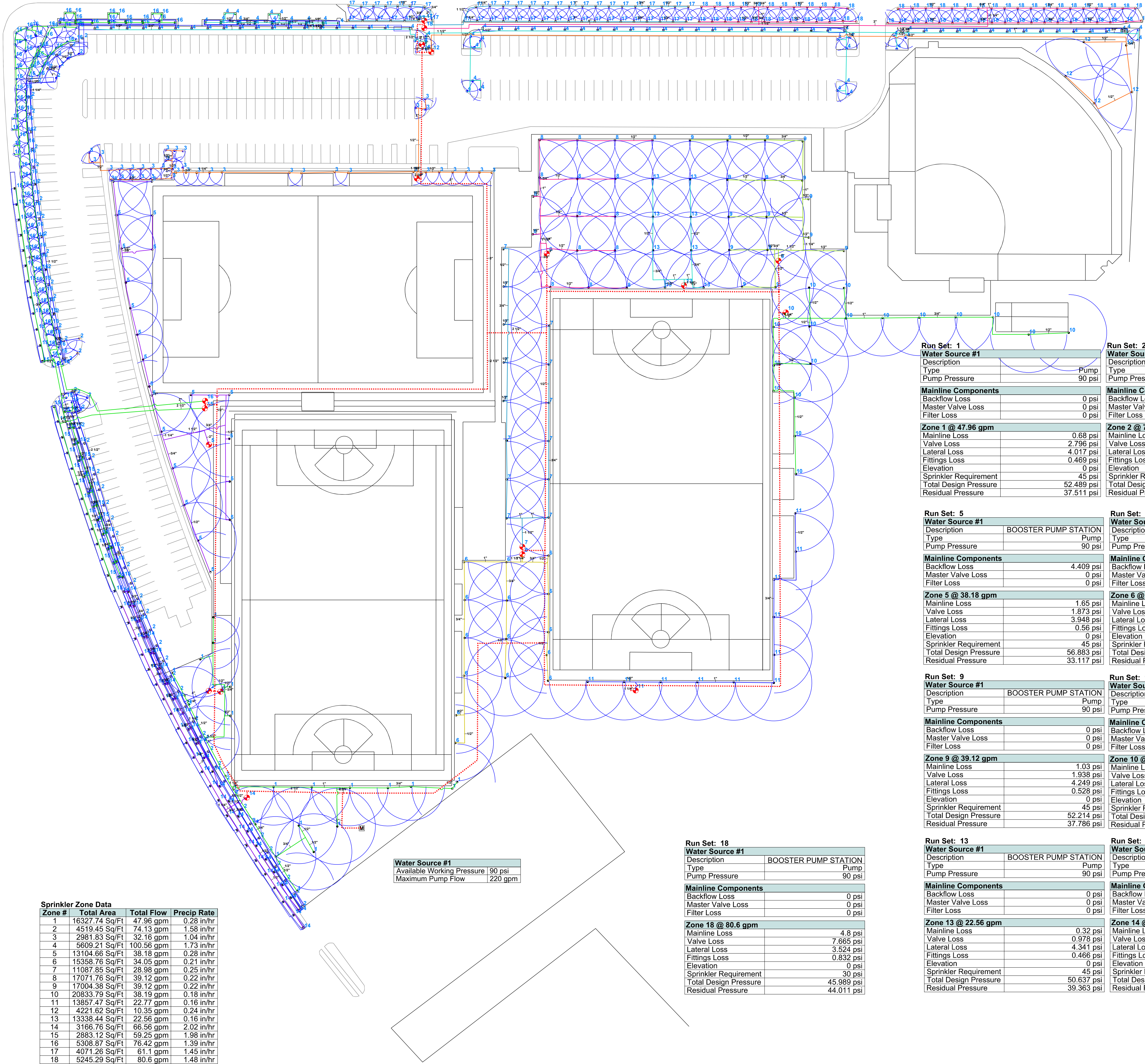




Sprinkler Zone Data			
Zone #	Total Area	Total Flow	Precip Rate
1	16327.74 Sq/Ft	47.96 gpm	0.28 in/hr
2	4519.45 Sq/Ft	74.13 gpm	1.58 in/hr
3	2981.83 Sq/Ft	32.16 gpm	1.04 in/hr
4	5609.21 Sq/Ft	100.56 gpm	1.73 in/hr
5	13104.66 Sq/Ft	38.18 gpm	0.28 in/hr
6	15359.76 Sq/Ft	34.05 gpm	0.21 in/hr
7	11087.85 Sq/Ft	28.98 gpm	0.25 in/hr
8	17071.76 Sq/Ft	39.12 gpm	0.22 in/hr
9	17004.38 Sq/Ft	39.12 gpm	0.22 in/hr
10	20833.79 Sq/Ft	38.19 gpm	0.18 in/hr
11	13857.47 Sq/Ft	22.77 gpm	0.16 in/hr
12	4221.62 Sq/Ft	10.35 gpm	0.24 in/hr
13	13338.44 Sq/Ft	22.56 gpm	0.16 in/hr
14	3166.76 Sq/Ft	66.56 gpm	2.02 in/hr
15	2883.12 Sq/Ft	59.25 gpm	1.98 in/hr
16	5308.87 Sq/Ft	76.42 gpm	1.39 in/hr
17	4071.26 Sq/Ft	61.1 gpm	1.45 in/hr
18	5245.29 Sq/Ft	80.6 gpm	1.48 in/hr

Water Source #1	
Available Working Pressure	90 psi
Maximum Pump Flow	220 gpm

Run Set: 18	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	0 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 18 @ 80.6 gpm	
Mainline Loss	4.8 psi
Valve Loss	7.665 psi
Lateral Loss	3.524 psi
Fittings Loss	0.832 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	45.989 psi
Residual Pressure	44.011 psi

Run Set: 13	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	0 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 13 @ 22.56 gpm	
Mainline Loss	0.32 psi
Valve Loss	0.978 psi
Lateral Loss	4.341 psi
Fittings Loss	0.466 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	50.637 psi
Residual Pressure	39.363 psi

Run Set: 14	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	0 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 14 @ 66.56 gpm	
Mainline Loss	0.81 psi
Valve Loss	5.318 psi
Lateral Loss	2.961 psi
Fittings Loss	0.377 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	39.09 psi
Residual Pressure	50.91 psi

Run Set: 15	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	0 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 15 @ 59.25 gpm	
Mainline Loss	1.54 psi
Valve Loss	2.055 psi
Lateral Loss	6.834 psi
Fittings Loss	0.837 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	40.428 psi
Residual Pressure	49.574 psi

Run Set: 17	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	0 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 17 @ 61.1 gpm	
Mainline Loss	2.87 psi
Valve Loss	4.554 psi
Lateral Loss	2.883 psi
Fittings Loss	0.576 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	40.311 psi
Residual Pressure	49.689 psi

Irrigation

Qty	Symbol	Description	Part Number	Pressure	Flow	Radius
Sprinklers						
3	●	Rain Bird 10F - 1804	10F	30 psi	1.58 gpm	10 ft
108	●	Rain Bird 10H - 1804	10H	30 psi	0.79 gpm	10 ft
27	●	Rain Bird 10Q - 1804	10Q	30 psi	0.39 gpm	10 ft
113	●	Rain Bird 12H - 1804	12H	30 psi	1.3 gpm	12 ft
19	●	Rain Bird 12Q - 1804	12Q	30 psi	0.65 gpm	12 ft
1	●	Rain Bird 12T - 1804	12T	30 psi	0.87 gpm	12 ft
8	●	Rain Bird 15EST - 1804	15EST	30 psi	0.81 gpm	15 x 4 ft
11	●	Rain Bird 15SST - 1806	15SST	30 psi	0.61 gpm	15 x 4 ft
100	●	Rain Bird 15SST - 1804	15SST	30 psi	1.21 gpm	30 x 4 ft
128	●	Rain Bird 15SST - 1804	15SST	30 psi	1.21 gpm	30 x 4 ft
4	●	Rain Bird 3500 Series 1.5 - 3504-PC	1.5	45 psi	1.48 gpm	24 ft
3	●	Rain Bird 5000 Series 1.0 LA - 5004-PL-FC	1.0 LA	45 psi	0.99 gpm	24 ft
3	●	Rain Bird 5000 Series 1.5 LA - 5004-PL-FC	1.5 LA	45 psi	1.58 gpm	31 ft
6	●	Rain Bird 5000 Series 1.5 LA - 5004-PL-FC	1.5 LA	45 psi	1.58 gpm	31 ft
3	●	Rain Bird 5000 Series 2.0 - 5004-PL-FC	2.0	45 psi	2.07 gpm	37 ft
75	●	Rain Bird 5000 Series 2.0 - 5004-PL-FC	2.0	45 psi	2.07 gpm	37 ft
17	●	Rain Bird 5000 Series 2.0 - 5004-PL-FC	2.0	45 psi	2.07 gpm	37 ft
2	●	Rain Bird 5000 Series 2.0 - 5004-PL-FC	2.0	45 psi	2.07 gpm	37 ft
7	●	Rain Bird 5000 Series 2.0 - 5004-PL-FC	2.0	45 psi	2.07 gpm	37 ft
27	●	Rain Bird 5000 Series 3.0 LA - 5004-PL-FC	3.0 LA	45 psi	3.07 gpm	35 ft
10	●	Rain Bird 8Q - 1804	8Q	30 psi	0.26 gpm	8 ft

Water Source	
1	BOOSTER PUMP STATION

Control Valves	
15	Rain Bird 150-PGA Angle
3	Rain Bird 200-PGA Globe

Lateral Line Pipe	
3956.95 ft	Class 315 1/2"
2003.57 ft	Class 200 3/4"
1840.3 ft	Class 200 1"
988.55 ft	Class 200 1 1/4"
1286.66 ft	Class 200 1 1/2"
1581.51 ft	Class 200 2"
633.08 ft	Class 200 2 1/2"
455.65 ft	Class 200 3"
335.06 ft	Class 200 4"

Mainline Pipe	
2490.55 ft	Class 200 2 1/2"
375.56 ft	Class 200 3"

Run Set: 1	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	0 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 1 @ 47.96 gpm	
Mainline Loss	0.68 psi
Valve Loss	2.796 psi
Lateral Loss	4.017 psi
Fittings Loss	0.469 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	52.489 psi
Residual Pressure	37.511 psi

Run Set: 2	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	4.517 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 2 @ 74.13 gpm	
Mainline Loss	2.77 psi
Valve Loss	6.378 psi
Lateral Loss	2.937 psi
Fittings Loss	0.571 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	46.601 psi
Residual Pressure	43.399 psi

Run Set: 3	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	4.108 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 3 @ 32.16 gpm	
Mainline Loss	1.96 psi
Valve Loss	1.451 psi
Lateral Loss	2.956 psi
Fittings Loss	0.492 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	40.476 psi
Residual Pressure	49.524 psi

Run Set: 4	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	4.373 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 4 @ 81.36 gpm	
Mainline Loss	15.5 psi
Valve Loss	7.823 psi
Lateral Loss	2.939 psi
Fittings Loss	1.844 psi
Elevation	0 psi
Sprinkler Requirement	30 psi
Total Design Pressure	60.635 psi
Residual Pressure	29.365 psi

Run Set: 5	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	4.409 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 5 @ 38.18 gpm	
Mainline Loss	1.65 psi
Valve Loss	1.873 psi
Lateral Loss	3.948 psi
Fittings Loss	0.56 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	56.883 psi
Residual Pressure	33.117 psi

Run Set: 6	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	0 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 6 @ 34.05 gpm	
Mainline Loss	0.58 psi
Valve Loss	1.583 psi
Lateral Loss	3.958 psi
Fittings Loss	0.454 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	51.121 psi
Residual Pressure	38.879 psi

Run Set: 7	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	3.949 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 7 @ 28.98 gpm	
Mainline Loss	6.57 psi
Valve Loss	1.256 psi
Lateral Loss	4.156 psi
Fittings Loss	1.073 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	60.932 psi
Residual Pressure	29.068 psi

Run Set: 8	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	0 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 8 @ 39.12 gpm	
Mainline Loss	0.84 psi
Valve Loss	1.938 psi
Lateral Loss	3.914 psi
Fittings Loss	0.475 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	51.69 psi
Residual Pressure	38.31 psi

Run Set: 9	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	0 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 9 @ 39.12 gpm	
Mainline Loss	1.03 psi
Valve Loss	1.938 psi
Lateral Loss	4.249 psi
Fittings Loss	0.528 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	52.214 psi
Residual Pressure	37.786 psi

Run Set: 10	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	0 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 10 @ 38.19 gpm	
Mainline Loss	0.92 psi
Valve Loss	1.873 psi
Lateral Loss	4.295 psi
Fittings Loss	0.521 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	52.088 psi
Residual Pressure	37.914 psi

Run Set: 11	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	3.638 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 11 @ 22.77 gpm	
Mainline Loss	5.15 psi
Valve Loss	0.987 psi
Lateral Loss	4.368 psi
Fittings Loss	0.951 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	58.138 psi
Residual Pressure	30.862 psi

Run Set: 12	
Water Source #1	
Description	BOOSTER PUMP STATION
Type	Pump
Pump Pressure	90 psi
Mainline Components	
Backflow Loss	3.017 psi
Master Valve Loss	0 psi
Filter Loss	0 psi
Zone 12 @ 10.35 gpm	
Mainline Loss	0.74 psi
Valve Loss	0.448 psi
Lateral Loss	2.38 psi
Fittings Loss	0.312 psi
Elevation	0 psi
Sprinkler Requirement	45 psi
Total Design Pressure	51.581 psi
Residual Pressure	38.419 psi

PAYER CONNECTION
25810 CLAY ROAD
KATY, TX 77493
281 371-2955



SHEET DESCRIPTION:
IRRIGATION DESIGN

PROJECT:
ST. AGNES ACADEMY
ATHLETIC FIELD PROJECT

REVISIONS:
None

DATE:
09/15/2011

JOB NUMBER:
D1-07112011

DRAWN BY:
CASEY REIMANN

CHECKED BY:
CLR

SCALE:
1" = 50'

SHEET:
1 of 1