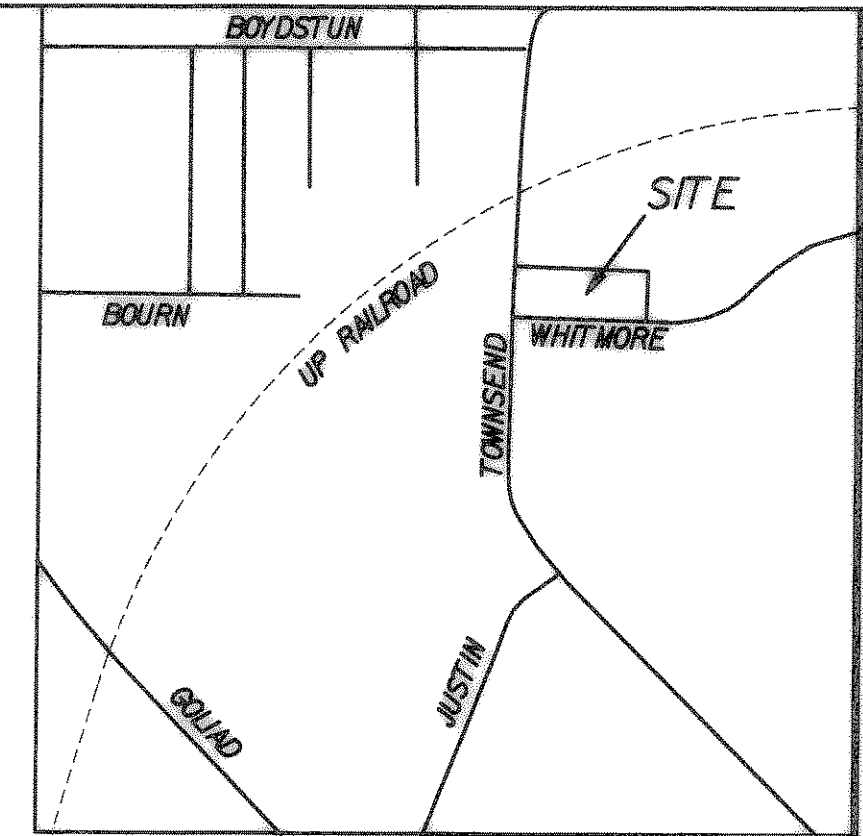
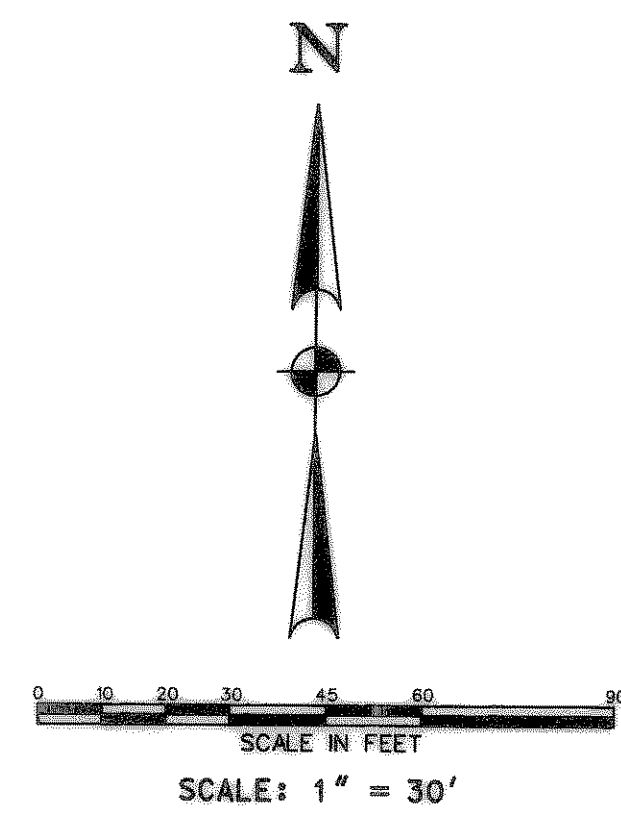
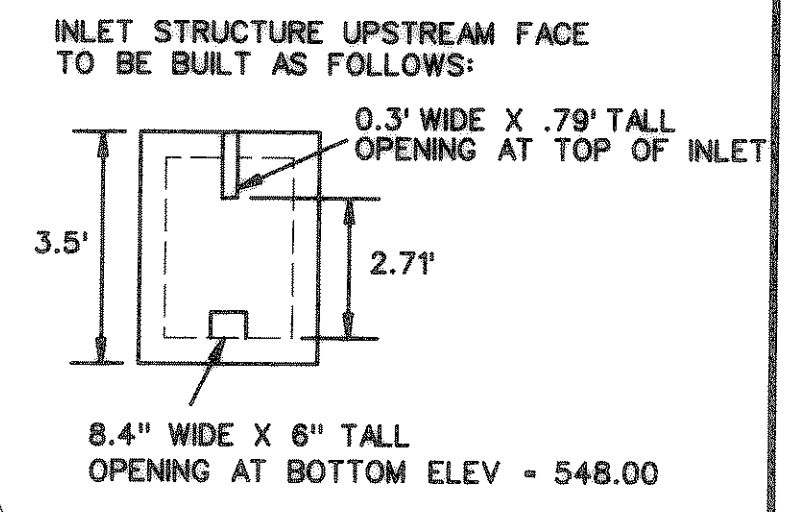
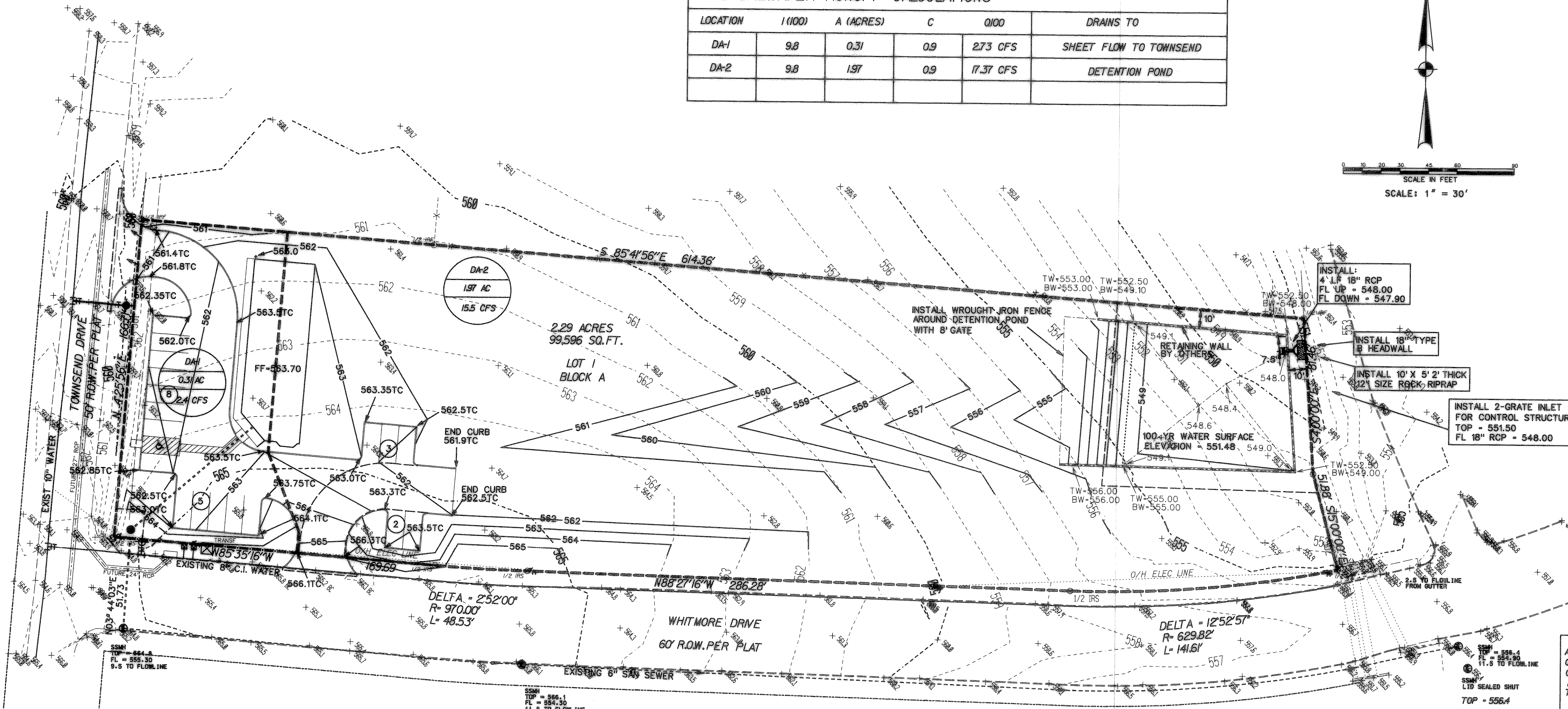


STORMWATER RUNOFF CALCULATIONS					
LOCATION	I (100)	A (ACRES)	C	Q100	DRAINS TO
DA-1	9.8	0.31	0.9	273 CFS	SHEET FLOW TO TOWNSEND
DA-2	9.8	1.97	0.9	17.37 CFS	DETENTION POND



VICINITY MAP
NOT TO SCALE

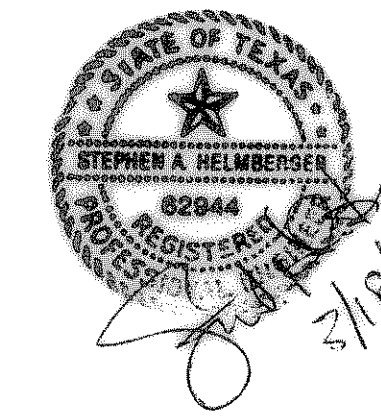
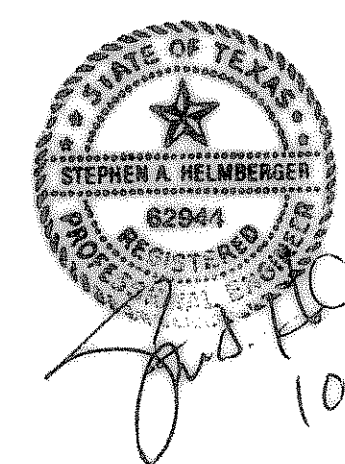


A - 1.97 AC Q EXIST - 57 CFS C = 0.35 I - 8.3 To - 20 MIN	A - 1.97 AC Q PROP - 17.4 CFS C = 0.90 I - 9.8 To - 10 MIN
VOLUME REQUIRED - 21842 CF Q ALLOW - 6.623 - 2734 - 3.88 CFS	

Q ALLOW	Q RELEASE FROM STRUCTURE		
	ORIFICE (CFS)	WEIR (CFS)	TOTAL
Q100 - 3.89 CFS	3.03	0.57	3.60
Q50 - 3.47 CFS	2.99	0.48	3.47
Q25 - 3.03 CFS	2.82	0.17	2.99
Q10 - 2.62 CFS	2.62	0.00	2.62

DETENTION POND RATING CALCULATIONS			
DEPTH	AREA (SF)	VOLUME (CF)	Q (CFS)
0	0	0	0
1'	5475	2738	1192
2'	6429	8688	2064
3'	6716	15258	2796
3.5'	6898	22065	3.628

RECORD DRAWING 10-29-07



OWNER: ROBERT VARNER, JR
703 MCKINNEY AVENUE
DALLAS, TEXAS 75202
PHONE: 214-740-0214

GRADING AND DRAINAGE PLAN					
LOT 1 - BLOCK A MUNICIPAL INDUSTRIAL PARK					
ROBERT VARNER, JR					
ROCKWALL, TEXAS					
HELMBERGER ASSOCIATES, INC.					
CIVIL AND ENVIRONMENTAL ENGINEERS					
124 HOOPER ROAD, WYLLIE, TEXAS 75088 (817) 442-7400					
DESIGN	DRAWN	DATE	SCALE	NOTES	FILE NO.
HELM	CADD	FEBRUARY 2007	1"=30'	GBORDER	0704
					C3

ALL HANDICAP RAMPS, STALLS, PARKING AND ACCESS TO THE BLDG TO MEET ADA, TMS AND ALL APPLICABLE STANDARDS
ACCESS TO THE BUILDING TO BE PROVIDED BY THE ARCHITECT