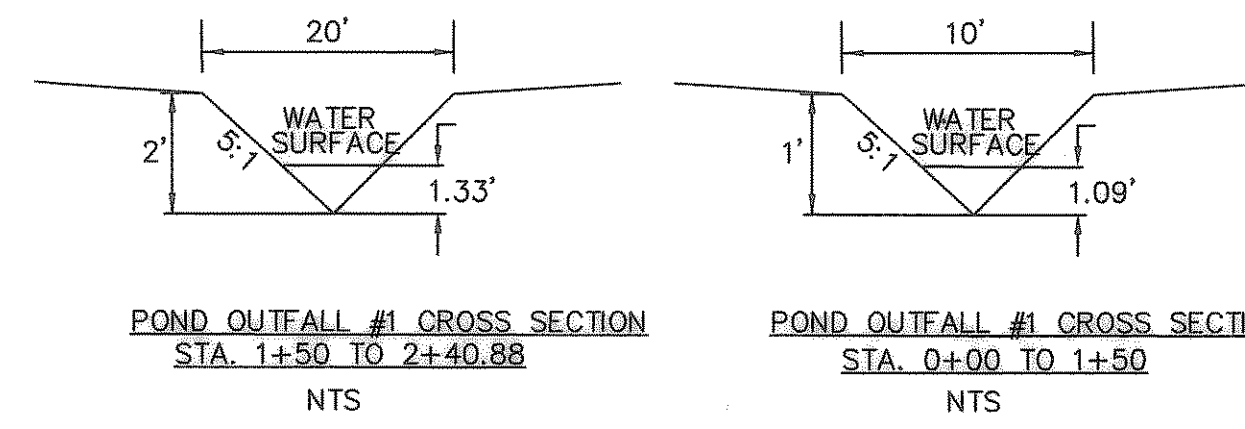
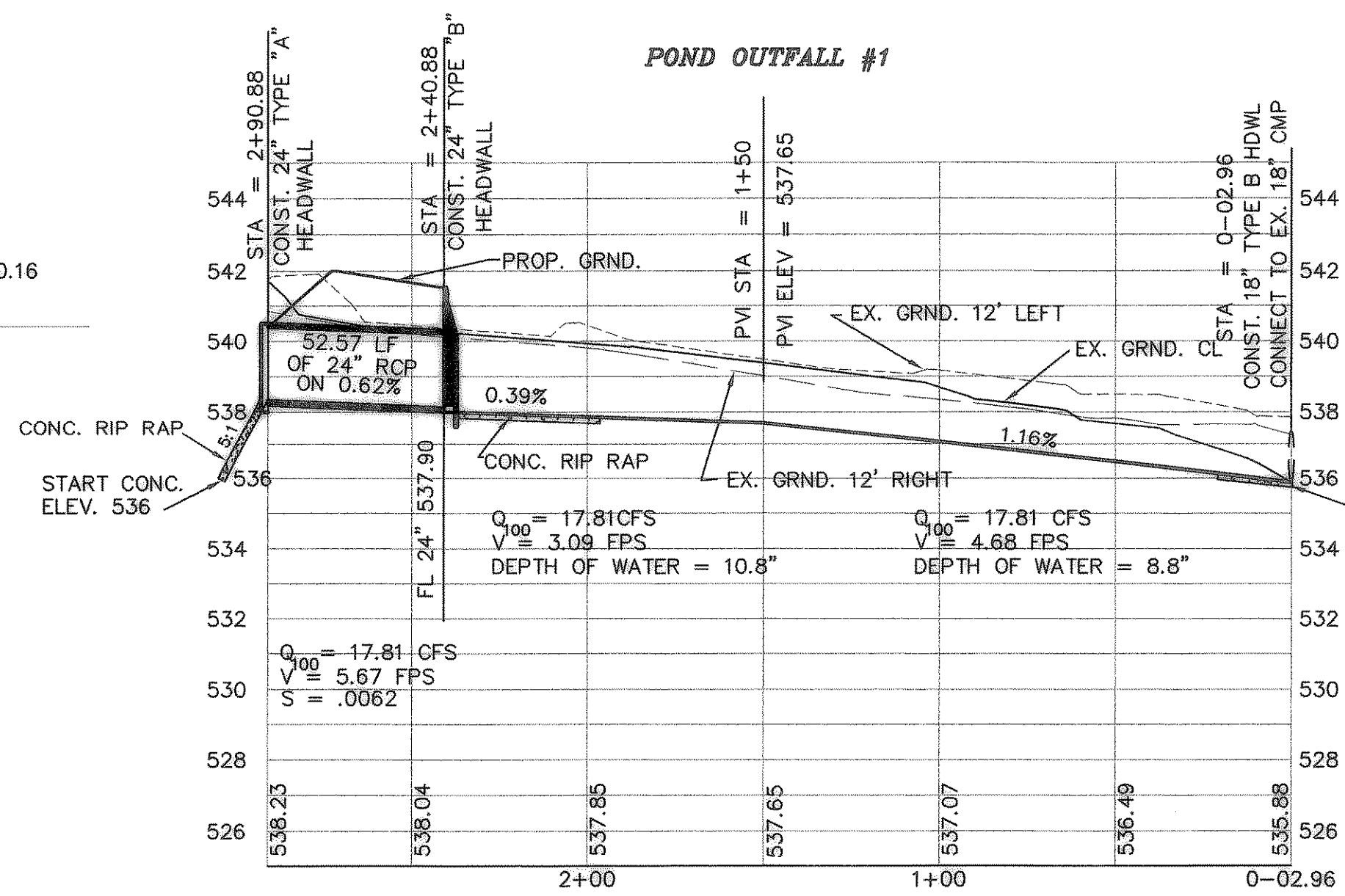
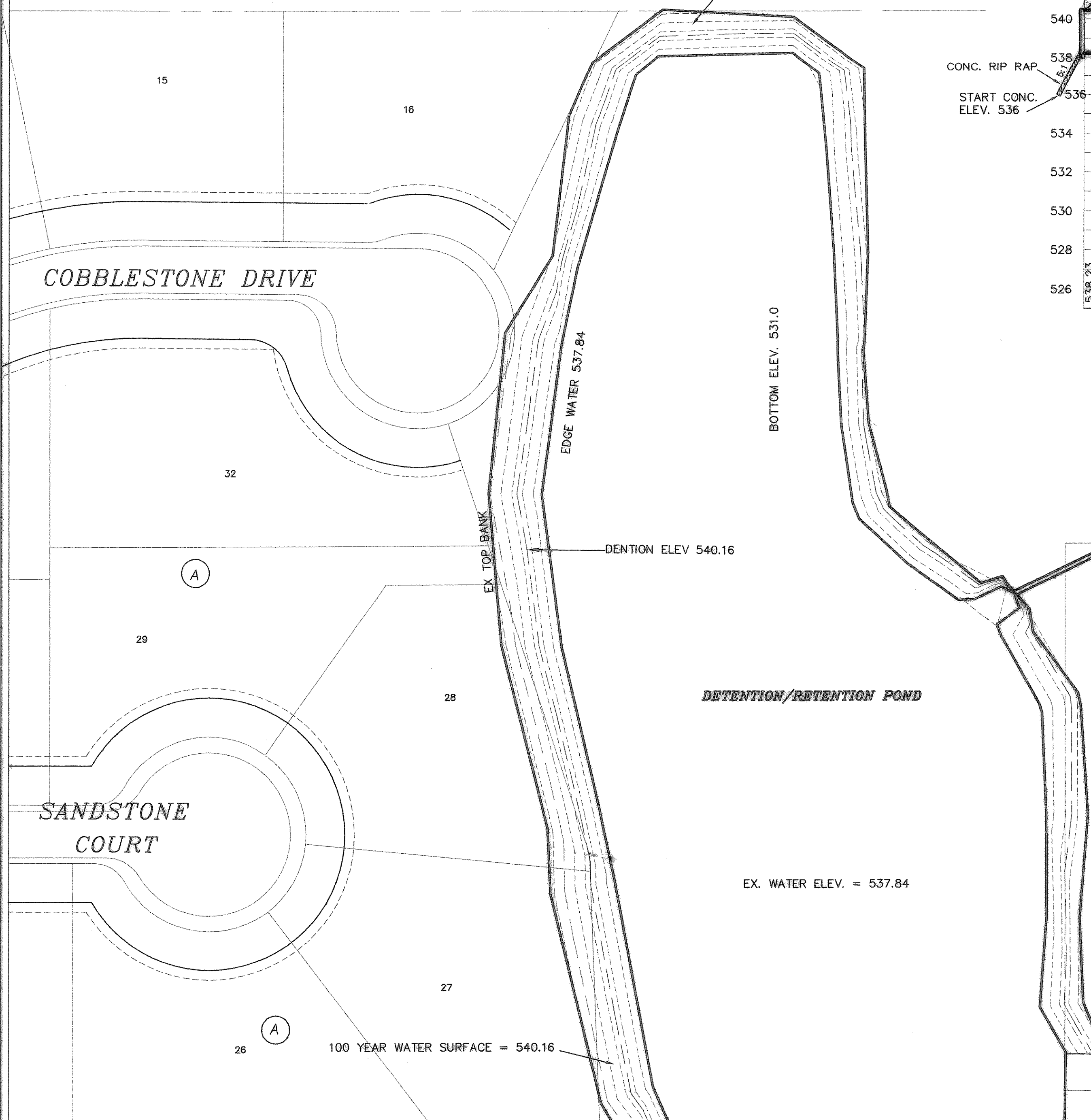


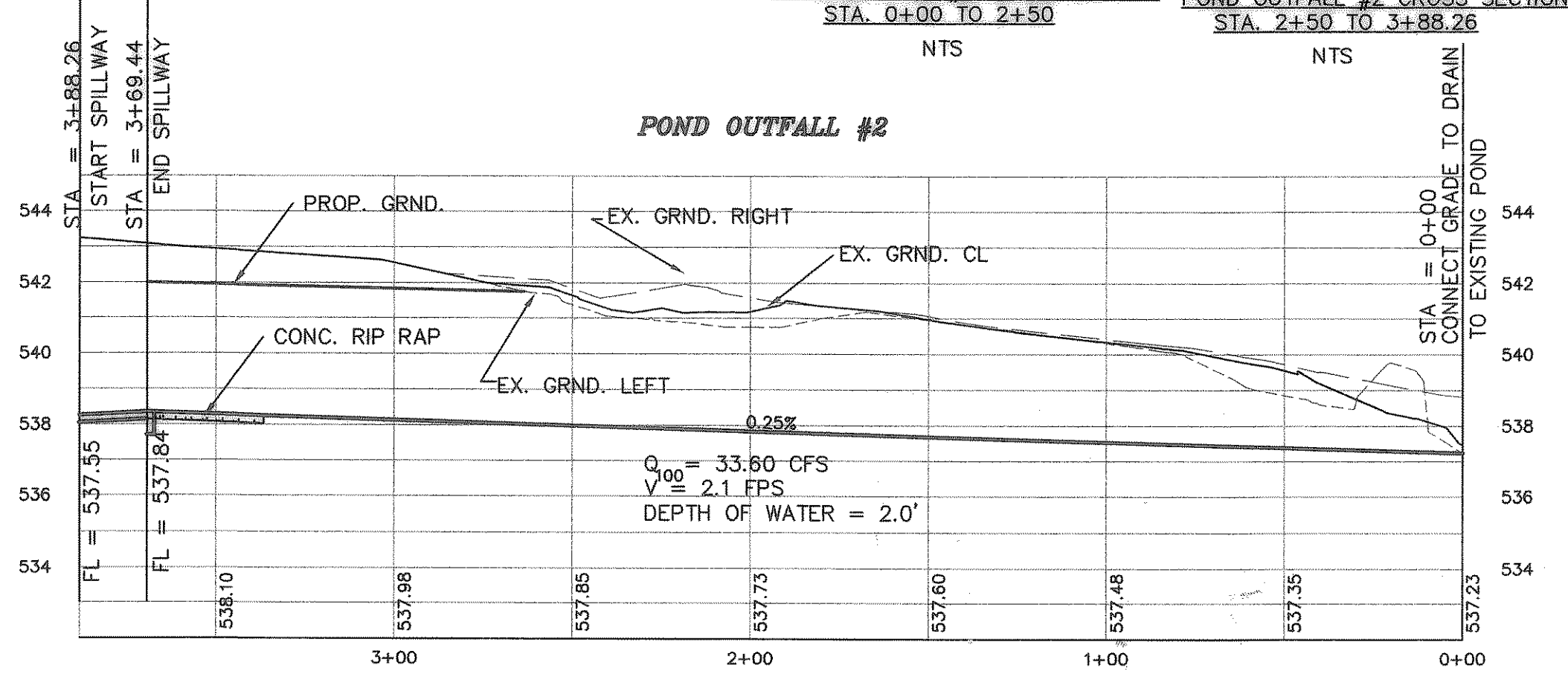
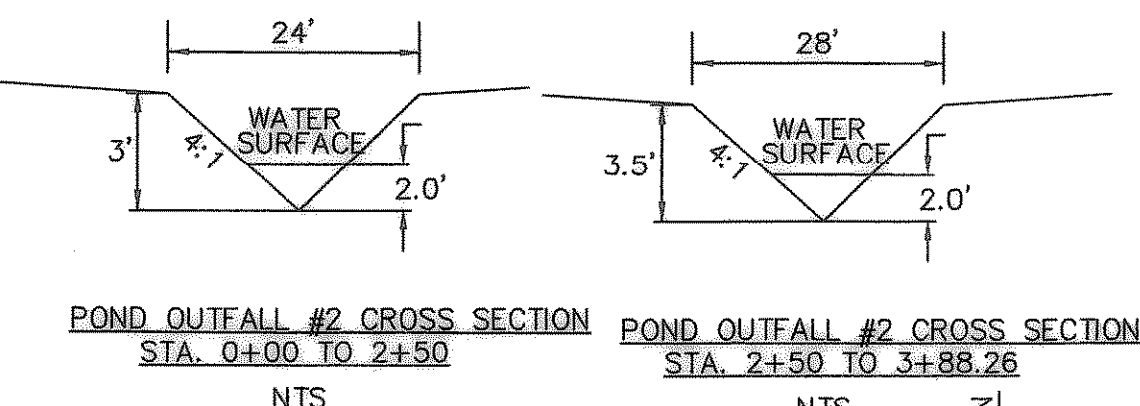
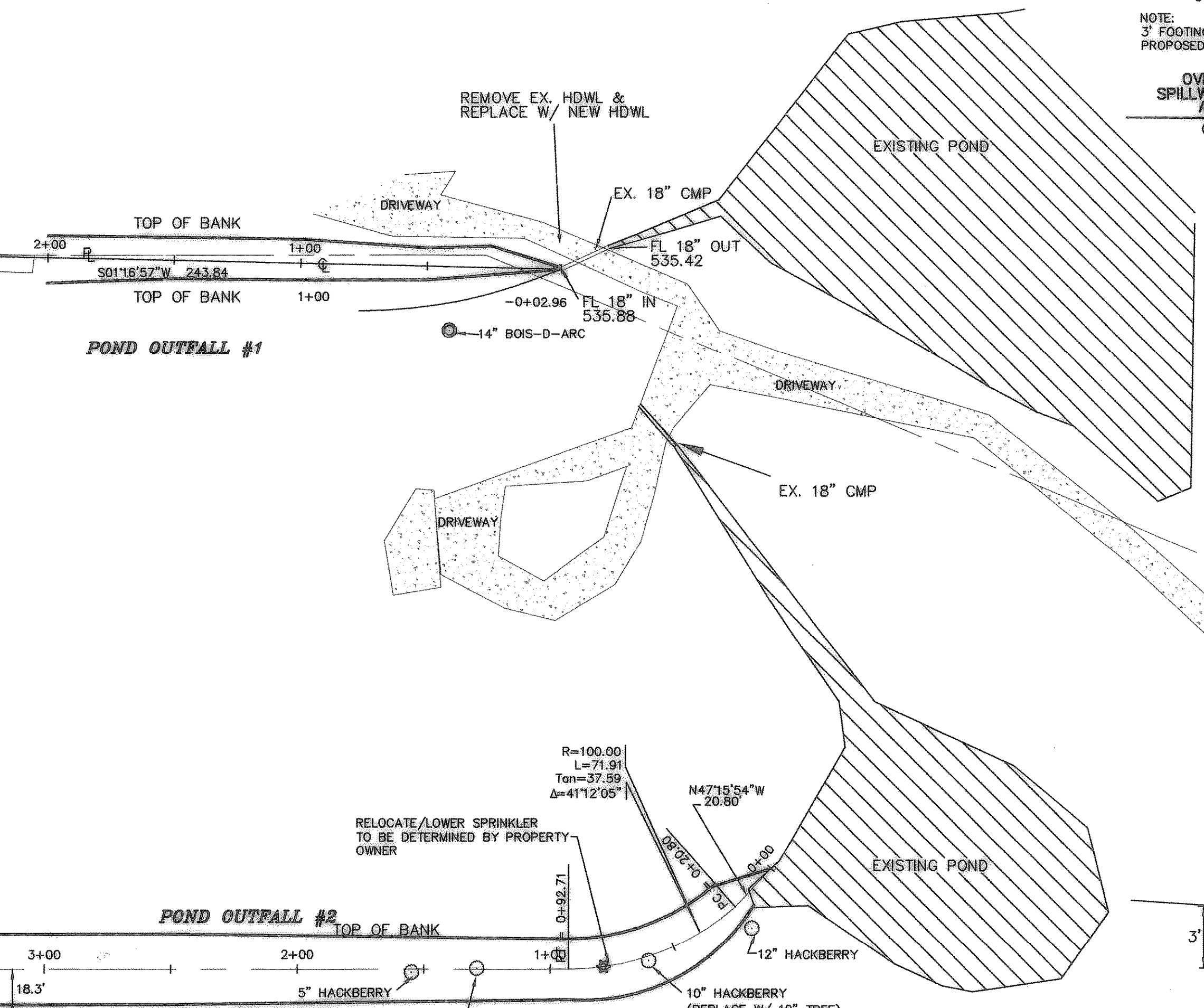
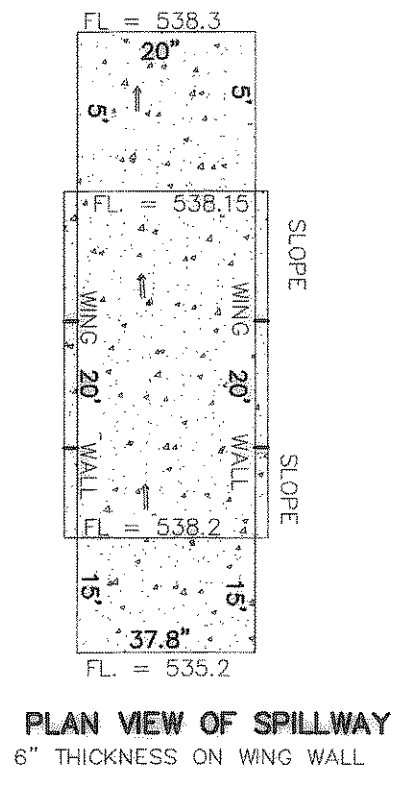
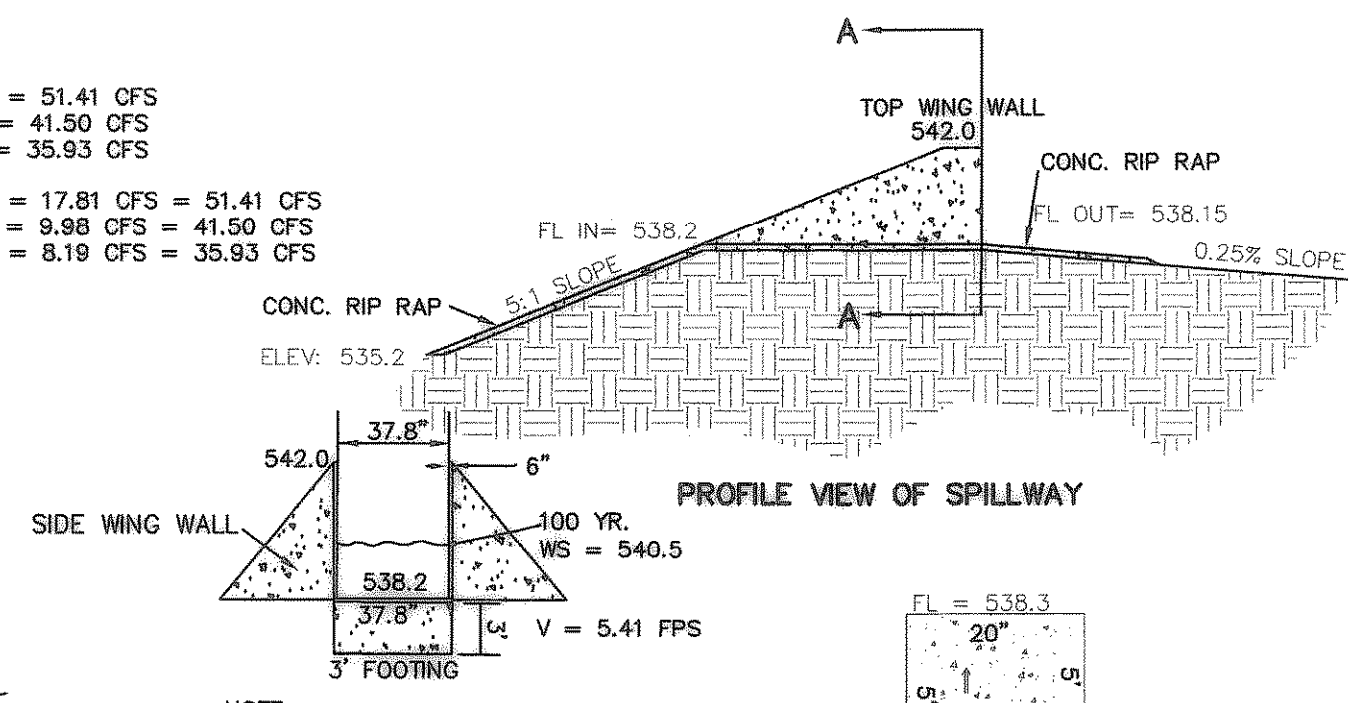
BENCHMARK NOTES:

R.R. SPIKE SET IN PP 89± E OF N.E. COR. OF PROPERTY
ELEV: 558.16

R.R. SPIKE SET IN PP 2± WEST OF N.W. COR. OF PROPERTY
ELEV: 549.83



EXISTING 100 YEAR FLOW = 51.41 CFS
EXISTING 25 YEAR FLOW = 41.50 CFS
EXISTING 10 YEAR FLOW = 35.93 CFS
WEIR 100 = 33.60 CFS + PIPE 100 = 17.81 CFS = 51.41 CFS
WEIR 25 = 31.32 CFS + PIPE 25 = 9.88 CFS = 41.50 CFS
WEIR 10 = 27.74 CFS + PIPE 10 = 8.19 CFS = 35.93 CFS

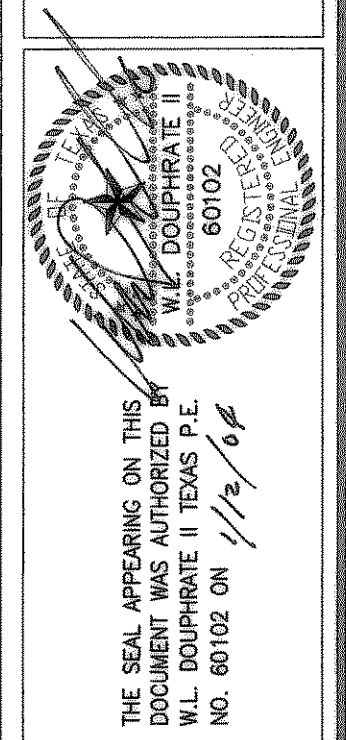


THE EXISTING DETENTION PORTION OF THE POND WILL STORE 347,335 CF OF WATER. THE REQUIRED STORAGE IS 266,601 CF. THE TWO OUTFALLS TOGETHER WILL ONLY RELEASE THE EXISTING 100 YEAR FLOOD SURFACE FLOW OF 52.41 CFS. THE TOP OF BANK IS AT ELEVATION 542.50 ± AND THE 100 YEAR SURFACE ELEVATION IS 540.16

STORM	Inflow	Outflow	REQUIRED STORAGE CF
10 min storm	134223	30864	103377
20 min storm	227357	46269	181088
30 min storm	291729	61692	230037
40 min storm	323230	77115	246115
50 min storm	342405	92538	249867
60 min storm	369797	107961	261836
70 min storm	383494	123384	268110
80 min storm	405408	138607	286601
90 min storm	419104	154250	284874

PRESENT CONDITIONS		UNDEV.	
Q = CIA	DEV		
AREA = 36.34 acres		9.02	0.35
C = 0.35		20	20
T ₁₀₀ = 8.3 in/hr		8.3	20 min
Q100 = 51.41 max 10min release rate		0.00	max 10min release rate

EXISTING CONDITIONS		UNDEV.	
C = 0.35		C = 0.35	
T ₁₀₀ = 8.3	10 min	T ₁₀₀ = 8.3	20 min
Q100 = 30.94		Q100 = 26.20	
C = 0.35		C = 0.35	
T ₁₀₀ = 8.3	30 min	T ₁₀₀ = 4.5	40 min
Q100 = 22.41		Q100 = 18.63	
C = 0.35		C = 0.35	
T ₁₀₀ = 8.3	50 min	T ₁₀₀ = 4.5	60 min
Q100 = 15.79		Q100 = 14.21	
C = 0.35		C = 0.35	
T ₁₀₀ = 8.3	70 min	T ₁₀₀ = 3.7	80 min
Q100 = 12.83		Q100 = 11.88	
C = 0.35		C = 0.35	
T ₁₀₀ = 8.3	90 min	T ₁₀₀ = 3.4	80 min
Q100 = 10.73			



DOUPHRATE & ASSOCIATES, INC.
ENGINEERING - PROJECT MANAGEMENT - SURVEYING
2836 RIDGE RD., # 200 ROCKWALL, TEXAS 75087
PHONE: (972)771-9004 FAX: (972)771-9005

PLAN & PROFILE
DETENTION POND & OUTFALLS
STONEY HOLLOW ADDITION
CITY OF ROCKWALL, COUNTY OF ROCKWALL, TEXAS

REV. 4-29-02 PER CITY COMMENTS
REV. 6-04-02 PER CITY COMMENTS
REV. 12-19-03 PER CITY COMMENTS
REVISION
W.L.D. CHECKED
K.E.B. DRAWN
DATE 1/02
PROJECT 9907STM3
31 OF 48