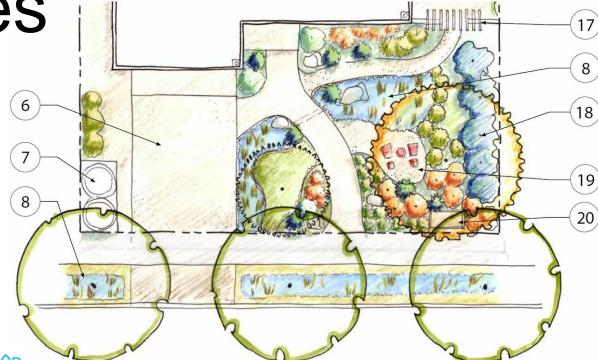
Using the Free Landscape Design Templates

3/28/2019





Overview

- 1. Verify and Select
- 2. Adjust Layout & Planting Plan
- 3. Adjust Irrigation Plan
- 4. Complete 75/25 Rule Worksheet
- 5. Complete Application Packet
- 6. Submit plans
- 7. Complete your project



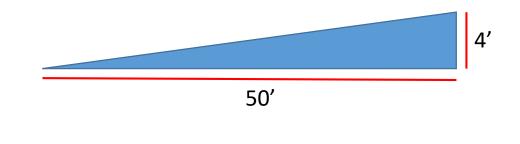


Verify and Select



Verify

- Verify total planting area is up to 2,500 SQ FT
 - Yes = can use the Templates
 - No = may need to hire qualified design professional
- Templates intended for slopes <8%





Select

- Choose the plan that best fits your aesthetic
- There are many plan options
- Choose the one you like most, not the one that has a similar shape
- Renderings coming soon!
 - Available now
 - Native Adaptive A
 - Sonoma Contemporary B





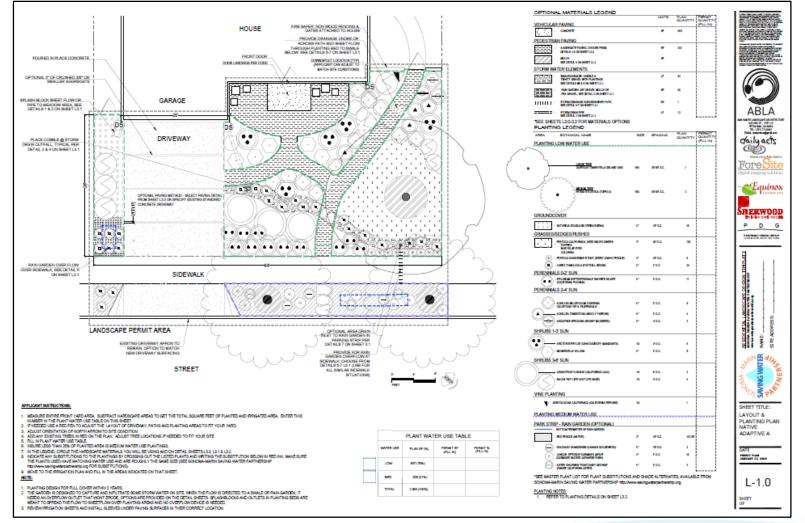
Print

- Print your site plan in 1/4" scale
- Print large format (24"x36") of Layout & Planting Plan (L-1.0)
- Print large format (24"x36") Irrigation Plan Sheet (L-2.0)
- Recommend color

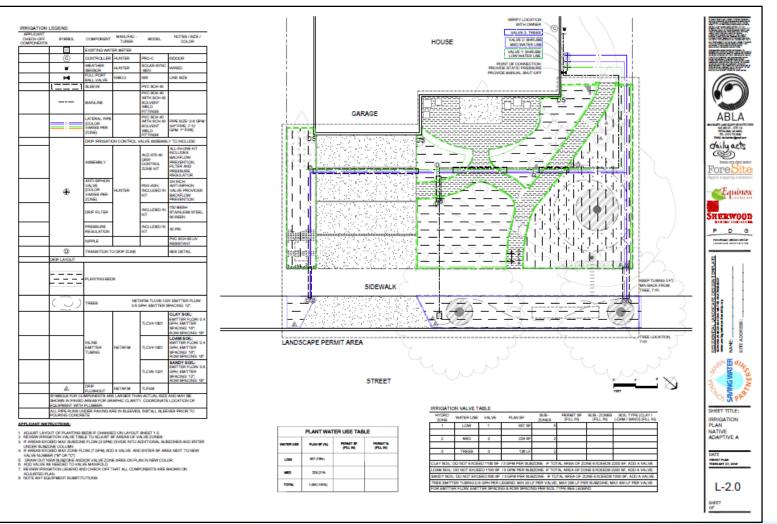




Sheet L-1.0



Sheet L-2.0



Adjust Layout & Planting Plan

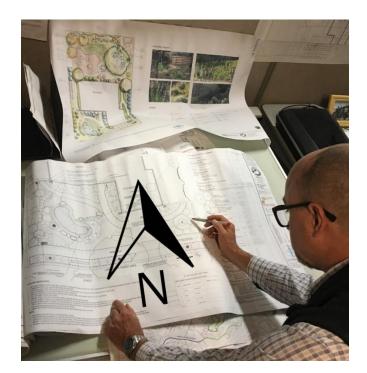


Adjust Layout & Planting Plan (Sheet L-1.0)

- Adjust Lot Lines
 - Lay the Template Sheet L-1.0 on top of your site plan and line up the front yard to match
 - Draw in property boundary, front of the building footprint, driveway, sidewalk, etc.

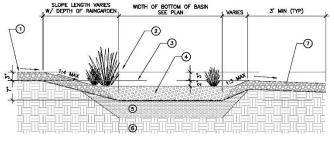






Consider Optional Elements





GETATED RAINGARDEN W/ OVERLAND FLOW INLET AND OUTLET (OPTIONAL)

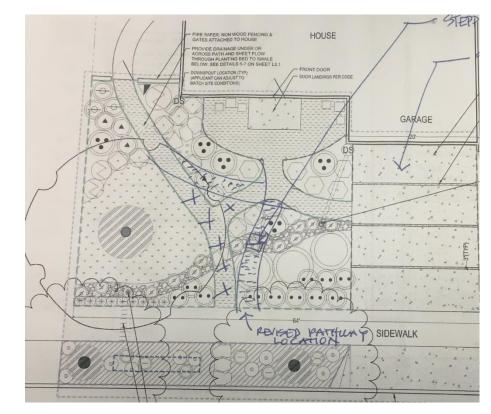
- Optional path and sidewalk
 details
- Optional landscape elements
 - Rainwater harvesting
 - Graywater reuse
 - Rain garden
 - Disconnected downspouts
- Optional driveway details

Plan Sheet	Title	Required	Additional Information
L-3.0	L.I.D. Paving Details	No	L.I.D. = Low Impact Development. These permeable paving material options help reduce runoff by allowing more rain to soak into the ground.
L-3.1	Rain Gardens & Swale Details	No	Swales, rain gardens and disconnected downspouts direct water from the roof to the garden where it can soak into the ground.
GW-1.0	Greywater -Laundry to Landscape	No	Directing water from the washing machine to your garden saves water.
GW-1.1	Greywater -Branched Drain System	No	Directing water from bathroom sinks and bathtub(s) to your garden saves water. Building Permit required
RW-1.0	Rainwater Harvesting	No	Collecting rainwater into a tank and directing overflow to your rain garden saves water and helps recharge groundwater.



Revise Layout & Planting Plan (Sheet L-1.0)

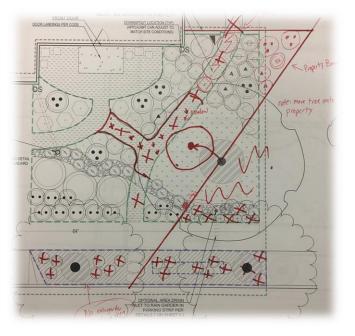
- Add any existing trees
- Modify hardscape and landscape feature locations
 - Paths
 - Driveways
 - Optional elements





Revise Layout & Planting Plan (Sheet L-1.0)

- Adjust Plantings
 - Identify locations of trees first
 - Expand or reduce plantings to match your site
 - Expand groupings
 - Reduce groupings





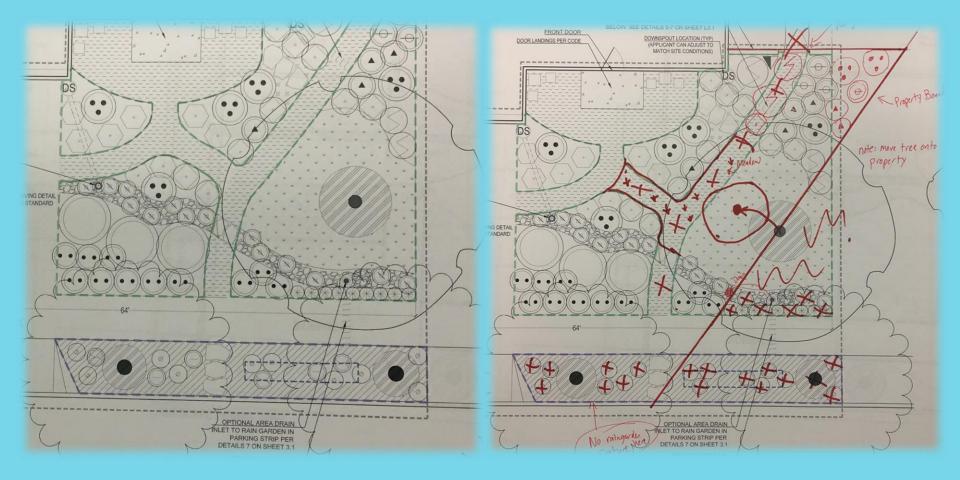
Adjust plantings - Different lot size

- If your lot is 25% smaller than the size of your chosen plan, reduce plantings by 25%
- If your lot is 10% larger than the size of your chosen plan, increase plantings by 10%
- **Minimum requirement**: you can plant half the density, but this will require much more maintenance





Adjust Planting Example



Revise Layout and Planting Plan (Sheet L-1.0)

- Substitute Plants
 - Use Master Plant Substitution List
 - Swap like for like plants
 - Water use
 - Size at maturity

- Consider
 - Sun vs. shade needs
 - Color
- Plantings must be 75% low-water use



Two plant lists

- Low water use and Medium water use
 - Trees, shrubs, grasses etc.,
 - Exposure
 - Color
 - Size at maturity
 - Plant spacing
 - And more...

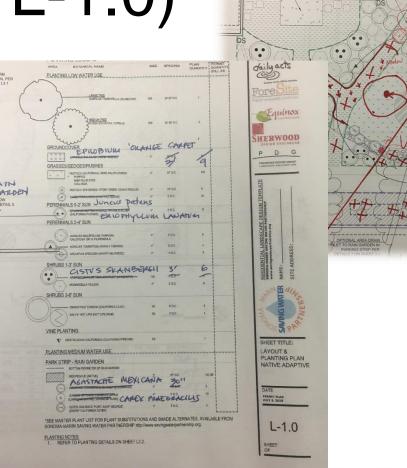
	Master Plant	Substitution	List - Low	Water Use	Plants
--	--------------	--------------	------------	-----------	--------

Botanical Name	Common Name	Category	Height	Spread	Evergreen or Decidous	Exposure	Color
Thymus vars	Thyme varieties	Groundcover	1-2"	4-8"	Evergreen	Sun	White
GRASSES/SEDGES/RUSHES							
Bouteloua gracilis 'Blonde Ambition'	Side Oats Gramma	Grasses/Sedges/Rushes	18"	18"	Evergreen		Foliage
Calamagrostis foliosa	Cape Mendocino Ree	d Grasses/Sedges/Rushes	18"	18"	Evergreen	Sun to pt sha	Foliage
Carex densa	Dense Sedge	Grasses/Sedges/Rushes	1'	1'	Evergreen	Sun to pt sha	a Foliage
Carex praegracilis, C. pansa	Slender Field Sedge	Sedges/Turf Alt.	18"	18"	Evergreen		Foliage
Carex tumulicola	Berkeley Sedge	Grasses/Sedges/Rushes	18"	18"	Evergreen	Sun to pt sha	Foliage
Deschampsia caespitosa	Slender Hair Grass	Grasses/Sedges/Rushes	18"	18"	Evergreen	Sun-Pt Shade	e Foliage
Festuca californica	California Fescue	Grasses/Sedges/Rushes	24"	12"	Evergreen	Pt. Shade	Foliage
Festuca idahoensis	Idahoe Fescue	Grasses/Sedges/Rushes	16"	16"	Evergreen	Sun-Pt Shade	e Foliage
Festuca rubra	Creeping Red Fescue	Grasses/Turf Alt.	16"	30"	Evergreen	Sun-Pt Shade	e Foliage
Hordeum brachyanthemum	Meadow Barley	Grasses/Sedges/Rushes	18"	18"	Evergreen		
Juncus patens	Blue Rush	Grasses/Sedges/Rushes	2'	2'	Evergreen	Sun - Pt Shad	d Foliage
Muhlenbergia dubia	Pine Muhly Grass	Grasses/Sedges/Rushes	2'	2'	Evergreen	Sun	Foliage
Muhlenbergia rigens	Deer Grass	Grasses/Sedges/Rushes	3'	3'	Evergreen	Sun	Foliage
Sporobolus airoides	Alkali Sacaton	Grasses/Sedges/Rushes	30"	30"	Evergreen	Sun	Foliage
Stipa cernua	Nodding needle grass	Grasses/Sedges/Rushes	24"	24"	0.1m - 0.5m	Sun	Foliage
NATIVE WILDFLOWERS							
Clarkia amoena whitnevi	Farewell to Spring	Annual & Perennial Wildflowers	36"	36"		Sun-Pt Shade	Pink & White
Clarkia rubiconda ssp. Bladei	Ruby Clarkia	Annual & Perennial Wildflowers	30"	30"		Sun-Pt Shade	e Reddish pink
Eschscholzia californica	CA Poppies	Annual & Perennial Wildflowers	16"	16"	Semi Decid	Sun	Orange
Gilia menziesii	Baby Blue Eves	Annual & Perennial Wildflowers	8"	16"		Pt. Shade	Blue
Gilia tricolor	Bird's Eve Gilia	Annual & Perennial Wildflowers	8"	16"		Sun-Pt Shade	e Purple/White
Platyglossa	Tidy Tips	Annual & Perennial Wildflowers	12"	12"		Sun	Yellow/White

Botanical Name	Common Name	Category	Height	Spread	Evergreen or Decidous	Exposure	Color
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Festuca californica	California Fescue	Grasses/Sedges/Rushes	24"	12"	Evergreen	Pt. Shade	Foliage
Festuca idahoensis	Idahoe Fescue	Grasses/Sedges/Rushes	16"	16"	Evergreen	Sun-Pt Shade	Foliage
Festuca rubra	Creeping Red Fescue	Grasses/Turf Alt.	16"	30"	Evergreen	Sun-Pt Shade	Foliage
Hordeum brachyanthemum	Meadow Barley	Grasses/Sedges/Rushes	18"	18"	Evergreen		
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Muhlenbergia dubia	Pine Muhly Grass	Grasses/Sedges/Rushes	2'	2'	Evergreen	Sun	Foliage
Muhlenbergia rigens	Deer Grass	Grasses/Sedges/Rushes	3'	3'	Evergreen	Sun	Foliage
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Eschscholzia californica	CA Poppies	Annual & Perennial Wildflowers	16"	16"	Semi Decid	Sun	Orange
Gilia menziesii	Baby Blue Eyes	Annual & Perennial Wildflowers	8"	16"		Pt. Shade	Blue
Gilia tricolor	Bird's Eye Gilia	Annual & Perennial Wildflowers	8"	16"		Sun-Pt Shade	Purple/White
Platyglossa	Tidy Tips	Annual & Perennial Wildflowers	12"	12"		Sun	Yellow/White

Revise Layout and Planting Plan (Sheet L-1.0)

- Update Planting Legend
- Count Planting Groups
- Add clarifying Notes



property



The 75/25 Rule

- 75% of the front yard planted areas must be low water use
 - Remember this when adding or substituting plants
 - There are irrigation system impacts too
 - Hints
 - Stick with the layout of plants and trees as specified on the Templates
 - Substitute only low water use plants and trees.







Special Landscape Areas

- Edible plants and fruit trees are considered Special Landscape Areas
 - Qualify as exception to the 75/25 Rule
 - Must be irrigated separately





Adjust Irrigation Plan



The Irrigation Legend

- Lists all irrigation components used (make/model/size/manufacturer
- Symbols represent each component drawn on the irrigation plan
- Match symbols for irrigation modifications
- Build per plans!

APPLICANT CHECK-OFF COMPONENTS	SYMBOL	COMPONENT	MANUFAC - TURER	MODEL	NOTES/SIZE/ COLOR	
		EXISTING WAT	ER METER			
	٢	CONTROLLER	HUNTER	PRO-C	INDOOR	
	¥	WEATHER SENSOR	HUNTER	SOLAR-SYNC -SEN	WRED	
	X	FULL PORT BALL VALVE	NIBCO	585	LINE SIZE	
	1 = 1 = 1	SLEEVE		PVC SCH 40		
		MAINLINE		PVC SCH 40 WTH SCH 40 SOLVENT WELD FITTINGS		
		LATERAL PIPE (COLOR VARIES PER ZONE)		SOLVENT	PIPE SIZE: 0-6 GPI 3/4" PIPE; 7-12 GPM: 1" PIPE;	
		DRIP IRRIGATION CONTROL VALVE ASSEMBLY TO INCLUDE:				
					ALL-IN-ONE KIT	



Adjust Irrigation Plan (Sheet L-2.0)

- Adjust Lot Lines
 - Lay the Template sheet
 L-2.0 on top of L-1.0
 - Match property boundary, front of the building footprint, driveway, sidewalk, revised planting areas, etc.



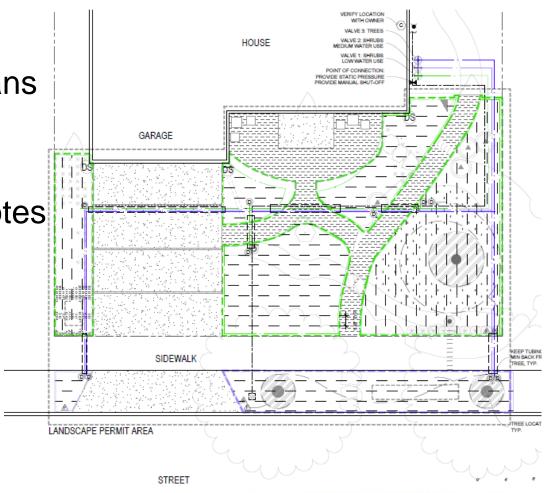


Adjust Irrigation Plan (Sheet L-2.0)

- Adjust Irrigation Plans
 - Match revised planting areas
 - Add clarifying notes
 - Reposition components
 - Controller

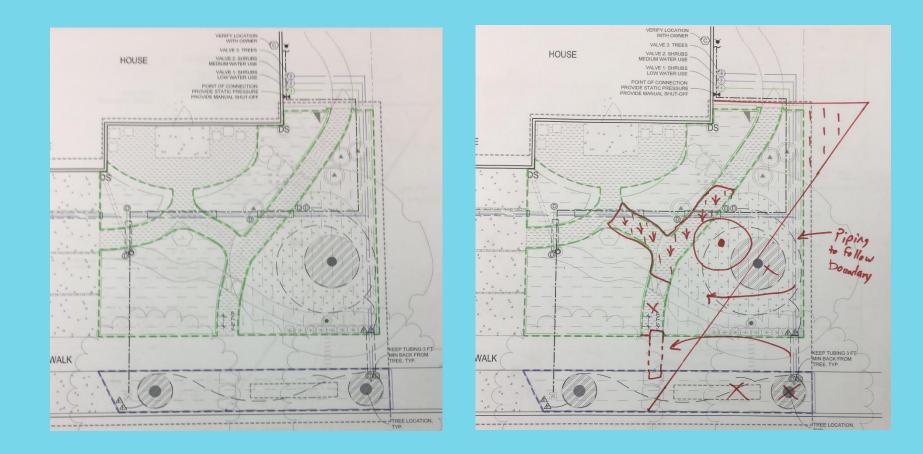
OUR FUTURE IN EVERY DROP

Valves





Adjust the Irrigation Plans



Adjust Irrigation Plan (Sheet L-2.0)

- Fill Out Irrigation Valve Table
 - Outline and Measure Irrigated Areas
 - # of Valves
 - Permit SQ FT

HYDRO ZONE	WATER USE	VALVE	PLAN SF	SUB - ZONES	PERMIT SF (FILL IN)	SUB - ZONES (FILL IN)	SOIL TYPE (CLAY / LOAM / SAND) (FILL IN)	
1	LOW	1	1,249 SF	5				
2	MED	2	229 SF	2				
3	TREES	3	126 LF	2				
CLAY SOIL: DO NOT EXCEED 1100 SF / 3 GPM PER SUBZONE. IF TOTAL AREA OF ZONE EXCEEDS 2200 SF, ADD A VALVE.								
LOAM SOIL: DO NOT EXCEED 1100 SF / 3 GPM PER SUBZONE. IF TOTAL AREA OF ZONE EXCEEDS 2200 SF, ADD A VALVE.								
SANDY SOIL: DO NOT EXCEED 500 SF / 3 GPM PER SUBZONE. IF TOTAL AREA OF ZONE EXCEEDS 1000 SF, ADD A VALVE.								
TREE EMITTER TUBING 0.6 GPH PER LEGEND: MIN 20 LF PER VALVE; MAX 200 LF PER SUBZONE; MAX 400 LF PER VALVE								
FOR EMITTER FLOW, EMITTER SPACING & ROW SPACING PER SOIL TYPE SEE LEGEND								

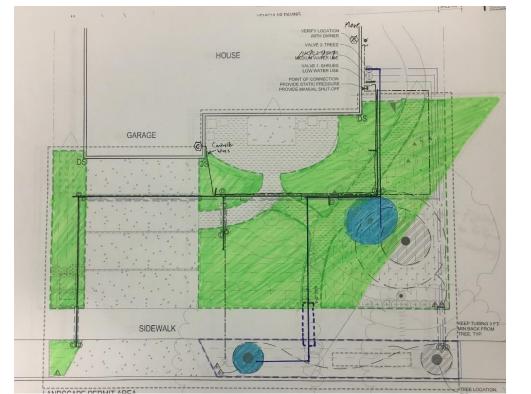
IRRIGATION VALVE TABLE



Outline and Measure Irrigated Areas

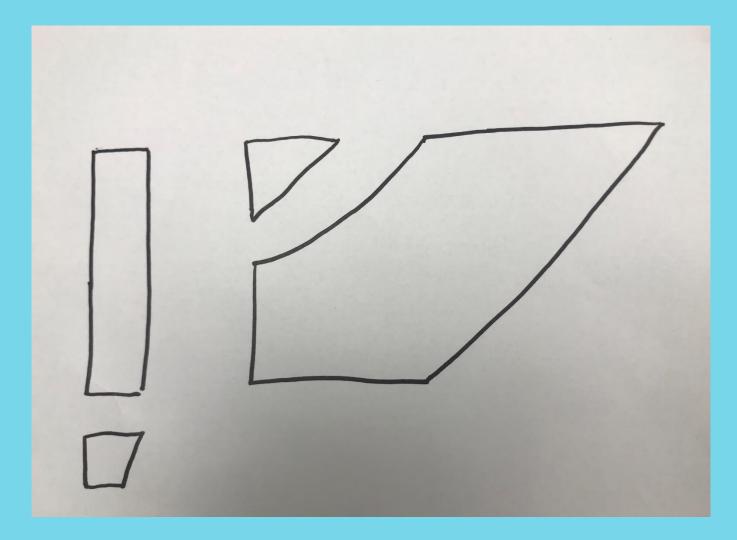
- Green = low water use hydrozone
- Blue = Tree hydrozone

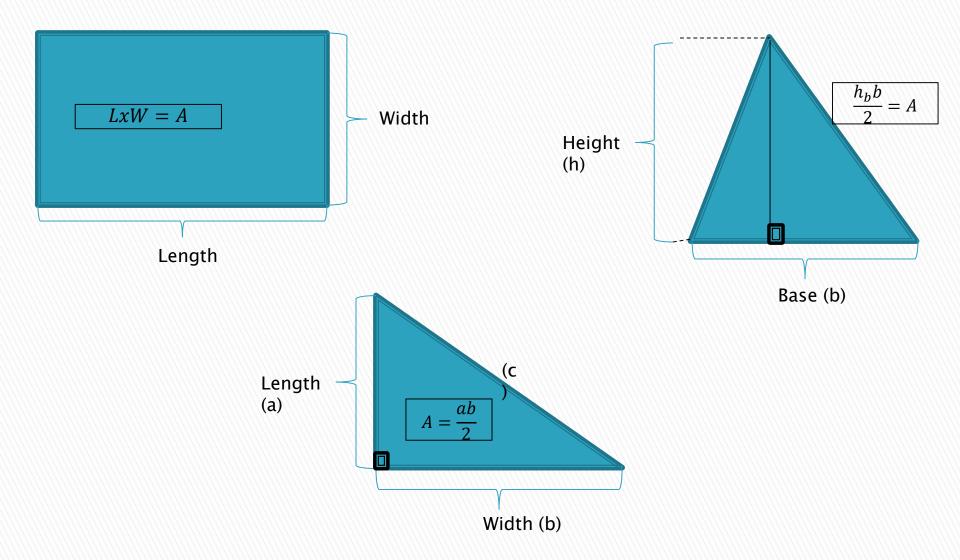
Tree Size	Square Feet
Small	50
Medium	75
Large	100



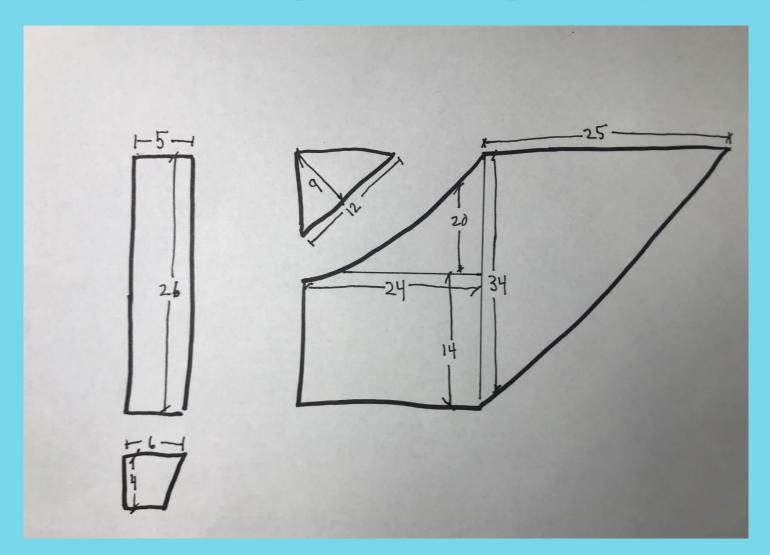


Draw the landscape area





Measure by making shapes



Calculate each area

Hydrozone 1	Shape	Formula	Area (ft²)
Low -water plants	Triangle 1	(25 x 34) / 2	425
Low -water plants	Triangle 2	(9 x 12) / 2	54
Low -water plants	Triangle 3	(20 x 24) / 2	240
Low -water plants	Rectangle 2	24 x 14	336
Low -water plants	Rectangle 3	5 x 26	130
Low -water plants	Rectangle 4	4 x 6	24
Tota	ll Low Water Use <mark>(PERMIT</mark>	SQ FT)	1,209

Adjust Irrigation Plan (Sheet L-2.0)

Determine number of Valves

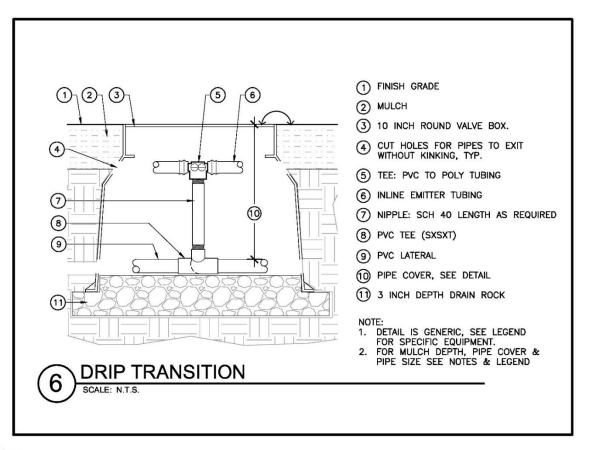
IRRIGATION VALVE TABLE

HYDRO ZONE	WATER USE	VALVE	PLAN SF	SUB - ZONES	PERMIT SF (FILL IN)	SUB - ZONES (FILL IN)	SOIL TYPE (CLAY / LOAM / SAND) (FILL IN)	
1	LOW	1	1,249 SF	5				
2	MED	2	229 SF	2				
3	TREES	3	126 LF	2				
CLAY SOIL: [CLAY SOIL: DO NOT EXCEED 1100 SE / 2 CPM PER SUBZONE. IF TOTAL AREA OF ZONE EXCEEDS 2200 SF, ADD A VALVE.							
LOAM SOIL: I	LOAM SOIL: DO NOT EXCEED 1100 SF / 3 GPM PER SUBZONE. IF TOTAL AREA OF ZONE EXCEEDS 2200 SF, ADD A VALVE.							
SANDY SOIL: DO NOT EXCEED 500 SE / 3 GPM PER SUBZONE. JE TOTAL AREA OF ZONE EXCEEDO 1000 SF, ADD A VALVE.								
TREE EMITTER TUBING 0.6 GPH PER LEGEND: MIN 20 LF PER VALVE; MAX 200 LF PER SUBZONE; MAX 400 LF PER VALVE								
FOR EMITTE	FOR EMITTER FLOW, EMITTER SPACING & ROW SPACING PER SOIL TYPE SEE LEGEND							



Identify Subzones on Sheet L-2.0

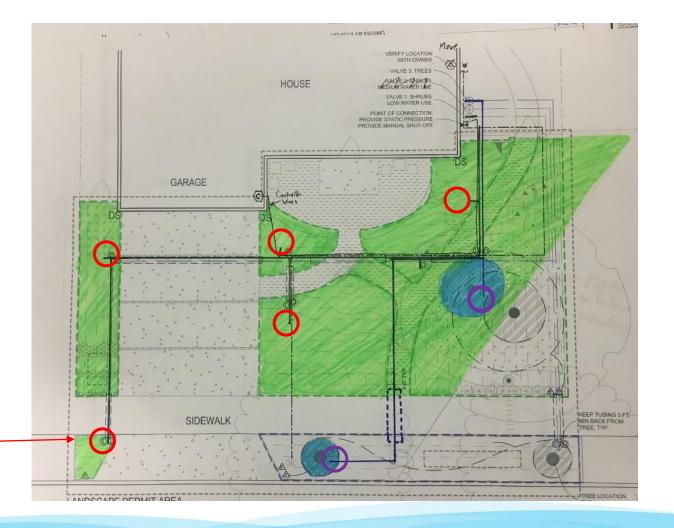
Subzone detail





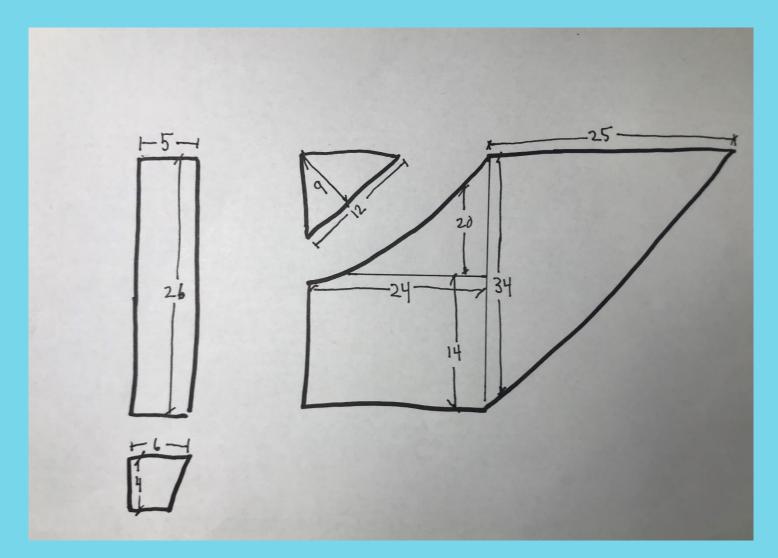
Identify Subzones on Sheet L-2.0

 Subzones are locations of pipe to drip system.





Subzone Areas



Completed Irrigation Valve Table

Transfer all information onto Sheet L-2.0
 Irrigation Valve Table

HYDRO ZONE	WATER USE	VALVE	PLAN SF	SUB - ZONES	PERMIT SF (FILL IN)	SUB - ZONES (FILL IN)	SOIL TYPE (CLAY / LOAM / SAND) (FILL IN)
1	LOW	1	1,249 SF	5	1209	5	clay loam
2	MED	2	229 SF	2			
3	TREES	3	126 LF	2			
CLAY SOIL: DO NOT EXCEED 1100 SF / 3 GPM PER SUBZONE. IF TOTAL AREA OF ZONE EXCEEDS 2200 SF, ADD A VALVE.							
LOAM SOIL: DO NOT EXCEED 1100 SF / 3 GPM PER SUBZONE. IF TOTAL AREA OF ZONE EXCEEDS 2200 SF, ADD A VALVE.							
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FOR EMITTER FLOW, EMITTER SPACING & ROW SPACING PER SOIL TYPE SEE LEGEND							





Complete 75/25 Rule Worksheet



75/25 Rule Worksheet

- Complete Four Steps
 - Adjust if needed
- Transfer Final Results to Plant Water Use Table on Sheets L-1.0 and L-2.0

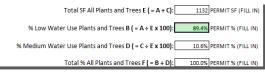


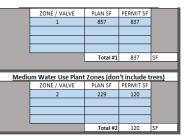
Table 4: Plant Water Use Table (do this last)

4) The worksheet will fill in most of Table 4 using totals from Table 3. PLAN SF (%) should be filled in manually to match what is shown on the Plant Water Use Table in the Template.

	PLANT WATER	USE TABLE					
WATER USE	PLAN SF (%)	PERMIT SF	PERMIT %		Tran	sfer these	
WATER OSE	FLAIN SF (76)	(FILL IN)	(FILL IN)		value	s to Plant	
LOW	857 (79%)	1012	89.4%		Water Use Tables		
MED					on Sl	heet L-1.0	
WED	229 (21%)	120	10.6%		and Sheet L-2.0		
TOTAL							
TOTAL	1086 (100%)	1132	100.0%				
75/25 Rule. Do table. If you ar high water use	are exempt from not add them to e adding irrigation existing trees li y must be on the	this on to ke		Ī	S	City of City of Canta Rosa	



OUR FUTURE IN EVERY DROP



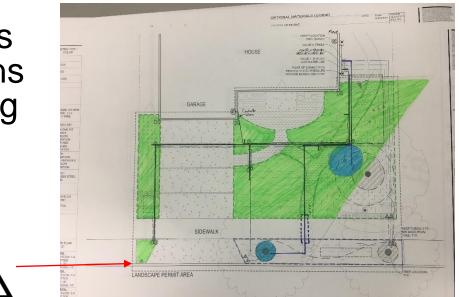
Enter the number of Small, Medium, and Large trees. The worksheet will calculate the "SF" column and Total.					
Low Water Use Trees					
TREE SIZE	TREE SIZE NUMBER OF TREES		SF		
Small		50	0		
Medium	1	75	75		
Large	1	100	100		
		Total #3	175	SF	
	Medium W	ater Use Tre	es		
TREE SIZE	NUMBER OF TREES	SF per TREE	SF		
Small		50	0		
Medium		75	0		
Large		100	0		

Total #4

Table 2: TREES* (do this 2nd)

Adjust the Irrigation System Layout on Sheet L-2.0

- Refer to Completed Irrigation
 Valve Table
 - Add or remove valves
 - Color code hydrozones
 - Identify sleeve locations
 - Draw in irrigation piping paths
 - İndicate all subzones
 - Indicate drip flushouts





Complete Application Packet



Application Packet

- Full size planting and irrigation plan sheets
- 6 steps to complete
- Required details (minimum submission)
- Optional elements
 - Sustainable landscape elements
 - Alternate pathways
 - Alternate driveways



Residential Landscape Design Template Plan Application Documents Package

Complete the Pre-Construction Permit Section when submitting the landscape plans for approval and sign the Certificate of Completion Section when project is complete and provide to the Inspector.

Pre-Construction Permit Section

Step 1: Project Information (to be filled out by Applicant)

Date:
Project Applicant (name):
Project Address:
Total project landscape area (≤ 2500 sf):(sf)
Medium water use plant material area (≤ 25%):(sf)
Low to very low plant material area (≥ 75%):(sf)

Application

- Need to complete the Pre-Construction Steps 1-4 of the Application Packet
 - Step 1 Project Information
 - Step 2 Sign Pre-Construction Agreement
 - Step 3 Sign Disclaimer

- Step 4 Provide Permit Agency Required Plan sheets
- Keep at least one copy of everything submitted

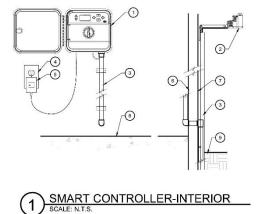


All required detail sheets

Print out all of the details sheets that are depicted on the plan sheets

- SMART Controller
- Tree, ground cover, shrub grass and perennial planting details
- Isolation ball valve
- Antisiphon valve manifold
- Sheet mulch

- Drip subzone layout either single line or multi-line
- Drip transition
- Drip flush valve
- Irrigation sleeving
- Trenching and pipe cover





Submit Plans



How to get your plans approved

- Bring your landscape plans to the Resilient City Permit Center
- Include with your submission:



- The completed Application Packet
- Copy of the 75/25 Rule Worksheet
- All required detail sheets
- All optional detail sheets that you are using





Landscape Deferral- Option



- You can defer for up to two years
- Prior to occupancy you still need to:
 - Submit your landscape plans
 - Install necessary sleeves under hardscape
 - Add required soil amendments and mulch the area
 - Plant all of the required trees



Complete your Project!

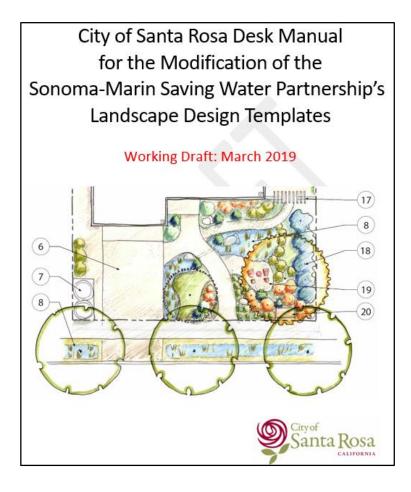


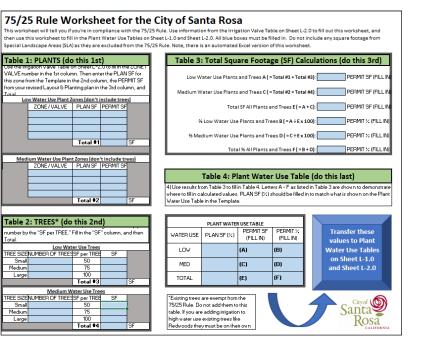
How to get your completed landscape inspected

- Build your landscape per plans
- Complete the Post-Construction Steps 5-6 of the Application Packet
 - Step 5 Post Construction Certification
 - Step 6 MWELO Final Inspection Checklist
- Schedule inspection with Building Department









www.savingwaterpartnership.org

