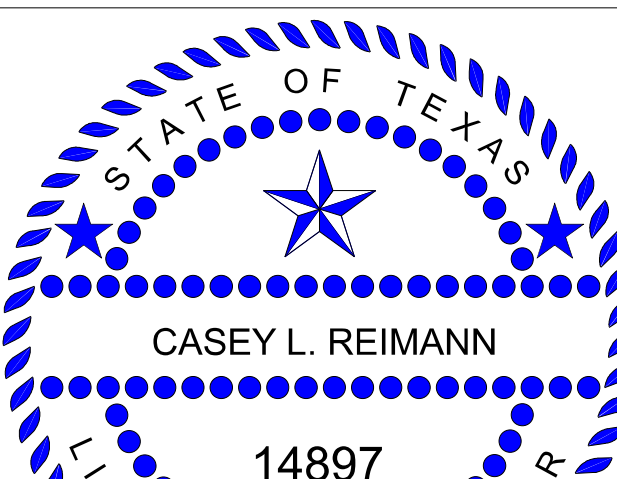




281 341-0499



SHEET DESCRIPTION
IRRIGATION DESIGN
Casey Reimann
02/09/2016

PROJECT:
CATALON APARTMENTS
HOUSTON, TX

REVISIONS:
None

DATE:
02/09/2016

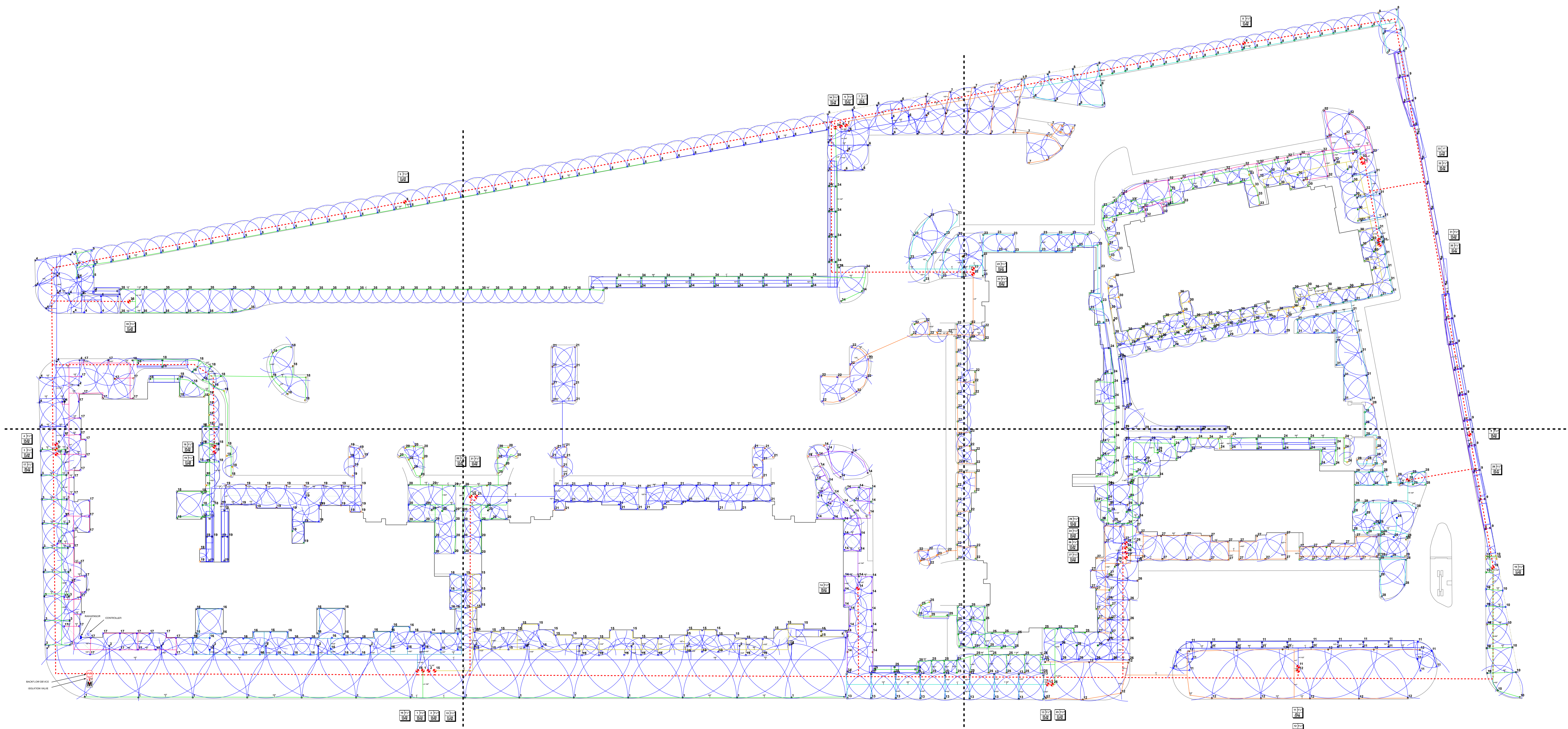
JOB NUMBER:
D1-02092016

DRAWN BY:
CASEY REIMANN

CHECKED BY:
CLR

SCALE:
1" = 30'

SHEET:
1 of 7



Irrigation

Quantity	Symbol	Description	Part Number	Pressure	Flow	Radius
Sprinklers						
9	●	Rain Bird 10F - 1804	10F	30 psi	1.58 gpm	10 ft
215	●	Rain Bird 10H - 1804	10H	30 psi	0.79 gpm	10 ft
92	●	Rain Bird 10Q - 1804	10Q	30 psi	0.39 gpm	10 ft
5	●	Rain Bird 10-VAN 180 - 1806	10-VAN	30 psi	1.45 gpm	10 ft
4	●	Rain Bird 10-VAN 90 - 1804	10-VAN	30 psi	0.75 gpm	10 ft
9	●	Rain Bird 12F - 1804	12F	30 psi	2.6 gpm	12 ft
52	●	Rain Bird 12H - 1804	12H	30 psi	1.3 gpm	12 ft
43	●	Rain Bird 12Q - 1804	12Q	30 psi	0.65 gpm	12 ft
3	●	Rain Bird 12-VAN 180 - 1804	12-VAN	30 psi	1.3 gpm	12 ft
1	●	Rain Bird 12-VAN 270 - 1804	12-VAN	30 psi	1.95 gpm	12 ft
5	●	Rain Bird 12-VAN 90 - 1804	12-VAN	30 psi	0.65 gpm	12 ft
3	●	Rain Bird 15CST - 1804	15CST	30 psi	1.21 gpm	30 x 4 ft
20	●	Rain Bird 15EST - 1804	15EST	30 psi	0.61 gpm	15 x 4 ft
3	●	Rain Bird 15F - 1804	15F	30 psi	3.7 gpm	15 ft
102	●	Rain Bird 15H - 1804	15H	30 psi	1.85 gpm	15 ft
74	●	Rain Bird 15Q - 1804	15Q	30 psi	0.92 gpm	15 ft
93	●	Rain Bird 15SST - 1804	15SST	30 psi	1.21 gpm	30 x 4 ft
12	●	Rain Bird 15-VAN 180 - 1804	15-VAN	30 psi	1.85 gpm	15 ft
1	●	Rain Bird 15-VAN 270 - 1804	15-VAN	30 psi	2.78 gpm	15 ft
15	●	Rain Bird 15-VAN 90 - 1804	15-VAN	30 psi	0.92 gpm	15 ft
4	●	Rain Bird 3500 Series 1.5 - 5004-PC	1.5	45 psi	1.48 gpm	24 ft
1	●	Rain Bird 3500 Series 2.0 - 5004-PC	2.0	45 psi	1.93 gpm	27 ft
5	●	Rain Bird 5000 Series 1.5 - 5004-PL-PC	1.5	45 psi	1.54 gpm	37 ft
37	●	Rain Bird 5000 Series 2.0 - 5004-PL-PC	2.0	45 psi	2.07 gpm	37 ft
1	●	Rain Bird 5Q - 1804	5Q	30 psi	0.1 gpm	5 ft
53	●	Rain Bird 6-VAN 180 - 1804	6-VAN	30 psi	0.6 gpm	6 ft
59	●	Rain Bird 6-VAN 90 - 1804	6-VAN	30 psi	0.37 gpm	6 ft
5	●	Rain Bird 8F - 1804	8F	30 psi	1.05 gpm	8 ft
2	●	Rain Bird 8H - 1804	8H	30 psi	0.52 gpm	8 ft
218	●	Rain Bird 8Q - 1804	8Q	30 psi	0.26 gpm	8 ft
105	●	Rain Bird 8-VAN 180 - 1804	8-VAN	30 psi	1.19 gpm	8 ft
1	●	Rain Bird 8-VAN 270 - 1804	8-VAN	30 psi	1.55 gpm	8 ft
2	●	Rain Bird 8-VAN 90 - 1804	8-VAN	30 psi	0.72 gpm	8 ft

Meters/Pumps

1	IM	2 inch meter	
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Backflow Devices

1	Febco 765 - 2"	765 - 2"
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Control Valves

1	Rain Bird 100-DVF-SS	100-DVF-SS
34	Rain Bird 150-PEB	150-PEB

Irrigation Accessories

1	Nibco 2" isolation valve	
1	Rain Bird RAINGAUGE	ESPLXM-32

Lateral Line Pipe

8155 ft	Class 315 1/2"	
1911 ft	Class 200 3/4"	
2032 ft	Class 200 1"	
1193 ft	Class 200 1 1/4"	
463 ft	Class 200 1 1/2"	
261 ft	Class 200 2"	

Mainline Pipe

3096 ft	Class 200 2"	0
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Sprinkler Zone Data

Zone #	Total Area	Total Flow	Precip Rate
1	14355.6 Sq/Ft	30.52 gpm	0.2 in/hr
2	14016.83 Sq/Ft	32.06 gpm	0.22 in/hr
3	1938.38 Sq/Ft	31.44 gpm	1.56 in/hr
4	2194.23 Sq/Ft	34.65 gpm	1.52 in/hr
5	3605.16 Sq/Ft	31.85 gpm	0.85 in/hr
6	2683.57 Sq/Ft	35.47 gpm	1.27 in/hr
7	2095.99 Sq/Ft	34.6 gpm	1.59 in/hr
8	2538.17 Sq/Ft	31.59 gpm	1.2 in/hr
9	1277.71 Sq/Ft	36.92 gpm	2.78 in/hr
10	1130.68 Sq/Ft	17.93 gpm	1.53 in/hr
11	930.49 Sq/Ft	28.3 gpm	2.93 in/hr
12	5592.9 Sq/Ft	31.49 gpm	0.94 in/hr
13	1751.16 Sq/Ft	29.58 gpm	1.63 in/hr
14	2092.62 Sq/Ft	30.07 gpm	1.38 in/hr
15	2926.5 Sq/Ft	37.04 gpm	1.22 in/hr
16	2743.75 Sq/Ft	35.48 gpm	1.25 in/hr
17	9122.18 Sq/Ft	32.53 gpm	1.12 in/hr
18	2214.16 Sq/Ft	34.55 gpm	1.5 in/hr
19	1724.49 Sq/Ft	31.58 gpm	1.76 in/hr
20	1914.08 Sq/Ft	33.49 gpm	1.68 in/hr
21	2180.49 Sq/Ft	33.58 gpm	1.48 in/hr
22	2118.43 Sq/Ft	24.61 gpm	1.12 in/hr
23	2199.67 Sq/Ft	33.57 gpm	1.47 in/hr
24	2137.13 Sq/Ft	30.06 gpm	1.36 in/hr
25	1849.17 Sq/Ft	31.99 gpm	1.67 in/hr
26	1835.85 Sq/Ft	23.64 gpm	1.24 in/hr
27	2390.46 Sq/Ft	33.63 gpm	1.35 in/hr
28	1812.09 Sq/Ft	29.41 gpm	1.56 in/hr
29	2022.06 Sq/Ft	25.42 gpm	1.21 in/hr
30	2461.26 Sq/Ft	31.51 gpm	1.23 in/hr
31	2243.96 Sq/Ft	32.04 gpm	1.38 in/hr
32	2279.17 Sq/Ft	30.59 gpm	1.29 in/hr
33	871.7 Sq/Ft	11.78 gpm	1.3 in/hr
34	1570.51 Sq/Ft	35.14 gpm	2.15 in/hr
35	2864.76 Sq/Ft	37.49 gpm	1.26 in/hr

Water Source #1

Water Size	2 inch meter
Static Pressure	65 psi
Elevation Change	0 ft

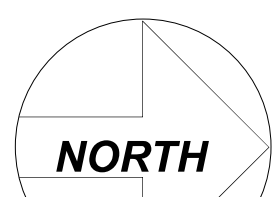
Service Line Information

Pipe Category	Poly 160
Pipe Size	Poly 160 2"
Depth	0 ft
Velocity	5 fps

Recommendations

Maximum Recommended Flow	52.29 gpm
Available Working Pressure	58.5 psi

The maximum velocity of the PVC water piping will not exceed 5 linear feet per second.
Plans and instruction manuals will be kept on site during the installation of the system.
Proposed watering schedule will be programmed into controller.
There will be a permanent sticker on controller.
Valving used to convert controller to L.I. approved.
Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ) (MC-178).
PO Box 13087, Austin, Texas 78711-3087.
TCEQ's website is:
www.tceq.state.tx.us.
Backflow preventer will be tested yearly.



1" = 30'