This detail shall be used in conjunction with Silva Cells for Trees Details and Specifications.

The above information contained in this standard detail is not to scale.

The standard detail is provided for general education and informational purposes only and does not constitute an endorsement, approval or recommendation of any kind. The actual suitability and applicability of this information for a given use depends upon a wide variety of considerations, including specific project specifications, over which DeepRoot® has no information or control. This standard detail should NOT be used as a basis for volume calculations that are site specific and vary greatly depending on cell and deck spacing, soil conditions and soil compaction. All DeepRoot® Silva Cell products are sold with the understanding that the purchaser, either individually or in consultation with purchaser's design professionals, has independently determined the suitability of each product for the application for which it is purchased. Except as expressly provided, DeepRoot® disclaims all warranties, express or implied, and strongly encourages the reader to consult with a construction/design professional and/or engineer before applying any of this information to a specific use or purpose.
**TREE WELL AND GRATE**

**Ironsmith**

4-1/2" x 4-1/2" x 1/4" STEEL ANGLES SLOTTED 7/16" X 3/4" FOR CONCRETE ANCHOR (TYP. 24" OC NOM.)

MAKE CONCRETE OPENING 3"+0" -1/8".

6" PERFORATED SCHEDULE 40 PVC PIPE (WRAPPED IN GEOTEXTILE)

1-3/4" X 1-3/4" X 1/4" STEEL ANGLE

INSTALLATION WITH CONTINUOUS STEEL SKIRT FOR PAVERS BOLT ON AFTER POUR

3-1/4" STANDARD BEDDING

Irrigation Line (1" (optional))

Irrigation Sleeve (2" (optional))

Non-Woven Geotextile

Filter Fabric (optional)

**ROOT BARRIER**

ROOT BARRIER TO BE INSTALLED AGAINST CURB / SIDEWALK WHEN BARRIER INSTALLED AT INLETS.

Other, otherwise, setback is 10' MIN.

**DEPARTMENT:** Streets

**SCALE:** 1" = 10' 0"

**OTHER INSTALLATION INFORMATION:**

- Typical, both sides: 1/8" sand swept joint
- 1" RIBS
- 4" concrete ledger or brick inlay
- 41-701 Corporate Way, #3 Palm Desert, CA 92260
- (800) 338-4766
- IRONSMITH

**NOTES:**

- Brick Paver Color: Pine Hall English Edge Full Range, Or Approved Equal
- 1" to 3/4" Adapter
- 1/4" Thick Steel Angle
- Slotted 7/16" X 3/4"

This drawing is a construction design for IRONSMITH Palm Desert, CA. It specifies the installation of the tree grate and root barrier. The design includes various materials and dimensions, such as steel angles, concrete anchor bolts, and geotextile. The drawing notes the importance of proper installation techniques and adherence to specified distances. The materials and specifications are provided for the purpose of ensuring a safe and effective installation of the root barrier and tree grate. This drawing is not to be used for reproduction, distribution, or sale of any kind without the express written permission of IRONSMITH.
1. Aspect ratio shall be less than 0.66 on all branch unions. Aspect ratio is the diameter of branch (B) divided by the diameter of the trunk (A) as measured 1" above the top of the branch union.

Notes:
- One central leader (No codominant leaders)
- Aspect ratio of B:A greater than or equal to 0.66 as measured 1" above root ball surface shall be centered on the downhill periphery near the top of the root ball.
- Structural roots descend into root ball interior.
- Structural roots primarily grow to one side.
- Structural roots missing from one side, and/or grow tangent to trunk.
- Structural roots are horizontal and reach the root ball periphery near the top of the root ball.
- Structural roots missing from one side, and/or grow tangent to trunk.
- Structural roots are horizontal and reach the root ball periphery near the top of the root ball.
- Structural roots shall not be less than 3/4" of diameter.
- Structural roots may be missing from one side, and/or grow tangent to trunk.
- Structural roots shall be free of vertical root girdling and shall be eliminated (See planting legend for groundcover species, size, and spacing dimension).
Planting Guidelines

- If a contractor is performed tree planting, they shall notify the City of Auburn Urban Forestry Specialist 24 hours in advance of the planting of any tree within the City’s Right of Way.
- All planting locations within the public right of way shall be checked for underground conflicts.
- Remove container or top third of burlap and all ropes, wires, etc. from root ball.
- Dig planting holes 2-3 times as wide as the container. The depth of the planting pit shall be equal to the size of the rootball. Place the tree in the planting pit so the trunk flare or the top of the root ball is at least one-half inch to 1 inch (1/2” to 1”) above finish grade. In grass covered parkways the top of the rootball shall be higher than the surrounding soil by one-half inch to one inch (1/2” to 1”).
- When obtaining a tree from a nursery, always carry the tree by its container or rootball, never by the trunk.
- After removing the tree from the container, cut circling roots and matted roots off the bottom. Check for any circling roots missed during initial inspection.
- Before placing the tree in the planting pit, examine the root ball for injured roots and the canopy for broken branches. Damaged roots shall be clearly cut off at a point just in front of the break. Broken branches shall be cut out of the canopy making sure that the branch collar is not damaged. Backfill with soil removed from the planting hole, or as required for structural cells or structural soils. Only add fertilizer or compost if soil analysis indicates it is required. Build a temporary four to six inches (4” to 6”) water retention berm around the root ball to allow for establishment watering. Immediately after planting the tree, water it thoroughly by filling the water retention basin twice.
- Eliminate all air pockets while backfilling the planting pit by watering the soil as it is put into the hole. Do not compact the backfill by tamping it down.
- All staking, wrapping, and other material should be removed from the tree trunk, root ball, and canopy at planting. No staking of trees shall be permitted unless approved by the City of Auburn Urban Forestry Specialist or a representative thereof. Approved staking must be removed after one year.
- Mulch with a two to four inch (2” to 4”) layer to ensure soil moisture, provide protection from extreme temperatures and prevent damage from weed eaters. Mulch shall be kept three to four inches (3” to 4”) away from the tree trunk and shall extend at minimum to the boundary of the water retention basin. It may extend further if desired.
- Install tree bags or donuts at planting to provide supplementary water during the first year. The soil around the new tree shall be kept moist, but not saturated, by watering at least once a week when adequate rainfall is not received.
- Substitution of plant species, sizes, or other specifications will not be allowed without prior approval of the City of Auburn Landscape and Sustainability Division Manager or a representative thereof.

Soil Requirements

The following options are suitable for planting trees in the City of Auburn Right of Way. These specifications apply to normal conditions. Alterations for utility conflicts, slopes, or drainage may be approved by the Urban Forestry Specialist a representative thereof. For the purpose of this document, understory trees are defined as less than 30’ mature height, midstory trees are defined as 30’ - 50’ mature height, and overstory trees are defined as 50’ or greater mature height.

<table>
<thead>
<tr>
<th>Planting type</th>
<th>Understory</th>
<th>Midstory</th>
<th>Overstory</th>
<th>Soil depth</th>
<th>Soil requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffer strip</td>
<td>400</td>
<td>800</td>
<td>1000</td>
<td>36” minimum</td>
<td>May use soil removed from the planting hole amended as necessary amended as necessary according to soil test</td>
</tr>
</tbody>
</table>

Structural cells

- No minimum 10” - 43” depth available depending on product
- Native topsoil amended as necessary according to soil test
- Non-proprietary or patented products may be used according to system specification

Soil testing requirements

All soils must be submitted for testing to determine texture and pH and results provided at least four weeks prior to scheduled installation. Native topsoil must be classified as a sandy loam with a pH Between 5 and 7. If tests fail to meet specifications, the Urban Forestry Specialist or representative thereof may require amendments before it is accepted. All soil testing will be at the expense of the contractor.

Structural cells

Structural cells may include Silva Cell by Deep Root Partners, StrattaCell by CityGreen, or approved equal. At least four weeks prior to installation, the contractor shall submit manufacturer’s literature to the Urban Forestry Specialist. Installation of the structural cells shall fully comply with all requirements of the manufacturer and/or licensed supplier.