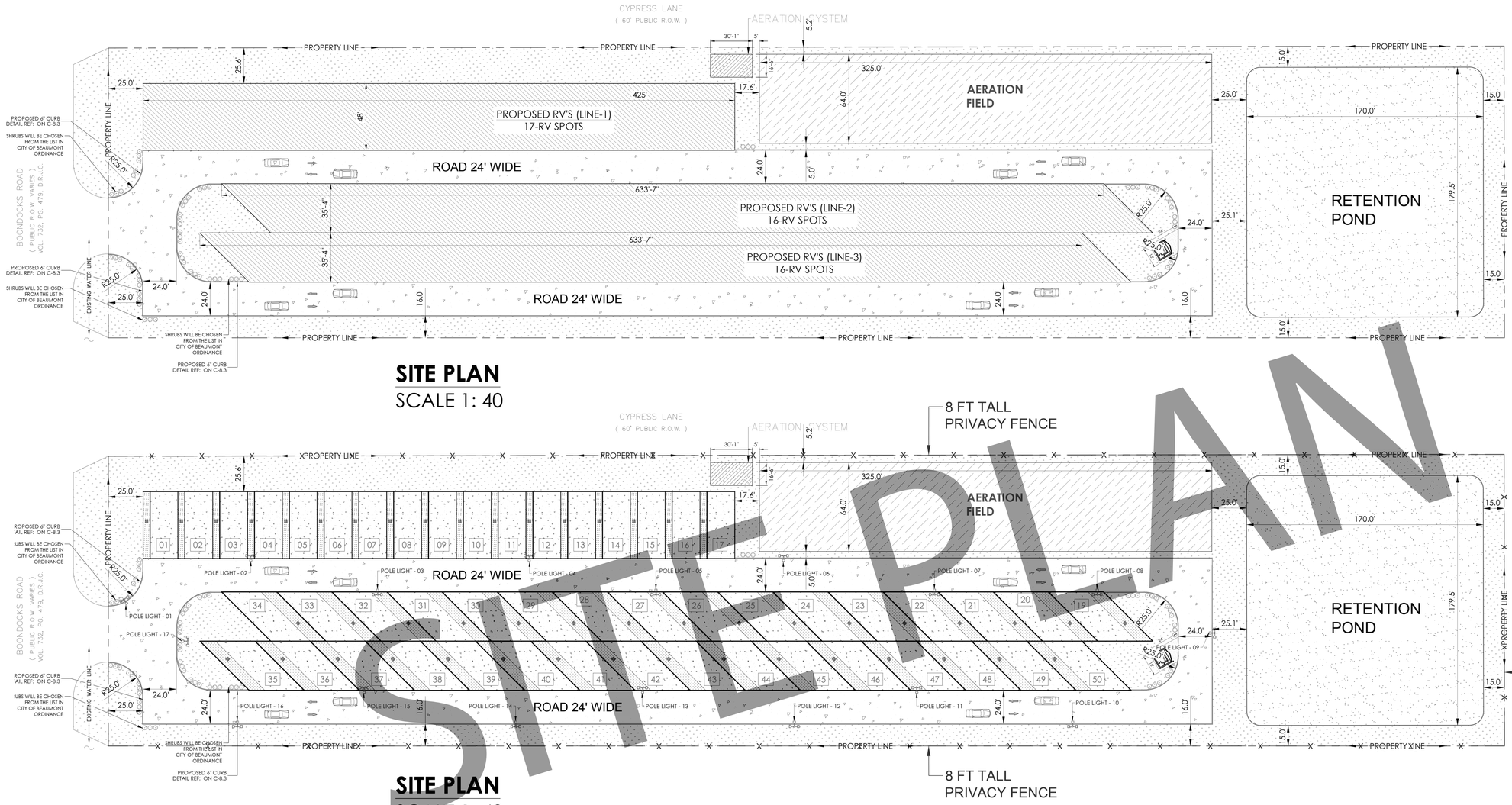
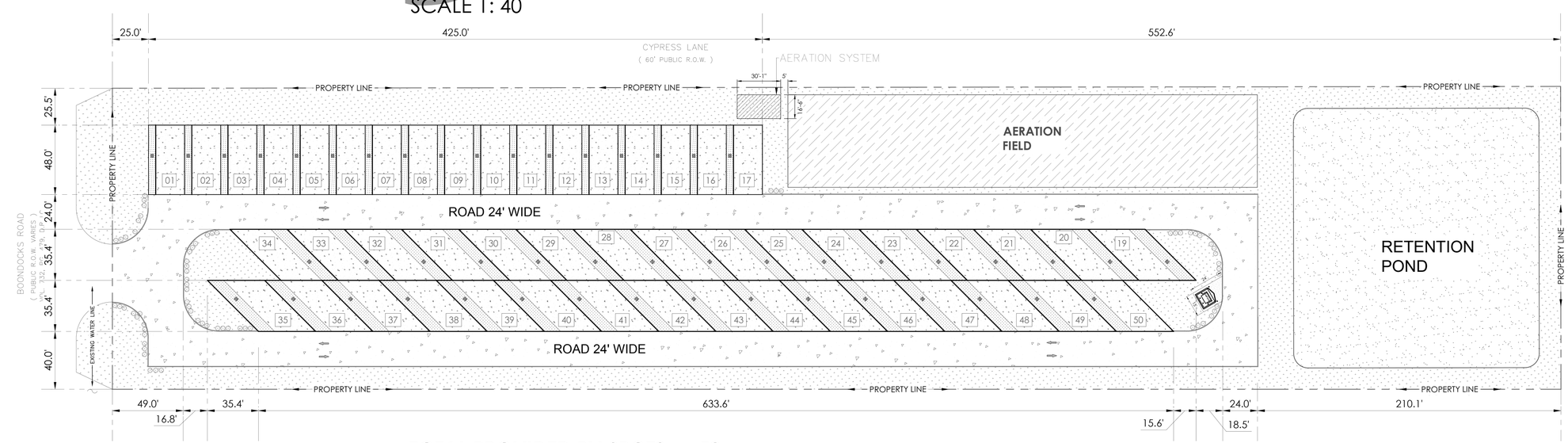


SITE PLAN
SCALE 1: 40

SITE PLAN
SCALE 1: 40



TOTAL PROVIDED RV SPOTS: 50

PROPOSED RV'S PARK
7111 CYPRESS LN, BEAUMONT, TX 77705

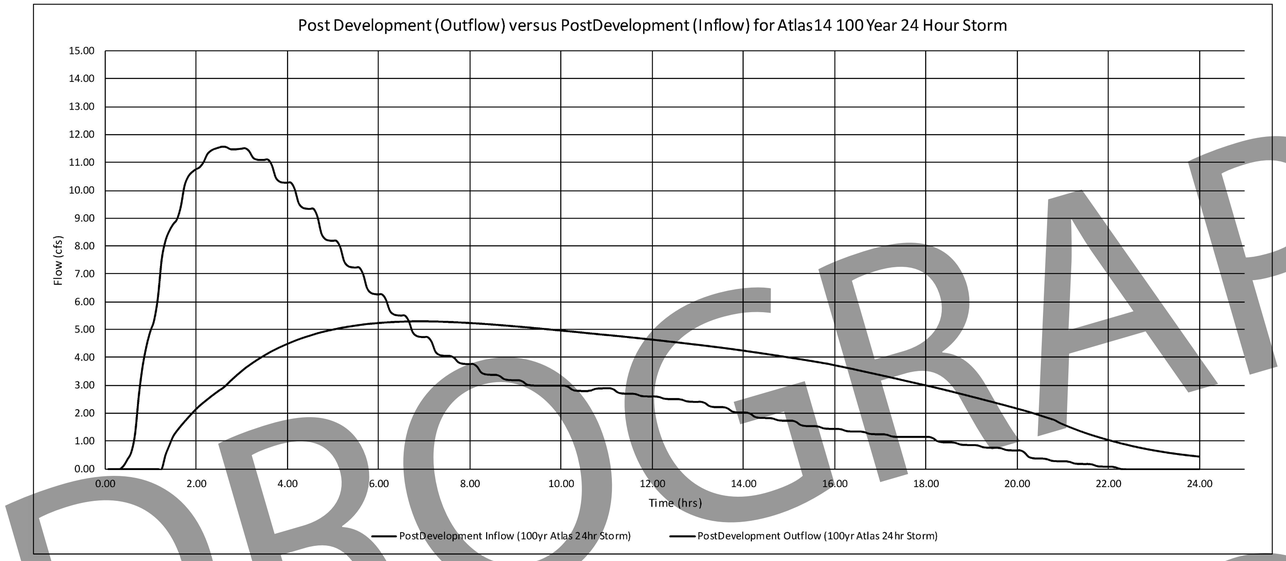
SITE PLAN

C-3.0

Duration	Precipitation (in) 25-yr	10-yr	100-yr	Precipitation Depth - Partial Duration
6-hr	8.56	6.62	12.10	
12-hr	10.40	7.90	15.10	
24-hr	12.30	9.26	18.10	
96-hr	16.40	12.30	24.50	

NOAA Atlas 14, Volume 11, Version 2

Time (hh:mm)	Time (hr)	24-hr Duration Precip. (%)	Cumul. Prec. (in) 25-yr	10-yr	100-yr	Intensity (in/hr) 25-yr	10-yr	100-yr
0:00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0:30	0.5	1.80	0.22	0.17	0.33	0.44	0.33	0.65
1:00	1.0	6.08	0.75	0.56	1.10	1.05	0.79	1.55
1:30	1.5	11.83	1.46	1.10	2.14	1.41	1.06	2.08
2:00	2.0	18.35	2.26	1.70	3.32	1.60	1.21	2.36
2:30	2.5	25.14	3.09	2.33	4.55	1.67	1.26	2.46
3:00	3.0	31.85	3.92	2.95	5.76	1.65	1.24	2.43
3:30	3.5	38.24	4.70	3.54	6.92	1.57	1.18	2.31
4:00	4.0	44.15	5.43	4.09	7.99	1.45	1.09	2.14
4:30	4.5	49.49	6.09	4.58	8.96	1.31	0.99	1.93
5:00	5.0	54.22	6.67	5.02	9.81	1.16	0.88	1.71
5:30	5.5	58.37	7.18	5.41	10.56	1.02	0.77	1.50
6:00	6.0	61.96	7.62	5.74	11.21	0.88	0.66	1.30
6:30	6.5	65.07	8.00	6.03	11.78	0.77	0.58	1.13
7:00	7.0	67.77	8.34	6.28	12.27	0.66	0.50	0.98
7:30	7.5	70.13	8.63	6.49	12.69	0.58	0.44	0.85
8:00	8.0	72.25	8.89	6.69	13.08	0.52	0.39	0.77
8:30	8.5	74.19	9.13	6.87	13.43	0.48	0.36	0.70
9:00	9.0	76.01	9.35	7.04	13.76	0.45	0.34	0.66
9:30	9.5	77.74	9.56	7.20	14.07	0.43	0.32	0.63
10:00	10.0	79.42	9.77	7.35	14.38	0.41	0.31	0.61
10:30	10.5	81.07	9.97	7.51	14.67	0.41	0.31	0.60
11:00	11.0	82.68	10.17	7.66	14.97	0.40	0.30	0.58
11:30	11.5	84.24	10.36	7.80	15.25	0.38	0.29	0.56
12:00	12.0	85.76	10.55	7.94	15.52	0.37	0.28	0.55
12:30	12.5	87.20	10.73	8.07	15.78	0.35	0.27	0.52
13:00	13.0	88.55	10.89	8.20	16.03	0.33	0.25	0.49
13:30	13.5	89.82	11.05	8.32	16.26	0.31	0.24	0.46
14:00	14.0	90.99	11.19	8.43	16.47	0.29	0.22	0.42
14:30	14.5	92.06	11.32	8.52	16.66	0.26	0.20	0.39
15:00	15.0	93.04	11.44	8.62	16.84	0.24	0.18	0.35
15:30	15.5	93.94	11.55	8.70	17.00	0.22	0.17	0.33
16:00	16.0	94.77	11.66	8.78	17.15	0.20	0.15	0.30
16:30	16.5	95.54	11.75	8.85	17.29	0.19	0.14	0.28
17:00	17.0	96.26	11.84	8.91	17.42	0.18	0.13	0.26
17:30	17.5	96.93	11.92	8.98	17.54	0.16	0.12	0.24
18:00	18.0	97.55	12.00	9.03	17.66	0.15	0.11	0.22
18:30	18.5	98.12	12.07	9.09	17.76	0.14	0.11	0.21
19:00	19.0	98.63	12.13	9.13	17.85	0.13	0.09	0.18
19:30	19.5	99.07	12.19	9.17	17.93	0.11	0.08	0.16
20:00	20.0	99.42	12.23	9.21	18.00	0.09	0.06	0.13
20:30	20.5	99.67	12.26	9.23	18.04	0.06	0.05	0.09
21:00	21.0	99.85	12.28	9.25	18.07	0.04	0.03	0.07
21:30	21.5	99.94	12.29	9.25	18.09	0.02	0.02	0.03
22:00	22.0	99.98	12.30	9.26	18.10	0.01	0.01	0.01
22:30	22.5	99.99	12.30	9.26	18.10	0.00	0.00	0.00
23:00	23.0	99.99	12.30	9.26	18.10	0.00	0.00	0.00
23:30	23.5	99.99	12.30	9.26	18.10	0.00	0.00	0.00
0:00	24.0	100.00	12.30	9.26	18.10	0.00	0.00	0.00



PreDevelopment - Subbasin Hydrology

	Atlas14 10-Yr Storm	Atlas14 100-Yr Storm
Predevelopment Drainage Area	Sub-A	Sub-A
PreDevelopment Time of Concentration (Tc) - per SCS Method		
Sheet Flow: Tsh = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))		
Manning's Roughness : n	0.25	0.25
Flow Length (ft) : Lf	100	100
Slope (ft/ft) : Sf	0.0035	0.0035
2 yr, 24 hr Rainfall (in) : P2	5.44	5.44
Computed Flow Time (min) : Tc	22.71	22.71
Shallow Concentrated Flow: Tsc = ((Lf/V)/(3600))*60		
Slope (ft/ft) : Sf	0.003	0.003
Velocity (unpaved) (ft/s) : V=16.1345 * (Sf^0.5)	0.88	0.88
Flow Length (ft) : Lf	387	387
Computed Flow Time (min) : Tc	7.30	7.30
Computed Flow Time (min) : Summation of Tc	30.01	30.01
Area (ac)	2.31	2.31
Total Rainfall (in)	9.26	18.10
Total Runoff (in)	7.16	15.82
Peak Runoff (cfs)	2.25	5.10
Weighted Curve Number	82.78	82.78

Post Development - Subbasin Hydrology

	Atlas14 10-Yr Storm A-1	A-2	A-3	Atlas14 100-Yr Storm A-1	A-2	A-3
Area (ac)	1.753	2.287	0.776	1.753	2.287	0.776
Total Rainfall (in)	9.26	9.26	9.26	18.1	18.1	18.1
Total Runoff (in)	7.95	8.53	8.62	16.72	17.35	17.44
Peak Runoff (cfs)	1.97	2.75	0.94	4.13	5.56	1.89
Weighted Curve Number	89.17	93.93	94.69	89.17	93.93	94.69
Time of Concentration (mins)	10.00	10.00	10.00	10.00	10.00	10.00

Post-Development - Pipe Calculations

Pipe	Inlet Node	Outlet Node	Length	Diameter	Number of Pipes	Inlet Flowline Elevation	Outlet Flowline Elevation	Slope	Manning's Roughness	Area (Full)	Velocity (Full)	Capacity (Full)	10-Yr Peak Flow	10-Yr Peak Velocity	10-Yr Maximum Depth	100-Yr Peak Flow	100-Yr Peak Velocity	100-Yr Maximum Depth
P-1.0	A-1.0	A-2.0	364 ft	24 in	1	6.58 ft	6.04 ft	0.15%	0.0130	3.14 sq. ft	2.77 ft/s	8.71 cfs	1.96 cfs	1.46 ft/s	1.17 ft	4.10 cfs	1.57 ft/s	2.00 ft
P-2.0	A-2.0	Pond-1	256 ft	24 in	1	6.04 ft	5.58 ft	0.18%	0.0130	3.14 sq. ft	3.05 ft/s	9.59 cfs	4.71 cfs	3.26 ft/s	1.63 ft	9.55 cfs	3.96 ft/s	2.00 ft
Orifice-1	Pond-1	Outfall	62 ft	10 in	1	4.86 ft	4.74 ft	0.18%	0.0130	0.55 sq. ft	9.36 ft/s	5.10 cfs	3.26 cfs	5.98 ft/s	2.26 ft	4.98 cfs	9.14 ft/s	4.69 ft

Post-Development - Node Calculations

Node	Invert Elevation	Ground Elevation	Initial Water Surface Elevation	Surcharge Elevation	10-Yr Maximum Water Surface Elevation	10-Yr Peak Inflow	100-Yr Maximum Water Surface Elevation	100-Yr Peak Inflow
A-1.0	6.58 ft	9.50 ft	6.58 ft	10.00 ft	7.29 ft	1.96 cfs	9.70 ft	4.12 cfs
A-2.0	6.04 ft	9.50 ft	6.04 ft	10.00 ft	7.20 ft	4.71 cfs	9.67 ft	9.61 cfs

Pond Design

Pond Size	Depth (ft)	Elevation	Area (ft^2)	Volume (ft^3)	Notes
Top Area 2.85'	6.00	10.86	28,864	139,655.00	1' Freeboard
5' Depth (3:1)	5.00	9.86	26,927	111,850.00	100-Yr Max WSL
4' Depth (3:1)	4.00	8.86	25,049	85,925.00	
3' Depth (3:1)	3.00	7.86	23,222	61,830.00	
2' Depth (3:1)	2.00	6.86	21,454	39,511.00	
1' Depth (3:1)	1.00	5.86	19,745	18,919.00	24" Influent Pipe is at 5.58'
0' Depth	0.00	4.86	18,104	-	18" Effluent Pipe (w/ 10" Restrictor)

Pond Calculations

Storm Details	Max Inflow (cfs)	Inflow Volume (ft^3)	Predevelopment Q (cfs)	Storage Required (ft^3)	Max HGL Depth (Elevation) of Pond
Atlas14 - 10 Year 24-Hour Duration	5.65	146,590	2.25	43,583	2.26' (7.12)
Atlas14 - 100 Year 24-Hour Duration	11.57	300,399	5.10	80,044	4.69' (9.55)

Outflow Size to Drainage Ditch

Restrictor Size (in)	Area (Sq ft)	Head (ft)	Flow, Q (cfs)
8	0.349	3.400	3.170
10	**0.545**	**3.400**	**4.953**
12	0.785	3.400	7.132

Use 10-inch (ID) for 4.95 cfs, which is less than the Q allowable 100yr Predevelopment Runoff of 5.10 cfs

Restrictor Forumla: Q = C*A*(sqrt(2*g*H))

Coeff = 0.6140

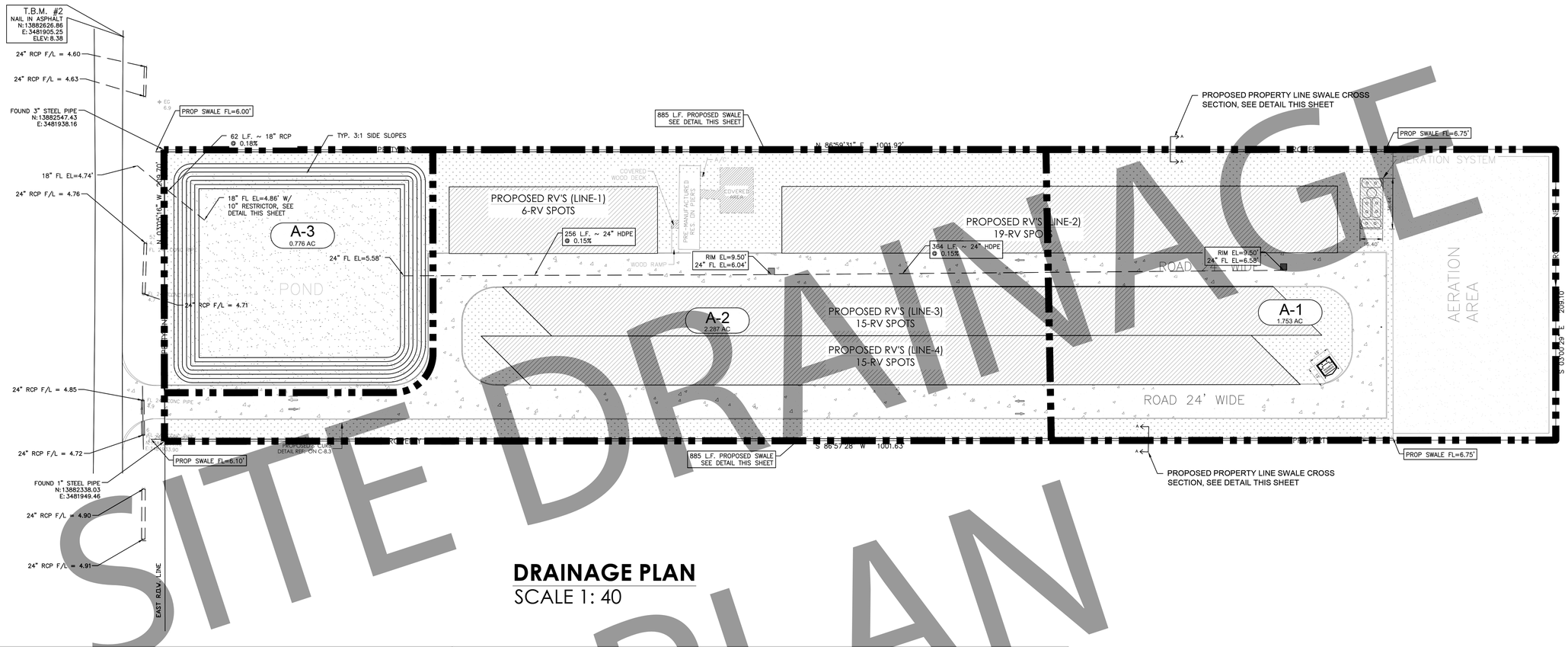
Area (sq ft) = (above)

g=32.2 ft/sec^2

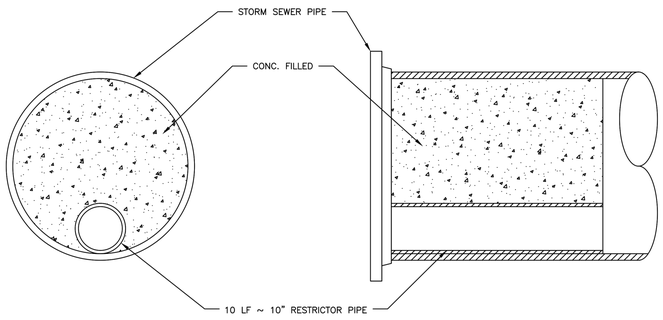
H (ft) = (100 yr WSE minus Tailwater Elevation) minus Center of Orifice for 10" the Center of Orifice Elev = 5.27', Max 100 yr WSE = 9.55',

Tailwater Depth = 1.29' for 100yr rainfall at the Orifice location at pond

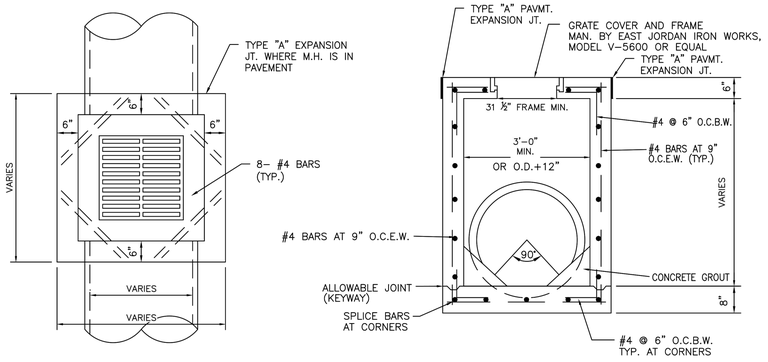
Head = 3.40' for 100 yr storm event



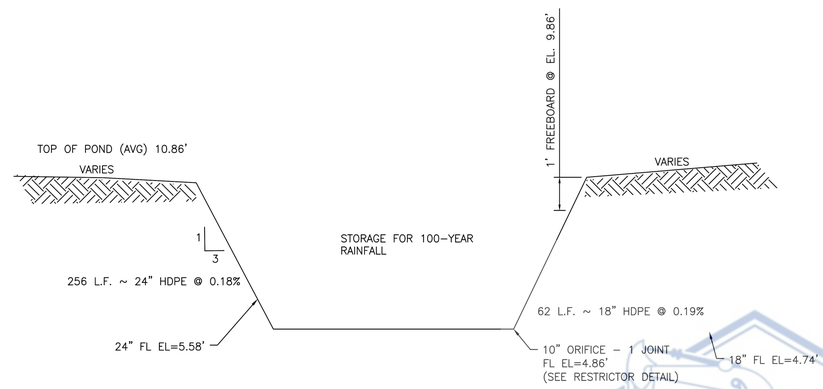
DRAINAGE PLAN
SCALE 1: 40



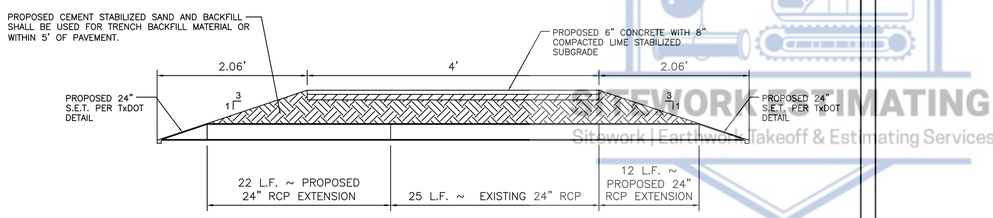
RESTRICTOR DETAIL
NO SCALE



STANDARD GRATE INLET

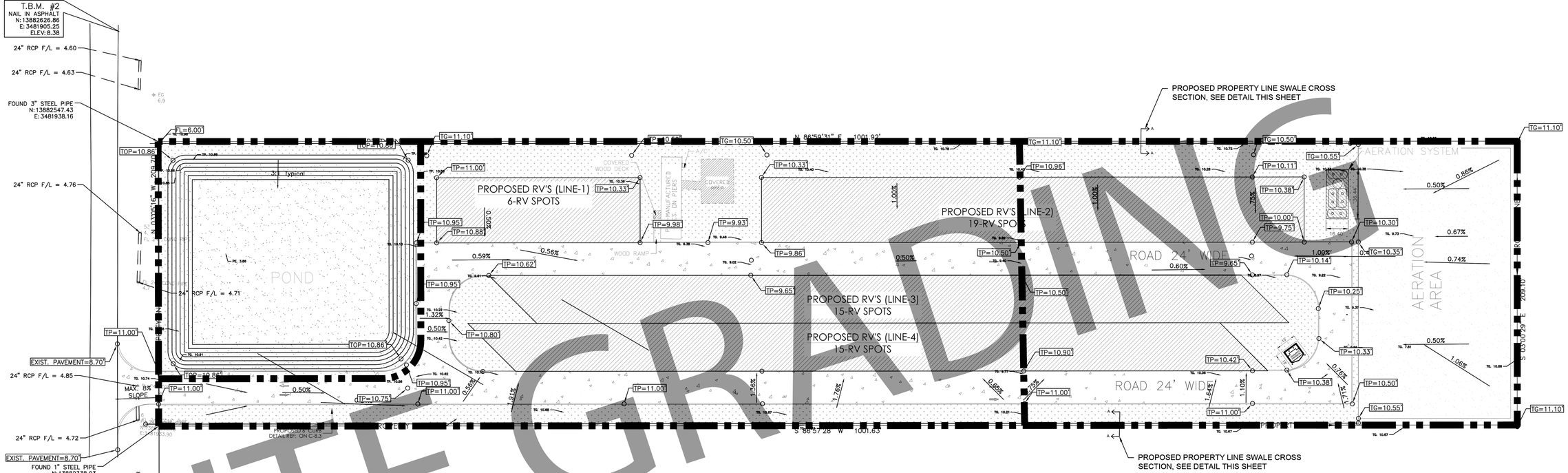


POND SECTION
NO SCALE

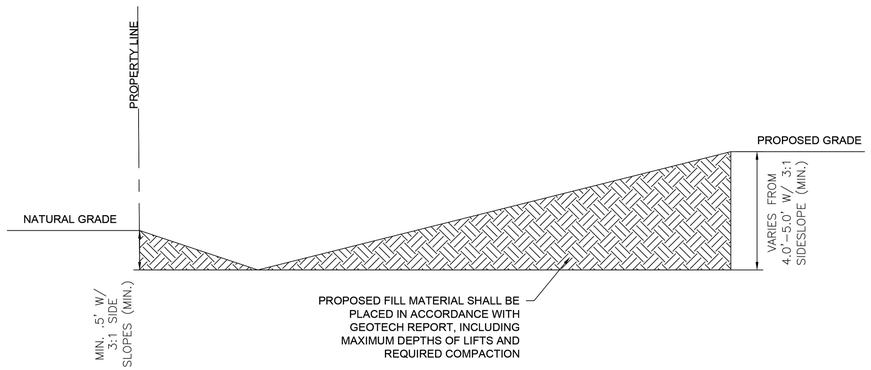


DRIVEWAY CROSS-SECTION

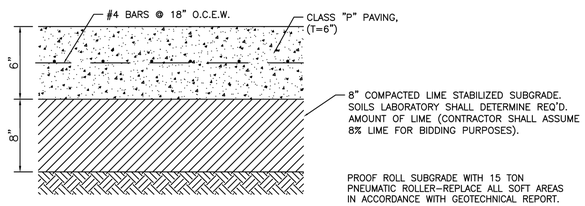
PROPOSED RV'S PARK
17653 BOONDOCKS RD, BEAUMONT, TX 77705



GRADING PLAN
SCALE 1: 40



SECTION A-A PROPOSED PROPERTY LINE SWALE



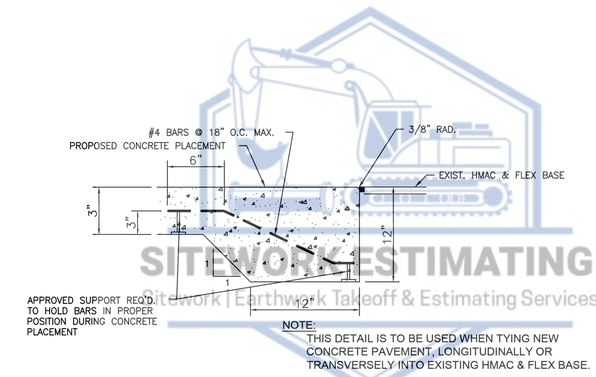
SUBGRADE PREPARATION NOTES

1. THE TOP 6 INCHES OF SOIL, VEGETATION AND ROOTS IN THE PROPOSED PAVEMENT AREAS SHALL BE STRIPPED FROM THE SITE AND EITHER WASTED OR STOCKPILED FOR LATER USE. AFTER STRIPPING AND EXCAVATING TO THE DESIRED SUBGRADE ELEVATION, THE EXPOSED SUBGRADE SOILS SHALL BE PROOF ROLLED WITH AT LEAST A 15 TON PNEUMATIC ROLLER TO DETECT WEAK AREAS. SUCH AREAS SHALL BE REMOVED AND REPLACED WITH SOILS EXHIBITING SIMILAR CLASSIFICATION, MOISTURE CONTENT AND DENSITY AS THE ADJACENT IN SITU SOILS. SUBSEQUENT TO PROOF ROLLING, THE EXPOSED SUBGRADE SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF STANDARD PROCTOR (ASTM D 698) MAXIMUM DRY DENSITY AT OPTIMUM TO +3% ABOVE OPTIMUM MOISTURE CONTENT.

2. ANY FILL REQUIRED FOR GRADING PURPOSES, SHALL BE PLACED IN MAXIMUM LOOSE LIFTS OF 8 INCHES. IF WATER MUST BE ADDED, IT SHALL BE UNIFORMLY APPLIED AND THOROUGHLY MIXED INTO THE SOIL BY DISKING OR SCARIFYING. THE EDGES OF COMPACTED FILL SHALL EXTEND A MINIMUM OF 2 FOOT BEYOND THE EDGES OF THE PAVEMENT PRIOR TO SLOPING. SELECT FILL, IF REQUIRED, SHALL BE FREE OF ORGANIC OR OTHER DELETERIOUS MATERIALS, HAVE A MAXIMUM PARTICLE SIZE LESS THAN 3 INCHES. GEOTECHNICAL REPORT SHALL DETERMINE REQUIRED AMOUNT OF LIME (CONTRACTOR SHALL ASSUME 8% LIME FOR BIDDING PURPOSES). STRUCTURAL SELECT FILL SHALL BE COMPACTED TO AT LEAST 95% OF STANDARD PROCTOR (ASTM D 698 MAXIMUM DRY DENSITY, AT -2% TO +3% OF OPTIMUM MOISTURE CONTENT. STABILIZE THE UPPER 8 INCHES OF SOIL WITH LIME WHEN IN SITU SOILS HAVE PI GREATER THAN 20.

3. REINFORCED CONCRETE SHALL BE CLASS "P" PAVING IN THE THICKNESS SPECIFIED. SEE CONCRETE TABLES.

CONCRETE PAVING SECTION



NOTE:
THIS DETAIL IS TO BE USED WHEN TYING NEW CONCRETE PAVEMENT, LONGITUDINALLY OR TRANSVERSELY INTO EXISTING HMAC & FLEX BASE.

EXISTING ASPHALT PAVEMENT TRANSITION
(NEW CONC. TO EXIST. ASPHALT)
N.T.S.