

DETENTION AREA CALCULATIONS

PREDEVELOPED TIME OF CONCENTRATION = 20'

C = 0.35
A = 5.57
I₁₀₀ = 8.3
I₂₅ = 6.7
I₁₀ = 5.9

Q ALLOWABLE:

YRS.	C	I	A	PREDEVELOPED Q
100	0.35	8.3	5.57	16.18
25	0.35	6.7	5.57	13.06
10	0.35	5.9	5.57	11.50

REQUIRED STORAGE FOR DETENTION Q=CIA

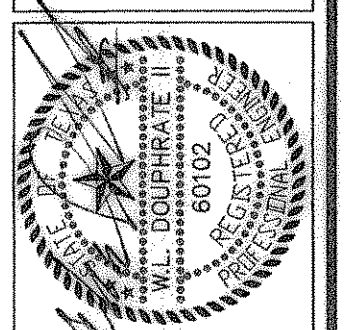
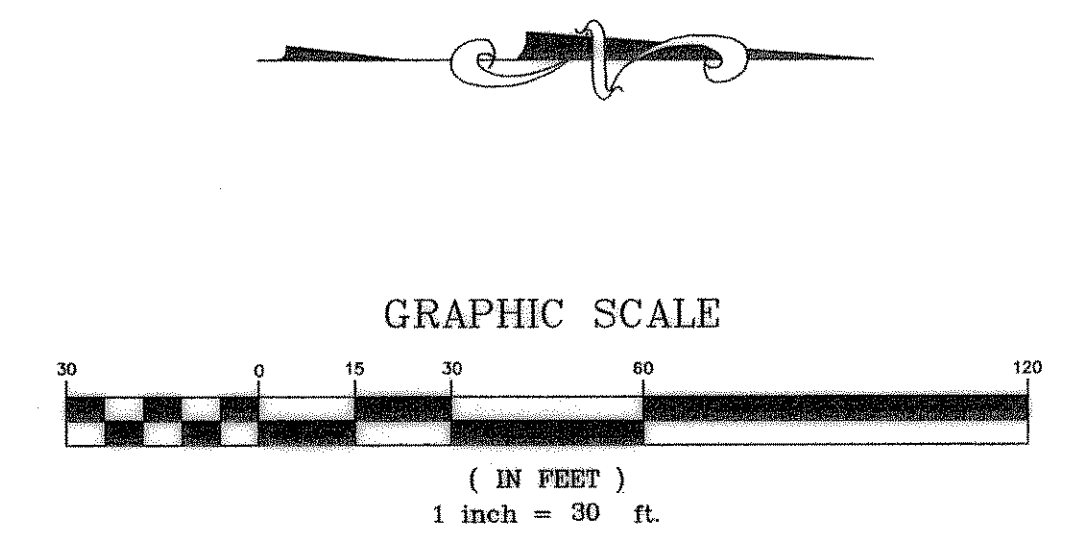
Q=CIA	C	A	100 YEAR TIME	I ₁₀₀	Q IN	Q OUT	Q ACC	STORAGE
0.9	0.9	5.57	10	9.80	49.12	16.18	32.94	19,764
			15	9.00	45.11	16.18	28.93	26,037
			20	8.30	41.60	16.18	25.42	30,504
			25	7.50	37.59	16.18	21.41	32,115
			30	6.90	34.58	16.18	18.40	33,120
			35	6.40	32.08	16.18	15.90	33,390
			40	5.90	29.57	16.18	13.39	32,136
			50	5.00	25.06	16.18	8.88	26,640
			60	4.50	22.55	16.18	6.37	22,932

REQUIRED STORAGE FOR DETENTION Q=CIA

Q=CIA	C	A	25 YEAR TIME	I ₁₀₀	Q IN	Q OUT	Q ACC	STORAGE
0.9	0.9	5.57	10	8.30	41.60	13.06	28.54	17,124
			15	8.00	40.10	13.06	27.04	24,336
			20	6.70	33.58	13.06	20.52	24,624
			25	6.00	30.07	13.06	17.01	25,515
			30	5.50	27.57	13.06	14.51	26,118
			35	5.20	26.06	13.06	13.00	27,300
			40	4.80	24.06	13.06	11.00	26,400
			50	4.00	20.05	13.06	6.99	20,970
			60	3.50	17.54	13.06	4.48	16,128

REQUIRED STORAGE FOR DETENTION Q=CIA

Q=CIA	C	A	10 YEAR TIME	I ₁₀₀	Q IN	Q OUT	Q ACC	STORAGE
0.9	0.9	5.57	10	7.20	36.09	11.50	24.59	14,754
			15	6.50	32.58	11.50	21.08	18,972
			20	5.80	29.07	11.50	17.57	21,084
			25	5.40	27.07	11.50	15.57	23,355
			30	4.90	24.56	11.50	13.06	23,508
			35	4.50	22.55	11.50	11.05	23,205
			40	4.00	20.05	11.50	8.55	20,520
			50	3.90	19.55	11.50	8.05	24,150
			60	3.00	15.03	11.50	3.53	12,708



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY W.L. DOUPHRATE II TEXAS P.E. NO. 69102 ON 7/4/01

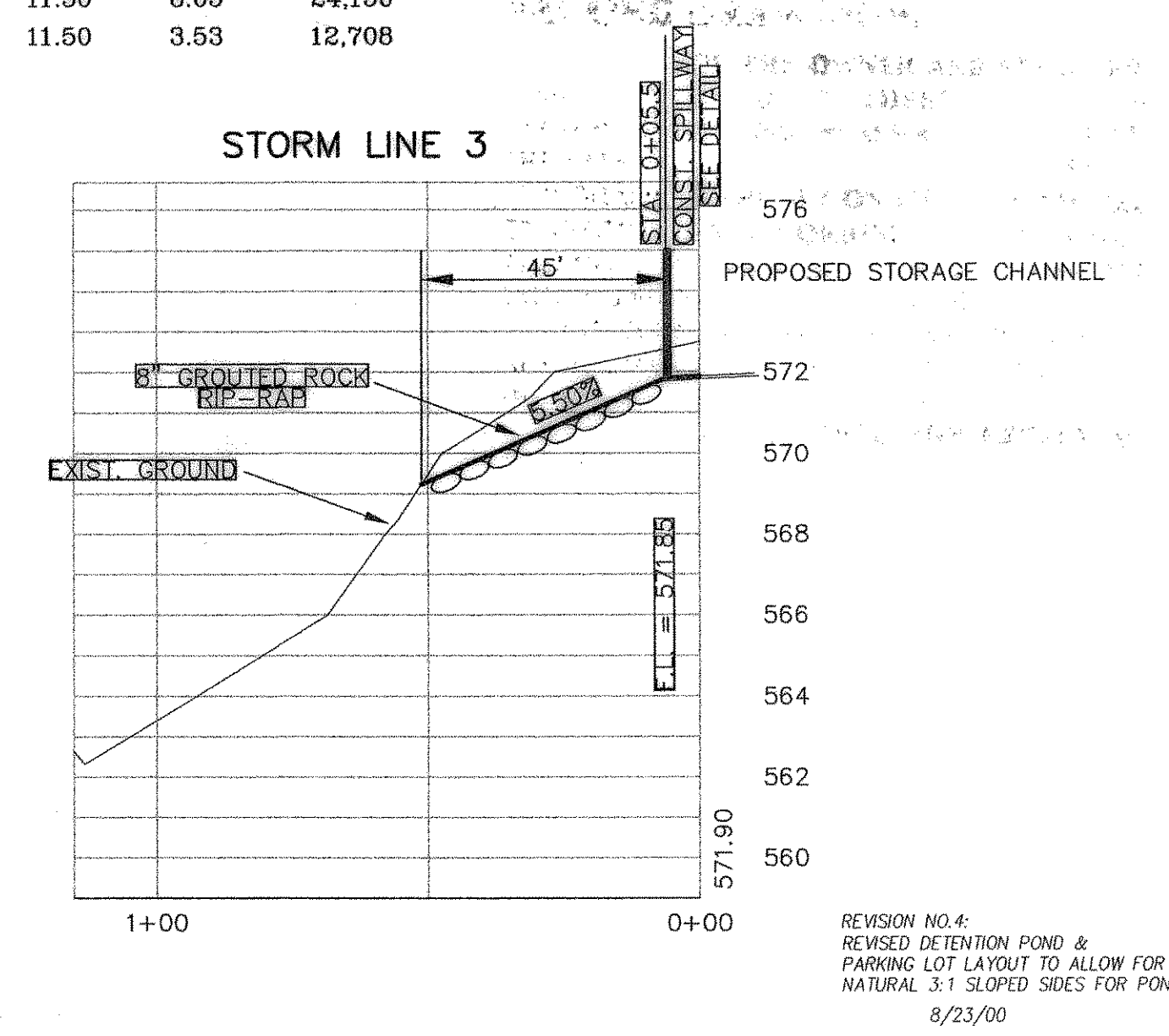
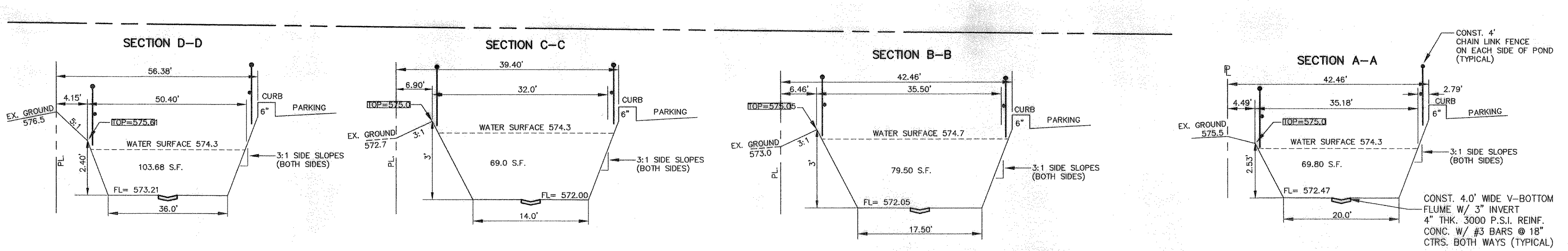
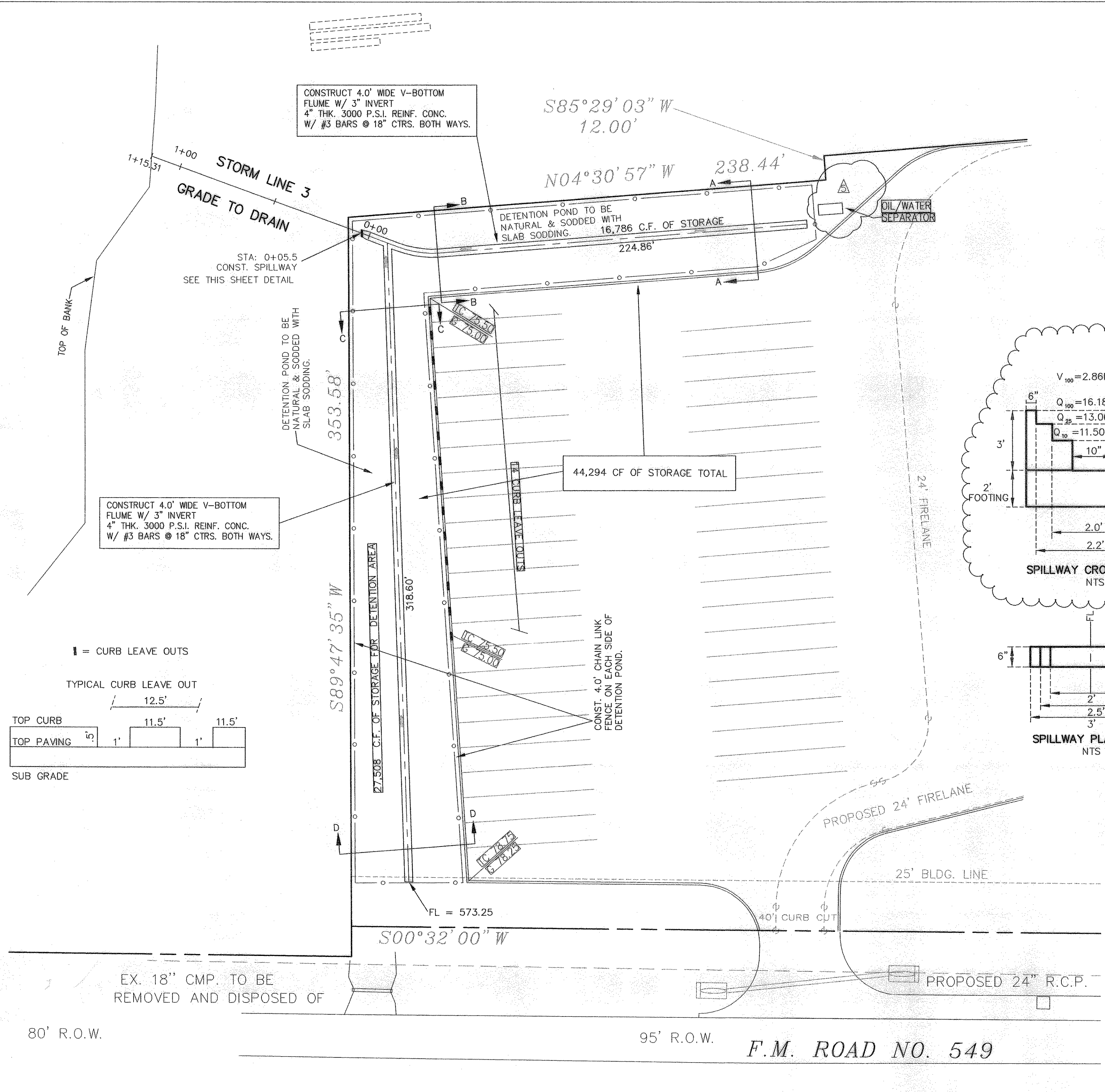
DOUPHRATE & ASSOCIATES, INC.
ENGINEERING-PROJECT MANAGEMENT-SURVEYING
2235 RIDGE RD., # 200 ROCKWALL, TEXAS 75087
PHONE: (972)771-9004 FAX: (972)771-9005

STORM SEWER PLAN & PROFILE
STORM LINE 3 & CHANNEL
REPLAT OF LOVE'S ADDITION NO. 1
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

RECORD DRAWINGS:
THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THESE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ROCKWALL. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ROCKWALL INSPECTED THE CONSTRUCTION. THE OWNER NOR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED

REVISED FOR CONSTRUCTION

- REMOVED 6" DRAIN LINE INTO DETENTION POND. SEPT. 22, 2000
- ADDED .57 ACRES OF DRAINAGE TO POND & CHANGED OUTFALL STRUCTURE ACCORDINGLY MAY 9, 2001



1. REVISED AS PER CITY OF ROCKWALL REVISIONS 7/14/00	REVISION
2. REVISED AS PER ARCHITECT & CITY REVISIONS 8/15/00	REVISION
3. ADDED 6" DRAIN LINE INTO DETENTION POND. 8/16/00	REVISION
W.L.D. CHECKED	
K.E.B. DRAWN	
5/2/00 DATE	
0007STM-1A PROJECT	
7A OF 9	