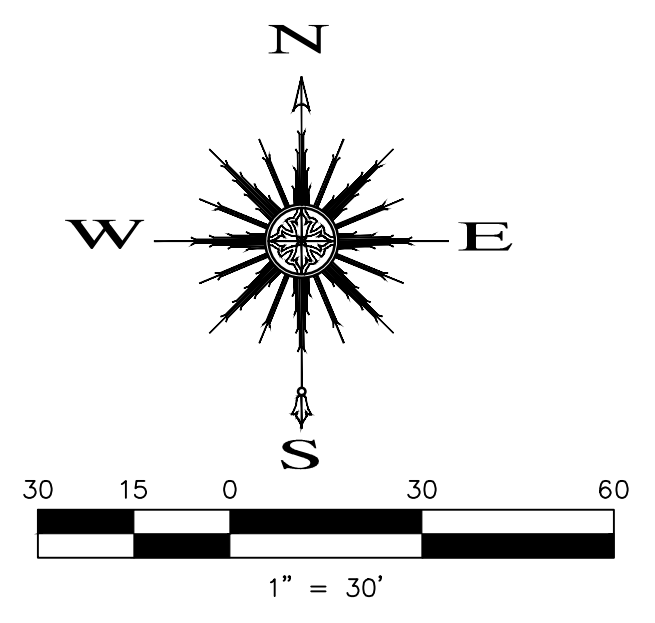


CAUTION EXISTING UTILITIES !!!
 EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE THE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.



BENCHMARK:
 "X" ON TOP OF CURB WEST NOSE OF MEDIAN AT ENTRANCE TO FONTANNA RANCH WIMBERLEY LN. ELEV. 570.06

POND #1 DRAINAGE AREAS

Drainage Area No.	Total Area (Ac.)	Pre-Developed Q	Post Developed Q
S1	7.55	21.93	25.90
S2	0.30	0.87	1.47
PH1-18	9.30	27.02	31.90
PH1-28	0.35	1.02	1.72
PH1-29	1.64	4.76	8.04
PH1-30	2.38	6.91	11.66
PH1-31	1.04	3.02	5.10
PH1-32	0.34	0.99	1.67
PH2-9	1.60	4.65	7.84
PH2-10	3.70	10.75	18.13
PH2-11	1.28	3.72	6.27
PH2-14	1.85	5.37	9.07
TOTAL	31.33	91.01	128.75

PLEASE SEE ATTACHED HYDROLOGY STUDIO REPORTS FOR FURTHER INFORMATION REGARDING POND #1 AND ITS OUTLET STRUCTURE.

NOTE: AREA S1 AND PH1-18 FLOW FROM POND A IN PHASE ONE OF THE DEVELOPMENT

Hydrograph by Return Period

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Outflow (cfs)							
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
1	Rational	PREDEV 1				53.11	65.08	72.62	79.96	88.77
2	Mod Rational	POST DEV 1				54.55	66.91	73.66	80.27	88.04
3	Pond Route	POND 1				45.62	53.88	58.59	62.16	63.37
4	Rational	PREDEV 2				48.29	59.18	66.04	72.71	80.73
5	Mod Rational	POST DEV 2				54.12	68.54	74.41	81.36	88.38
6	Junction	PRE JUNCTION2				87.84	105.8	116.2	126.2	137.9
7	Junction	POST JUNCTION 2				99.74	122.4	133.0	143.5	151.7
8	Pond Route	POND 2				87.39	104.7	114.6	123.7	133.8

POND #1 ALLOWABLE RELEASE
 POND #1 ACTUAL RELEASE

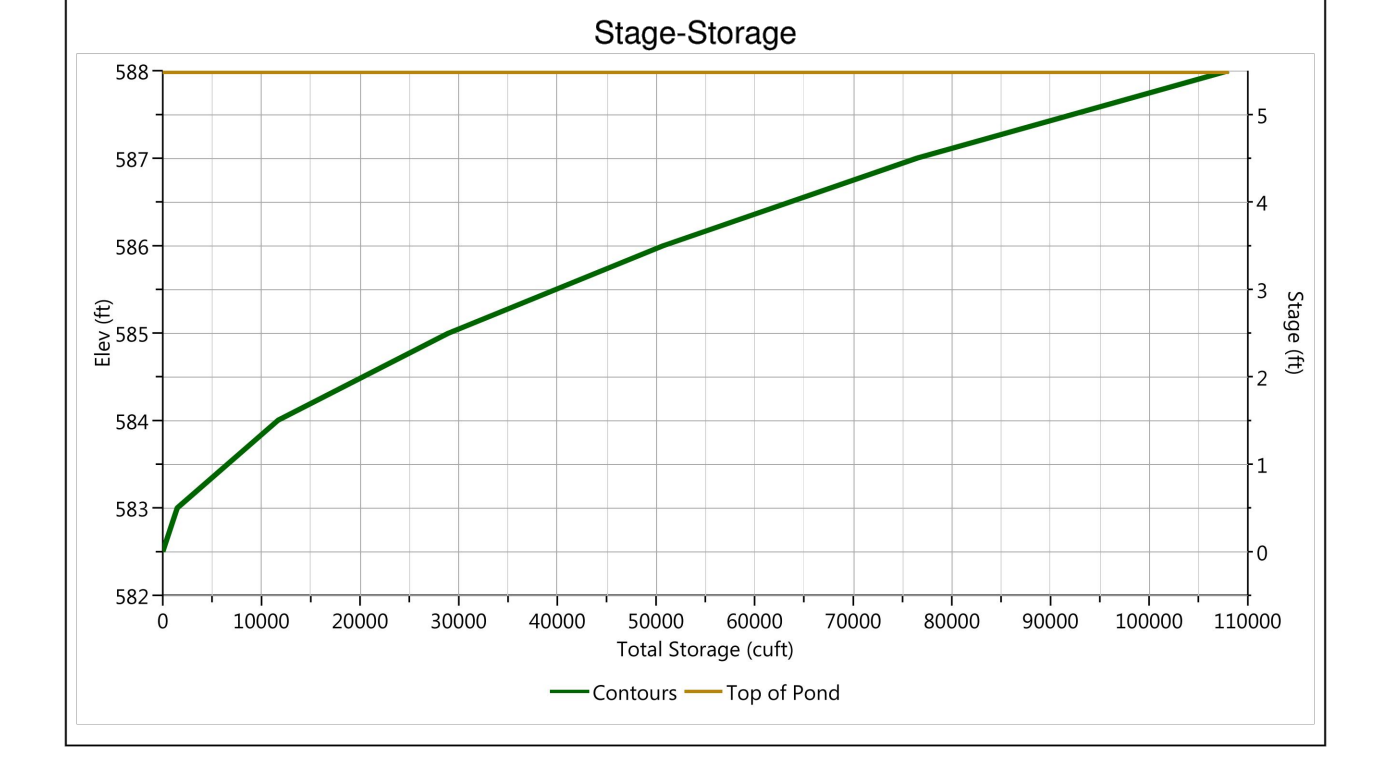
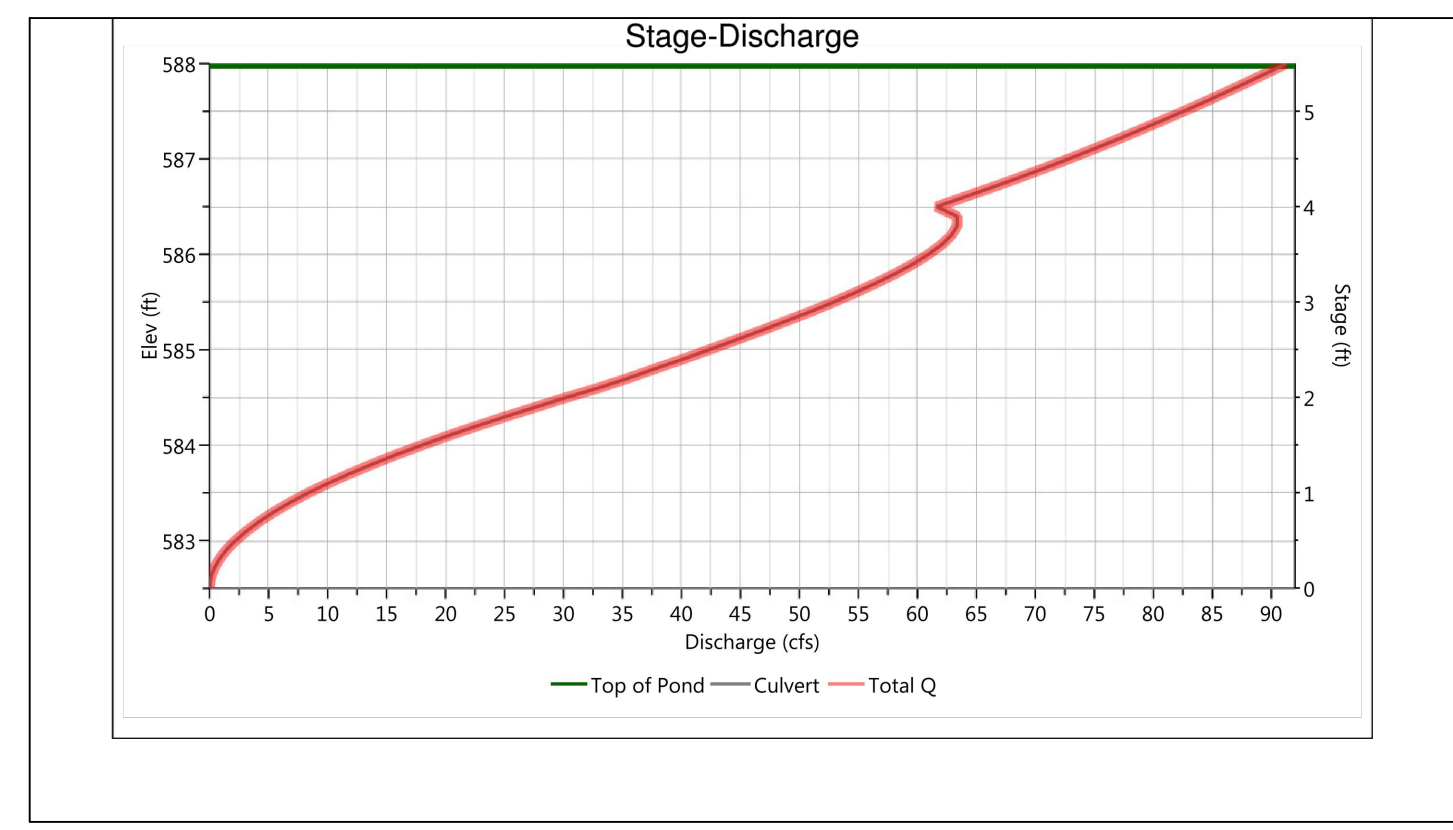
Pond Report

Hydrology Studio v 2.0.0.26

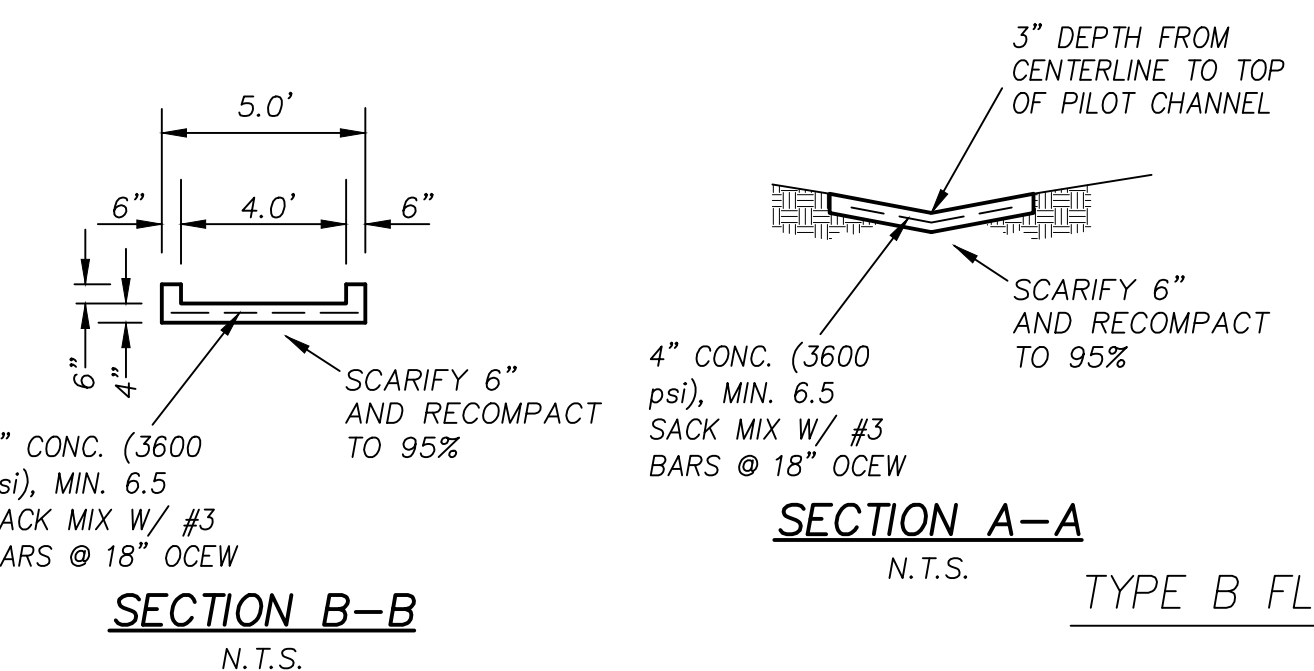
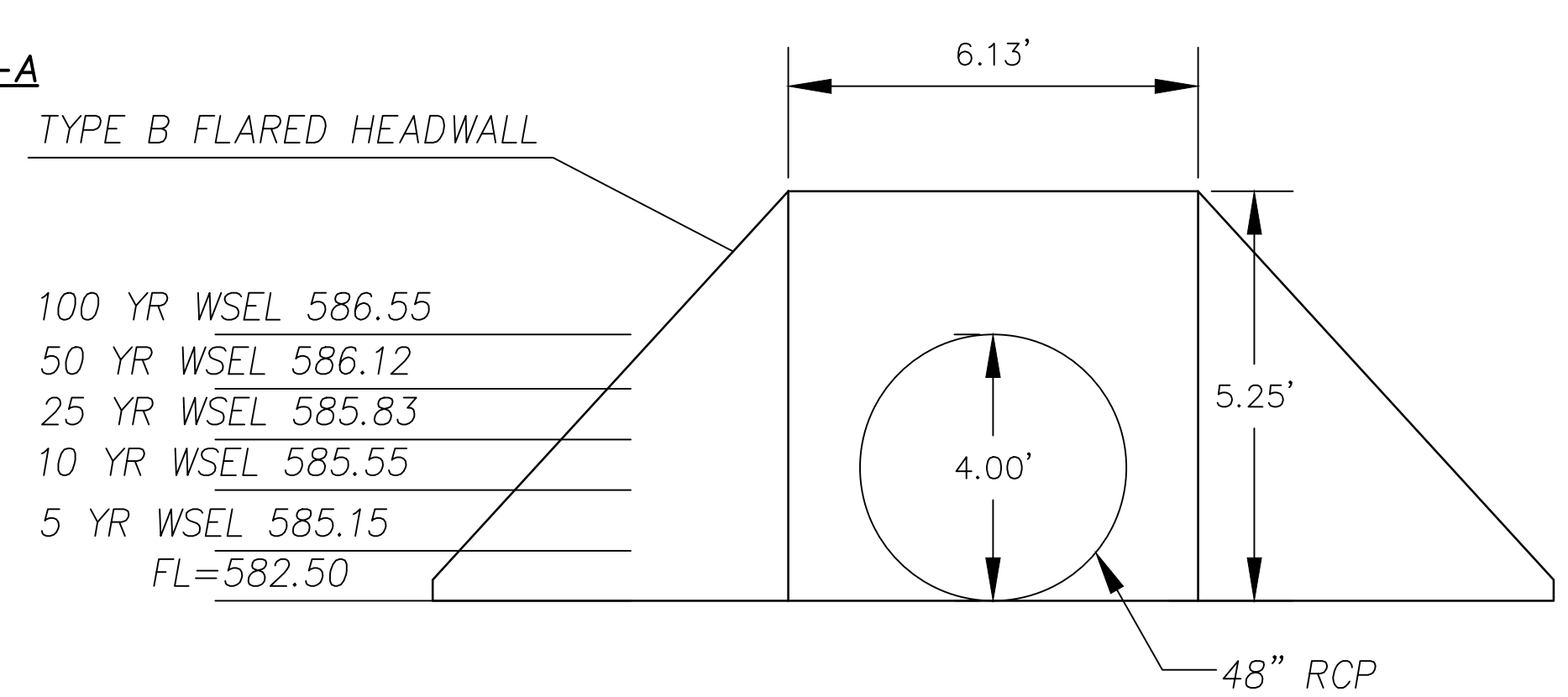
POND 1

Stage-Storage

Description	Input	Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
Bottom Elevation, ft	582.50	0.00	582.50	10	0.000	0.000
Voides (%)	100.00	0.50	583.00	5,925	1,484	1,484
Volume Calc	Ave End Area	1.50	584.00	14,417	10,171	11,655
		2.50	585.00	20,204	17,311	28,965
		3.50	586.00	23,409	21,807	50,772
		4.50	587.00	27,948	25,679	76,450
		5.50	588.00	35,292	31,620	108,070



POND #1 OUTLET STRUCTURE DETAIL



FLUME HYDRAULICS
 Q100 = 7.84 cfs
 Qcap = 10.00 cfs
 V100 = 4.55 ft/sec
 Wp = 4.86 ft
 Af = 1.72 ft²
 d100 = 0.43
 SLOPE = 0.65%
 n = 0.013

100 YR WSEL 586.55
 50 YR WSEL 586.12
 25 YR WSEL 585.83
 10 YR WSEL 585.55
 5 YR WSEL 585.15
 FL=582.50

Revision	Date	Description

FONTANNA RANCH, LTD.
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Fontanna Ranch Ph. 2

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 Phone: 469-402-7700
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 Texas Registered Engineering Firm F-7449

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CHRISTOPHER R. CUNY, P.E. 65642
 6-7-2017
 F.C. CUNY, CORPORATION F-7449

Drawn By: FC CUNY	Checked By: FC CUNY
Date: 4-16	Project No.:
Sheet Title: Detention Pond #1 Calculations	
Scale:	Sheet No.:
1" = 30'	10A of 17

RECORD DRAWING

Fontanna Ranch Ph. 2