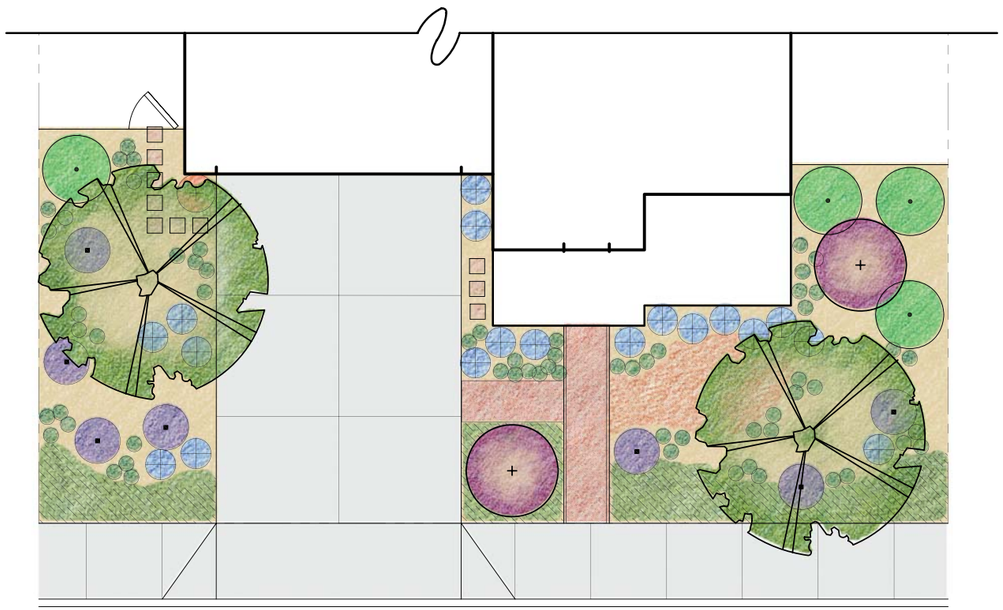
"TYPICAL" SIZED LOT HOUSE
SOUTH FACING FRONT GARDEN, TYPICAL

60'x80' LOT

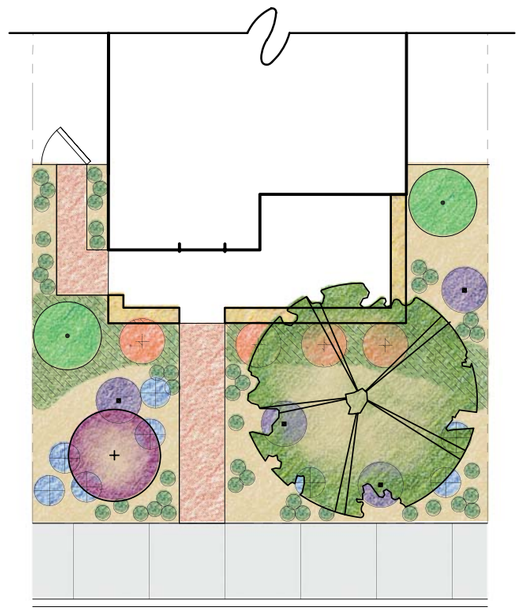


PLANT COUNT

TREES	**4**
SHRUBS	**95**
GROUNDCOVER	**150 SF**

ZERO-LOT LINE HOUSE
SOUTH FACING FRONT GARDEN, TYPICAL

30'x80' LOT



PLANT COUNT

TREES	**2**
SHRUBS	**63**
GROUNDCOVER	**100 SF**

Smart From the Start

DESERT FRONT YARD

June 2009

SAMPLE PLANT LEGEND

SYMBOL	*BOTANICAL NAME*	*COMMON NAME*
LARGE TREES		
	Cercidium floridum	Blue Palo Verde
	Olea e. 'Swan Hill'	Olive
SMALL TREES		
	Chilopsis linearis	Desert Willow
	Cercis occidentalis	Western Redbud
SHRUBS		
	Rhus ovata	Sugar Bush
	Simmondsia chinensis	Jojoba
	Caesalpinia gilliesii	NCN
	Cistus macrocarpa	Rockrose
	Leucophyllum frutescens	Texas Ranger
	Hesperaloe parviflora	Red Yucca
AGAVE, SUCCULENTS, YUCCA AND GRASSES		
	Agave americana	Century Plant
	Fouquieria splendens	Ocotillo
	Justicia californica	Chuparosa
	Yucca whipplei	Our Lord's Candle
	Agave parryi	Perry's Agave
	Dasylirion wheeleri	Desert Spoon
	Festuca ovina glauca	Blue Fescue
	Eriogonum umbellatum	Sulfur Flower
	Castilleja angustifolia	Desert Paintbrush
GROUNDCOVER		
	Baccharis pilularis	Coyote Bush
	Santolina chamacyporissus	Lavendar Cotton
	Verbena peruviana	Verbena
HARDSCAPE	Pavers	
	Decomposed Granite	
	Mulch	

SUNSET ZONES - 11, 13

Note: Some plants listed are suitable for high desert, others are for low desert. Plant palette should be modified as necessary to meet specific climatic conditions.

NORTH

0 5 10 20

1" = 10'-0"

PLANT CLIMATE:
High Desert summers are hot and dry. Winters are cold and fairly dry with occasional high winds.

DESIGN:
The Water Efficient Landscape Ordinance allows drip, drip line, or other low-flow, non-spray irrigation within two feet of any non-permeable surface; it does not allow spray irrigation in these areas. There are no restrictions on the irrigation system if the landscaped area is adjacent to permeable surfacing. Planting and irrigation must be designed appropriately adjacent to non-permeable paving to meet this Ordinance.

PAVING:
Entry and side walkway to be sand-set permeable unit pavers, decomposed granite, pebbles or other surface light in color for low heat emission. Driveway to be permeable concrete, permeable asphalt or upgraded to sand-set permeable paver units. Impervious surface should be minimized.

MULCH:
Two (2) inches of mulch in all areas. Sheet mulching and decomposed granite mulch are recommended.

FIRE:
Templates are based on individual lots within a subdivision. When developing up against wildlands or other fire sensitive areas for an individual parcel or a project, a fire management plan should be created.

DRAINAGE:
Downspouts should be directed into landscape with grading for proper drainage away from house. Runoff during plant establishment must be accomodated on-site.

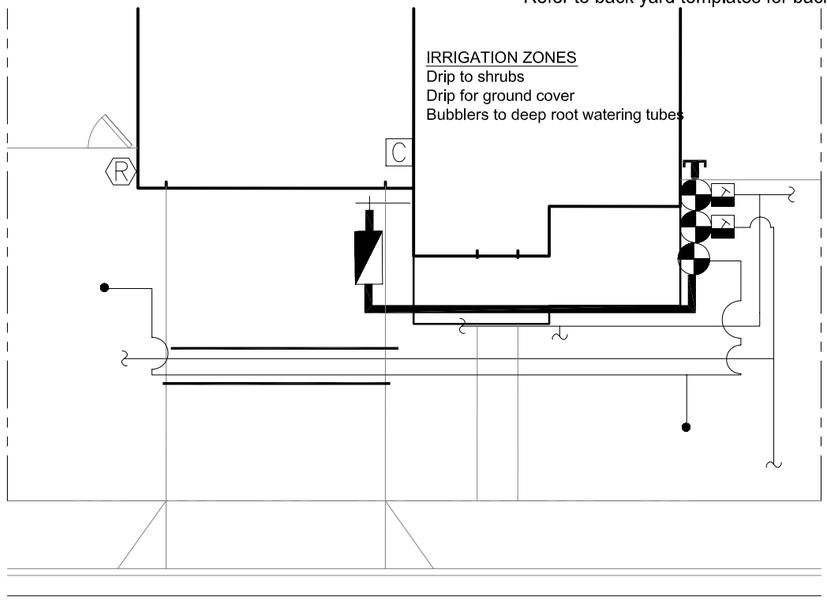
PLANT RESOURCES:
The sample plant legend above provides guidance for appropriate plant selection. Selections should be modified to address different solar orientations, soil conditions, and other micro-climatic factors of a particular building site. Resources for additional plant selections and substitutions include Sunset's Western Garden Book, edited by Kathleen Norris Brenzel; Water Use Classification of Landscape Species (WUCOLS), http://www-facilities.stanford.edu/environment/landscape.pdf and your local chapter of the California Native Plant Society (www.cnps.org).

Note: For additional information regarding design and installation, please see back yard template and CUWCC's Water Smart Landscape Checklist at www.cuwcc.org.

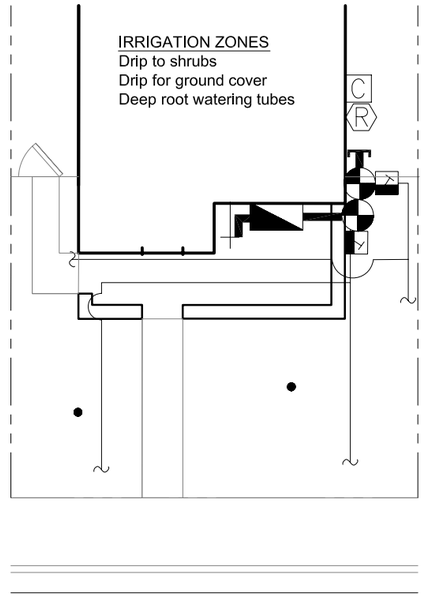
Funded by the U.S. Bureau of Reclamation, Lower Colorado Region, Southern California Office.

"TYPICAL" SIZED LOT HOUSE
SOUTH FACING FRONT GARDEN, TYPICAL
60'x80' LOT

Refer to back yard templates for back yard examples



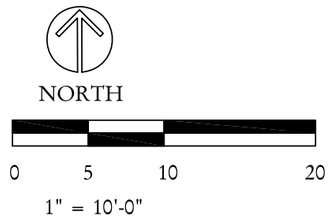
ZERO-LOT LINE HOUSE
SOUTH FACING FRONT GARDEN, TYPICAL
30'x80' LOT



Smart From the Start

DESERT FRONT YARD

June 2009



SAMPLE WATER USE PROJECTIONS FOR TEMPLATE PLANTING/IRRIGATION

Estimated Water Use-Blythe - Zero Lot Line														
Valves	SQ FT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Drip Ground Cover	192	118	163	259	355	443	494	510	443	359	261	154	99	3,658
Drip Shrubs	373	229	316	503	689	860	960	991	860	697	507	300	193	7,106
TOTAL	565	347	479	761	1044	1302	1455	1502	1302	1056	769	454	292	10,764
Estimated water use 10,764 gal/yr; MAWA = 22,890 gal/yr; projected use = 47% of MAWA														
Estimated Water Use-Blythe - Typical Lot														
Valves	SQ FT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Drip Ground Cover	208	128	176	280	384	479	536	553	479	389	283	167	108	3,963
Drip shrubs	600	369	508	809	1109	1383	1545	1595	1383	1121	816	482	310	11,431
TOTAL	808	497	685	1089	1493	1863	2081	2148	1863	1510	1099	649	418	15,393
Estimated water use 15,393 gal/yr; MAWA = 32,735 gal/yr; projected use = 47% of MAWA														
Rainwater potential for 980 sq ft roof = 2,082 gal/yr														
Greywater Potential for 2 showers/day = 17,800 gal/yr														

PRECIP = Precipitation Rate is the application rate of irrigation in inches per hour
Assumed precips: 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)
ETo = 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)
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 - .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.
BASE SCHEDULE for established plant material with historical weather data (10 year average) and assumed precips. 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.

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.
Front Yards: Refer to front yard design templates for 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 back yard templates.

SAMPLE BASE SCHEDULES FOR ESTABLISHED LOW WATER USING PLANT MATERIAL

Blythe Base Schedule (Riverside County)																
STA	PRECIP	RUN TIME	CYC	CYC TIME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Drip Shrub	0.40	233	4	53	0.6	0.9	1.4	1.9	2.4	2.7	2.7	2.4	1.9	1.4	0.8	0.5
Subsurface Drip - Ground Cover	1.10	53	3	19	1.0	1.4	2.2	3.1	3.8	4.3	4.4	3.8	3.1	2.2	1.3	0.9
Drip Ground Cover	0.40	146	3	53	1.0	1.4	2.2	3.1	3.8	4.3	4.4	3.8	3.1	2.2	1.3	0.9
Deep root watering-Trees in planting	8.00	31	12	3	0.3	0.3	0.6	0.8	1.0	1.1	1.1	1.0	0.8	0.6	0.3	0.2

IRRIGATION SYSTEM LEGEND

	1" Shut-off valve-domestic supply	-By other section of contract-providing 12 gpm at 55 psi min.	
	Irrigation backflow prevention device-1"	-12" Above grade to protect domestic supply	
C	Irrigation controller	-Smart technology indoor or exterior mount	
R	Rain sensor	-Adjustable rain shut-off device with unobstructed installation	
	Remote Control Valves	-Below grade in valve box with 2 cu feet of gravel below	
	Drip control assembly	-120 Mesh filter and 40 psi regulator where psi is excessive	
	Irrigation main stub-out-1"	-Provide all spare station wires and common in valve box	
	12" Spray heads (24" from walls)	-Matched precip with check valves-10H,T,Q	-10' radius
	12" Spray heads (24" from walls)	-Matched precip with check valves-8H,T,Q	-8' radius
	NOTE: 6" Spray head body is to be used where mature plant material is less than 5" height. All spray heads to be installed 24" from hardscape and 12" from permeable surfaces and fences.		
	Deep root watering tube	-Use 1 GPM bubbler as alternate to hand watering	
	Irrigation main-1"	-1120/Schedule 40 PVC pipe	-18" Cover
	Irrigation lateral	-1120/Class 200 PVC pipe	-12" Cover
E	Electrical conduit-1"	-1120/Schedule 40 PVC pipe	-24" Cover
	Sleeving-3"	-1120/Schedule 40 PVC pipe	-24" Cover
	To drip irrigation	-Point source or multi-outlet emitters	- 6" Cover