

# CENTRAL VALLEY BACK YARD

June 2009

## SAMPLE PLANT LEGEND

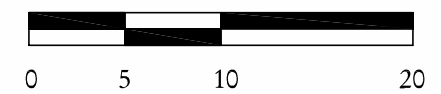
SYMBOL	BOTANICAL NAME	COMMON NAME
<b>LARGE TREES</b>		
	<i>Pistache chinensis</i>	Chinese Pistache
	<i>Prunus 'Krauter Vesuvius'</i>	Flowering Plum
	<i>Quercus agrifolia</i>	Live Oak
	<i>Quercus suber</i>	Cork Oak
<b>SMALL TREES</b>		
	<i>Arctostaphylos manzanita</i>	Manzanita
	<i>Cercis occidentalis</i>	Redbud
	<i>Cotinus coggygria</i>	Smoke Tree
<b>LARGE SHRUBS</b>		
	<i>Nerium o. 'Petite Salmon'</i>	Oleander
	<i>Sarcococca confusa**</i>	Sweet Box**
	<i>Cistus ladanifer</i>	Crimson-spot Rockrose
	<i>Salvia microphylla</i>	Sage
<b>MEDIUM SHRUBS</b>		
	<i>Arctostaphylos d. 'Howard McMinn'</i>	Manzanita
	<i>Rosmarinus 'Collingwood Ingram'</i>	Rosemary
<b>SMALL SHRUBS &amp; PERENNIALS</b>		
	<i>Carex tumulicola</i>	Berkeley Sedge
	<i>Nandina 'Fire Power**'</i>	Heavenly Bamboo**
	<i>Nassella tenuissima</i>	Mexican Feather Grass
	<i>Erigeron glaucas**</i>	Beach Aster**
<b>GROUNDCOVER RECREATIONAL/ACTIVE</b>		
	<i>Carex pansa*</i>	Sedge*
	Turf *	NCN*
<b>GROUNDCOVER SOCIAL/PASSIVE</b>		
	<i>Arctostaphylos 'Emerald Carpet'</i>	Emerald Carpet
	<i>Myoporum parvifolium*</i>	NCN
	<i>Cotoneaster dammeri*</i>	Bearberry Cotoneaster*
<b>HARDSCAPE</b>		
	Pavers	Mulch or DG
	Stepping Stones	Pea Gravel
	Bench	Sand-set Brick

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

**SUNSET ZONES - 8, 9, 14**



NORTH



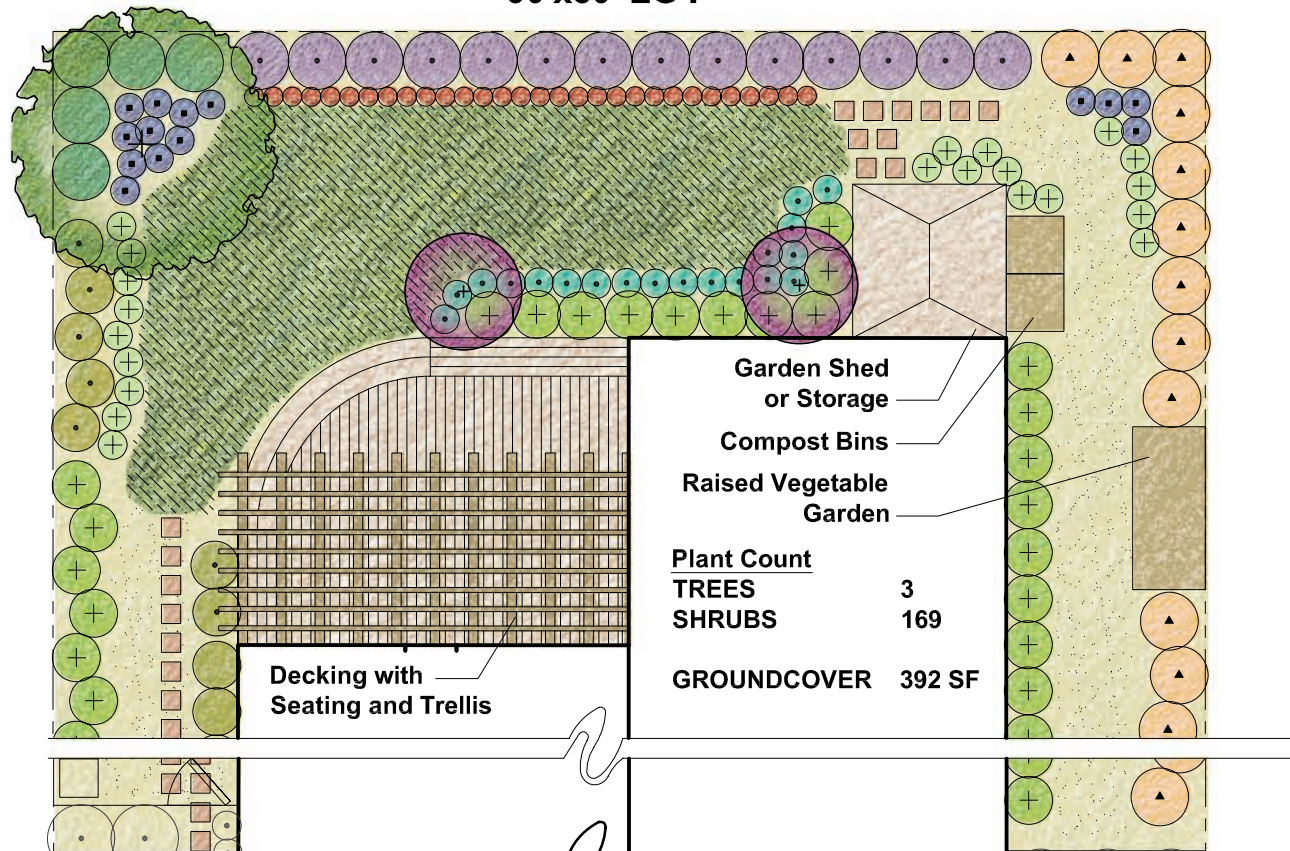
1" = 10'-0"

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.

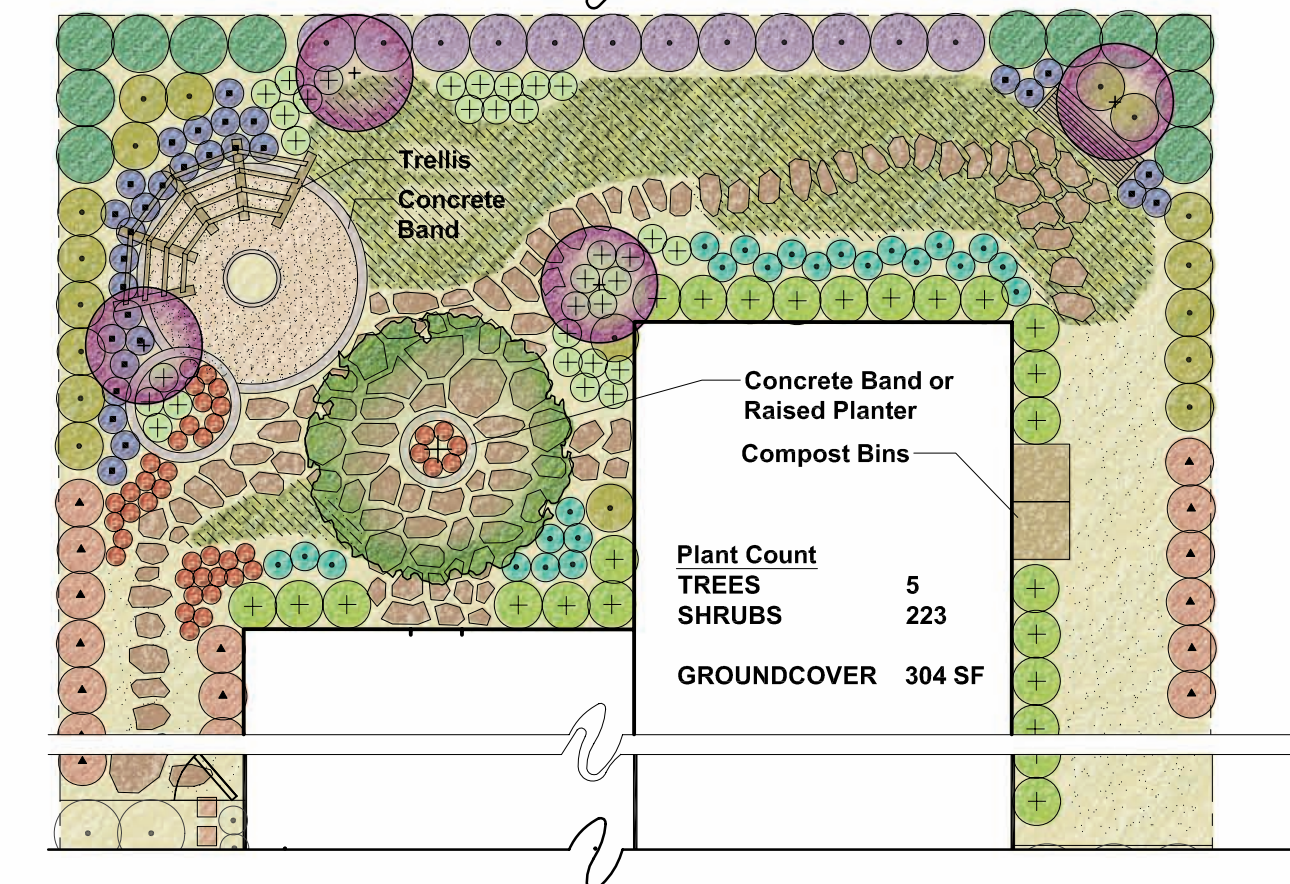
## "TYPICAL" SIZED LOT HOUSE NORTH FACING REAR GARDEN, TYPICAL

60'x80' LOT

RECREATION/ACTIVE

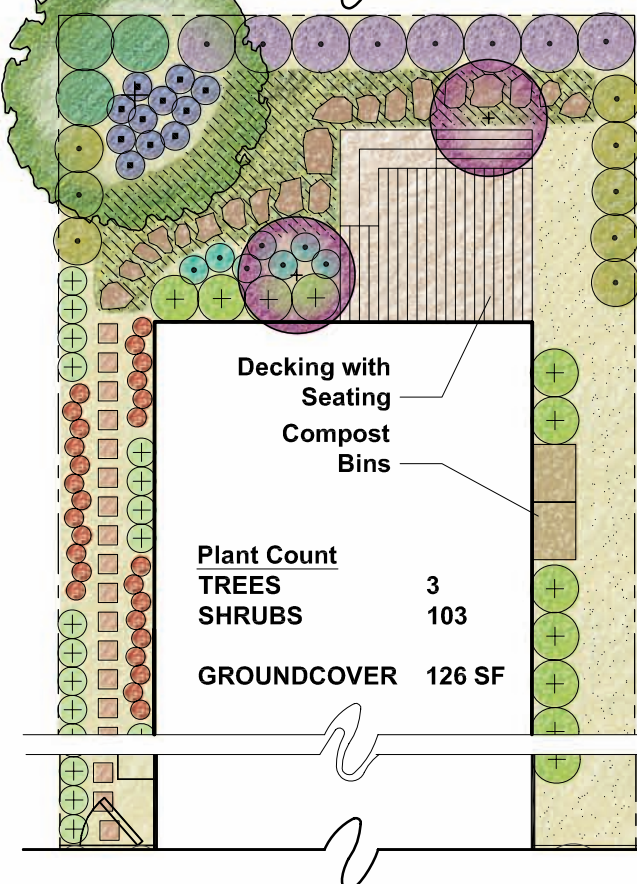
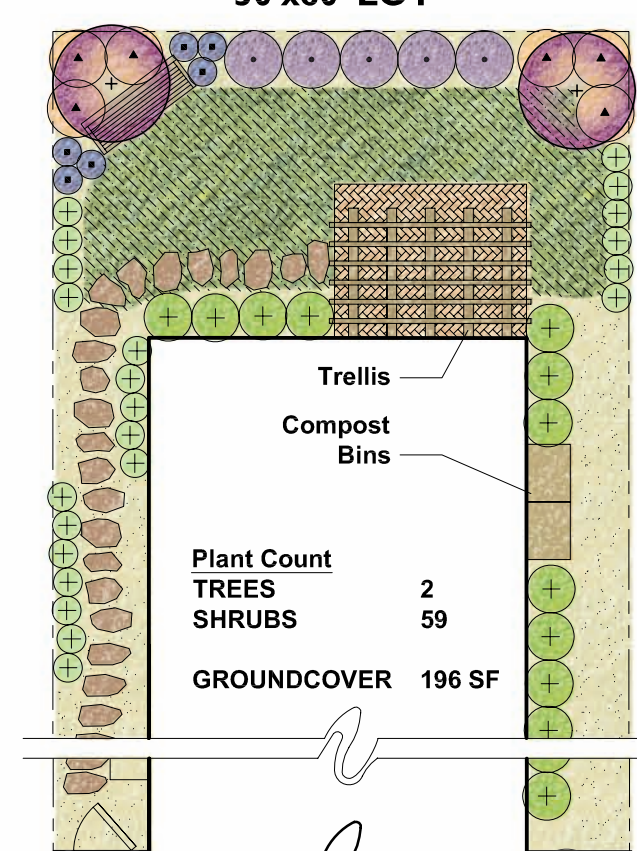


SOCIAL/PASSIVE



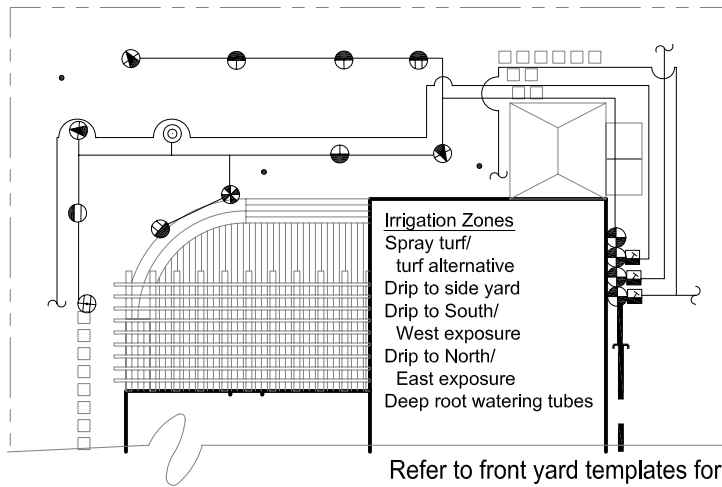
## ZERO-LOT LINE HOUSE NORTH FACING REAR GARDEN, TYPICAL

30'x80' LOT



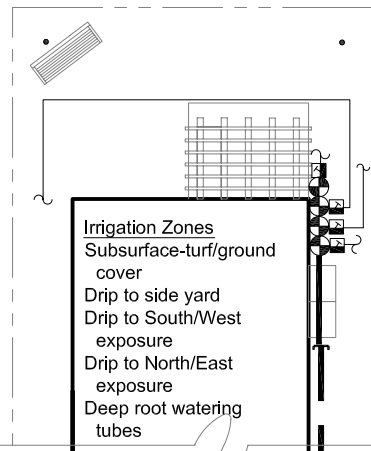
RECREATION/ACTIVE

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



Refer to front yard templates for front yard examples

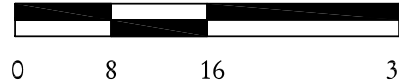
**ZERO-LOT LINE HOUSE**  
NORTH FACING REAR GARDEN, TYPICAL



1" = 16'-0"



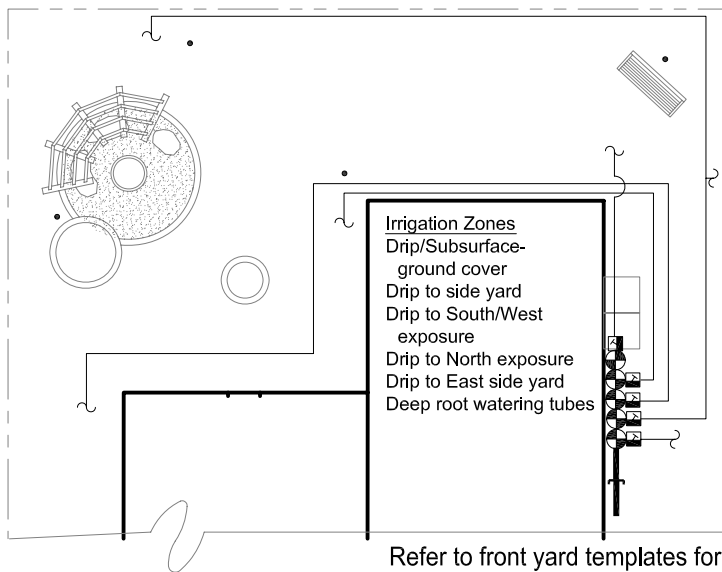
NORTH



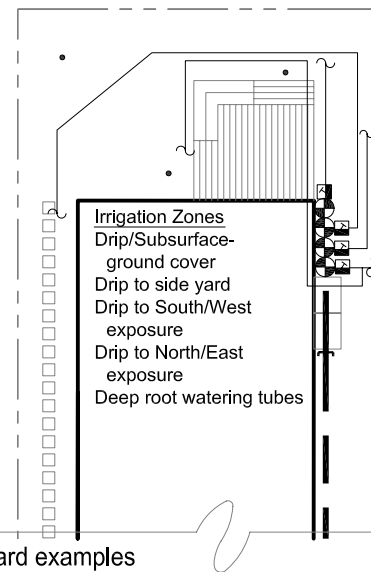
**CENTRAL VALLEY  
BACK YARD**

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"
	-120/Schedule 40 PVC pipe -120/Class 200 PVC pipe -120/SCHEDULE 40 PVC PIPE -120/Schedule 40 PVC pipe
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Typical Lot - Recreation	Estimated Water Use-Clovis	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Valves	SQ FT													
Spray Turf	432	27	285	614	1332	1879	2145	2328	2056	1456	918	269	54	13,363
Spray Turf alternative	432	15	163	351	761	1073	1226	1330	1175	832	524	154	31	7,636
Drip GC	1168	24	257	553	1201	1693	1933	2098	1853	1312	827	243	49	12,043
TOTAL with Turf	1600	51	542	1167	2533	3572	4078	4426	3909	2768	1745	512	102	25405
TOTAL with Turf alternative	1600	40	420	904	1962	2766	3159	3428	3028	2144	1352	396	79	19679

Estimated water use with turf 25,405 gal/yr; MAWA = 37,463 gal/yr; projected water use = 68% of MAWA with turf  
 Estimated water use with turf alternative 19,679 gal/yr; MAWA = 37,463 gal/yr; projected water use = 53% of MAWA with turf alternative

Zero Lot - Recreation	Estimated Water Use-Clovis	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Valves	SQ FT													
Subsurface Drip-Turf	220	11	113	243	528	744	850	922	814	577	364	107	21	5,293
Subsurface Drip-Turf alternative	220	6	65	139	302	425	485	527	465	330	208	61	12	3,024
Drip GC	500	10	110	237	514	725	828	898	793	562	354	104	21	5,155
TOTAL with Turf	720	21	223	480	1,042	1,469	1,677	1,820	1,608	1,138	718	210	42	10,448
TOTAL with Turf alternative	720	16	175	376	816	1,150	1,313	1,425	1,259	891	562	165	33	8,180

Estimated water use with turf 10,448 gal/yr; MAWA = 16,858 gal/yr; projected water use = 62% of MAWA with turf  
 Estimated water use with turf alternative 8,180 gal/yr; MAWA = 16,858 gal/yr; projected water use = 49% of MAWA with turf alternative

Typical Lot - Social	Estimated Water Use-Clovis	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Valves	SQ FT													
Drip Ground Cover	806	17	177	382	829	1168	1334	1448	1279	906	571	167	33	8,310
Drip shrubs	794	16	175	376	816	1151	1314	1426	1260	892	562	165	33	8,187
TOTAL with Turf	1600	33	352	758	1645	2319	2648	2874	2539	1798	1133	332	66	16,497

Zero Lot - Social	Estimated Water Use-Clovis	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Valves	SQ FT													
Drip GC	130	3	29	62	134	188	215	234	206	146	92	27	5	1,340
Drip shrubs	590	12	130	279	606	855	977	1060	936	663	418	123	25	6,083
TOTAL	720	15	158	341	740	1044	1192	1293	1142	809	510	150	30	7424

Estimated water use 7,424 gal/yr; MAWA = 16,858 gal/yr; projected water use = 44% of MAWA

PRECIP = Precipitation Rate is the application rate of irrigation in inches per hour  
 Assumed precipics: 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 precipics. 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.