27.1721
Length 42.5831
Radius 27.0000
External 11.3057
Long Chord 38.3049
Mid. Ord. 7.9689
P.C. Station 1+48.66 N 6,996,473.3777 E 11,816,510.6005
P.T. Station 1+91.24 N 6,996,485.7859 E 11,816,546.8400
C.C. N 6,996,497.5868 E 11,816,522.5554
Back S 63° 43' 08.2727" E
Ahead N 25° 55' 01.1361" E
Chord Bear N 71° 05' 56.4317" E

Course from PT CURBEVAN to BEVAN CURB03 N 25° 55' 01.1361" E Dist 28.4676

Point BEVAN CURB03 N 6,996,511.3905 E 11,816,559.2823 Sta 2+19.71

Ending chain BEVAN CURB description

Note: The Horizontal Construction Alignment Data shown on this sheet was generated utilizing the Department's (VDOT) Engineering Design Package "Geopak", with computer identification number 0050.

Table with columns: PLAN NO., PROJECT, FILE NO., SHEET NO. Row 1: Jermantown Road Phase II Improvements, IG

FINAL PLAN

Office Locations: Rinker Design Associates, P.C. (703) 368-7373, 10000 Lee Blvd, Manassas, VA 20108

CITY OF FAIRFAX

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
 SURVEYED BY *Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGN SUPERVISED BY *Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGNED BY *Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373*

INSERTABLE SHEETS

ST'D.PB-1

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IH

PB-1						
NO PROJECTION OF PIPE ABOVE GROUND LINE						
<p style="text-align: center;">NORMAL EARTH FOUNDATION</p>	<p style="text-align: center;">ROCK FOUNDATION</p>	<p style="text-align: center;">FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL</p>				
PIPE PROJECTION ABOVE GROUND LINE						
<p style="text-align: center;">NORMAL EARTH FOUNDATION</p>	<p style="text-align: center;">ROCK FOUNDATION</p>	<p style="text-align: center;">FOUNDATION SOFT, YIELDING, OR OTHERWISE UNSUITABLE MATERIAL</p>				
<p> BEDDING MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.</p> <p> CLASS I BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.</p> <p> FOR PLASTIC PIPE CLASS I BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.</p> <p> FOR ALL OTHER PIPE REGULAR BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.</p>	<p> EMBANKMENT</p> <p> REGULAR BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.</p>	<p>NOTES:</p> <p>FOR GENERAL NOTES ON PIPE BEDDING, SEE INSTALLATION OF PIPE CULVERTS AND STORM SEWERS GENERAL NOTES ON SHEET 107.00.</p> <p>CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26 MAY BE USED IN PLACE OF CLASS I BACKFILL.</p>				
<p>VDOT ROAD AND BRIDGE STANDARDS</p> <table border="1"> <tr> <td>SHEET 1 OF 4</td> <td>REVISION DATE</td> </tr> <tr> <td>107.01</td> <td>07/12</td> </tr> </table>		SHEET 1 OF 4	REVISION DATE	107.01	07/12	<p style="text-align: center;">INSTALL. OF PIPE CULVERTS AND STORM SEWERS CIRC. PIPE BEDDING AND BACKFILL - METHOD "A"</p> <p style="text-align: center;">VIRGINIA DEPARTMENT OF TRANSPORTATION</p>
SHEET 1 OF 4	REVISION DATE					
107.01	07/12					
		<table border="1"> <tr> <td>SPECIFICATION REFERENCE</td> </tr> <tr> <td>302 303</td> </tr> </table>	SPECIFICATION REFERENCE	302 303		
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Rinker
 Design Associates, P.C.
 Civil Engineers, Surveyors, Environmental Planners, Transportation - Environmental Right-of-Way Services
 10000 Lee Highway, Suite 1000, Fairfax, VA 22031
 Phone: (703) 368-7373
 Fax: (703) 368-7373
 www.rinker.com

CITY OF FAIRFAX

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	IH

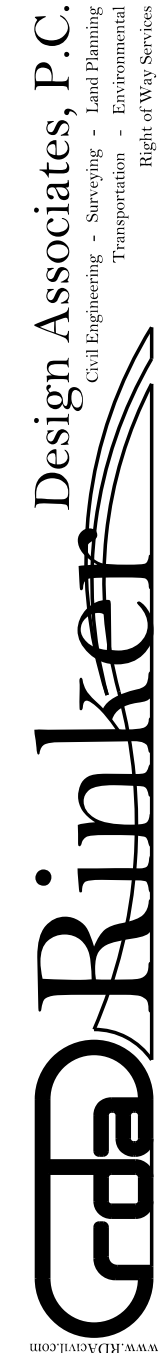
PROJECT MANAGER Wendy Block Sanford, City of, Fairfax, (703) 385-7889
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INSERTABLE SHEETS

ST'D.PC-1

REVISED	STATE	FEDERAL AID	STATE	SHEET NO.
	VA.	PROJECT OWNER	PROJECT	
			Jermantown Road Phase II Improvements	I(HI)

Office Locations
 10000 Old Dominion Boulevard
 Suite 1000
 Fairfax, VA 22030
 Phone: (703) 368-7373
 Fax: (703) 368-7373



CITY OF FAIRFAX

8/15/2014

	PC-1																																																																																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3">POLYETHYLENE CORRUGATED PIPE (PE) (SEE NOTE 6)</th> </tr> <tr> <th>DIAMETER INCHES</th> <th>AREA SQ. FT.</th> <th>MAXIMUM HEIGHT OF COVER FEET</th> </tr> <tr><td>12</td><td>0.8</td><td>21</td></tr> <tr><td>15</td><td>1.2</td><td>21</td></tr> <tr><td>18</td><td>1.8</td><td>20</td></tr> <tr><td>24</td><td>3.1</td><td>20</td></tr> <tr><td>30</td><td>4.9</td><td>19</td></tr> <tr><td>36</td><td>7.1</td><td>18</td></tr> <tr><td>42</td><td>9.6</td><td>18</td></tr> <tr><td>48</td><td>12.6</td><td>17</td></tr> <tr><td>54</td><td>15.9</td><td>16</td></tr> <tr><td>60</td><td>19.6</td><td>16</td></tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3">POLYVINYLCHLORIDE RIBBED PIPE (PVC)</th> </tr> <tr> <th>DIAMETER INCHES</th> <th>AREA SQ. FT.</th> <th>MAXIMUM HEIGHT OF COVER FEET</th> </tr> <tr><td>18</td><td>1.7</td><td>20</td></tr> <tr><td>21</td><td>2.3</td><td>19</td></tr> <tr><td>24</td><td>3.0</td><td>19</td></tr> <tr><td>30</td><td>4.7</td><td>18</td></tr> <tr><td>36</td><td>6.9</td><td>18</td></tr> <tr><td>48</td><td>12.3</td><td>18</td></tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3">POLYPROPYLENE PIPE (PP) (SEE NOTE 7)</th> </tr> <tr> <th>DIAMETER INCHES</th> <th>AREA SQ. FT.</th> <th>MAXIMUM HEIGHT OF COVER FEET</th> </tr> <tr><td>12</td><td>0.8</td><td>21</td></tr> <tr><td>15</td><td>1.2</td><td>21</td></tr> <tr><td>18</td><td>1.8</td><td>20</td></tr> <tr><td>24</td><td>3.1</td><td>20</td></tr> <tr><td>30</td><td>4.9</td><td>19</td></tr> <tr><td>36</td><td>7.1</td><td>18</td></tr> <tr><td>42</td><td>9.6</td><td>18</td></tr> <tr><td>48</td><td>12.6</td><td>17</td></tr> </table>	POLYETHYLENE CORRUGATED PIPE (PE) (SEE NOTE 6)			DIAMETER INCHES	AREA SQ. FT.	MAXIMUM HEIGHT OF COVER FEET	12	0.8	21	15	1.2	21	18	1.8	20	24	3.1	20	30	4.9	19	36	7.1	18	42	9.6	18	48	12.6	17	54	15.9	16	60	19.6	16	POLYVINYLCHLORIDE RIBBED PIPE (PVC)			DIAMETER INCHES	AREA SQ. FT.	MAXIMUM HEIGHT OF COVER FEET	18	1.7	20	21	2.3	19	24	3.0	19	30	4.7	18	36	6.9	18	48	12.3	18	POLYPROPYLENE PIPE (PP) (SEE NOTE 7)			DIAMETER INCHES	AREA SQ. FT.	MAXIMUM HEIGHT OF COVER FEET	12	0.8	21	15	1.2	21	18	1.8	20	24	3.1	20	30	4.9	19	36	7.1	18	42	9.6	18	48	12.6	17	<p>NOTES:</p> <ol style="list-style-type: none"> COVER HEIGHTS INDICATED IN TABLES ARE FOR FINISHED CONSTRUCTION. TO PROTECT PIPE DURING CONSTRUCTION, MINIMUM HEIGHT OF COVER TO BE IN ACCORDANCE WITH TABLE A PRIOR TO ALLOWING CONSTRUCTION TRAFFIC TO CROSS INSTALLATION. THE COVER SHALL EXTEND THE FULL LENGTH OF THE PIPE. THE APPROACH FILL IS TO EXTEND A MINIMUM OF 10(DIAMETER + 1/2 DIAMETER) ON EACH SIDE OF THE PIPE OR TO THE INTERSECTION WITH A CUT. STANDARD MINIMUM FINISHED HEIGHT OF COVER FOR ALL PIPES, EXCEPT THOSE UNDER ENTRANCES, SHALL BE 2.0' OR 1/2 DIAMETER WHICHEVER IS GREATER. FOR 12" THROUGH 48" DIAMETER PIPE INSTALLATIONS WHERE THE COVER HEIGHTS CANNOT BE ACHIEVED, AN ABSOLUTE MINIMUM FINISHED COVER HEIGHT OF 1.0' WILL BE ALLOWED ONLY IF ALL POSSIBLE MEANS TO OBTAIN THE STANDARD VALUE HAVE BEEN EXHAUSTED. THE MINIMUM FINISHED HEIGHT OF COVER FOR PIPES UNDER ENTRANCES IS 9" FOR PIPE DIAMETERS LESS THAN OR EQUAL TO 24", AND 12" FOR PIPE DIAMETERS GREATER THAN 24". WHERE THE SURFACE OVER THE TOP OF THE PIPE WILL BE ASPHALT, A MINIMUM OF 6" OF CLASS 1 BACKFILL MATERIAL IS TO BE PLACED BETWEEN THE TOP OF THE PIPE AND THE BOTTOM OF THE ASPHALT. SEE STANDARD PB-1 FOR PIPE BEDDING AND BACKFILL REQUIREMENTS. THE MAXIMUM HEIGHT OF COVER SHOWN IN THE TABLES IS BASED ON A SOIL MODULUS OF 700 PSL. ALL OTHER DESIGN CRITERIA ARE IN ACCORDANCE WITH THE AASHTO SPECIFICATIONS AND VDOT MODIFICATIONS FOR SOIL THERMOPLASTIC PIPE INTERACTION SYSTEMS. HEIGHT OF COVER VALUES FOR 12" THROUGH 36" DIAMETER APPLY TO TYPE C OR S. HEIGHT OF COVER VALUES FOR 42" THROUGH 60" APPLY TO TYPE S ONLY. HEIGHT OF COVER VALUES FOR 12" THROUGH 30" DIAMETER APPLY TO TYPE S. HEIGHT OF COVER VALUES FOR 36" THROUGH 48" APPLY TO TYPE D ONLY. <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th colspan="2">TABLE A</th> </tr> <tr> <th>PIPE DIAMETER</th> <th>MINIMUM COVER HEIGHT DURING CONSTRUCTION (SEE NOTE 2)</th> </tr> <tr> <td>12" TO 30"</td> <td>18"</td> </tr> <tr> <td>36" AND ABOVE</td> <td>1/2 DIAMETER</td> </tr> </table>	TABLE A		PIPE DIAMETER	MINIMUM COVER HEIGHT DURING CONSTRUCTION (SEE NOTE 2)	12" TO 30"	18"	36" AND ABOVE	1/2 DIAMETER
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PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	I(HI)

FINAL PLAN

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
 SURVEYED BY *Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGN SUPERVISED BY *Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGNED BY *Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373*

INSERTABLE SHEETS

ST'D.CG-12

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IH(2)

Office Locations
 Rinker Design Associates, P.C.
 10000 Lee Highway, Suite 100
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 www.rinker.com

CITY OF FAIRFAX

CG-12	
<p>GENERAL NOTES:</p> <ol style="list-style-type: none"> THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES. DETECTABLE WARNING TO BE CLASS A-3 CONCRETE (CLASS A-4 IF PRECAST) WITH SLIP RESISTANT INTEGRAL SURFACE COVERING THE FULL WIDTH OF THE RAMP FLOOR BY 2 FOOT IN LENGTH IN THE DIRECTION OF PEDESTRIAN TRAVEL. OTHER TYPES OF MATERIAL WITH THE TRUNCATED DOMES DETECTABLE WARNING MAY BE USED WITH THE APPROVAL OF THE ENGINEER. SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS. IF RAMP FLOOR IS PRECAST, HOLES MUST BE PROVIDED FOR DOWEL BARS SO THAT ADJOINING FLARED SIDES CAN BE CAST IN PLACE AFTER PLACEMENT OF PRECAST RAMP FLOOR. PRECAST CONCRETE SHALL BE CLASS A-4. REQUIRED BARS ARE TO BE NO. 5 X 8" PLACED 1" CENTER TO CENTER ALONG BOTH SIDES OF THE RAMP FLOOR, MID-DEPTH OF RAMP FLOOR. MINIMUM CONCRETE COVER 1/2". CURB / CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO CURB RAMPS ARE INCLUDED IN PAYMENT FOR CURB / CURB AND GUTTER. CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THEY ARE TO BE PROVIDED AT INTERSECTIONS WHEREVER AN ACCESSIBLE ROUTE WITHIN THE RIGHT OF WAY OF A HIGHWAY FACILITY CROSSES A CURB REGARDLESS OF WHETHER SIDEWALK IS EXISTING, PROPOSED, OR NONEXISTENT. THEY MUST BE LOCATED WITHIN PEDESTRIAN CROSSWALKS AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER, AND SHOULD NOT BE LOCATED BEHIND VEHICLE STOP LINES, EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. ACCESSIBLE ROUTES PROVIDE A CONTINUOUS UNOBSTRUCTED, STABLE, FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS. RAMPS MAY BE PLACED ON RADIAL OR TANGENTIAL SECTIONS PROVIDED THAT THE CURB OPENING IS PLACED WITHIN THE LIMITS OF THE CROSSWALK AND THAT THE SLOPE AT THE CONNECTION OF THE CURB OPENING IS PERPENDICULAR TO THE CURB. TYPICAL CONCRETE SIDEWALK IS 4" THICK. WHEN THE ENTRANCE RADIUS CANNOT ACCOMMODATE THE TURNING REQUIREMENTS OF ANTICIPATED HEAVY TRUCK TRAFFIC, REFER TO STANDARD CG-13, COMMERCIAL ENTRANCE (HEAVY TRUCK TRAFFIC) FOR CONCRETE DEPTH. WHEN CURB RAMPS ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH. WHEN ONLY ONE CURB RAMP IS PROVIDED FOR TWO CROSSINGS (DIAGONAL), A 4' x 4' LANDING AREA SHALL BE PROVIDED TO MANEUVER A WHEELCHAIR INTO THE CROSSWALK WITHOUT GOING INTO THE TRAVELWAY. THIS 4' x 4' LANDING AREA MAY INCLUDE THE GUTTER PAN. ALL CASES WHERE CURB RAMPS INTERSECT A RADIAL SECTION OF CURB AT ENTRANCES OR STREET CONNECTIONS THE DETECTABLE WARNING SURFACE SHALL HAVE A FACTORY RADIUS OR BE FIELD-MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE BACK OF CURB. 	
<p>DETECTABLE WARNING INSTALLED ON A RADIUS</p>	<p>TRUNCATED DOME DETAIL</p>
<p>DETECTABLE WARNING DETAIL</p>	
	<p>CG-12 DETECTABLE WARNING SURFACE (GENERAL NOTES)</p> <p>VIRGINIA DEPARTMENT OF TRANSPORTATION</p>
<p>SHEET 1 OF 5</p> <p>203.05</p>	<p>REVISION DATE</p> <p>7/11</p>
<p>SPECIFICATION REFERENCE</p> <p>105</p> <p>502</p>	<p>SPECIFICATION REFERENCE</p> <p>105</p> <p>502</p>

CG-12	
<p>NOTES: FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5. THIS DESIGN TO BE USED FOR CONSTRUCTION THAT INCORPORATES WIDER SIDEWALK, LANDING (4' WIDE) REQUIRED AT TOP OF CURB RAMP. MINIMUM CURB RAMP LENGTH 8 FEET FOR NEW CONSTRUCTION, 6 FEET FOR ALTERATIONS.</p>	
<p>TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK</p>	<p>TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK (WITH BUFFER STRIP)</p>
<p>CROSSWALK DIAGONAL PLACEMENT</p>	<p>DIAGONAL PLACEMENT WITH BUFFER STRIP</p>
<p>A 4' SQUARE LANDING AREA OUTSIDE OF TRAVELWAY SHALL BE PROVIDED WITHIN THE MARKED CROSSWALK AREA.</p>	
	<p>CG-12 DETECTABLE WARNING SURFACE TYPE A (PERPENDICULAR) APPLICATION</p> <p>VIRGINIA DEPARTMENT OF TRANSPORTATION</p>
<p>SHEET 1 OF 5</p> <p>203.05</p>	<p>REVISION DATE</p> <p>7/11</p>
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PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IH(2)

FINAL PLAN

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
 SURVEYED BY *Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGN SUPERVISED BY *Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGNED BY *Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373*

INSERTABLE SHEETS

ST'D.CG-12

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	1H(3)

Office Locations
 Rinker Design Associates, P.C.
 10000 Lee Highway, Suite 100
 Fairfax, VA 22033
 Phone: (703) 368-7373
 Fax: (703) 368-7374
 www.rinker.com

CITY OF FAIRFAX

CG-12

TYPE B PARALLEL APPLICATION

ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	4	6
1	5	7
2	5	8
3	6	9
4	8	12
5	10	15
6	14	15

NOTES: FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
 THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.

VDOT ROAD AND BRIDGE STANDARDS
 SHEET 3 OF 5 REVISION DATE 203.07 7/11

CG-12 DETECTABLE WARNING SURFACE TYPE B (PARALLEL) APPLICATION
 VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE 105 502

CG-12

TYPE C PARALLEL & PERPENDICULAR APPLICATION

ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	2	4
1	2	5
2	3	5
3	3	6
4	4	8
5	5	10
6	7	14
7	13	15
8	15	15

NOTES: FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
 THE SELECTION OF CURB TYPE AND THE CONFIGURATION OF THE BUFFER STRIP MAY VARY TO MEET EXISTING FIELD CONDITIONS AND ROADWAY GEOMETRICS PROVIDING THE DIMENSIONS AND SLOPES ARE AS NOTED.
 THIS COMBINED (PARALLEL & PERPENDICULAR) DESIGN CAN BE USED WITH ADJOINING BUFFER STRIP. LANDING AT BOTTOM OF TWO SLOPING SIDES WITH 5' X 5' MIN. DIMENSIONS. THE SHORT PERPENDICULAR RUN TO THE STREET CAN BE PROTECTED BY A LANDSCAPED SETBACK OR CONNECTED TO THE SIDEWALK WITH A WARPED SURFACE.

VDOT ROAD AND BRIDGE STANDARDS
 REVISION DATE 7/11 SHEET 4 OF 5 203.08

CG-12 DETECTABLE WARNING SURFACE TYPE C (PARALLEL & PERPENDICULAR) APPLICATION
 VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE 105 502

FINAL PLAN

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	1H(3)

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
 SURVEYED BY *Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGN SUPERVISED BY *Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGNED BY *Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373*

INSERTABLE SHEETS

ST'D.CG-12 & ST'D.ACOT-1

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	I(H)4

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CG-12

MEDIAN WITH CUT-THROUGH TYPE M2

REFUGE ISLAND WITH RAMPS TYPE R11

MEDIAN WITH RAMP TYPE M1

REFUGE ISLAND CUT - THROUGH TYPE R12

SECTION C-C SEE NOTE 5
SECTION B-B SEE NOTE 5
SECTION D-D SEE NOTE 5

NOTES:

- FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
- CURB SHALL BE SHAPED TO MATCH THE FACE OF ROADWAY CURB.
- SEE ROADWAY PLANS FOR MEDIAN AND REFUGE ISLAND DIMENSIONS
- RAMPS AND CUT THROUGH'S SHALL BE ALIGNED WITH CROSSWALKS.
- THE RAMPS AND CUT THROUGH'S SHALL BE INSTALLED AND PAID FOR AS 4" HYDRAULIC CEMENT CONCRETE SIDEWALK IN ACCORDANCE WITH SECTION 504 OF THE ROAD & BRIDGE SPECIFICATIONS. EXCAVATION OF MATERIAL FOR THE INSTALLATION OF THE SIDEWALK SHALL BE INCLUDED IN THE PRICE BID FOR 4" HYDRAULIC CEMENT CONCRETE SIDEWALK.
- CUT THROUGH'S LESS THAN 6' IN WIDTH SHALL NOT HAVE DETECTABLE WARNINGS INSTALLED.

NOTES

- TIE-IN REQUIREMENTS TO INTERSECTING ROADS OR STREETS SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR AT THE DIRECTION OF THE ENGINEER.
- EXISTING PAVEMENT SURFACE SHALL BE PLANED TO TRANSITION THE TOP COURSE OF THE ASPHALT CONCRETE OVERLAY. ANY SUB-COURSE TERMINATION MAY BE NOTCHED INTO THE EXISTING PAVEMENT OR BLENDED WITH THE NEXT COURSE OF PAVEMENT.
- WHEN THERE IS A SPECIAL PROVISION FOR RIDEABILITY INCLUDED IN THE CONTRACT, A DISTANCE OF 105 FEET (0.02 OF A MILE), MEASURED FROM THE LINE OF THE TIE-IN WILL BE EXEMPTED FROM PAY ADJUSTMENT.
- TRANSITION SHALL BEGIN/END AT THE PROJECT LIMITS, AT BRIDGE APPROACH SLAB/ABUTMENT (OR AN INTERMEDIATE POINT DETERMINED BY THE ENGINEER), AND A MINIMUM OF 75 FEET FROM A VERTICAL PLANE OF THE NEAREST OUTER FACE OF THE BRIDGE OVERPASS.
- NO OVERLAY OR MILLING SHALL BE PERMITTED ON THE BRIDGE DECK WITHOUT THE PRIOR WRITTEN APPROVAL OF THE DISTRICT BRIDGE ENGINEER.

ACOT-1

SINGLE COURSE OVERLAY TRANSITION GEOMETRY (NOT TO SCALE)

TRANSITION RATE

RATE (FT/INCH)	POSTED SPEED MPH					
	25	35	45	55	65	70
	20	25	35	40	45	50

TEMPORARY WEDGE DETAIL

TEMPORARY PAVEMENT WEDGE SHALL BE CONSTRUCTED OF SURFACE MIX ASPHALT A MINIMUM OF 3 FEET IN LENGTH FOR EVERY INCH OF DEPTH OF PAVEMENT MILLING.

TWO COURSE OVERLAY TRANSITION GEOMETRY (NOT TO SCALE)

THREE COURSE OVERLAY TRANSITION GEOMETRY (NOT TO SCALE)

ROAD AND BRIDGE STANDARDS SHEET 5 OF 5 REVISION DATE 203.08A 7/12		CG-12 DETECTABLE WARNING SURFACE MEDIAN AND REFUGE ISLAND APPLICATIONS VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE 105 502
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SPECIFICATION REFERENCE 210 315 515	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. ASPHALT CONCRETE OVERLAY TRANSITIONS VIRGINIA DEPARTMENT OF TRANSPORTATION	ROAD AND BRIDGE STANDARDS REVISION DATE 7/12 SHEET 1 OF 1 305.01
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PLAN NO.	PROJECT Jermantown Road Phase II Improvements	FILE NO.	SHEET NO. I(H)4
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FINAL PLAN

PROJECT MANAGER Wendy Block, Sanford, City of Fairfax, (703) 385-7889
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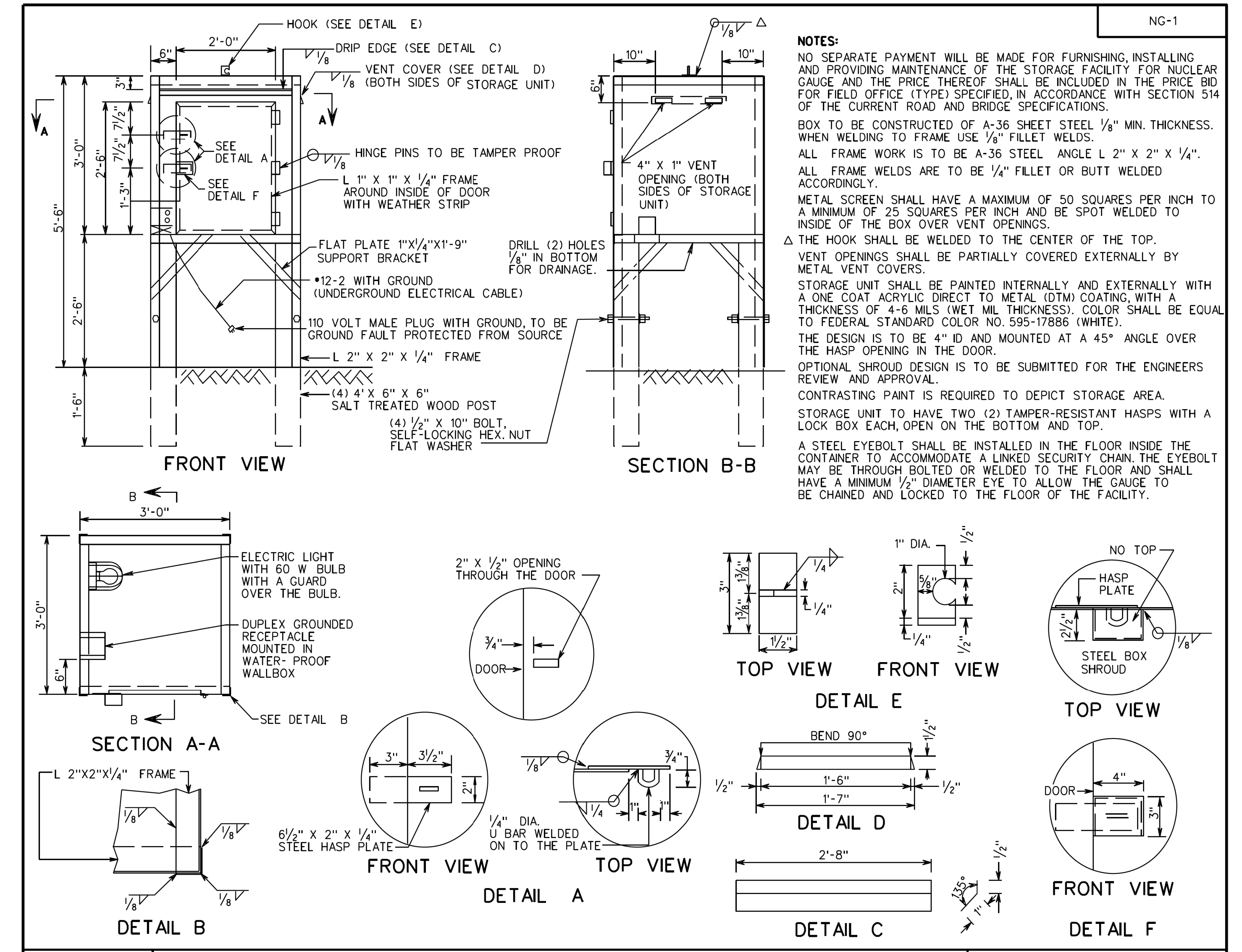
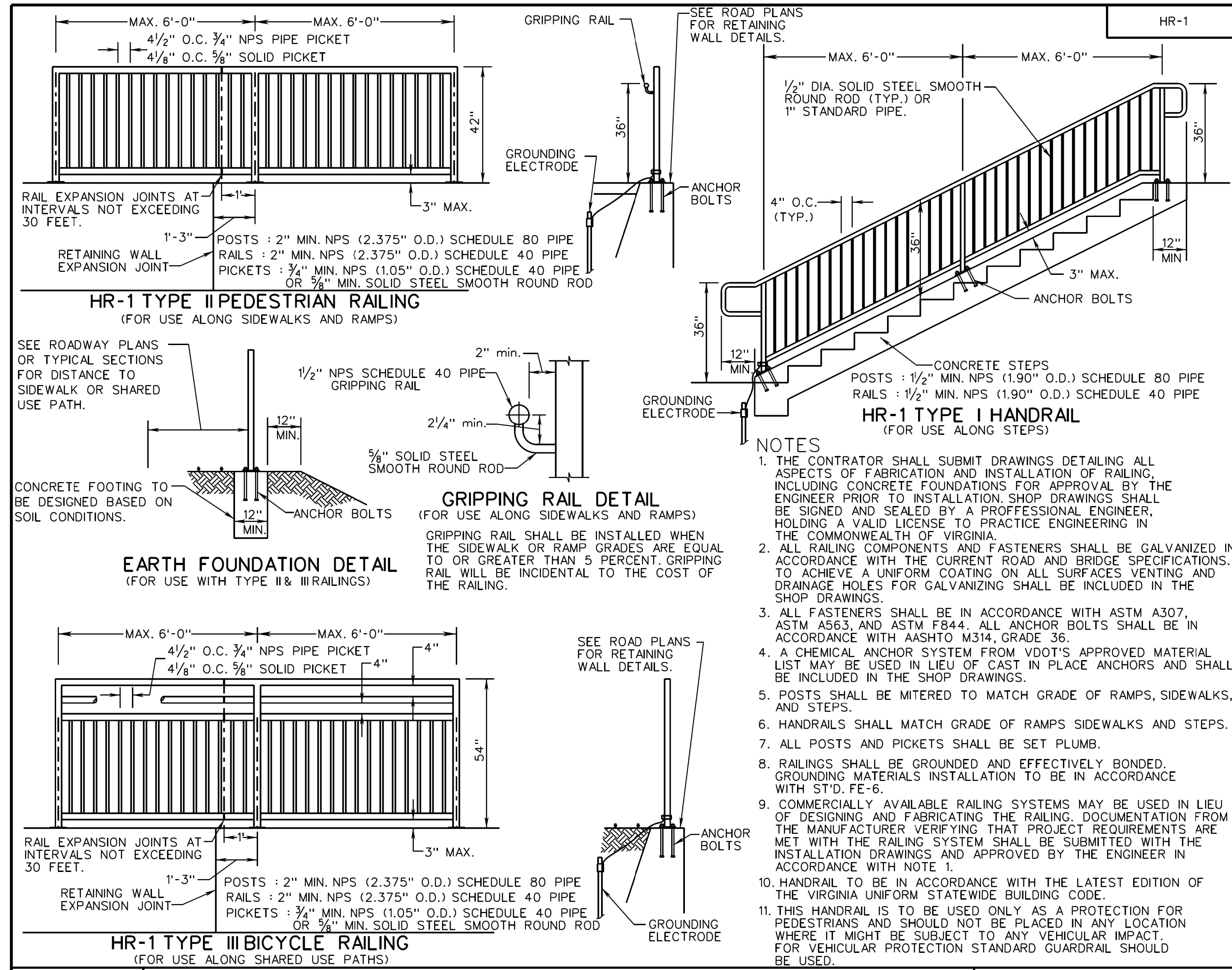
INSERTABLE SHEETS ST'D.HR-1 & ST'D.NG-1

REVISED	STATE	FEDERAL AID	STATE	SHEET NO.
		PROJECT OWNER	PROJECT	
	VA.		Jermantown Road Phase II Improvements	I(H)5

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Civil Engineering
Transportation - Environmental
Right-of-Way Services

CITY OF FAIRFAX



SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.	VDOT ROAD AND BRIDGE STANDARDS
105 238 504	STANDARD HANDRAIL METHOD OF LOCATING AND ERECTING VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: 7/11 SHEET 1 OF 1 601.05

SPECIFICATION REFERENCE	STORAGE FACILITY FOR NUCLEAR GAUGE VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS
		REVISION DATE: 01/13 SHEET 1 OF 1 605.01

PLAN NO.	PROJECT Jermantown Road Phase II Improvements	FILE NO.	SHEET NO. I(H)5
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FINAL PLAN

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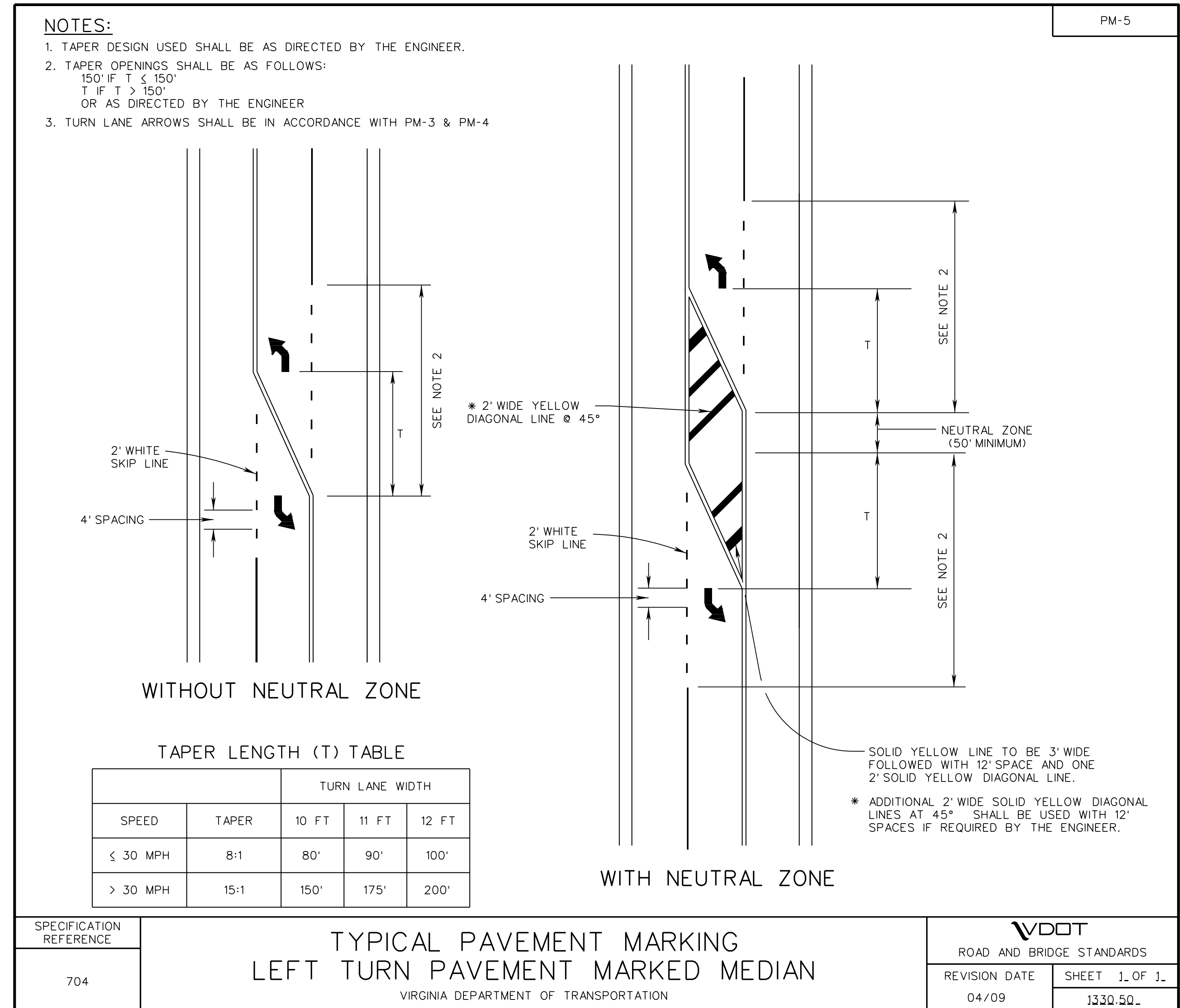
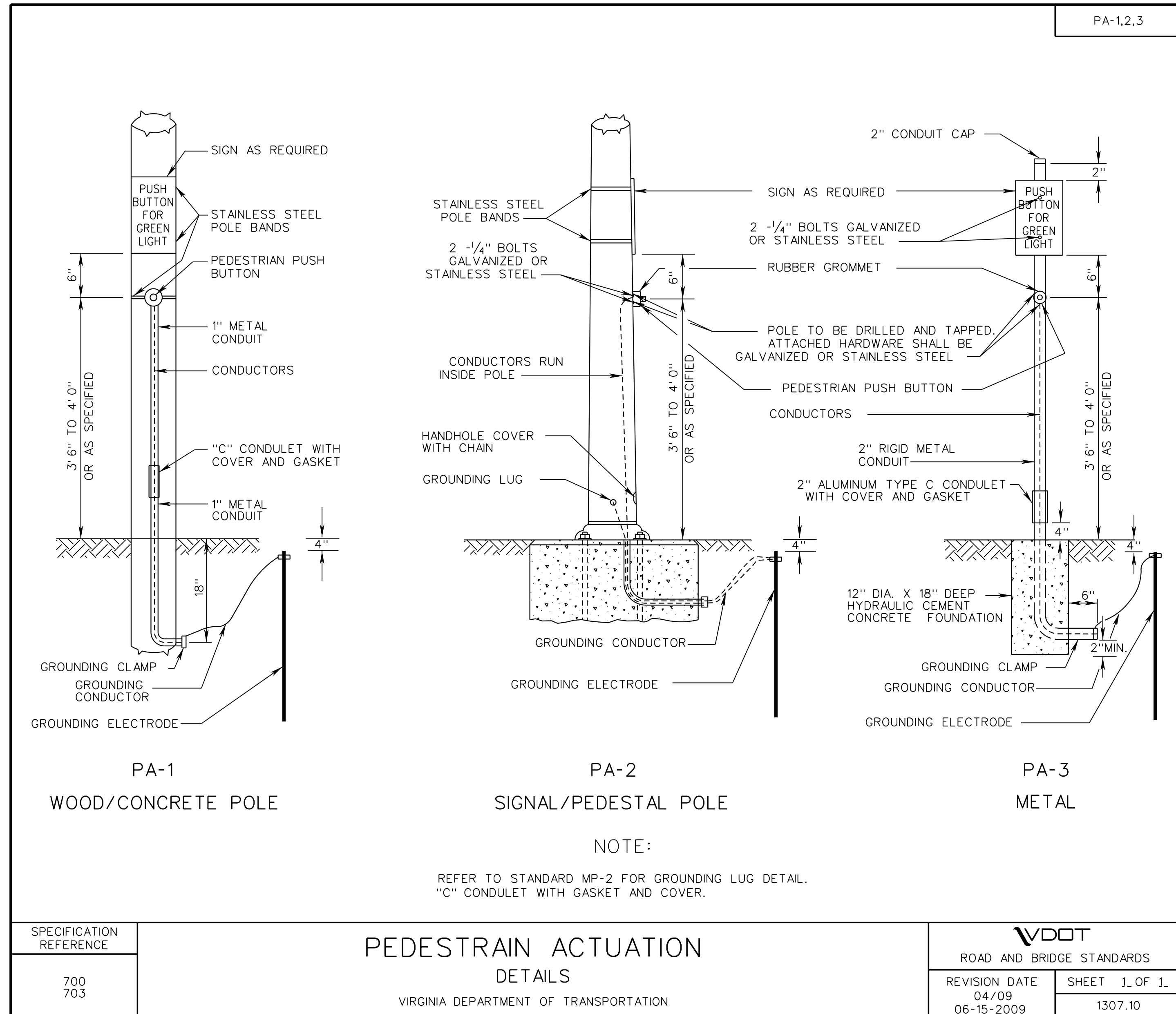
INSERTABLE SHEETS

ST'D.PA-1,2,3 & ST'D.PM-5

REVISED	STATE	FEDERAL AID	STATE	SHEET NO.
	VA.	PROJECT OWNER	PROJECT	
			Jermantown Road Phase II Improvements	1H(6)

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CITY OF FAIRFAX



FINAL PLAN

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	1H(6)

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
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INSERTABLE SHEETS

ST'D.CF-1 & ST'D.CF-2

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IH(7)

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CITY OF FAIRFAX

CF-1

TOP VIEW
 SIZE AND NUMBER AS REQUIRED BY PLANS
 2- 2" CONDUITS REQUIRED FOR FUTURE USE SHALL BE STUBBED OUT AND CAPPED. NOTE THAT ADDITIONAL SPARE CONDUITS MAY BE REQUIRED BY THE PLANS.
 1- 1" CONDUIT REQUIRED FOR GROUNDING CONDUCTOR
 ANCHOR BOLT
 GROUNDING ELECTRODE
 CONDUIT AS SPECIFIED ON PLANS FOR POWER SERVICE
 CONCRETE PAD (SLOPED TO DRAIN)

SIDE VIEW
 THE ANCHOR BOLTS SHALL EXTEND 1/4" TO 3/4" ABOVE THE TOP OF THE NUT AFTER INSTALLATION OF THE NUTS, WASHERS AND CABINET.
 1/2" ANCHOR BOLT MIN. 8" LONG WITH 1 1/2" L BEND.
 FINISHED SURFACE
 SLOPED TO DRAIN
 GROUNDING ELECTRODE
 CONCRETE PAD SHALL BE LOCATED IN FRONT OF CABINET DOORS

FRONT VIEW
 4" REQUIRED ABOVE FINISHED GRADE
 FINISHED SURFACE
 10"
 4"
 18"
 55"
 BACKFILL WITH NO. 25 OR 26 AGGR.
 HYDRAULIC CEMENT CONCRETE

NOTES:
 OPEN ENDS OF CONDUITS WITH CONDUCTORS INSTALLED SHALL BE SEALED WITH AN APPROVED SOFT, PLIABLE, AND EASILY REMOVABLE WATERPROOF SEALANT. THE SEALANT SHALL NOT HAVE A DELETERIOUS EFFECT ON CABLE COVERINGS.
 IN ADDITION TO ELECTRICAL SERVICE GROUNDING ELECTRODE SYSTEM, EACH STRUCTURE SHALL UTILIZE ITS OWN GROUNDING ELECTRODE.
 ALL EXPOSED CONCRETE SURFACE EDGES SHALL BE CHAMFERED 3/4".
 * ANCHOR BOLTS AND BOLT CIRCLE TEMPLATE SHALL BE FURNISHED WITH CABINET.
 CABINET SHALL BE CENTERED ON FOUNDATION.
 EACH FOUNDATION SHALL BE PERMANENTLY MARKED TO INDICATE ALL SIDES FROM WHICH CONDUITS PASS. THIS MARK SHALL BE MADE WITH A TROWEL WHEN FINISHING THE CONCRETE AND SHALL BE 1/4" DEEP AND 4" TO 6" LONG.
 THE CONTROLLER CABINET AT THE INSIDE AND OUTSIDE FOUNDATION JOINTS SHALL BE SEALED WITH A SILICONE SEALANT.
 BELL ENDS SHALL BE INSTALLED ON EACH END OF PVC CONDUITS.
 EMPTY CONDUITS SHALL BE PLUGGED TO PREVENT MOISTURE AND RODENT ENTRY.
 GROUNDING BUSHINGS SHALL BE INSTALLED ON EACH END OF METAL CONDUITS.
 TWO - 1/2" DIAMETER WEEPHOLES SHALL BE PROVIDED IN THE FOUNDATION AND LOCATED 2" INSIDE OF THE BACK OR SIDE EDGES OF THE CONTROLLER CABINET. WEEPHOLES SHALL BE SLOPED TO ALLOW OUTLET TO BE 3" BELOW TOP OF FOUNDATION. TWO INCHES OF THE OUTLET END SHALL BE FIBER FILLED.

SPECIFICATION REFERENCE	CONTROLLER CABINET FOUNDATION CABINET PLACEMENT DETAILS VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	REVISION DATE 06-15-2009	SHEET 1 OF 1 1301.10
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CF-2

TOP VIEW
 SIZE AND NUMBER AS REQUIRED BY PLANS
 1-2" CONDUIT REQUIRED FOR FUTURE USE SHALL BE STUBBED OUT AND CAPPED. NOTE THAT ADDITIONAL SPARE CONDUITS MAY BE REQUIRED BY THE PLANS.
 1- 1" CONDUIT REQUIRED FOR GROUNDING CONDUCTOR
 GROUNDING ELECTRODE
 CONDUIT AS SPECIFIED ON PLANS FOR POWER SERVICE
 CONCRETE PAD (SLOPED TO DRAIN)

SIDE VIEW
 THE ANCHOR BOLTS SHALL EXTEND 1/4" TO 3/4" ABOVE THE TOP OF THE NUT AFTER INSTALLATION OF THE NUTS, WASHERS AND CABINET.
 1/2" ANCHOR BOLT MIN. 8" LONG WITH 1 1/2" L BEND.
 FINISHED SURFACE
 SLOPED TO DRAIN
 GROUNDING ELECTRODE
 CONCRETE PAD SHALL BE LOCATED IN FRONT OF CABINET DOORS

FRONT VIEW
 4" REQUIRED ABOVE FINISHED SURFACE
 10"
 4"
 18"
 BACKFILL WITH NO. 25 OR 26 AGGR.
 HYDRAULIC CEMENT CONCRETE

NOTES:
 IN ADDITION TO ELECTRICAL SERVICE GROUNDING ELECTRODE SYSTEM, EACH STRUCTURE SHALL UTILIZE ITS OWN GROUNDING ELECTRODE.
 ALL EXPOSED CONCRETE SURFACE EDGES SHALL BE CHAMFERED 3/4".
 * FOUNDATION LENGTH AND WIDTH SHALL BE AS REQUIRED TO PROJECT NO LESS THAN A MINIMUM 4" BEYOND ALL SIDES OF THE CABINET.
 ANCHOR BOLTS AND BOLT CIRCLE TEMPLATE SHALL BE FURNISHED WITH CABINET.
 CABINET SHALL BE CENTERED ON FOUNDATION.
 EACH FOUNDATION SHALL BE PERMANENTLY MARKED TO INDICATE ALL SIDES FROM WHICH CONDUITS PASS. THIS MARK SHALL BE MADE WITH A TROWEL WHEN FINISHING THE CONCRETE AND SHALL BE 1/4" DEEP AND 4" TO 6" LONG.
 THE CONTROL CENTER CABINET AT THE INSIDE AND OUTSIDE FOUNDATION JOINTS SHALL BE SEALED WITH A SILICONE SEALANT.
 BELL ENDS SHALL BE INSTALLED ON EACH END OF PVC CONDUITS.
 EMPTY CONDUITS SHALL BE PLUGGED TO PREVENT MOISTURE AND RODENT ENTRY.
 GROUNDING BUSHINGS SHALL BE INSTALLED ON EACH END OF METAL CONDUITS.
 TWO - 1/2" DIAMETER WEEPHOLES SHALL BE PROVIDED IN THE FOUNDATION AND LOCATED 2" INSIDE THE BACK OR SIDE EDGES OF THE CONTROLLER CABINET. WEEPHOLES SHALL BE SLOPED TO ALLOW OUTLET TO BE 3" BELOW THE TOP OF THE FOUNDATION. TWO INCHES OF THE OUTLET END SHALL BE FIBER FILLED.
 OPEN ENDS OF CONDUITS WITH CONDUCTORS INSTALLED SHALL BE SEALED WITH AN APPROVED SOFT, PLIABLE, AND EASILY REMOVABLE WATERPROOF SEALANT. THE SEALANT SHALL NOT HAVE A DELETERIOUS EFFECT ON CABLE COVERINGS.

SPECIFICATION REFERENCE	CONTROL CENTER CABINET FOUNDATION CABINET PLACEMENT DETAILS VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	REVISION DATE 06-15-2009	SHEET 1 OF 1 1301.20
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FINAL PLAN

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	IH(7)

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
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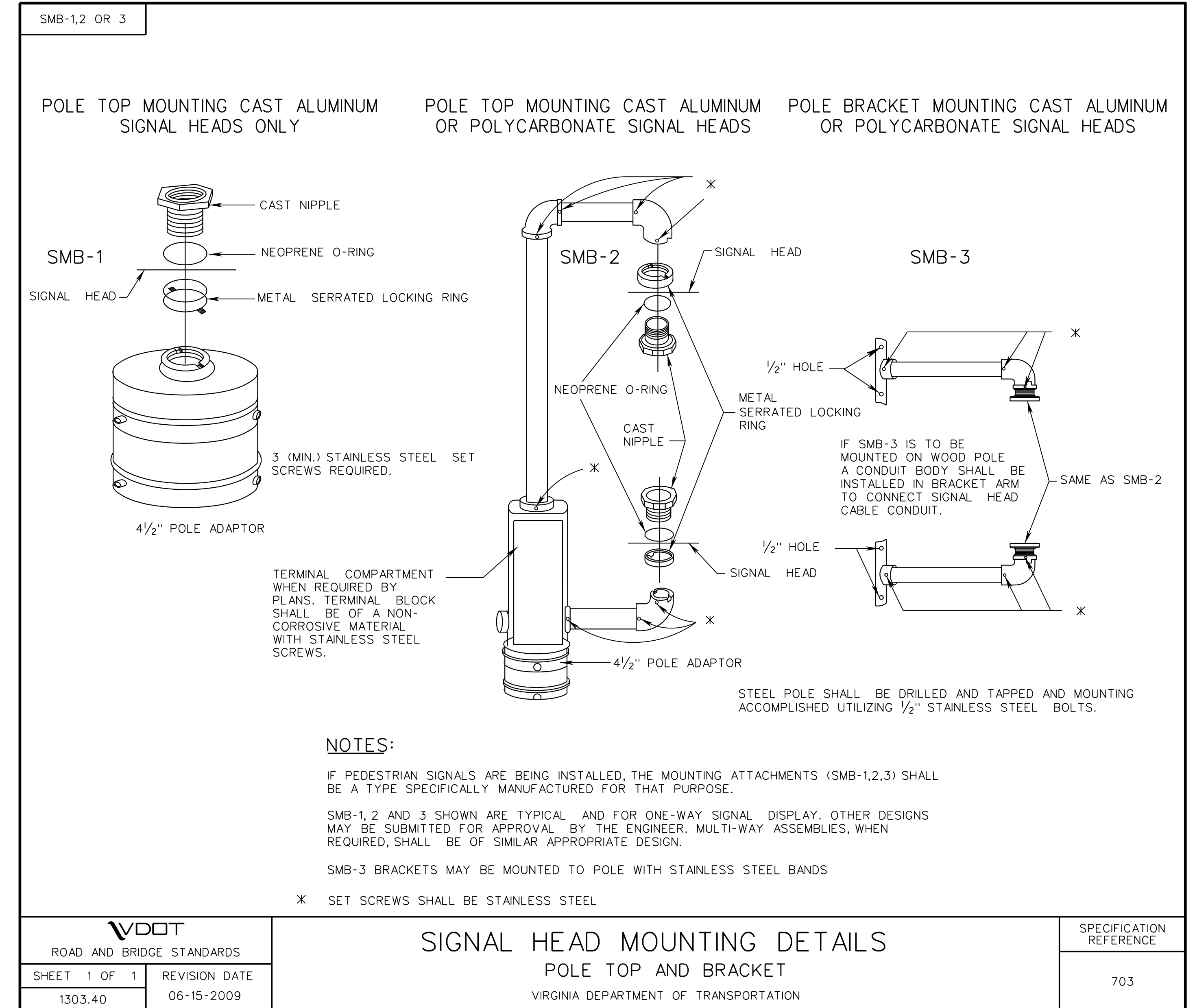
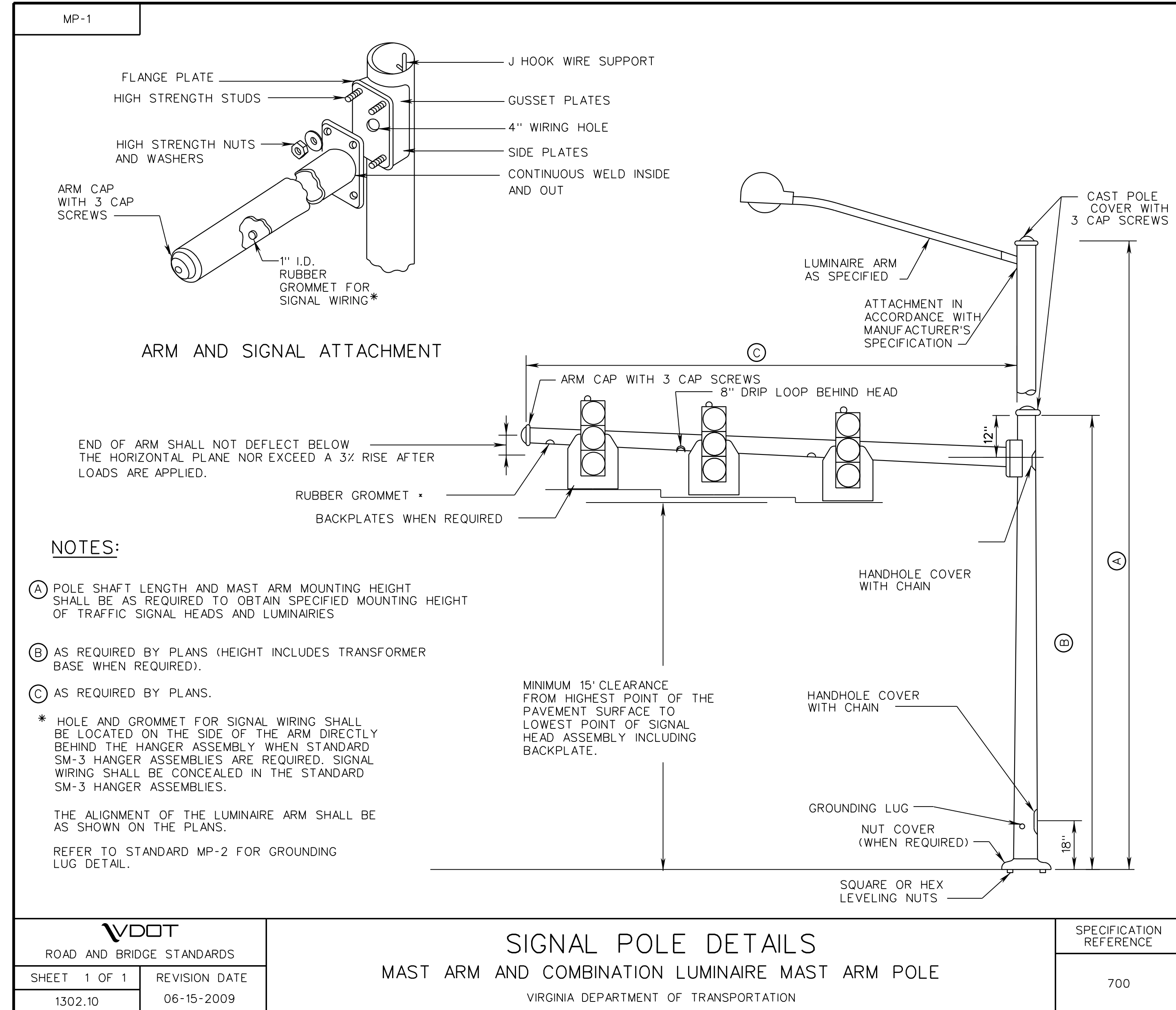
INSERTABLE SHEETS

ST'D.MP-1 & ST'D.SMB-1,2,3

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	1H(8)

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CITY OF FAIRFAX



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	1H(8)

FINAL PLAN

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
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INSERTABLE SHEETS

ST'D.SMD-1,2 & ST'D.PF-1

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	I(H)9

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CITY OF FAIRFAX

SMD-1.2

SPAN WIRE INSTALLATION

LOCK WASHER

NUT

LOCK WASHER

FLAT WASHER

EXTENSION SHALL BE USED WITH THE HANGER AND TETHER ASSEMBLY TO CENTER THE SIGN WITH THE SIGNAL HEADS.

SMD-1

MAST ARM INSTALLATION

STAINLESS STEEL CABLE

6" TAIL

SIGN PANEL 16 FT² MAX.

STAINLESS STEEL LOCK WASHER

STAINLESS STEEL NUT

STAINLESS STEEL FENDER WASHER

NYLON WASHER

NYLON WASHER

STAINLESS STEEL FENDER WASHER

SMD-2

NOTES:

NUTS AND BOLTS USED FOR ATTACHMENT OF SIGN PANEL SHALL BE STAINLESS STEEL AND 3/4" IN DIAMETER.

A 1 1/4" NYLON AND STAINLESS STEEL FENDER WASHER SHALL BE USED ON THE FRONT OF SIGN PANEL WHERE BOLT PASSES THROUGH SIGN PANEL.

ALL NUTS, BOLTS AND WASHERS SHALL BE STAINLESS STEEL OR GALVANIZED STEEL UNLESS OTHERWISE INDICATED

SPACERS SHALL BE INSTALLED BETWEEN THE EYELET OF THE SIGN HANGAR AND THE SPAN WIRE CLAMP TO ELIMINATE ANY GAP.

VDOT ROAD AND BRIDGE STANDARDS		SIGN MOUNTING DETAILS VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE		703
1305.10	06-15-2009		

PF-1

TOP VIEW

GROUNDING ELECTRODE

6"

OPTION: TOP 12" MIN. OF THE FOUNDATION MAY BE FORMED SQUARE

BOLT CIRCLE

SIDE VIEW

CONDUITS TO EXTEND 8" ABOVE FOUNDATION

GROUNDING CONDUCTOR

GROUNDING ELECTRODE

WELDED WIRE FABRIC AS REQUIRED BY FOUNDATION DESIGNER

HYDRAULIC CEMENT CONCRETE

ANCHOR RODS/BOLTS

NOTES:

BOLT PROJECTION AS REQUIRED BY SIGNAL POLE MANUFACTURER, HOWEVER DISTANCE BETWEEN BOTTOM OF BASE PLATE AND TOP OF PEDESTAL SHALL BE NO GREATER THAN THE DIAMETER OF ANCHOR BOLT PLUS ONE INCH.

SQUARE OR HEX NUTS UNDER BASE CASTING SERVE AS A MEANS OF LEVELING OR RAKING POLE

ALL CONDUITS AS SPECIFIED ON PLANS. IN ADDITION ONE 1" CONDUIT REQUIRED FOR GROUNDING CONDUCTOR. 2 - 2" PVC CONDUITS REQUIRED FOR FUTURE USE. NOTE THAT ADDITIONAL SPARE CONDUITS MAY BE REQUIRED BY PLANS

FOUNDATION TO EXTEND 4" ABOVE GROUND WHEN IN EARTH AND SHALL BE FLUSH WITH SURFACE WHEN IN SIDEWALK.

WHEN FOUNDATION EXTENDS 4" ABOVE FINISHED GRADE ALL EDGES SHALL BE CHAMFERED 3/4" AND FOR SIDEWALKS SHALL BE FLUSH.

GROUNDING BUSHINGS SHALL BE INSTALLED ON EACH END OF METAL CONDUITS.

EMPTY CONDUITS SHALL BE PLUGGED TO PREVENT MOISTURE AND RODENT ENTRY. BELL ENDS SHALL BE INSTALLED ON EACH END OF PVC CONDUITS.

OPEN ENDS OF CONDUITS WITH CONDUCTORS INSTALLED SHALL BE SEALED WITH AN APPROVED SOFT, PLIABLE, AND EASILY REMOVABLE WATERPROOF SEALANT. THE SEALANT SHALL NOT HAVE A DELETERIOUS EFFECT ON CABLE COVERINGS.

NO MORTAR, GROUT, OR CONCRETE SHALL BE PLACED BETWEEN BOTTOM OF BASE PLATE AND TOP OF FOUNDATION.

HEIGHT, WIDTH, AND DEPTH OF FOUNDATION SHALL BE AS REQUIRED BY FOUNDATION DESIGNER

VDOT ROAD AND BRIDGE STANDARDS		SIGNAL POLE FOUNDATION INSTALLATION DETAILS VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE		700
1310.10	06-15-2009		

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		I(H)9

FINAL PLAN

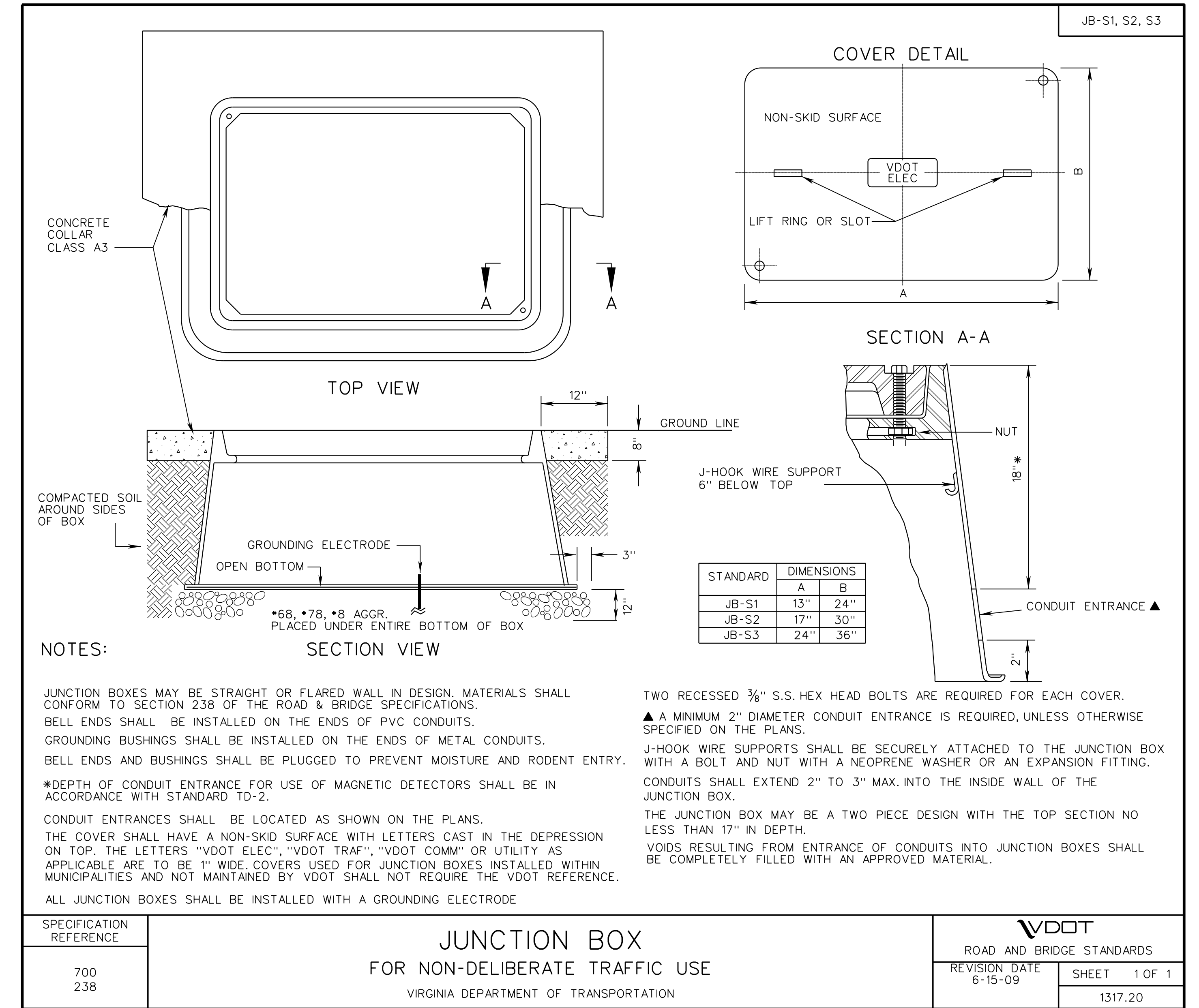
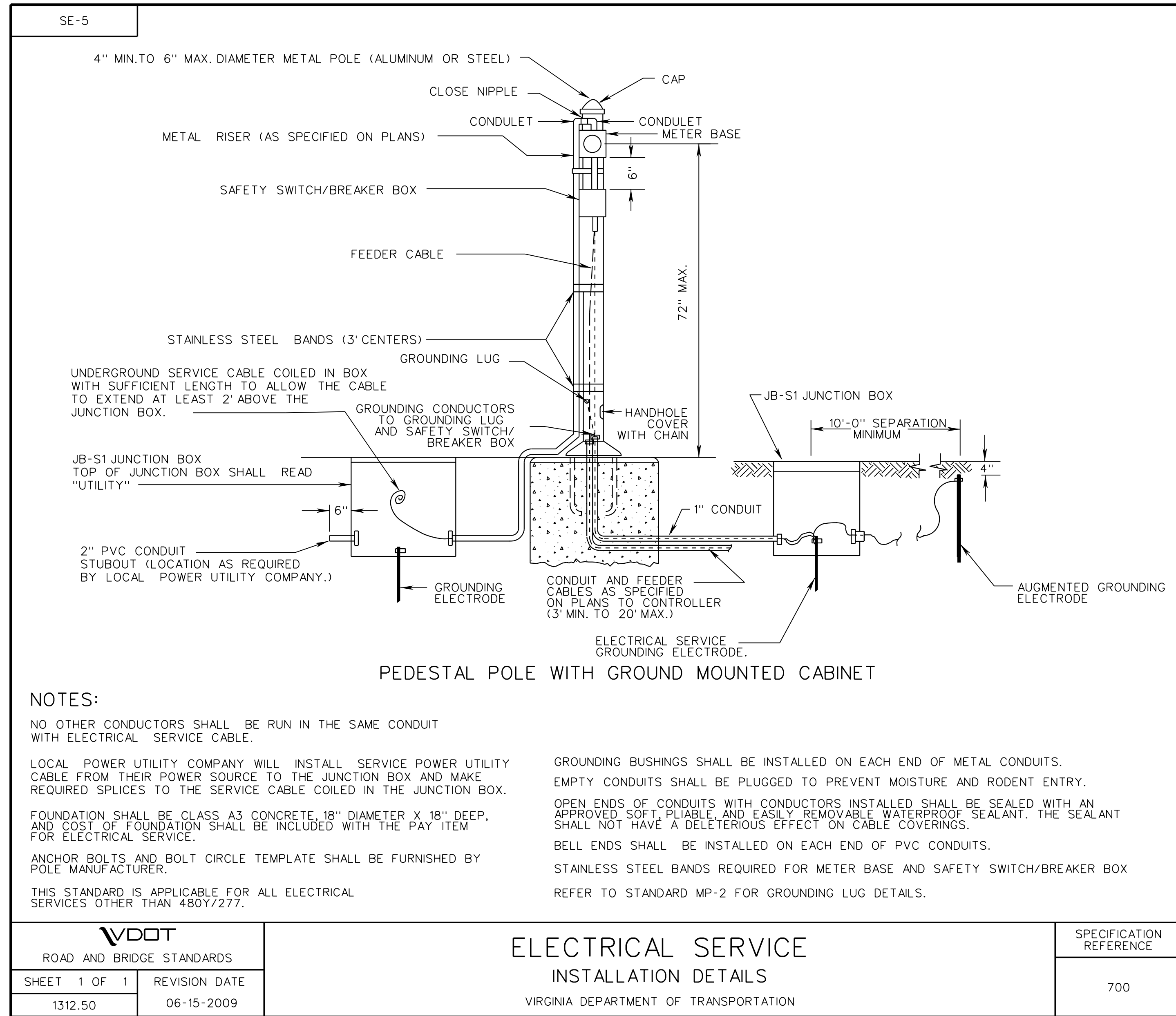
PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
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INSERTABLE SHEETS

ST'D. SE-5 & ST'D. JB-S1, S2, S3

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IH(10)

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VDOT ROAD AND BRIDGE STANDARDS		ELECTRICAL SERVICE INSTALLATION DETAILS VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE 700
SHEET 1 OF 1 1312.50	REVISION DATE 06-15-2009		

VDOT ROAD AND BRIDGE STANDARDS		JUNCTION BOX FOR NON-DELIBERATE TRAFFIC USE VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE 700 238
REVISION DATE 6-15-09	SHEET 1 OF 1 1317.20		

PLAN NO.	PROJECT Jermantown Road Phase II Improvements	FILE NO.	SHEET NO. IH(10)
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FINAL PLAN

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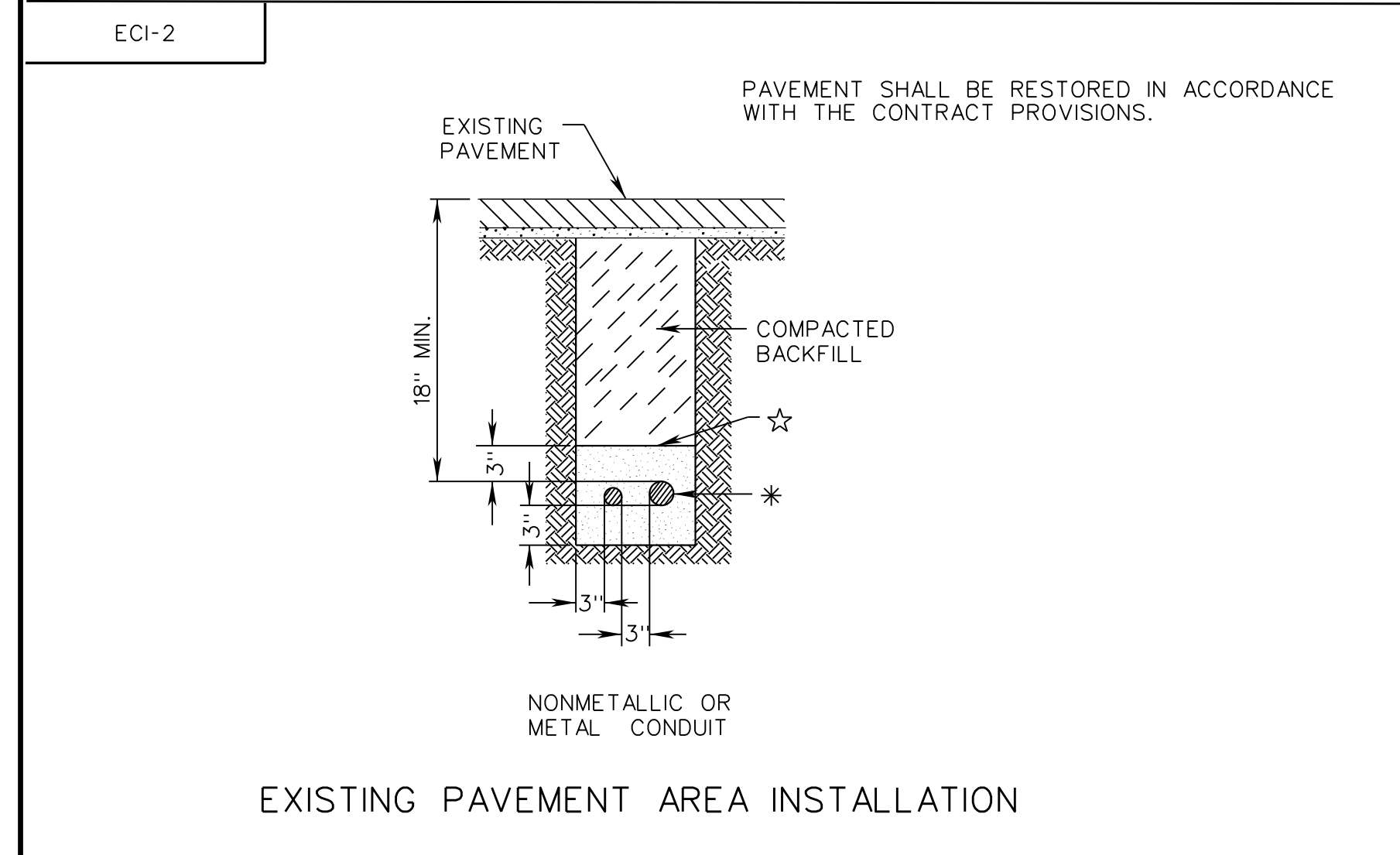
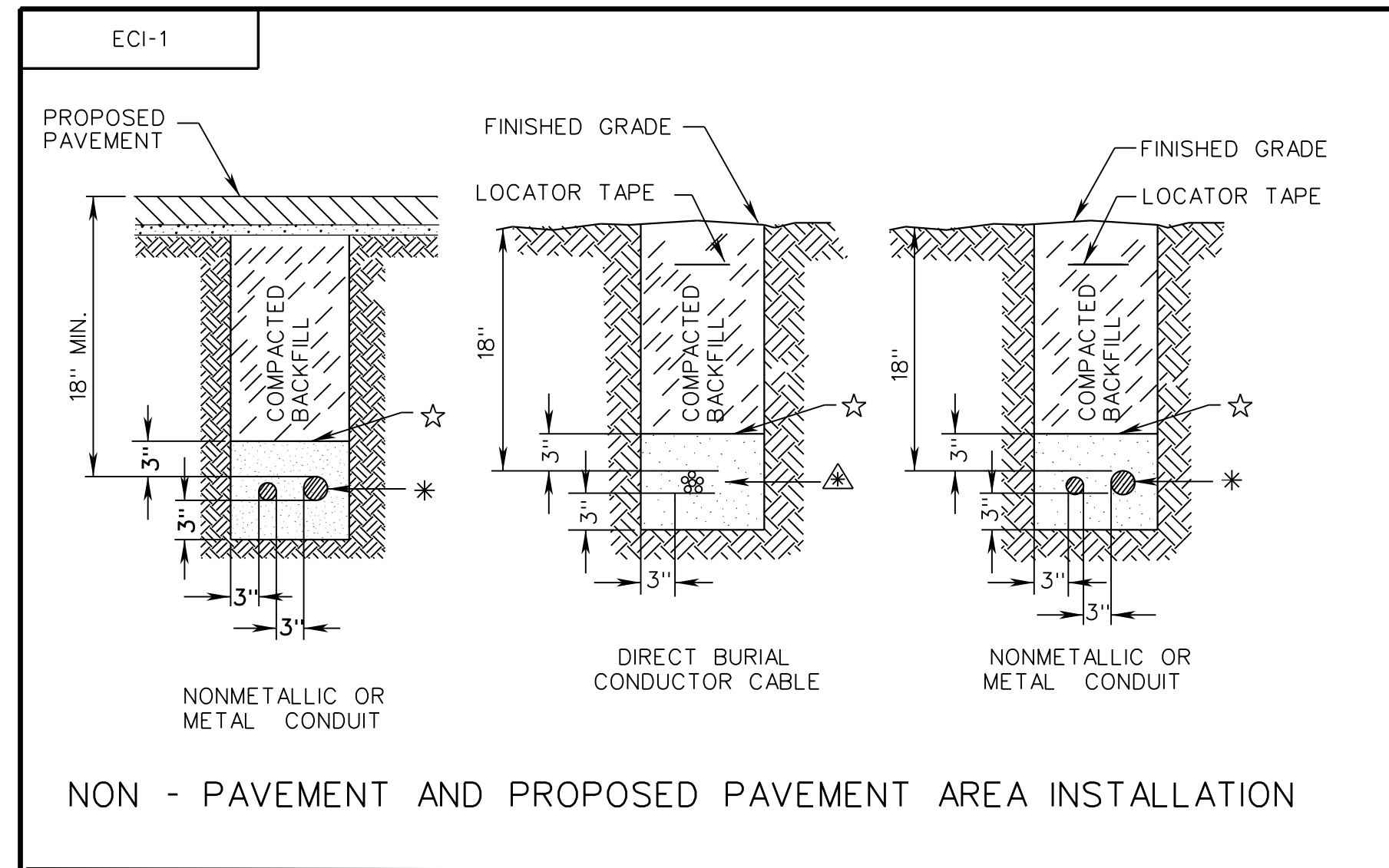
INSERTABLE SHEETS

ST'D.ECI-1 & ST'D.STP-1

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	I(H11)

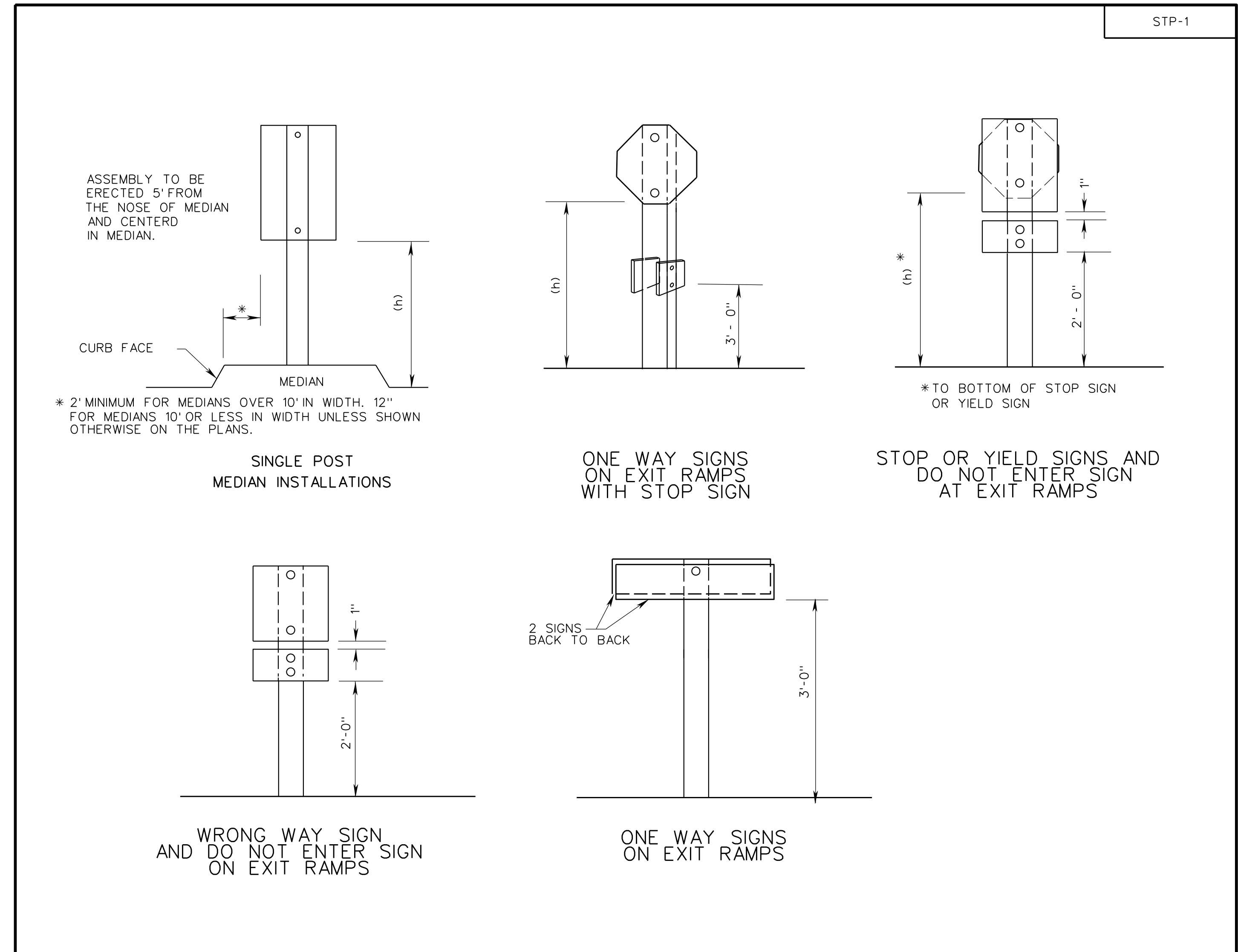
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CITY OF FAIRFAX



NOTES:
 CONTRACTOR SHALL INSTALL A 4" MINIMUM TO 6" MAXIMUM WIDE RED PLASTIC LOCATOR TAPE 6" TO 8" BELOW FINISHED GRADE AND DIRECTLY ABOVE BURIED CONDUIT OR CONDUCTOR CABLES, EXCEPT UNDER PAVEMENT.
 CONDUIT INSTALLED UNDER EXISTING OR PROPOSED ROADWAYS FOR DIRECT BURIED CABLES SHALL EXTEND 24" BEYOND THE PAVED SURFACE AND/OR SIDEWALK.
 WHERE CONDUIT FOR POWER AND CONDUIT FOR COMMUNICATION ARE TO BE INSTALLED IN CLOSE PROXIMITY TO EACH OTHER, CONDUITS SHALL BE PLACED PARALLEL IN A COMMON TRENCH WITH NO LESS THAN 6" OF SEPARATION BETWEEN CONDUIT SYSTEMS.
 ☆ BACKFILL MATERIAL BELOW THIS LEVEL SHALL BE SANDY FILL (FREE OF ANY STONES, CINDERS, WOOD, ROOTS, DEBRIS, ETC.)
 * ONE OR MORE CONDUITS AS REQUIRED.
 ▲ ONE OR MORE CONDUCTOR CABLES AS REQUIRED.
 OFFSETTING OF CONDUIT MAY BE USED FOR TIEING INTO EXISTING CONDUIT SYSTEMS OR BYPASSING OBSTRUCTIONS AS DIRECTED BY THE ENGINEER.
 WHEN OFFSETTING CONDUIT TO BYPASS AN OBSTRUCTION, THE CONDUIT SHALL MAINTAIN A MINIMUM CLEARANCE OF 12" FROM THE CLOSEST POINT OF THE OBSTRUCTION.

METHOD OF OFFSETTING CONDUIT



ROAD AND BRIDGE STANDARDS		ELECTRICAL CONDUIT AND CONDUCTOR CABLE UNDERGROUND INSTALLATION VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE 700
SHEET 1 OF 1 1318.10	REVISION DATE 06-15-2009		

SPECIFICATION REFERENCE 700	SQUARE TUBE SIGN POST VIRGINIA DEPARTMENT OF TRANSPORTATION	ROAD AND BRIDGE STANDARDS REVISION DATE 6-15-09 SHEET 3 OF 3 1321.12
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PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	I(H11)

FINAL PLAN

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
 SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
 DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
 DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

INSERTABLE SHEETS

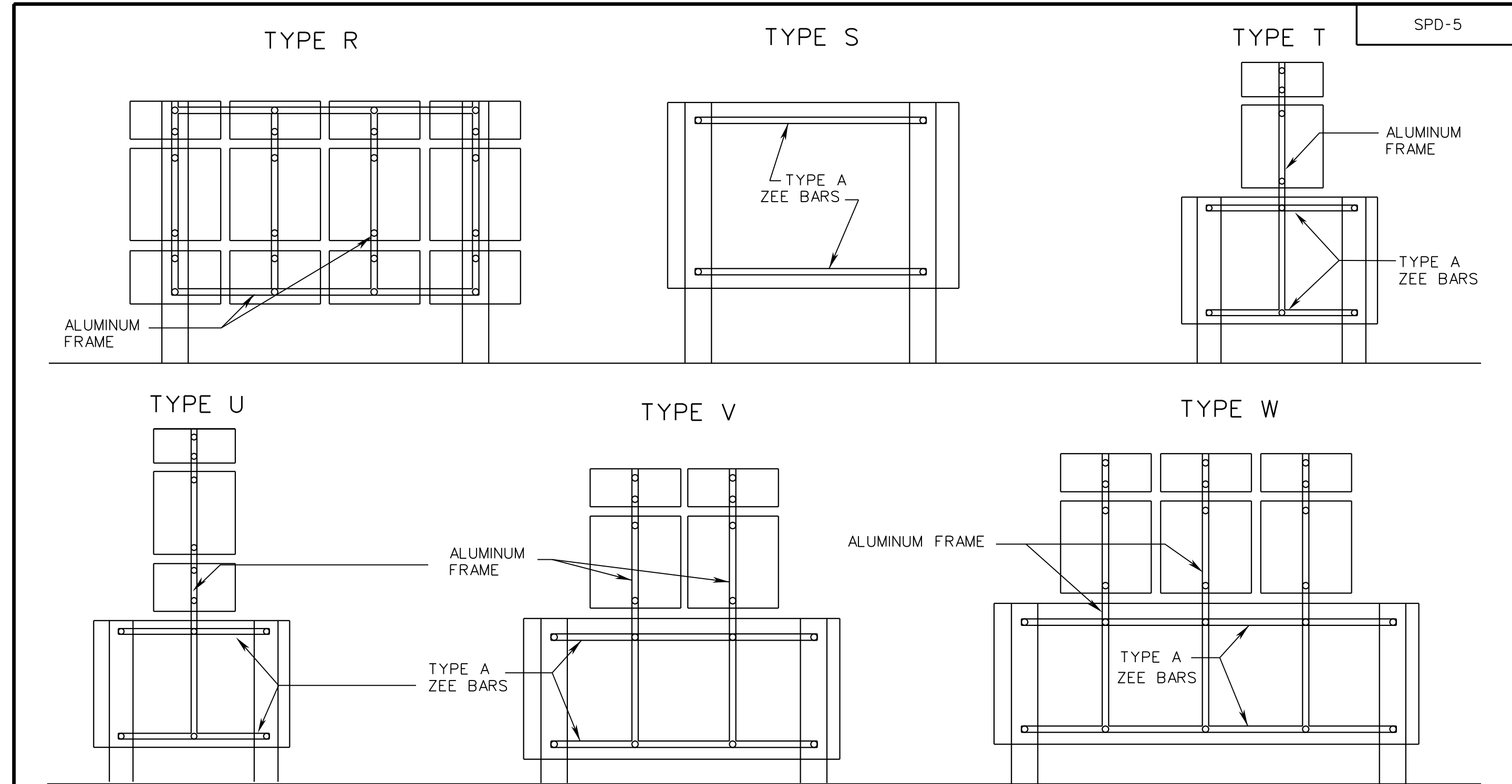
ST'D. SPD-5 & ST'D. SPD-6

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IH(12)

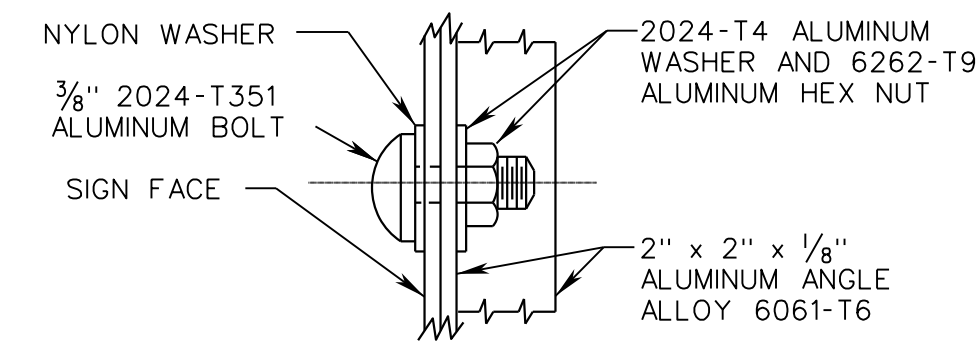
Office Locations
 10000 Lee Highway
 Suite 1000
 Fairfax, VA 22030
 Phone: (703) 368-7373
 Fax: (703) 368-7374

Design Associates, P.C.
 Civil Engineers, Surveyors, Environmental Planners, and Right-of-Way Services

CITY OF FAIRFAX



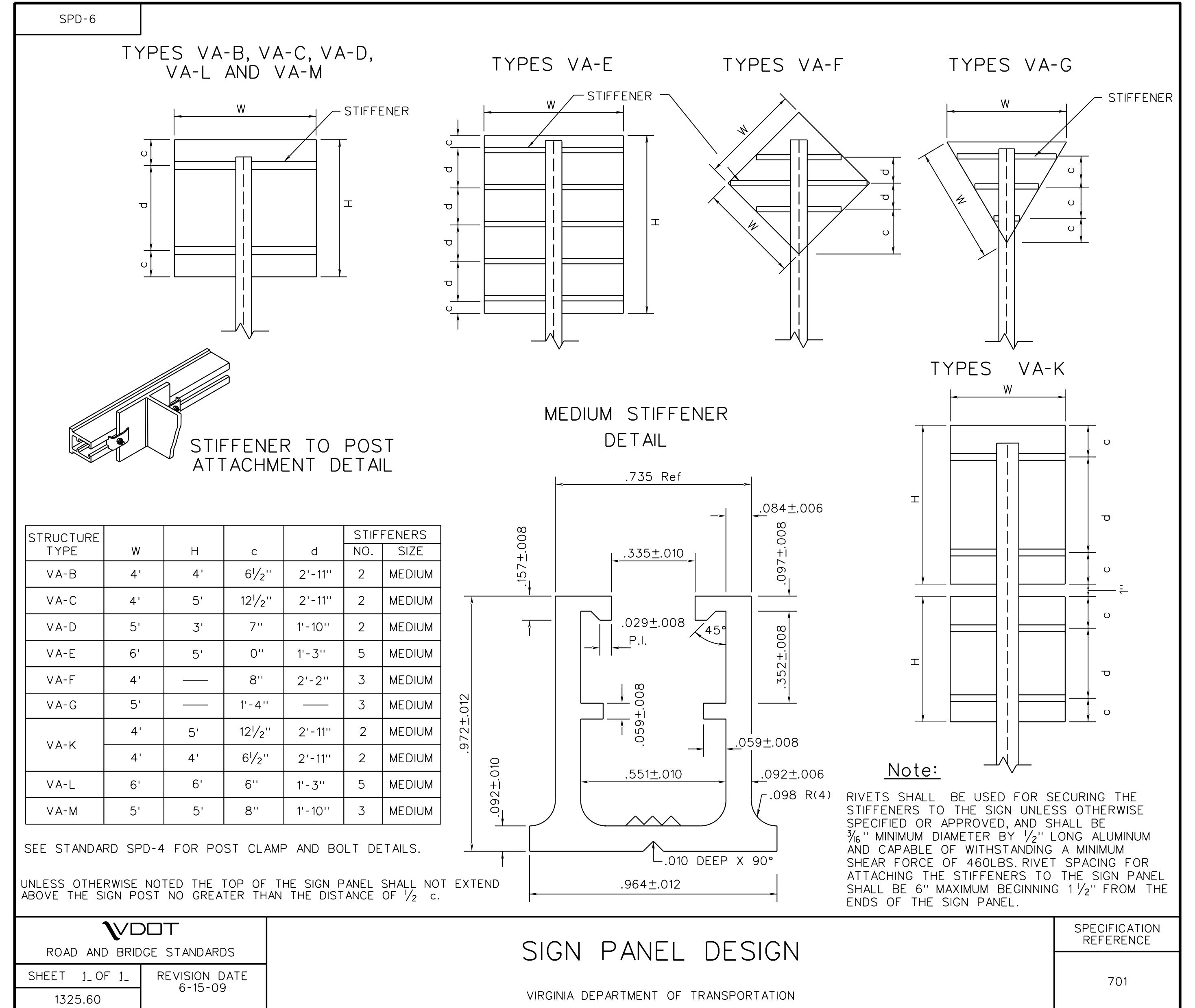
ALUMINUM FRAMING
 SIGN PANEL ATTACHMENT DETAILS
 (FOR SIGN PANEL ATTACHMENT TO Z BARS, SEE STANDARD SPD-1)



NOTES

- NYLON WASHER SHALL BE 1/8" THICK MINIMUM WITH AN OUTSIDE DIAMETER OF 1" AND AN INSIDE DIAMETER OF 7/16".
- TO OBTAIN A FLUSH MOUNTING SURFACE FOR SIGNS, ALL WOOD POST SHALL BE MORTISED WHERE NECESSARY TO RECESS THE FLANGE OF ALUMINUM ANGLE.
- THE TYPE A ZEE BARS SHALL BE 2 3/8" X 1 1/4" X 3/16".
- ALL VERTICAL AND HORIZONTAL SPACING BETWEEN SIGNS IN AN ASSEMBLY SHALL BE ONE INCH UNLESS SPECIFIED.
- THESE ARE TYPICAL SIGN PANEL ASSEMBLIES; ALL ASSEMBLIES SHALL BE IN ACCORDANCE WITH PLAN DETAILS.

SPECIFICATION REFERENCE	SIGN PANEL DESIGN	VDOT ROAD AND BRIDGE STANDARDS	
701		REVISION DATE 6-15-09	SHEET 2 OF 2 1325.51
VIRGINIA DEPARTMENT OF TRANSPORTATION		VIRGINIA DEPARTMENT OF TRANSPORTATION	



SPECIFICATION REFERENCE	SIGN PANEL DESIGN	VDOT ROAD AND BRIDGE STANDARDS	
701		REVISION DATE 6-15-09	SHEET 1 OF 1 1325.60
VIRGINIA DEPARTMENT OF TRANSPORTATION		VIRGINIA DEPARTMENT OF TRANSPORTATION	

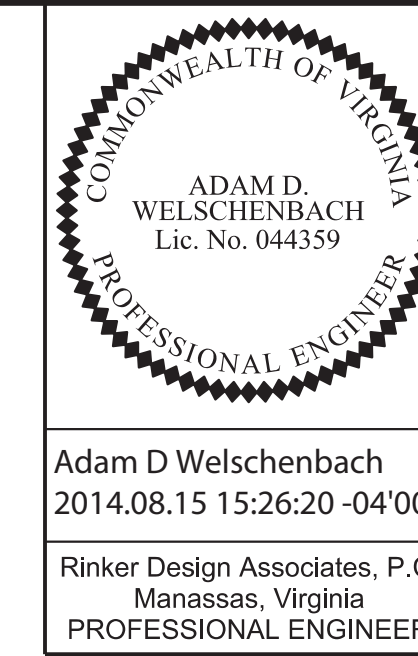
PLAN NO.	PROJECT Jermantown Road Phase II Improvements	FILE NO.	SHEET NO. IH(12)
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FINAL PLAN

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

TRANSPORTATION MANAGEMENT PLAN AND SEQUENCE OF CONSTRUCTION (TMP/SOC) GENERAL NOTES

Temporary Traffic Control Plan General Notes



REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IJ

Adam D Welschenbach
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Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

Temporary Traffic Control Plan

General Notes:

I. TMP/SOC Type A Project Information:

- a Identify the project's TMP Type:
This project's TMP/SOC plan has been designed in conformance with a Type A TMP/SOC plan.
- b Identify the work zone location, length, and width:
The project location is as shown on Sheet IA.
The work zone areas have been delineated as shown on the TMP/SOC plan sheets IJ(1) thru IJ(11).
The work zone lengths and widths vary by location as shown on the TMP/SOC plan sheets IJ(1) thru IJ(11).
- c Note the hours the Construction Area will be active:
Construction Area shall be considered active when any Impact to traffic occurs (1st Cone in Road).
Construction Area hours have the following limitations:

One-lane closures will be restricted to the hours of 9:00am to 3:00pm, Monday through Friday and 10:00pm Friday evening through 5:00am Monday morning.

No lane closures will be allowed from noon on the day before a holiday until noon on the workday following the holiday. Holidays include all State and Federal holidays.

Designation of Night Time Hours and Peak Hour Times:
Roadway Work: Night time hours shall be designated as hours between 9:30pm through 5:00am.
Peak hours are 6:00am through 9:00am & 3:00pm through 7:00pm. See Contract Special Provisions for additional work hour restrictions.

- d The TMP/SOC, during construction, shall be in accordance with Sections 512.701, 703, & 704 of the Virginia Department of Transportation and Road and Bridge Specifications dated 2007, the Virginia Work Area Protection Manual dated 2011, and the Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition, Revised May 2012.

- e Note any existing entrances, existing intersections, or existing pedestrian access points that will be affected by the Construction Area or by the traffic control devices:

Existing Entrances:

All existing commercial or private entrances shall remain open for the duration of construction. At the following locations are private or commercial entrances which shall have access maintained at all times or in accordance with Contract Special Provisions:
Approx. Sta. 14+50 LT, 15+00 LT, 16+50 LT, 23+50 LT, 53+50 RT, 55+25 RT, 55+75 RT, 56+25 RT, 57+50 RT

Existing Intersections:

There are two signalized intersections within the project limits, both of which are to remain operational for the duration of construction. They are the intersections of:
Fairfax Boulevard (U.S. Route 50) @ Jermantown Road (City Route 6634)
Fairfax Boulevard (U.S. Route 50) @ Bevan Drive

There are two unsignalized intersections (with cross-overs) within the limits of this project:
Jermantown Road (City Route 6634) @ Giant Entrance (Sta. 57+00 LT). This intersection is to remain open throughout construction except when noted by the plans, or per Contract Special Provisions.
Intersection of approximately Sta. 19+50. This intersection is to remain open throughout construction.

Existing Pedestrian Access Points:

Within the project limits, pedestrian access points are generally at the intersections and the Contractor is to maintain safe passage for pedestrians and bicyclists within the project for the duration of construction.

Existing Bus Stops:

There are two bus stops within this project. The existing bus stops are located at:
Approx. Sta. 15+25 LT and 24+00 LT

The Contractor is to maintain bus stops and provide safe passage for pedestrians to all bus stops for the duration of construction with the following exceptions:

Prior to the start of Phase IB, the Contractor shall coordinate with City of Fairfax to close existing bus stops at Approx. Sta. 15+25 LT and 24+00 LT.
After completion of Phase IB, both these bus stops shall be reopened.

- f Identify the major types of travelers:

The roadway carries large diverse types of travelers. In the peak hours however, commuters are the prevailing traveler type for this roadway.

- g The Contractor, at no additional cost to the project and which shall be considered incidental to the cost of the project, shall:

Designate a person assigned to the project who will have the primary responsibility, with sufficient authority, for implementing the TMP/SOC and other safety and mobility aspects of the permit work. This person shall coordinate with the City Construction Inspector during all work.

Ensure that personnel assigned to the project are trained in traffic control to a level commensurate with their responsibilities in accordance with VDOT's work zone traffic control training guidelines.

Inform the Engineer and the City of Fairfax of any work requiring lane shifts, lane closures, and/or phase changes a minimum of two working days prior to implementing this activity.

Perform reviews of the Construction Area to ensure compliance with contract documents at regularly scheduled intervals at the direction of the Engineer. Contractor shall maintain a copy of the temporary traffic control plan at the work site at all times.

Coordinate with City of Fairfax Police Department and City of Fairfax Fire/Rescue Department for any lane closures and any detours of any nature, at no additional cost to the project.

Schedule all phases of construction in such a manner that water, sanitary sewer, cable, fiber cable/optic cable, any overhanging utilities, and any underground utilities services will not be interrupted.

- 2 This TMP/SOC is intended as a guide. It is not to enumerate every detail which must be considered in the construction of each phase, but only to show the general handling of existing traffic. It shall be the responsibility of the Contractor to present a Formal TMP/SOC with construction signage to the Engineer for approval prior to any construction activity that may affect the existing traffic.

- 3 Contractor is to maintain at least one lane of traffic in each direction on both Fairfax Boulevard and Jermantown Road during construction of this project with a minimum clear roadway width in accordance with VDOT standard GS-10 unless otherwise approved by the Engineer. For street intersections, commercial connections, or private entrances, a minimum width no less than existing width shall be maintained at all times, unless approved by the Engineer.

- 4 All areas excavated below the existing pavement surface and within the clear zone at the conclusion of each workday, shall be backfilled to form an approximate 6:1 wedge against the existing pavement or newly constructed pavement surface for the safety and protection of vehicular traffic. All costs for placing, maintaining and removing 6:1 wedge shall be included in the price bid for other items in the contract and no additional compensation will be allowed.

- 5 No Concrete Traffic Barrier Service is to be installed for construction of this project.

- 6 Contractor shall follow the geotechnical recommendations for the project. Materials designated as unsuitable material as detailed in the geotechnical recommendations shall be disposed of off-site and are not to be used for any part of construction. Existing surface, aggregate base, and sub base material which will be demolished or obliterated during construction, and which are suitable for maintenance of traffic, should be utilized prior to the use of commercial material.

- 7 Each phase of construction shall be completed to the installation of intermediate course asphalt prior to the start of the next phase unless otherwise directed by the Engineer.

- 8 Contractor shall ensure positive drainage for the duration of the project. Contractor shall add any additional temporary measures necessary to facilitate proper, positive drainage for the duration of construction.

- 9 The Contractor shall modify, as needed, existing signals as approved by the Engineer. Contractor shall provide maintenance of signals and associated vehicle detection equipment at no additional cost for the duration of construction. Vehicle detection shall be maintained at all operating signalized intersections.

- 10 Unless specified on the plans, all existing turn lanes shall be maintained at all times for the duration of construction.

- 11 The cost to remove the construction pavement markings and pre-approved black tape shall be included in the cost to install construction pavement markings and will not be paid for as a separate item.

- 12 Where Group 2 Channelizing Devices are used to separate the Construction Area and traffic, a minimum clear zone area as defined in the VWAPM is to be maintained.

- 13 The Contractor is to coordinate with City of Fairfax for location(s) of the construction staging area. Contractor is responsible for obtaining all permits and/or easements as necessary.

- 14 IMPLEMENTING THE TRANSPORTATION MANAGEMENT PLAN
During the first day of the new work zone traffic pattern, the project's Manager and project's Construction Inspector shall inspect the work zone to ensure compliance with the TMP. On the third to fifth day of implementation of the TMP's new work zone traffic pattern, the Construction Inspector shall conduct an on-site review of the work zone's performance in coordination with City and recommend to the Contractor any required changes to the TMP to enhance the work zone's safety and mobility. All such changes shall be documented. An on-site review of the project's work zone traffic control by the City Construction Inspector and the Contractor shall be conducted (with coordination from City) within 48 hours of any fatal incident/crash within the work zone.

- 15 PUBLIC COMMUNICATIONS PLAN
The Contractor shall be responsible for:

- a Notifying the Project Manager, Construction Inspector, and City two weeks in advance of any scheduled work plans and traffic delays.
- b Notifying the Project Manager, Construction Inspector, and corresponding City engineer of any unscheduled traffic delays.

- 16 TRANSPORTATION OPERATIONS

The Contractor shall be responsible for implementing and providing the following:

- a Notify the Regional Transportation Operations Center (TOC) and City Traffic Engineer 48 hours in advance in order to place lane closure information on the 511 System and VA-Traffic.
- b Immediately report any traffic incidents that may occur in the work zone.
- c Within 24 hours of any incidents within the construction work zone, a review of the traffic controls shall be completed and necessary adjustments made to reduce the frequency and severity of any future incidents.

CONTACT NUMBERS

City Transportation Director	Wendy Block Sanford, (703) 385-7889
City Construction Manager	TBD
City Construction Inspector	TBD
Emergency Call	911
Non-Emergency Numbers:	
City of Fairfax Police	(703) 385-7924
City of Fairfax Fire & Rescue	(703) 385-7940

Orange Soils (Asbestos Soils) Note:

Naturally occurring asbestos soils are known to be encountered within the project area. Please refer to the geotechnical report for a soil map indicating orange soil. The Contractor shall follow all Federal, State, and County guidelines to handle, work around, and/or dispose of soils containing asbestos.

Pavement Marking General Notes (During Construction)

- 1. All construction pavement markings shall be in accordance with the most current edition of each of the following and any revision thereof:

- A. Manual on Uniform Traffic Control Devices (MUTCD)
- B. The Virginia Supplement to the Manual on Uniform Traffic Control Devices
- C. The Virginia Department of Transportation Road and Bridge Specifications
- D. The Virginia Department of Transportation Road and Bridge Standards

- 2. Any pavement markings that will conflict with the proposed or existing pavement markings shall be completely eradicated.

- 3. Limits of proposed pavement markings are approximate and shall be modified in the field to ensure that proposed pavement markings continue until existing pavement markings can be matched.

- 4. Elongated arrows shall be in accordance with MUTCD and VDOT Road and Bridge Specifications.

- 5. The cost of eradicating existing pavement markings which conflict with the proposed pavement markings shall be considered incidental to the project and shall not be paid as a separate item.

- 6. All construction pavement markings shall be of Type D, Class I or II unless otherwise directed by the City of Fairfax Engineer. During construction, any pavement markings which will conflict with those shown on the TMP/SOC plans or as directed by the Engineer shall be covered with Type E, non-reflective black tape (or eradicated at the direction of the Engineer). The cost to install and remove Type E, non-reflective black tape, shall be considered incidental to the project and not paid for as a separate item.

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	IJ



PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

TMP/SOC PHASE I-A

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

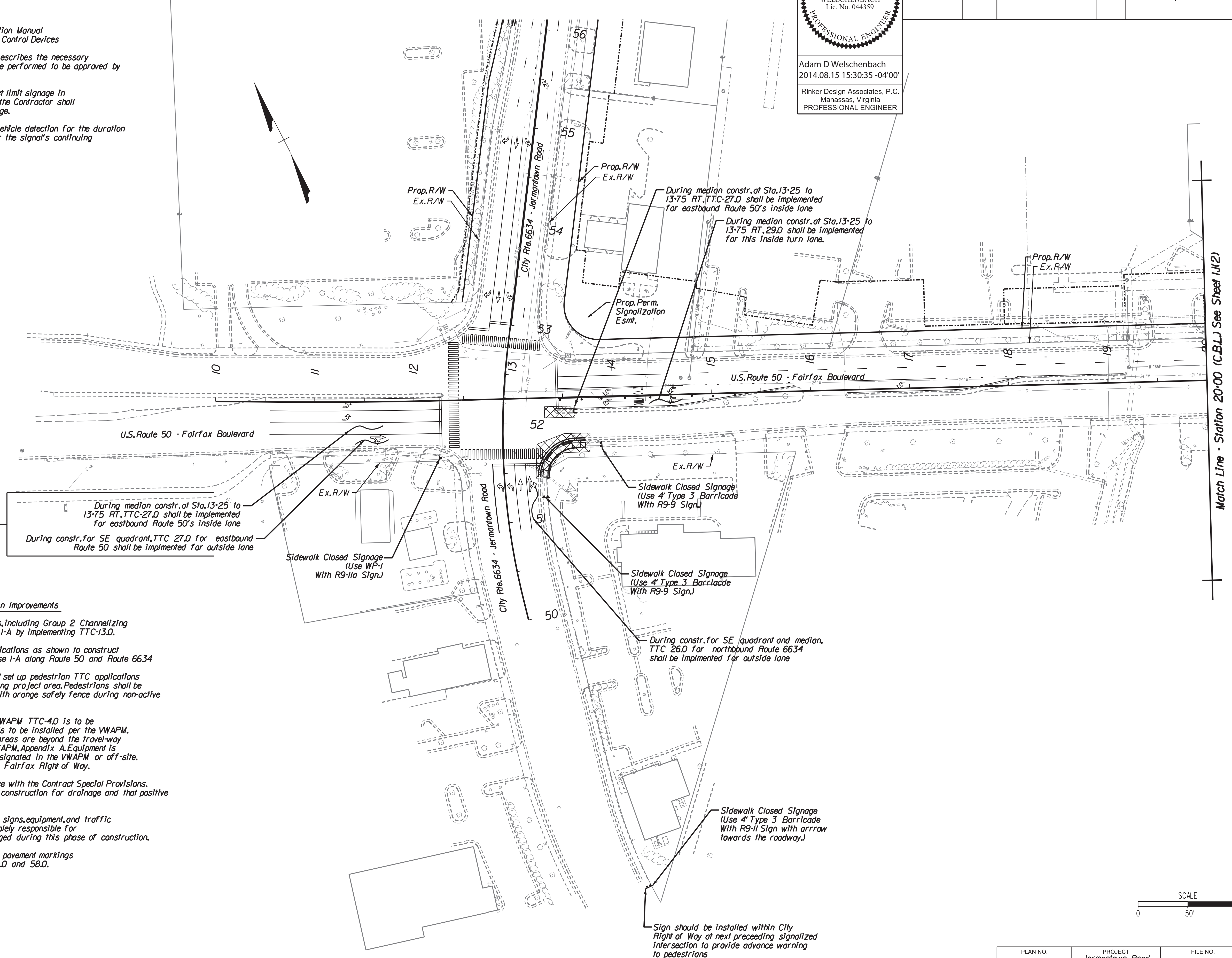
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Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	I(J1)

General TMP/SOC Sequencing Notes - Phase I-A

1. VWAPM - VDOT's current edition of the Virginia Work Area Protection Manual
MUTCD - FHWA's current edition of the Manual on Uniform Traffic Control Devices
2. The Contractor shall submit a temporary traffic control plan that prescribes the necessary traffic control measures and construction signage for the work to be performed to be approved by the Engineer prior to the commencement of ANY work activities.
3. Prior to the start of construction, the Contractor shall install project limit signage in accordance with VWAPM TTC-53.0. For the duration of construction, the Contractor shall ensure this signage remains in compliance if the project limits change.
4. The Contractor is solely responsible for maintaining any signal's vehicle detection for the duration of construction and with every modification that may be required for the signal's continuing operation for the duration of construction.



Contractor SHALL not do median work and curb-return work at the same time. One lane of traffic shall open at all times during active work zone

During median constr. at Sta. 13+25 to 13+75 RT, TTC-27.0 shall be implemented for eastbound Route 50's inside lane
During constr. for SE quadrant, TTC 27.0 for eastbound Route 50 shall be implemented for outside lane

During median constr. at Sta. 13+25 to 13+75 RT, TTC-27.0 shall be implemented for eastbound Route 50's inside lane
During median constr. at Sta. 13+25 to 13+75 RT, 29.0 shall be implemented for this inside turn lane.

Sidewalk Closed Signage (Use 4' Type 3 Barricade With R9-9 Sign)

Sidewalk Closed Signage (Use 4' Type 3 Barricade With R9-9 Sign)

During constr. for SE quadrant and median, TTC 26.0 for northbound Route 6634 shall be implemented for outside lane

Sidewalk Closed Signage (Use 4' Type 3 Barricade With R9-11 Sign with arrow towards the roadway.)

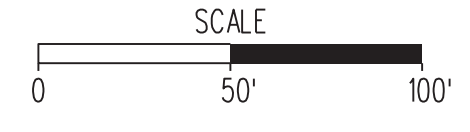
Sign should be installed within City Right of Way at next preceding signalized intersection to provide advance warning to pedestrians

PHASE I-A: Fairfax Boulevard, Median Improvements and Curb-Return Improvements

1. The Contractor is to install all traffic control measures and devices, including Group 2 Channelizing devices, to construct the areas designated for construction in Phase I-A by implementing TTC-13.0.
2. The Contractor shall implement VWAPM Typical Traffic Control applications as shown to construct all designated construction areas for permanent construction in Phase I-A along Route 50 and Route 6634
- 2A. Before starting work on pedestrian facilities, the Contractor shall set up pedestrian TTC applications as shown to ensure advance warning to pedestrians before approaching project area. Pedestrians shall be oriented away from work area and work areas shall be protected with orange safety fence during non-active work zone hours as directed by the Engineer.
3. At the end of each work day (during non-active work-zone times), VWAPM TTC-4.0 is to be implemented in all construction areas and an appropriate 6' wedge is to be installed per the VWAPM. The 6' wedge is not required if the construction area or impacted areas are beyond the travel-way and meet VDOT's clear zone requirements in accordance with the VWAPM, Appendix A. Equipment is to be stored outside of the clear zone for construction areas as designated in the VWAPM or off-site. Equipment may NOT be stored on private property, only within City of Fairfax Right of Way.
4. The Contractor is to maintain access to all entrances in accordance with the Contract Special Provisions. Contractor is to ensure that adequate facilities are provided during construction for drainage and that positive drainage is maintained throughout this phase of construction.
5. The Contractor is solely responsible for relocating all construction signs, equipment, and traffic control devices for the duration of construction. Contractor is also solely responsible for resetting and replacing any roadway sign that is displaced or damaged during this phase of construction.
6. At the end of construction for Phase I-A, final surface course and pavement markings shall be applied for impacted areas by implementing VWAPM TTC-57.0 and 58.0.

Suggested TMP/SOC Legend: Phase I-A

	Denotes Construction This Phase
	Denotes Temporary Construction Easement
	Denotes Group 2 Channelizing Devices



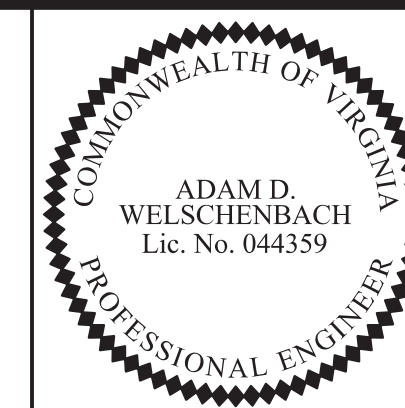
Match Line - Station 20+00 (C.B.L.) See Sheet I(J2)

FINAL PLAN

CITY OF FAIRFAX
Rinker Design Associates, P.C.
Civil Engineering
Transportation - Environmental
Right of Way Services

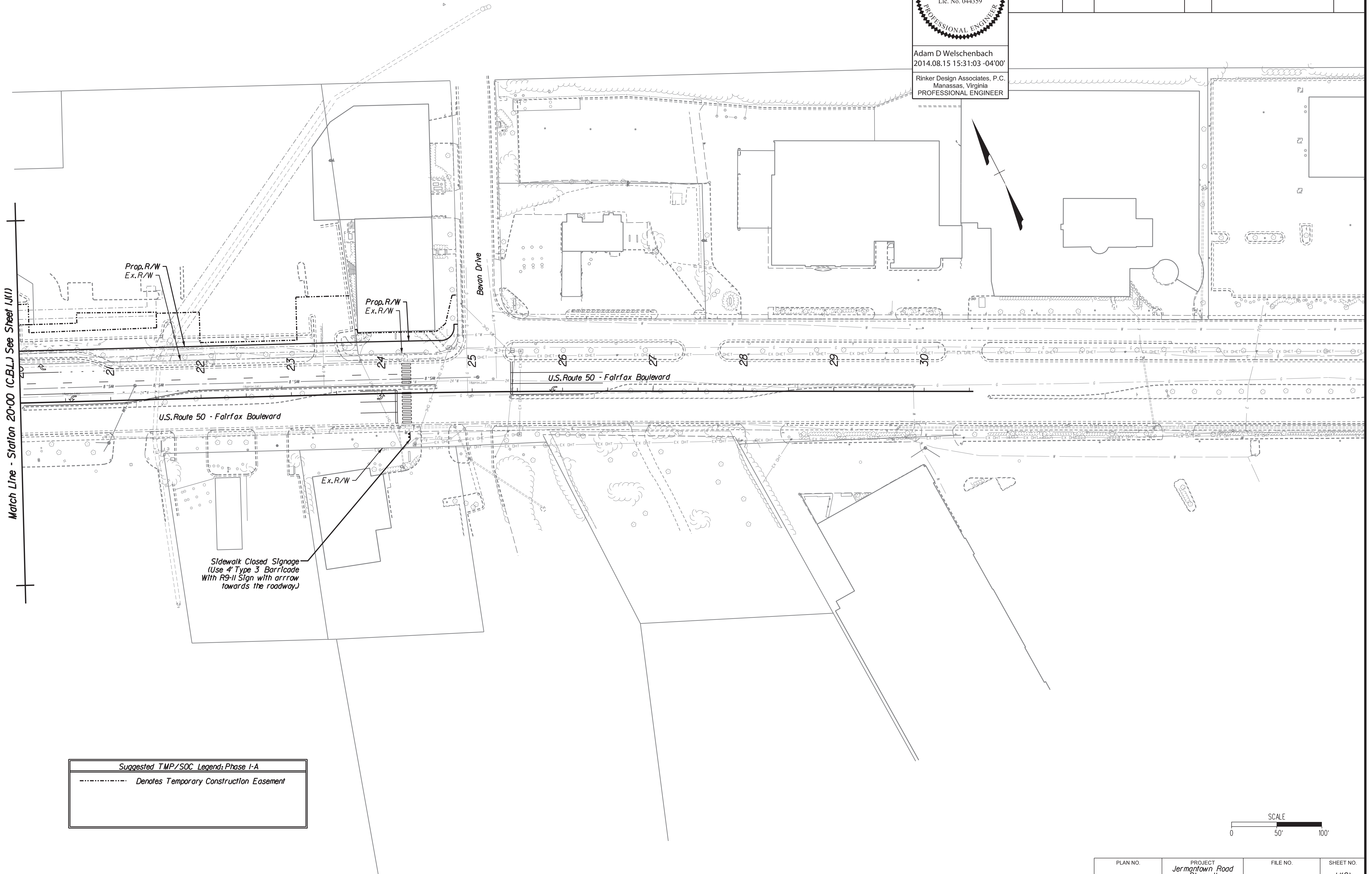
PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
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TMP/SOC PHASE I-A



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

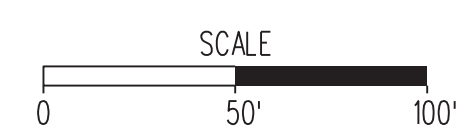
REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IJK(2)



Match Line - Station 20+00 (C.B.L.) See Sheet IJK(1)

Sidewalk Closed Signage
(Use 4' Type 3 Barricade
With R9-11 Sign with arrow
towards the roadway.)

Suggested TMP/SOC Legend: Phase I-A	
	Denotes Temporary Construction Easement



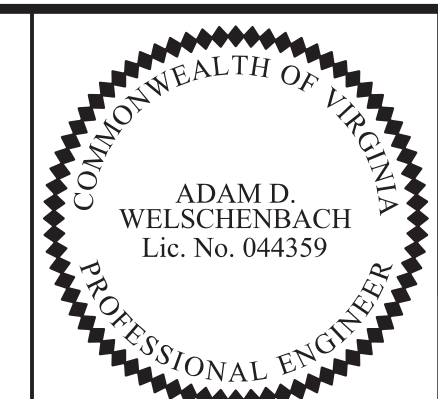
PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IJK(2)

FINAL PLAN

CITY OF FAIRFAX
Rinker Design Associates, P.C.
Civil Engineers
Transportation - Environmental
Right of Way Services

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

TMP/SOC PHASE I-B



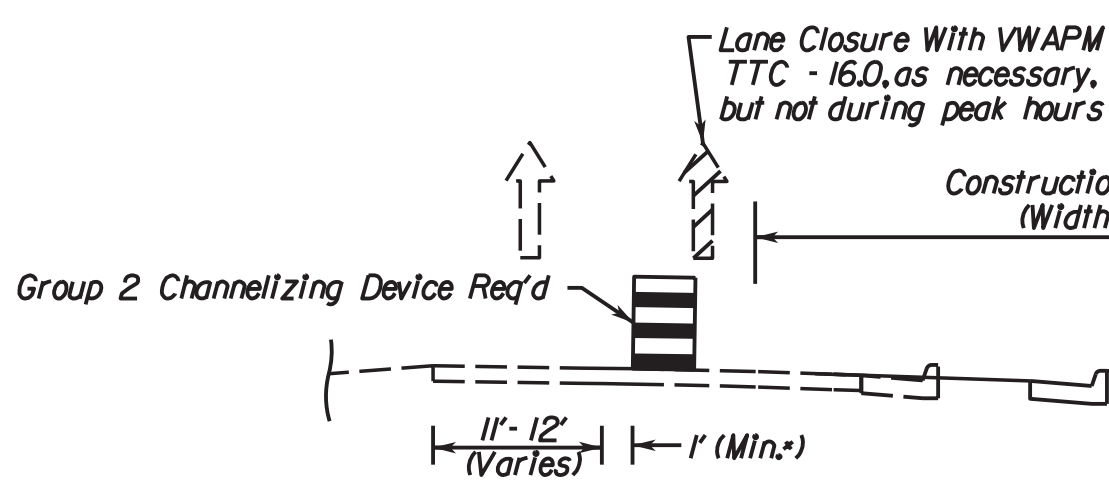
Adam D. Welschenbach
2014.08.15 15:31:32 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISION	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	1K

General TMP/SOC Sequencing Notes - Phase I-B

1. VWAPM - VDOT's current edition of the Virginia Work Area Protection Manual
MUTCD - FHWA's current edition of the Manual on Uniform Traffic Control Devices
2. The Contractor shall submit a temporary traffic control plan that prescribes the necessary traffic control measures and construction signage for the work to be performed to be approved by the Engineer prior to the commencement of ANY work activities.
3. Prior to the start of construction, the Contractor shall install project limit signage in accordance with VWAPM TTC-53.0. For the duration of construction, the Contractor shall ensure this signage remains in compliance if the project limits change.
4. The Contractor is solely responsible for maintaining any signal's vehicle detection for the duration of construction and with every modification that may be required for the signal's continuing operation for the duration of construction.

Detail Note: Contractor shall implement TTC-28 and/or 23.0 to construct storm sewer crossing. See Closure requirements in Contract Special Provisions.



Phase I-B: Northbound Rte. 6634
Only When Outside NB Lane To be Closed with VWAPM TTC-16.0 as shown

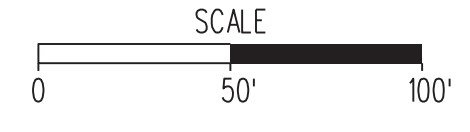
Contractor to implement VWAPM TTC-29.0 on inside Eastbound turn lane on U.S. Route 50.

PHASE I-B: Fairfax Boulevard (WB) and Jermantown Road (NB) Widening Improvements

1. The Contractor is to install all traffic control measures and devices, including Group 2 Channelizing devices, to construct the areas designated for construction in Phase I-B by implementing TTC-13.0.
2. The Contractor shall implement VWAPM Typical Traffic Control applications as shown to construct all designated construction areas for permanent construction in Phase I-B along Route 50 and Route 6634.
 - 2A. Before starting work on pedestrian facilities, the Contractor shall set up pedestrian TTC applications as shown to ensure advance warning to pedestrians before approaching project area. Pedestrians shall be oriented away from work area and work areas shall be protected with orange safety fence during non-active work zone hours as directed by the Engineer.
 - 2B. SWM-1 and SWM-2 shall be constructed in accordance with Contract Special Provisions
 - 2C. Commercial Entrances and work off mainline roadways shall be constructed in accordance with Contract Special Provisions.
 - 2D. Fairfax Boulevard at Jermantown Road and Fairfax Boulevard at Bevan Drive signals shall be reconstructed during this phase as per the signal plans included for this project. The Contractor is solely responsible for any temporary signal modification to maintain orderly traffic to the satisfaction of the City Traffic Engineer until signals are reconstructed.
3. At the end of each work day (during non-active work-zone times), VWAPM TTC-4.0 is to be implemented in all construction areas and an appropriate 6' wedge is to be installed per the VWAPM. The 6' wedge is not required if the construction area or impacted areas are beyond the travel-way and meet VDOT's clear zone requirements in accordance with the VWAPM, Appendix A. Equipment is to be stored outside of the clear zone for construction areas as designated in the VWAPM or off-site. Equipment may NOT be stored on private property, only within City of Fairfax Right of Way.
4. The Contractor is to maintain access to all entrances in accordance with the Contract Special Provisions. Contractor is to ensure that adequate facilities are provided during construction for drainage and that positive drainage is maintained throughout this phase of construction.
5. The Contractor is solely responsible for relocating all construction signs, equipment, and traffic control devices for the duration of construction. Contractor is also solely responsible for resetting and replacing any roadway sign that is displaced or damaged during this phase of construction.
6. At the end of construction for Phase I-B, final surface course and pavement markings shall be applied for impacted areas on Route 50 implementing VWAPM TTC-57.0 and 58.0. On Jermantown Road, the pavement can be brought up intermediate course until the end of TMP/SOC Phase II, at such time the existing pavement can be milled and then the entire roadway can be uniformly paved with final surface course. Roadway improvements along Jermantown Road cannot be opened to traffic until the end of Phase II.

	Denotes Construction This Phase
	Denotes Construction This Phase (Detail Area)
	Denotes Temporary Construction Easement
	Denotes Group 2 Channelizing Devices
	Temporary Signalization Req'd

**** Pavement Marking Legend ****
A Type D, Class I or II, White, 24" Width
B Eradicate Existing Markings



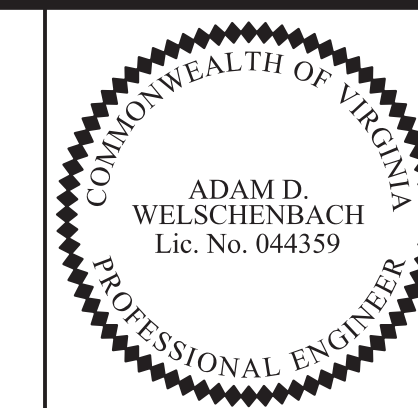
PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		1K

FINAL PLAN

CITY OF FAIRFAX
Rinker Design Associates, P.C.

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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TMP/SOC PHASE I-B

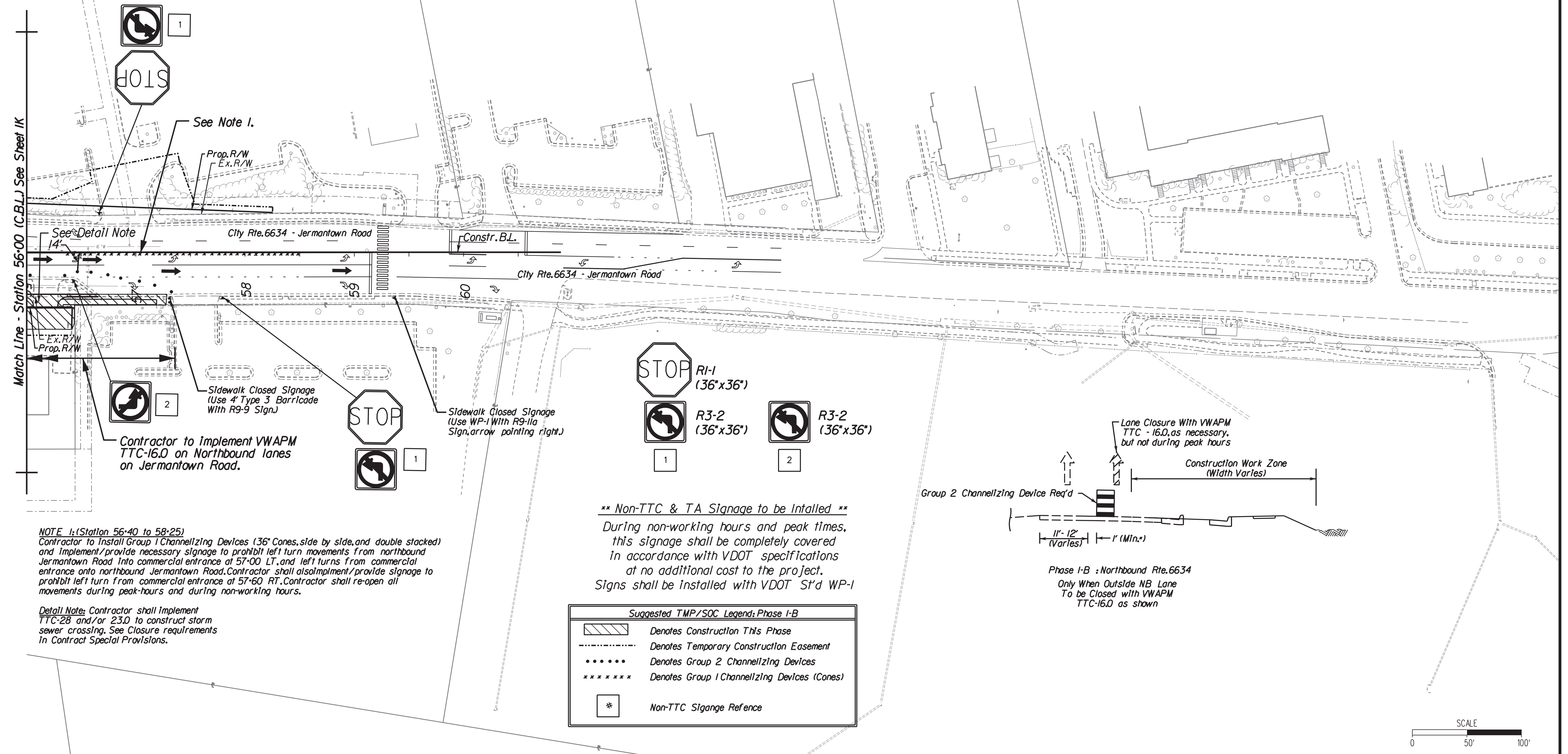


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 Rinker Design Associates, P.C.
 Manassas, Virginia
 PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	1K(1)

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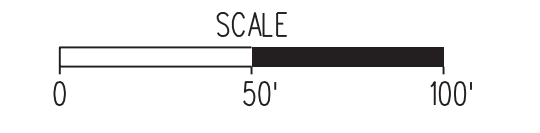
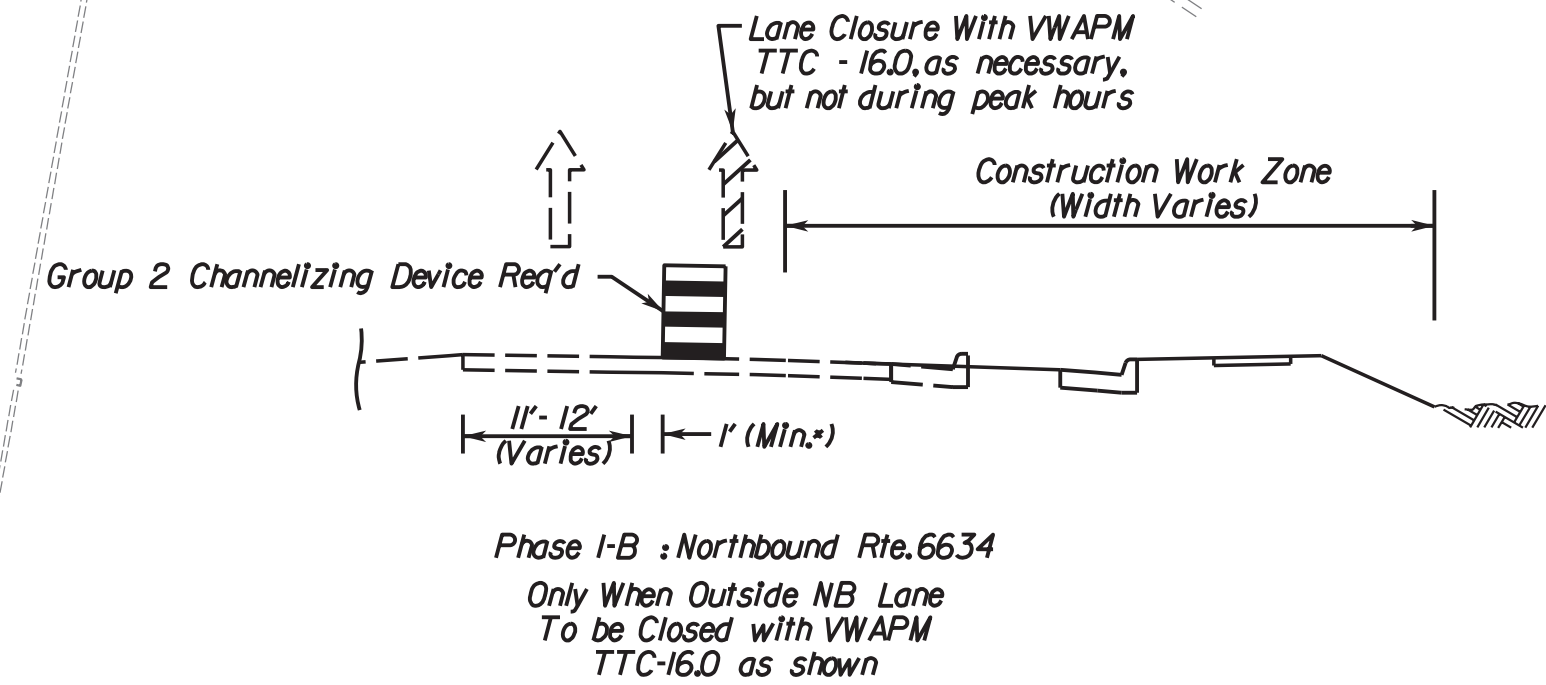
NOTE 1: (Station 56+40 to 58+25)
 Contractor to install Group 1 Channellizing Devices (36' Cones, side by side, and double stacked) and implement/provide necessary signage to prohibit left turn movements from northbound Jermantown Road into commercial entrance at 57+00 LT, and left turns from commercial entrance onto northbound Jermantown Road. Contractor shall also implement/provide signage to prohibit left turn from commercial entrance at 57+60 RT. Contractor shall re-open all movements during peak hours and during non-working hours.

Detail Note: Contractor shall implement TTC-28 and/or 23.0 to construct storm sewer crossing. See Closure requirements in Contract Special Provisions.

**** Non-TTC & TA Signage to be Installed ****
 During non-working hours and peak times, this signage shall be completely covered in accordance with VDOT specifications at no additional cost to the project. Signs shall be installed with VDOT Std WP-1

Suggested TMP/SOC Legend: Phase I-B

	Denotes Construction This Phase
	Denotes Temporary Construction Easement
	Denotes Group 2 Channellizing Devices
	Denotes Group 1 Channellizing Devices (Cones)
	Non-TTC Signage Reference

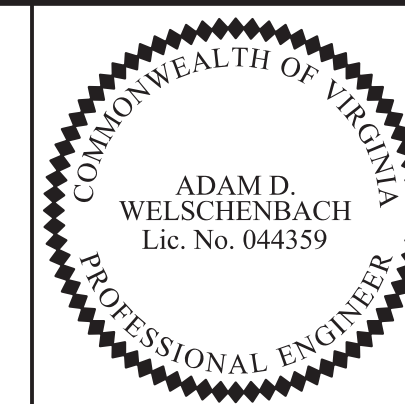


PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		1K(1)

FINAL PLAN

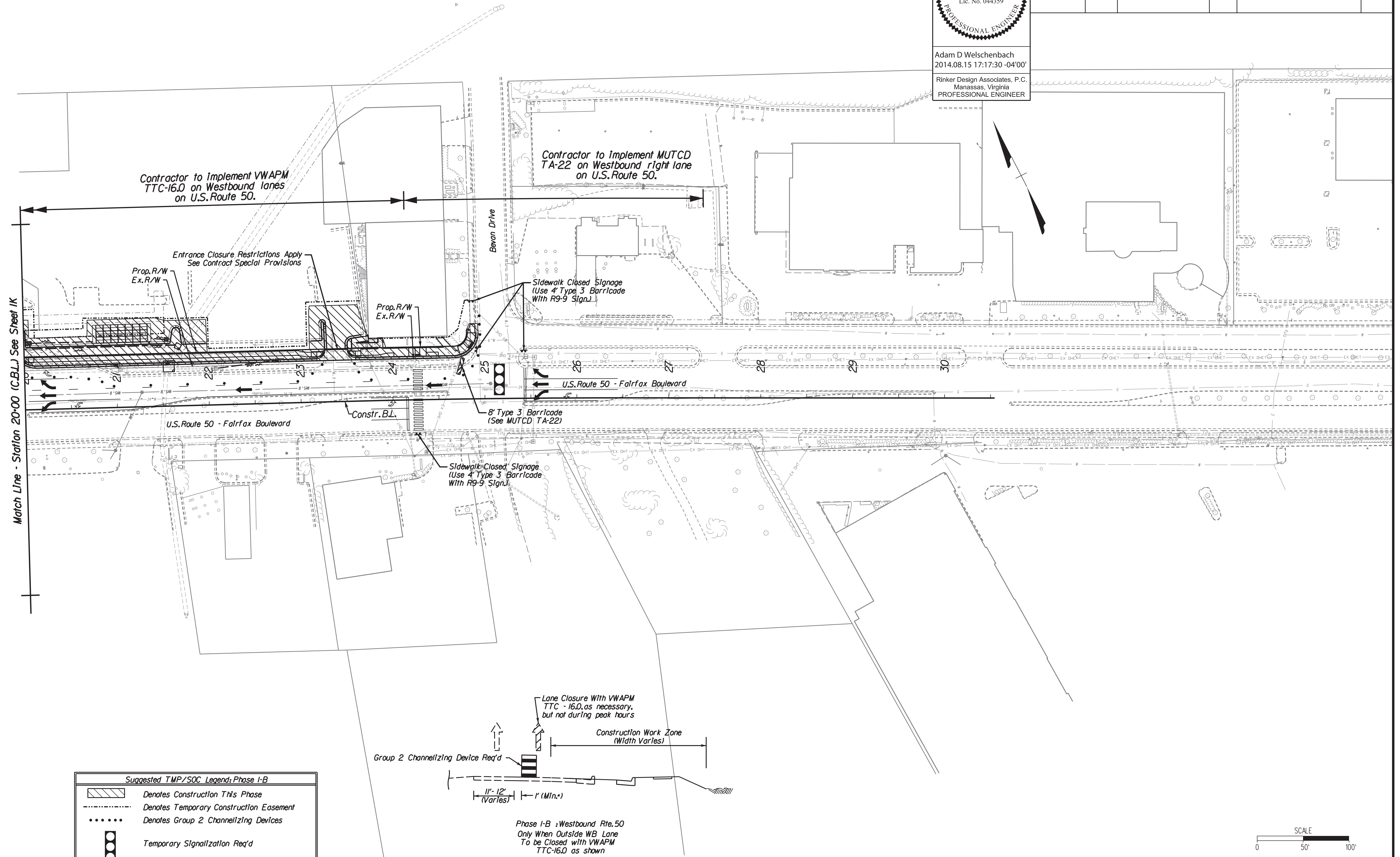
PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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TMP/SOC PHASE I-B



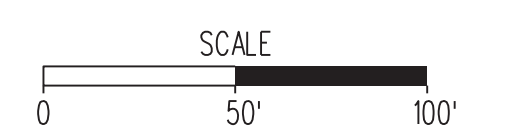
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Rinker Design Associates, P.C.
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PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	1K(2)



Suggested TMP/SOC Legend: Phase I-B

	Denotes Construction This Phase
	Denotes Temporary Construction Easement
	Denotes Group 2 Channelizing Devices
	Temporary Signalization Req'd



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		1K(2)

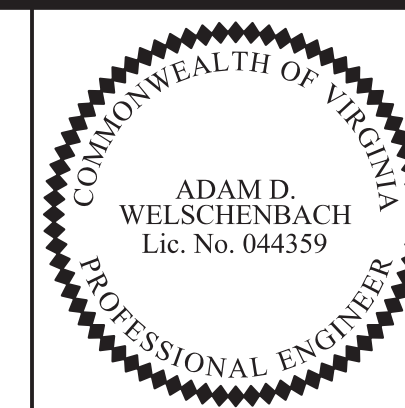
FINAL PLAN

CITY OF FAIRFAX
Rinker Design Associates, P.C.
Civil Engineers
Transportation - Environmental
Right of Way Services

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TMP/SOC PHASE II

Match Line - Station 56+00 (C.B.L.) See Sheet IL(1)



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REVISION	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IL

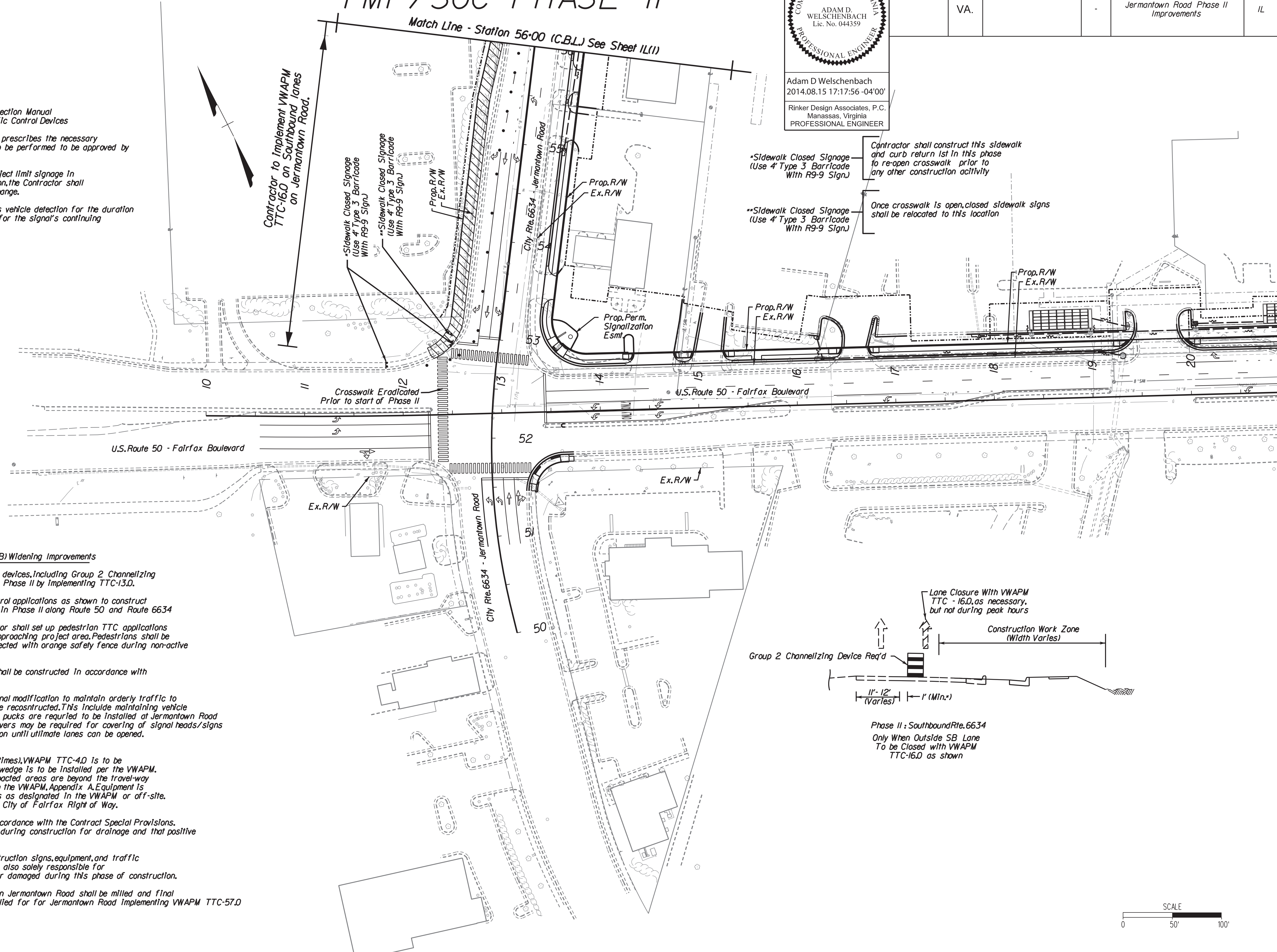
General TMP/SOC Sequencing Notes - Phase II

1. VWAPM - VDOT's current edition of the Virginia Work Area Protection Manual
MUTCD - FHWA's current edition of the Manual on Uniform Traffic Control Devices
2. The Contractor shall submit a temporary traffic control plan that prescribes the necessary traffic control measures and construction signage for the work to be performed to be approved by the Engineer prior to the commencement of ANY work activities.
3. Prior to the start of construction, the Contractor shall install project limit signage in accordance with VWAPM TTC-53.0. For the duration of construction, the Contractor shall ensure this signage remains in compliance if the project limits change.
4. The Contractor is solely responsible for maintaining any signal's vehicle detection for the duration of construction and with every modification that may be required for the signal's continuing operation for the duration of construction.

Contractor to implement VWAPM TTC-16.0 on Southbound lanes on Jermantown Road.

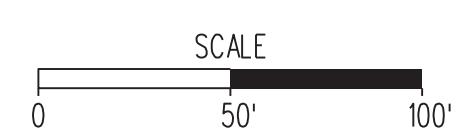
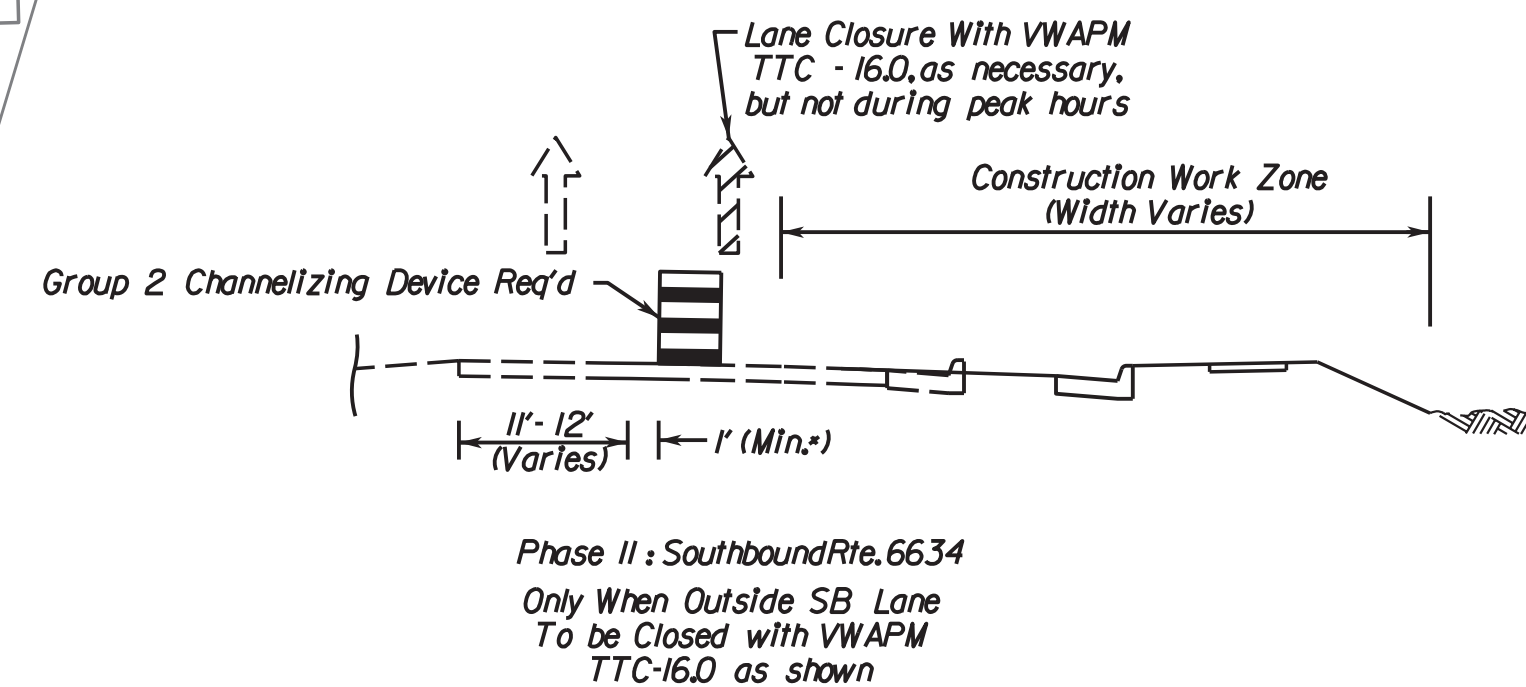
- *Sidewalk Closed Signage (Use 4' Type 3 Barricade With R9-9 Sign) - Contractor shall construct this sidewalk and curb return 1st in this phase to re-open crosswalk prior to any other construction activity
- **Sidewalk Closed Signage (Use 4' Type 3 Barricade With R9-9 Sign) - Once crosswalk is open, closed sidewalk signs shall be relocated to this location

	Denotes Construction This Phase
	Denotes Temporary Construction Easement
	Denotes Group 2 Channelizing Devices



PHASE II: Fairfax Boulevard (WB) and Jermantown Road (NB) Widening Improvements

1. The Contractor is to install all traffic control measures and devices, including Group 2 Channelizing devices, to construct the areas designated for construction in Phase II by implementing TTC-13.0.
2. The Contractor shall implement VWAPM Typical Traffic Control applications as shown to construct all designated construction areas for permanent construction in Phase II along Route 50 and Route 6634.
 - 2A. Before starting work on pedestrian facilities, the Contractor shall set up pedestrian TTC applications as shown to ensure advance warning to pedestrians before approaching project area. Pedestrians shall be oriented away from work area and work areas shall be protected with orange safety fence during non-active work zone hours as directed by the Engineer.
 - 2B. Commercial Entrances and work off mainline roadways shall be constructed in accordance with Contract Special Provisions.
 - 2C. The Contractor is solely responsible for any temporary signal modification to maintain orderly traffic to the satisfaction of the City Traffic Engineer, until signals are reconstructed. This includes maintaining vehicle detection for all signals within project's limits. New loops or pucks are required to be installed at Jermantown Road at Sta. 59+50 as part of mill/overlay operations. Temporary covers may be required for covering of signal heads/signs during this phase to match up with existing lane channelization until ultimate lanes can be opened. Coordination with City Traffic Engineer is required.
3. At the end of each work day (during non-active work-zone times), VWAPM TTC-4.0 is to be implemented in all construction areas and an appropriate 6' wedge is to be installed per the VWAPM. The 6' wedge is not required if the construction area or impacted areas are beyond the travel-way and meet VDOT's clear zone requirements in accordance with the VWAPM, Appendix A. Equipment is to be stored outside of the clear zone for construction areas as designated in the VWAPM or off-site. Equipment may NOT be stored on private property, only within City of Fairfax Right of Way.
4. The Contractor is to maintain access to all entrances in accordance with the Contract Special Provisions. Contractor is to ensure that adequate facilities are provided during construction for drainage and that positive drainage is maintained throughout this phase of construction.
5. The Contractor is solely responsible for relocating all construction signs, equipment, and traffic control devices for the duration of construction. Contractor is also solely responsible for resetting and replacing any roadway sign that is displaced or damaged during this phase of construction.
6. At the end of construction for Phase II, existing pavement on Jermantown Road shall be milled and final surface course and pavement markings/signage shall be applied for for Jermantown Road implementing VWAPM TTC-57.0 and 58.0.



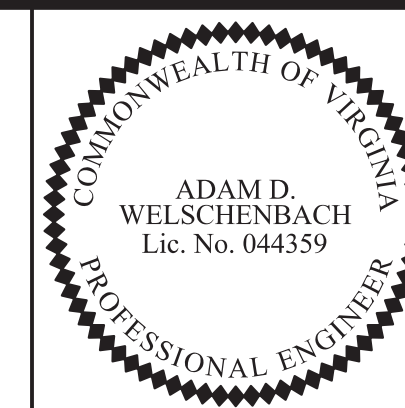
PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IL

FINAL PLAN

CITY OF FAIRFAX
Rinker Design Associates, P.C.
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Transportation - Environmental
Right of Way Services

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TMP/SOC PHASE II



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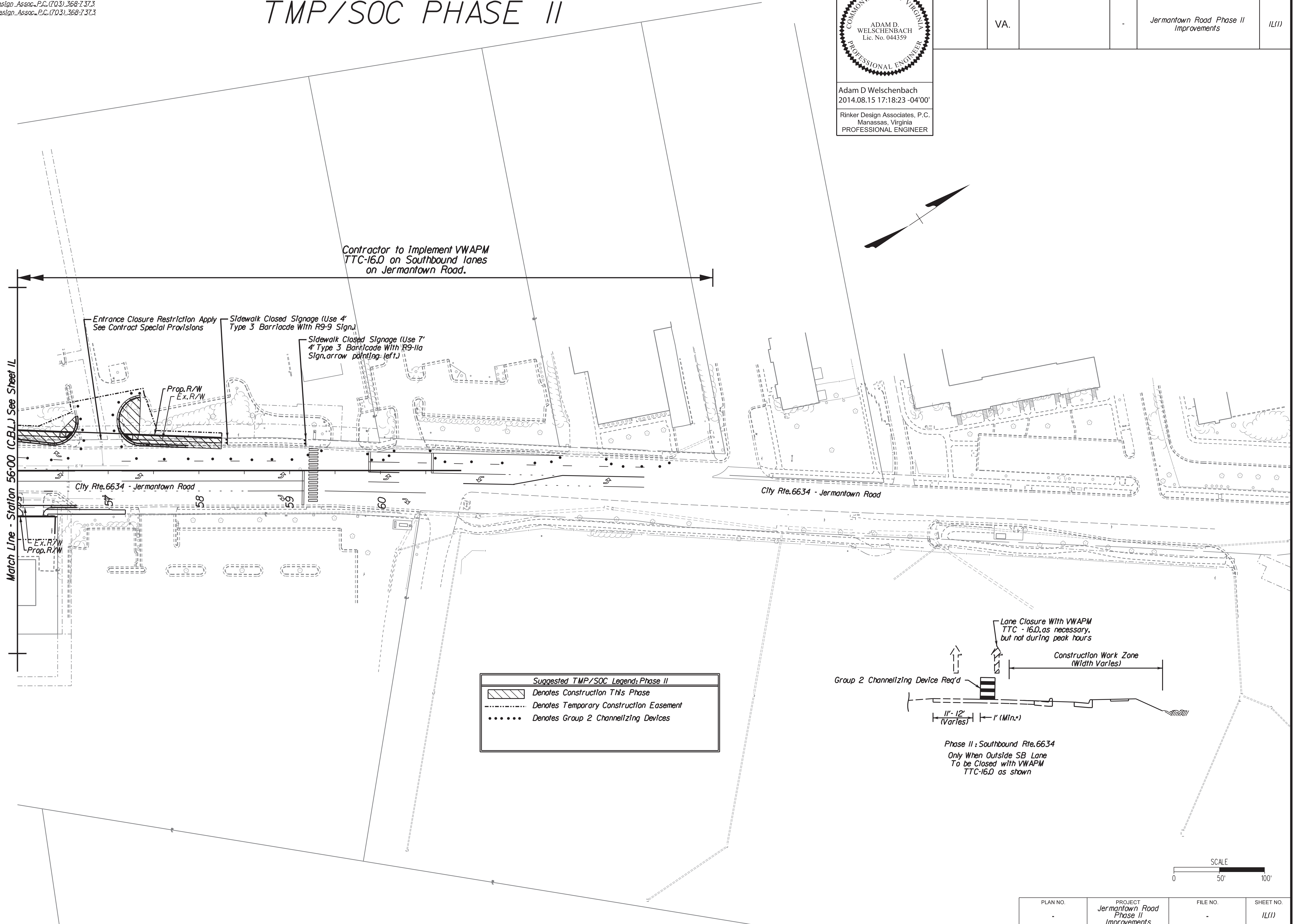
REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	1L(1)

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

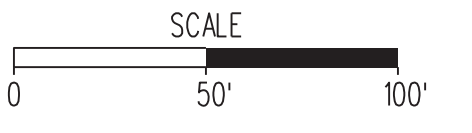
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CITY OF FAIRFAX



	Denotes Construction This Phase
	Denotes Temporary Construction Easement
	Denotes Group 2 Channelizing Devices

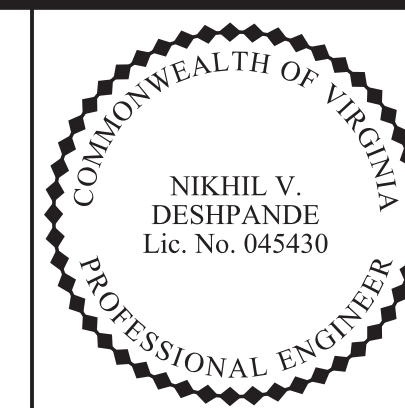


PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		1L(1)

FINAL PLAN

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Erosion and Sediment Control Notes & Details



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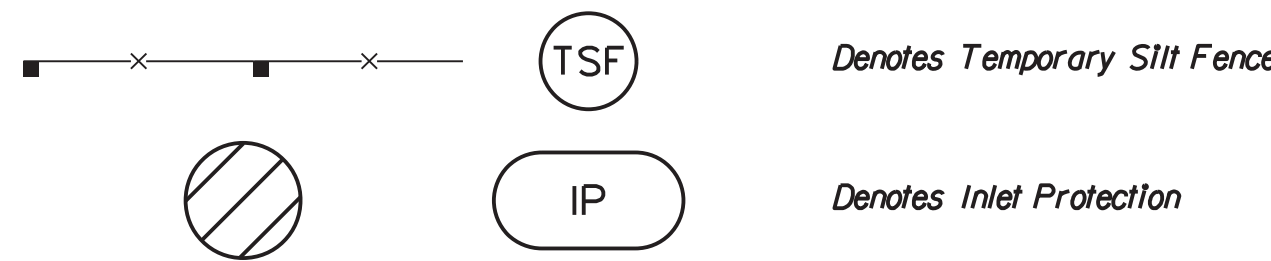
REVISED	STATE	FEDERAL AID	STATE	SHEET NO.
		PROJECT OWNER	PROJECT	
	VA.		Jermantown Road Phase II Improvements	IM

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 www.rinker.com

CITY OF FAIRFAX

EROSION AND SEDIMENT CONTROL (ESC) GENERAL NOTES

- E-1 If the removal of Brush Silt Barrier is specified by the plans or required by the Engineer, the cost of removal and disposal of brush shall be in accordance with Section 109 of the applicable VDOT Road and Bridge Specifications.
- E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.
- E-3 The following symbols are used to depict Erosion and Sediment Control Items in the plan assembly:



Orange Soils (Asbestos Soils) Note:

Naturally occurring asbestos soils known to be encountered within the project area. Please refer to the geotechnical report for a soil map indicating orange soil. The Contractor shall follow all Federal, State, and County guidelines to handle, work around, and/or dispose of soils containing asbestos.

EROSION AND SEDIMENT CONTROL NARRATIVE

Site Location: The project site is located in the City of Fairfax. This project proposes widening of Jermantown Road and Route 50 (Fairfax Boulevard).

Adjacent Areas: The site is surrounded by commercial buildings along Route 50 (Fairfax Boulevard) and Jermantown Road.

Off-site Areas: There will be impacts to adjacent parcels associated with the construction of this project. All necessary right-of-way, easements, and provisions will be acquired prior to the start of construction. The Contractor shall be responsible for the locations of acceptable borrow and/or disposal sites, and these shall be in accordance with VDOT regulations.

Soils: For complete soils information, please see the map and table on sheet IM(3).

Critical Areas: There are no steep slopes or channels located within the project boundary. The properties adjacent to the project site are completely developed, and care must be taken to prevent negative impact on these areas. The Contractor shall also be responsible for all discharge, including sheet flow, from the site.

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 Erosion and Sediment Control Handbook. Silt fence and storm drain inlet protection for existing storm 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 variance.

At the time of land disturbing activities within the state right-of-way the Contractor shall have a representative with Erosion and Sediment Control Contractor Certification (ESCCC) at the project site.

Land Disturbing/Construction Sequence:

1. Flag limits of clearing and grading.
2. Install temporary perimeter controls including silt fence and storm drain inlet protection.
3. Obtain site inspector's approval of Phase I controls.
4. After site inspector's approval of the initial controls, clear and grub the remainder of the site as necessary.
5. Construct storm sewer system and install inlet protection at all applicable locations.
6. Rough grade the remainder of the site.
7. Install all curb and gutter and place base stone pavement.
8. Fine grade site and install all landscaping including permanent seeding and fertilize all grassed areas.
9. Clean site of all trash and debris.
10. Have the inspector inspect all areas to determine if they are adequately stabilized.

Maintenance Program: The Contractor shall make a visual inspection of all mechanical controls and newly stabilized areas (i.e. 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: outlet protection 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 silt 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. The Contractor may install additional measures should he or she deem it necessary, at the inspector's approval.

Permanent Stabilization: Permanent stabilization shall be done in accordance with the VESCH.

Stormwater Runoff Considerations: Stormwater runoff has been taken into consideration, and drainage and outfall calculations, drainage computations, and outfall analysis can be found in the plan set.

Existing Site Conditions: The existing drainage pattern for this site is generally in the northeastern direction. The site is located in a high density urban developed area with numerous commercial buildings along the site boundary. The site drains to Difficult Run and Accothink Creek through a series of existing storm sewer systems. **Project Description:** This project proposes road widening of Jermantown Road and Route 50 (Fairfax Boulevard). The project limits begin at the intersection of Jermantown Road and Route 50 and end approximately 600' to the north from the intersection on Jermantown Road. The project limits along Route 50 west bound lane begin from the intersection with Jermantown Road and end at the intersection of Route 50 and Bevan Drive. The total disturbed area for the project is approximately 3.0 acres.

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	IM

FINAL PLAN

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Erosion and Sediment Control Notes & Details

REVISED	STATE	FEDERAL AID	STATE	SHEET NO.
	VA.	PROJECT OWNER	PROJECT	
			Jermantown Road Phase II Improvements	1M(1)

4VAC50-30-40. Minimum Standards. (MS-19)

A VESCP must be consistent with the following criteria, techniques and methods:

1. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
2. During construction of the project, soil stock piles and borrow areas shall be stabilized or protected with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as borrow areas and soil intentionally transported from the project site.
3. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive and will inhibit erosion.
4. Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes place.
5. Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation.
6. Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin.
 - a. The minimum storage capacity of a sediment trap shall be 134 cubic yards per acre of drainage area and the trap shall only control drainage areas less than three acres.
 - b. Surface runoff from disturbed areas that is comprised of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The minimum storage capacity of a sediment basin shall be 134 cubic yards per acre of drainage area. The outfall system shall, at a minimum, maintain the structural integrity of the basin during a 25-year storm of 24-hour duration. Runoff coefficients used in runoff calculations shall correspond to a bare earth condition or those conditions expected to exist while the sediment basin is utilized.
7. Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected.
8. Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.
9. Whenever water seeps from a slope face, adequate drainage or other protection shall be provided.
10. All storm sewer inlets that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment.
11. Before newly constructed stormwater conveyance channels or pipes are made operational, adequate outlet protection and any required temporary or permanent channel lining shall be installed in both the conveyance channel and receiving channel.
12. When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. Non-erodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for these structures if armored by non-erodible cover materials.
13. When a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of non-erodible material shall be provided.
14. All applicable federal, state and local chapters pertaining to working in or crossing live watercourses shall be met.
15. The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed.
16. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
 - a. No more than 500 linear feet of trench may be opened at one time.
 - b. Excavated material shall be placed on the uphill side of trenches.
 - c. Effluent from dewatering operations shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property.
 - d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.
 - e. Restabilization shall be accomplished in accordance with this chapter.
 - f. Applicable safety chapters shall be complied with.

17. Where construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual development lots as well as to larger land-disturbing activities.
18. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the VESCP authority. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.
19. Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria. Stream restoration and relocation projects that incorporate natural channel design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels:
 - a. Concentrated stormwater runoff leaving a development site shall be discharged directly into an adequate natural or man-made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.
 - b. Adequacy of all channels and pipes shall be verified in the following manner:
 - 1) The applicant shall demonstrate that the total drainage area to the point of analysis within the channel is one hundred times greater than the contributing drainage area of the project in question; or
 - 2)
 - a) Natural channels shall be analyzed by the use of a two-year storm to verify that stormwater will not overtop channel banks nor cause erosion of channel bed or banks.
 - b) All previously constructed man-made channels shall be analyzed by the use of a ten-year storm to verify that stormwater will not overtop its banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel bed or banks; and
 - c) Pipes and storm sewer systems shall be analyzed by the use of a ten-year storm to verify that stormwater will be contained within the pipe or system.
 - c. If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant shall:
 - 1) Improve the channels to a condition where a ten-year storm will not overtop the banks and a two-year storm will not cause erosion to channel the bed or banks; or
 - 2) Improve the pipe or pipe system to a condition where the ten-year storm is contained within the appurtenances;
 - 3) Develop a site design that will not cause the pre-development peak runoff rate from a two-year storm to increase when runoff outfalls into a natural channel or will not cause the pre-development peak runoff rate from a ten-year storm to increase when runoff outfalls into a man-made channel; or
 - 4) Provide a combination of channel improvement, stormwater detention or other measures which is satisfactory to the VESCP authority to prevent downstream erosion.
 - d. The applicant shall provide evidence of permission to make the improvements.
 - e. All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development condition of the subject project.
 - f. If the applicant chooses an option that includes stormwater detention, he shall obtain approval from the VESCP of a plan for maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the person responsible for performing the maintenance.
 - g. Outfall from a detention facility shall be discharged to a receiving channel, and energy dissipators shall be placed at the outfall of all detention facilities as necessary to provide a stabilized transition from the facility to the receiving channel.
 - h. All on-site channels must be verified to be adequate.
 - i. Increased volumes of sheet flows that may cause erosion or sedimentation on adjacent property shall be diverted to a stable outlet, adequate channel, pipe or pipe system, or to a detention facility.
 - j. In applying these stormwater management criteria, individual lots or parcels in a residential, commercial or industrial development shall not be considered to be separate development projects. Instead, the development, as a whole, shall be considered to be a single development project. Hydrologic parameters that reflect the ultimate development condition shall be used in all engineering calculations.

- k. All measures used to protect properties and waterways shall be employed in a manner which minimizes impacts on the physical, chemical and biological integrity of rivers, streams and other waters of the state.
- l. Any plan approved prior to July 1, 2014, that provides for stormwater management that addresses any flow rate capacity and velocity requirements for natural or man-made channels shall satisfy the flow rate capacity and velocity requirements for natural or man-made channels if the practices are designed to (i) detain the water quality volume and to release it over 48 hours; (ii) detain and release over a 24-hour period the expected rainfall resulting from the one year, 24-hour storm; and (iii) reduce the allowable peak flow rate resulting from the 1.5, 2, and 10-year, 24-hour storms to a level that is less than or equal to the peak flow rate from the site assuming it was in a good forested condition, achieved through multiplication of the forested peak flow rate by a reduction factor that is equal to the runoff volume from the site when it was in a good forested condition divided by the runoff volume from the site in its proposed condition, and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels as defined in any regulations promulgated pursuant to 10J-562 or 10J-570 of the Act.
- m. For plans approved on and after July 1, 2014, the flow rate capacity and velocity requirements of 10J-561 A of the Act and this subsection shall be satisfied by compliance with water quantity requirements in the Stormwater Management Act (10J-603.2 et seq. of the Code of Virginia) and attendant regulations, unless such land-disturbing activities are in accordance with 4VAC50-60-48 of the Virginia Stormwater Management Program (VSMP) Permit Regulations.
- n. Compliance with the water quantity minimum standards set out in 4VAC50-60-66 of the Virginia Stormwater Management Program (VSMP) Permit Regulations shall be deemed to satisfy the requirements of Minimum Standard 19.

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CITY OF FAIRFAX

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	1M(1)

FINAL PLAN

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
 SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
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 DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

Erosion & Sediment Control Plan Details

REVISED	STATE	FEDERAL AID	STATE	SHEET NO.
	VA.	PROJECT OWNER	PROJECT	
			Jermantown Road Phase II Improvements	IM(2)

Office Locations
 10000 Old Dominion Boulevard
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CITY OF FAIRFAX

INLET PROTECTION (TYPE A)

INLET PROTECTION (TYPE B)

EC-6

TYPICAL TREATMENT FOR DROP INLET WITH CONCRETE GUTTER

TYPICAL TREATMENT FOR DROP INLET WITHOUT CONCRETE GUTTER

SECTION VIEW

SPECIFIC APPLICATION
 THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

NOTES:

- POSTS AND TOP RAIL SHALL BE A NOMINAL 2 1/4" X 2 1/4" OR A 3" DIA. NO. 2 SOUTHERN PINE, A NOMINAL 2" X 2" OAK OR STEEL HAVING A MIN. WEIGHT OF 1.25 LBS. PER LINEAR FOOT AND A MIN. LENGTH OF 5' FOR TEMPORARY SILT FENCES.
- END OF FILTER BARRIER TO BE EMBEDDED INTO AGGREGATE.
- IF A DROP INLET IS LOCATED IN A SAG IN THE DITCH GRADE, A CHECK DAM IS REQUIRED FOR EACH SIDE OF THE INLET THAT RECEIVES DITCH FLOW.
- WHERE DRAINAGE AREAS EXCEED ONE ACRE OR DITCH GRADE EXCEEDS 1%, A TEMPORARY SEDIMENT FOREBAY SHALL BE INSTALLED WITH MINIMUM DIMENSIONS OF 12" DEPTH, 2' WIDTH AND 6' LENGTH.

NOTE:
 GEOTEXTILE PRODUCTS DESIGNED TO BE INSERTED INTO GRATED DROP INLETS OR DESIGNED TO COVER THE SLOTS OF SLOT DROP INLETS THAT HAVE BEEN APPROVED FOR USE ON VDOT PROJECTS AND ARE FOUND ON VDOT'S SPEL LIST, MAY BE SUBSTITUTED FOR THE DROP INLET PROTECTION DEVICES DETAILED HEREON.

SPECIFICATION REFERENCE	INLET PROTECTION (TYPE A AND B)	VDOT	ROAD AND BRIDGE STANDARDS
107 242 303			REVISION DATE SHEET 1 OF 2 113.09

TYPICAL DETAIL FOR TEMPORARY FILTER BARRIER/SILT FENCE/CHECK DAM AT CULVERT

EC-5

TYPICAL DETAIL FOR TEMPORARY SILT FENCE/CHECK DAM AT TOE OF FILL

NOTE:
 ROCK CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.

TEMPORARY FILTER BARRIER

TEMPORARY SILT FENCE

NOTE:
 SUPPORTS FOR TEMPORARY FILTER BARRIERS SHALL BE A NOMINAL 1" X 2" OR A 3/4" DIA. NO. 2 SOUTHERN PINE OR OAK OR STEEL HAVING A MIN. WEIGHT OF 1.00 LBS. PER LINEAR FOOT.

NOTE:
 *SLEND IS AN APPROVED ALTERNATE METHOD TO TRENCHING

SPECIFICATION REFERENCE	TEMPORARY SILT BARRIERS	VDOT	ROAD AND BRIDGE STANDARDS
	FILTER BARRIER, SILT FENCE, AND BRUSH BARRIER		REVISION DATE SHEET 1 OF 2 113.07

TYPICAL DETAIL FOR BRUSH BARRIER (TO BE USED AT ALL APPLICABLE LOCATIONS)

EC-5

SECTION A-A

BACK ISOMETRIC

FRONT ISOMETRIC

NOTES:

- BRUSH BARRIERS SHALL BE CONSTRUCTED AT LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. BRUSH SHALL BE PILED AGAINST EXISTING TREES TO PREVENT MOVEMENT OF BARRIER. BRUSH SHALL BE PILED AS TIGHTLY AS POSSIBLE AND WEIGHTED DOWN BY UNMERCHANTABLE LOGS.
- GEOTEXTILE FABRIC CONFORMING TO THE ROAD AND BRIDGE SPECIFICATIONS SHALL BE INSTALLED AS DETAILED ABOVE. GEOTEXTILE FABRIC MAY ALSO BE ATTACHED TO EXISTING FENCES WHEN SPECIFIED ON THE PLANS OR DIRECTED BY THE ENGINEER.
- NO BRUSH WILL BE DESTROYED OR REMOVED FROM THE PROJECT UNTIL ALL BRUSH SILT BARRIERS ARE IN PLACE AND HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER.
- DIMENSIONS SHOWN ARE APPROXIMATE ONLY.

SPECIFICATION REFERENCE	TEMPORARY SILT BARRIERS	VDOT	ROAD AND BRIDGE STANDARDS
107 242 303	FILTER BARRIER, SILT FENCE, AND BRUSH BARRIER		REVISION DATE SHEET 2 OF 2 113.06

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IM(2)

FINAL PLAN

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
 SURVEYED BY *Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGN SUPERVISED BY *Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373*
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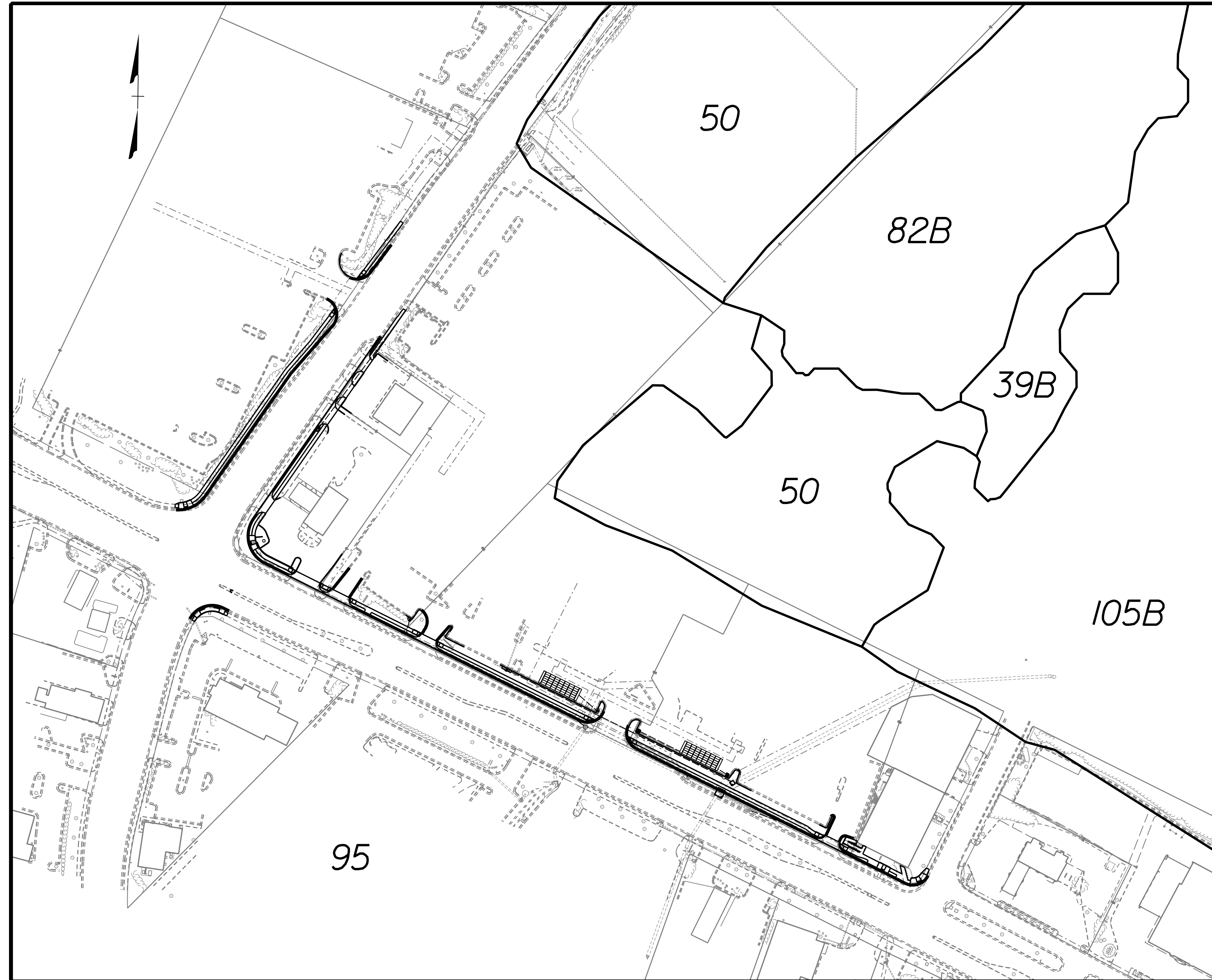
Soils Map & Table

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IM(3)

Office Locations
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 Civil Engineers, Surveyors, Environmental Planners, Transportation Engineers, Right of Way Services

CITY OF FAIRFAX



Mapping Unit	Soil Name	NRCS Description	Erodibility	Permeability	Depth of Soil (ft)	AASHTO or USCS Classification	Depth (in)	Max Water Velocity (ft/s)	Manning's n-Flow Depth 0.5-2.0 ft
39B	Glenelg silt loam, 2-7% slope	The Glenelg component makes up 85 percent of the map unit. Slopes are 2 to 7 percent. This component is on interfluvial on piedmonts. The parent material consists of residuum weathered from mica schist and/or residuum weathered from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.	moderate	moderately fast	> 6.7	A-7	0-6	4.0	0.025
						A-6	6-27	3.5	0.025
						A-6	27-71	3.5	0.025
50	Hattontown silt loam, 0-25% slope	The Hattontown component makes up 100 percent of the map unit. Slopes are 0 to 25 percent. This component is on interfluvial on basins. The parent material consists of mine spoil or earthy fill derived from basalt and/or mine spoil or earthy fill derived from diabase. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.	severe	moderately slow	> 6.7	A-7	0-4	4.0	0.025
						A-6	4-60	3.5	0.025
82B	Orange silt loam, 2-7% slope	The Orange component makes up 80 percent of the map unit. Slopes are 2 to 7 percent. This component is on interfluvial on piedmonts. The parent material consists of residuum weathered from diabase. Depth to a root restrictive layer, bedrock, paralithic, is 40 to 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is high. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.	slight	moderately slow	3.3 to 5	A-4	0-8	2.3	0.020
						A-7	8-50	4.0	0.025
						A-6	50-58	3.5	0.025
95	Urban Land	The Urban Land is a miscellaneous area.	-	-	-	-	-	-	-
105B	Wheaton-Glenelg complex, 2-7% slopes	The Wheaton component makes up 45 percent of the map unit. Slopes are 2 to 15 percent. This component is on interfluvial on piedmonts. The parent material consists of mine spoil or earthy fill derived from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. The Glenelg component makes up 40 percent of the map unit. Slopes are 2 to 7 percent. This component is on interfluvial on piedmonts. The parent material consists of residuum weathered from mica schist and/or residuum weathered from phyllite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.	moderate	moderate	> 6.7	A-4	0-9	2.3	0.020
						A-2	9-60	4.5	0.030
						A-4	0-6	2.3	0.020
						A-6	6-27	3.5	0.025
						A-4	27-71	2.3	0.020

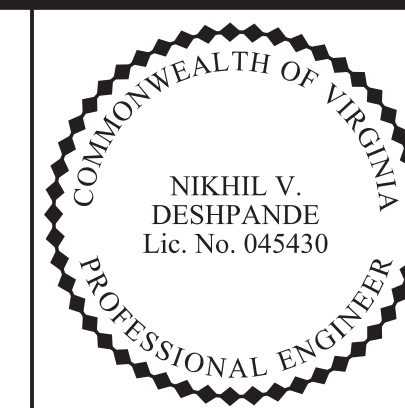
Orange Soils (Asbestos Soils) Note:
 Naturally occurring asbestos soil is known to be encountered within the project area. Please refer to the geotechnical report for a soil map indicating orange soil. The Contractor shall follow all Federal, State, and County guidelines to handle, work around, and/or dispose of soils containing asbestos.

PLAN NO.	PROJECT Jermantown Road Phase II Improvements	FILE NO.	SHEET NO. IM(3)
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FINAL PLAN

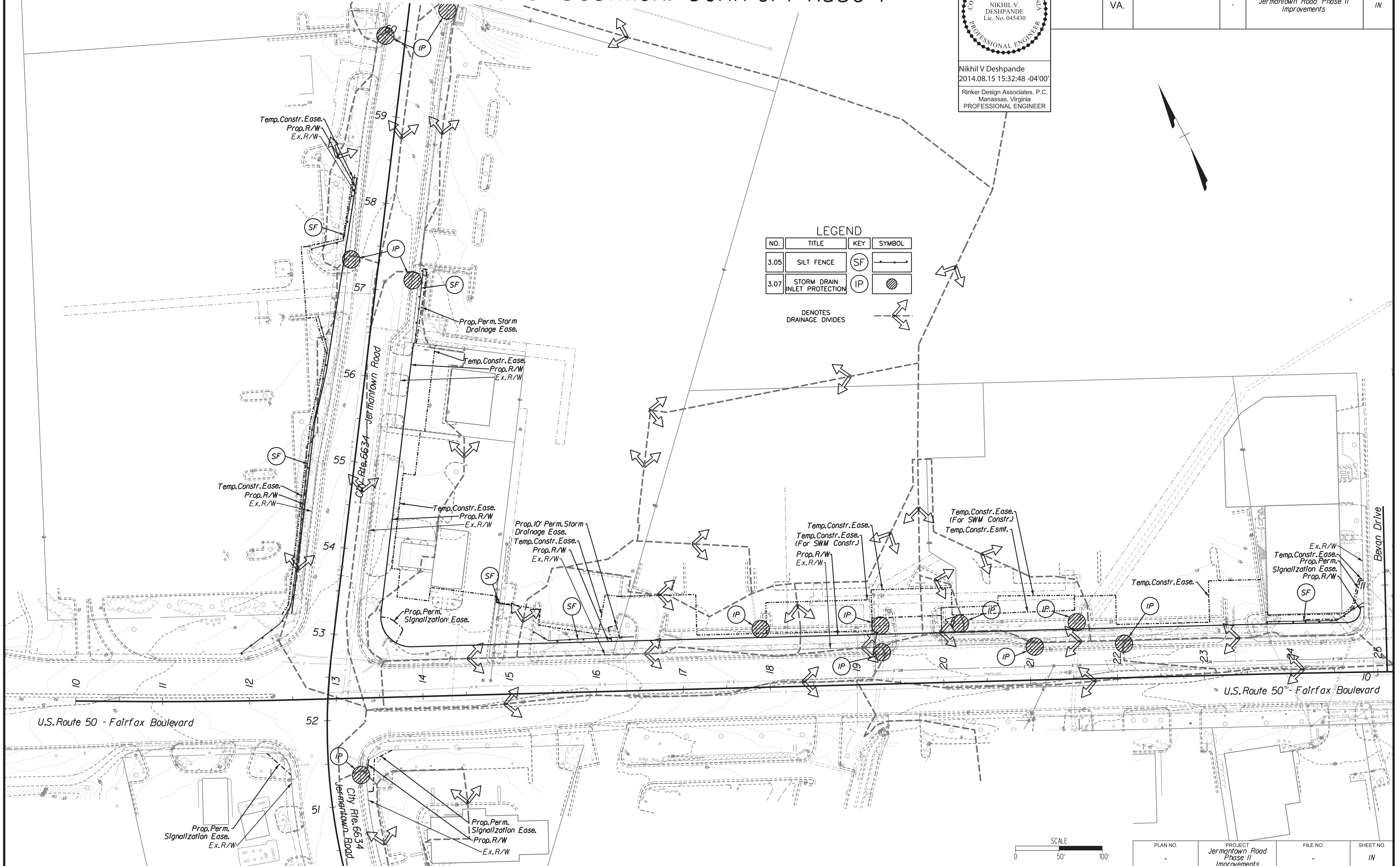
PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

Erosion and Sediment Control Phase I



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

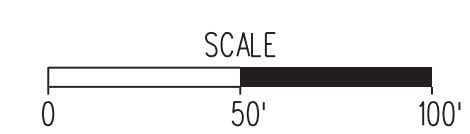
REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IN



LEGEND

NO.	TITLE	KEY	SYMBOL
3.05	SILT FENCE	SF	[Symbol]
3.07	STORM DRAIN INLET PROTECTION	IP	[Symbol]

DENOTES DRAINAGE DIVIDES [Symbol]



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IN

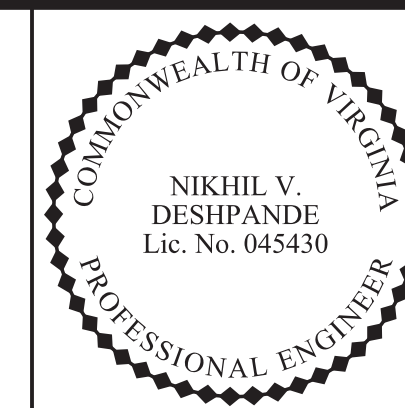
FINAL PLAN

CITY OF FAIRFAX
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Civil Engineers
Transportation - Environmental
Right of Way Services

CITY OF FAIRFAX

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Erosion and Sediment Control Phase II



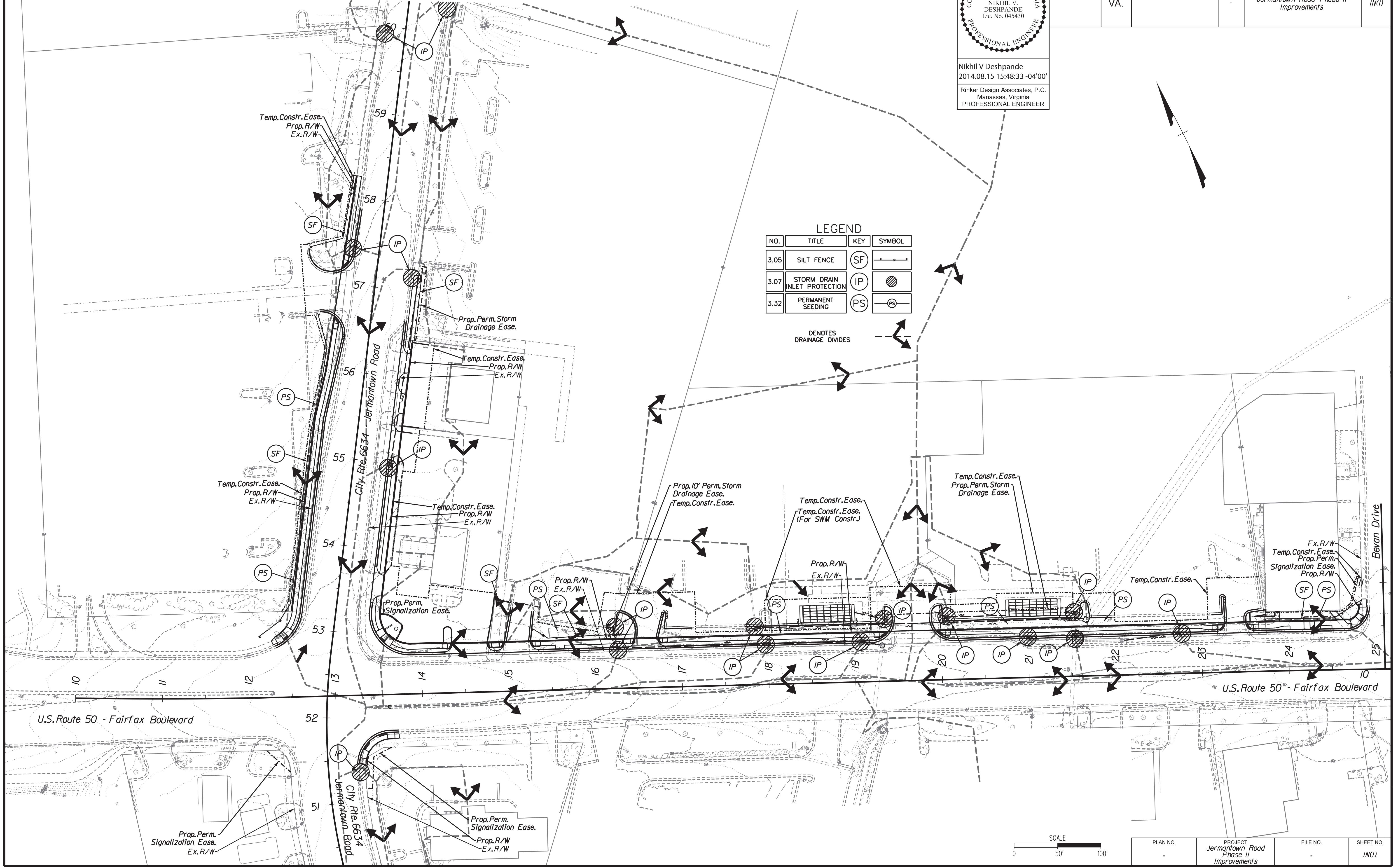
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Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	10(1)

LEGEND

NO.	TITLE	KEY	SYMBOL
3.05	SILT FENCE	SF	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.32	PERMANENT SEEDING	PS	

DENOTES DRAINAGE DIVIDES



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CITY OF FAIRFAX

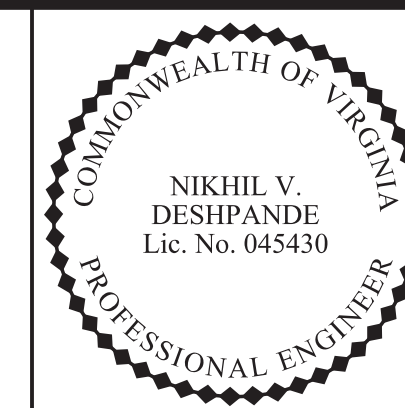
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FINAL PLAN

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		10(1)

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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EXISTING DRAINAGE DIVIDES



Nikhil V. Deshpande
2014.08.15 15:33:40 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
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REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IN(2)

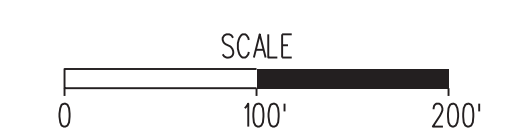
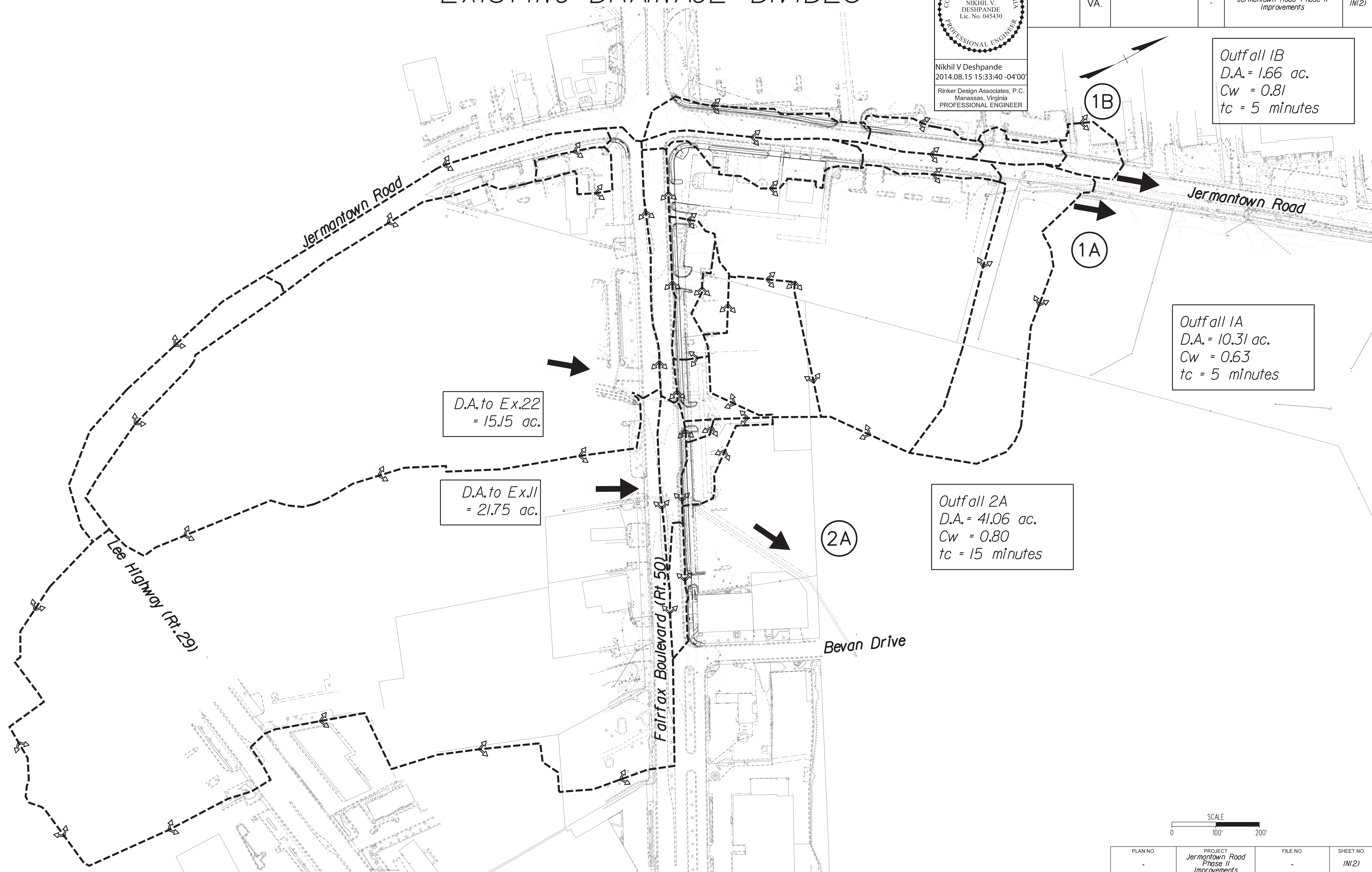
Outfall 1B
D.A. = 1.66 ac.
Cw = 0.81
tc = 5 minutes

Outfall 1A
D.A. = 10.31 ac.
Cw = 0.63
tc = 5 minutes

Outfall 2A
D.A. = 41.06 ac.
Cw = 0.80
tc = 15 minutes

D.A. to Ex. 22
= 15.15 ac.

D.A. to Ex. 11
= 21.75 ac.



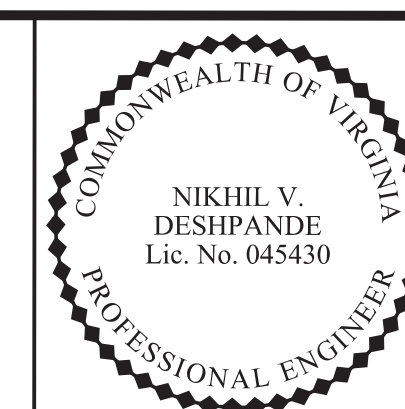
PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IN(2)

FINAL PLAN

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PROPOSED DRAINAGE DIVIDES



Nikhil V. Deshpande
 2014.08.15 15:34:12 -04'00'
 Rinker Design Associates, P.C.
 Manassas, Virginia
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REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IN(3)

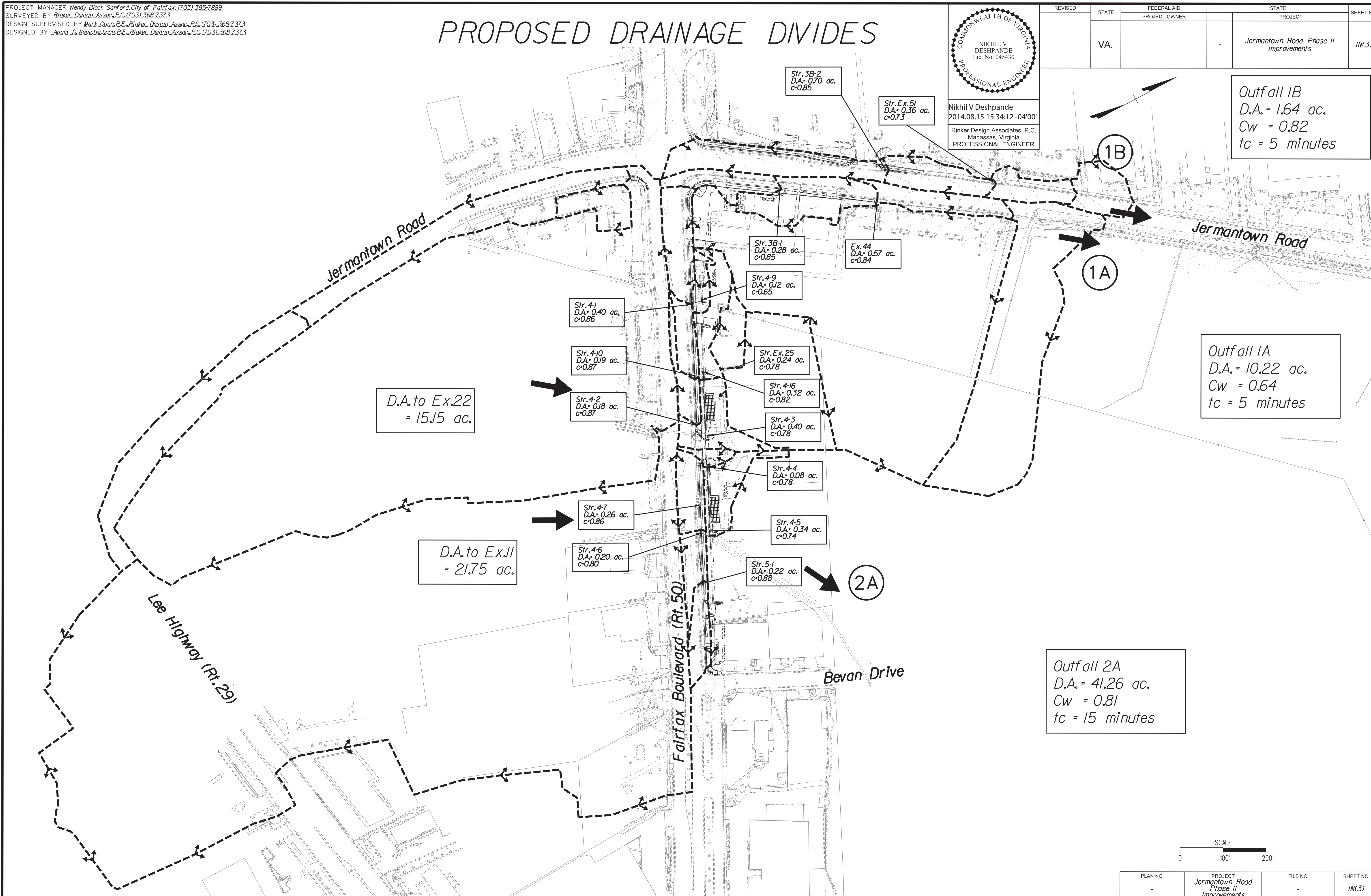
Outfall 1B
 D.A. = 1.64 ac.
 Cw = 0.82
 tc = 5 minutes

Outfall 1A
 D.A. = 10.22 ac.
 Cw = 0.64
 tc = 5 minutes

Outfall 2A
 D.A. = 41.26 ac.
 Cw = 0.81
 tc = 15 minutes

D.A. to Ex.22
 = 15.15 ac.

D.A. to Ex.11
 = 21.75 ac.



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IN(3)

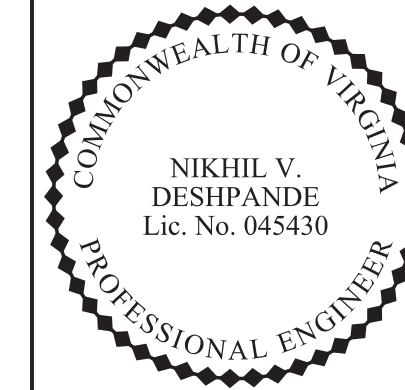
FINAL PLAN

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CITY OF FAIRFAX

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
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UNDERDRAIN PLAN



Nikhil V Deshpande
2014.08.15 15:34:38 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

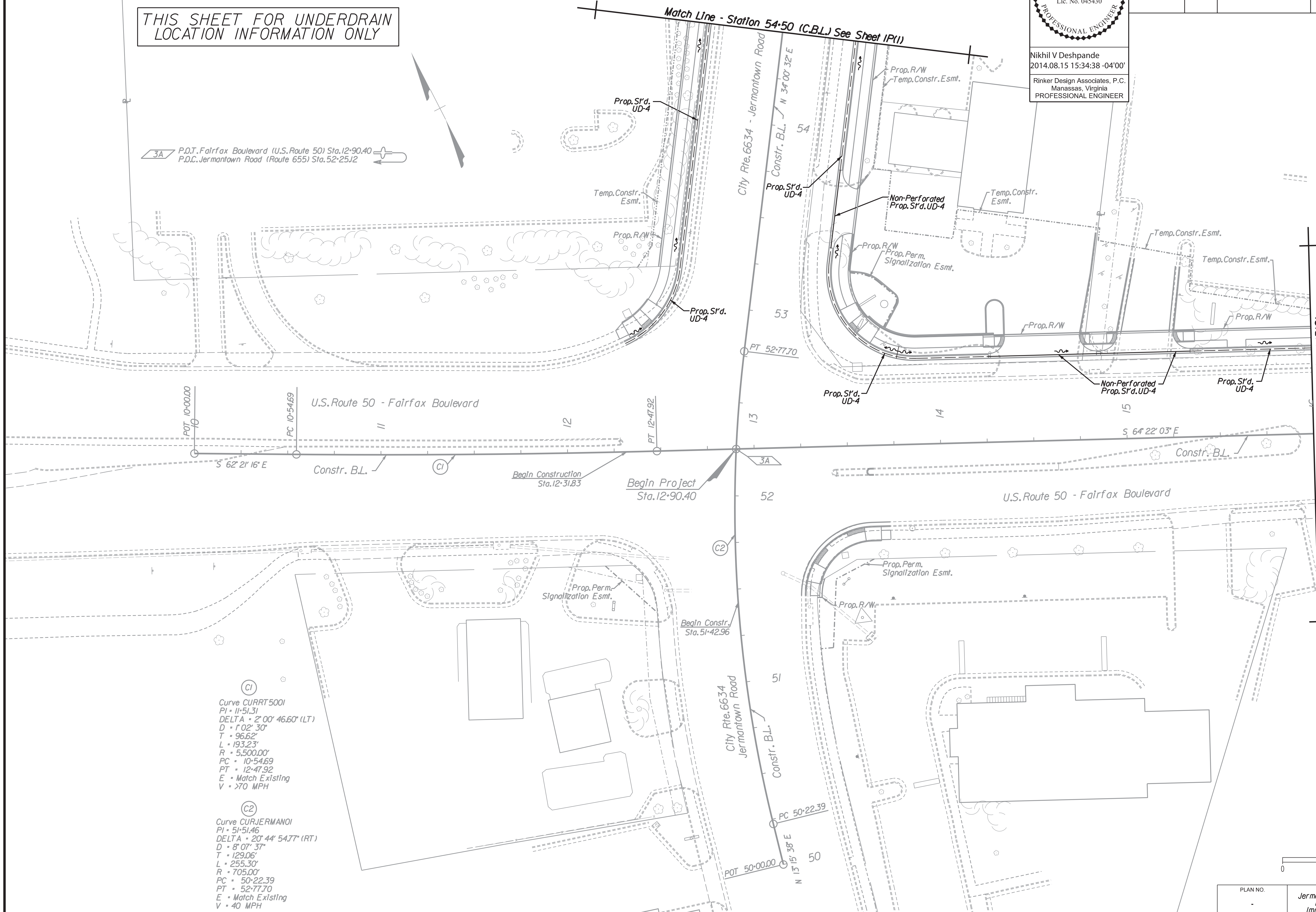
REVISD	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IP

THIS SHEET FOR UNDERDRAIN LOCATION INFORMATION ONLY

3A P.O.T. Fairfax Boulevard (U.S. Route 50) Sta. 12+90.40
P.O.C. Jermantown Road (Route 655) Sta. 52+25.12

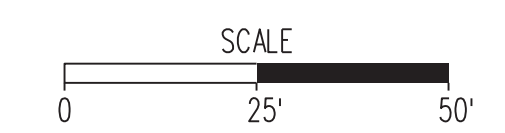
Match Line - Station 54+50 (C.B.L.) See Sheet IP(1)

Match Line - Station 16+00 (C.B.L.) See Sheet IP(2)



C1
Curve CURRT5001
PI = 11+51.31
DELTA = 2° 00' 46.60" (LT)
D = 1' 02" 30"
T = 96.62'
L = 36.623'
R = 5,500.00'
PC = 10+54.69
PT = 12+47.92
E = Match Existing
V = >70 MPH

C2
Curve CURJERMANO1
PI = 51+51.46
DELTA = 20° 44' 54.77" (RT)
D = 8' 07" 37"
T = 129.06'
L = 255.30'
R = 705.00'
PC = 50+22.39
PT = 52+77.70
E = Match Existing
V = 40 MPH



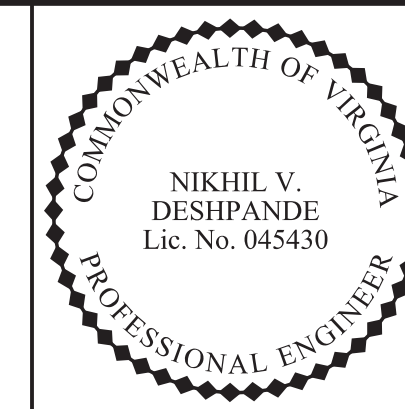
PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IP

FINAL PLAN

CITY OF FAIRFAX
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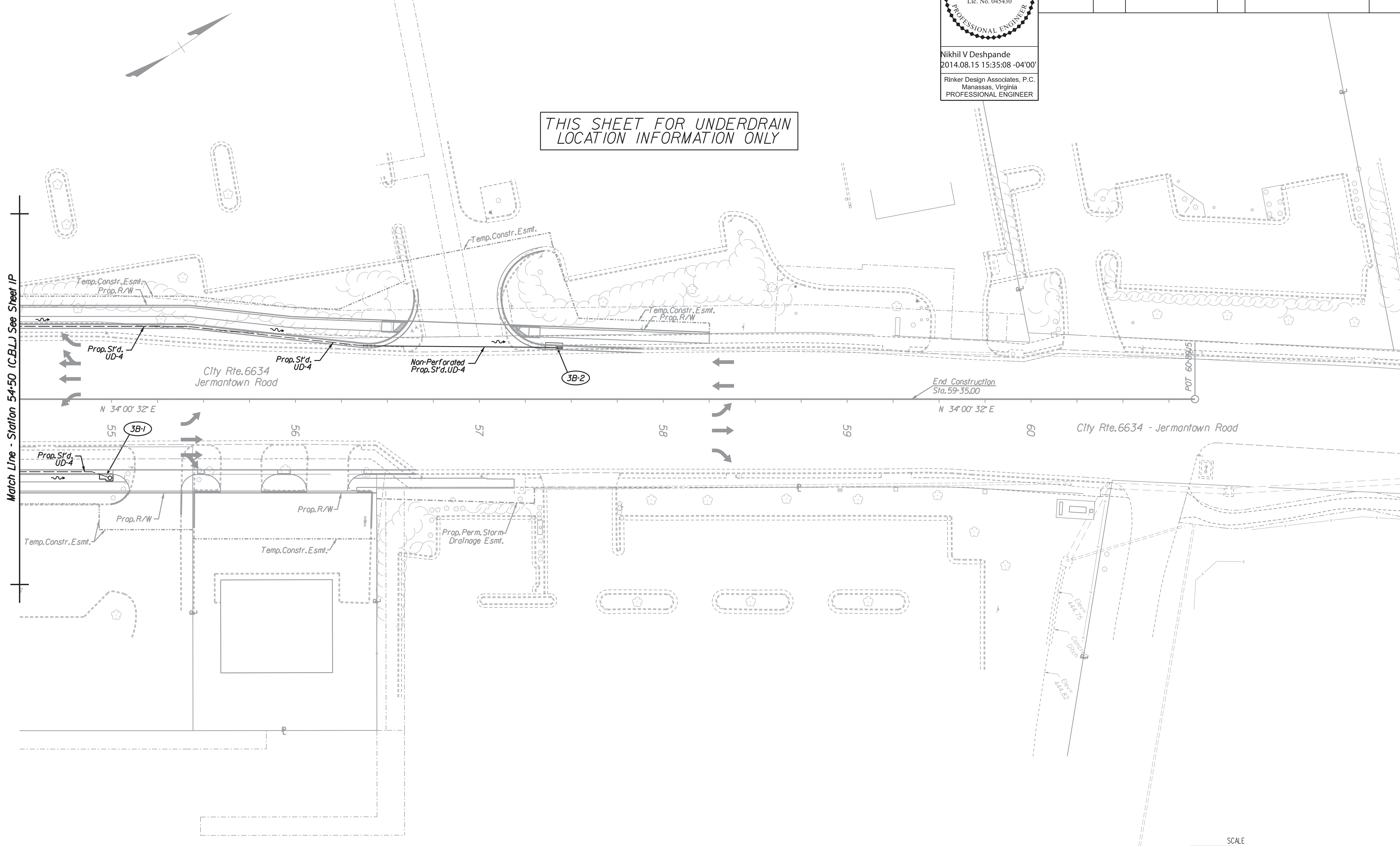
UNDERDRAIN PLAN



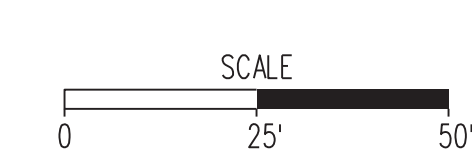
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Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IP(1)

THIS SHEET FOR UNDERDRAIN LOCATION INFORMATION ONLY



Match Line - Station 54+50 (C.B.L.J See Sheet IP



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	Jermantown Road Phase II Improvements	-	IP(1)

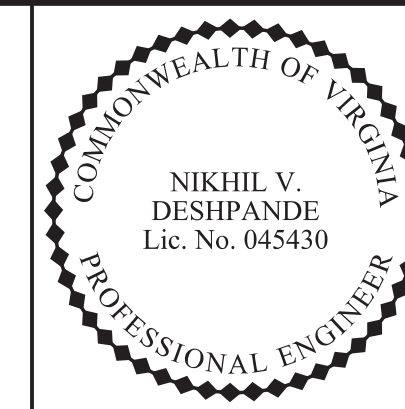
FINAL PLAN

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Transportation - Environmental
Right of Way Services

CITY OF FAIRFAX

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DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

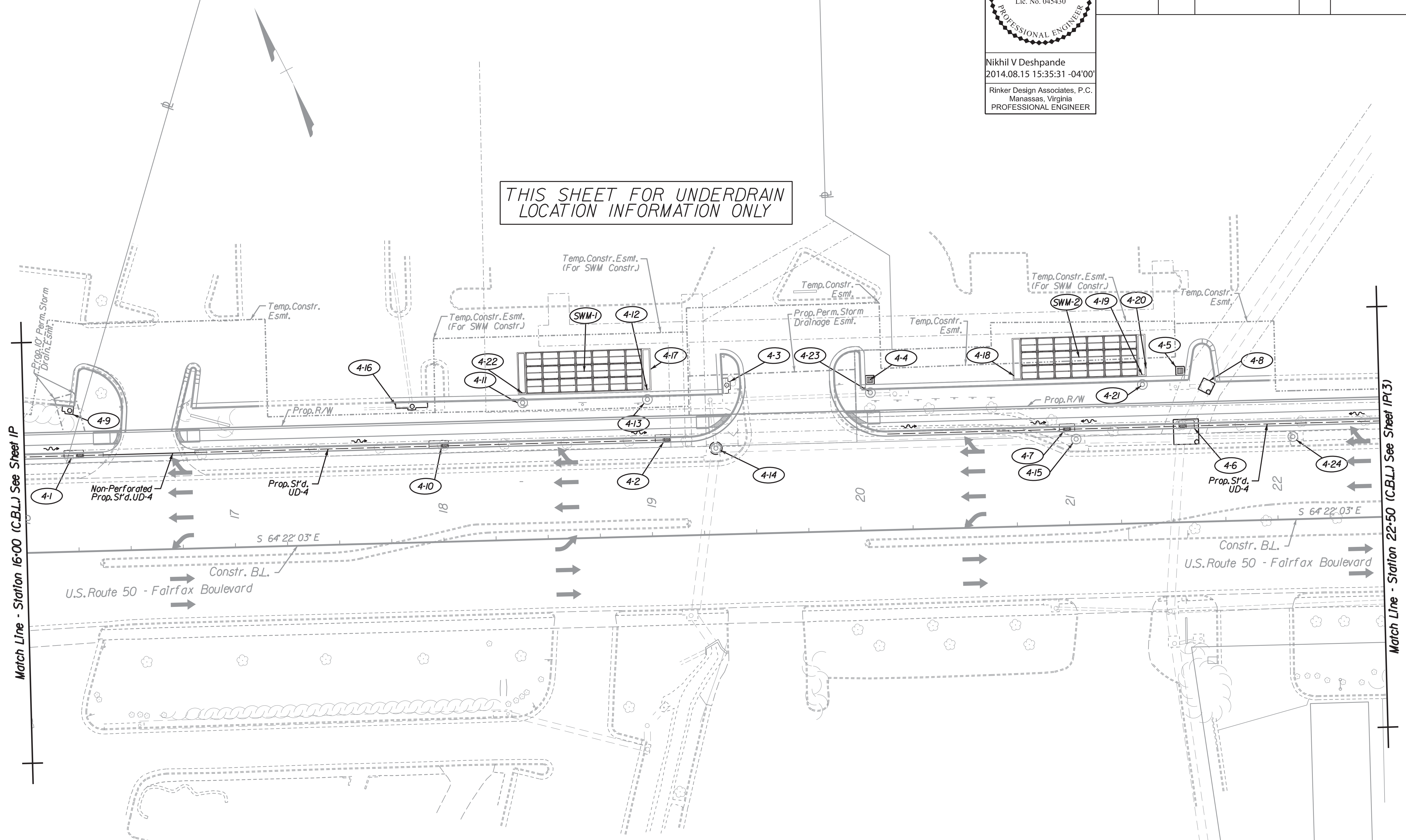
UNDERDRAIN PLAN



Nikhil V Deshpande
2014.08.15 15:35:31 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

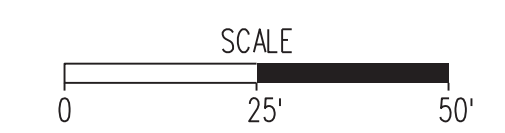
REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IP(2)

THIS SHEET FOR UNDERDRAIN LOCATION INFORMATION ONLY



Match Line - Station 16+00 (C.B.L.) See Sheet IP

Match Line - Station 22+50 (C.B.L.) See Sheet IP(3)



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IP(2)

FINAL PLAN

CITY OF FAIRFAX
Rinker Design Associates, P.C.
Civil Engineers
Transportation - Environmental
Right of Way Services

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

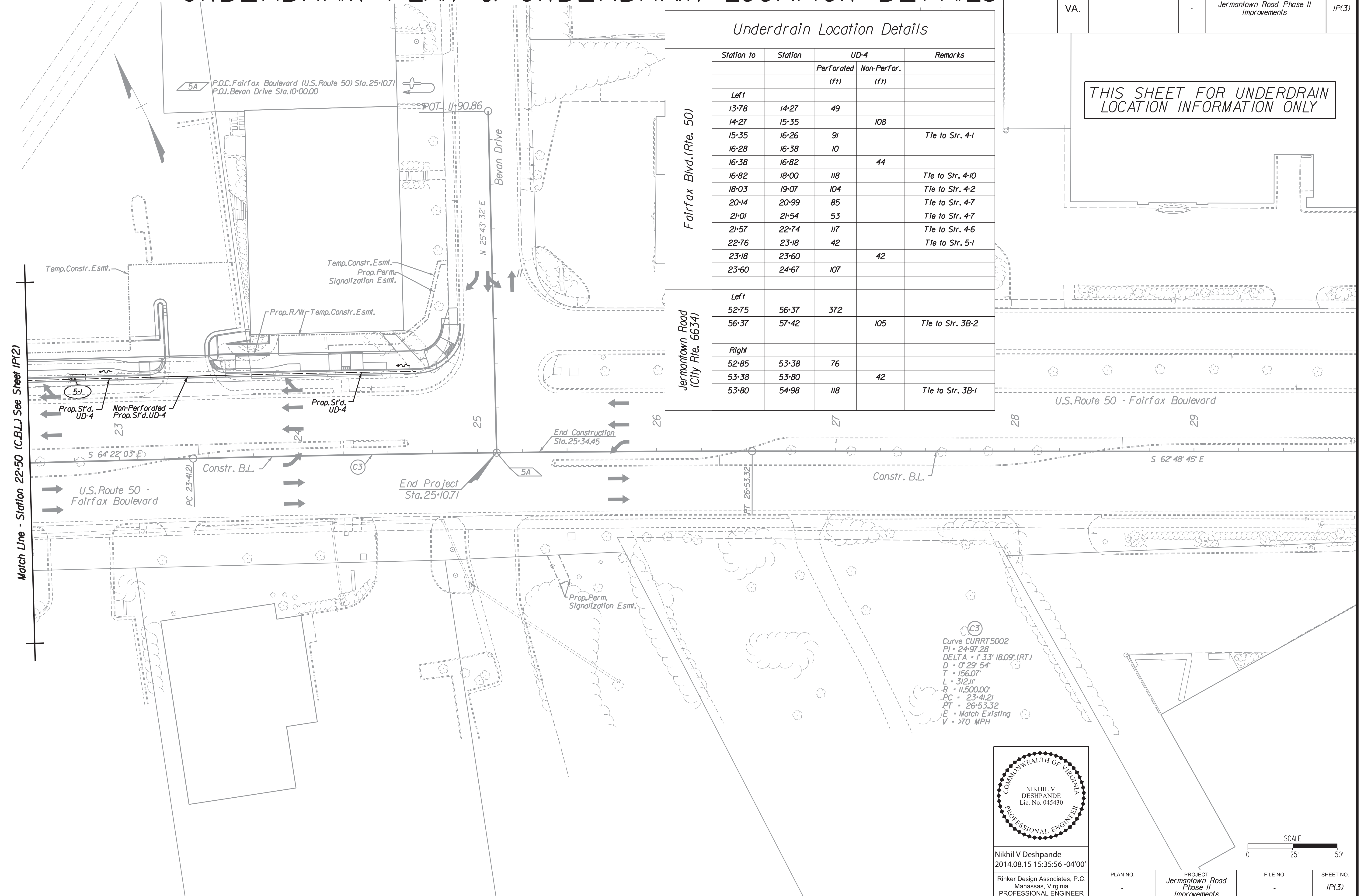
UNDERDRAIN PLAN & UNDERDRAIN LOCATION DETAILS

REVISION	STATE	FEDERAL AID PROJECT OWNER	STATE PROJECT	SHEET NO.
	VA.		Jermantown Road Phase II Improvements	IP(3)

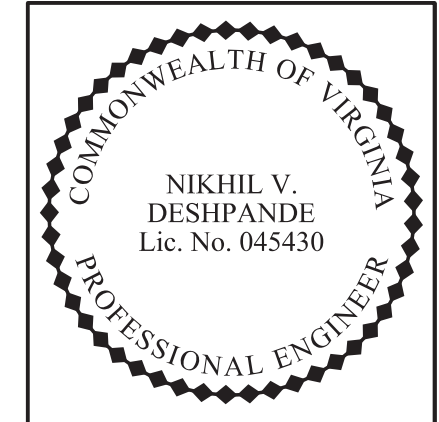
Underdrain Location Details

Station to	Station	UD-4		Remarks
		Perforated (ft)	Non-Perfor. (ft)	
Left				
13+78	14+27	49		
14+27	15+35		108	
15+35	16+26	91		Tie to Str. 4-1
16+28	16+38	10		
16+38	16+82		44	
16+82	18+00	118		Tie to Str. 4-10
18+03	19+07	104		Tie to Str. 4-2
20+14	20+99	85		Tie to Str. 4-7
21+01	21+54	53		Tie to Str. 4-7
21+57	22+74	117		Tie to Str. 4-6
22+76	23+18	42		Tie to Str. 5-1
23+18	23+60		42	
23+60	24+67	107		
Right				
52+75	56+37	372		
56+37	57+42		105	Tie to Str. 3B-2
52+85	53+38	76		
53+38	53+80		42	
53+80	54+98	118		Tie to Str. 3B-1

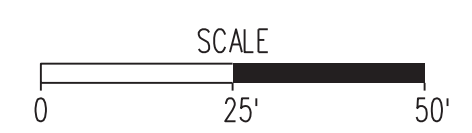
THIS SHEET FOR UNDERDRAIN LOCATION INFORMATION ONLY



Curve CURRT5002
PI - 24+97.28
DELTA - 133° 18.09' (RT)
D - 0° 29' 54"
T - 156.07'
L - 312.11'
R - 11,500.00'
PC - 23+41.21
PT - 26+53.32
E - Match Existing
V - >70 MPH



Nikhil V Deshpande
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Manassas, Virginia
PROFESSIONAL ENGINEER



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	Jermantown Road Phase II Improvements		IP(3)

FINAL PLAN

Rinker Design Associates, P.C.
 City of Fairfax
 8/15/2014