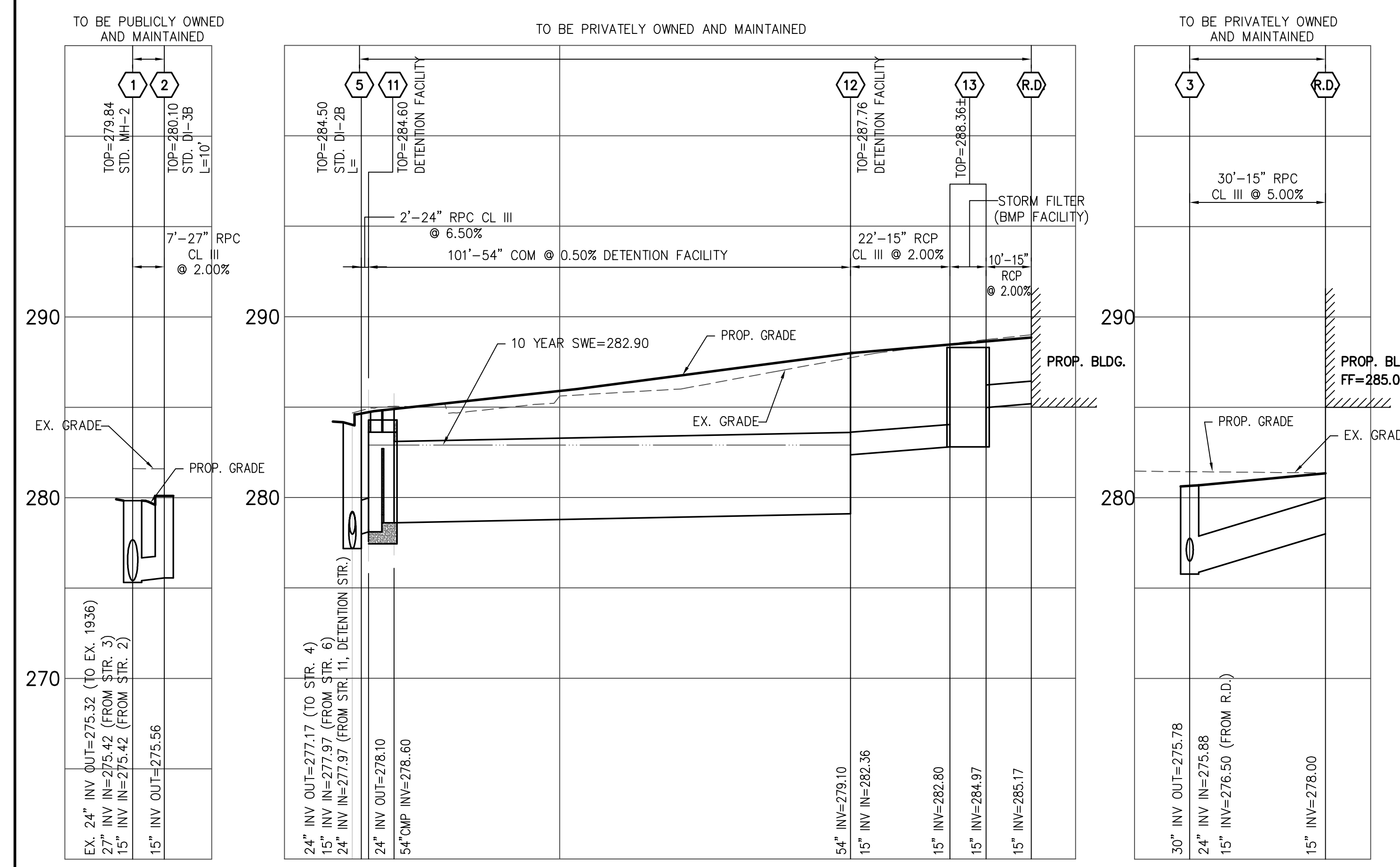


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STORM SEWER DESIGN COMPUTATIONS

FROM POINT	TO POINT	AREA "A" ACRES	RUN-OFF COEF. C	CA INCR. ACCUMULATED	INLET TIME MIN	RAIN FALL IN/HR	RUNOFF Q ACCUMULATED C.F.S.	INVERT ELEVS		LENGTH FT.	SLOPE FT./FT.	MANNING'S 'n'	DIA. IN.	CAPACITY C.F.S.	VEL. F.P.S.	FLOW TIME SEC.	NORMAL DEPTH IN.	
								UPPER END	LOWER END									
13	12	1.05	0.90	0.95	5.00	7.27	6.87	282.80	282.36	22	0.0200	0.013	15	9.09	8.19	2.7	9.7	
12	11	0.00	0.00	0.00	0.95	5.00	7.27	279.10	278.60	101	0.0050	0.013	54	-	-	-	-	
11	5	0.00	0.00	0.00	0.95	5.00	7.27	278.10	277.97	2	0.0650	0.013	24	57.51	10.31	0.2	4.1	
10	9	0.60	0.89	0.53	5.00	7.27	3.88	287.20	285.70	39	0.0385	0.013	15	12.61	9.10	4.3	5.7	
9	8	0.00	0.00	0.00	0.53	5.00	7.27	285.60	283.80	51	0.0353	0.013	15	12.08	8.81	5.8	5.8	
8	7	0.75	0.90	0.68	1.21	5.00	7.27	283.70	281.90	60	0.0300	0.013	15	11.14	10.12	5.9	10.0	
7	6	0.00	0.00	0.00	1.21	5.00	7.27	281.80	281.40	11	0.0364	0.013	15	12.26	10.93	1.0	9.3	
6	5	0.06	0.88	0.05	1.26	5.00	7.27	281.30	277.27	95	0.0424	0.013	15	13.25	11.72	8.1	9.1	
5	4	0.06	0.86	0.05	2.26	5.00	7.27	276.66	276.66	101	0.0050	0.013	24	16.03	5.73	17.6	16.6	
4	3	0.00	0.00	0.00	2.26	5.00	7.27	276.56	275.88	135	0.0050	0.013	24	16.01	5.72	23.6	16.6	
3	1	0.60	0.90	0.54	2.80	5.00	7.27	275.78	275.42	72	0.0050	0.013	30	28.94	6.17	11.7	16.6	
2	1	0.32	0.81	0.26	0.26	5.00	7.27	275.56	275.42	7	0.0200	0.013	15	9.09	5.87	1.2	4.6	
1	1936	0.00	0.00	0.00	3.06	5.00	7.27	19.05	275.32	274.23	102	0.0107	0.013	24	23.32	8.32	12.3	16.4

* THE DISCHARGE FROM STRUCTURE 11 IS CONTROLLED BY THE DETENTION VAULT RELEASE RATE. SEE SHEET C-0704 FOR ROUTING CALCULATIONS.

STORM SEWER INLET COMPUTATIONS

NUMBER	INLET TYPE	LENGTH (FT.)	STATION	DRAINAGE AREA (AC.)	C	CA	Σ CA	Intensity	Q INCR. (CFS)	Q ₁ CARRYOVER (CFS)	Q ₂ GUTTERFLOW (CFS)	S ₁ GUTTER SLOPE (FT/FT)	S ₂ GROSS SLOPE (FT/FT)	T ₁ (SPREAD)	W (FT)	W/T	S _w (FT/FT)	S _w S _x	E ₀ (App. 9C-8)	a = 12W(S _w S _x + LOCAL DEPRESSION)	S = a/(12W)	Se = S ₁ + S ₂ W(E ₀) (FT/FT)	COMPUTED LENGTH, Lt (FT) (App. 9C-17)	L _s SPECIFIED LENGTH (FT)	L/L _s	E (App. 9C-18)	Q ₁ INTERCEPTED (CFS)	Q ₂ CARRYOVER (CFS)	SAG INLETS ONLY			
																													d (FT)	h (FT)	d/h	T ₁ SPREAD @ SAG (FT)
1	DI-3B	10	-	0.32	0.81	0.26	0.26	7.27	1.88	0.00	1.88	0.005	0.020	8.96	1.50	0.17	0.08	4.17	-	-	-	-	-	10	-	-	1.88	0.00	0.16	0.46	0.349	8.00
2	DI-2B	4	-	0.06	0.88	0.05	0.05	7.27	0.38	0.00	0.38	0.027	0.020	1.80	1.50	0.83	0.08	4.17	-	-	-	-	-	4	-	-	0.38	0.00	0.08	0.46	0.175	4.00
3	DI-2B	4	-	0.06	0.88	0.05	0.05	7.27	0.38	0.25	0.63	0.034	0.020	2.80	1.50	0.54	0.08	4.17	-	-	-	-	-	4	-	-	0.63	0.00	0.12	0.46	0.262	6.00
4	DI-2B	16	-	0.75	0.9	0.68	0.68	7.27	4.91	0.27	5.18	0.041	0.046	5.37	1.50	0.28	0.08	1.81	0.68	2.67	0.15	0.15	19.65	16	0.81	0.952	4.93	0.25	-	-	-	-
5	DI-3B	12	-	0.6	0.89	0.53	0.53	7.27	3.88	0.00	3.88	0.027	0.050	4.78	2.00	0.42	0.08	1.67	0.81	2.80	0.12	0.14	15.51	12	0.77	0.931	3.61	0.27	-	-	-	-

NOTE:
STREET TREE UNDER-DRAINS TO BE CONNECTED TO PROPOSED STORM SEWER STRUCTURES.

STORM SEWER PROFILES

THE RESERVE AT TINNERS HILL

CITY OF FALLS CHURCH, VIRGINIA

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ESTABLISHED 1945
INCORPORATED
DATE: 6/21/13
KAREN L. S. WHITE
Lic. No. 04-850
6/21/13

SCALE: H: 1"=20'
V: 1"=5'

DATE
APPROVED
REV. BY

NO. DESCRIPTION

REVISION APPROVED BY

DATE REV. BY

CHECKED: MMJ

DRAWN: MMJ