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

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2B(2)

Maintenance of Traffic, Signage, Pavement Marking, and Utilities Summaries

MAINTENANCE OF TRAFFIC

ITEM DESCRIPTION	NS Maintenance of Traffic			
ITEM NO.	ATTD			
UNIT	L.S.			
TOTAL	1			

SIGNAGE SUMMARY

Item Description	NS Reset Exist. Sign(s) And Post	Sign Panel	Sign Post STP-1,2 3/16" (For Min. 6' Inner Post, per St'd STP-1)	Sign Post STP-1,2 1/2"	Concrete Foundation STP-1	Install Sign	NS Relocate Sign Panel(s)	NS Remove & Dispose of sign(s) and Post(s)	NS Remove & Dispose of Post(s)	NS U-Style Breakaway Metal Post (For WMATA Bus Signs, Painted White)	NS Install Wood Post (Match Existing)	NS Reset Commercial Sign At 33+31 LT Within Constr. Limit
ITEM NO.	24810	50108	50432	50434	50490	51951	51962	51963	51963	51968	51968	-
UNIT / SHEET NO.	E.A.	S.F.	L.F.	L.F.	E.A.	E.A.	E.A.	E.A.	E.A.	L.F.	L.F.	L.S.
10	0	63	0	126	10	15	1	4	1	14	0	0
10(1)	0	328	78	350	36	70	4	11	4	0	40	0
10(2)	0	243	24	364	31	58	1	16	0	14	0	0
10(3)	1	39	0	56	4	9	1	4	1	0	20	1
TOTAL	1	673	102	896	81	146	7	35	6	28	60	1

PAVEMENT MARKING SUMMARY

Item Description	Type B, Class I, Pave. Line Marking, 4"	Type B, Class I, Pave. Line Marking, 8"	Type B, Class I, Pave. Line Marking, 24"	Pavement Message Mark. Elongated Arrow Single	Pavement Message Marking "Only"
ITEM NO.	54032	54037	54042	54300	54400
UNIT / SHEET NO.	L.F.	L.F.	L.F.	E.A.	E.A.
11	2465	0	431	0	0
11(1)	6738	1023	1410	20	6
11(2)	4134	0	144	8	2
11(3)	1665	0	462	3	0
TOTAL	15002	1023	2447	31	8

UTILITIES SUMMARY

Item Description	* Main Street Utility Duct Bank [Sheets 15(1) and 15(2)]	** Communication Duct Bank Encasement [Sheet 15]	NS Remove Existing Sanitary Manhole	NS Remove Existing 8" D.I.P. Sanitary	6" Watermain	8" Watermain	Proposed 6" Valve	Proposed 8" Valve	Relocated Fire Hydrant	Relocate Existing Water Meter	8" D.I.P. Sanitary Sewer	Proposed Sanitary Manhole	Proposed 8"x8" Wet Tap	NS Cut and Plug Existing Waterline	NS Proposed 8" 11.25° Bend	NS Proposed 6" 22.5° Bend	NS Proposed 8" 22.5° Bend	NS Proposed 8" 45° Bend	NS Connect to Existing Waterline	NS Remove Existing Waterline	NS Modify Existing Sanitary Manhole
ITEM NO.	ATTD	ATTD	24502	24502	40060	40080	41206	41208	41825	41976	42082	42755	-	-	-	-	-	-	-	-	-
UNIT / SHEET NO.	LS	LS	EA	EA	EA	LF	EA	EA	EA	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA
14	-	-	-	-	11	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
14(1)	-	-	1	204	30	540	3	1	2	1	202	7	1	2	1	1	1	1	2	355	1
14(2)	-	-	1	172	-	-	-	-	-	-	192	20	-	-	-	-	-	-	-	-	-
14(3)	-	-	-	-	18	-	-	-	1	2	-		-	-	-	-	-	-	-	-	-
Total	1	1	2	376	59	540	3	1	4	3	394	27	1	2	1	1	1	1	2	355	1

* Main Street Utility Duct Bank shall include all materials, work and labor to install utility duct bank as shown on Sheets 15(1) and 15(2).

** Communication Duct Bank Encasement shall include all materials, work and labor to install encasement around existing communication duct bank as shown on Sheet 15.

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2B(2)

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NORTHERN VIRGINIA DISTRICT

3/2/2015

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Grading Summary

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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PROFESSIONAL ENGINEER

Mark A Gunn
2015.03.02 18:08:15 -05'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2B(3)

⊗ Denotes item(s) to be paid for on the basis of plan quantities in accordance with the applicable provisions of the current VDOT Road and Bridge Specifications.

(1) Cut quantity shown does not include the material removed as Demolition of Pavement.

(2) Quantity shown for use in Grading Diagram only. See other Summaries for pay item(s).

(3) Included in Total Regular Excavation.

(4) Included in Roadway Cut quantity.

(5) Quantities for Temporary Sediment Basins and Temporary Sediment Traps are included with the Stormwater Management Basin quantities.

(6) Denotes pay item.

(7) Included in total fill quantity.

(8) This quantity comes from the computer listings and/or manual cross-sections and may be adjusted for other quantities.

(9) Volumes obtained for Cut Ditches and Fill Ditches not included in computer listings.

(10) Includes settlement of in-place soil.

Location	(1) (8) ⊗ Roadway Cut	Root Mat in Cut Sections	Root Mat in Fill Sections	⊗ (9) Cut - Ditches	(9) Fill - Ditches	Unsuitable Material Below Subgrade	Unsuitable Material Above Subgrade	(8) (10) Roadway Fill	Entrances Cut	Entrances Fill	(6) Total Regular Excavation	Total Fill	(2) Demolition of Pavement	(2) Minor Structure Excavation	(5) (2) Stormwater Management Basins Cut	Stormwater Management Basins Fill	(6) Borrow	Select Material Type I, Min. CBR-30
	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.
U.S.Rte.29 & U.S.Rte.29/U.S.Rte.50	1327	243	114	0	0	1555	934	472	0	0	2996	586	0	0	0	0	583	1555
U.S.Rte.50 & Rte.236	2340	347	150	0	0	1820	1648	643	0	0	4310	793	0	0	0	0	647	1820
FORMULAS	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
	(3)	(4)	(3) (7)	(3)	(7)	(3) (7)	(4)	(7)	(3)	(7)						(7)		
TOTALS	3667	590	264	-	-	3375	2582	1115	-	-	7306	1379	-	-	-	-	1230	3375

The borrow quantity shown was computed on the basis of the average shrinkage or swell factor for the general vicinity of the project. The contractor will be responsible for determining the actual factor for the site(s) from which he proposes to secure borrow material needed to complete this project.

Note: Unsuitable Material Below Subgrade shall be replaced with Select Material Type I, minimum CBR-30. Replacement material shall be placed on geotextile subgrade fabric.

FORMULAS

Roadway Cut (C) = Unadjusted Cut from Computer Listings or Manual Cross-Sections minus (-) Demolition of Pavement.

Roadway Fill (J) = Fill Required plus (+) Material for Backfill of Demolition of Pavement Areas in Fill (for heights of fill < 3 feet below subgrade)

Total Reg. Excav. (M) = C + E + F + H + K

Total Fill (N) = J + E + G + L + R

Borrow (S) = [N - ([C + F + K + P + Q - D - I] x Compaction Factor)] ÷ Compaction Factor for Borrow Site

Select Material Type I, minimum CBR-30 (T) = H

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2B(3)

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Office Locations

NORTHERN VIRGINIA DISTRICT

3/2/2015

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INTERSECTION SIGHT DISTANCE DETAILS

THIS SHEET IS FOR SIGHT DISTANCE INFORMATION ONLY

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2014.08.21 07:42:53 -04'00'
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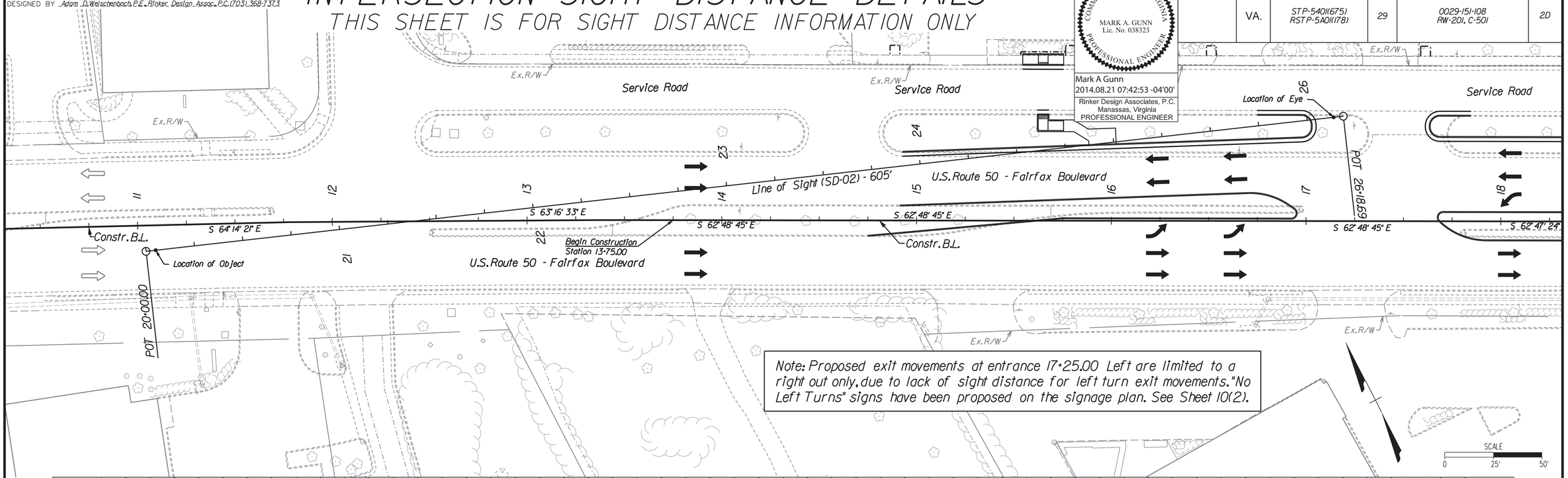
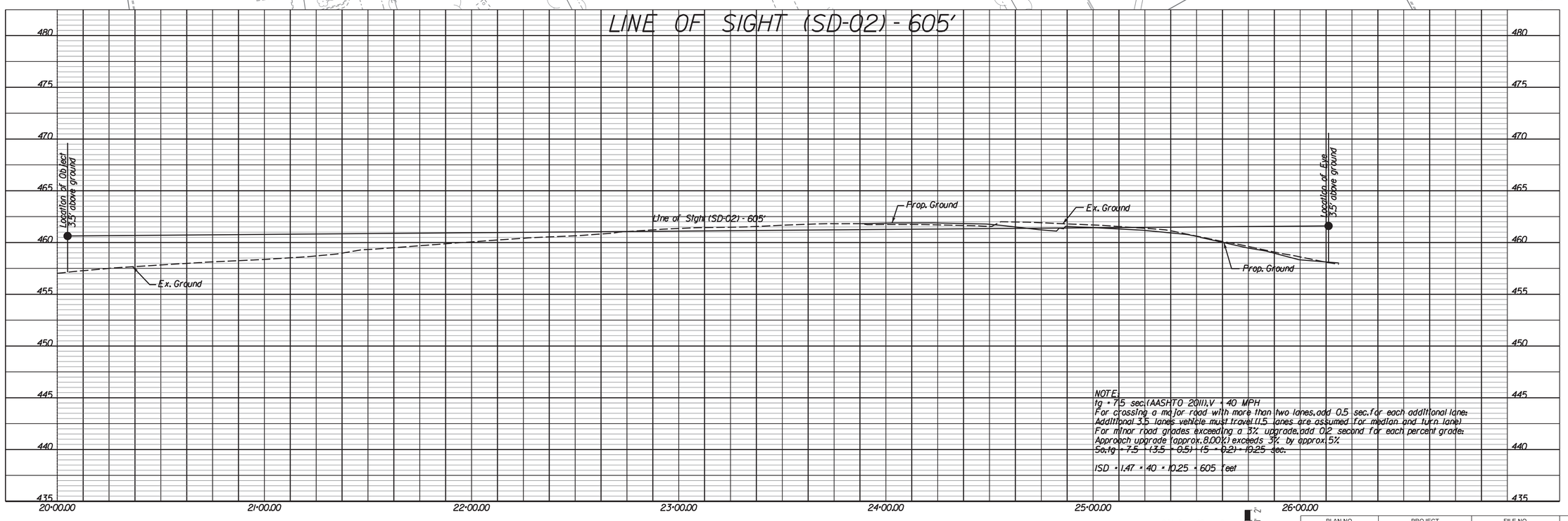
REVISED	STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2D



Note: Proposed exit movements at entrance 17+25.00 Left are limited to a right out only, due to lack of sight distance for left turn exit movements. "No Left Turns" signs have been proposed on the signage plan. See Sheet 10(2).

SCALE 0 25' 50'



NOTE:
tg = 7.5 sec.(AASHTO 2011), V = 40 MPH
For crossing a major road with more than two lanes, add 0.5 sec. for each additional lane:
Additional 3.5 lanes vehicle must travel (1.5 lanes are assumed for median and turn lane)
For minor road grades exceeding a 3% upgrade, add 0.2 second for each percent grade:
Approach upgrade (approx. 8.00%) exceeds 3% by approx. 5%
So, tg = 7.5 + (3.5 * 0.5) + (5 * 0.2) = 10.25 sec.

ISD = 1.47 * 40 * 10.25 = 605 feet

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2D

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INTERSECTION SIGHT DISTANCE DETAILS

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COMMONWEALTH OF VIRGINIA
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2014.08.21 07:43:14 -04'00'
Rinker Design Associates, P.C.
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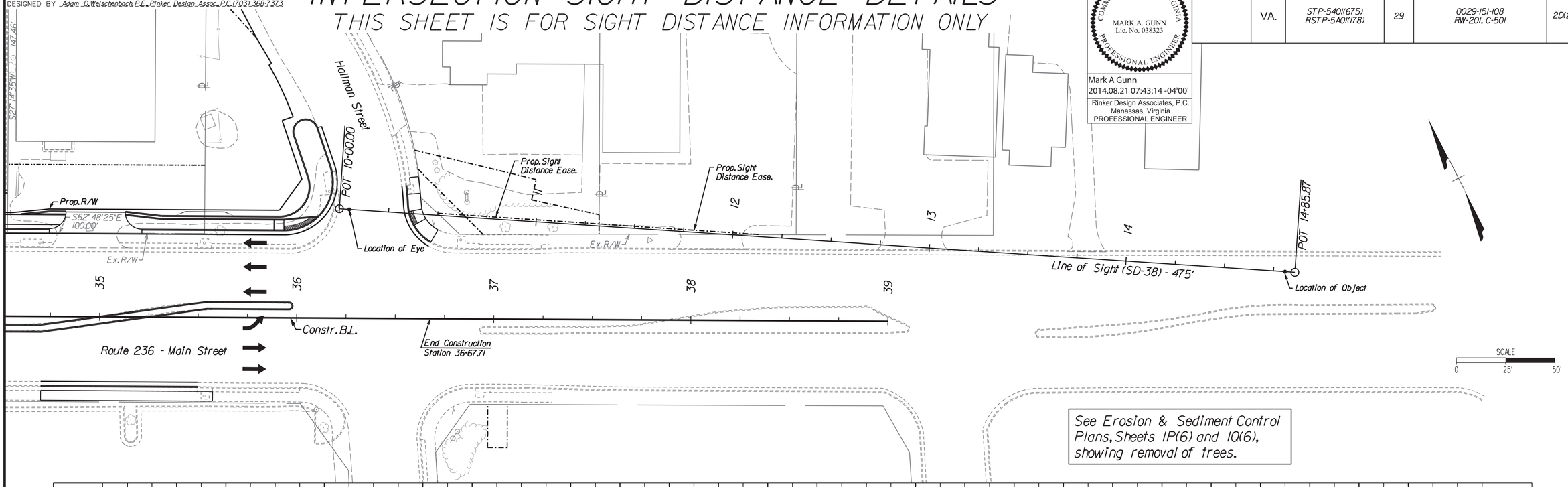
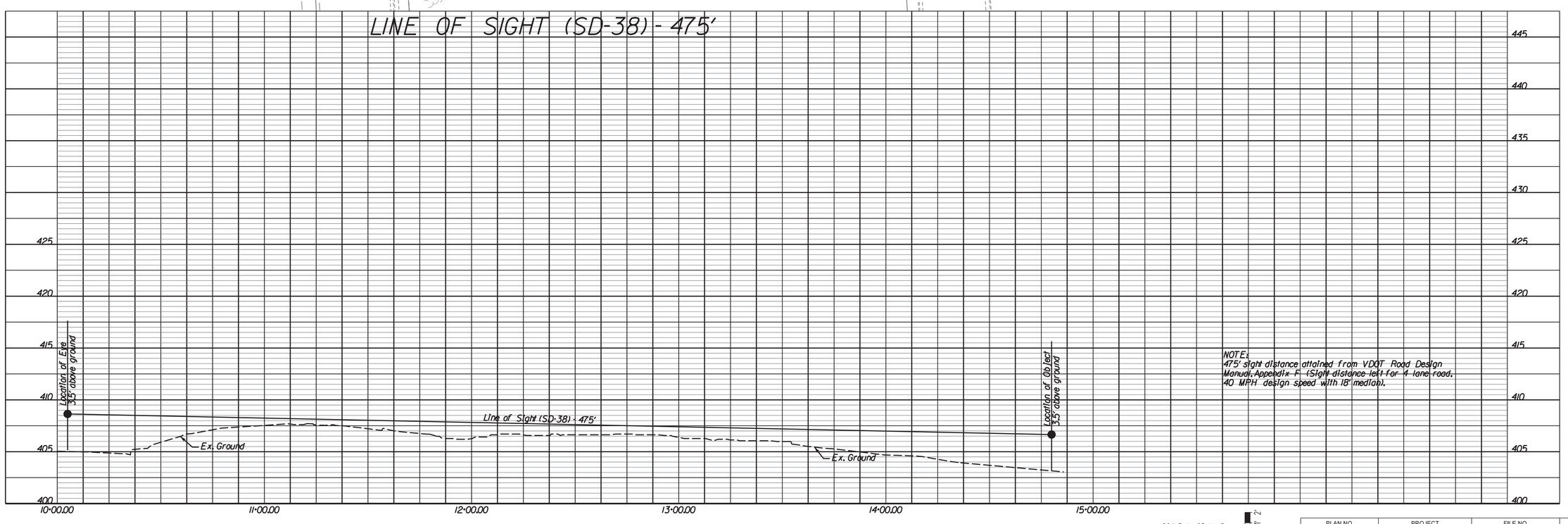


See Erosion & Sediment Control Plans, Sheets 1P(6) and 1Q(6), showing removal of trees.



NOTE:
475' sight distance attained from VDOT Road Design Manual, Appendix F (Sight distance left for 4 lane road, 40 MPH design speed with 18' median).

SCALE H: 25, V: 5
0 25' 50'
0 1' 2'

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2D(2)

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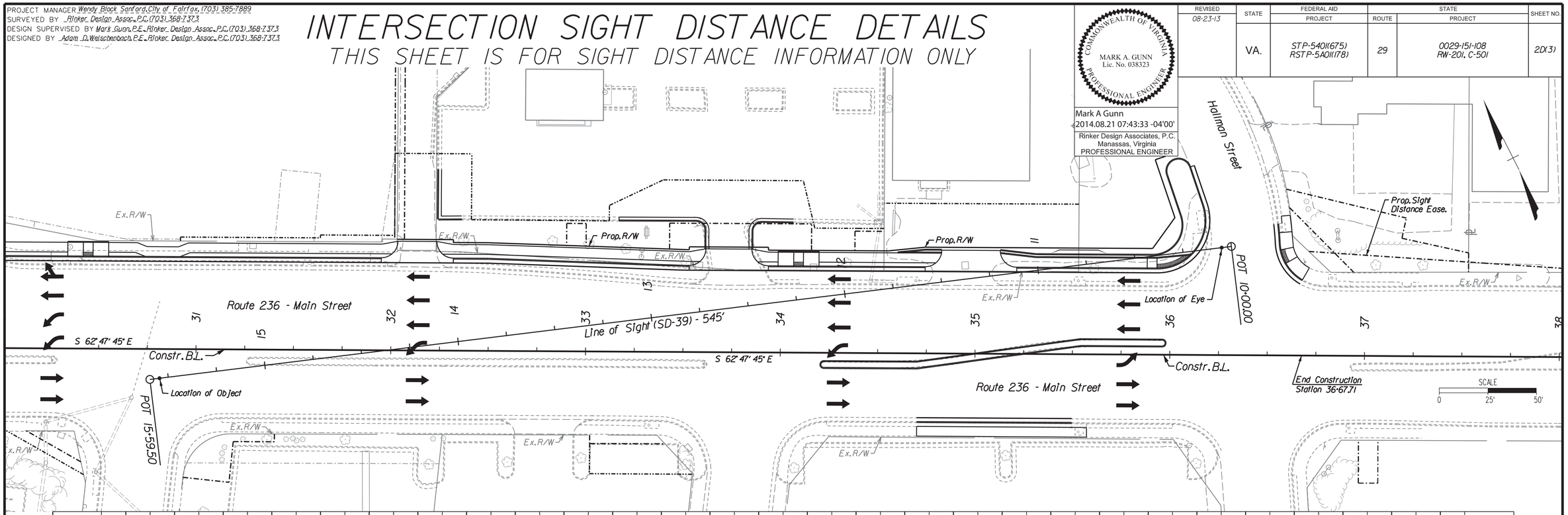
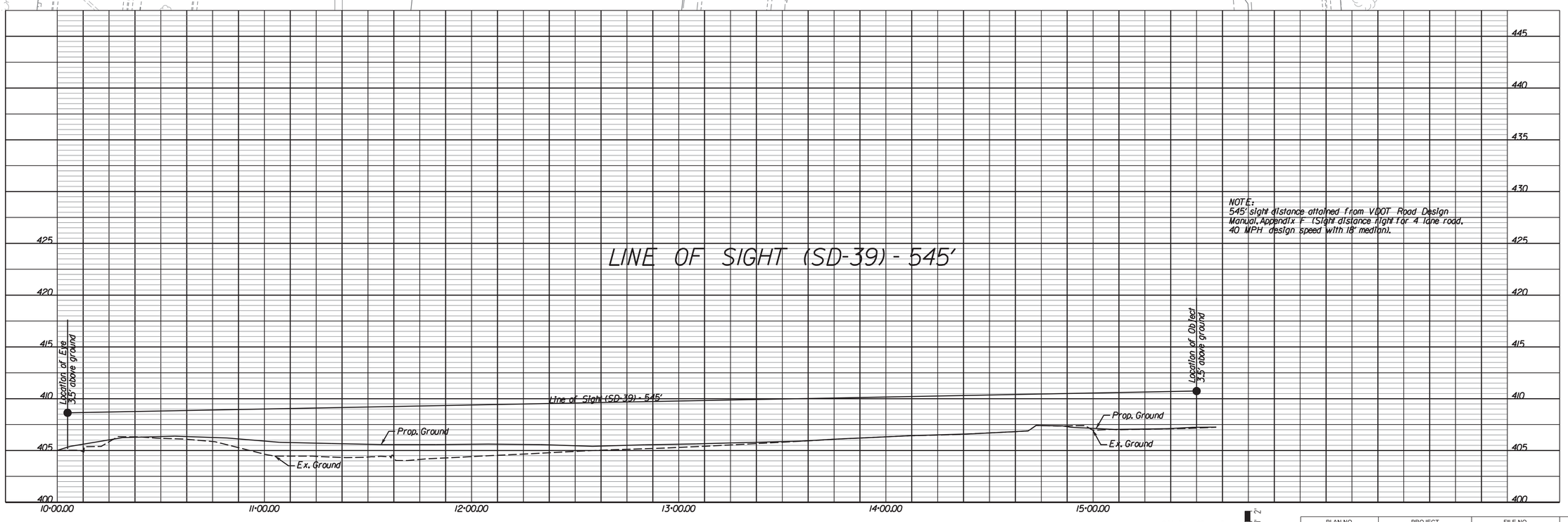
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2D(3)





PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2D(3)

Rinker Design Associates, P.C.
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8/20/2014

REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2E

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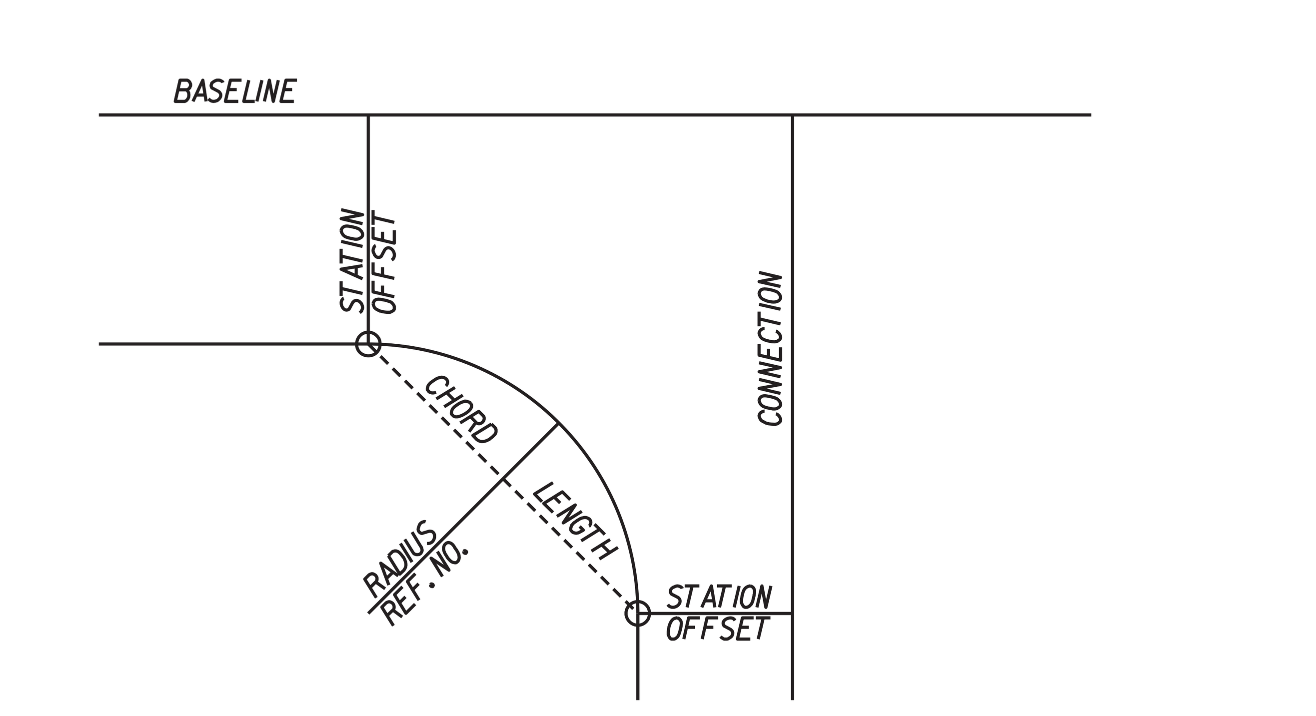
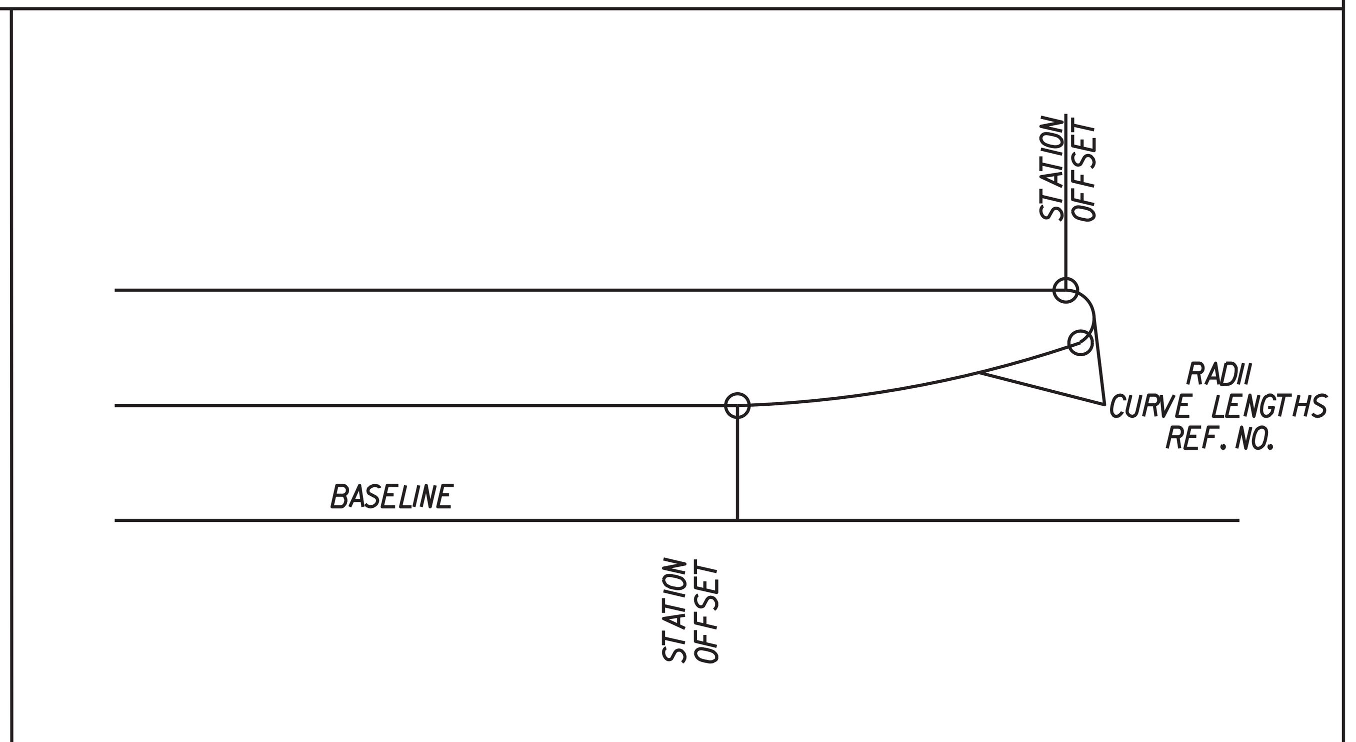
RADIAL OFFSET & BULLET NOSE DATA SHEET

RADIAL OFFSETS / BULLET NOSE DATA





LOCATION (REF. NO.)	BASELINE		CONNECTION		RADIUS LENGTH	CHORD LENGTH	CURVE LENGTH
SHEET - ITEM	STATION	OFFSET	STATION	OFFSET	FEET	FEET	FEET
4-1	44+77.13	49.50' LT	44+94.09	44.00' LT	27.00	17.83	18.17
4-2	46+33.65	72.64' LT	46+37.65	72.73' LT	2.00	4.00	6.28
4-3	47+45.15	74.00' LT	47+55.15	74' LT	5.00	10.00	15.71
4-4	47+95.14	108.85' LT	48+00.79	113.81' LT	5.00	7.52	8.51
4-7	48+16.90	79.38' LT	48+13.90	82.38' LT	3.00	4.24	4.71
4-8	46+55.26	99.65' LT	46+58.31	96.26' LT	3.00	4.56	5.19
4-9	47+39.94	118.83' LT	47+43.31	121.41' LT	3.00	4.24	4.71
4-10	47+52.25	120.23' LT	47+54.85	117.25' LT	3.00	3.95	4.32
4-11	47+47.54	98.49' LT	47+54.85	105.99' LT	7.50	10.47	11.59
4-12	48+54.49	103.59' LT	48+56.32	101.03' LT	2.00	3.14	3.61
4-15	47+30.77	46.05' LT	47+55.15	71.04' LT	25.00	34.91	38.65
4-16	48+20.76	48.30' LT	47+95.14	73.29' LT	25.00	35.79	39.89
4-17	46+56.87	111.66' LT	46+60.23	114.24' LT	3.00	4.24	4.71
5-1	52+48.57	49.99' LT	52+57.39	52.74' LT	18.00	9.24	9.35
5-6	55+17.95	97.34' LT	55+25.40	101.81' LT	6.00	8.69	9.72
5-7	25+88.74	54.00' LT	55+56.12	67.56' LT	187.00	113.59	115.42
5-8	55+17.95	97.34' LT	25+88.74	78.00' LT	163.00	60.90	61.26
5-24**	57+74.62	70.70' RT	29+75.84	57.75' LT	75.73	55.69	57.03
5-25	30+01.07	47.00' LT	29+75.84	57.75' LT	35.00	27.43	28.18
5-26	26+01.20	43.00' LT	55+71.20	49.00' LT	198.00	125.44	127.64
5-27**	52+57.39	52.74' LT	52+76.28	75.16' LT	50.00	29.32	29.76
5-28**	24+37.38	44.27' RT	24+55.20	51.97' RT	40.00	19.41	19.61
5-29	25+72.50	77.57' LT	25+71.97	79.60' LT	1.17	2.09	2.58
5-30	26+08.04	80.15' LT	26+35.64	85.94' LT	162.00	28.20	28.23
8-3	16+97.81	42.63' LT	17+03.10	48.13' LT	5.50	7.63	8.43
8-4	17+03.10	49.19' LT	16+97.61	54.69' LT	5.50	7.77	8.63
8-5	17+63.18	48.92' LT	17+68.67	54.42' LT	5.50	7.78	8.65
8-6	17+68.66	43.00' LT	17+63.18	48.50' LT	5.50	7.78	8.64
8-8	22+57.75	48.60' LT	22+52.77	53.60' LT	5.00	7.06	7.84
8-9	22+52.75	43.00' LT	22+57.75	48.00' LT	5.00	7.07	7.85
8-10	23+06.37	43.00' LT	23+06.37	54.00' LT	5.50	11.00	17.28
9-1	35+93.21	44.00' LT	36+16.84	77.15' LT	25.00	40.71	47.57
9-2	35+90.89	51.50' LT	36+05.07	71.39' LT	15.00	24.43	28.54
9-3	35+97.87	92.30' LT	36+10.16	96.54' LT	6.50	13.00	20.42
9-4**	36+67.71	38.47' LT	36+55.88	57.67' LT	23.50	22.55	23.52
9-5	33+61.49	62.60' LT	33+56.49	67.60' LT	5.00	7.08	7.86
9-6	33+85.12	62.23' LT	33+90.17	67.23' LT	5.00	7.11	7.91
9-7	34+22.41	4.00' RT	34+22.41	8.00' RT	2.00	4.00	6.28
9-8	35+96.07	4.00' LT	35+96.07	8.00' LT	2.00	4.00	6.28

LOCATION (REF. NO.)	BASELINE		CONNECTION		RADIUS LENGTH	CHORD LENGTH	CURVE LENGTH
SHEET - ITEM	STATION	OFFSET	STATION	OFFSET	FEET	FEET	FEET
4-5	48+19.22	7.16' LT	48+21.25	12.30' LT	3.00	5.52	7.02
4-6	48+19.22	7.16' LT	48+54.21	7.17' RT	50.00	37.82	38.78
4-13	47+16.08	9.67' LT	47+18.64	7.21' LT	2.50	3.55	3.95
4-14	47+16.12	4.50' LT	47+18.65	7.04' LT	2.50	3.58	3.99
4-18	46+05.62	2.26' LT	46+26.67	4.50' LT	100.00	21.16	21.20
5-2	24+86.41	42.96' RT	24+83.87	47.54' RT	3.00	5.23	6.36
5-3	52+91.77	51.80' LT	24+83.87	47.54' RT	77.00	37.16	37.53
5-4	52+94.33	47.15' LT	52+91.77	51.80' LT	3.00	5.31	6.51
5-5	24+98.00	12.00' LT	24+98.00	16.00' LT	2.00	4.00	6.28
5-17	55+89.17	2.00' LT	55+87.81	3.67' RT	3.00	5.83	8.01
5-18	55+87.81	3.67' RT	56+03.72	7.50' RT	35.00	16.37	16.52
5-20	56+39.73	41.50' RT	28+31.25	46.17' LT	3.00	5.72	7.59
5-21	57+50.70	41.50' RT	57+53.00	46.42' RT	3.00	5.43	6.80
5-22	57+53.00	46.42' RT	29+38.25	54.47' LT	107.73	63.12	64.06
5-23	29+35.79	49.92' LT	29+38.25	54.47' LT	3.00	5.17	6.24
6-1	58+95.20	0.18' RT	58+92.27	2.82' LT	3.00	4.19	4.64
6-2	58+95.20	4.50' RT	58+92.21	7.50' RT	3.00	4.24	4.72
8-1	16+92.44	1.00' LT	16+94.15	6.46' LT	3.00	5.73	7.60
8-2	16+91.44	8.35' LT	16+70.16	14.58' LT	35.00	22.17	22.56
8-7	17+68.29	0.15' RT	17+92.63	10.00' RT	35.00	26.25	26.91
8-11	17+68.29	0.15' RT	17+70.38	5.00' LT	3.00	5.56	7.12

Note: Additional data located on Service Road Detail Sheet 2F(1).
** Prop.curb & gutter location and radius are approximate and should match existing curb & gutter.

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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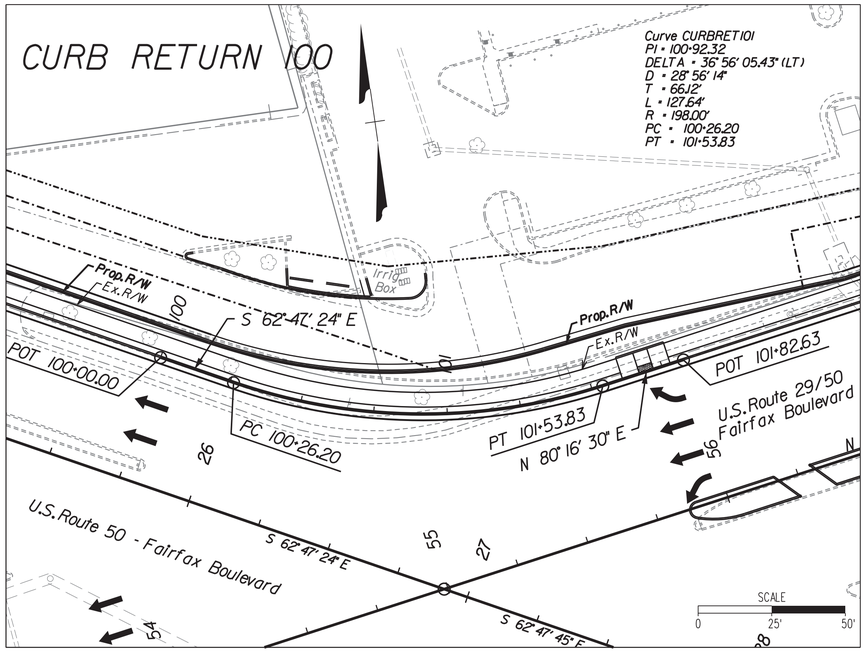
CURB RETURN DETAILS

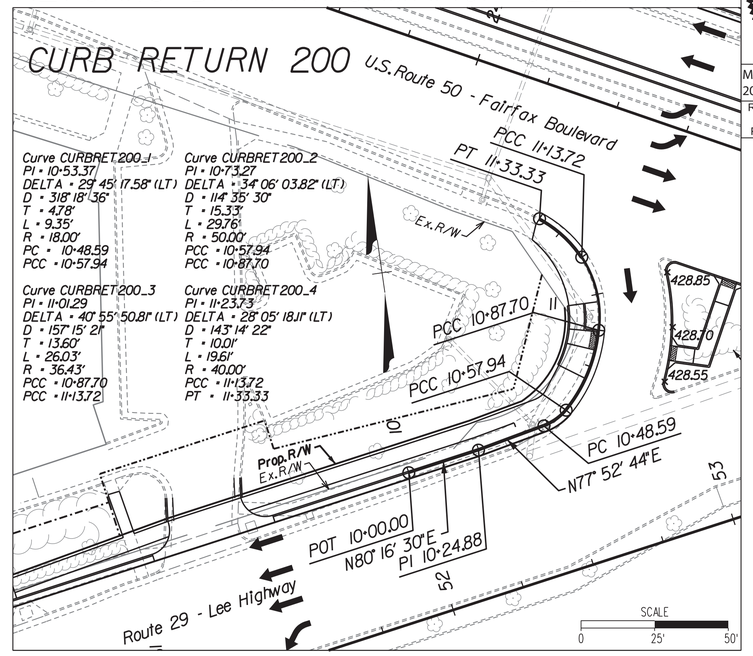
THIS SHEET IS FOR CURB RETURNS DATA INFORMATION ONLY

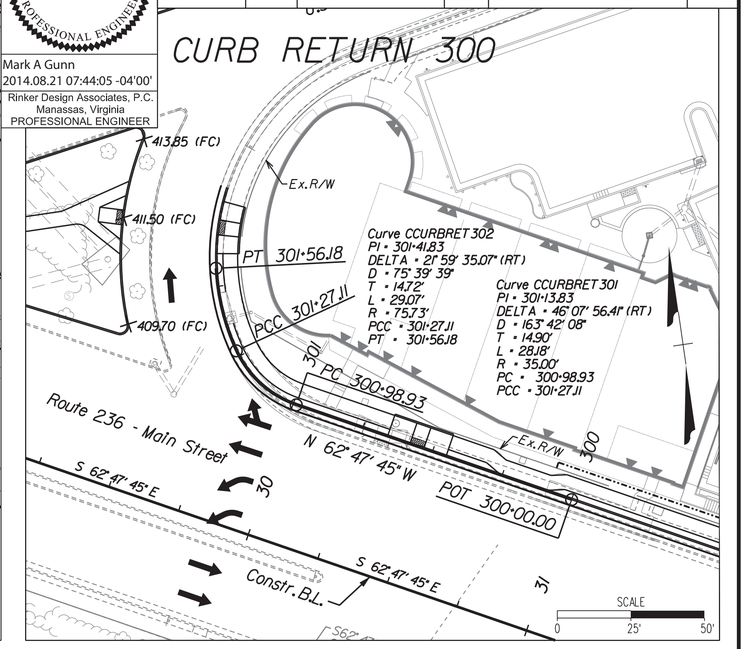
COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

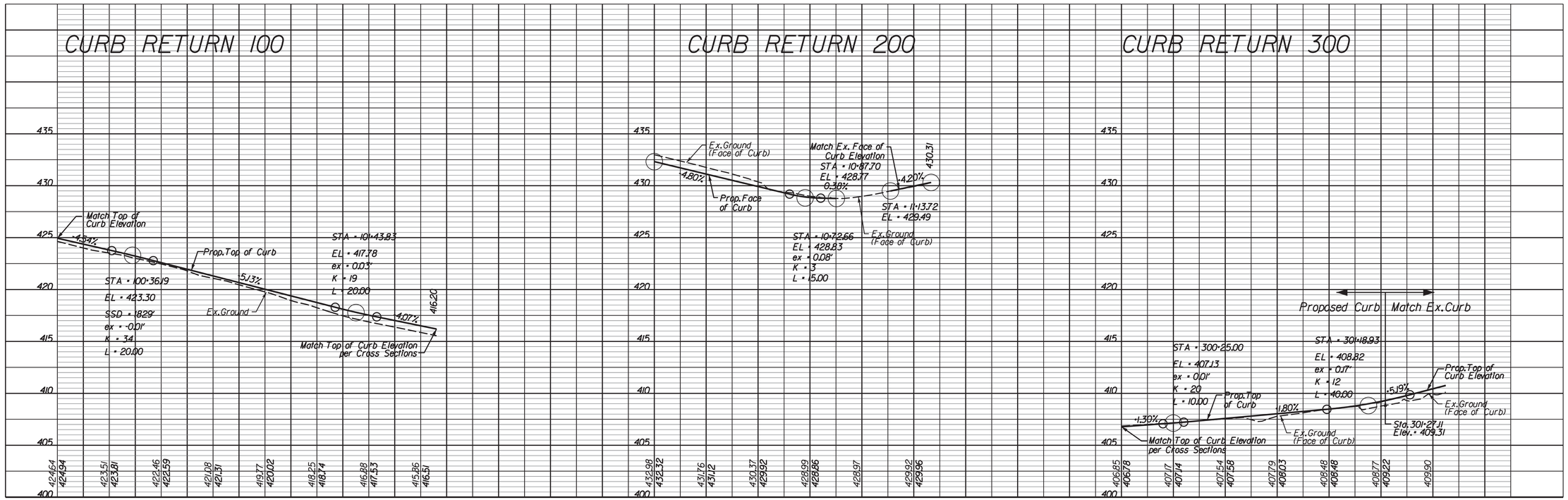
Mark A Gunn
2014.08.21 07:44:05 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2E(1)









PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2E(1)

Rinker Design Associates, P.C.
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NORTHERN VIRGINIA DISTRICT

8/20/2014

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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MODIFIED CG-9D ENTRANCE DETAILS & MODIFIED MB-13 BARRIER DETAILS

THIS SHEET IS FOR MODIFIED CG-9D AND MODIFIED MB-13 INFORMATION ONLY

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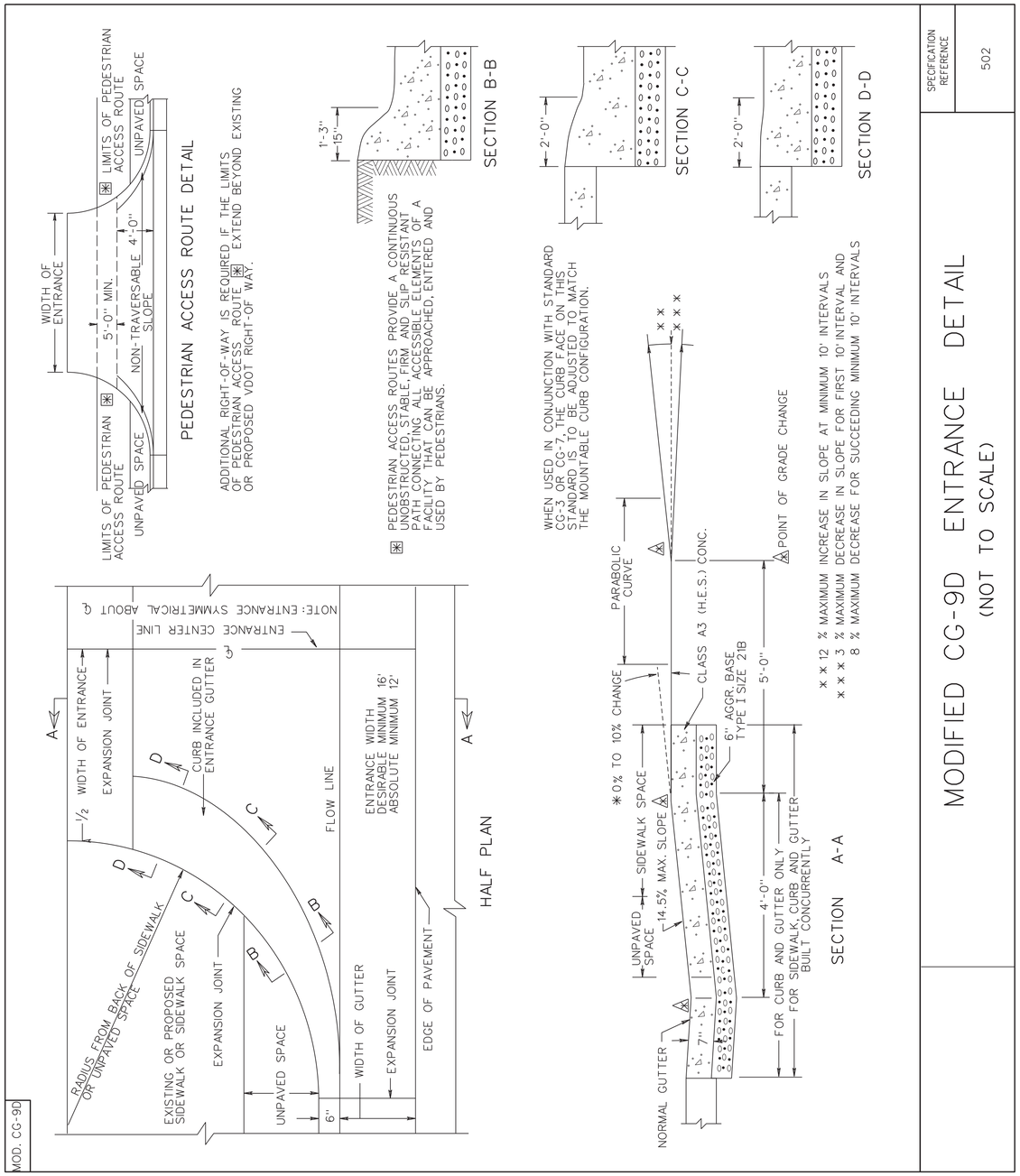
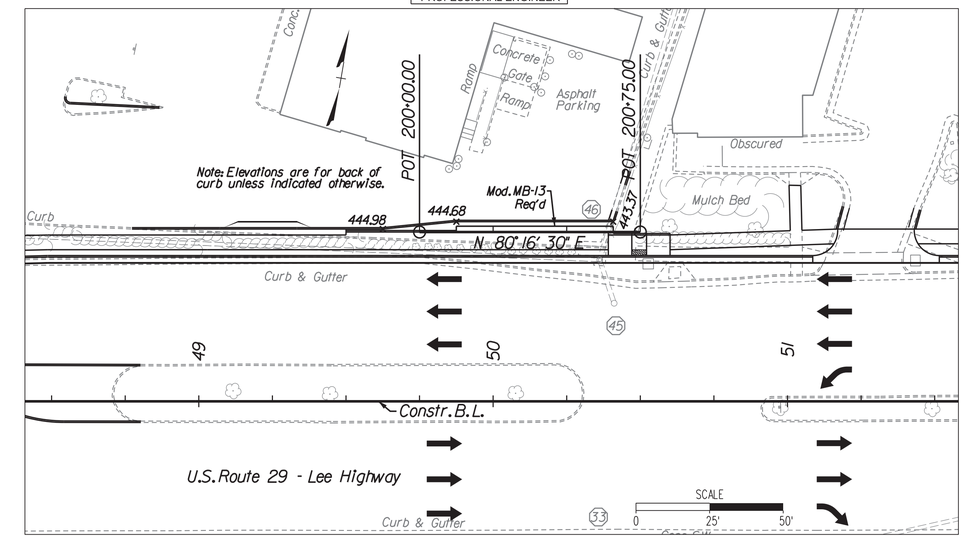
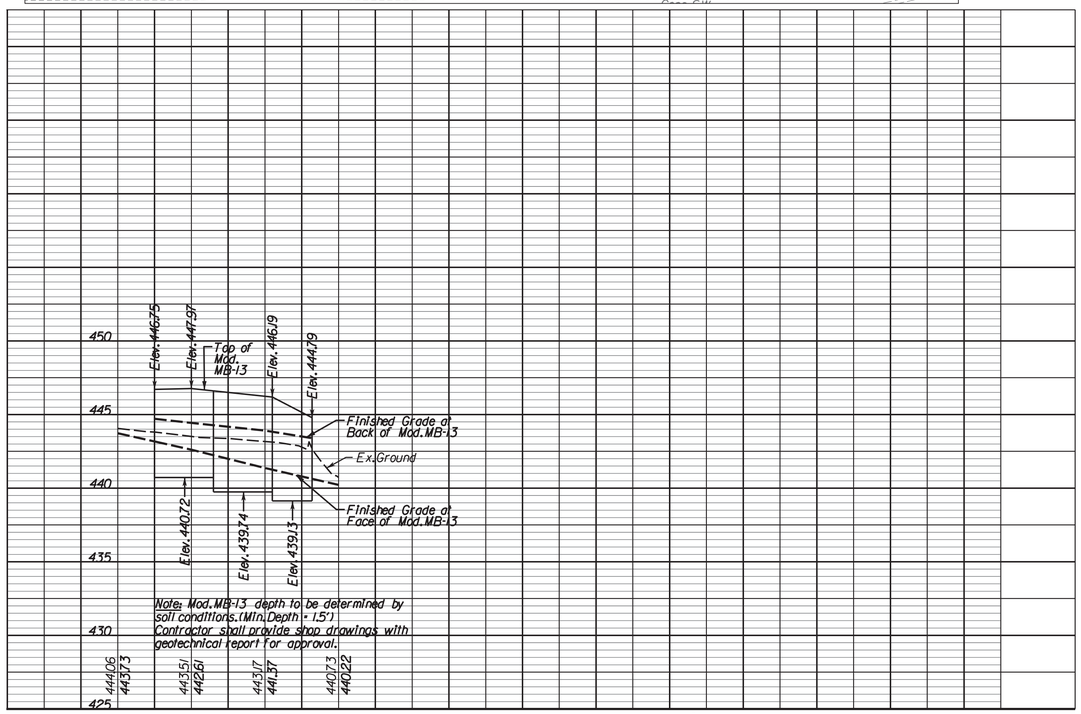
REVISED	STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2F



SPECIFICATION REFERENCE	502

MODIFIED CG-9D ENTRANCE DETAIL
(NOT TO SCALE)





SCALE H= 25, V= 5
0 25' 50'
0 1' 2'

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2F

Rinker Design Associates, P.C.
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4229 Duncan Boulevard, Suite 100, Manassas, VA 20109 Tel: (703) 257-0444
4001 Dominion Boulevard, Suite 100, Glen Allen, VA 23060 Tel: (804) 273-0444
4229 Eagle Crest Drive, Suite 100, Frederickburg, VA 22407 Tel: (540) 373-0000 Fax: (540) 373-0001

NORTHERN VIRGINIA DISTRICT

MOD. CG-9D

8/20/2014

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SERVICE ROAD DETAILS

THIS SHEET IS FOR SERVICE ROAD INFORMATION ONLY

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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Mark A Gunn
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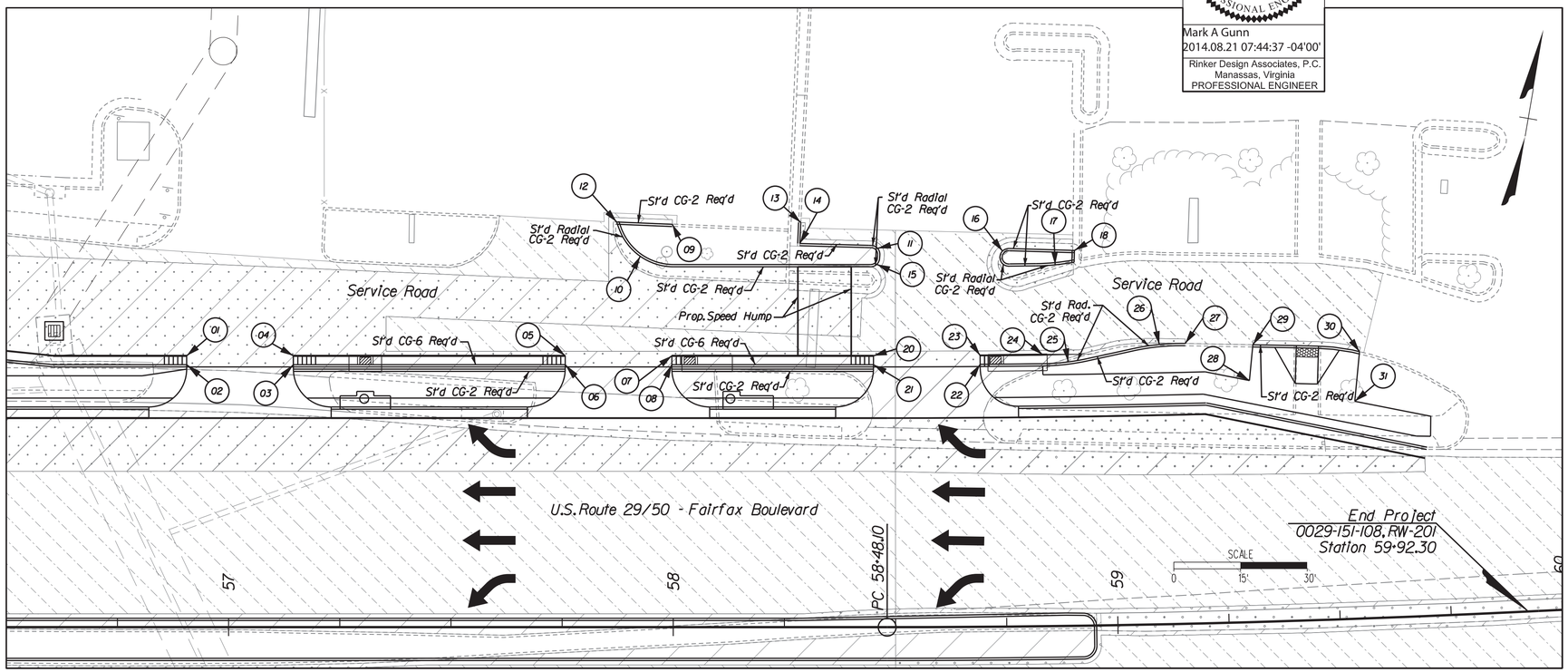
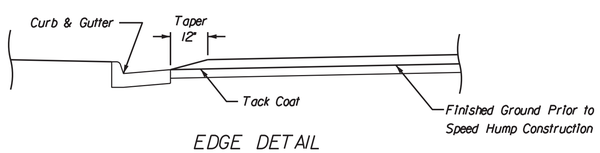
REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2F(1)

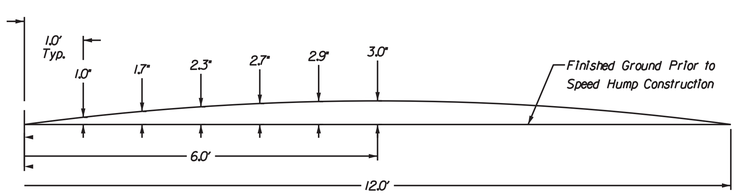


Traffic Calming Measure - Speed Hump

(Not to Scale)



EDGE DETAIL



CROSS SECTION

Notes
1. The speed hump shall be constructed with the same surface mix asphalt used to pave the underlying and adjacent roadway.
2. The underlying pavement shall be milled a minimum of 2" along the entire speed hump perimeter including below the 12" tapers.

RADIAL OFFSETS DATA

LOCATION (REF. NO.)	BASELINE		CONNECTION		RADIUS LENGTH	CHORD LENGTH	CURVE LENGTH
SHEET - ITEM	STATION	OFFSET	STATION	OFFSET	FEET	FEET	FEET
10	58+00.03	81.00' LT	57+87.81	89.56' LT	13.00	14.92	15.89
11	58+46.46	83.65' LT	58+44.52	85.80' LT	2.00	2.89	3.24
15	58+44.40	81.00' LT	58+46.40	82.85' LT	2.00	2.72	2.99
16	58+76.46	81.00' LT	58+76.46	84.96' LT	1.99	3.96	6.67
17	58+82.51	81.00' LT	58+91.36	81.73' LT	50.00	8.64	8.65
25	58+83.81	59.00' LT	58+94.10	60.01' LT	50.00	10.13	10.15
26	59+04.71	62.09' LT	59+16.60	62.99' LT	50.00	11.67	11.70

POINT DATA

LOCATION (REF. NO.)	BASELINE	
SHEET - ITEM	STATION	OFFSET
01	56+90.57	61.00' LT
02	56+90.57	59.00' LT
03	57+14.57	59.00' LT
04	57+14.57	61.00' LT
05	57+75.69	61.00' LT
06	57+75.69	59.00' LT
07	57+99.69	61.00' LT
08	57+99.69	59.00' LT
09	57+99.79	90.55' LT
12	57+87.26	91.06' LT
13	58+28.69	90.94' LT
14	58+28.47	86.22' LT
18	58+91.46	84.36' LT
19	NOT USED	
20	58+45.02	61.00' LT
21	58+45.02	59.00' LT
22	58+69.44	59.00' LT
23	58+69.44	61.00' LT
24	58+83.81	61.00' LT
27	59+16.60	62.99' LT
28	59+31.11	54.28' LT
29	59+32.12	62.31' LT
30	59+56.55	59.96' LT
31	59+55.06	48.86' LT

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2F(1)

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NORTHERN VIRGINIA DISTRICT
8/20/2014

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www.RDAcivil.com

NORTHERN VIRGINIA DISTRICT

8/20/2014

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2G

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
GENERAL INFORMATION SHEET

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VSMP General Permit For Discharges Of Stormwater From Construction Activities (the VSMP Construction Permit) issued July 1, 2009 and VDOT's approved Annual ESC and SWM Standards and Specifications.

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

Information shown on the SWPPP General Information sheets is to be updated/revised by the VDOT RLD as necessary in order to reflect changes that may occur during the construction phase of the land disturbing activity. The updated/revised sheets shall be maintained with the designated record set of plans for the land disturbance activity.

* Denotes information that is to be provided/completed by the VDOT RLD.
** Denotes information that is to be provided/completed by the contractor.

Note: Effective July 1, 2013, responsibility for the VSMP General Permit For Discharges Of Stormwater From Construction Activities (the VSMP Construction Permit) was transferred from the DCR to the DEQ.

SECTION I GENERAL INFORMATION

1. Activity Description - This project proposes a widening at the intersection of Lee Highway (Rt. 29), Fairfax Boulevard (Rt. 50), and Main Street (Rt. 236) along the north and west bound lanes and milling/overlay of the east and south bound lanes. Additional sidewalks are proposed along the side of the roads.

2. This land disturbance activity site is located in the City of Fairfax and approximately 2.9 acres will be disturbed by excavation, grading or other construction activities. (Note: The disturbed area does not include an estimate for any anticipated offsite support facilities, i.e., borrow sites, disposal areas, storage areas, etc.)

3. This proposed activity disturbs one acre of greater and requires coverage under VSMP General Permit For Discharges Of Stormwater from Construction Activities (the VSMP Construction Permit) as issued by the DEQ.

4. The ESC and SWM plans for this land disturbance activity have been developed in accordance with VDOT's Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications as approved by the DEQ.

** 5. ______________________________ is designated as the RLD for this land disturbance activity.

6. Critical areas (e.g., wetlands, surface water bodies, etc) adjacent to this land disturbance activity site and not otherwise identified in the construction plan set (or other such documents) are as follows:
There are no critical areas in the vicinity of the project.
The contractor must follow the VESCH guidelines to prevent the transport of any sediment into public/private drainage systems.

7. Stormwater run-off from the disturbed areas of this land disturbance activity will flow into the following streams: Accotink Creek.

8. Locations where stormwater discharges from this land disturbance activity site to a surface water (as defined in Section 4VAC50-60-10 of the VSMP Regulations) are identified in the construction plan set and the drainage computations book.

SECTION II EROSION AND SEDIMENT CONTROL

1. The following variances to the Virginia ESC Regulations have been approved by the DEQ for this land disturbance activity: Not Applicable.

** 2. The intended sequence and timing of activities that disturb soils at the site (e.g., grubbing, excavation, gradding, utilities and infrastructure installation, etc.) shall be provided by the contractor in accordance with Section 108.03 of the VDOT R&B Specifications and will be included with the other SWPPP documents for this land disturbance activity.

3. Directions of stormwater flow and approximate slopes anticipated after major grading activities are identified in the construction plan set for this land disturbance activity.

4. Areas of soil disturbance and areas of the site which will not be disturbed are identified in the construction plan set for this land disturbance activity.

5. Locations of major structural and nonstructural ESC measures identified in the SWPPP, including those that will be permanent controls that will remain after construction activities have been completed, are identified in the construction plan set for this land disturbance activity.

6. Locations where stabilization practices are expected to occur are identified in the construction plan set for this land disturbance activity.

7. A description of interim and permanent stabilization practices for the site are identified in the applicable sections of the doccuments identified in the Note 1 of Section III.

** 8. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated will be provided by the contractor and maintained with the SWPPP documents for this land disturbance activity.

9. A description of structural practices to divert flows from exposed soils, retain/detain flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the construction site are identified in the applicable sections of the doccuments identified in Note 1 of Section III.

10. A description and schedule of procedures to maintain vegetation, erosion and sediment control measures and other protective measures in good and effective operating conditions during construction are idenfied in Section 107.16 and 303.03 of the VDOT R&B Specifications.

11. All engineering calculations supporting the design of erosion and sediment control measures are contained in the project drainage file located at the The City of Fairfax and will be made available for review upon request during normal working business hours.

12. The temporary erosion and siltation control items shown on the ESC Plan for this land disturbing activity are intended to provide a general plan for controlling erosion and sediment within the project limits. The ESC Plan is based on field conditions at the time of plan development and an assumed sequence of construction for the project. The contractor, shall in conjunction with the VDOT/City of Fairfax Project Engineer and/or ESC inspector, shall adjust the location, quantity and type of erosion and sediment control items required based on the actual field conditions encountered at the time of construction and the actual scheduling and sequencing of the construction activities. Significant changes to the proposed ESC Plan (e.g., those that require an engineering ananlysis) shall be submitted to the City of Fairfax Engineer for review and approval. Any changes to the proposed ESC Plan must be noted on the designated record set of plans which shall be retained on the project site and made available during normal workings business hours.

13. The areas beyond the project's construction area are to be protected from silation. Perimeter controls shall as filter barrier, silt fence, diversion dikes, turbidity curtains, etc. shall be installed prior to any grudding operations or other earth moving activities.

14. Temporary earthen structures such as dikes and berms are to be stabilized immediately upon installtion. Stabilization may include temporary of permanent seeding, rip rap aggregate, sod, mulching, and/or soil stabilization blankets and matting in conjunction with seeding.

15. All channel relocations are to be constructed during the earliest stage of construction and shall be constructed in accordance with all applicable permit requirements and shall be constructed in the dry wherever possible. Stabilization or vegetation shall be established before flow is redirected through the constructed area as directed by the Engineer.

ACRONYMS

DCR - Department of Conservation and Recreation
DEQ - Department of Environmental Quality
EPA - U.S. Environmental Protection Agency
ESC - Erosion and Sediment Control
R&B - Road and Bridge
RLD - Responsible Land Disturber
SWM - Stormwater Management
SWPPP - Stormwater Pollution Prevention Plan
VDOT - Virginia Department of Transportation
VSMP - Virginia Stormwater Management Program

Revised 8/8/13
Sheet 1 of 3

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2G

PROJECT MANAGER Wendy Black 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
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REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2G(1)

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
GENERAL INFORMATION SHEET

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VSMP General Permit For Discharges Of Stormwater From Construction Activities (the VSMP Construction Permit) issued July 1, 2009 and VDOT's approved Annual ESC and SWM Standards and Specifications.

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

Information shown on the SWPPP General Information sheets is to be updated/revised by the VDOT RLD as necessary in order to reflect changes that may occur during the construction phase of the land disturbing activity. The updated/revised sheets shall be maintained with the designated record set of plans for the land disturbance activity.

X Denotes information that is to be provided/completed by the VDOT RLD.
XX Denotes information that is to be provided/completed by the contractor.

Note: Effective July 1, 2013, responsibility for the VSMP General Permit For Discharges Of Stormwater From Construction Activities (the VSMP Construction Permit) was transferred from the DCR to the DEQ.

SECTION III SWPPP

1. All documents related to the SWPPP for this land disturbance activity shall be maintained at the activity site and shall be readily available for review upon request during normal working business hours. Such documents include, but are not limited to, the construction plans (or other such doccuments), the ESC Plan, the post construction SWM Plan (if applicable), the VDOT R&B Standards and Specifications, Supplemental Specifications, Special Provisions and Special Provision Copied Notes. Doccuments related to stormwater pollution prevention which are not a part of those documents referenced above, such as a copy of the VSMP Construction Permit coverage letter (when applicable) and the DCR General Permit For Discharges of Stormwater From Construction Activities (when applicable) and those required to be developed by the contractor for stormwater pollution prevention associated with any support facilities being included in the VSMP Construction Permit coverage for this land disturbance activity are to be maintained at the activity site to maintain the SWPPP documents, they are to be kept by or with the designated RLD at a location convinient to the activity site where they would be made available for review upon request during normal business working hours.

2. Other than construction at the activity site, there are no discharges associated with industrial activity (e.g., from dedicated asphalt plants or dedicated concrete plants) produced by this land disturbance activity or (where applicable) included in the VSMP Construction Permit coverage for this land disturbance activity.

XX 3. Documents identifying the locations of support facilities (e.g., waste or borrow areas, material or equipment storage areas etc.) associated with or (where applicable) included in the VSMP Construction Permit coverage for this land disturbance activity shall be provided by the contractor in accordance with Section 107.16 of the VDOT R&B Specifications and will be maintained with the other SWPPP documents for this land disturbance activity.

XX 4. A description of all pollution control measures that will be implemented as a part of this construction activity to control pollutants in stormwater discharges are indentified and described in the contractor supplied documents, the construction plan set (or other such documents) and applicable sections of the VDOT R&B Specifications and Standards, including but not limited to, Specifications 107.16, 303.03, 603, 604 and 606 and Standards 113.01 through 114.08.

XX 5. The name of the individual(s) or contractor(s) responsible for the installation and maintenance of the pollution control measures shall be supplied by the contractor and maintained with the other SWPPP documents for this land disturbance activity.

6. Requirements for the prevention of the discharge of solid materials, including building materials, garbage, and debris, to surface waters of the state, except as authorized by a Clean Water Act 404 permit, are contained in Sections 106.04, 107.02 and 107.16 of the VDOT R&B Specifications.

7. Requirements for compliance with applicable state or local waste disposal, sanitary sewer or septic system regulations are contained in Sections 106.04 and 107.18 of the VDOT R&B Specifications.

XX 8. A description of construction and waste materials expected to be stored on-site, or at off-site support facilities included in the VSMP Construction Permit coverage for this land disturbance activity, and a description of controls to reduce pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater and practices for spill prevention and response, shall be supplied by the contractor and maintained with the other SWPPP documents for this land disturbance activity.

XX 9. For any support areas that will be included in the VSMP Construction Permit coverage for this land disturbance activity, a description of potential pollutant sources from such areas and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges shall be supplied by the contractor and maintained with the other SWPPP documents for this land disturbance activity.

X 10. By completing and submitting the SWPPP Certification form LD-445E, the RLD, or his authorized representative, certifies that all documents identified herein to be supplied by the contractor will be reviewed, approved and included with the other SWPPP documents for this land disturbance activity prior to start of work in those areas identified by such information.

X 11. The name of the VDOT individual(s) responsible for the inspection of the erosion and sediment control measures on the land disturbance activity is identified on the LD-445E form which will be maintained with the other SWPPP documents for this land disturbance activity (Note: Individual(s) shall be certified through the DCR ESC Inspector Certification Program).

12. For those land disturbing activities requiring coverage under the VSMP General Permit For The Discharge Of Stormwater From Constrcution Activities, the SWPPP shall be made available for review upon the request of the DCR, the EPA, local government officials or the operator of a municipal seperate stormsewer system (MS4) receiving discharge from the construction site.

X 13. For those land disturbing activities requiring coverage under the VSMP General Permit For The Discharge Of Stormwater From Construction Activities, the VDOT RLD shall post, or have posted, a copy of the General Permit coverage letter and a copy of a completed LD-445A form, noting the name and contact information for the VDOT person responsible for the land disturbing activity and its SWPPP, outside the project's construction office along with Federal and State mandated information. Where there is no construction office (e.g., a maintenance activity), the permit coverage letter and the LD-445A form are to be maintained with the other SWPPP documents for the land disturbing activity.

14. For those land disturbing activities requiring coverage under the VSMP General Permit For The Discharge Of Stormwater From Construction Activities on or after July 1, 2009 that have not been previously covered by a VSMP permit, the SWPPP shall be made available for review by the public upon request. Such reviews shall be at a time and publicly accessible location convinient to VDOT/City of Fairfax and shall be scheduled during normal business hours and no less than once a month.

SECTION IV POST CONSTRUCTION STORMWATER MANAGEMENT

Choose the appropriate note(s) 1 through 7 that are applicable to the proposed post construction SWM Plan for this land disturbance activity. Delete, strikethrough or mark as NA those not applicable.)

1. This land disturbance activity does not require permanent water quality SWM facilities because the post development percent impervious of the site is less than 16%.
- Not Applicable

2. The following outfalls do not require a permanent water quality SWM facility because the post development percent impervious of the site draining to each noted outfall is less than 16%.
- Not Applicable.

3. This land disturbing activity is designated a Category 2 project and complies with post development quality requirements in accordance with the provisions of the VDOT Stormwater Program Advisory SWPA 12-01.

4. This land disturbing activity complies with post development water quality requirements in accordance with the provisions of the VDOT Stormwater Program Advisory SWPA 12-02.

5. An exception for (number) pounds of phosphorus removal has been granted by the DEQ in its letter dated (date).
- Not Applicable.

6. This land disturbance activity is grandfathered under the Part IIC (old) technical criteria (i.e., Performance or Technology Based, MS 19, etc.) in Section 4VAC50-60-93.1 et seq. of the VSMP Regulations.

7. This land disturbance activity utilizes the Part IIB (new) technical criteria (i.e., Runoff Reduction Method, Energy Balance Equation, etc.) in Section 4VAC50-62-62 et seq. of the VSMP Regulations.

8. The permanent SWM facilities proposed to meet the water quality/quantity requirements for this land disturbance activity are listed in Section VI. (List each location and the type of proposed permanent SWM facility, including any agreements for the use of offsite or regional stormwater facilities, payment into a DCR approved County/City Watershed Stormwater Management Plan fund or purchase of nutrient credits).

- Outfall 1A - Located on Route 29 right station 47+00 WQL achieved through the purchase of nutrient credits.
- Outfall 1B - Located on Route 236 right station 37+00 WQL achieved through the purchase of nutrient credits.

Credit Broket: Chesapeake Bay Nutrient Land Trust, LLC
Credit-Generating Facility and Location: Elk Run Nutrient Facility, Fauquier County
Number of Credits Acquired: 1.30 Pounds Phosphorus Credits (Permanent Credits)

9. A description of all post-construction stormwater management measures that will be installed during the construction process to control pollutants in stormwater discharges after construction operations have been completed is included in the construction plan set and drainage book (or other such documents) for this land disturbance activity.

10. All engineering calculations supporting the design of the post-construction stormwater management measures, including an explanation of the technical basis used to select the practices, are contained in the project drainage file located in the City of Fairfax and will be made available for review upon request during normal working business hours.

ACRONYMS

DCR - Department of Conservation and Recreation
DEQ - Department of Environmental Quality
EPA - U.S. Environmental Protection Agency
ESC - Erosion and Sediment Control
R&B - Road and Bridge
RLD - Responsible Land Disturber
SWM - Stormwater Management
SWPPP - Stormwater Pollution Prevention Plan
VDOT - Virginia Department of Transportation
VSMP - Virginia Stormwater Management Program

Revised 6/25/13

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2G(1)

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

8/20/2014

PROJECT MANAGER Wendy Black 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

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2G(2)

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VSMP General Permit For Discharges Of Stormwater From Construction Activities (the VSMP Construction Permit) issued July 1, 2009 and VDOT's approved Annual ESC and SWM Standards and Specifications.

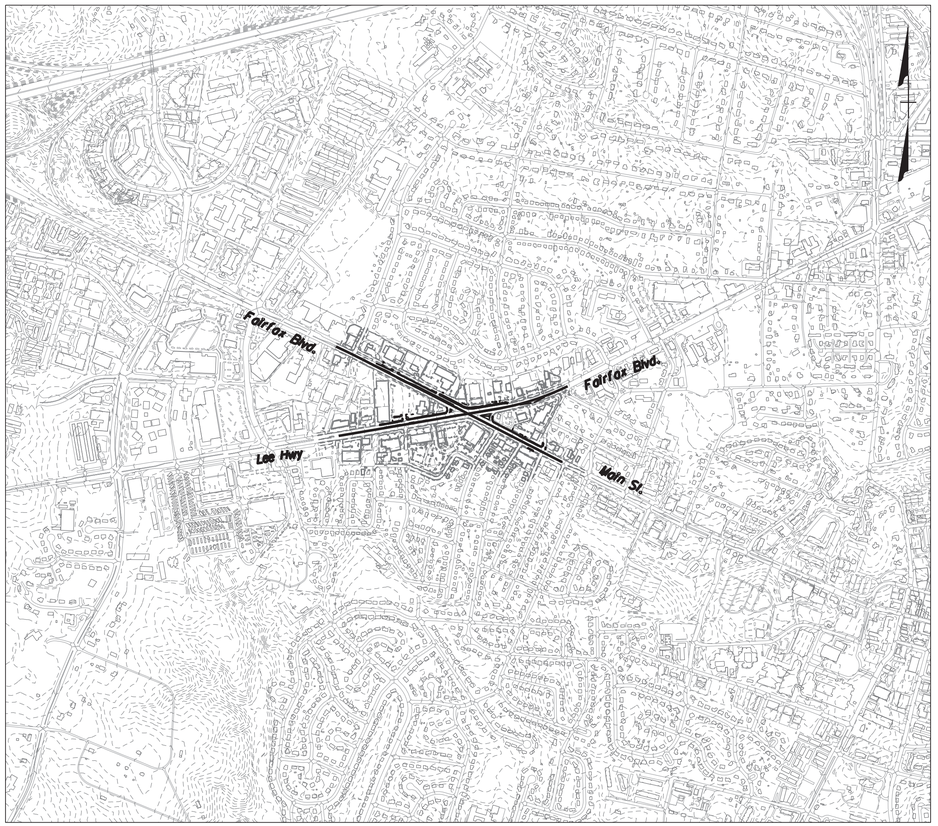
The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance activities that disturb an area equal to or greater than 10,000 square feet, or equal to or greater than 2,500 square feet in the area defined as Tidewater,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

Information shown on the SWPPP General Information sheets is to be updated/revised by the VDOT RLD as necessary in order to reflect changes that may occur during the construction phase of the land disturbing activity. The updated/revised sheets shall be maintained with the designated record set of plans for the land disturbance activity.

✱ Denotes information that is to be provided/completed by the VDOT RLD.
✱✱ Denotes information that is to be provided/completed by the contractor.

Note: Effective July 1, 2013, responsibility for the VSMP General Permit For Discharges Of Stormwater From Construction Activities (the VSMP Construction Permit) was transferred from the DCR to the DEQ.

SECTION V - LOCATION MAP



SECTION VI - PERMANENT BMP INFORMATION △

INSTALLED BMP INFORMATION
Table A
(VDOT Owned/Operated)

BMP Type (See Table 1)	County or City	Latitude/Longitude (1) LAT	Latitude/Longitude (1) LONG	State Hydrologic Unit Code (7)	Receiving Stream Name (2)	Acres Treated Per BMP (3) Impervious	Acres Treated Per BMP (3) Pervious

ALTERNATIVE BMP INFORMATION
Table B

BMP Type (See Table 2)	Name of Nutrient Bank or Broker (6)	County or City (5)	Latitude/Longitude (1) (5) LAT	Latitude/Longitude (1) (5) LONG	State Hydrologic Unit Code (5) (7)	Project Acres Treated Per BMP (3) Impervious	Project Acres Treated Per BMP (3) Pervious	Nutrient Credits (lbs./acre/year) Acquired (3) (6)
Purchase of Nutrient Credits	CBNLT/ELK RUN	City of Fairfax	38° 51' 0" N	77° 17' 30" W	02070010 (PL 30)	2.30	0.60	1.30

Note:
Elk Run registered with DEQ under certification * Potomac-003

Table 1: Permanent BMP Types
- Bio-Retention Basin
- Bio-Retention Filter
- Constructed Stormwater Wetlands
- Extended Detention Basin
- Extended Detention Basin Enhanced
- Grassed Swale
- Infiltration Basin
- Infiltration Trench
- Manufactured Treatment Device
- Retention Basin I
- Retention Basin II
- Retention Basin III
- Sand Filter
- Vegetated Filter Strip
- Other Approved Types (List Type)

Table 2: Alternative BMP Types
- Comprehensive SWM Plan (Regional) Facility
- Pollutant Loading Pro Rata Share Program
- Purchase of Nutrients Credits
- Other Approved Options (List Type) (4)

△ The information shown in the BMP tables is based on the proposed pre-construction SWM Plan. Any changes to the proposed SWM Plan or BMPs necessitated during the construction phase of the project shall be coordinated by the VDOT RLD with the appropriate VDOT District Hydraulics Engineer. The RLD is to have the information in the BMP tables and plans formally revised to reflect any authorized/approved changes to the proposed SWM Plan and BMPs. Prior to submitting for termination of coverage under the VSMP General Permit For The Discharge Of Stormwater From Construction Activities, the RLD shall have the District Maintenance Infrastructure Manager review the BMPs installed with the project (Table A) for acceptance of maintenance responsibility and obtain a Maintenance ID number for each BMP listed in Table A. The RLD shall use the information in Tables A and B along with the assigned Maintenance ID number and the date that the BMP became functional as a permanent control measure (for BMPs in Table A only) to complete the LD-445D form when submitting for termination of coverage under the VSMP General Permit For The Discharge Of Stormwater From Construction Activities.

NOTES:
(1) In degrees, minutes and seconds to the nearest 15 seconds. (Obtained from Google Earth)
(2) For streams with no names, list "Unnamed Tributary to (closest stream name)".
(3) Show acres treated or pounds purchased to the nearest one tenth.
(4) Include agreements with off-site BMP owners.
(5) Information pertains to the alternative BMP option location, where applicable.
(6) Applies to the purchase on nutrient credits only.
(7) 4th Order for Nutrient Credit Banks and 6th order for all other BMP types.

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Revised 6/25/13
Sheet 3 of 3

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
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EXIST. DRAINAGE DESCRIPTIONS

(1) STORM STR.A
INV.OUT=449.40

(2) STORM STR.B
TOP=455.76
INV.OUT=449.01
INV.IN=449.21

(3) STORM STR.C
TOP=455.54
INV.OUT=447.24
INV.IN=448.37 (15")
INV.IN=447.99 (48")

(4) STORM STR.D
TOP=453.75
INV.OUT=449.55 (+/-)
FULL OF DEBRIS

(5) STORM STR.E
TOP=454.55
INV.OUT=444.45
INV.IN=444.60

(6) STORM STR.F
TOP=454.57
INV.OUT=443.12
INV.IN=447.10 (15")
INV.IN=443.22 (48") FROM "I"
INV.IN=443.67 (48") FROM "E"

(7) STORM STR.G
TOP=454.91
INV.OUT=450.51 (15")

(8) STORM STR.H
TOP=453.53
INV.IN=442.38 (48")

(9) STORM STR.I
TOP=454.53

(10) STORM STR.J
TOP=454.62

(11) STORM STR.K
TOP=454.50
INV.OUT=444.00
INV.IN=450.25 (15")
INV.IN=450.65 (24") FROM "N"
INV.IN=445.03 (48") FROM "L"

(12) STORM STR.L
TOP=454.00
INV.OUT=445.30 (48")

(13) STORM STR.M
TOP=454.59
INV.OUT=450.59 (15")

(14) STORM STR.N
TOP=455.77
INV.OUT=452.77
INV.IN=452.92

(15) STORM STR.O
TOP=457.29
INV.OUT=454.16
INV.IN=455.19 (12")
INV.IN=454.21 (24")

(16) STORM STR.P
TOP=459.39
INV.OUT=455.99

(17) STORM STR.Q
TOP=458.20
INV.OUT=455.15
INV.IN=455.30

(18) STORM STR.R
TOP=459.83
INV.OUT=455.93

(19) STORM STR.S
TOP=458.28
INV.OUT=455.83

(20) STORM STR.T
TOP=460.05
INV.IN=455.65
INV.OUT=455.55

(21) STORM STR.U
TOP=451.41
INV.IN=447.66 (FROM EX.T)
INV.IN=447.66 (FROM EX.V)
INV.IN=447.67 (FROM EX.W)
INV.OUT=447.46

(22) STORM STR.V
TOP=451.92
INV.OUT=448.32

(23) STORM STR.W
TOP=451.75
INV.OUT=448.76
(FULL OF DEBRIS)

(24) STORM STR.X
TOP=440.58
INV.IN=436.56 (FROM EX.U)
INV.IN=436.70 (FROM EX.Y)
INV.OUT=436.40

(25) STORM STR.Y
TOP=440.80
INV.OUT=437.40
(FULL OF DEBRIS)

(26) STORM STR.Z
TOP=431.44
INV.IN=427.84 (FROM EX.AA)
INV.IN=428.39 (FROM EX.BB)
INV.IN=427.54 (FROM EX.X)
INV.OUT=427.27

(27) STORM STR.AA
TOP=431.65
INV.OUT=428.00
INVERT ELEVATION TAKEN
FROM RECORD INFORMATION

(28) STORM STR.BB
TOP=432.04
INV.OUT=428.91

(29) STORM STR.CC
TOP=429.12
INV.IN=425.17
INV.OUT=425.02

(30) STORM STR.DD
TOP=430.55
INV.IN=425.72 (FROM EX.FF)
INV.IN=424.85 (FROM EX.CC)
INV.OUT=424.65

(31) STORM STR.EE
TOP=430.57
INV.IN=425.49 (FROM EX.SS)
INV.IN=424.37 (FROM EX.DD)
INV.IN=423.19

(32) STORM STR.FF
TOP=433.03
INV.OUT=427.68

(33) STORM STR.GG
TOP=440.01
INV.OUT=436.61

(34) STORM STR.HH
TOP=442.85
INV.IN=436.10
INV.OUT=433.75

(35) STORM STR.II
TOP=433.97

(36) STORM STR.JJ
TOP=425.38
INV.IN=420.18
INV.IN=420.18
INV.OUT=419.83

(37) STORM STR.KK
TOP=420.01
INV.IN=414.91 (FROM EX.JJ)
INV.IN=413.81 (FROM EX.PP)
INV.OUT=413.76

(38) STORM STR.LL
TOP=417.57
INV.IN=411.27 (FROM EX.KK)
INV.IN=410.67 (FROM EX.OO)
INV.OUT=410.57

(39) STORM STR.MM
TOP=411.53
INV.IN=401.08 (FROM EX.LL)
SOUTH 66" RCP
INV.IN=399.93 (FROM EX.LLL)
INV.OUT=399.88
NORTH 66" RCP
INV.IN=399.87 (FROM EX.LLL)
INV.OUT=399.83

(40) STORM STR.NN
TOP=UNKNOWN
INV.IN=UNKNOWN

(41) STORM STR.OO
TOP=UNKNOWN
INV.IN=UNKNOWN

(42) STORM STR.PP
TOP=UNKNOWN
INV.=418.40
INVERT ELEVATION TAKEN
FROM RECORD INFORMATION

(43) STORM STR.QQ
TOP=426.00 (APPROX.)
INV.IN=422.55 (12")
INV.OUT=422.31 (15")

(44) STORM STR.RR
TOP=426.20 (APPROX.)
INV.OUT=423.55 (12")

(45) STORM STR.SS
TOP=440.20
INV.OUT=432.35
**CONTRACTOR TO VERIFY
INVERT ELEVATION

(46) STORM STR.TT
TOP=442.83
INV.IN=433.33 (FROM EX.UU)
INV.IN=433.50 (FROM EX.VV)
INV.OUT=432.80
INVERT ELEVATION TAKEN
FROM RECORD INFORMATION

(47) STORM STR.UU
TOP=444.35
INV.IN=437.65
INV.OUT=437.23

(48) STORM STR.VV
TOP=450.57
INV.IN=446.03
INV.OUT=445.93

(49) STORM STR.WW
TOP=450.24
INV.OUT=446.30

(50) STORM STR.XX
TOP=474.10
INV.OUT=468.80

(51) STORM STR.YY
TOP=470.87
INV.IN=468.37 (FROM EX.AAA)
INV.IN=466.63 (FROM EX.XX)
INV.OUT=466.63

(52) STORM STR.ZZ
TOP=470.49
INV.IN=465.79

(53) STORM STR.AAA
TOP=UNKNOWN
INV.IN=UNKNOWN

(54) STORM STR.BBB
TOP=UNKNOWN
INV.IN=UNKNOWN

(55) STORM STR.CCC
TOP=466.28
INV.IN=463.73 (FROM EX.BBB)
INV.IN=461.10 (FROM EX.DDD)
INV.OUT=459.28

(56) STORM STR.DDD
TOP=469.66
INV.IN=462.86
INV.OUT=462.66

(57) STORM STR.EEE
TOP=465.10
INV.IN=458.37
INV.OUT=458.45

(58) STORM STR.FFF
TOP=460.43
INV.IN=454.29 (FROM EX.GGG)
INV.IN=454.19(FROM EX.EEE)
INV.OUT=454.13

(59) STORM STR.GGG
TOP=460.55
INV.OUT=454.79

(60) STORM STR.HHH
TOP=460.45
INV.IN=451.75
INV.OUT=451.20

(61) STORM STR.III
TOP=454.78
INV.IN=445.48 (FROM EX.JJJ)
INV.IN=445.38(FROM EX.HHH)
INV.OUT=445.15

(62) STORM STR.JJJ
TOP=454.73
INV.OUT=445.87

(63) STORM STR.KKK
TOP=414.76
INV.OUT=407.96

(63) JUNCTION
JUNCTION WITH DUAL 66" PIPE
SLOPE OF CONNECTING PIPE TAKEN
FROM RECORD INFORMATION
INV.=407.60

(64) STORM STR.LLL
TOP=414.89
INV.IN=409.21 (15")
INV.IN=402.31
SOUTH 66" RCP
INV.OUT=402.94
NORTH 66" RCP
INV.OUT=402.09

(65) STORM STR.MMM
TOP=413.83
INV.OUT=406.29

(66) STORM STR.NNN
TOP=414.05
INV.OUT=402.55

(67) STORM STR.OOO
TOP=409.61
INV.OUT=405.91

(68) STORM STR.PPP
TOP=409.05

(69) STORM STR.QQQ
TOP=408.93
INV.OUT=405.68

(70) STORM STR.RRR
TOP=406.17
INV.OUT=400.07

(70) JUNCTION
JUNCTION WITH DUAL 66" PIPE
INVERT OF CONNECTING PIPE TAKEN
FROM RECORD INFORMATION
INV.=399.83

(71) STORM STR.SSS
TOP=410.81
INV.OUT=404.80

(72) STORM STR.TTT
TOP=408.00
INV.IN=404.66
INV.OUT=403.80

(73) STORM STR.UUU
TOP=407.13
INV.=402.88
INVERT ELEVATION TAKEN
FROM RECORD INFORMATION

(73) JUNCTION
JUNCTION WITH DUAL 66" PIPE
INVERT OF CONNECTING PIPE TAKEN
FROM RECORD INFORMATION
INV.=400.94

(74) STORM STR.VVV
TOP=407.36
INV.IN=403.11
INV.OUT=403.01

(75) STORM STR.WWW
TOP=440.37
INV.IN=432.87

(76) STORM STR.XXX
TOP=445.40
INV.IN=442.00
INV.OUT=439.05

(77) STORM STR.YYY
TOP=445.95
INV.OUT=442.40

(78) STORM STR.
TOP=406.16
INV.IN=403.08 (8")
INV.IN=400.06 (15")
INV.OUT=400.00

(79) STORM STR.
TOP=404.63
INV.IN=398.50 (15")
INV.OUT=398.37 (18")

(79) JUNCTION
JUNCTION WITH DUAL 66" PIPE
INVERT OF CONNECTING PIPE
TAKEN FROM RECORD INFORMATION
INV.=398.25

(80) STORM STR.
TOP=404.80
INV.IN=398.73
INV.OUT=398.65

(81) STORM STR.
TOP=UNKNOWN
INV.=396.79
INVERT ELEVATION TAKEN
FROM RECORD INFORMATION

(82) STORM STR.
TOP=412.52
INV.OUT=405.79

(83) STORM GRATE
TOP=417.83
INV.IN=411.48
INV.OUT=411.39

(85) STORM GRATE
TOP=418.09
INV.IN=417.73
INV.OUT=411.67

(86) CATCH BASIN
TOP=416.41
INV.IN=410.41
INV.OUT=410.01

(87) STORM MH
TOP=417.47

(89) STORM STR.
TOP=447.90
INV.IN=435.14
INV.OUT=435.09

(90) STORM STR.
TOP=450.43
INV.IN=437.58
INV.OUT=437.25

(91) STORM STR.
TOP=450.46
INV.IN=442.26 (21")
INV.IN=437.76 (108")
INV.OUT=437.66 (15")

(92) STORM STR.
TOP=435.89
INV.IN=431.27 (21")
INV.IN=431.76 (12" ROOF DRAIN)
INV.OUT=431.76 (24")

(93) STORM STR.
TOP=432.52
INV.IN=427.52
INV.OUT=427.27

(94) STORM STR.
TOP=430.55
INV.IN=425.41
INV.OUT=424.19

(95) JUNCTION
JUNCTION WITH DUAL 66" PIPE
INVERT OF CONNECTING PIPE
TAKEN FROM RECORD INFO.
INV.=396.48

(96) STORM STR.
TOP=UNKNOWN
INV.=405.75
INVERT ELEVATION TAKEN
FROM RECORD INFORMATION

(97) STORM STR.
TOP=UNKNOWN
INV.=397.30
INVERT ELEVATION TAKEN
FROM RECORD INFORMATION

(97) JUNCTION
JUNCTION WITH DUAL 66" PIPE
INVERT OF CONNECTING PIPE
TAKEN FROM RECORD INFO.
INV.=395.91

(98) STORM STR.
TOP=UNKNOWN
INV.=395.65
INVERT ELEVATION TAKEN
FROM RECORD INFORMATION

(98) JUNCTION
JUNCTION WITH DUAL 66" PIPE
INVERT OF CONNECTING PIPE
TAKEN FROM RECORD INFO.
INV.=395.05

(99) ELEV. TAKEN FROM RECORD INFO.
INV.IN=400.73
INV.OUT=400.73

NOTE:

(RI) DENOTES LOCATION/SIZE OF PIPE FROM RECORD INFORMATION PLAN #0236-151-101,PE-101,C-501

Note: The horizontal location and invert elevations shown for storm sewer outfall pipes are based on existing survey data, record information, and required design criteria. If during construction, it is found that the horizontal location or invert elevations shown on the plan differ significantly from the horizontal location or elevations where storm sewer pipe is to be placed, the contractor shall confer with, and get approval from the City of Fairfax before installing the storm sewer outfall pipe.

EX. SANITARY DESCRIPTIONS

(EX.1) SANITARY STR.1
TOP=454.63
INV.IN=445.53
INV.IN=445.43
INV.OUT=445.38

(EX.2) SANITARY STR.2
TOP=454.44

(EX.3) SANITARY STR.3
TOP=455.50

(EX.4) SANITARY STR.4
TOP=458.38

(EX.5) SANITARY STR.5
TOP=441.22
INV.IN=432.05 (EX.J5)
INV.IN=432.01 (EX.J4)
INV.OUT=431.86

(EX.6) SANITARY STR.6
TOP=430.05
INV.IN=427.07
INV.OUT=424.03

(EX.7) SANITARY STR.7
TOP=459.32
INV.IN=454.42
INV.OUT=454.32

(EX.8) SANITARY STR.8
TOP=475.57
INV.IN=469.57
INV.OUT=469.47

(EX.9) SANITARY STR.9
TOP=UNKNOWN
INV.IN=UNKNOWN
INV.OUT=UNKNOWN

(EX.10) SANITARY STR.10
TOP=451.57
INV.IN=446.47
INV.OUT=446.33

(EX.11) SANITARY STR.11
TOP=451.37
INV.IN=445.74
(FROM EX.J0)
INV.IN=445.02
INV.OUT=

(EX.12) SANITARY STR.12
TOP=450.82
INV.IN=439.12
INV.OUT=438.28

(EX.13) SANITARY STR.13
TOP=464.22
INV.IN=445.32
INV.OUT=444.97

(EX.14) SANITARY STR.14
TOP=448.57
INV.IN=437.07
INV.OUT=436.87

(EX.15) SANITARY STR.15
TOP=445.59
INV.IN=434.79
INV.OUT=434.72

(EX.16) SANITARY STR.16
TOP=421.63
INV.OUT=414.65

(EX.17) SANITARY STR.17
TOP=415.53
INV.IN=408.52 (EX.J6)
INV.IN=408.67 (EX.6)
INV.IN=408.18 (Lateral)
INV.OUT=408.00

(EX.18) SANITARY STR.18
TOP=415.80
INV.IN=407.05
INV.OUT=407.00

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DRAINAGE DESCRIPTIONS

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08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2K(1)

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

Nikhil V Deshpande
2014.08.20 19:21:10 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

Sheet 3

No Structures Proposed on this Sheet

Sheet 4

4-1
Modify Existing MH
Adjust to Grade. Drop 0.2'
1-St'd. MH-1 Frame & Cover Req'd.
Proposed Top Elev.=460.27 Inv.=454.13

4-4
1-St'd. DI-2C Req'd.
L=8', H=4.5' Inv.=449.90, Top=454.43
St'd. IS-1 Req'd.

4-4 to 4-5
7' - 15" Storm Sewer Pipe Req'd. (3.3' Cover)
Inv. (In)=449.90 Inv. (Out)=449.60

4-5
1-St'd. DI-3B Req'd.
L=8', H=4.8' Inv.=449.40, Top=454.21
St'd. IS-1 Req'd.
Connect UD-3 & UD-4 To Structure

4-5 to 4-9
201' - 15" Storm Sewer Pipe Req'd. (3.6' Cover)
Inv. (In)=449.40 Inv. (Out)=442.00

4-8
1-St'd. DI-2B Req'd.
L=8', H=4.0' Inv.=442.05, Top=446.08
St'd. IS-1 Req'd.

4-8 to 4-9
8' - 15" Storm Sewer Pipe Req'd. (2.8' Cover)
Inv. (In)=442.05 Inv. (Out)=441.90

4-9
1-St'd. DI-2B Req'd.
L=8', H=6.9' Inv.=438.95, Top=445.89
St'd. IS-1 Req'd.
Connect UD-3 & UD-4 To Structure

4-9 to 4-11
108' - 18" Storm Sewer Pipe Req'd. (5.4' Cover)
Inv. (In)=438.95 Inv. (Out)=436.15

4-10
1-St'd. DI-2CC Req'd.
L=8', H=9.5' Inv.=433.71, Top=443.21
1-St'd. B-2 Base Req'd., D=36"
St'd. IS-1 Req'd.
Connect to Existing 18" Storm Sewer Pipe

4-11
1-St'd. DI-2B Req'd.
L=6', H=7.9' Inv.=432.80, Top=440.66
St'd. IS-1 Req'd.
Connect to Existing 18" & 21" Storm Sewer Pipes
Invert=433.33 (Str. 4-10)
Connect UD-3 & UD-4 To Structure

Sheet 5

5-1
1-St'd. DI-2BB Req'd.
L=8', H=8.4' Inv.=424.50, Top=432.93
St'd. IS-1 Req'd.
Connect UD-4 To Structure

5-1 to 5-18
192' - 15" Storm Sewer Pipe Req'd. (7.2' Cover)
Inv. (In)=424.50 Inv. (Out)=419.60

5-8
Modify Existing DI
Remove Existing DI Top
Add 1-St'd. DI-3B, L=8' Top
Proposed Top Elev.=430.68
Connect UD-4 To Structure
**Contractor not to Disturb 25" Fiber Ductbank located directly under Existing Structure

5-10
Modify Existing MH
Adjust to Grade.
1-St'd MH-1 Frame & Cover Req'd.
Proposed Top Elev.=424.85

5-17
1-St'd. DI-3B Req'd.
L=10', H=4.2' Inv.=410.90, Top=415.13
St'd. IS-1 Req'd.
Connect UD-4 To Structure

5-17 to 5-21
11' - 15" Storm Sewer Pipe Req'd. (3.0' Cover)
Inv. (In)=410.90 Inv. (Out)=410.60

5-18
1-St'd. DI-2B Req'd.
L=8', H=6.4' Inv.=417.50, Top=423.89
St'd. IS-1 Req'd.
Connect UD-4 To Structure

5-18 to 5-19
82' - 15" Storm Sewer Pipe Req'd. (5.2' Cover)
Inv. (In)=417.50 Inv. (Out)=413.50

5-19
1-St'd. DI-3A Req'd.
H=6.4' Inv.=413.40, Top=419.84
St'd. IS-1 Req'd.
Connect UD-3 & UD-4 To Structure

5-19 to 5-20
114' - 15" Storm Sewer Pipe Req'd. (5.2' Cover)
Inv. (In)=413.40 Inv. (Out)=408.10

5-20
1-St'd. DI-3E Req'd.
L=8', H=7.2' Inv.=407.96, Top=415.20
St'd. IS-1 Req'd.
Connect to Existing 15" Storm Sewer Pipe
Connect UD-4 To Structure

5-21
1-St'd. DI-2B Req'd.
L=10', H=5.1' Inv.=410.50, Top=415.59
St'd. IS-1 Req'd.

5-21 to 5-23
70' - 18" Storm Sewer Pipe Req'd. (3.6' Cover)
Inv. (In)=410.50 Inv. (Out)=409.25

5-22
1-St'd. DI-3C Req'd.
L=10', H=4.5' Inv.=409.65, Top=414.17
St'd. IS-1 Req'd.
Connect UD-4 To Structure

5-22 to 5-23
6' - 15" Storm Sewer Pipe Req'd. (3.3' Cover)
Inv. (In)=409.65 Inv. (Out)=409.25

5-23
1-St'd. DI-2C Req'd.
L=6', H=5.6' Inv.=409.15, Top=414.70
St'd. IS-1 Req'd.

5-23 to 5-26
68' - 24" Storm Sewer Pipe Req'd. (3.6' Cover)
Inv. (In)=409.15 Inv. (Out)=408.15

5-24
1-St'd. DI-3C Req'd.
L=10', H=4.1' Inv.=410.10, Top=414.22
St'd. IS-1 Req'd.

5-24 to Ex.39
32' - 15" Storm Sewer Pipe Req'd. (2.9' Cover)
Inv. (In)=410.10 Inv. (Out)=409.60

5-25
1-St'd. DI-3B Req'd.
L=12', H=4.3' Inv.=406.50, Top=410.75
St'd. IS-1 Req'd.
Connect UD-2 To Structure

5-25 to Ex.39
12' - 15" Storm Sewer Pipe Req'd. (3.1' Cover)
Inv. (In)=406.50 Inv. (Out)=406.30

5-26
Modify Existing Storm Junction
Remove Existing Top
Adjust to Grade. Raise 0.1'
Add St'd. DI-1 Top, Grate B
Proposed Top Elev.=414.87
Modify to accept New 24" Pipe Connection.
Inv.=408.15
St'd. IS-1 Req'd.

Ex.29
Modify Existing DI
Connect UD-3 & UD-4 To Structure

Ex.39
Modify Existing Storm Junction
Modify to accept New 15" Pipe Connection
Inv.=409.60 (Str. 5-24)
Modify to accept New 15" Pipe Connection
Inv.=406.30 (Str. 5-25)
Connect UD-2 To Structure

Ex.FP6
Modify Existing DI
Adjust to Grade. Raise 1.54'
1-St'd. DI-3B, L=10' Req'd.
Proposed Top Elev.=409.84

Sheet 6

6-1
1-St'd. DI-2B Req'd.
L=12', H=4.6' Inv.=412.40, Top=417.00
St'd. IS-1 Req'd.

6-1 to 5-21
66' - 15" Storm Sewer Pipe Req'd. (3.4' Cover)
Inv. (In)=412.40 Inv. (Out)=411.00

Sheet 7

No Structures Proposed on this Sheet

Sheet 8

8-1
1-Mod. DI-2B Req'd.
L=6', H=3.5' Inv.=448.35, Top=451.84
St'd. IS-1 Req'd.
Less than Minimum Height
See Sheet 2K(2) for Details
Modify For 15" Pipe Front Connection
Connect UD-4 To Structure

8-1 to Ex.21
Existing Pipe to Be Extended with 4' - 15" Conc. Pipe
82' - 15" Storm Sewer Pipe (2.3' Cover)
Inv. (In)=448.35 Inv. (Out)=447.66

8-2
1-Mod. DI-2B Req'd.
L=8', H=3.3' Inv.=437.44, Top=440.77
St'd. IS-1 Req'd.
Less than Minimum Height
See Sheet 2K(2) for Details
Modify For 15" Pipe Front Connection
Connect UD-4 To Structure

8-2 to Ex.24
Existing Pipe to Be Extended with 6' - 15" Conc. Pipe
82' - 15" Storm Sewer Pipe (2.1' Cover)
Inv. (In)=437.44 Inv. (Out)=436.70

Sheet 9

9-1
1-St'd. DI-2B Req'd.
L=8', H=4.8' Inv.=402.00, Top=406.76
St'd. IS-1 Req'd.
Connect UD-4 To Structure

9-1 to 9-2
53' - 15" Storm Sewer Pipe Req'd. (3.6' Cover)
Inv. (In)=402.00 Inv. (Out)=400.20

9-2
1-St'd. DI-2B Req'd.
L=4', H=6.3' Inv.=400.07, Top=406.33
St'd. IS-1 Req'd.
Connect UD-4 To Structure

9-2 to Ex.70 Junc.
Existing Pipe To Be Extended with 1' - 15" Conc. Pipe
12' - 15" Storm Sewer Pipe (5.1' Cover)
Inv. (In)=400.07 Inv. (Out)=399.83

9-3
1-St'd. DI-3B Req'd.
L=8', H=5.5' Inv.=402.50, Top=408.00
St'd. IS-1 Req'd.

9-3 to 9-5
19' - 15" Storm Sewer Pipe Req'd. (4.3' Cover)
Inv. (In)=402.50 Inv. (Out)=401.70

9-4
1-St'd. DI-2C Req'd.
L=8', H=4.0' Inv.=401.45, Top=405.49
St'd. IS-1 Req'd.
Connect UD-4 To Structure

9-4 to 9-5
47' - 15" Storm Sewer Pipe Req'd. (2.8' Cover)
Inv. (In)=401.45 Inv. (Out)=400.95

9-5
1-St'd. DI-2B Req'd.
L=4', H=4.9' Inv.=400.85, Top=405.73
St'd. IS-1 Req'd.
Connect UD-4 To Structure

9-5 to 9-6
125' - 15" Storm Sewer Pipe Req'd. (3.7' Cover)
Inv. (In)=400.85 Inv. (Out)=400.00

9-6
1-St'd. DI-3A Req'd.
H=7.0' Inv.=399.10, Top=406.28
St'd. IS-1 Req'd.
Connect to Existing 15" Storm Sewer Pipe
Connect UD-4 To Structure

9-6 to 9-7
19' - 18" Storm Sewer Pipe Req'd. (5.7' Cover)
Inv. (In)=399.10 Inv. (Out)=398.80

9-7
1-St'd. DI-3A Req'd.
H=7.4' Inv.=398.67, Top=406.08
St'd. IS-1 Req'd.
Connect UD-4 To Structure

9-7 to Ex.79 Junc.
Existing Pipe To Be Extended with 10' - 18" Conc. Pipe
13' - 18" Storm Sewer Pipe (5.9' Cover)
Inv. (In)=398.67 Inv. (Out)=398.25

9-8
1-St'd. DI-2B Req'd.
L=4', H=5.7' Inv.=400.50, Top=406.22
St'd. IS-1 Req'd.
Connect to Existing 15" Storm Sewer Pipe
Connect UD-4 To Structure
Contractor to verify existing invert elevation
Recent Construction By Others

9-8 to 9-2
13' - 15" Storm Sewer Pipe Req'd. (4.5' Cover)
Inv. (In)=400.50 Inv. (Out)=400.20

9-9
1-St'd. DI-3C Req'd.
L=8' H=4.0' Inv.=401.25, Top=405.29
St'd. IS-1 Req'd.

9-9 to 9-10
29' - 15" Storm Sewer Pipe Req'd. (2.8' Cover)
Inv. (In)=401.25 Inv. (Out)=400.65

9-10
1-St'd. DI-3A Req'd.
H=4.2' Inv.=400.55, Top=404.70
St'd. IS-1 Req'd.

9-10 to Ex.81
75' - 15" Storm Sewer Pipe Req'd. (3.1' Cover)
Inv. (In)=400.55 Inv. (Out)=399.05

Ex.81
Modify Existing DI
Modify to accept New 15" Pipe Connection
Inv.=399.05 (Str. 9-10)
Connect UD-4 To Structure

9-11
1-St'd. DI-2C Req'd.
L=8', H=5.9' Inv.=400.50, Top=406.38
St'd. IS-1 Req'd.

9-11 to 9-12
6' - 15" Storm Sewer Pipe Req'd. (1.7' Cover)
Inv. (In)=400.50 Inv. (Out)=400.30

9-12
1-St'd. DI-2CC Req'd.
L=6', H=9.7' Inv.=396.54, Top=406.20
St'd. IS-1 Req'd.
Connect UD-4 To Structure

9-12 to Ex.95 Junc.
Existing Pipe to Be Extended with 7' - 15" Conc. Pipe
12' - 15" Storm Sewer Pipe (8.5' Cover)
Inv. (In)=396.54 Inv. (Out)=396.48

9-14
1-St'd. DI-2B Req'd.
L=6', H=5.0' Inv.=401.30, Top=406.29
St'd. IS-1 Req'd.
Connect UD-4 To Structure

9-14 to 9-15
41' - 15" Storm Sewer Pipe Req'd. (3.8' Cover)
Inv. (In)=401.30 Inv. (Out)=400.85

9-15
1-St'd. DI-3A Req'd.
H=4.6' Inv.=400.73, Top=405.34
St'd. IS-1 Req'd.
Connect to Existing 15" Storm Sewer Pipe

9-15 to Ex.97
33' - 18" Storm Sewer Pipe Req'd. (3.1' Cover)
Inv. (In)=400.73 Inv. (Out)=400.57

Note:
- For non-standard structures the contractor shall provide shop drawings for approval to the City of Fairfax prior to ordering materials.

- The contractor shall conduct a post installation visual/video camera inspection of all storm sewer pipes and a selected number of pipe culverts in accordance with the requirements of Section 302.03(d) of the VDOT supplemental Road and Bridge Specifications and VTM 123.

- The condition of existing structures that the design ties into is to be inspected by the contractor in conjuction with the City of Fairfax prior to construction and the contractor is to be responsible for repair or replacement of the structures at the descretion of the City of Fairfax.

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2K(1)

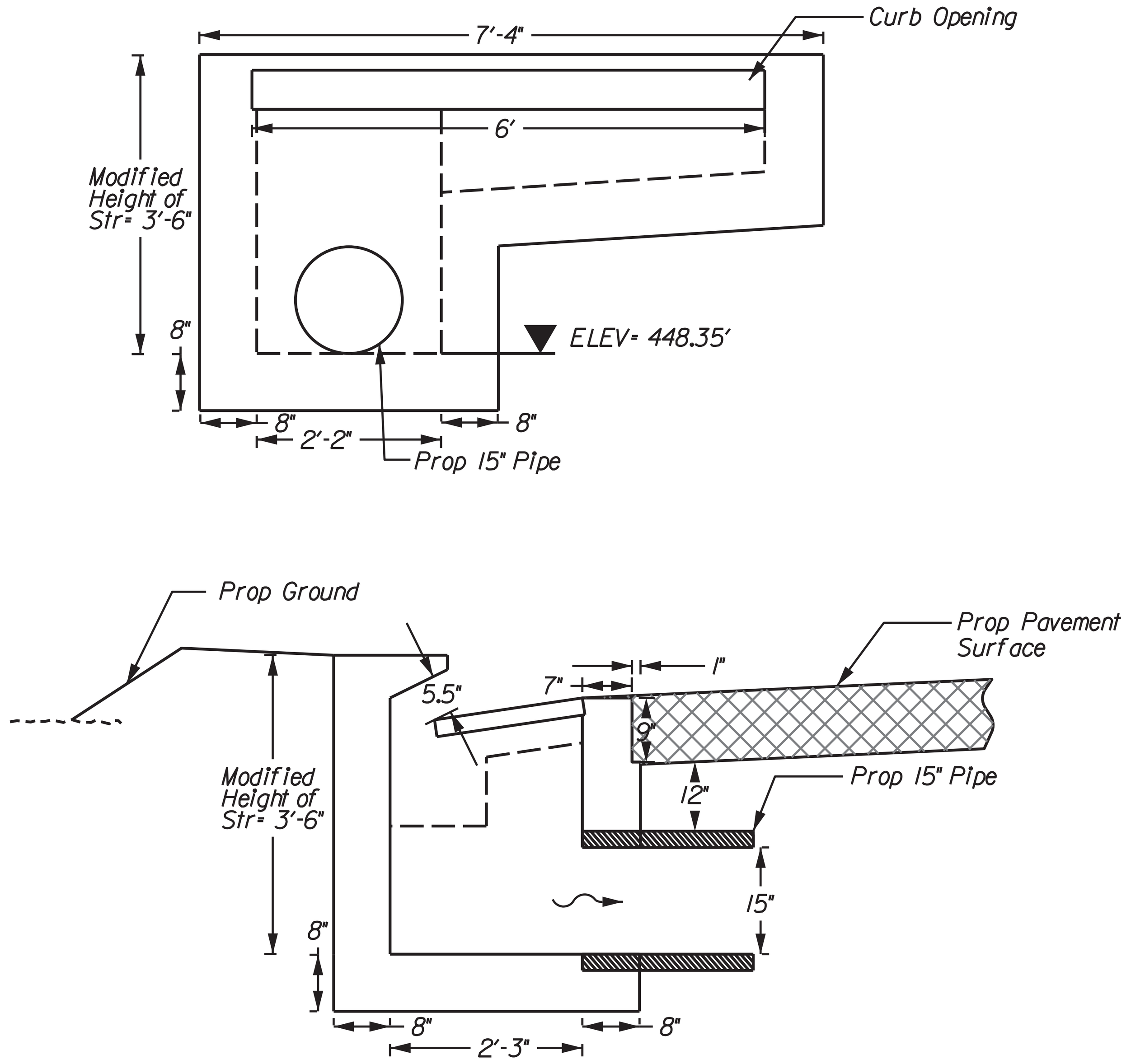
Rinker Design Associates, P.C.
Office Locations
NORTHERN VIRGINIA DISTRICT
8/20/2014

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

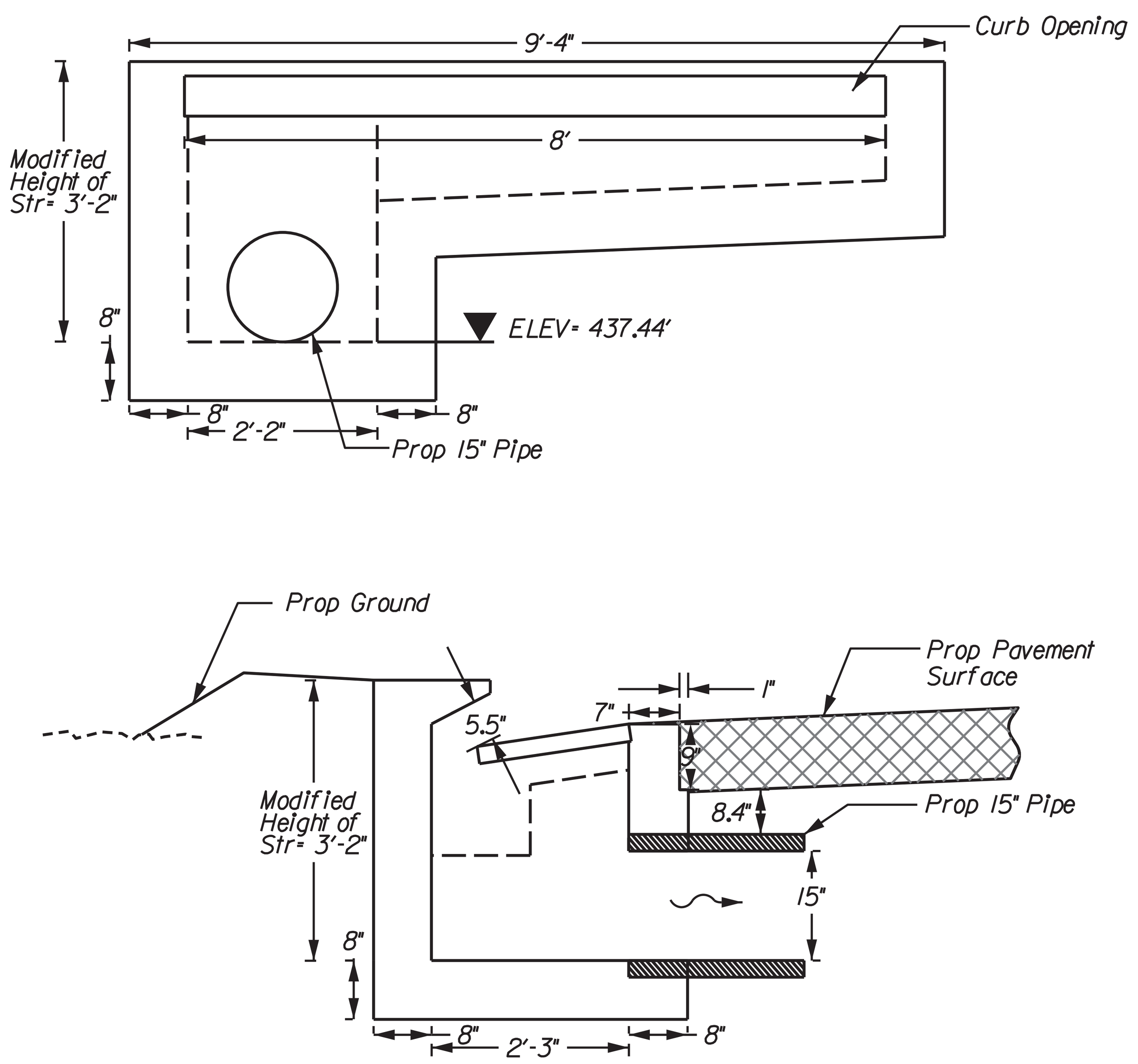
REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2K(2)

STRUCTURE DETAIL/ALLOWABLE PIPE CHART/ UNDERDRAIN TABULATION

Str.8-1 (DI-2B)



Str.8-2 (DI-2B)



Underdrain Tabulation

	Station to	Station	UD-2	UD-3		UD-4		Remarks
				Perforated	Non-Perfor.	Perforated	Non-Perfor.	
			(ft)	(ft)	(ft)	(ft)	(ft)	
Fairfax Blvd.(Rt.50) to Main St.(Rt.236)	Left							
	16+00	17+71				100	71	
	17+71	19+50				180		Tie To Str. 8-1
	19+50	22+50				294		Tie To Str. 8-2
	23+00	24+00				91		Tie To Str. 5-1
	24+00	26+00				192		Tie To Str. 5-18
	26+00	26+75				85		Tie To Str. 5-19
	23+50	27+75		327				Tie To Str. 5-19
	28+25	29+25	162					Tie To Str. 5-25
	30+00	31+00				101		Tie To Str. 9-1
	31+00	31+50				52		Tie To Str. 9-2
	31+50	31+75				13		Tie To Str. 9-8
	31+75	32+75				57	37	Tie To Str. 9-4
	32+75	33+25				46		Tie To Str. 9-5
	33+25	34+50				86	41	Tie To Str. 9-6
	34+50	34+75				21		Tie To Str. 9-7
	34+75	35+50				33	47	Tie To Str. 9-12
	35+50	36+25				89		Tie To Str. 9-12
	36+25	36+25				18		Tie To Str. 9-14
	Right							
	34+75	35+50				86		Tie to Ex. 81
	Left							
Lee Hwy.(Rt.29) to Fairfax Blvd.(Rt.29/50)	44+75	47+35		188	34	202	47	Tie To Str. 4-5
	47+35	49+25		109		195		Tie To Str. 4-9
	49+25	50+35		117		107		Tie To Str. 4-11
	50+25	52+75		199	26	213	43	Tie To Str. 5-8 & Ex29
	55+00	56+35				119		Tie To Str. 5-20
	56+35	57+25				51	41	Tie To Str. 5-22
	57+25	58+00				42	41	Tie To Str. 5-22
	58+00	58+75				25	41	Tie To Str. 5-17
	58+75	59+71				93		Tie To Str. 6-1
	TOTALS		162	940	60	2591	409	

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

LOCATION	CONCRETE	CORRUGATED STEEL ALUMINUM COATED TYPE 2 FULLY CONCRETE LINED	ALUMINUM COATED TYPE 2 STEEL SPIRAL RIB	POLYMER COATED (10/10) CORRUGATED STEEL SPIRAL RIB	POLYMER COATED (10/10) CORRUGATED STEEL DOUBLE WALL (SMOOTH INTERIOR)	ALUMINUM SPIRAL RIB	POLYVINYLCHLORIDE (PVC) RIBBED PIPE (SMOOTH INTERIOR)	POLYETHYLENE (PE) CORRUGATED TYPE S	POLYPROPYLENE (PP) TYPE D OR S
RTE 50 - FAIRFAX BOULEVARD	YES	NO	NO	NO	YES	NO	YES	YES	YES
RTE 29 - LEE HIGHWAY	YES	NO	NO	NO	YES	NO	YES	YES	YES
RTE 236 - MAIN STREET	YES	NO	NO	NO	YES	NO	YES	YES	YES

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

NORTHERN VIRGINIA DISTRICT

8/20/2014

PROJECT MANAGER Wendy Black 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. Weischenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

DRAINAGE SUMMARY

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2K(3)

DRAINAGE SUMMARY

PROJECT NUMBER	DRAINAGE LOCATION	STORM SEWER PIPE: STORM SEWER PIPE 15"	STORM SEWER PIPE 18"	STORM SEWER PIPE 24"	POST CONSTR. INSPECTION STORM SEWER PIPE	DROP INLETS: HEIGHT OF STRUCTURE	DROP INLET DI-2B, L=4'	DROP INLET DI-2B, L=6'	DROP INLET MOD. DI-2B, L=6'	DROP INLET DI-2B, L=8'	DROP INLET MOD. DI-2B, L=8'	DROP INLET DI-2B, L=10'	DROP INLET DI-2B, L=12'	DROP INLET DI-2BB, L=8'	DROP INLET DI-2C, L=6'	DROP INLET DI-2C, L=8'	DROP INLET DI-2CC, L=6'	DROP INLET DI-2CC, L=8'	DROP INLET DI-3A, L=2.5'	DROP INLET DI-3B, L=8'	DROP INLET DI-3B, L=10'	DROP INLET DI-3B, L=12'	DROP INLET DI-3C, L=8'	DROP INLET DI-3C, L=10'	DROP INLET DI-3E, L=8'	DROP INLET DI-1	FRAME & COVER MH-1	REMARKS
	NUMBER	1156	1186	1246	700		6747	6748	6748	6749	6749	6750	6751	6758	6765	6766	6773	6774	6815	6819	6820	6821	6836	6837	6855	6740	9057	
		LF.	LF.	LF.	LF	FT	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	
0029-151-108, C-501	4-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	Modify Existing Manhole
	4-4	-	-	-	-	4.5	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	St'd.IS-1 Required
	4-4-4-5	7	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-5	-	-	-	-	4.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	Connect UD-3 & UD-4 to Sructure, St'd.IS-1 Required
	4-5-4-9	201	-	-	201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-8	-	-	-	-	4.0	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	St'd.IS-1 Required
	4-8-4-9	8	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-9	-	-	-	-	6.9	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Connect UD-3 & UD-4 to Structure, St'd.IS-1 Required
	4-9-4-11	-	108	-	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-10	-	-	-	-	9.5	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	Connect to Existing 18" storm sewer pipe, St'd.IS-1 Reqlred, St'd.B-2 Base Req'd.D=36"
	4-11	-	-	-	-	7.9	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Connect UD-3 & UD-4 to Sructure, Connect to Existing 18" & 21" storm sewer pipes, St'd.IS-1 Required
	5-1	-	-	-	-	8.4	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required
	5-1-5-18	192	-	-	192	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	Connect UD-4 to Structure, Modify Existing Drop Inlet
	5-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	Adjust Existing Manhole
	5-17	-	-	-	-	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required
	5-17-5-21	11	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5-18	-	-	-	-	6.4	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required
	5-18-5-19	82	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5-19	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	Connect UD-3 & UD-4 to Sructure, St'd.IS-1 Required
	5-19-5-20	114	-	-	114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5-20	-	-	-	-	7.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	Connect UD-4 to Structure, Connect to Existing 15" storm sewer pipe, St'd.IS-1 Required
	5-21	-	-	-	-	5.1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	St'd.IS-1 Required
	5-21-5-23	-	70	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5-22	-	-	-	-	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	Connect UD-4 to Structure, St'd IS-1 Required
	5-22-5-23	6	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5-23	-	-	-	-	5.6	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	St'd.IS-1 Required
	5-23-5-26	-	-	68	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5-24	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	St'd.IS-1 Required
	5-24-Ex.39	32	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5-25	-	-	-	-	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	Connect UD-2 to Structure, St'd.IS-1 Required
	5-25-Ex.39	12	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	Modify existing Storm Junction, Modify to accept NEW 24" Pipe Connection, Grate B req'd., St'd.IS-1 Required
	Ex.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Modify Existing Storm Junction, Connect NEW 15" pipes to Structure, Connect UD-2 to Structure
	Ex.FP6	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	Modify Existing DI
	SUBTOTAL - SHEET	665	178	68	911	-	0	1	0	3	0	1	1	1	1	1	0	1	1	2	2	1	0	2	1	1	2	

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2K(3)

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Right of Way Services
Office Locations
NORTHERN VIRGINIA DISTRICT
8/20/2014

PROJECT MANAGER Wendy Black 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. Weischenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

DRAINAGE SUMMARY

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2K(4)

DRAINAGE SUMMARY

PROJECT NUMBER	DRAINAGE LOCATION	STORM SEWER PIPE: STORM SEWER PIPE 15"	STORM SEWER PIPE 18"	STORM SEWER PIPE 24"	POST CONSTR. INSPECTION STORM SEWER PIPE	HEIGHT OF STRUCTURE	DROP INLETS: DROP INLET DI-2B, L=4'	DROP INLET DI-2B, L=6'	DROP INLET MOD. DI-2B, L=6'	DROP INLET DI-2B, L=8'	DROP INLET MOD. DI-2B, L=8'	DROP INLET DI-2B, L=10'	DROP INLET DI-2B, L=12'	DROP INLET DI-2BB, L=8'	DROP INLET DI-2C, L=6'	DROP INLET DI-2C, L=8'	DROP INLET DI-2CC, L=6'	DROP INLET DI-2CC, L=8'	DROP INLET DI-3A, L=2.5'	DROP INLET DI-3B, L=8'	DROP INLET DI-3B, L=10'	DROP INLET DI-3B, L=12'	DROP INLET DI-3C, L=8'	DROP INLET DI-3C, L=10'	DROP INLET DI-3E, L=8'	DROP INLET DI-1	FRAME & COVER MH-1	REMARKS
	NUMBER	1156 LF.	1186 LF.	1246 LF.	700 LF	FT	6747 EA.	6748 EA.	6748 EA.	6749 EA.	6749 EA.	6750 EA.	6751 EA.	6758 EA.	6765 EA.	6766 EA.	6773 EA.	6774 EA.	6815 EA.	6819 EA.	6820 EA.	6821 EA.	6836 EA.	6837 EA.	6855 EA.	6740 EA.	9057 EA.	
0029-151-108, C-501	6-1	-	-	-	-	4.6	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	St'd.IS-1 Required
	6-1-5-21	66	-	-	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8-1	-	-	-	-	3.5	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Modify for 15" Pipe Front Connection, Connect UD-4 to Structure, St'd.IS-1 Required
	8-1-Ex.21	4	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8-2	-	-	-	-	3.3	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Modify for 15" Pipe Front Connection, Connect UD-4 to Structure, St'd.IS-1 Required
	8-2-Ex.24	6	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-1	-	-	-	-	4.8	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required
	9-1-9-2	53	-	-	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-2	-	-	-	-	6.3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required
	9-2-Ex.70Junc.	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-3	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	St'd.IS-1 Required
	9-3-9-5	19	-	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-4	-	-	-	-	4.0	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required
	9-4-9-5	47	-	-	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-5	-	-	-	-	4.9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required
	9-5-9-6	125	-	-	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-6	-	-	-	-	7.0	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required, Connect to Existing 15" storm sewer pipe
	9-6-9-7	-	19	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-7	-	-	-	-	7.4	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required
	9-7-Ex79Junc.	-	10	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-8	-	-	-	-	5.7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required, Connect to Existing 15" storm sewer pipe
	9-8-9-2	13	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-9	-	-	-	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	St'd.IS-1 Required
	9-9-9-10	29	-	-	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-10	-	-	-	-	4.2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	St'd.IS-1 Required
	9-10-Ex.81	75	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Ex.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Modify Existing DI, Modify Existing structure to accept 15" pipe, Connect UD-4 to structure
	9-11	-	-	-	-	5.9	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	St'd.IS-1 Required
	9-11-9-12	6	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-12	-	-	-	-	9.7	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required
	9-12-Ex95Junc.	7	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-14	-	-	-	-	5.0	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Connect UD-4 to Structure, St'd.IS-1 Required
	9-14-9-15	41	-	-	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9-15	-	-	-	-	4.6	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	Connect to Existing 15" storm sewer pipe, St'd.IS-1 Required
	9-15-Ex.97	-	33	-	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SUBTOTAL - SHEET	492	62	-	554	90	3	1	1	1	1	-	1	-	-	2	1	-	4	1	-	-	1	-	-	-	-	

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2K(4)

Rinker Design Associates, P.C.
Civil Engineering • Surveying • Land Planning
Transportation • Environmental
Right of Way Services
Office Locations
NORTHERN VIRGINIA DISTRICT
8/20/2014

Rinker Design Associates, P.C.
Civil Engineering · Surveying · Land Planning · Transportation · Environmental · Right-of-Way Services
Office Locations
927 Maple Grove Drive, Suite 105, Fredericksburg, VA 22407, Phone: (540) 548-4470, Fax: (540) 548-4471

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

DRAINAGE SUMMARY

REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2K(5)

DRAINAGE SUMMARY

PROJECT NUMBER	DRAINAGE LOCATION	STORM SEWER PIPE: STORM SEWER PIPE 15"	STORM SEWER PIPE 18"	STORM SEWER PIPE 24"	POST CONSTR. INSPECTION STORM SEWER PIPE	DROP INLETS: HEIGHT OF STRUCTURE	DROP INLET DI-2B, L=4'	DROP INLET DI-2B, L=6'	DROP INLET MOD. DI-2B, L=6'	DROP INLET DI-2B, L=8'	DROP INLET MOD. DI-2B, L=8'	DROP INLET DI-2B, L=10'	DROP INLET DI-2B, L=12'	DROP INLET DI-2BB, L=8'	DROP INLET DI-2C, L=6'	DROP INLET DI-2C, L=8'	DROP INLET DI-2CC, L=6'	DROP INLET DI-2CC, L=8'	DROP INLET DI-3A, L=2.5'	DROP INLET DI-3B, L=8'	DROP INLET DI-3B, L=10'	DROP INLET DI-3B, L=12'	DROP INLET DI-3C, L=8'	DROP INLET DI-3C, L=10'	DROP INLET DI-3E, L=8'	DROP INLET DI-1	FRAME & COVER MH-1
		1156	1186	1246	700		6747	6748	6748	6749	6749	6750	6751	6758	6765	6766	6773	6774	6815	6819	6820	6821	6836	6837	6855	6740	9057
	NUMBER	L.F.	L.F.	L.F.	LF	FT	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.
0029-151-108, C-501	Sheet 4	216	108	-	324	-	-	1	-	2	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	-	1
	Sheet 5	449	70	68	587	56	-	-	-	1	-	1	1	1	1	-	-	-	1	1	2	1	-	2	1	1	1
	Sheet 6	66	-	-	66	5	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sheet 7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sheet 8	10	-	-	10	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sheet 9	416	62	-	478	-	3	1	-	1	-	-	-	-	-	2	1	-	4	1	-	-	1	-	-	-	-
PROJECT GRAND TOTAL		1,157	240	68	1,465	-	3	2	1	4	1	1	2	1	1	3	1	1	5	3	2	1	1	2	1	1	2

DRAINAGE QUANTITIES

PROJECT NUMBER	NS REMOVE EXISTING PIPE	NS REMOVE EXISTING STRUCTURE	PIPE TO BE CLEANED	EX. PIPE TO BE PLUGGED AND ABANDONED	FLOWABLE BACKFILL	CLASS A3 CONCRETE PLUG
	24501	24702	-	-	529	525
	L.F.	EA.	L.F.	LF	CY	CY
0029-151-108, C-501	285	19	234	232	11	1

NORTHERN VIRGINIA DISTRICT

8/20/2014

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UNDERGROUND UTILITY TEST HOLE INFORMATION

REVISED	STATE	FEDERAL AID PROJECT OWNER	STATE ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	2L

PLAN SHEET	TEST HOLE	DISTANCE (FEET)	(1) STATION & ROADWAY	OWNER	TYPE OF FACILITY	(2) ELEV. (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	UTILITY (5) ADJUSTMENT REQUIRED
-	-	-	-	-	-	-	-	-	-
4	TH1	52	47+35 Lee Highway	2, 5	3 - 1 3/4" CONDUIT	447.08	No	4.02 ft of Horizontal Clearance	No
4	TH2	52	48+02 Lee Highway	3	1 1/2" GAS LINE	447.30	Yes	Conflict with proposed Storm Pipe	Yes
4	TH3	53	49+21 Lee Highway	2, 5	3 - 1 3/4" COMMUNICATION CONDUIT	440.44	Yes	Conflict with proposed Retaining Wall	Yes
4	TH4	52	50+82 Lee Highway	2, 5	3 - 1 3/4" COMMUNICATION CONDUIT	435.02	Yes	Conflict with proposed Retaining Wall	Yes
5	TH5	51	52+26 Lee Highway	2	25" COMMUNICATION DUCTBANK	425.63	Yes	Conflict with proposed Drainage Structure 5-8	Yes
5	TH6	82	24+32 Fairfax Boulevard	2, 5	3 - 1 3/4" COMMUNICATION CONDUIT	431.31	No	Design ties to existing ground	No
5	TH7	48	24+17 Fairfax Boulevard	2	27" ELECTRIC DUCTBANK	427.78	No	Project ties to existing condition	No
8	TH8	49	16+99 Fairfax Boulevard	3	6 3/4" GAS LINE	454.51	No	4.22 ft of Horizontal Clearance	No
8	TH9	48	19+49 Fairfax Boulevard	1	4 - 1" ELECTRIC DUCTBANK	448.16	Yes	Conflict with proposed Drainage Structure 8-1	Yes
8	TH10	49	22+04 Fairfax Boulevard	3	6 3/4" GAS LINE	438.07	Yes	Conflict with Unsuitable Materials	Yes
5	TH11	48	23+96 Fairfax Boulevard	3	6 3/4" GAS LINE	429.69	No	3.62 ft of Horizontal Clearance	No
5	TH12	49	26+24 Fairfax Boulevard	4	8 3/4" WATER LINE	417.33	Yes	Conflict with proposed Storm Pipe	Yes
5	TH13	59	26+71 Fairfax Boulevard	2, 5	3 - 1 3/4" CONDUIT	416.69	Yes	Conflict with proposed Drainage Structure 5-19	Yes
5	TH14	54	55+60 Route 29/50	4	2 1/2" WATER LINE	415.62	Yes	Conflict with proposed Storm Pipe	Yes
5	TH15	48	56+29 Route 29/50	2	23" COMMUNICATION DUCTBANK	415.02	Yes	Protect during construction of proposed Drainage Structure 5-20 2.82 ft of Horizontal Clearance	No
5	TH16	60	57+45 Route 29/50	2, 5	TELEPHONE CONDUIT (F.O.)	404.21	Yes	Utility has clearance but is horizontally below Storm Pipe & Str.'s 4.91 ft of Vertical Clearance	No
5	TH17	46	57+45 Route 29/50	2	17" COMMUNICATION DUCTBANK	410.52	Yes	Protect during construction of proposed Drainage Structure 5-22 Minimal Clearance	No
6	TH18	57	58+51 Route 29/50	2, 5	3 - 2" COMMUNICATION CONDUIT	408.43	Yes	Str. 5-21 through 5-26 is above conduit	Yes
6	TH19	61	59+63 Route 29/50	4	8 1/2" WATER LINE	414.34	No	5.52 ft of Vertical Clearance	No
6	TH20	49	60+17 Route 29/50	2, 5	3 - 2" COMMUNICATION CONDUIT	416.33	No	Project ties to existing ground	No

SUBSURFACE UTILITY OWNERS
MISS UTILITY 1-800-257-7777

(1) Dominion Virginia Power
171 Elden Street
Herndon, VA 20170
Contact: Verna Love
Office: (703) 375-5978
Email: Verna.Love@dom.com

(2) Verizon Virginia, Inc.
22001 Loudoun County Parkway
2nd Floor, Room C1-2-552
Ashburn, Va. 20147
Contact: William J. Suter, Jr.
Office: (703) 886-6487
Email: William.J.Suter.Jr@verizon.com

(3) Washington Gas
6801 Industrial Road
Springfield, VA 22151
Contact: Allan G. Melliza
Office: (703) 750-4256
Email: amelliza@washgas.com

(4) Fairfax Water
8560 Arlington Blvd.
Fairfax, VA 22031
Contact: Robert Cotten
Office: (703) 289-6310
Email: rcotten@fairfaxwater.org

(5) AT&T Corporation
4900 Winchester Boulevard
Frederick, MD 21703
Contact: Gary Wigfield
Office: (301) 874-1180
Email: gwigfield@ems.att.com

NOTE: Unless Otherwise Noted, Utility Line Limits Depicted Represent Field Designating Limits And Not Endpoints Of Utilities.

NOTES:

(1) ALL TEST HOLES ARE REFERENCED FROM THE CONSTRUCTION BASELINE UNLESS OTHERWISE NOTED.

(2) ELEVATIONS SHOWN HEREON ARE TO THE TOP OF THE FACILITY UNLESS OTHERWISE NOTED.

(3) YES OR NO: NO INDICATES NO DIRECT CONFLICT. HOWEVER, CLEARANCE MAY BE LESS THAN ACCEPTABLE TO UTILITY OWNER.

(4) REMARKS TO INCLUDE CLEARANCE DIMENSION (REGARDLESS OF DISTANCE).

(5) YES OR NO: INFORMATION TO BE PROVIDED BY THE CITY OF FAIRFAX OR VDOT DISTRICT UTILITY ENGINEER.

Utilities Legend

Symbol	Description
W	Water Line
	Water Valve
	Fire Hydrant
CATV	Underground Television Cable
T/Tg	Underground Telephone Cable
T/Tg Duct	Underground Telephone Cable Duct
FO	Underground Fiber Optic
	Telephone Manhole
	Traffic Signal Pole
E	Underground Power Cable
E Duct	Underground Power Cable Duct
	Power Pole
	Light Pole
G	Gas Line
G▷	Gas Valve
	Sanitary Manhole
E	Utility End Point
Unk	Unknown Utility Line

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

NORTHERN VIRGINIA DISTRICT

8/20/2014

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	2L