

# SOUTHERN INLAND BACK YARD

June 2009

## SAMPLE PLANT LEGEND

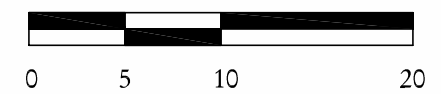
SYMBOL	BOTANICAL NAME	COMMON NAME
<b>LARGE TREES</b>		
	Jacaranda mimosifolia	Jacaranda
	Prunus 'Krauter Vesuvius'	Flowering Plum
	Quercus suber	Cork Oak
	Schinus molle	Pepper Tree
<b>SMALL TREES</b>		
	Cercis occidentalis	Redbud
	Cotinus coggygria	Smoke Tree
	Fremontodendron 'Dara's Gold'	Flannel Bush
<b>LARGE SHRUBS</b>		
	Myrtus communis	Myrtle
	Nerium o. 'Petite Salmon'	Oleander
	Cistus ladanifer	Crimson-spot Rockrose
	Salvia microphylla	Sage
<b>MEDIUM SHRUBS</b>		
	Berberis repens	Creeping Barberry
	Choisya temata 'Aztec Beauty**'	Mexican Orange
<b>SMALL SHRUBS &amp; PERRENIALS</b>		
	Epilobium californica	California Fuchsia
	Carex 'Frosty Curls'	New Zealand Hair Sedge
	Nandina 'Fire Power**'	Heavenly Bamboo**
	Clarkia rubicunda	Clarkia
	Eschscholzia californica	California Poppy
<b>GROUNDCOVER RECREATIONAL/ACTIVE</b>		
	Carex praegracilis*	Sedge*
	Turf *	NCN*
<b>GROUNDCOVER SOCIAL/PASSIVE</b>		
	Arctostaphylos 'Emerald Carpet'	Emerald Carpet
	Cotoneaster dammeri*	Bearberry Cotoneaster*
	Rubus pentalobus*	Bramble*
<b>HARDSCAPE</b>		
	Pavers	Mulch or DG
	Stepping Stones	Pea Gravel
	Bench	Sand-set Brick

\* Can tolerate light traffic  
\*\* Can tolerate shade

**SUNSET ZONES - 20, 21**



NORTH



1" = 10'-0"

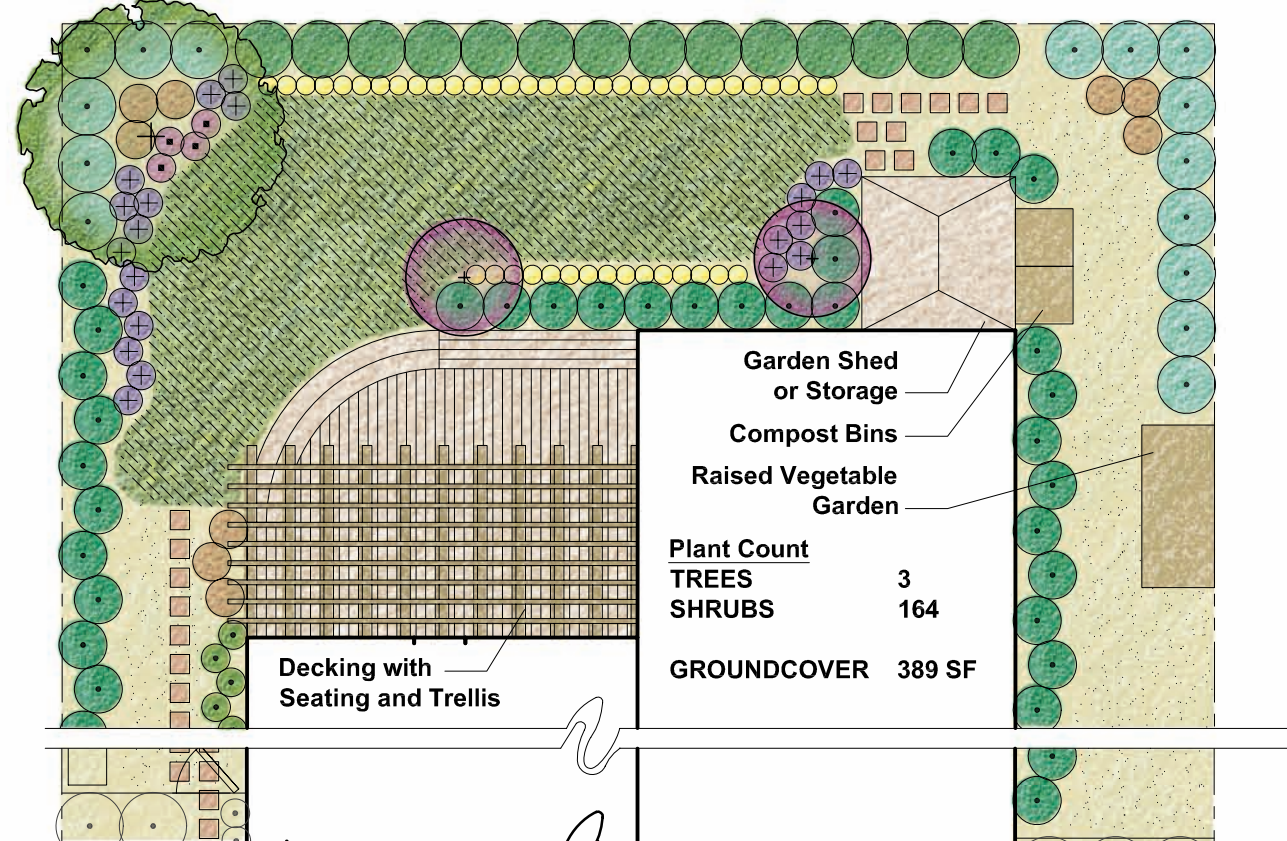
Note: For additional information regarding design and installation, please see back yard template and CUWCC's Water Smart Landscape Checklist at [www.cuwcc.org](http://www.cuwcc.org).  
Funded by the U.S. Bureau of Reclamation, Lower Colorado Region, Southern California Office.

## "TYPICAL" SIZED LOT HOUSE

NORTH FACING REAR GARDEN, TYPICAL

60'x80' LOT

RECREATION/ACTIVE

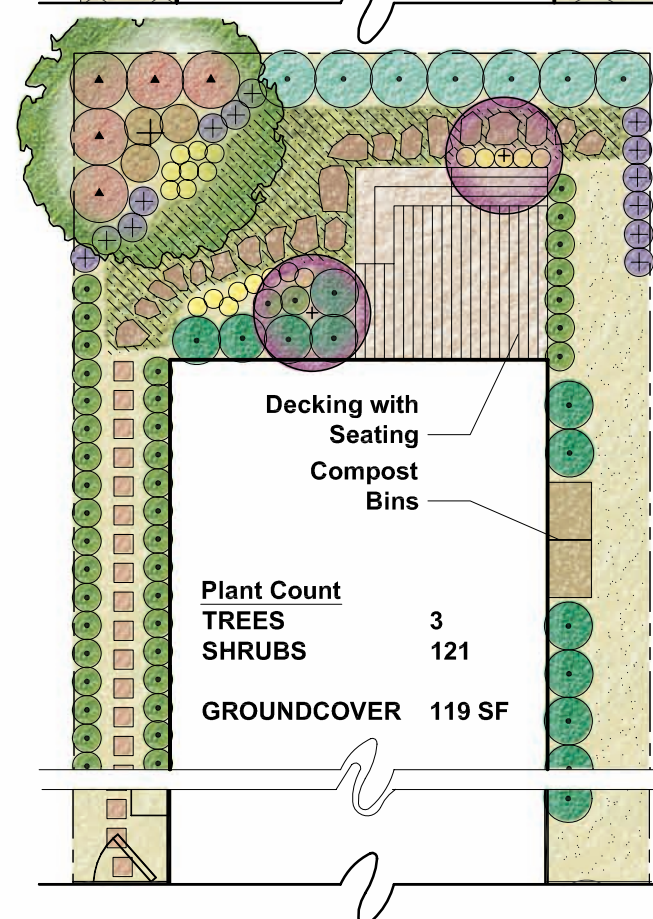
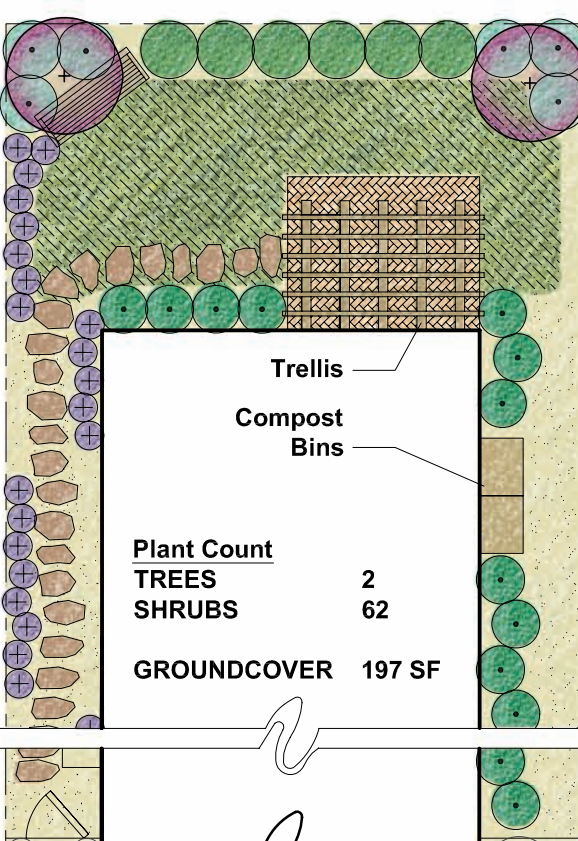
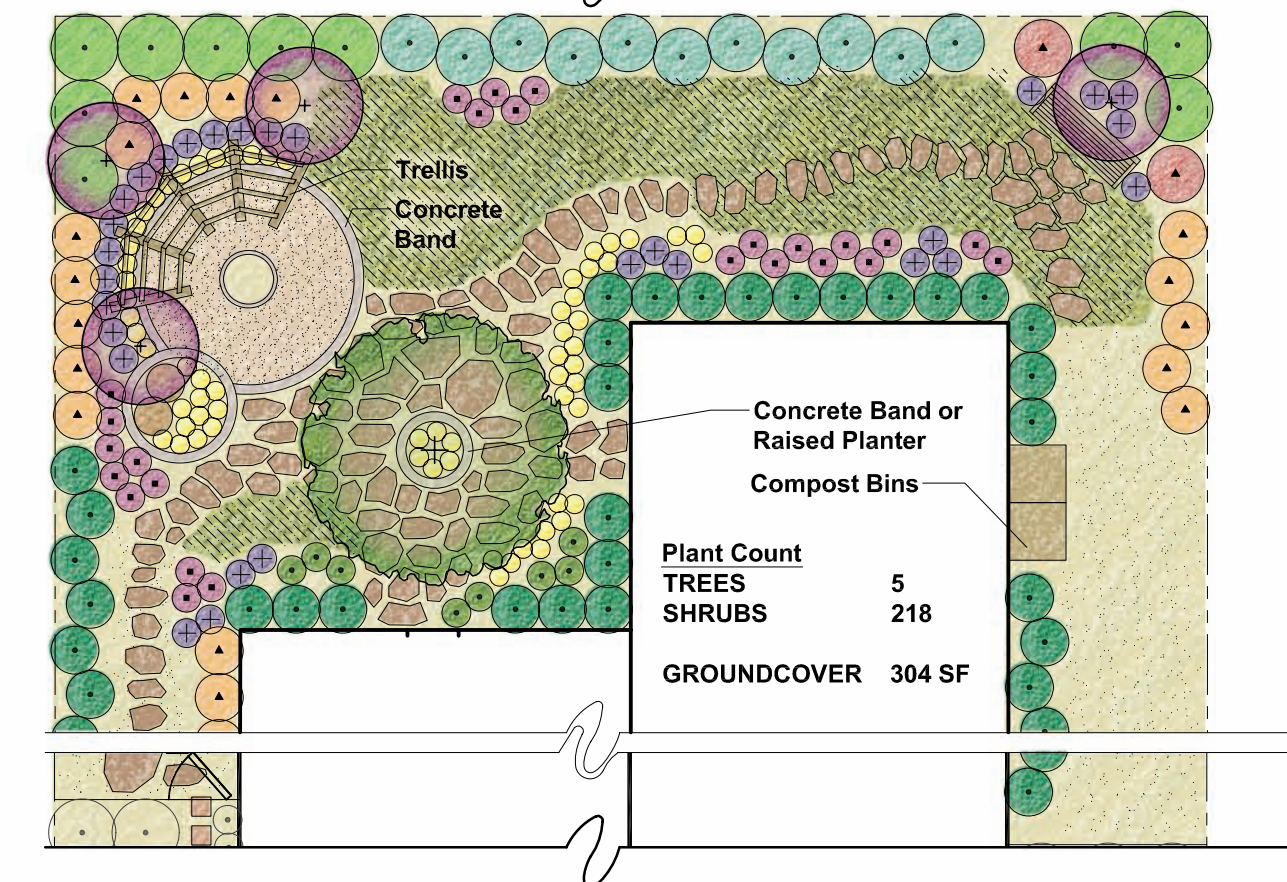


## ZERO-LOT LINE HOUSE

NORTH FACING REAR GARDEN, TYPICAL

30'x80' LOT

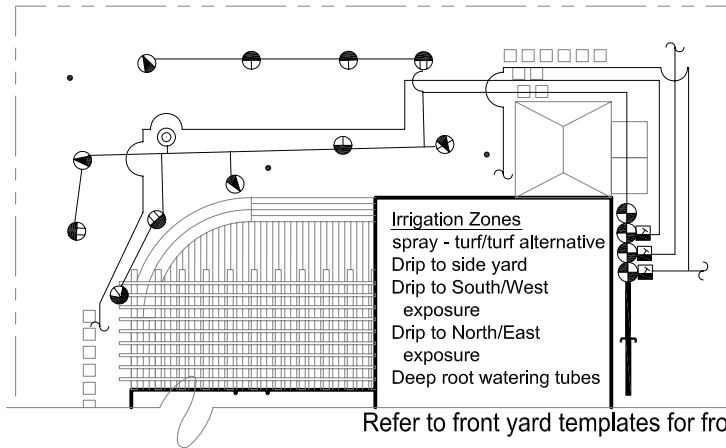
SOCIAL/PASSIVE





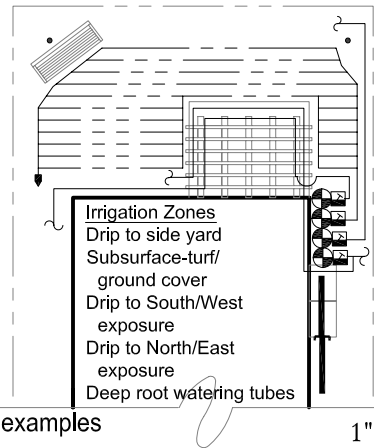
RECREATION/ACTIVE

**"TYPICAL" SIZED LOT HOUSE**  
NORTH FACING REAR GARDEN, TYPICAL

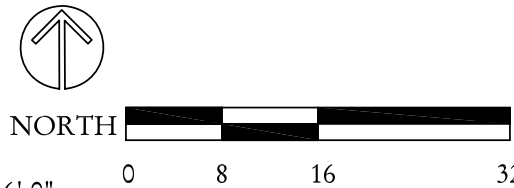


Refer to front yard templates for front yard examples

**ZERO-LOT LINE HOUSE**  
NORTH FACING REAR GARDEN, TYPICAL



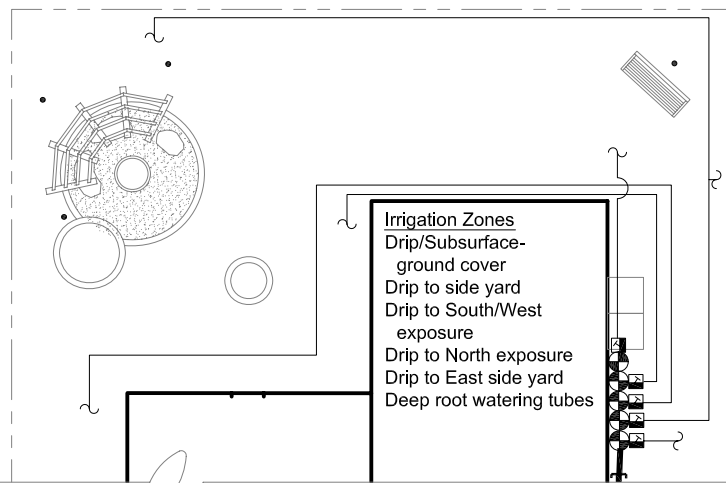
1" = 16'-0"



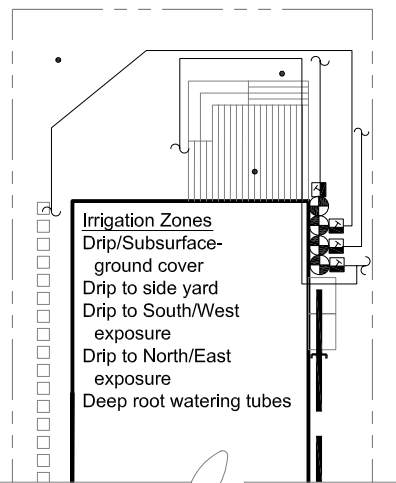
**SOUTHERN INLAND  
BACK YARD**

June 2009

SOCIAL/PASSIVE



Refer to front yard templates for front yard examples



BACK YARD IRRIGATION SYSTEM LEGEND	
	Existing irrigation main stub-out- 1"
	Remote Control Valves
	Drip control assembly
	Flush valve/air relief valve
	6" Spray heads (12" from fence)
	6" Spray heads (12" from fence)
	6" Spray heads (12" from fence)
	6" Spray heads (12" from fence)
	Deep root watering tube
	Irrigation main-1"
	Irrigation lateral
	Electrical conduit-1"
	Sleeving-3"
	To drip irrigation
	Inline subsurface drip-1/2"
	-Connect to stubout, station wires and common in valve box
	-Below grade in valve box with 2 cu feet of gravel below
	-120 mesh filter and 40 psi regulator where psi is excessive
	-Manual ball valve and air relief valve as required
	-Matched precip with check valves-12H,T,Q,ADJ
	-Matched precip with check valves-10H,T,Q
	-Matched precip with check valves-8F,H,T,Q
	-Matched precip with check valves-15SST,EST
	-Use 1 GPM bubbler as alternate to hand watering
	-1120/Schedule 40 PVC pipe
	-1120/Class 200 PVC pipe
	-1120/SCHEDULE 40 PVC PIPE
	-1120/Schedule 40 PVC pipe
	-Point source or multi-outlet emitters
	-LDPE with inline emitters 12" on center

PRECIP = Precipitation Rate is the application rate of irrigation in inches per hour  
 Assumed precip: Spray heads - 1.8, Drip - .4, subsurface drip - 1.1, Deep root watering -8  
 MAWA = Maximum Annual Water Allotment (in gallons and based upon 70% of area historical annual ET)  
 ET<sub>o</sub>=Reference evapotranspiration is the quantity of water evaporated from the soil and transpired by the planting and is measured in inches per month.  
 ANN GAL = Annual gallons  
 RUNTIME = Total amount of minutes required for planting root depth in native soil  
 CYC = Total number of repeat cycles required for native soil  
 CYC TIME = Rounded minutes of each cycle to be repeated by "CYC allowing infiltration monthly number = number of times/month to apply runtime (refer to example below)  
 BASE SCHEDULE for established plant material with historical weather data (10 year average) and assumed precip. Note, if low precipitation heads or mini rotors are used in lieu of conventional spray heads, then the base run times will need to be extended to provide water down to the planting root zones.  
 SPRAY HEAD: Spray head with one of the following: standard matched precipitation spray nozzles-1.8"/hr, low precipitation nozzles - 1"/hr, or mini rotor nozzles-0.4"/hr  
 During establishment period, root depth is shallower, thus requiring more frequent irrigation with shorter run times, stretching out the frequency and extending the total runtimes as the planting matures and roots penetrate into native soil conditions over a 3-5 year span. Establishment irrigation frequency depends upon the time of year initial planting takes place.  
 Monthly example:  
 The number under the month indicates the number of times that zone needs to be irrigated during that month. For fractions of runtimes per month, multiply the # of CYC by the decimal (example: drip/ground cover requires .6 runtimes per month of March = .6 X 7(# of CYC)= 4 cycles of 23 minutes each (CYC). This would equate to 92 minutes total runtime one time during the month of March.  
 Backyards: Refer to backyard design templates for both social and recreation layout ideas.  
 Note: Some plants respond better to overhead spray while many others do better with drip. The irrigation design will need not only to take into consideration plant preferences, but also runoff and potential blockage where the planting grows in front of the spray heads. Drip and spray are both shown on the templates to show differences in system costs and projected water use.  
 Also see front yard templates.

Typical Lot - Recreation	Estimated Water Use-Riverside	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL	
Valves	SQ FT														
Spray Turf	405	290	303	757	1,161	1,582	1,741	1,943	1,892	1,481	951	558	252	12,911	
Spray Turf alternative	405	166	173	433	663	904	995	1,110	1,081	846	544	319	144	7,378	
Drip GC	1195	285	298	744	1,142	1,556	1,712	1,911	1,861	1,457	936	548	248	12,698	
TOTAL gallons with Turf	1600	576	601	1,501	2,302	3,138	3,453	3,854	3,754	2,938	1,887	1,106	500	25,609	
TOTAL with Turf alternative	1600	451	471	1,177	1,805	2,460	2,707	3,021	2,943	2,303	1,479	867	392	20,076	
Estimated water use with turf 25,609 gal/yr; MAWA = 39,633 gal/yr; projected water use = 65% of MAWA with turf															
Estimated water use with turf alternative 20,076 gal/yr; MAWA = 39,633 gal/yr; projected water use = 51% of MAWA with turf alternative															
Zero Lot - Recreation	Estimated Water Use-Riverside	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL	
Valves	SQ FT														
Subsurface- Turf	220	123	128	320	490	668	736	821	800	626	402	236	107	5,455	
Subsurface- Turf alternative	220	70	73	183	280	382	420	469	457	358	230	135	61	3,117	
Drip Shrubs	500	119	125	312	478	651	716	800	779	610	391	229	104	5,313	
TOTAL with Turf	720	242	253	631	968	1,319	1,452	1,620	1,578	1,235	793	465	210	10,768	
TOTAL with Turf alternative	720	189	198	494	758	1,033	1,137	1,269	1,236	967	621	364	165	8,430	
Estimated water use with turf 10,768 gal/yr; MAWA = 17,835 gal/yr; projected water use = 60% of MAWA with turf															
Estimated water use with turf alternative 8,430 gal/yr; MAWA = 17,835 gal/yr; projected water use = 47% of MAWA with turf alternative															
Typical Lot Social	Estimated Water Use-Riverside	0%	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Valves	SQ FT														
Drip Ground Cover	935		223	233	583	893	1217	1340	1495	1456	1140	732	429	194	9,936
Drip shrubs	665		159	166	414	635	866	953	1,063	1,036	811	521	305	138	7,066
TOTAL	1600		382	399	997	1,528	2,083	2,293	2,558	2,492	1,950	1,253	734	332	17,002
Estimated water use 17,002 gal/yr; MAWA = 39,633 gal/yr; projected water use = 43% of MAWA															
Zero Lot - Social	Estimated Water Use-Riverside	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL	
Valves	SQ FT														
Drip GC	125		30	31	78	119	163	179	200	195	152	98	57	26	1,328
Drip shrubs	595		142	148	371	568	775	853	951	927	725	466	273	124	6,323
TOTAL	720		172	179	449	688	937	1,032	1,151	1,121	878	564	330	150	7,651
Estimated water use 7,651 gal/yr; MAWA = 17,835 gal/yr; projected water use = 43% of MAWA															