

Design and Construction Techniques for Trees in New Landscapes

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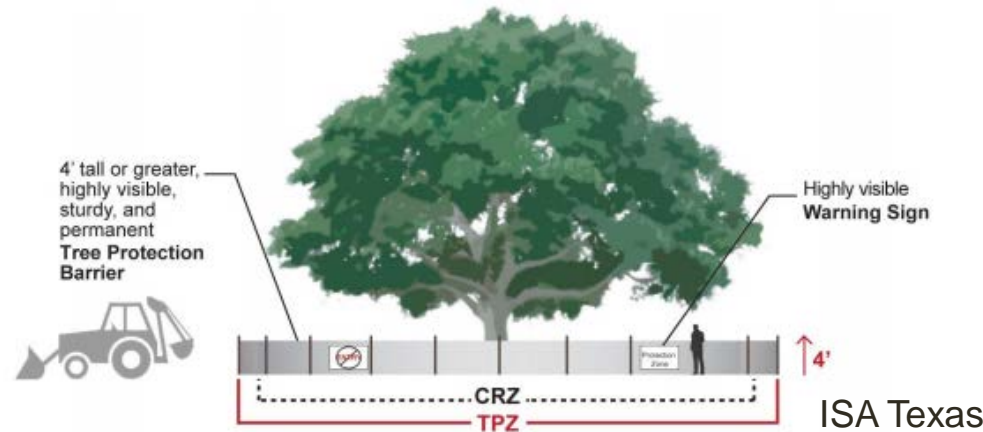
San Diego Community Forestry Advisory Board

San Diego Urban Forests Council

Tree Protection

Existing trees on site require protection from construction activities

- **Tree Protection** is often a requirement of the local jurisdiction
- **Critical Root Zone** – 1ft radius for every 1in diameter of trunk
- **Tree Protection Zone** – Area where construction activities prohibited
 - Mulching, watering may be required within the TPZ
- **Tree Protection Barrier** – 4ft tall min, highly visible, sturdy barrier





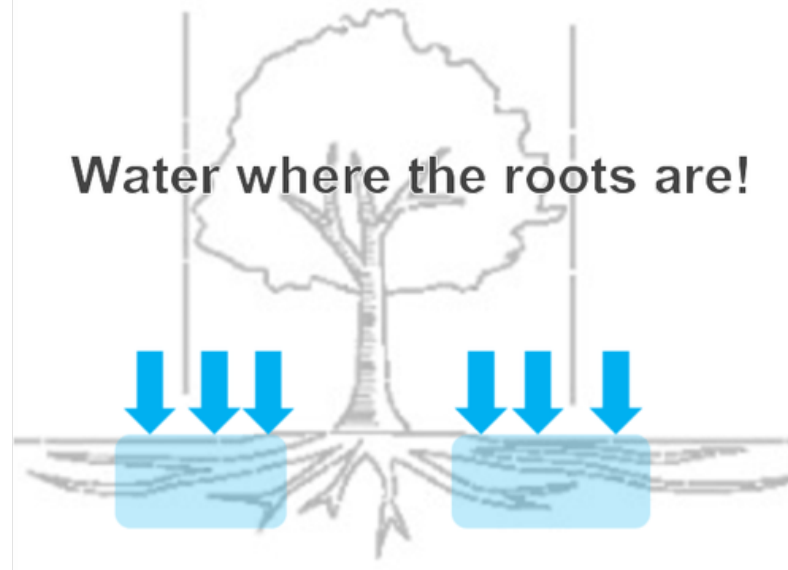
Irrigation BMP's

- **Design** for Water Use Efficiency and site
 - Proper watering for all landscape elements
 - Site specific Requirements – drip, bubbler, rotor
- **Install** to Meet Design Criteria
 - Ensure contractors install to specs
- **Manage** Landscape Water Resources



Tree Irrigation BMP's

- **Trees require separate irrigation control valves!**
 - Infrequent, DEEP irrigation
- Water where the roots are!
- Drip / micro irrigation is best wherever practical



Organic Mulch

Consider Mulch as a Design Element

Benefits

- Helps retain soil moisture
- Adds Nutrients / Improves Soil Fertility and Structure
- Protects Drip Irrigation
- Reduces Competition
- Mower Damage Protection

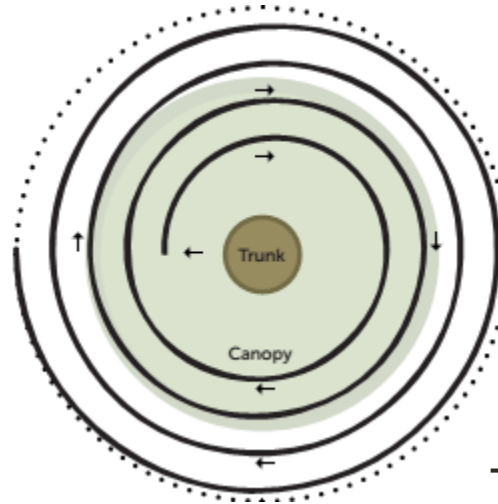
Methods

- 3-4in deep
- Keep away from tree trunk
- Extend to dripline or 4-5ft min



Drip Systems for Trees

- Spiral drip tubing with in-line emitters.
- Start near the trunk and spiral outward beyond dripline
- Place under mulch for maximum effectiveness



TreePeople

Water Considerations

- Watering requirements for trees depend on size, species, location and season.
 - Consult an Arborist!
- Can vary from 10gal/week for new trees to 500+ gal per month for large trees
- May need to run irrigation for **HOURS** not minutes to ensure proper watering
 - Separate Irrigation Control Valves
- When watering, ensure soil is moist to a depth of 12-14 inches



Establishment Alternative

- Tree Watering Bags can be very effective
 - Provide sufficient water during establishment
- Must be manually filled
- Not a long term solution



Turf Replacement

- Great time to ensure proper irrigation for trees
- Mulch is very important
- If mulch was not already present – use a thinner layer of organic
- Heat from rock and artificial turf and damage existing AND new trees

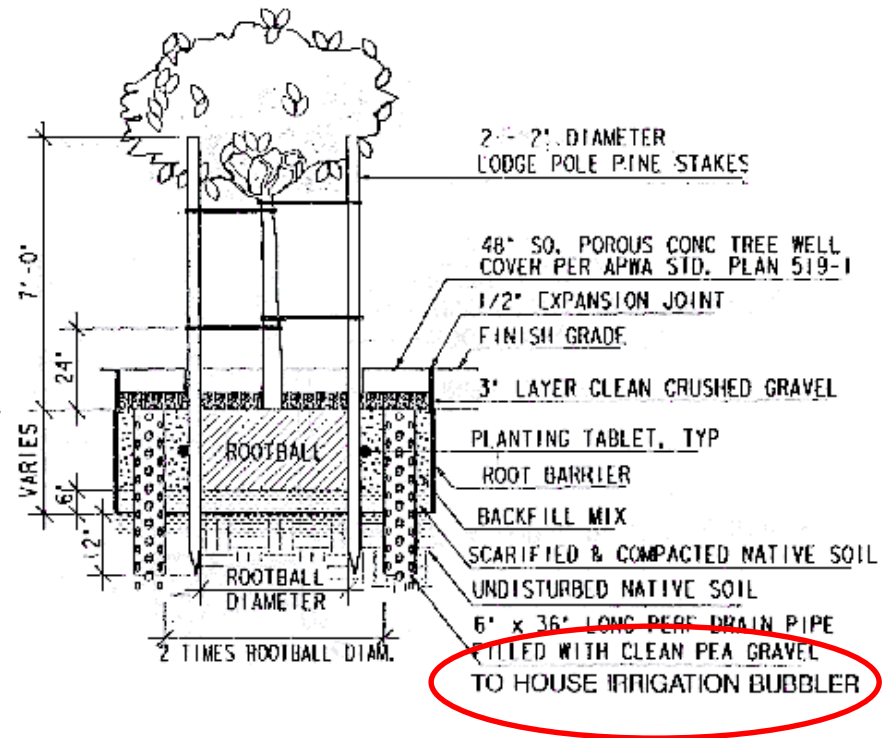


Surviving Drought

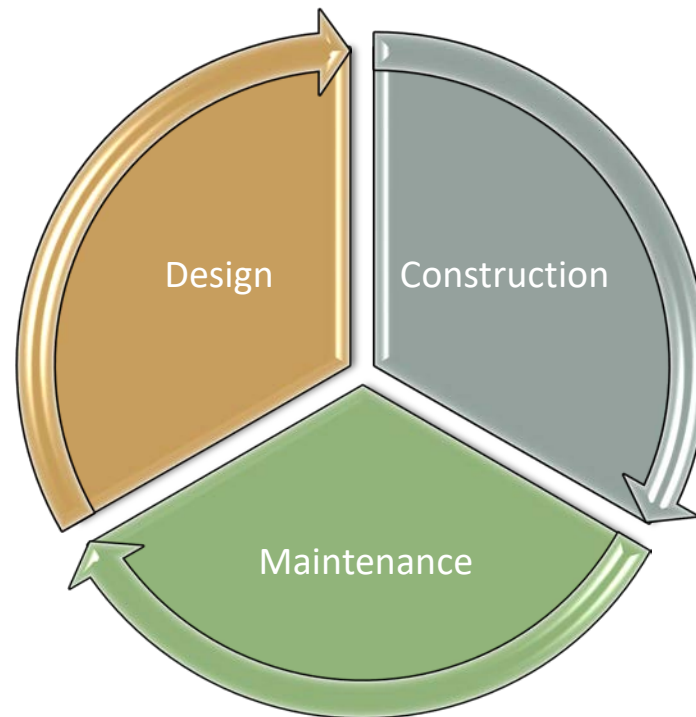
- Lawns are less expensive to replace than trees of significant size
- Reducing turf irrigation – need to consider effects on trees
- 20% to 40% reduction CAN be OK but monitor tree health
- Supplemental irrigation may be required (soaker hose, slow drip from hose – may require watering times of a couple of hours)
- Provide a deep watering 1-2 times per month
- Check www.sdrufc.com for more info

Non-Preferred Irrigation

- Bubblers are not recommended within arborist community
- Do not provide proper soil moisture for trees
- Consider working with entity requiring irrigation bubbler for alternative methods
- If not possible, separate control valves and monitoring are necessary



Landscape and Tree Health Requires Full Circle Partnership and Education





TREES: NATURE'S SUNSCREEN

According to the American Cancer Society, shade is a valuable means of protection from the damaging effects of the sun's ultraviolet (UV) rays. Trees are as important as a hat or sunglasses.



DAVEY
Proven Solutions for a Growing World

TREES KEEP US HEALTHY. FOLLOW THESE 5 STEPS TO KEEP THEM HEALTHY TOO:



1 GET MOVING

Inspect trees and shrubs from the bottom up and look for specific problems such as brittle or dead branches, soft or decaying wood, small holes in trunk, or shallow pits in the bark and weak or off-color foliage.



2 STAY WELL FED

Help your trees stay healthy by applying a slow-release fertilizer. This replaces nutrients and improves resistance to injury from disease, insects and stressful weather.



3 HEARTY HYDRATION

Trees need to stay well-hydrated throughout the year. A subsurface watering method to quench their roots is ideal for all trees and shrubs, especially those suffering from drought stress.



4 MAKE GOOD CHOICES

A little research and planning will maximize both your trees' lifespan and your landscape's economic rewards when you plant the right tree in the right place.



5 SCHEDULE REGULAR CHECK-UPS

Notice something that worries you? Schedule a check-up with a certified arborist to ensure the best care for your trees.

When Partnerships Fail

