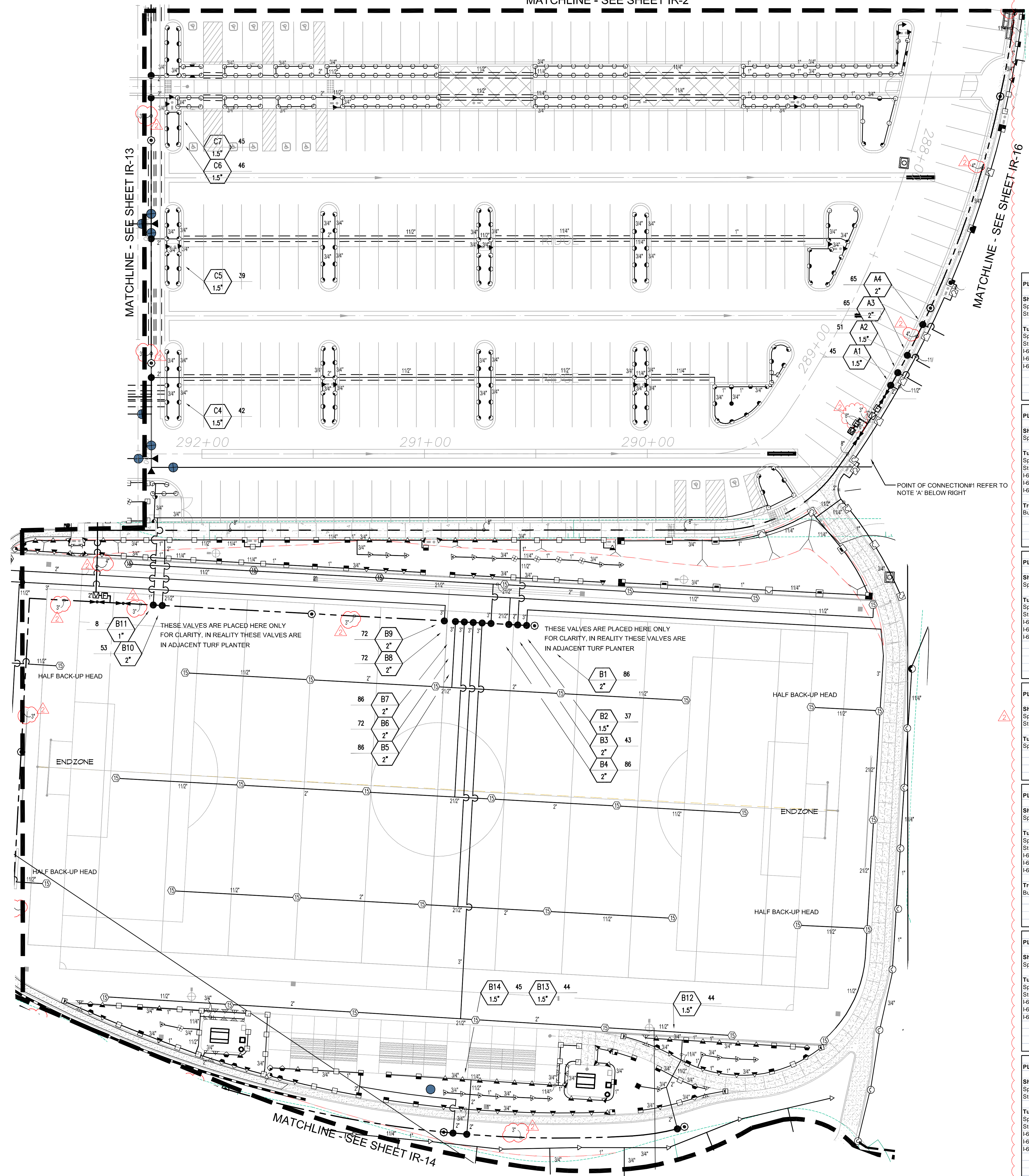


MATCHLINE - SEE SHEET IR-2

MATCHLINE - SEE SHEET IR-13

MATCHLINE - SEE SHEET IR-16



WATER PRESSURE CALCULATIONS			
WATER METER NUMBER	1	WATER METER SIZE	6"
HYDRAULIC GRADE LINE (FT)	741	WATER METER ELEVATION (FT)	367
ELEVATION DIFFERENCE (FT)	374	STATIC PRESSURE (PSI)	162
REMOTE CONTROL VALVE #	E14	REMOTE CONTROL VALVE SIZE	2"
R.C.V. DEMAND (GPM)	86	TOTAL DEMAND (GPM)	635
HIGHEST HEAD SERVED (FT)	405	STATIC PRESSURE AT HIGHEST HEAD	146
SIZE	DESCRIPTION	FLOW	# PSI LOSS
6"	SERVICE LINE (50 FT OF TYPE K COPPER)	635	1 0.7
6"	WATER METER (TURBO TYPE)	635	2 5.0
6"	BACKFLOW DEVICE	635	3 9.0
6"	FILTRATION (WYE FILTER)	635	4 1.5
6"	PRESSURE REGULATOR	635	5 1.0
6"	BFD ASSEMBLY PIPING (BRASS W/ 4 ELLS)	635	6 0.9
2"	MASTER CONTROL VALVE	86	7 2.8
2"	FLOW SENSOR	86	8 1.0
3"-8"	ISOLATION VALVES (GATE TYPE)	86	9 2.0
3"	700 FEET OF MAINLINE: CL 200 PVC	86	10 4.2
4"	740 FEET OF MAINLINE: CL 200 PVC	86	11 1.3
6"	700 FEET OF MAINLINE: CL 200 PVC	86	12 2.2
8"	260 FEET OF MAINLINE: CL 200 PVC	400	13 0.3
8"	180 FEET OF MAINLINE: CL 200 PVC	486	14 0.3
3"-8"	10-90 DEGREE ELBOWS	86	15 1.2
2"	REMOTE CONTROL VALVE	86	16 2.8
10%	LATERAL LINE LOSS	N/A	17 5.0
20%	FITTING LOSS (IN ADDITION TO ELBOWS SHOWN)	N/A	18 1.5
38	ELEVATION CHANGE (P.O.C. TO HIGHEST HEAD)	N/A	19 16.5
TOTAL SYSTEM PRESSURE LOSS (SUM OF #1 THRU #16)		20	59.2
PRESSURE REQUIRED AT HEAD		21	50.0
TOTAL PRESSURE REQUIRED (SUM OF #20 AND #21)		22	109.2
STATIC WATER PRESSURE (FROM ABOVE)		23	162.0
RESIDUAL PRESSURE (SUBTRACT #22 FROM #23)		24	52.8
SET PRV OR MCV AT (#22 PLUS 10 PSI)		25	119.2
PRESSURE BOOST, IF REQUIRED (SET TO ACHIEVE 30 PSI RESIDUAL)		26	N/A

Controller : A							
PLANT TYPE / SPRINKLER TYPE	Eto	Akc	PR RATE	IE	RUN TIME (HOURS)	QUANTITY	RUN TIME (HOURS)
Days Per Week:	5.6						
Shrub and Ground Covers:							
Spray Heads	5.60	0.40	1.74	0.70	0.07	7	0.50
Stream Rotor Heads	5.60	0.40	0.60	0.80	0.18	9	1.63
Turf Grass:							
Spray Heads	5.60	0.90	1.74	0.70	0.16	5	0.80
Stream Rotor Heads	5.60	0.90	0.60	0.80	0.41	9	3.68
I40 #15 Large Quarter Rotor Heads	5.60	0.90	2.00	0.80	0.12	1	0.12
I40 #15 Large Half Rotor Heads	5.60	0.90	1.00	0.80	0.25	5	1.23
I40 #15 Large Full Rotor Heads	5.60	0.90	0.50	0.80	0.49	4	1.96
CYCLES PER DAY:					1	TOTAL NUMBER OF STATIONS: 40	
						TOTAL RUN TIME IN HOURS ALL SPRAY ZONES: 9.93	
						TOTAL RUN TIME IN HOURS: 9.93	

Controller : B							
PLANT TYPE / SPRINKLER TYPE	Eto	Akc	PR RATE	IE	RUN TIME (HOURS)	QUANTITY	RUN TIME (HOURS)
Days Per Week:	5.6						
Shrub and Ground Covers:							
Spray Heads	5.60	0.40	1.74	0.70	0.07	15	1.07
Turf Grass:							
Spray Heads	5.60	0.90	1.74	0.70	0.16	8	1.29
Stream Rotor Heads	5.60	0.90	0.60	0.80	0.41	2	0.82
I40 #15 Large Quarter Rotor Heads	5.60	0.90	2.00	0.80	0.12	1	0.12
I40 #15 Large Half Rotor Heads	5.60	0.90	1.00	0.80	0.25	4	0.98
I40 #15 Large Full Rotor Heads	5.60	0.90	0.50	0.80	0.49	3	1.47
CYCLES PER DAY:					1	TOTAL NUMBER OF STATIONS: 35	
						TOTAL RUN TIME IN HOURS FOR DRIP & BUBBLERS ONLY: 0.13	
						TOTAL RUN TIME IN HOURS ALL SPRAY ZONES: 5.76	
						TOTAL RUN TIME IN HOURS: 5.88	

Controller : C							
PLANT TYPE / SPRINKLER TYPE	Eto	Akc	PR RATE	IE	RUN TIME (HOURS)	QUANTITY	RUN TIME (HOURS)
Days Per Week:	5.6						
Shrub and Ground Covers:							
Spray Heads	5.60	0.40	1.74	0.70	0.07	14	1.00
Turf Grass:							
Spray Heads	5.60	0.90	1.74	0.70	0.16	3	0.48
Stream Rotor Heads	5.60	0.90	0.60	0.80	0.41	7	2.86
I40 #15 Large Quarter Rotor Heads	5.60	0.90	2.00	0.80	0.12	2	0.25
I40 #15 Large Half Rotor Heads	5.60	0.90	1.00	0.80	0.25	4	0.98
I40 #15 Large Full Rotor Heads	5.60	0.90	0.50	0.80	0.49	2	0.98
CYCLES PER DAY:					1	TOTAL NUMBER OF STATIONS: 32	
						TOTAL RUN TIME IN HOURS FOR DRIP & BUBBLERS ONLY: 0.00	
						TOTAL RUN TIME IN HOURS ALL SPRAY ZONES: 6.55	
						TOTAL RUN TIME IN HOURS: 6.55	

Controller : D							
PLANT TYPE / SPRINKLER TYPE	Eto	Akc	PR RATE	IE	RUN TIME (HOURS)	QUANTITY	RUN TIME (HOURS)
Days Per Week:	5.6						
Shrub and Ground Covers:							
Spray Heads	5.60	0.40	1.74	0.70	0.07	9	0.64
Stream Rotor Heads	5.60	0.40	0.60	0.80	0.18	12	2.18
Turf Grass:							
Spray Heads	5.60	0.90	1.74	0.70	0.16	6	0.97
CYCLES PER DAY:					1	TOTAL NUMBER OF STATIONS: 27	
						TOTAL RUN TIME IN HOURS FOR DRIP & BUBBLERS ONLY: 0.00	
						TOTAL RUN TIME IN HOURS ALL SPRAY ZONES: 3.79	
						TOTAL RUN TIME IN HOURS: 3.79	

Controller : E							
PLANT TYPE / SPRINKLER TYPE	Eto	Akc	PR RATE	IE	RUN TIME (HOURS)	QUANTITY	RUN TIME (HOURS)
Days Per Week:	5.6						
Shrub and Ground Covers:							
Spray Heads	5.60	0.40	1.74	0.70	0.07	3	0.21
Turf Grass:							
Spray Heads	5.60	0.90	1.74	0.70	0.16	3	0.48
Stream Rotor Heads	5.60	0.90	0.60	0.80	0.41	2	0.82
I40 #15 Large Quarter Rotor Heads	5.60	0.90	2.00	0.80	0.12	2	0.25
I40 #15 Large Half Rotor Heads	5.60	0.90	1.00	0.80	0.25	5	1.23
I40 #15 Large Full Rotor Heads	5.60	0.90	0.50	0.80	0.49	4	1.96
CYCLES PER DAY:					1	TOTAL NUMBER OF STATIONS: 21	
						TOTAL RUN TIME IN HOURS FOR DRIP & BUBBLERS ONLY: 0.00	
						TOTAL RUN TIME IN HOURS ALL SPRAY ZONES: 4.95	
						TOTAL RUN TIME IN HOURS: 5.08	

Controller : F							
PLANT TYPE / SPRINKLER TYPE	Eto	Akc	PR RATE	IE	RUN TIME (HOURS)	QUANTITY	RUN TIME (HOURS)
Days Per Week:	5.6						
Shrub and Ground Covers:							
Spray Heads	5.60	0.40	1.74	0.70	0.07	12	0.86
Turf Grass:							
Spray Heads	5.60	0.90	1.74	0.70	0.16	3	0.48
Stream Rotor Heads	5.60	0.90	0.60	0.80	0.41	7	2.86
I40 #15 Large Quarter Rotor Heads	5.60	0.90	2.00	0.80	0.12	1	0.12
I40 #15 Large Half Rotor Heads	5.60	0.90	1.00	0.80	0.25	4	0.98
I40 #15 Large Full Rotor Heads	5.60	0.90	0.50	0.80	0.49	4	1.96
CYCLES PER DAY:					1	TOTAL NUMBER OF STATIONS: 31	
						TOTAL RUN TIME IN HOURS FOR DRIP & BUBBLERS ONLY: 0.00	
						TOTAL RUN TIME IN HOURS ALL SPRAY ZONES: 7.27	
						TOTAL RUN TIME IN HOURS: 7.27	

Controller : G							
PLANT TYPE / SPRINKLER TYPE	Eto	Akc	PR RATE	IE	RUN TIME (HOURS)	QUANTITY	RUN TIME (HOURS)
Days Per Week:	5.6						
Shrub and Ground Covers:							
Spray Heads	5.60	0.40	1.74	0.70	0.07	6	0.43
Stream Rotor Heads	5.60	0.40	0.60	0.80	0.18	3	0.54
Turf Grass:							
Spray Heads	5.60	0.90	1.74	0.70	0.16	3	0.48
Stream Rotor Heads	5.60	0.90	0.60	0.80	0.41	2	0.82
I40 #15 Large Quarter Rotor Heads	5.60	0.90	2.00	0.80	0.12	1	0.12
I40 #15 Large Half Rotor Heads	5.60	0.90	1.00	0.80	0.25	6	1.47
I40 #15 Large Full Rotor Heads	5.60	0.90	0.50	0.80	0.49	7	3.44
CYCLES PER DAY:					1	TOTAL NUMBER OF STATIONS: 28	
						TOTAL RUN TIME IN HOURS ALL SPRAY ZONES: 7.31	
						TOTAL RUN TIME IN HOURS: 7.31	

THESE VALVES ARE PLACED HERE ONLY FOR CLARITY, IN REALITY THESE VALVES ARE IN ADJACENT TURF PLANTER

THESE VALVES ARE PLACED HERE ONLY FOR CLARITY, IN REALITY THESE VALVES ARE IN ADJACENT TURF PLANTER

POINT OF CONNECTION#1 REFER TO NOTE 'A' BELOW RIGHT

NOTE A: POINT OF CONNECTION 1 SHALL BE A 6" DOMESTIC (FUTURE RECLAIMED) WATER METER WITH A 8" SERVICE LINE. VERIFY THE ACTUAL LOCATION, SIZE AND WATER PRESSURE IN THE FIELD PRIOR TO STARTING WORK. IF ANY OF THE POC INFORMATION SHOWN ON THESE DRAWINGS IS FOUND TO BE DIFFERENT THAN THE ACTUAL POC INFORMATION GATHERED IN THE FIELD, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT. SHOULD THE CONTRACTOR FAIL TO VERIFY THE POC INFORMATION ANY CHANGES REQUIRED BY LOW PRESSURE OR VOLUME SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

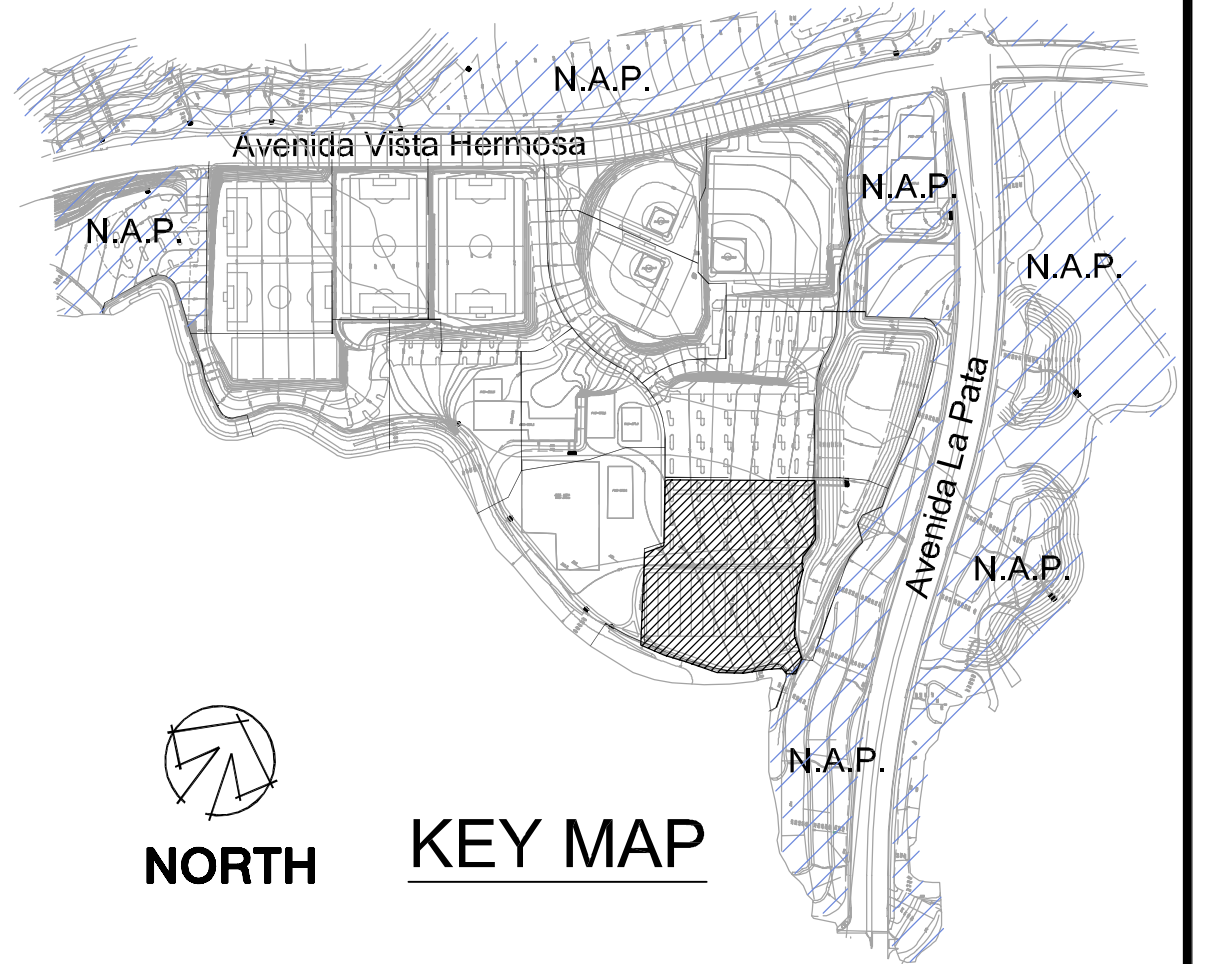
STATIC WATER PRESSURE  
DESIGN WATER PRESSURE 162 PSI  
MAXIMUM SYSTEM DEMAND 109 PSI  
SET PRESSURE REGULATOR @ 635 GPM 119 PSI

NOTE: MAINLINE SHOWN WITHIN PAVING FOR CLARITY ONLY. ACTUAL MAINLINE LOCATION TO BE A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES TYP.

NOTE: CONTRACTOR SHALL ADJUST ALL HEADS AS REQUIRED TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR, INCLUDING BUT NOT LIMITED TO LIGHT POLES, FIRE HYDRANTS, ETC. VERIFY ALL HEAD LAYOUT WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.

NOTE: BUBBLERS AND LATERAL LINES ARE SHOWN WITHIN PAVING FOR CLARITY ONLY. ACTUAL LOCATION TO BE WITHIN PLANTER. BUBBLERS SHALL BE ALIGNED WITH TREES AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.

KEY MAP



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IRRIGATION DESIGN AND CONSULTING  
38730 Sky Canyon Drive, Suite C  
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ems@sweeneyirrig.com  
www.sweeneyirrig.com  
Murietta, California Austin, Texas Ft. Lauderdale, Florida

Underground Service Alert  
DIG ALERT  
Call: TOLL FREE 1-800-227-2600  
TWO WORKING DAYS BEFORE YOU DIG

APPROVED BY:  
AL KING, DIRECTOR OF BEACHES, PARKS, & RECREATION

REVISIONS

NO.	DESCRIPTION	REVISED	APPROVED	DATE
2	ADDENDUM 3			03-02-10

JOB NO.: 55-100467  
SMP NO.: 649-560  
SCALE: AS SHOWN  
DESIGNED BY: SMP

REGISTERED LANDSCAPE ARCHITECT  
Patrick A. Murphy, No. 00000000  
Renewed Date: [blank]  
STATE OF CALIFORNIA

PLANS PREPARED BY:  
SULLIVAN MURPHY & PARTNERS, INC.  
10000 COAST HIGHWAY, SUITE 200  
DANA POINT, CALIFORNIA 92629  
(949) 443-1446 FAX (949) 443-1631

PREPARED UNDER THE SUPERVISION OF:  
PATRICK MURPHY DATE: R.L.A. # 1881

CITY OF SAN CLEMENTE  
DEPARTMENT OF BEACHES, PARKS, & RECREATION

LA PATITA PARK  
IRRIGATION PLAN

DRAWING NO.: IR-1  
SHEET NO.: 63  
OF 178