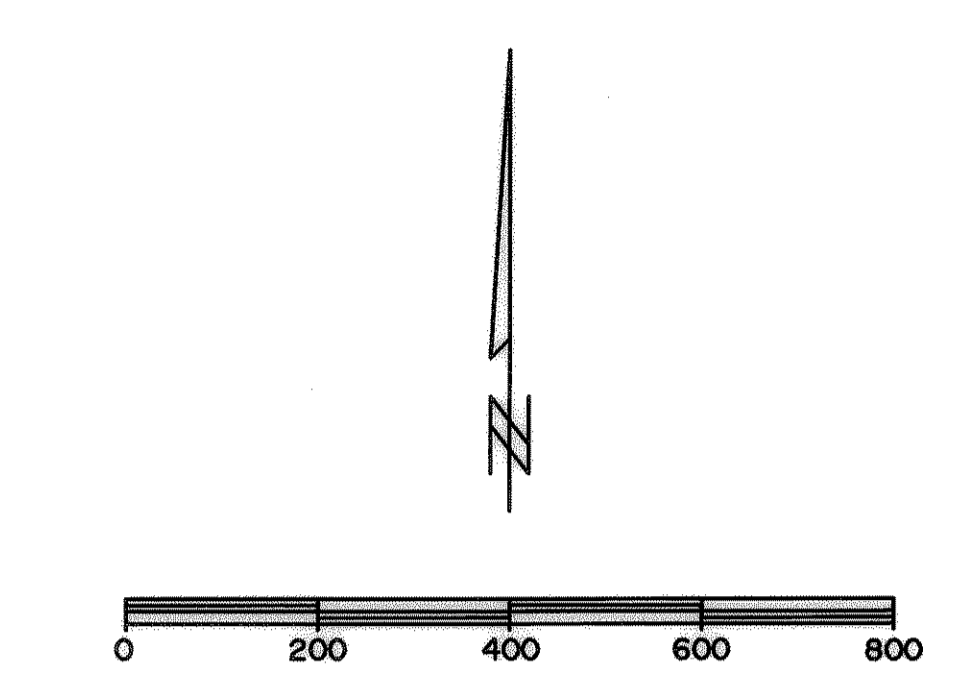
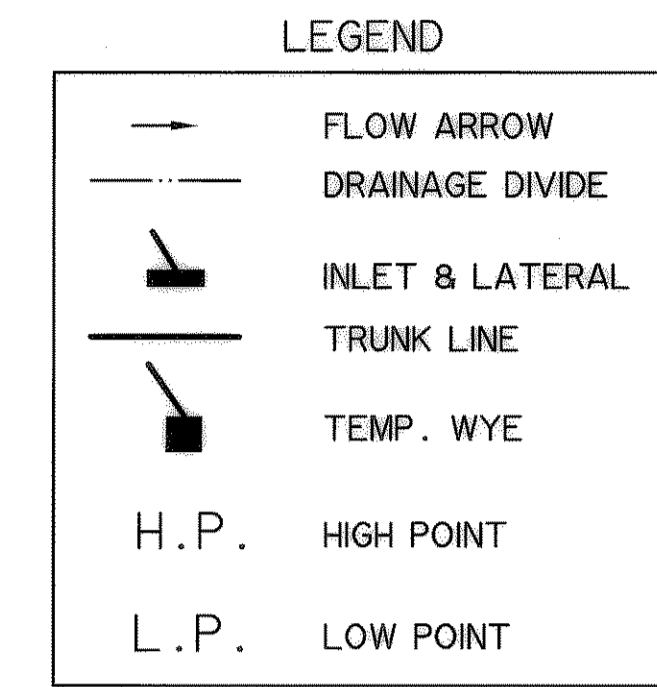


TIME 10:18 FILE: DAMAP-Revise 5Jan2005.dwg



BENCHMARKS:
 CITY MON. NO. 2
 LOCATED ON THE NORTHWEST CORNER
 OF THE BRIDGE @ I-30 AND F.M. 549
 ELEVATION 609.56
 "T" CUT IN THE CENTER OF A 4 FOOT
 HEADWALL LOCATED AT THE NORTHEAST
 CORNER OF F.M. 549 AND STATE
 HIGHWAY 276
 ELEVATION 592.75



DRAINAGE AREA CALCULATIONS

AREA DESIGNATION	AREA (ACRES)	INDUSTRIAL C.O.F.	INDIVIDUAL C.O.F.	TIME OF CONC (MIN.)	100 (CFS)	125 (CFS)	150 (CFS)	200 (CFS)	250 (CFS)	300 (CFS)	REMARKS
A-1	1.11	-.7	0.78	10	9.8	8.4	7.4	7.6	6.5	5.7	
A-2	0.48	-.7	0.54	10	9.8	8.4	7.4	3.3	2.8	2.5	
A-3	2.13	-.7	1.49	10	9.8	8.4	7.4	14.6	12.5	11.0	CROSSES ROAD IN RCP STRUCTURE
A-4	0.38	-.7	0.41	10	9.8	8.4	7.4	4.0	3.4	3.0	
A-5	1.10	-.7	0.77	10	9.8	8.4	7.4	7.5	6.5	5.7	
A-6	1.84	-.7	1.29	10	9.8	8.4	7.4	15.6	10.8	9.5	
A-7	0.68	-.7	0.46	10	9.8	8.4	7.4	4.7	4.0	3.5	
A-8	0.69	-.7	0.48	10	9.8	8.4	7.4	4.7	4.1	3.6	
A-9	0.85	-.7	0.45	10	9.8	8.4	7.4	4.5	3.8	3.4	
A-10	0.99	-.7	0.69	10	9.8	8.4	7.4	6.8	5.8	5.1	
A-11	1.44	-.7	1.01	10	9.8	8.4	7.4	9.9	6.5	7.5	
A-11a	1.74	-.7	1.22	10	9.8	8.4	7.4	11.9	10.2	9.0	
A-12	0.57	-.7	0.40	10	9.8	8.4	7.4	3.9	3.4	3.0	
A-13	0.57	-.7	0.40	10	9.8	8.4	7.4	3.9	3.4	3.0	
A-13a	0.59	-.7	0.41	10	9.8	8.4	7.4	4.0	3.5	3.1	
A-14	0.98	-.7	0.69	10	9.8	8.4	7.4	6.7	5.9	5.1	
A-15	0.39	-.7	0.27	10	9.8	8.4	7.4	2.7	2.3	2.0	
A-16	6.41	-.7	4.49	10	9.8	8.4	7.4	44.0	37.7	33.2	
A-17	2.03	-.7	1.42	10	9.8	8.4	7.4	13.9	11.9	10.5	
A-18	0.35	-.7	0.24	10	9.8	8.4	7.4	2.4	2.1	1.8	
A-19	0.17	-.7	0.12	10	9.8	8.4	7.4	1.2	1.0	0.9	
A-20	1.98	-.7	1.39	10	9.8	8.4	7.4	13.6	11.6	10.3	
A-21	2.80	-.7	1.96	10	9.8	8.4	7.4	19.2	16.5	14.5	
TOTAL	32.27							227.7	178.0	168.6	
B-1	3.66	-.7	2.56	10	9.8	8.4	7.4	23.1	21.5	19.0	CROSSES ROAD IN RCP STRUCTURE
B-2	11.39	-.7	7.97	10	9.8	8.4	7.4	79.1	67.0	59.0	CROSSES ROAD IN RCP STRUCTURE
B-3	3.12	-.7	2.17	10	9.8	8.4	7.4	21.4	19.3	16.2	
B-3a	2.29	-.7	1.60	10	9.8	8.4	7.4	15.7	13.5	11.9	
B-4	1.76	-.7	1.23	10	9.8	8.4	7.4	12.1	10.3	9.1	
B-5	0.33	-.7	0.23	10	9.8	8.4	7.4	2.3	1.9	1.7	
B-6	0.31	-.7	0.22	10	9.8	8.4	7.4	2.1	1.8	1.6	
B-7	0.44	-.7	0.31	10	9.8	8.4	7.4	3.0	2.6	2.3	
B-8	1.00	-.7	0.70	10	9.8	8.4	7.4	6.9	5.9	5.2	
B-9	0.27	-.7	0.19	10	9.8	8.4	7.4	1.9	1.6	1.4	
B-10	0.27	-.7	0.19	10	9.8	8.4	7.4	1.9	1.6	1.4	
B-11	1.63	-.7	1.15	10	9.8	8.4	7.4	11.2	9.6	8.4	
B-12	2.56	-.7	1.79	10	9.8	8.4	7.4	17.6	15.1	13.3	
B-13	2.12	-.7	1.48	10	9.8	8.4	7.4	14.5	12.5	11.0	
B-13a	0.33	-.7	0.23	10	9.8	8.4	7.4	2.3	1.9	1.7	
B-14	0.98	-.7	0.41	10	9.8	8.4	7.4	4.0	3.4	3.0	
B-15	0.27	-.7	0.19	10	9.8	8.4	7.4	1.9	1.6	1.4	
B-16	0.32	-.7	0.22	10	9.8	8.4	7.4	2.2	1.9	1.7	
B-17	1.60	-.7	1.12	10	9.8	8.4	7.4	11.0	9.4	8.3	
B-18	0.99	-.7	0.69	10	9.8	8.4	7.4	6.8	5.9	5.1	
B-19	0.35	-.7	0.24	10	9.8	8.4	7.4	2.4	2.1	1.8	
B-20	0.93	-.7	0.65	10	9.8	8.4	7.4	6.4	5.5	4.8	
TOTAL	36.72		0.69					245.5	210.4	185.4	
C-1	1.26	-.7	0.89	10	9.8	8.4	7.4	8.6	7.4	6.5	DRAINS TO EXISTING TXDOT S.D. SYSTEM
C-2	0.84	-.7	0.59	10	9.8	8.4	7.4	5.9	4.9	4.3	
C-3	.43	-.7	0.30	10	9.8	8.4	7.4	2.9	2.5	2.2	DRAINS TO EXISTING TXDOT S.D. SYSTEM
C-4	.12	-.7	0.08	10	9.8	8.4	7.4	0.8	0.7	0.6	DRAINS TO EXISTING TXDOT S.D. SYSTEM
D-1	13.94	-.7	9.76	10	9.8	8.4	7.4	93.6	82.0	72.9	DRAINS TO EXISTING TXDOT S.D. SYSTEM
D-2	31.07	-.7	21.75	10	9.8	8.4	7.4	213.1	182.7	160.9	DRAINS TO EXISTING TXDOT S.D. SYSTEM
D-3	5.32	-.7	3.72	10	9.8	8.4	7.4	36.5	31.3	27.6	DRAINS TO EXISTING TXDOT S.D. SYSTEM
D-4	9.59	-.7	6.71	10	9.8	8.4	7.4	63.8	56.4	49.7	DRAINS FROM LOT 4, BLOCK C
D-5	0.94	-.9	0.65	10	9.8	8.4	7.4	6.3	7.1	6.3	DRAINS DIRECTLY TO DETENTION POND
D-6	4.25	-.7	2.97	10	9.8	8.4	7.4	29.2	25.0	22.0	DRAINS DIRECTLY TO DETENTION POND
D-7	4.84	-.7	3.39	10	9.8	8.4	7.4	33.2	28.5	25.1	DRAINS DIRECTLY TO DETENTION POND
D-7a	5.22	-.7	3.65	10	9.8	8.4	7.4	35.8	30.7	27.0	
D-7b	1.43	-.5	0.72	10	9.8	8.4	7.4	7.1	6.0	5.3	DETENTION POND "B" (OPEN AREA)

- NOTES:**
- DRAINAGE AREAS C-1, C-3, D-2 & D-3 DRAIN TO EXISTING TXDOT SYSTEMS.
 - THE INTERIOR UNDERGROUND STORM SYSTEM IS DESIGNED FOR THE 100 YR. STORM EVENT. CAPACITY OF R.O.W. PLUS THE SYSTEM IS SUFFICIENT TO CONVEY THE 100 YR. STORM EVENT.
 - OUTLET WORKS OF DETENTION POND ARE DESIGNED FOR NON-GATED RELEASE OF RESIDENTIAL FLOW. RESIDENTIAL FLOW, C(factor) = 0.5.
 - DRAINAGE AREA D-3 DRAINS TO AN EXISTING ROADWAY DITCH. THE DEVELOPER OF THIS PROPERTY WILL BE REQUIRED TO ADDRESS INCREASING RUNOFF TO THE EXISTING DRAINAGE SYSTEM.
 - DRAINAGE AREA D-2 DRAINS TO AN EXISTING TXDOT STRUCTURE. THE DEVELOPER OF THIS PROPERTY WILL BE REQUIRED TO ADDRESS INCREASED RUN OFF TO THIS STRUCTURE.
 - DRAINAGE AREA D-1 CURRENTLY DRAINS TO A SWAIL THAT CONVERGES WITH THE EXISTING CREEK TO THE NORTH. THE DEVELOPER OF THIS PROPERTY WILL BE RESPONSIBLE FOR ADDRESSING INCREASING RUNOFF.
 - DRAINAGE AREA D-4 CURRENTLY DRAINS TO AN EXISTING CREEK BY SHEET FLOW. THE DEVELOPER OF THIS PROPERTY WILL BE RESPONSIBLE FOR ADDRESSING INCREASING RUNOFF.
 - DRAINAGE AREA D-5 CURRENTLY DRAINS TO THE EXISTING CREEK WEST OF THE PROPERTY. DETENTION POND A IS SIZED TO ALLOW FUTURE DEVELOPED FLOWS FROM THIS AREA.
 - DRAINAGE AREAS D-6 AND D-7 WILL DRAIN DIRECTLY INTO ON SITE DETENTION POND IN THE TEMPORARY AND FUTURE CONDITIONS.

$Q_5^* = C_5A$ $Q_{100}^* = C_{100}A$
 $= .6(6)(14.04)$ $= .6(9.8)(14.04)$
 $= 50.5 \text{ cfs}$ $= 82.5 \text{ cfs}$

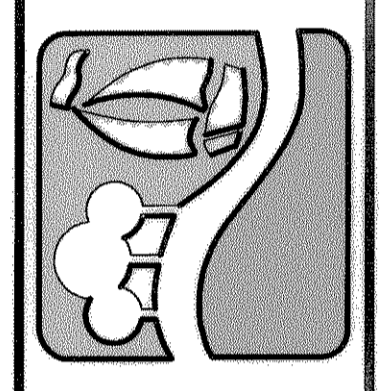
* HYDROLOGY INFORMATION TAKEN FROM TXDOT PLANS FOR CONSTRUCTION OF S.H. 276 DATED 1968.

* SEE NOTES

REVISED CALCULATIONS AND ANALYSIS OF DRAINAGE AREAS D-4, D-4a, D-7 AND D-7a FOR POND B REVISIONS

SHEET REVISED AS AMENDMENT TO ROCKWALL TECHNOLOGY PARK 15 FEB 2005

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ROCKWALL TECHNOLOGY PARK

DRAINAGE AREA MAP



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