

IRRIGATION EQUIPMENT LEGEND

SYMBOL	DESCRIPTION	MANUF	MODEL	SIZE	NOTES
M	Water Meter			3/4"	Irrigation Water Meter provided by others. Location shown is approximate. Verify in field.
I	Point of Connection at Existing House Water Service Line			Size Per Plan	Note: Existing service line must be 3/4" minimum for use by control valve.
AS	Anti-Siphon Control Valve	Rain Bird	ASVF	Size Per Plan	Install per detail J.
LB	Low Flow Control Zone Kit	Rain Bird	XAC2075-PRF	3/4"	K1 shall include psi regulator, filter and ball valve. Install per Detail K.
BV	Ball Valve	KBI	WLT-0000-T	Line Size	See Detail F. Install in 10" round valve box.
C	Smart Controller	Hunter	Pro-C Controller Pcs1500S-Solar Sync	15 Stations	Interior wall-mount controller. Install in a plastic enclosure. See Detail L. Install with Hunter Solar Sync. Final location of controller shall be selected by Owner. Install per manufacturers specifications.
E	Electrical Connection			120 Volt	Plug or hard wire controller onto GFI electrical outlet. Location to be determined by Owner.
S	Solar Sync	Hunter			Mount Solar Sync in an area that will be exposed to unobstructed rainfall, but not in the path of sprinkler spray. See Detail I. Final location of Solar Sync shall be selected by Owner. Install per manufacturers specifications.
I	Pressurized Mainline	PVC	Sch.40 1-1/2" or less Cl. 315 2' or more	Size Per Plan	Install at 18" depth. See Trenching Detail H.
I	Non-pressurized Lateral	PVC	Class 200	Size Per Plan	Install at 12" depth. See Trenching Detail H.
NOT SHOWN	Pressure Reducing Valve	Wilkins	500 Series	Mainline Size	Install on mainline in 10" round valve box at point-of-connection if psi is found to exceed 80 psi. See Ball Valve Detail (Similar).
NOT SHOWN	Automatic Line Flushing Valve	Netafirm	TL050M-FV-1	1"	Install in 6" round valve box with 12" deep gravel sump. See Ball Valve Detail (Similar).
NOT SHOWN	Air/Vacuum Relief Valve	Netafirm	TLAVRV	1"	Install at highest point on circuit. See manufacturers details. Install in 6" round valve box.
NOT SHOWN	Dripper Line (Techline Dripperline)	Netafirm	TLDL6-18x	1/2"	Install per manufacturer specifications. Space dripper lines at 12" O.C. Stake in place at 10 feet O.C. with jute stakes. Mulch over tubing in planters (3' deep). Sleeve under Improvements: Under Vehicle Paving install mainline, wiring and laterals in separate PVC Sch. 80 sleeves with 30" cover. Under Pedestrian Paving install mainline, wiring and laterals in separate PVC Sch. 40 sleeves with 24" cover. All sleeves shall be 2-1/2" times line size. See Sleeve Detail E.
NOT SHOWN	Sleeve	PVC	See Notes	Size Per Plan	
NOT SHOWN	Controller Station Maximum GPM Valve Size				

WATERING SCHEDULE IRRIGATION CONTROLLER RUN TIMES (WHILE PLANTS ARE ESTABLISHING)

Irrigation Hydrozone 1 Low Water Use [Leam] Drip 120 Gals/Hour												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maximum Minutes per start time	11	11	11	11	11	11	11	11	11	11	11	11
Start times per week	2	2	3	4	5	6	6	6	4	3	2	2
Total minutes per week	22	22	33	44	55	66	66	66	44	33	22	22

Irrigation Hydrozone 2 Low Water Use [Leam] Gear Rotor (0.39 inches/Hour)												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maximum Minutes per start time	27	27	27	27	27	27	27	27	27	27	27	27
Start times per week	1	2	2	3	3	4	4	4	3	2	2	1
Total minutes per week	27	54	54	81	81	108	108	108	81	54	54	27

Irrigation Hydrozone 3 Low Water Use [Leam] Sprinkler 1.00 inches/Hour												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maximum Minutes per start time	11	11	11	11	11	11	11	11	11	11	11	11
Start times per week	1	2	2	3	3	4	4	4	3	2	2	1
Total minutes per week	11	22	22	33	33	44	44	44	33	22	22	11

Irrigation Hydrozone 4 Low Water Use [Leam] Bubbler 1.00 Gals/Hr												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maximum Minutes per start time	2	2	2	2	2	2	2	2	2	2	2	2
Start times per week	2	2	3	4	5	6	6	6	4	3	2	2
Total minutes per week	4	4	6	8	10	12	12	12	8	6	4	4

NOTES:
 1. This Irrigation Schedule was created by using the City of San Diego Landscape Watering Calculator available on the City of San Diego Official Web site (www.sandiego.gov)
 2. See Sheet L-1 for Irrigation Hydrozone Map.
 3. After all the plant material is established (approx. 1-2 years from planting) the watering times could be reduced. This decision shall be made by the individual homeowner.

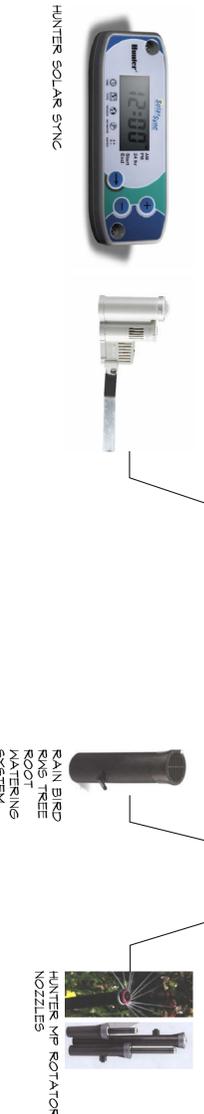
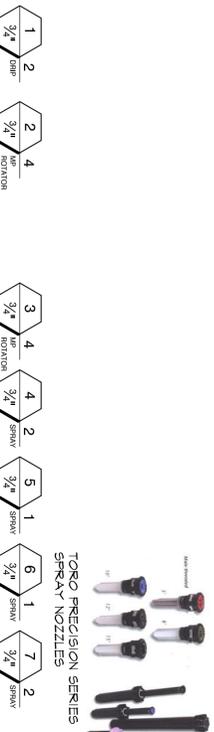
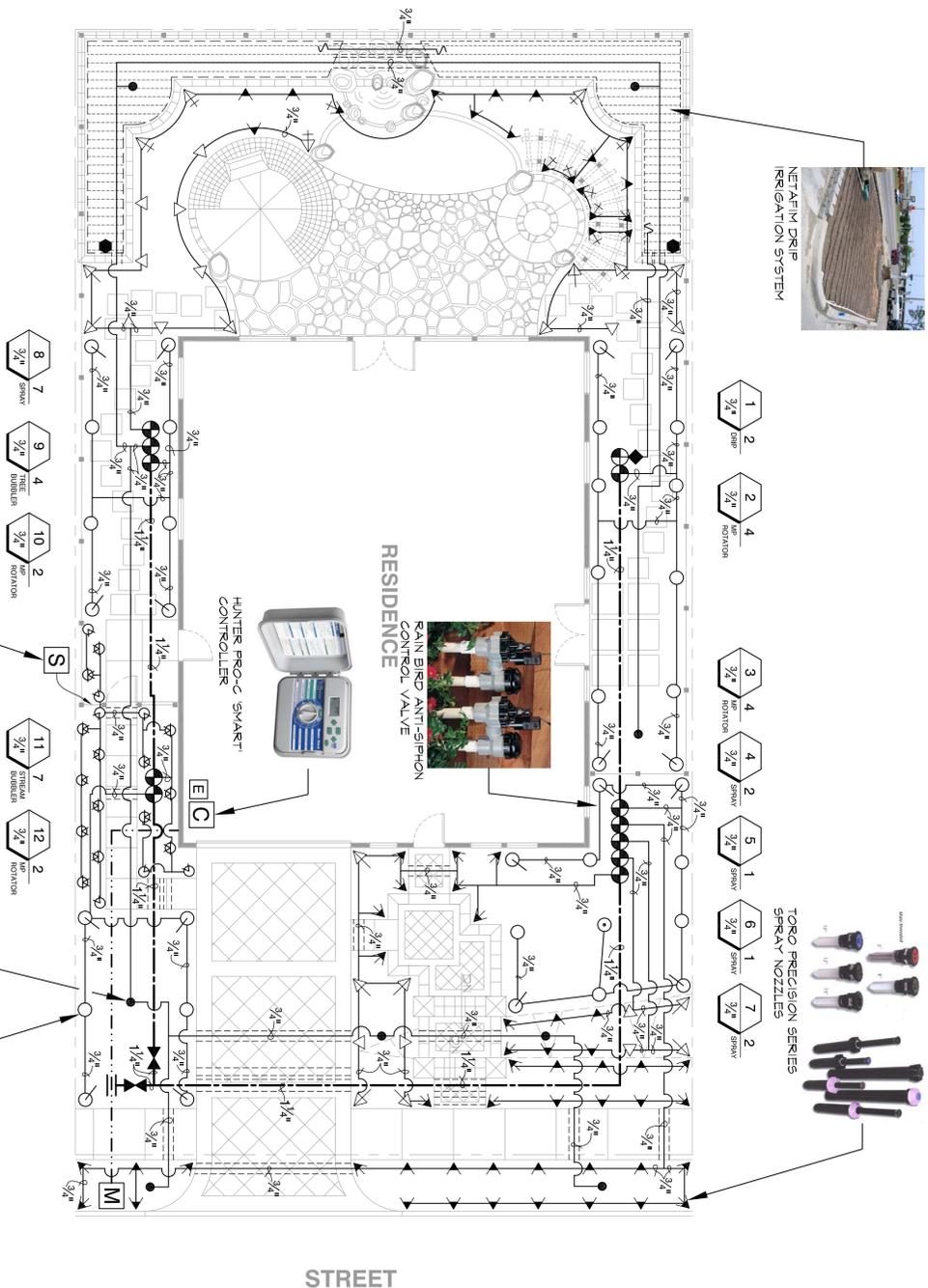
SEE SHEET L-5 FOR IRRIGATION DETAILS

IRRIGATION LEGEND

SYMBOL	DESCRIPTION	MANUF	MODEL	PSI	RADIUS	GPM	NOTES
▲	Shrub Pop-up Spray	Toro	570Z-12P-PRC-COM	30	5'	0.06	Body Style Install on 12" pop-up bodies. Use bottom hole only. See Pop-up Detail G.
▲	Precision Series Spray Nozzle - Quarter		O-T-5-Q	30	5'	0.09	
▲	Precision Series Spray Nozzle - Half		O-T-5-H	30	5'	0.13	
▲	Precision Series Spray Nozzle - One Third		O-T-5-T	30	5'	0.17	
▲	Precision Series Spray Nozzle - Quarter		O-T-6-Q	30	8'	0.22	
▲	Precision Series Spray Nozzle - Half		O-T-6-H	30	8'	0.33	
▲	Precision Series Spray Nozzle - One Third		O-T-6-T	30	8'	0.33	
●	Shrub Stream/Bubbler	Rain Bird	1806-SAM-PRS-PAS0	30	8'	0.25	Body Style Install PCS screens where required to reduce radius. Install all shrub/stream bubblers on 1806-SAM pop-up bodies with PA-80 adapter. See Pop-up Detail G. Install (2) RWS Root Watering Systems per tree.
●	Tree Bubbler	Rain Bird	RWS-S-B-1401	30	2'	0.2	
●	Quarter Circle MPR Stream Bubbler	Rain Bird	SH-B with PCS-020	30	2'	0.4	
●	Half Circle MPR Stream Bubbler	Rain Bird	SC-B with PCS-040	30	2'	0.4	
○	MP Rotator	Hunter	Institutional Spray	30	8' to 12'	0.19	Body Style Install on 12" pop-up bodies. Use bottom hole only. See Pop-up Detail G.
○	MP Rotator Nozzle - Quarter		INST-12-CV-MP-1000-90	30	8' to 12'	0.37	
○	MP Rotator Nozzle - Half		INST-12-CV-MP-1000-180	30	8' to 12'	0.75	
○	MP Rotator Nozzle - Full		INST-12-CV-MP-1000-360	30	8' to 12'	0.75	

NOTE: ALL SPRAY HEADS ARE TO BE EQUIPPED WITH BUILT-IN CHECK VALVES. ALL HEADS ARE TO BE ADJUSTED TO PROVIDE BEST COVERAGE TO THE LANDSCAPED AREA WITHOUT OVER SPRAY ONTO BUILDINGS, WALLS, WALKWAYS AND PAVING.

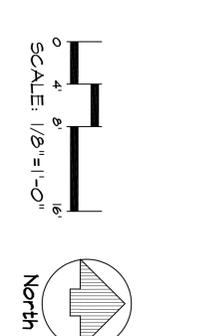
IRRIGATION SUPPLIER NOTE:
 MOST OF THE IRRIGATION EQUIPMENT CAN BE FOUND AT THE FOLLOWING SUPPLIERS:
 • HUNTER IRRIGATION PRODUCTS
 • GRANGETT'S FARM & GARDEN SUPPLY
 • IMPERIAL IRRIGATION SUPPLY



PRESSURE CALCULATIONS

PROJECT: COOP. COMM.	LOCATION:	PRESS. ZONE / SOURCE ELEV.:	BY:		
DATE OF PRESSURE CHECK:					
JOB NO.:					
CLIENT NO.:					
WATER AUTHORITY:					
CALC. DATE: 4/30/10					
VALUE NO. CHECKED: 2					
PRESS. AT PCC:	ASSUME 80 PSI				
HIGHEST HEADS:					
PPE SECTION	PPE TYPE	PPE SIZE	PPE LENGTH	ACQUM. GPM	LOSS IN PSI
1	CL.200	3/4"	10'	0.56	0.02
2	CL.200	3/4"	10'	0.93	0.02
3	CL.200	3/4"	10'	1.86	0.02
4	CL.200	3/4"	5'	2.79	0.04
5	CL.200	3/4"	10'	4.0	0.08
MAINLINE SYSTEM:					
PPE SECTION	PPE TYPE	PPE SIZE	PPE LENGTH	ACQUM. GPM	LOSS IN PSI
1	SCH. 40	1-1/4"	115'	4	0.5
MISCELLANEOUS LOSSES:					
WATER METER	3/4"				0.7
CONTROL VALVE	3/4"				3.8
C. TOTAL MISCELLANEOUS LOSSES					4.5
D. TOTAL SYSTEM LOSSES (A+B+C)					5.18
E. FITTING LOSSES (1% OF TOTAL LOSSES)					0.8
F. HEAD LOSS: GAIN IN SYSTEM					30
G. MINIMUM REQUIRED PRESSURE AT LAST HEAD					35.98
H. DESIGN PRESSURE (D+E+F+G)					80
I. AVAILABLE PSI					44.02
J. RESIDUAL PSI (H-I)					44.02
K. PUMP BOOST					44.02
L. ADJUSTED RESIDUAL PSI (J+K)					44.02

NOTE: IF THE RESIDUAL PSI IS MORE THAN 10% OF THE AVAILABLE PSI THE IRRIGATION SYSTEM SHOULD PERFORM CORRECTLY.



<p>DESIGN FOR EMPTY NESTER/ENTERTAINER TYPICAL RESIDENTIAL PLOT</p>	<p>IRRIGATION PLAN</p>	<p>TESHIMA DESIGN GROUP LANDSCAPE ARCHITECTURE • LAND PLANNING 9903 BUSINESSPARK AVE. SUITE 100 • SAN DIEGO, CA 92131 PH: (619) 693-8824 FAX: (619) 693-1182</p>
<p>PROJECT: AS SHOWN DRAWN: MS JOB: COOP. COMM. SHEET: L-4 OF 5 SHEETS</p>	<p>DATE: 4-30-10 SCALE: 1/8" = 1'-0"</p>	<p>PERIODS: _____ BY: _____</p>