

May 8, 2012



Austin Heritage Tree Foundation
Zolla Vega
Austin Tx

RE: Brush square Oak, by o Henry and suzanna Dickinson museum

The purpose of this report is to evaluate the health and vigor of the live oak and overall impact of the site changes 2 years prior over the critical root zone. These include the installation of 2 historic buildings infringing on the critical root zone and an art patio work infringing in half the critical root zone.

Visual inspection and Background data:

Site visit performed on Monday May 7th. *Quercus fusiformis*. DBH of 44". Half of critical root zone has a radius of 22 ft. Foliage is smaller and paler than nearby trees. Top half of the canopy is showing thinning estimated at 70% of its original density. No significant insect or disease impacts were observed.

8 photographs provided by the museum curator showing the construction process. Grade changes are larger than 8 inches through a significant area of the CRZ. The patio coverage is made up of thick limestone slabs tightly juxtaposed with marble slabs. Joints are approximately 1/8 ". No information has been provided regarding root zone impact and mitigation actions during the project other than these photos.

Water availability:

The site grade sloped down at an approximate 5 degrees from the west side. The placement of the building on the west side of the tree reduces the water availability and moves the drainage patterns previously feeding the tree.

The patio art work with its grade changes and significant impervious also reduces water availability.

The occasional use of this public park has the effect of compacting the remaining pervious cover by pedestrian traffic and hampers water infiltration. No soil bulk density testing has been performed at this time.

Extreme drought has repeatedly impacted the area in 2008, 2009, 2011. Other oaks on site and not impacted by site changes other than public use show no canopy thinning.

Other Data:

The google earth timeline shows a thinning of the canopy since 2009.

Discussion:

The extensive site changes since 2009 are impacting the overall health of the tree. We expect more gradual decline in the coming years if corrective measures are not implemented. These measures should strive to provide a healthier root system. These can include a combination of several elements:

- Root wells through the changed grade and stone patio area
- Soil improvement with compost and mulch
- Compaction remediation and prevention with airspade and incorporation of 1' layer of sand and 1" layer of compost through the available critical root zone.
- Catchment of water run-off with permanent landscape features to increase available water per average rainfall. Run off can be from the surrounding site itself as runoff flows from western edge through the root zone and can be collected by a rain garden feature. Run off can also be collected directly from the 2 historic buildings and redirected to infiltration basin included in a permanent landscape like the rain garden just mentioned. based and
- Enclosing of root zone area to prevent compaction
- Fertilizing of the CRZ with a high nitrogen low salt fertilizer: arborgreenPRO, Bartlett Boost, PHC tree fertilizer or similar low salt solution.
- Monitoring by a certified arborist once/year.

Vincent Debrock

Operations Manager

Certified Arborist #TX 1336-A

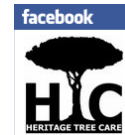
Commercial pesticide applicator license #035886

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Heritage Tree Care LLC. 100 W. Hillcrest Drive. San Marcos Tx 78666. Vincent @ 512-921-8452 & vincent@txheritagetreecare.com. Jeovanny @ 512-779-2502 & Jeovanny@txheritagetreecare.com. www.txheritagetreecare.com.

All work performed according to ANSI 300 standards.