

FILE: DAMAP- Revised 5Jan2005.dwg

$$Q_5 = C_5 A = .6(6)(14.04) = 50.5 \text{ cfs}$$

$$Q_{100} = C_{100} A = .6(9.8)(14.04) = 82.5 \text{ cfs}$$

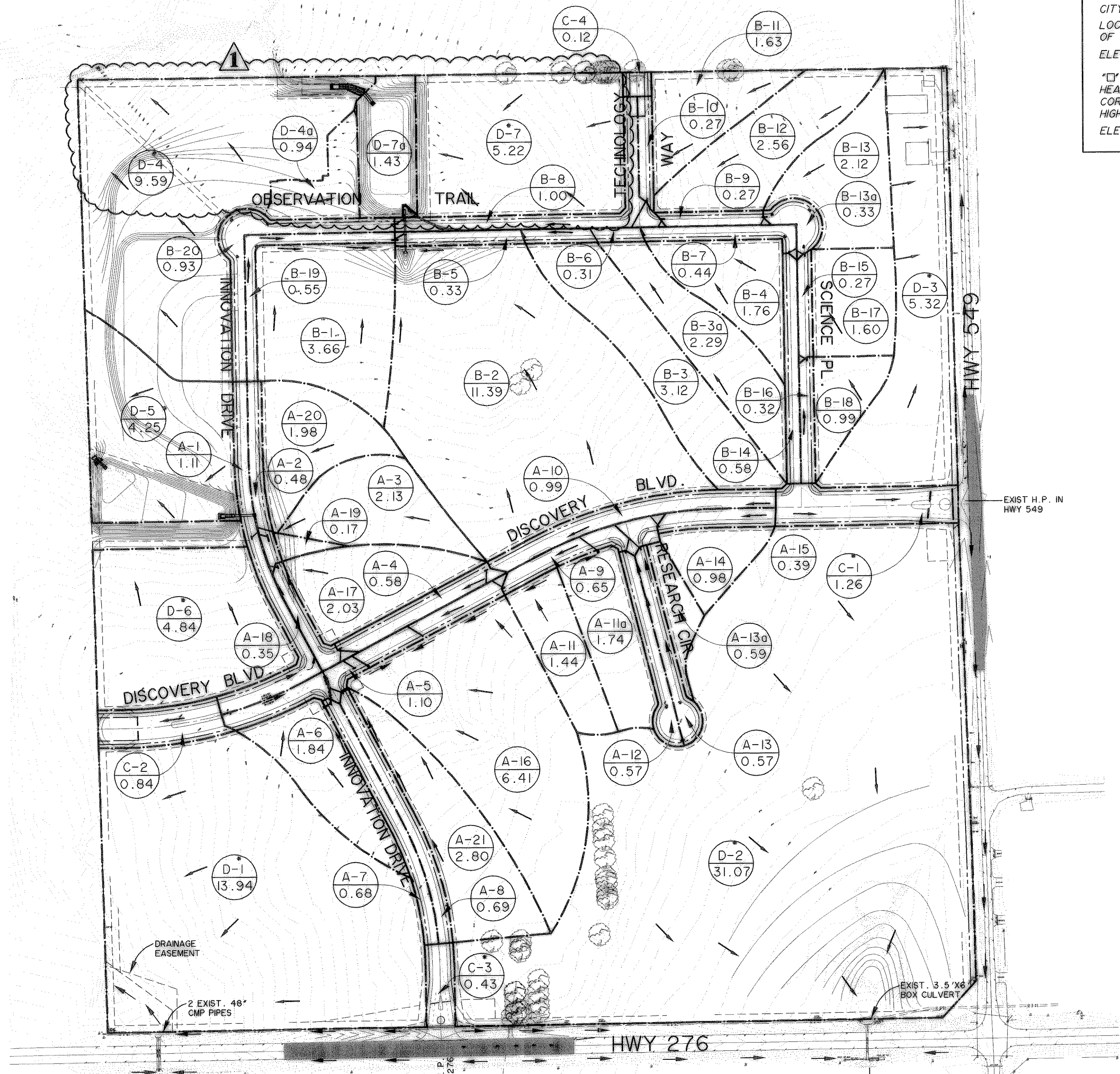
\* HYDROLOGY INFORMATION TAKEN FROM TXDOT PLANS FOR CONSTRUCTION OF S.H. 276 DATED 1968.

\* SEE NOTES

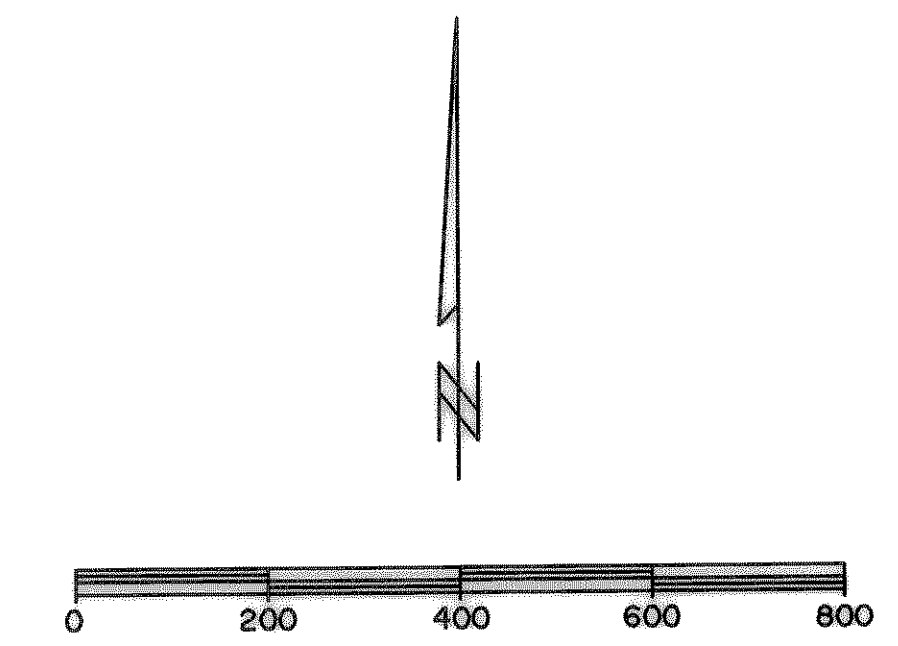
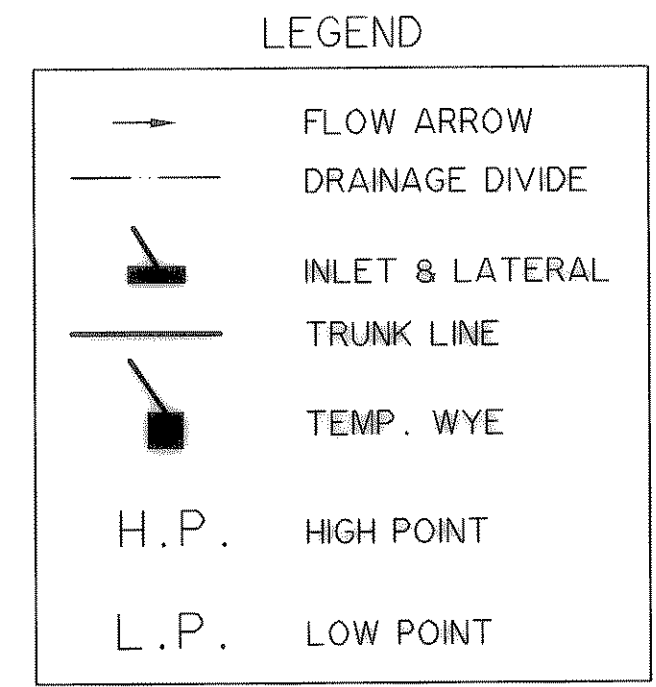
**RECORD DRAWING**  
**12/21/05**

REVISOR: 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**



**BENCHMARKS:**  
CITY MON. NO. 2  
LOCATED ON THE NORTHWEST CORNER OF THE BRIDGE @ I-30 AND F.M. 549  
ELEVATION 609.56  
"C" 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

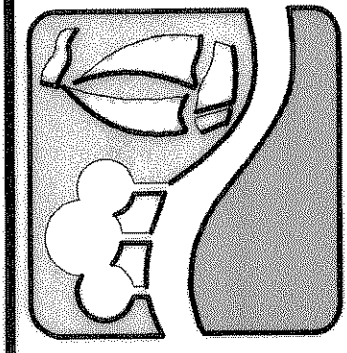


**DRAINAGE AREA CALCULATIONS**

AREA DESIGNATION	AREA (ACRES)	INDUSTRIAL	INDIVIDUAL	TIME OF CONC. (MIN.)	100 (IN/HR)	10 (IN/HR)	100 (IN/HR)	10 (IN/HR)	100 (IN/HR)	10 (IN/HR)	REMARKS
A-1	1.11	-	0.78	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-2	0.48	-	0.34	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-3	2.13	-	1.49	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-4	0.58	-	0.41	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-5	1.10	-	0.77	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-6	1.84	-	1.29	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-7	0.68	-	0.48	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-8	0.89	-	0.48	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-9	0.65	-	0.45	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-10	0.99	-	0.69	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-11	1.44	-	1.01	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-12	1.74	-	1.22	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-13	0.57	-	0.40	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-14	0.98	-	0.41	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-15	0.39	-	0.27	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-16	4.41	-	4.49	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-17	2.03	-	1.42	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-18	0.35	-	0.24	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-19	0.17	-	0.22	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-20	1.98	-	1.39	10	9.8	8.4	7.4	7.4	6.5	5.7	
A-21	2.80	-	1.96	10	9.8	8.4	7.4	7.4	6.5	5.7	
TOTAL	50.27	-	-	-	-	-	-	-	-	-	
B-1	3.68	-	2.56	10	9.8	8.4	7.4	7.4	6.5	5.7	CROSSES ROAD IN RCP STRUCTURE
B-2	11.39	-	7.97	10	9.8	8.4	7.4	7.4	6.5	5.7	CROSSES ROAD IN RCP STRUCTURE
B-3a	2.29	-	1.60	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-4	1.76	-	1.23	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-5	0.33	-	0.23	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-6	0.31	-	0.22	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-7	0.44	-	0.31	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-8	1.00	-	0.70	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-9	0.27	-	0.19	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-10	0.27	-	0.19	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-11	1.63	-	1.46	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-12	2.56	-	1.79	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-13	2.12	-	1.48	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-14	0.33	-	0.23	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-15	0.58	-	0.41	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-16	0.27	-	0.19	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-17	0.32	-	0.22	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-18	1.60	-	1.12	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-19	0.99	-	0.69	10	9.8	8.4	7.4	7.4	6.5	5.7	
B-20	0.93	-	0.65	10	9.8	8.4	7.4	7.4	6.5	5.7	
TOTAL	36.72	-	-	-	-	-	-	-	-	-	
C-1	1.26	-	0.88	10	9.8	8.4	7.4	7.4	6.5	5.7	DRAINS TO EXISTING TXDOT S.D. SYSTEM
C-2	0.84	-	0.59	10	9.8	8.4	7.4	7.4	6.5	5.7	
C-3	0.43	-	0.30	10	9.8	8.4	7.4	7.4	6.5	5.7	DRAINS TO EXISTING TXDOT S.D. SYSTEM
D-1	13.94	-	9.76	10	9.8	8.4	7.4	7.4	6.5	5.7	DRAINS TO EXISTING TXDOT S.D. SYSTEM
D-2	31.07	-	21.75	10	9.8	8.4	7.4	7.4	6.5	5.7	DRAINS TO EXISTING TXDOT S.D. SYSTEM
D-3	5.59	-	3.72	10	9.8	8.4	7.4	7.4	6.5	5.7	DRAINS TO EXISTING TXDOT S.D. SYSTEM
D-4	0.94	-	0.65	10	9.8	8.4	7.4	7.4	6.5	5.7	DRAINS FROM LOT 4, BLOCK C
D-4a	4.23	-	2.97	10	9.8	8.4	7.4	7.4	6.5	5.7	DRAINS DIRECTLY TO DETENTION POND
D-7	4.84	-	3.39	10	9.8	8.4	7.4	7.4	6.5	5.7	DRAINS DIRECTLY TO DETENTION POND
D-7a	5.22	-	3.65	10	9.8	8.4	7.4	7.4	6.5	5.7	DRAINS DIRECTLY TO DETENTION POND
D-7b	1.43	-	0.72	10	9.8	8.4	7.4	7.4	6.5	5.7	DETENTION POND "B" (OPEN AREA)

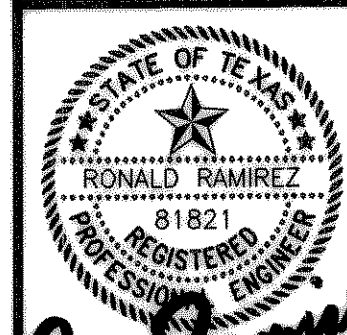
- NOTES:**
- DRAINAGE AREAS C-1, C-3, D-2 & D-3 DRAIN TO EXISTING TXDOT SYSTEMS.
  - THE INTERIOR UNDERGROUND STORM SYSTEM IS DESIGNED FOR THE 100 YR. STORM EVENT. CAPACITY OF R.O.W. PLUS THE SYSTEM IS SUFFICIENT TO CONVEY THE 100 YR. STORM EVENT.
  - OUTLET WORKS OF DETENTION POND ARE DESIGNED FOR NON-GATED 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.

PREPARED BY:  
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**ROCKWALL TECHNOLOGY PARK**

**DRAINAGE AREA MAP**



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