

LANDSCAPE PLANS PREPARED FOR:  
DESIGN FOR EMPTY NESTER/ENTERTAINER  
TYPICAL RESIDENTIAL PLOT

LOW-WATER-USE LANDSCAPE DESIGN STATEMENT  
EMPTY NESTER/ENTERTAINER

THE LANDSCAPE DESIGN FOR THIS RESIDENTIAL YARD IS BASED AND STRUCTURED ON THE NATURE OF THE HOMEOWNER'S ACTIVITIES. THE HOMEOWNERS ARE EMPTY NESTERS THAT ENTERTAIN OFTEN. THE LANDSCAPE DESIGN SERVES AS A BACKDROP TO ENHANCE THEIR ENTERTAINMENT ACTIVITIES.

HARDSCAPE ELEMENTS, SUCH AS BUILT-IN-BBQ, FIREPLACE, A VINE COVERED WOOD TRELLIS, AND INFORMAL FLAGSTONE PAVING, HELP TO CREATE AN INVITING ATMOSPHERE. A SMALL RECIRCULATING WATER FEATURE IS AN ACCENT TO THE GARDEN WHICH IS LOCATED ON A BACK RAISED PLANTER WALL. THE WATER FEATURE IS CENTERED ON THE BACKYARD DOORS DRAWING THE GUESTS OUT ONTO THE EXTERIOR PATIO. IT ALSO PROVIDES THE GARDEN WITH THE PLEASANT SOUND OF TRICKLING WATER. A SMALL AREA OF ARTIFICIAL TURF AND DROUGHT TOLERANT PLANT MATERIAL SHALL COMPLIMENT THE LANDSCAPE DESIGN. AS WATER CONSERVATION IS OF UTMOST IMPORTANCE, DROUGHT TOLERANT PLANT MATERIAL SHALL BE USED EXCLUSIVELY THROUGHOUT THE PROPERTY.

PLANTING CONCEPT:

- Low Maintenance: Because the homeowners are empty nesters, the landscape was designed so that little maintenance is required.
- Drought tolerant: The planting concept was developed using a drought tolerant plant pallet. This will help conserve water and keep the yard attractive when the homeowners are away.

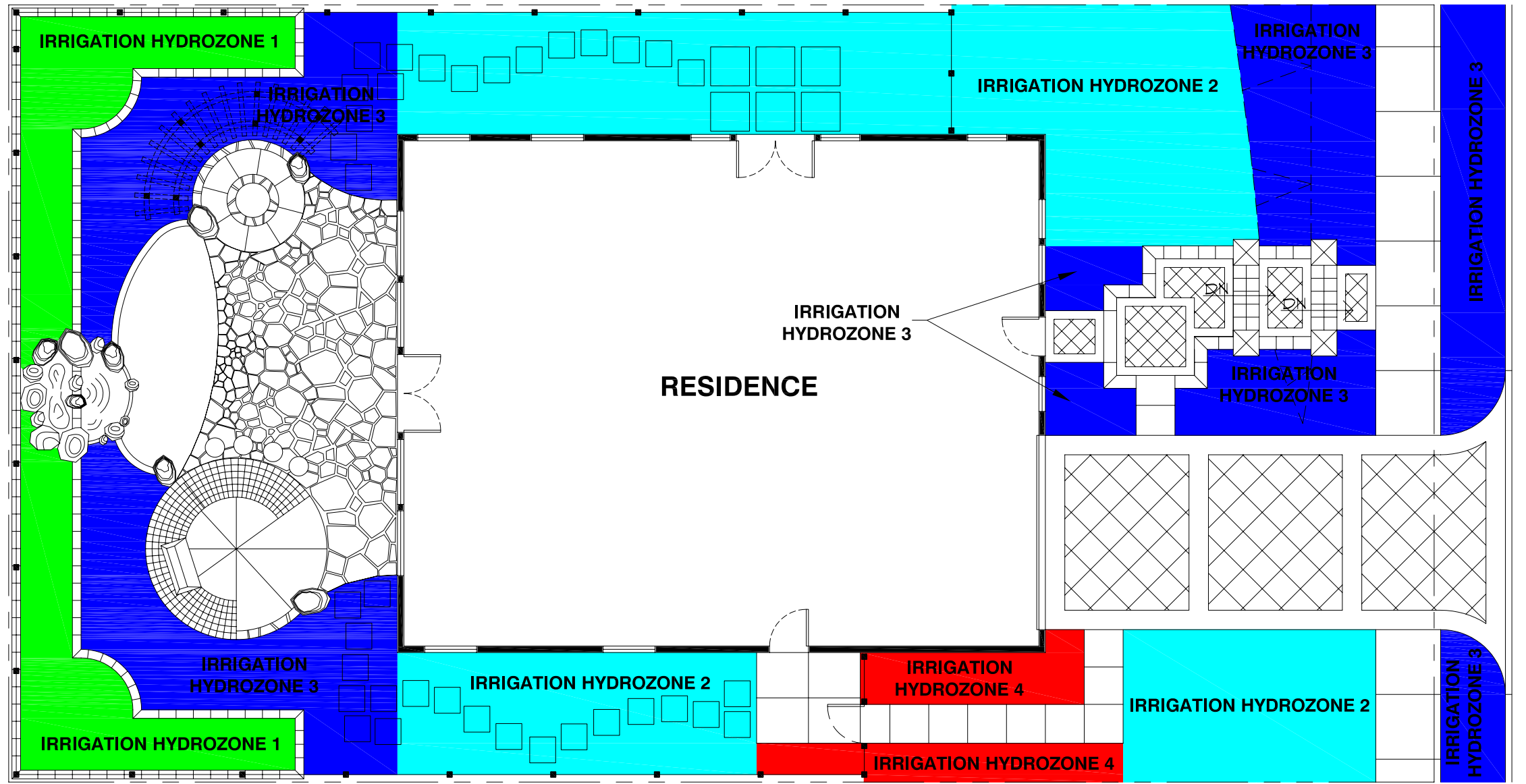
IRRIGATION CONCEPT:

This irrigation design utilizes three different irrigation systems to give the homeowner a choice.

- DRIP IRRIGATION: This system uses the lowest amount of water, and shall be recommended for the raised planter area.
- LOW PRECISION SPRAY HEADS: (such as those manufactured by Toro). Most areas that are less than 10' in width will get low precision spray heads. These heads use much less water than conventional spray heads.
- MP ROTATOR HEADS: (such as those manufactured by Hunter) All areas that are larger than 10' in width shall be installed with MP Rotator heads. MP Rotator heads fall somewhere between drip irrigation and precision nozzle spray heads in terms of amount of water used.
- SMART CONTROLLER: A smart controller shall monitor the outside weather conditions and limit the irrigation system to water only when it is needed by the plants. For example, when it is raining, the controller will shut off the entire irrigation system. It will turn the system back on when the soil becomes dry and moisture is needed.
  - Adjusts watering to changes in climatic condition
  - Most economical solution to weather-based control
  - Simple to program and install
  - Reduces water usage and improves plant health
  - Great for residential installations and water conservation rebate programs
  - Reduces water use and saves water

LEGEND

SYMBOL	DESCRIPTION
IRRIGATION HYDROZONE 1	Plant Material - Drought tolerant/low water use plants Plant Coefficient (PF) - 0.2 Annual Yearly Evapotranspiration for City of San Diego (ETo) - 46.5 Landscape Area (HA) - 376 Sq. Ft. Irrigation Type - Drip Irrigation Irrigation Efficiency (IE) - 0.80
IRRIGATION HYDROZONE 2	Plant Material - Drought tolerant/low water use plants Plant Coefficient (PF) - 0.2 Annual Yearly Evapotranspiration for City of San Diego (ETo) - 46.5 Landscape Area (HA) - 1,253 Sq. Ft. Irrigation Type - MP Rotators Irrigation Efficiency (IE) - 0.75
IRRIGATION HYDROZONE 3	Plant Material - Drought tolerant/low water use plants Plant Coefficient (PF) - 0.2 Annual Yearly Evapotranspiration for City of San Diego (ETo) - 46.5 Landscape Area (HA) - 1,097 Sq. Ft. Irrigation Type - Toro Precision Nozzles Irrigation Efficiency (IE) - 0.65
IRRIGATION HYDROZONE 4	Plant Material - Drought tolerant/low water use plants Plant Coefficient (PF) - 0.2 Annual Yearly Evapotranspiration for City of San Diego (ETo) - 46.5 Landscape Area (HA) - 154 Sq. Ft. Irrigation Type - Bubblers Irrigation Efficiency (IE) - 0.85



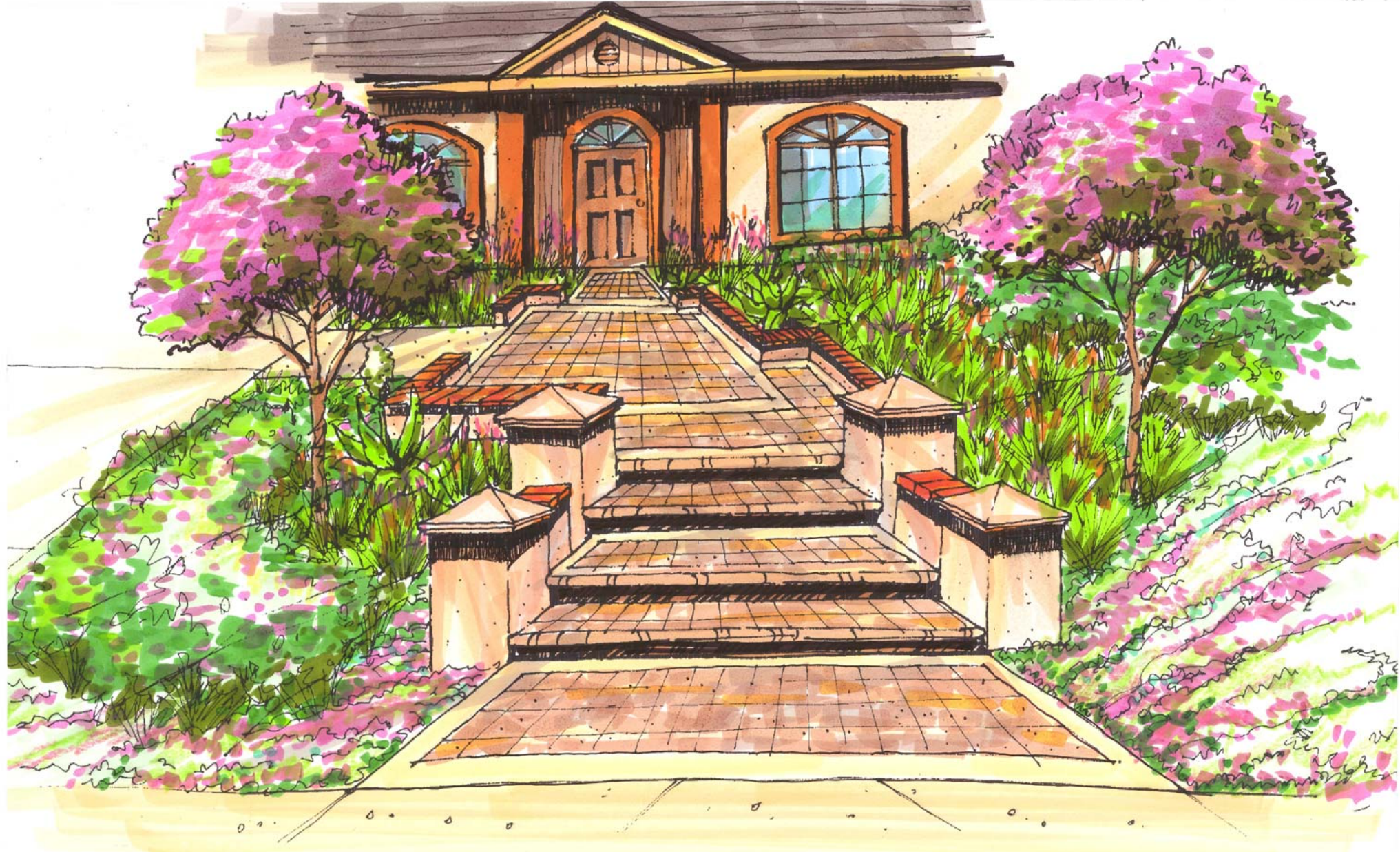
PLAN VIEW

NOT TO SCALE



BACK YARD VIEW

NOT TO SCALE



FRONT YARD VIEW

NOT TO SCALE

SHEET INDEX:

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PREPARED FOR:

HELIX WATER DISTRICT  
OTAY WATER DISTRICT  
PADRE DAM MUNICIPAL WATER DISTRICT  
SWEETWATER AUTHORITY

PREPARED BY:

TESHIMA DESIGN GROUP  
Contact: Mark Stempniak  
9903 Businesspark Avenue, Suite 100  
San Diego, CA 92131  
858.693.8824

MAXIMUM APPLIED WATER ALLOWANCE CALCULATION - MAWA

$MAWA = (ETo)(0.62)(0.7 \times LA + 0.3 \times SLA)$   
 $MAWA = (46.5)(0.62)(0.7 \times 2,880 + 0.3 \times 0)$   
 $MAWA = 58,121 \text{ Gallons per Year}$   
 $MAWA = 58,121 / 748 = 78 \text{ HCF (Hundred-Cubic-Foot Per Year)}$

ESTIMATED TOTAL WATER USE CALCULATION - ETWU

**IRRIGATION HYDROZONE 1**  
 $ETWU = (ETo)(0.62)(PF \times HA / IE + SLA)$   
 $ETWU = (46.5)(0.62)(0.2 \times 376 / 0.8 + 0)$   
 $ETWU = 2,710 \text{ Gallons per Year}$   
 $ETWU = 2,710 / 748 = 4 \text{ HCF (Hundred-Cubic-Foot Per Year)}$

**IRRIGATION HYDROZONE 2**  
 $ETWU = (ETo)(0.62)(PF \times HA / IE + SLA)$   
 $ETWU = (46.5)(0.62)(0.2 \times 1,253 / 0.75 + 0)$   
 $ETWU = 9,633 \text{ Gallons per Year}$   
 $ETWU = 9,633 / 748 = 13 \text{ HCF (Hundred-Cubic-Foot Per Year)}$

**IRRIGATION HYDROZONE 3**  
 $ETWU = (ETo)(0.62)(PF \times HA / IE + SLA)$   
 $ETWU = (46.5)(0.62)(0.2 \times 1,097 / 0.65 + 0)$   
 $ETWU = 9,731 \text{ Gallons per Year}$   
 $ETWU = 9,731 / 748 = 13 \text{ HCF (Hundred-Cubic-Foot Per Year)}$

**IRRIGATION HYDROZONE 4**  
 $ETWU = (ETo)(0.62)(PF \times HA / IE + SLA)$   
 $ETWU = (46.5)(0.62)(0.2 \times 154 / 0.85 + 0)$   
 $ETWU = 1,044 \text{ Gallons per Year}$   
 $ETWU = 1,044 / 748 = 1 \text{ HCF (Hundred-Cubic-Foot Per Year)}$

**TOTAL FOR ALL IRRIGATION HYDROZONES**  
 $ETWU = \text{HYDROZONE 1} + \text{HYDROZONE 2} + \text{HYDROZONE 3} + \text{HYDROZONE 4}$   
 $ETWU = 2,710 + 9,633 + 9,731 + 1,044$   
 $ETWU = 23,118 \text{ Gallons per Year}$   
 $ETWU = 23,118 / 748 = 31 \text{ HCF (Hundred-Cubic-Foot Per Year)}$

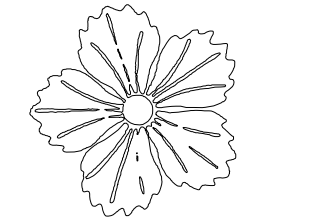
CONCLUSION

The ETWU (23,118 gallons per year) is less than MAWA (58,121 gallons per year). The water budget for this residential lot complies with MAWA.

IRRIGATION HYDROZONE PLAN AND WATER USE CALCULATIONS

REVISIONS	BY

TESHIMA DESIGN GROUP  
LANDSCAPE ARCHITECTURE • LAND PLANNING  
9903 BUSINESSPARK AVE, SUITE 100 • SAN DIEGO, CA 92131  
PH: (858) 693-8824 FAX: (858) 693-1882



LANDSCAPE TITLE  
SHEET

DESIGN FOR EMPTY  
NESTER/ENTERTAINER  
TYPICAL RESIDENTIAL PLOT

Date: 4-30-10  
Scale: AS SHOWN  
Drawn: MS  
Job: COOP. COMM.  
Sheet

L-1

of 5 Sheets



PLANT LEGEND

TREES

SYMBOL	BOTANICAL NAME	COMMON NAME
	ARBUTUS 'MARINA'	STRAWBERRY TREE
	PLATANUS ACERIFOLIA 'COLUMBIA'	SYCAMORE
	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW
	CERCIS OCCIDENTALIS	WESTERN REDBUD

SHRUBS

SYMBOL	BOTANICAL NAME	COMMON NAME
	PHORMIUM 'MAORI CHIEF'	NEW ZEALAND FLAX
	PHORMIUM 'YELLOW WAVE'	NEW ZEALAND FLAX
	NANDINA DOMESTICA 'GULFSTREAM'	DWARF HEAVENLY BAMBOO
	LAVENDULA DENTATA	FRENCH LAVENDER
	GISTUS X PURPUREUS	ORCHID ROCKROSE
	MUHLENBERGIA RIGENS	DEER GRASS
	SALVIA LEUCANTHA	MEXICAN BUSH SAGE
	BOUGAINVILLEA 'ROSENKA'	BOUGAINVILLEA
	HESPERALOE PARVIFLORA	RED YUCCA
	ANIGOZANTHOS 'BIG RED'	KANGAROO PAW
	AGAVE ATTENUATA	AGAVE
	LEPTOSPERMUM SCOPARIUM 'RUBY GLOW'	NEW ZEALAND TEA TREE
	KNIPHOFIA UVARIA	RED HOT POKER
	ARBUTUS UNEDO 'COMPACTA'	STRAWBERRY TREE

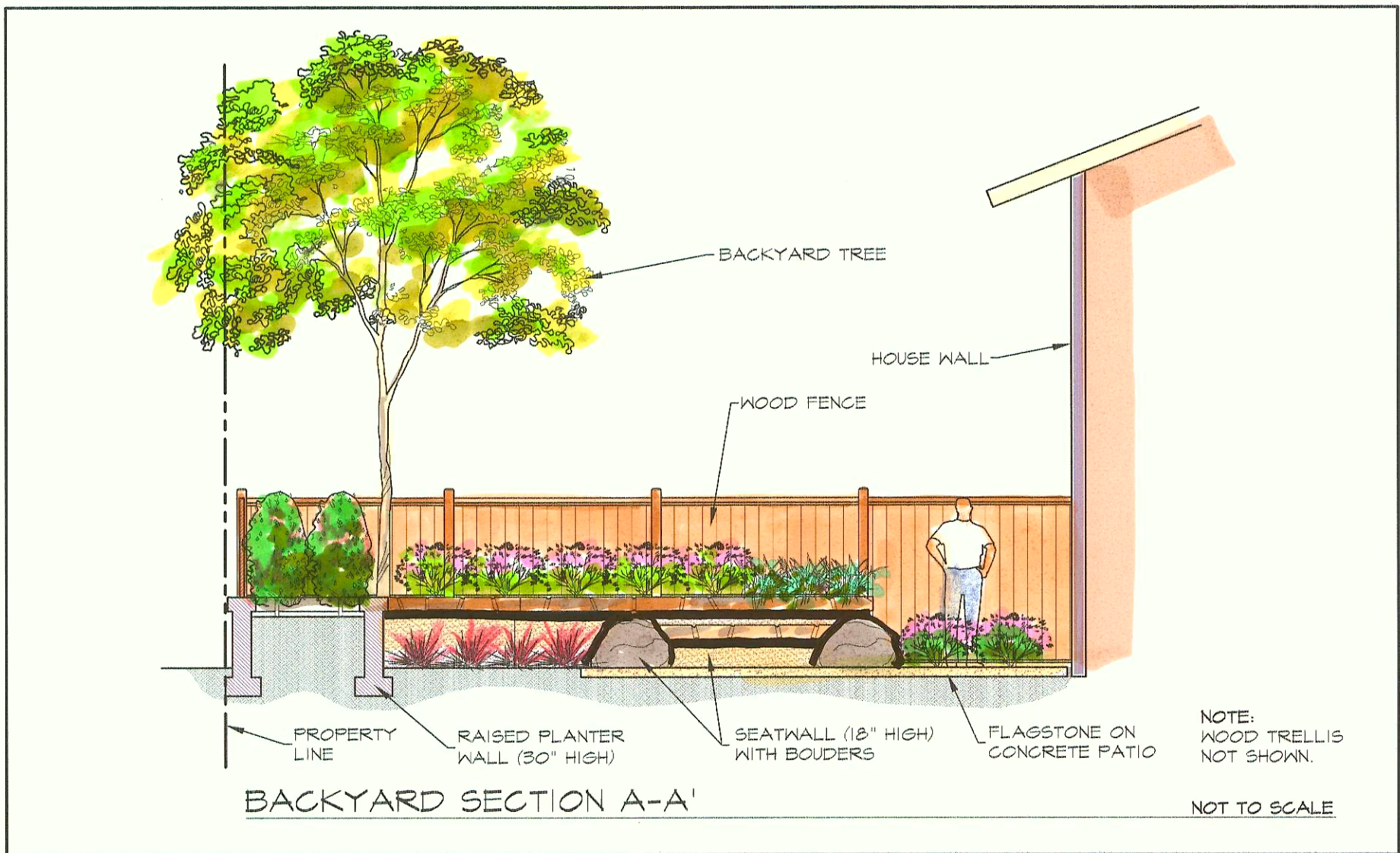
PLANT LEGEND (CONTINUED)

VINES

SYMBOL	BOTANICAL NAME	COMMON NAME
	BOUGAINVILLEA 'SAN DIEGO RED'	BOUGAINVILLEA

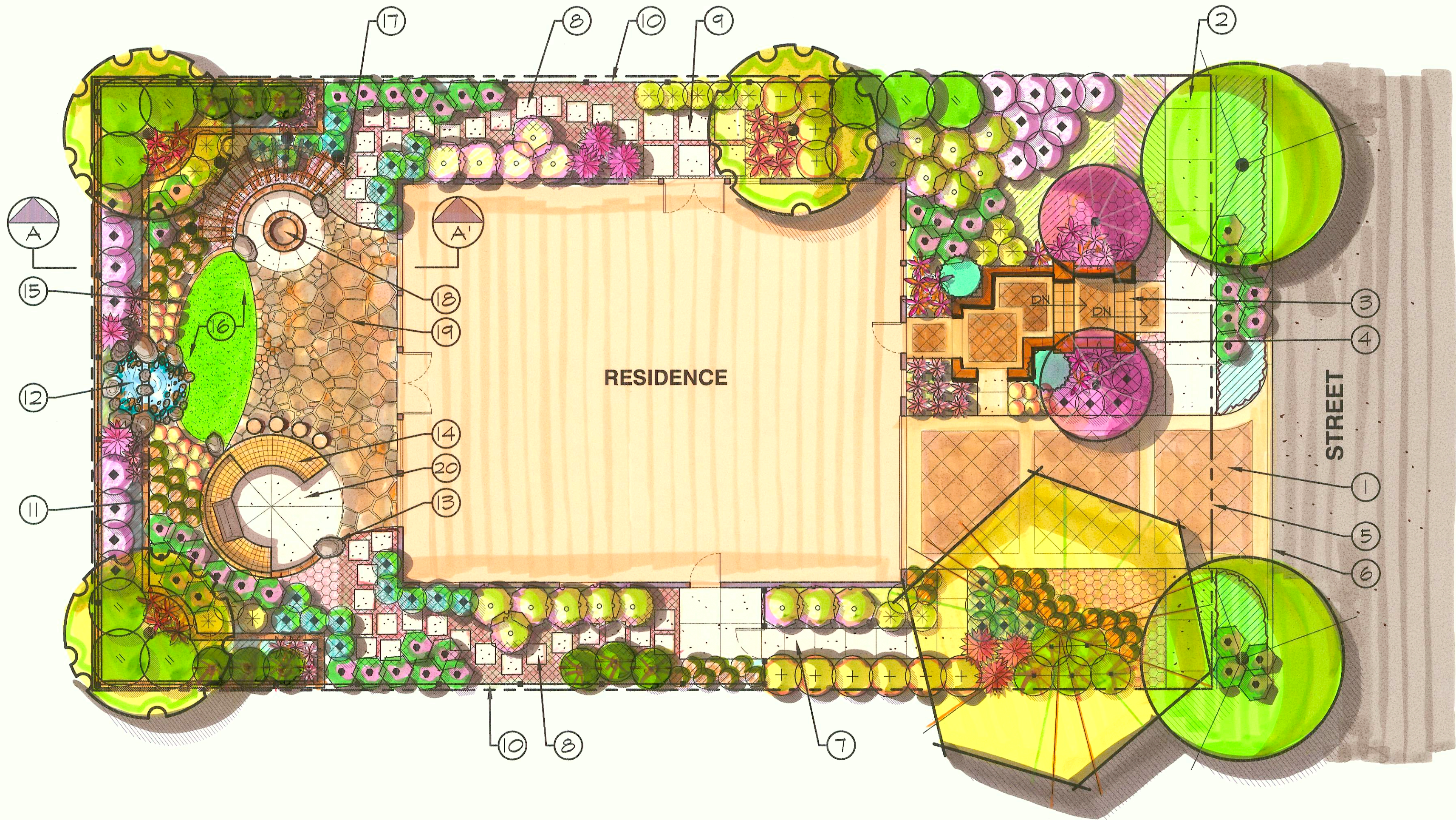
GROUNDCOVERS

SYMBOL	BOTANICAL NAME	COMMON NAME
	ROSMARINUS OFFICINALIS 'HUNTINGTON CARPET'	TRAILING ROSEMARY
	LANTANA MONTEVIDENSIS	TRAILING LANTANA
	LAMPRANTHUS SPECTABILIS	TRAILING ICE PLANT
	DYMONDIA MARGARETAE	SILVER CARPET
	GEANOTHUS 'YANKEE POINT'	CARMEL CREEPER

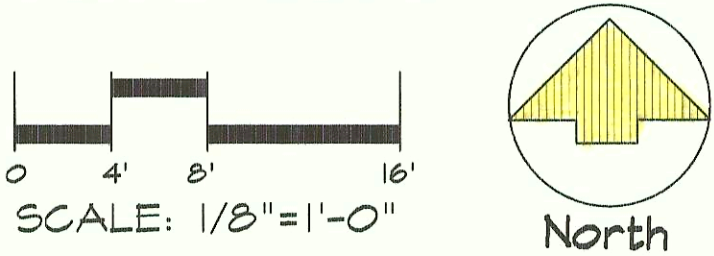


CONSTRUCTION SCHEDULE	
①	ENHANCED CONCRETE DRIVEWAY.
②	SIDEWALK.
③	ENTRY STEPS.
④	ENTRY COLUMN AND WALL.
⑤	PROPERTY LINE.
⑥	STREET CURB.
⑦	CONCRETE WALK.
⑧	2X2 CONCRETE STEPPERS, PLANT SLIVER CARPET BETWEEN THE STEPPERS.
⑨	3X3 CONCRETE STEPPERS, PLANT SLIVER CARPET BETWEEN THE STEPPERS.
⑩	WOOD FENCE.
⑪	RAISED PLANTER WALL (30" HIGH).
⑫	RECIRCULATING WATER FEATURE - NO STANDING WATER.
⑬	BOULDER.
⑭	BUILT-IN BBQ AND BUFFET TABLE.
⑮	6" CONCRETE CURB.
⑯	SYNTHETIC TURF.
⑰	WOOD TRELLIS WITH VINES.
⑱	FIRE PIT AND SEATWALL (18" HIGH).
⑲	FLAGSTONE ON CONCRETE PATIO.
⑳	COLOR CONCRETE.

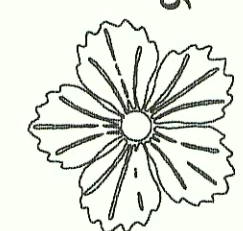
PLANT AVAILABILITY NOTE:  
MOST OF THE PLANT MATERIAL CAN BE FOUND AT THE FOLLOWING NURSERIES:  
• WALTER ANDERSON NURSERY  
• KNIFFING'S DISCOUNT NURSERY  
• EVERGREEN NURSERY  
• MIRAMAR WHOLESALE NURSERIES, INC  
• ARMSTRONG GARDEN CENTERS, INC



SEE SHEET L-5 FOR PLANTING DETAILS  
SEE SHEET L-3 FOR PLANT PHOTOS



**TESHIMA DESIGN GROUP**  
LANDSCAPE ARCHITECTURE • LAND PLANNING  
9903 BUSINESSPARK AVE, SUITE 100 • SAN DIEGO, CA 92131  
TEL: (619) 693-8824 FAX: (619) 693-1822



























**PLANTING PLAN**

**DESIGN FOR EMPTY  
NESTER/ENTERTAINER  
TYPICAL RESIDENTIAL PLOT**

Date: 4-30-10  
Scale: AS SHOWN  
Drawn: MS  
Job: COOP. COMM.  
Sheet  
**L-2**  
of 5 Sheets



 <p>ARBUTUS 'Marina' 'Strawberry Tree'</p> <p>Evergreen tree with rosy pink fall flowers. Once established will require little to no water.</p>	 <p>CERCIS Occidentalis 'Western Redbud'</p> <p>Native to California and is very drought tolerant. Magenta flowers bloom in spring. Provides all-year interest.</p>	 <p>GEIJERA Parviflora 'Australian Willow'</p> <p>Evergreen tree that requires little to moderate water. Good trouble free patio tree. Casts a light shade.</p>	 <p>PLATANUS Acerifolia 'Columbia' 'Sycamore'</p> <p>This deciduous tree requires moderate to regular water to get established. Once established will require little water. Is resistant to both mildew and anthracnose. Will create a nice canopy for residential use.</p>	 <p>AGAVE Attenuata 'Agave'</p> <p>Moderate to little water required. This is a succulent with large clumps of fleshy strap shaped leaves.</p>	 <p>ANIGOZANTHOS 'Big Red' 'Kangaroo Paw'</p> <p>Moderate to little water required. Spikes of striking, fuzzy tubular extra bright red flowers that resemble kangaroo paws.</p>
TREE	TREE	TREE	TREE	SHRUB	SHRUB
 <p>ARBUTUS Unedo 'Compacta' 'Strawberry Tree'</p> <p>Little to moderate water required. Has ornamental bark, clusters of little urn shaped flowers with decorative edible fruit.</p>	 <p>BOUGAINVILLEA 'Rosenka' 'Bougainvillea'</p> <p>Moderate to little water is required. This is small shrub with purple to pink bracts.</p>	 <p>CISTUS x Purpureus 'Orchid Rockrose'</p> <p>This shrub requires little to no water. From spring to early summer they flower profusely. The flowers are reddish purple.</p>	 <p>HESPERALOE Parviflora 'Red Yucca'</p> <p>Little to moderate water needed. Leaf clumps 3'- 4' tall produce stocks carrying rose to bright red flowers. Blooms from late spring through mid summer.</p>	 <p>KNIPHOFIA Uvaria 'Red Hot Poker'</p> <p>Moderate to little water required. Flowering stems look like glowing pokers or torches. Coral red buds open to orange to deep yellow.</p>	 <p>LAVENDULA Dentata 'French Lavender'</p> <p>Requires moderate to little water. Narrow grey green foliage with short purple flowers.</p>
SHRUB	SHRUB	SHRUB	SHRUB	SHRUB	SHRUB
 <p>LEPTOSPERMUM Scorparium 'Ruby Glow' 'New Zealand Tea Tree'</p> <p>Little to no water required. Flowers are typically white, pink or red.</p>	 <p>MUHLENBERGIA Rigens 'Deer Grass'</p> <p>This shrub requires little to no water. It is a California native with bright green leaves that form a tight clump.</p>	 <p>NANDINA Domestica 'Gulfstream' 'Dwarf Heavenly Bamboo'</p> <p>Little to regular water required. In climates where summers are very hot, requires some shade. Has blue green summer foliage and good red winter colors.</p>	 <p>PHORMIUM 'Maori Chief' 'New Zealand Flax'</p> <p>Little to regular water required. Sword like evergreen shrub that provides a good garden focal point. It has wide green leaves with rosy edges.</p>	 <p>PHORMIUM 'Yellow Wave' 'New Zealand Flax'</p> <p>Little to regular water required. Sword like evergreen shrub that provides a good garden focal point. It has chartreuse leaves with lime green margins.</p>	 <p>SALVIA Leucantha 'Mexican Bush Sage'</p> <p>Only moderate water is required. It attracts humming birds, bees, and butterflies. It has white flowers and blooms from fall through spring.</p>
SHRUB	SHRUB	SHRUB	SHRUB	SHRUB	SHRUB
 <p>BOUGAINVILLEA 'San Diego Red' 'Bougainvillea'</p> <p>Moderate to little water required. Deep green leaves hold deep red bracts over a long season.</p>	 <p>CEANOTHUS 'Yankee Point' 'Carmel Creeper'</p> <p>Little to no water required. This California native has powder blue to deep violet flowers which flower mostly in the spring.</p>	 <p>DYMONDIA Margaretae 'Silver Carpet'</p> <p>Moderate to regular water required. This groundcover forms a thick light green mat with yellow flowers.</p>	 <p>LAMPRANTHUS Spectabilis 'Trailing Ice Plant'</p> <p>This groundcover requires little to no water. It becomes a carpet gleaming with color from late winter to spring.</p>	 <p>LANTANA Montevidensis 'Trailing Lantana'</p> <p>Moderate to little water required. This groundcover has tiny flowers in tight clusters. It is valued for a profuse show of color over a long season.</p>	 <p>ROSMARINUS Officinalis 'Huntington Carpet' 'Trailing Rosemary'</p> <p>Little to moderate water required. Evergreen groundcover, green grey in color with pale blue flowers.</p>
VINE	GROUNDCOVER	GROUNDCOVER	GROUNDCOVER	GROUNDCOVER	GROUNDCOVER

REVISIONS

BY

TESHIMA DESIGN GROUP

LANDSCAPE ARCHITECTURE • LAND PLANNING

9003 BUSINESSPARK AVE. SUITE 100 • SAN DIEGO, CA 92131

PH: (619) 693-8824 FAX: (619) 693-1822

PLANT PHOTOS

DESIGN FOR EMPTY NESTER/ENTERTAINER

TYPICAL RESIDENTIAL PLOT

Date: 4-30-10

Scale: AS SHOWN

Drawn: MS

Job: COOP. COMM.

Sheet

L-3

of 5 Sheets



IRRIGATION EQUIPMENT LEGEND					
SYMBOL	DESCRIPTION	MANUF	MODEL	SIZE	NOTES
	Water Meter			3/4"	Irrigation Water Meter provided by others. Location shown is approximate. Verify in field.
	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.
	Anti-Siphon Control Valve	Rain Bird	ASVF	Size Per Plan	Install per detail J.
	Low Flow Control Zone Kit	Rain Bird	XACZ-075-PRF	3/4"	Kit shall include psi regulator, filter and ball valve. Install per Detail K.
	Ball Valve	KBI	WLT-0000-T	Line Size	See Detail F. Install in 10" round valve box.
	'Smart' Controller	Hunter	Pro-C Controller PC1500I-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 manufacture's specifications.
	Electrical Connection			120 Volt	Plug or hard wire controller onto GFI electrical outlet. Location to be determined by Owner.
	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 manufacture's specifications.
	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.
	Non-pressurized Lateral	PVC	Class 200	Size Per Plan	Install at 12" depth. See Trenching Detail H.
	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).
	Automatic Line Flushing Valve	Netafim	TL050MFV-1	1"	Install in 6" round valve box with 12" deep gravel sump. See Ball Valve Detail (Similar).
	Air/Vacuum Relief Valve	Netafim	TLAVRV	1"	Install at highest point on circuit. See manufacture's details. Install in 6" round valve box.
	Dripper Line (Techline Dripperline)	Netafim	TLDL6-18xx	1/2"	Install per manufacture 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	PVC	See Notes	Size Per Plan	<b>Sleeve under improvements:</b> 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.
	Controller Station				
	Maximum GPM				
	Valve Size				

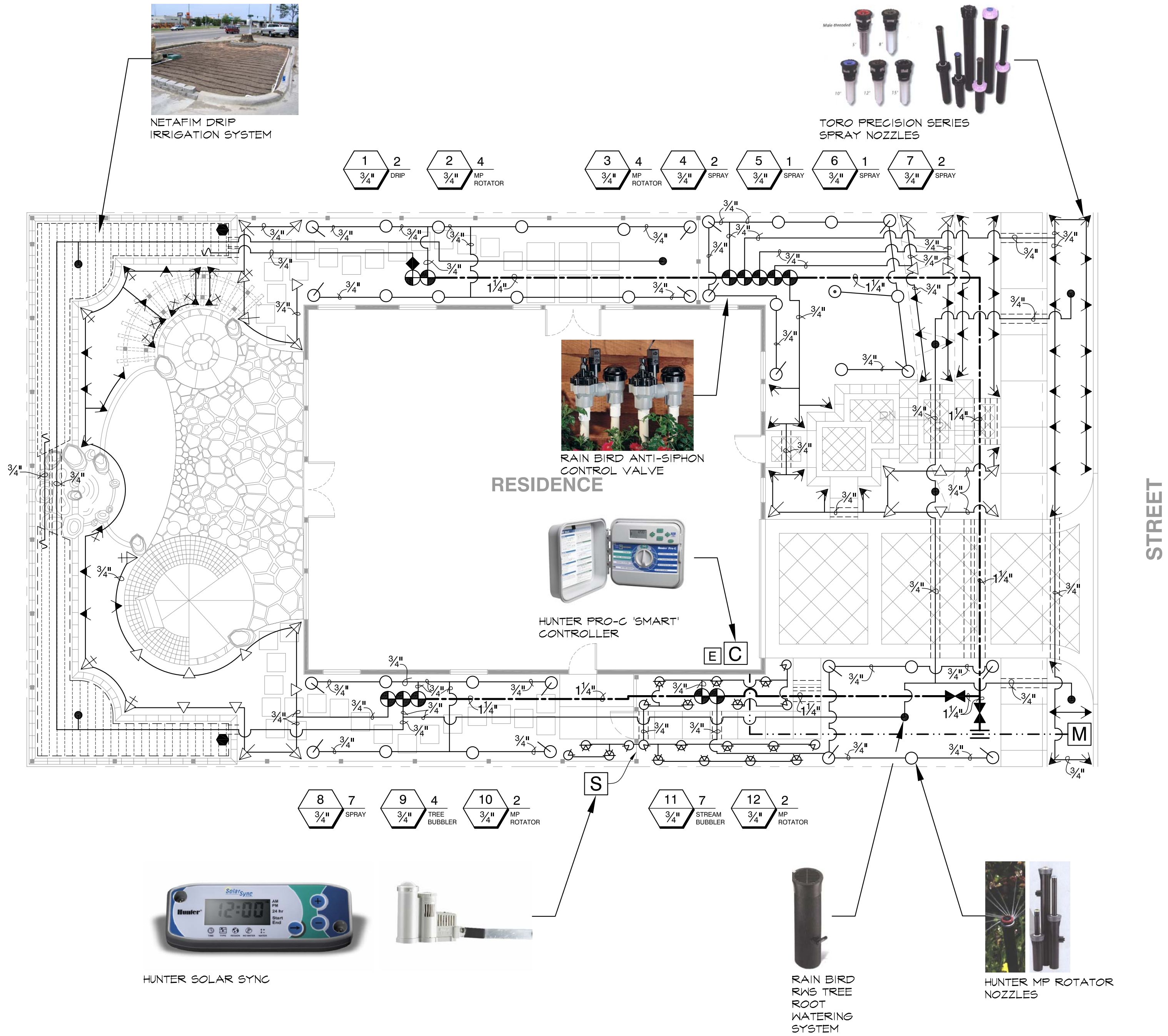
WATERING SCHEDULE												
IRRIGATION CONTROLLER RUN TIMES (WHILE PLANTS ARE ESTABLISHING)												
Irrigation Hydrozone 1   Low Water Use   Loam   Drip   2.0 Gal/Hour												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maximum Minutes per start time	11	11	11	11	11	11	11	11	11	11	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   Loam   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   Loam   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   Loam   Bubblers   1.0 Gal/Min												
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
*Start times per week may not equal days per week. Multiple start times per day may be needed to avoid runoff, and comply with current water emergency restrictions.												
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
	Shrub Pop-up Spray	Toro	570Z-12P-PRX-COM			
	Precision Series Spray Nozzle - Quarter		O-T-5-Q	30	5'	0.06
	Precision Series Spray Nozzle - Half		O-T-5-H	30	5'	0.09
	Precision Series Spray Nozzle - One Third		O-T-5-T	30	5'	0.13
	Precision Series Spray Nozzle - Quarter		O-T-8-Q	30	8'	0.17
	Precision Series Spray Nozzle - Half		O-T-8-H	30	8'	0.22
	Precision Series Spray Nozzle - One Third		O-T-8-T	30	8'	0.33
	Shrub Stream/Bubbler	Rain Bird	1806-SAM-PRS-PA80			
	Tree Bubbler		RWS-S-B-1401	30	(2x) 0.25	
	Quarter Circle MPR Stream Bubbler		5H-B with PCS-020	30	2'	0.2
	Half Circle MPR Stream Bubbler		5Q-B with PCS-040	30	2'	0.4
	MP Rotator	Hunter	Institutional Spray			
	MP Rotator Nozzle - Quarter		INST-12-CV-MP1000-90	30	8' to 12'	0.19
	MP Rotator Nozzle - Half		INST-12-CV-MP1000-180	30	8' to 12'	0.37
	MP Rotator Nozzle - Full		INST-12-CV-MP1000-360	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:  
• HYDROSCAPE PRODUCTS  
• EWING IRRIGATION  
• GRANETTO'S FARM & GARDEN SUPPLY  
• IMPERIAL IRRIGATION SUPPLY



PRESSURE CALCULATIONS					
PROJECT: COOP. COMM.					
LOCATION:					
PRESS ZONE / SOURCE ELEV.:					
DATE OF PRESSURE CHECK: BY:					
JOB NO.:					
CLIENT NO.:					
WATER AUTHORITY:					
CALC. DATE: 4/30/10 BY: MS					
VALVE NO. CHECKED: 2					
PRESS. AT POC: ASSUME 80 PSI					
POC ELEVATION: HIGHEST HEAD:					
PIPE SECTION	PIPE TYPE	PIPE SIZE	PIPE LENGTH	ACCUM. 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
A. TOTAL LATERAL SYSTEM LOSSES					0.18
MAINLINE SYSTEM:					
PIPE SECTION	PIPE TYPE	PIPE SIZE	PIPE LENGTH	ACCUM. GPM	LOSS IN PSI
1	SCH. 40	1-1/4"	115'	4	0.5
B. TOTAL MAINLINE SYSTEM LOSSES					0.5
MISCELLANEOUS LOSSES:					SIZE:
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 ( 15% OF TOTAL LOSSES )					0.8
F. HEAD LOSS / GAIN IN SYSTEM					
G. MINIMUM REQUIRED PRESSURE AT LAST HEAD					30
H. DESIGN PRESSURE ( D+E+F+G )					35.98
I. AVAILABLE PSI					80
J. RESIDUAL PSI ( I-H )					44.02
K. PUMP BOOST					
L. ADJUSTED RESIDUAL PSI ( J+K )					44.02
NOTE: IF THE RESIDUAL PSI IS MORE THEN 10% OF THE AVAILABLE PSI THE IRRIGATION SYSTEM SHOULD PERFORM CORRECTLY.					

TESHIMA DESIGN GROUP  
LANDSCAPE ARCHITECTURE • LAND PLANNING  
9003 BUSINESSPARK AVE, SUITE 100 • SAN DIEGO, CA 92131  
PH: (619) 692-8824 FAX: (619) 692-1822

IRRIGATION PLAN

DESIGN FOR EMPTY  
NESTER/ENTERTAINER  
TYPICAL RESIDENTIAL PLOT

Date: 4-30-10  
Scale: AS SHOWN  
Drawn: MS  
Job: COOP. COMM.  
Sheet  
L-4  
of 5 Sheets



