SITE PLAN REVIEW SHEET
ENVIRONMENTAL VARIANCE REQUEST ONLY

CASE: SP-2021-0350C

P.C. COMMISSION DATE: September 27, 2022

PROJECT NAME: Shoal Cycle

ADDRESS OF SITE: 812 W 11th Street

COUNCIL DISTRICT: District 9

AREA: Northwest subdistrict of Downtown Austin Plan

WATERSHED: Shoal Creek

JURISDICTION: Full purpose

OWNER: CJI Properties, INC, Lucy Joyce
1809 Cresthaven Drive.
Austin, TX 78704

APPLICANT Pape Dawson Engineers, Inc, Katie Stewart (512) 454-8711

AGENT: Drenner Group, LC, Dave Anderson (512) 807-2900
200 Lee Barton Drive, Ste 100
Austin, TX 78704

PROPOSED DEVELOPMENT:
The applicant is proposing a mixed-use development with ground floor commercial space and multifamily residential units on floors above with associated improvements.

DESCRIPTION OF VARIANCE:
The applicant is seeking the removal of a Heritage tree with a single stem over 30 inches in diameter.

STAFF RECOMMENDATION:
The request meets City Arborist approval criteria set forth in LDC 25-8-624(A)(2). The variance is recommended.

ENVIRONMENTAL BOARD ACTION:
09/07/2022: The Environmental Board voted in (10) favor for the approval of the requested variance, (1) in denial of the requested variance, (0) absentia.

ENVIRONMENTAL REVIEW STAFF: **PHONE:** 512-974-9135
Naomi Rotramel, City Arborist

CASE MANAGER: **PHONE:** 512-974-4555
Kate Castles

ENVIRONMENTAL COMMISSION MOTION 20220907-002

Date: Sept. 7, 2022

Subject: Shoal Cycle, SP-2021-0350C

Motion by: Jennifer L. Bristol **Seconded by:** Perry Bedford

WHEREAS, the Environmental Commission recognizes the applicant is seeking the removal of a Heritage tree with a single stem over 30 inches in diameter and;

WHEREAS, the Environmental Commission recognizes the request meets City Arborist approval criteria set forth in LDC 25-8-624(A)(2) and that staff recommends this variance;

WHEREAS, the Environmental Commission recognizes mitigation for this site shall be addressed by planting two (2) Live Oaks at 5-inch caliper as street trees. These two trees are proposed to have adequate soil to ensure survivability and, when planted, will have a combined crown surface area that will rival the thinning canopy of the existing 32-inch Live Oak. In addition, the remaining inches owed will be paid to the Urban Forest Replenishment Fund for a total of $18,500.

THEREFORE, the Environmental Commission recommends the variance request with the following Environmental Commission Conditions:

1. Include the 5-year tree care plan for the 5-inch trees being planted to replace the Heritage Tree.

VOTE 10-1

For: Aguirre, Barrett Bixler, Bedford, Bristol, Brimer, Nickells, Schiera, Scott, Ramberg, and Qureshi.
Against: Pam Thompson
Abstain: None
Recuse: None
Absent: None

Approved By:

Kevin Ramberg, Environmental Commission Chair

ITEM FOR ENVIRONMENTAL COMMISSION AGENDA

COMMISSION MEETING DATE:	September 7, 2022
NAME & NUMBER OF PROJECT:	Shoal Cycle, SP-2021-0350C
APPLICANT NAME:	CJI Properties Inc.
LOCATION:	812 West 11th Street, Austin, Texas, 78701
COUNCIL DISTRICT:	District 9
STAFF:	Naomi Rotramel, City Arborist, Development Services Department
ORDINANCE:	Heritage Tree Ordinance (LDC 25-8-641)
REQUEST:	The applicant is seeking the removal of a Heritage tree with a single stem over 30 inches in diameter.
STAFF RECOMMENDATION:	The request meets City Arborist approval criteria set forth in LDC 25-8-624(A)(2). The variance is recommended.

MEMORANDUM

TO: City of Austin Environmental Commission

FROM: Naomi Rotramel, City Arborist
Development Services Department

DATE: September 7, 2022

CASE FOLDER: SP-2021-0350C

REQUEST: The applicant is requesting removal of a Heritage tree with a single stem over 30 inches in diameter.

Project Description

The property is located at 812 West 11th Street. The lot is 0.4052 acres and is zoned Downtown Mixed Use – Conditional Overlay (DMU-CO) Combining District.

The property is located in the Northwest Subdistrict of the Downtown Austin Plan.

The site is currently as office building with associated tuck-under and surface parking. The proposed use is for a 67-unit workforce multifamily project and 3,500 square feet of ground floor retail.

The applicant requested a predevelopment site consultation with the City Arborist. There is one (1) Heritage Live Oak with a single stem of 32" diameter that is centrally located on the property. The 32" Heritage Live Oak (#287) is requested for removal.

Tree Evaluation

Tree 287 Live Oak

Measurements
The subject tree is one Heritage 32-inch Live Oak (#287)

Canopy Conditions
Asymmetric crown; thin canopy; chlorotic (likely due to nutrient deficiency); copious amount of epiphytic ball moss usually prevalent on declining trees; leans southwest due to existing location of existing building; overhead utility lines run through the canopy.

Structure / Trunk

Trunk leans over the parking lot. Sonic tomography was conducted of the trunk indicating moderate decay at three different vertical planes with the tree – estimates 22-24% loss in structural integrity of the tree. Large decay pockets on upper side of two scaffolding limbs observed.

Root System
Buried root flare; approximately 95% of the critical root one is covered by impervious surfaces – concrete parking and existing office building.

Overall Condition
Fair condition; poor structure; moderate risk.

Variance Request

The variance request is to allow removal of a Heritage tree with a stem greater than 30 inches as allowed under LDC 25-8-643.

Recommendation

The City Arborist recommends removal of the tree due to the applicant demonstrating that the tree prevents reasonable use of the property.

Applicant met with Shoal Creek Conservancy and the Parks and Recreation Department to discuss a possible transplant; however, there was not a suitable location. Applicant has also demonstrated that due to the poor health of the tree, relocation is not feasible.

Based upon tree location, zoning, site characteristics, the proposed use, and the tree not being a good transplant candidate, the City Arborist believes the applicant has provided sufficient evidence that LDC 25-8-624(A)(2) has been met. There do not appear to be any waivers, variances, or modifications of code that would allow development concurrent with the preservation of the tree.

Mitigation

The Environmental Criteria Manual standard is 300% mitigation. Mitigation for this site shall be addressed by planting two (2) Live Oaks at 5-inch caliper as street trees. These two trees are proposed to have adequate soil to ensure survivability and, when planted, will have a combined crown surface area that will rival the thinning canopy of the existing 32-inch Live Oak. In addition, the remaining inches owed will be paid towards the Urban Forest Replenishment Fund for a total of $18,500.

Please contact Naomi Rotramel at 512-974-9135 or naomi.rotramel@austintexas.gov if you have questions.

Exhibit 1: Whole tree surrounded by impervious cover



Exhibit 2: Large scaffold leader decay – west stem





Exhibit 3: Large leader decay – east stem



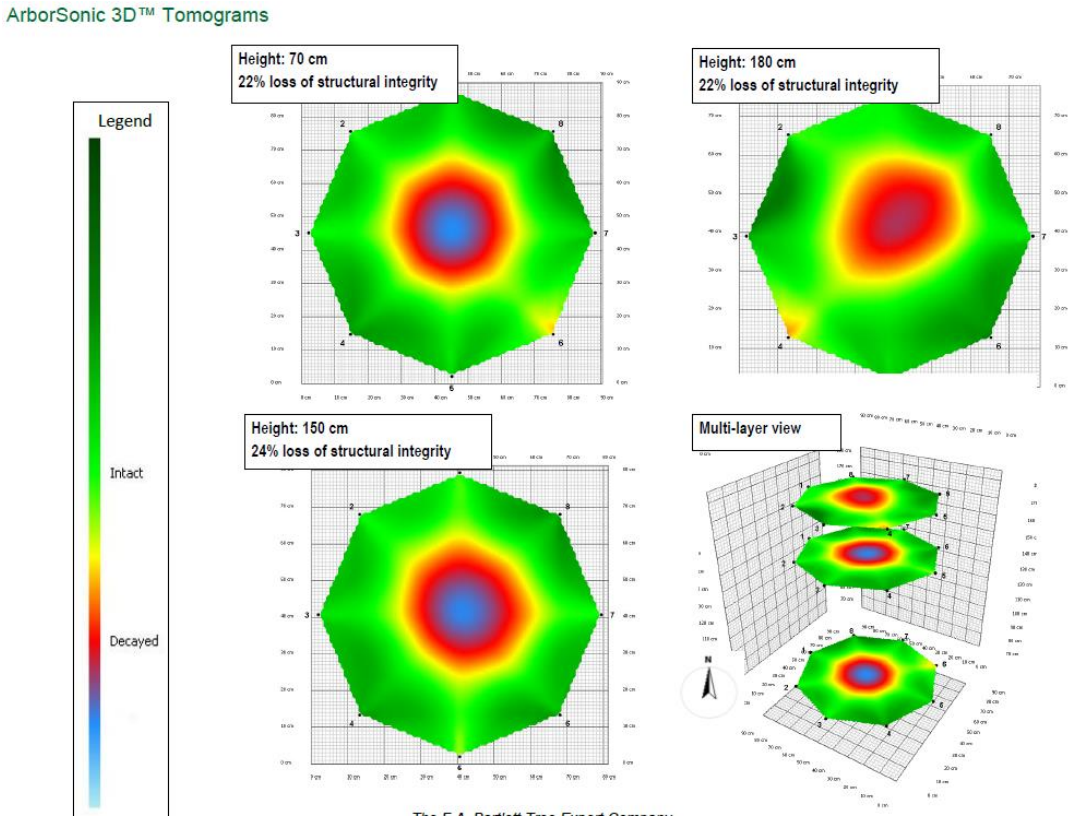
Exhibit 3: Thin Canopy; ball moss, chlorosis



Exhibit 4: Unbalanced crown



Exhibit 5: Sonic Tomography reading



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Memo

To: Kevin Ramberg, Chair, City of Austin Environmental Commission, and Honorable Environmental Commissioners

From: Amanda Swor, Director of Entitlements and Policy

Date: August 31, 2022

Re: Shoal Cycle Reasonable Use Memorandum

SITE:

The 0.4052-acre property located at 812 West 11th Street, in Austin, Travis County, Texas 78701 (collectively, the "Property").



SITE CONDITIONS:
Currently, the Property is being operated as an office building with associated tuck-under and surface parking.

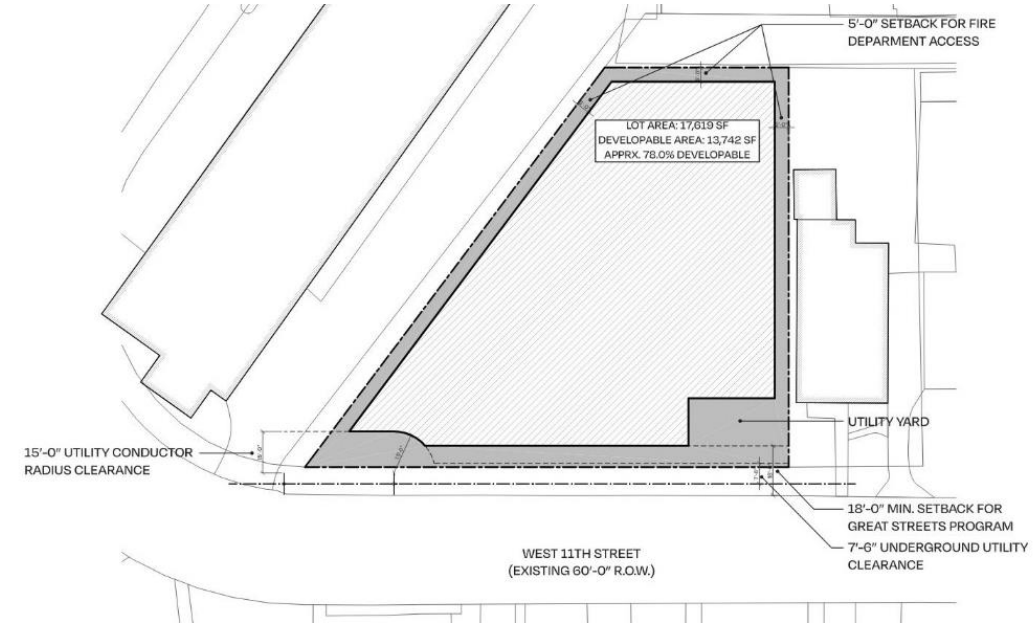
REQUEST:
There is one (1) heritage Live Oak tree with a single stem of 32'-0" in diameter. The tree is centrally located at the Property impeding the reasonable use of the Property. The request is for the removal of this 32-inch Live Oak tree to allow the redevelopment of the Property. See Exhibit A for the tree location and site constraints exhibits.

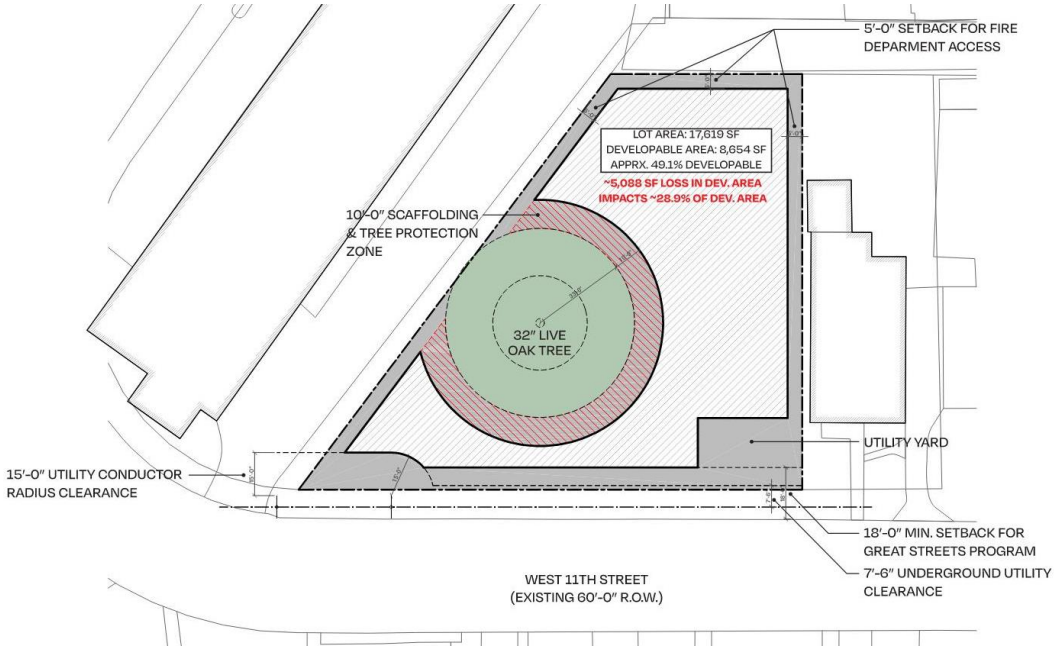
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The fair to poor condition of the 32" Live Oak tree (as determined by the consulting arborists and City of Austin Arborist), in addition to the central location of the 32'' Live Oak tree combined with: (1) the diminished physical condition of the tree 2) the central location of the tree 3) size of the site; (2) geometry of the site; (3) setback constraints; (4) the unsuccessful and diligent attempt to relocate the due to the tree's condition, lack of relocation destination, and utility issues; (5) EDI's assessment stating the tree is a poor transplant candidate and (6) the advanced tree assessment prepared by Bartlett Tree Experts, we respectfully request the removal of the 32-inch Live Oak tree.

EXHIBIT A: Site Constraints Exhibits





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CONSTRAINTS:

The Property consists of approximately 0.4052 acres, or approximately 17,650.5 SF, is zoned DMU-CO (Downtown Mixed Use – Conditional Overlay) and is located in the Northwest Subdistrict of the Downtown Austin Plan. The Property is located in a portion of Downtown Austin that is ineligible for participation in the Downtown Density Bonus Program. The conditional overlay on the Property restricts the maximum height to 90 feet and requires administrative and business office land uses to be conditional above the ground floor of the Property to ensure a residential use is provided on the Property.

Although unable to participate in the Downtown Density Bonus Program, upon the rezoning of the Property to DMU-CO per ordinance 20210826-091, a restrictive covenant was entered into between the property owner and the Old Austin Neighborhood Association ("OANA"), which provides additional requirements upon the redevelopment of the Property. The restrictive covenant, recorded as instrument number 2021199382 of the Travis County Official Public Records, requires the Property to provide streetscape improvements along West 11th Street that are consistent with the City of Austin Great Streets Standards. Therefore, a setback of not less than 18 feet along West 11th Street is required upon the redevelopment of the Property. This setback impedes the footprint of the site thereby limiting the development and reducing the developable footprint.

The tree requested for removal is located at the middle of the Property. Given its location and existing canopy, the tree restricts the center 28.9% of this small infill site.

The majority of the proposed residential units are located on the western portion of the building. The 32-inch Live Oak tree is located on the western half of the Property, which accounts for approximately 62.7% of the total proposed building area. The Property is less than ½ acre, therefore the location of the tree if left in place would have a monumental impact on the allowable residential units on the site. Leaving the tree in its current location results in a reduction of over 50% of the gross square feet of buildable area, as shown on Exhibit C below, resulting in a non-viable project.

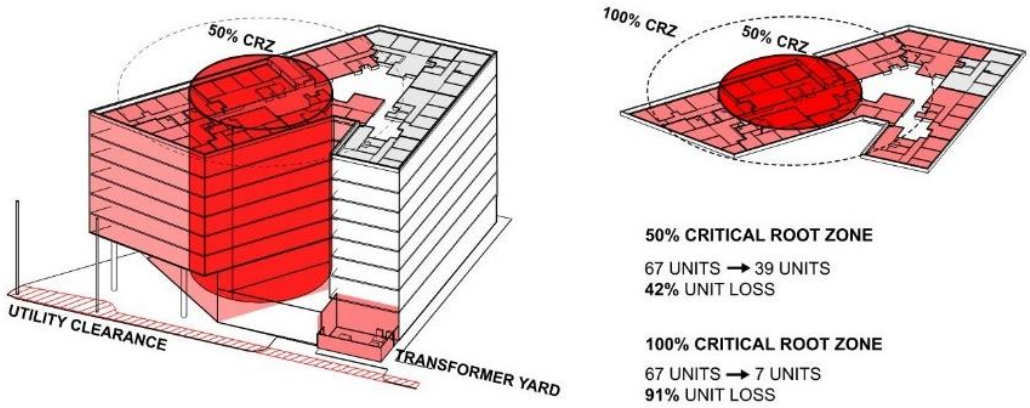
DESIRED REASONS:

The current intent is to develop a 67-unit workforce multifamily project and 3,500 square feet of ground floor retail. 100% of the units consist of 3-bedrooms and 2-bathrooms and are proposed to be workforce housing units, providing housing for up to 201 working individuals. Rents for each bedroom are projected to be 40% less than current studio apartment rates, providing much needed housing in Downtown Austin. As shown on Exhibit B below, if the tree were to remain, preservation of the 50% critical root zone would result in the loss of 28 of the proposed units which equates to 42% of lost proposed units. Preservation of the 100% critical root zone would result in the loss of 60 units, which equates to 91% of the total units lost.

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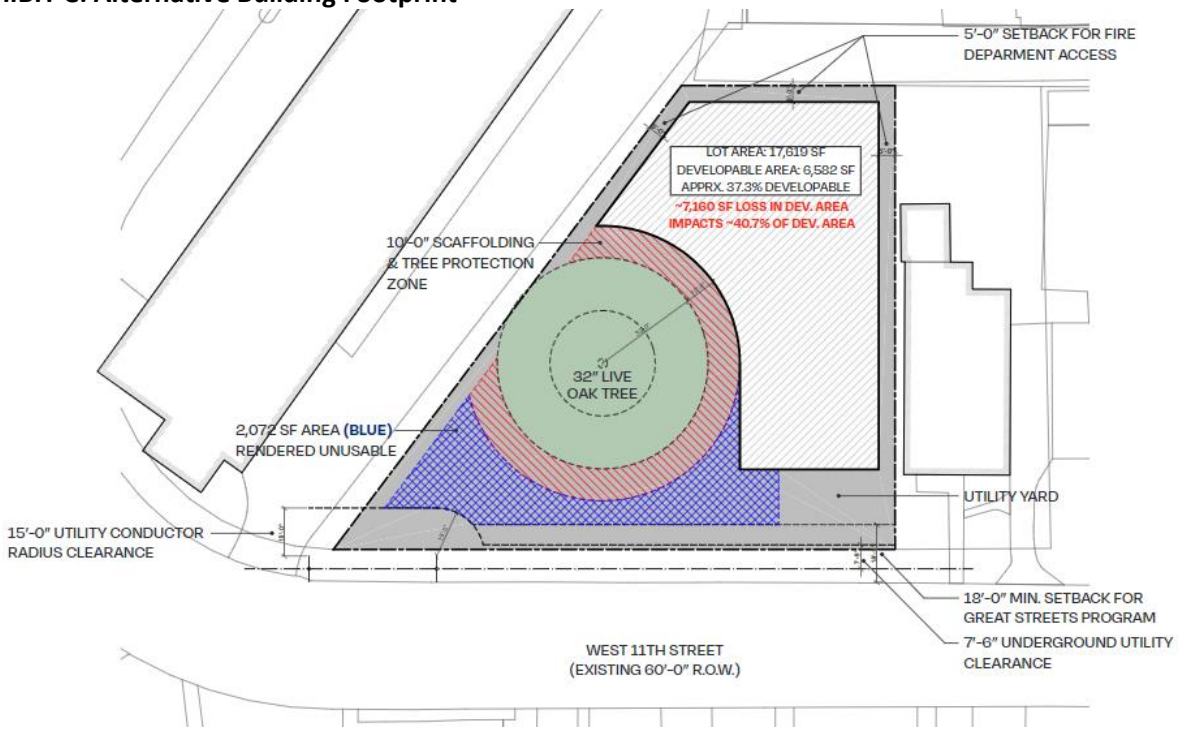
EXHIBIT B: Critical Root Zone Exhibit



The location of the 32-inch Live Oak tree provides a significant impact on the developable area of the site and would not allow for reasonable use of the site to construct a workforce housing project in the Northwest District of Downtown Austin where increased affordable housing is preferred and encouraged within close proximity to transit.

By keeping the existing tree, the developable area of the site and resulting building footprint are severely impacted and reduced to 37.3% of the lot area. Not only will the max FAR of 5:1 be unachievable, an efficient residential unit layout with appropriate separations, egress distances and corridor space will decrease the unit count from 10 units per typical floor, to an estimated 4 units per floor. Furthermore, the southwestern portion of the remaining footprint – approximately 25% of the "developable area" – is rendered unusable and structurally implausible to build. Exhibit C below shows the 25% unusable space, equating to 2,072 square feet of the remaining 8,654 square feet.

EXHIBIT C: Alternative Building Footprint



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TRANSPLANT INVESTIGATION AND TREE HEALTH ASSESSMENT

The project team, in a good faith effort to consider a transplant option first, looked for a location to receive the tree if it was to be transplanted and paid for by the developer. The team met with Shoal Creek Conservancy who at first was excited about the prospect of receiving the tree, but then determined that they could not make that decision for the City of Austin Parks and Recreation Department ("PARD") themselves. The team then corresponded and met with Ray Hernandez and Scott Grantham at PARD to consider Duncan Park as a potential transplant site. The design team proposed several locations within the Duncan Park for consideration. Ultimately, PARD decided this was not a viable option for them.

During the time when the transplant option was being considered, a level three advanced tree assessment was prepared for the 32-inch Live Oak by Michael Embesi of Bartlett Tree Experts on May 16, 2022. The tree was determined to be in fair condition. The report reflects that 95% of the critical root zone of the tree is covered by impervious surfaces (95% concrete coverage of the critical root zone is a significant barrier for tree viability and health), the tree is asymmetrical and leans over the parking lot, and that overhead utility service lines run through the tree canopy. Exhibit D below depicts an image of the tree and Exhibit E depicts existing conditions impacting the critical root zone. The asymmetrical canopy leans southwest as a result of the adjacent building and is characterized as "somewhat thin," see Exhibit F below. 40% of the tree canopy is missing. Of the remaining canopy (60%); 20% of the foliage is missing. This equates to a tree that is only 48% of the leaf cover of a typical healthy tree.

The foliage appears both green (healthy) and chlorotic (yellow). 15% of the canopy is made up of "dead twigs and branches with a maximum diameter of 2-inches."

Exhibit D: 32-inch Live Oak



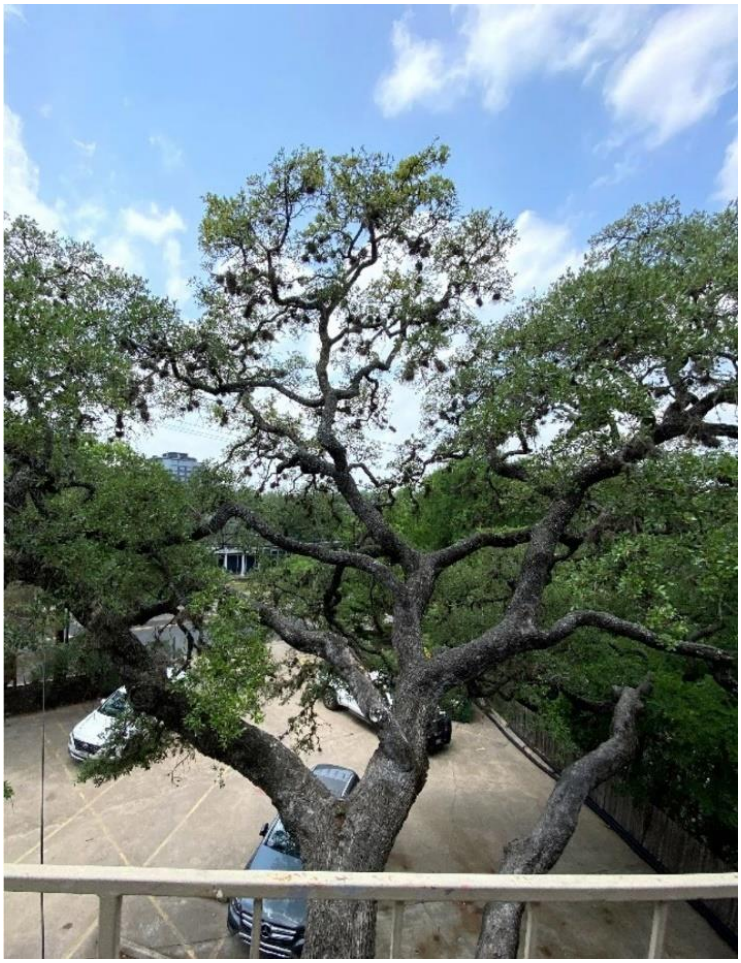
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Exhibit E: Critical Root Zone Impact



Exhibit F: Thin Tree Canopy



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Additional significant decay is on the west stem limb shown in Exhibit G below. This limb is characterized by a large pruning wound of approximately 10 inches in diameter, and sapwood and heartwood decay, measuring 30 inches by 12 inches. This wound and decay area are noted to make up 1/3 of the circumference of the west stem with little response wood.

An 8-inch branch on the east stem of the tree is characterized by sapwood and heartwood decay located 25 feet above grade, see Exhibit H below. The size of this decay area comprised of 1/3 of the total circumference of the limb. Should this decayed limb, as referenced in Exhibit H, be removed, the current canopy would be further diminished by an additional approximately 15-20%, thereby reducing the overall canopy size to 28% of a tree in good health of similar size and species.

Sonic tomography was performed on the 32-inch Live Oak which indicated moderate decay at three different vertical planes within the tree: 22% decay at 70 centimeters from grade, 24% decay at 150 centimeters from grade and 22% decay at 180 centimeters from grade see Exhibit I below. Such measures of decay indicate 22-24% loss in structural integrity of the tree.

EXHIBIT G: West Stem Pruning Wound and Decay Exhibit



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Exhibits H: East Stem Limb Decay / Exhibit I: Sonic Tomography Results





The risk assessment considered the tree part failure, within the approximate timeline of three years, impacting a person to be either significant or severe consequence due to the location against the existing office structure. The existing building was considered a constant target for consequences, and people and vehicles were considered occasional and frequent targets, respectively. The risk rating of the tree was assessed as moderate.

If the tree were to remain, with its trunk location adjacent to the existing building and with 95% of the critical root system under pavement and most likely also under the structure, it is very risky to work around this tree and unlikely that the tree will survive the removal of pavement around it without ripping up the root system. A compromised root system for a tree in this state of poor health will further diminish the health and viability of the tree.

CITY OF AUSTIN ARBORIST PRE-DEVELOPMENT CONSULTATION

An on-site predevelopment consultation with Naomi Rotramel, City Arborist, was held on February 16, 2022. Ms. Rotramel agrees with the assessment prepared by Bartlett Tree Experts, and that removal of the 32-inch Live Oak tree may be necessary due to reasonable use and access for development of the Property. The tree was described as in "poor condition." The report elaborated that it consisted of (1) major decay of two large able and braced scaffolding leaders, (2) buried root flare, (3) an unbalanced crown and (4) impacted by 95% impervious cover and restricted grow space.

TRANSPLANT ASSESSMENT

When this property was first contemplated in June of 2020, it was the desire of the developer and owner to transplant this tree. The developer engaged Coleman and Associates to consult with Environmental

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Design ("EDI") to assess tree relocation and pursued tree donations to several local parks and public entities. Due to the poor health of the tree and risk associated with the required 5-year warranty period, no tree relocator would agree to move the tree and no landowner would agree to home the tree. However, as these options were explored, it was determined that the Property is landlocked with only one open boundary on West 11th Street. Overhead utility lines on West 11th Street impede the ability to transplant the tree and the lines would have to be removed to do so.

Nevertheless, a Transplant Assessment dated July 20, 2022 by Jon Hillis of EDI was conducted for the 32-inch Live Oak, after numerous site visits and evaluations, with the most recent site visit to evaluate the transplant viability occurring on November 9, 2021. This assessment also utilized the Bartlett Tree Experts report dated May 16, 2022 to guide the analysis.

The assessment notes that the tree canopy was severely reduced by 65%, resulting in an asymmetrical tree with significant pruning damage. A 10-inch primary branch indicates severe decay in a load-bearing section, along with a secondary 4-6-inch limb with significant decay. Canopy foliage is described as somewhat sparse, and the southern side is chlorotic in appearance. Excessive ball moss across the southern extreme of the canopy indicates low vitality and growth in a significant portion of the canopy.

The issues affecting the 32-inch Live Oak include (1) approximately 35% existing canopy, (2) greater than 90% impervious surfaces over the Critical Root Zone, (3) significant decay areas in primary branching and (4) below average vigor. As a result of these impacts, the 32-inch Live Oak was assessed as not a good candidate for transplant.

MITIGATION EFFORTS

As part of the mitigation the applicant is providing two (2) Live Oak 5" caliper street trees which will be planted with adequate soil mass to ensure that these new trees thrive and provide shade and environmental benefit. These 2 healthy trees will immediately have a canopy (combined) to rival the canopy of the existing live oak. Most importantly these trees in a period of 5-7 years ill exceed the canopy of the existing trees and in 10 years or more will provide substantially more canopy that the existing live oak. Planting succession trees to replace the existing live oak which is in a slow state of decline is a superior urban tree planting strategy.

Payment of $18,500.00 into the City of Austin tree fund for the removal of the poor condition heritage tree will also be made. Additional landscaping proposed includes planting beds between levels 1 and 2 of the proposed building and irrigation facilities.

SUMMARY

The 32-inch Live Oak tree is described by experts as in poor condition with visible decay and significant pruning wounds on the east and west stems and on its limbs. Existing conditions consisting of 95% impervious cover over the roots and its location abutting the existing office structure created treacherous and unhealthy conditions that did not provide an ideal environment for the continued survival of the tree.

40% of the tree canopy is missing. Of the remaining canopy (60%); 20% of the foliage is missing. This equates to a tree that is only 48% of the leaf cover of a typical health tree. The foliage appears both green (healthy) and chlorotic (yellow). 15% of the canopy is made up of "dead twigs and branches with a maximum diameter of 2-inches." An east stem limb is decayed and if removed, the current canopy would be diminished by approximately 15-20%, thereby reducing the overall canopy size to 28% of a tree in good health of similar size and species.

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Sonic tomography indicates moderate decay on three different vertical planes within the tree ranging from 22%-24% decay at 70 centimeters from grade, 150 centimeters from grade and 180 centimeters from grade. Such measures of decay indicate 22-24% loss in structural integrity of the tree.

The current depleted condition of the tree, along with the existing conditions surrounding the tree on the Property, the physical barrier of existing overhead utilities, do not make the tree a good candidate for transplant.

If the tree were kept, the developable area of the site and resulting building footprint are severely impacted and reduced to 37.3% of the lot area. The proposed project is providing 67 workforce housing units; if the tree is kept, the severe reduction in developable area on the Property would result in the loss of sorely needed housing in the Austin urban core.

The proposed project, as part of the voluntary implementation of Great Streets, will install two 5" caliper street trees that will immediately have a combined canopy to rival that of the existing live oak. Additionally, within 5-7 years the combined canopy will exceed that of the existing trees and in 10 years or more will provide substantially more canopy. Planting succession trees to replace the existing live oak, which is in a slow state of decline, is a superior urban tree planting strategy. In addition to the planting of two (2) 5" caliper street trees and several ornamental trees, the project will pay $18,500.00 in fees as the remaining mitigation for the 32-inch Live Oak at the time of redevelopment.

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LAND DEVELOPMENT CODE § 25-8-624 – APPROVAL CRITERIA & § 25-8-643 – LAND USE COMMISSION VARIANCE

32" Live Oak (#287)

Land Development Code § 25-8-624 – APPROVAL CRITERIA.

(A) The Planning and Development Review Department may approve an application to remove a protected tree only after determining that the tree:

(1) prevents reasonable access to the Property;
(2) prevents a reasonable use of the Property;
(3) is an imminent hazard to life or property, and the hazard cannot reasonably be mitigated without removing the tree;
(4) is dead;
(5) is diseased, and:
  (a) restoration to sound condition is not practicable; or
  (b) the disease may be transmitted to other trees and endanger their health; or
(6) for a tree located on public property or a public street or easement:
  (a) prevents the opening of necessary vehicular traffic lanes in a street or alley; or
  (b) prevents the construction of utility or drainage facilities that may not feasibly be rerouted.

RESPONSE: The 32-inch Live Oak tree meets the criteria of (2) above. Reasonable use of the Property is prevented because of the required compliance with the Great Streets Master Plan sidewalk requirements, utility easements, setbacks and zoning height limitations. Per ECM 3.5.2, preservation of the tree requires protection of 50% of the full critical root zone at natural grade with natural ground cover, cut/fill is limited to 4 inches from the ½ to the ¼ critical root zone, and cut/fill is not permitted within the ¼ critical root zone. Preservation of the poor condition tree results in the loss of between 42%-91% of the proposed workforce housing units on the Property, or approximately 28-60 units.

The 32-inch Live Oak tree also meets the criteria of (5)(a) above. Per the level three advanced assessment, the poor condition of the tree will not facilitate restoration to sound condition because of 1) existing impervious cover of 95% of the Critical Root Zone; 2) degradation of the main stem (trunk) of the tree at various levels above natural grade; 3) decay and damage on the western stem of the tree, including a 30" x 12" area of sapwood and heartwood decay; 4) damage to the eastern stem of the tree, including an 8" limb with sapwood and heartwood decay; 5) unhealthy canopy conditions, including a codominant union supporting the canopy, 50% of the canopy missing, and 20% of the remaining canopy missing foliage; and 6) buried root flare.

All of these conditions will be exacerbated during construction and operation of the new building, making restoration to sound condition no practicable.

Land Development Code § 25-8-643 – LAND USE COMMISSION VARIANCE.

(A) The land use commission may grant a variance from Section 25-8-641 (Removal Prohibited) to allow removal of a heritage tree that has at least one stem that is 30 inches or larger in diameter measured four and one-half feet above natural grade only after determining, based on the city arborist's

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recommendation, that the heritage tree meets the criteria in Section 25-8-624(A) (Approved Criteria) and that:

(1) the applicant has applied for and been denied a variance, waiver, exemption modification, or alternative compliance from another City Code provision which would eliminate the need to remove the heritage tree, as required in Section 25-8-646 (Variance Prerequisites); and

RESPONSE: The Applicant has no other alternative equivalent compliance available to allow reasonable use of the Property because of the required compliance with the Great Streets Master Plan sidewalk requirements, utility easements, setbacks and zoning height limitations. No variances can be pursued which would eliminate the removal of the heritage trees.

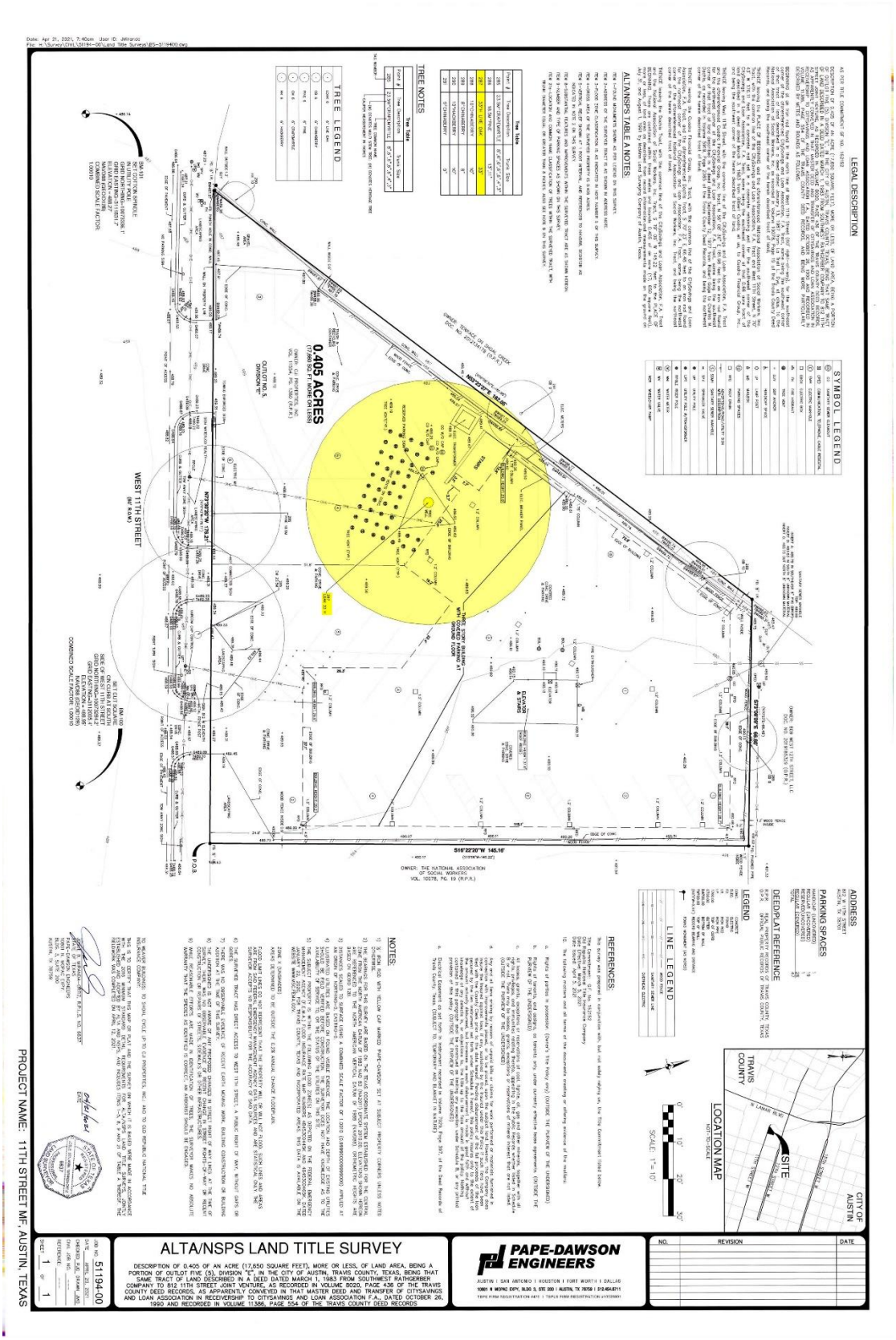
(2) Removal of the heritage tree is not based on a condition caused by the method chosen by the applicant to develop the property, unless removal of the heritage tree will result in a design that will allow for the maximum provision of ecological service, historic, and cultural value of the trees on the site.

RESPONSE: We are seeking removal as the building layout and the majority of the proposed residential units would not be possible with the tree in its current location. The requested removal of the 32-inch Live Oak tree is not based on a condition caused by the method chosen to develop the Property. The tree is in fair health with signs of active decay, a thinning canopy, a wound, and noted potentially severe consequences should a failure occur (likely within three years). The current root zones and canopy would render a significant portion of the Property undevelopable given the limited size of the site.

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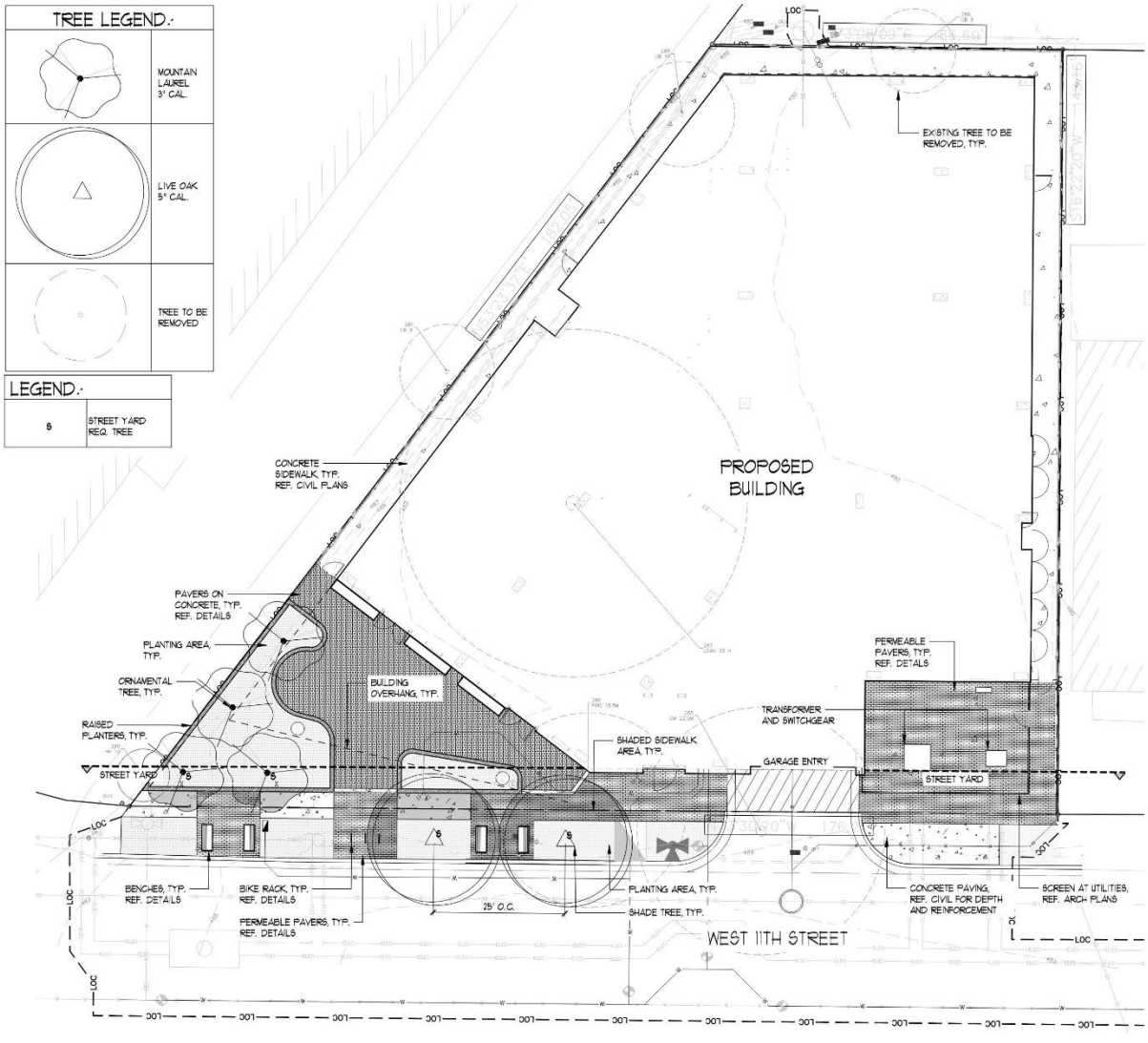
EXHIBIT J: TREE AND TOPOGRAPHIC SURVEY

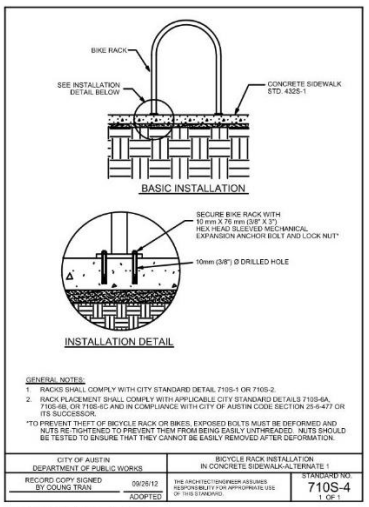


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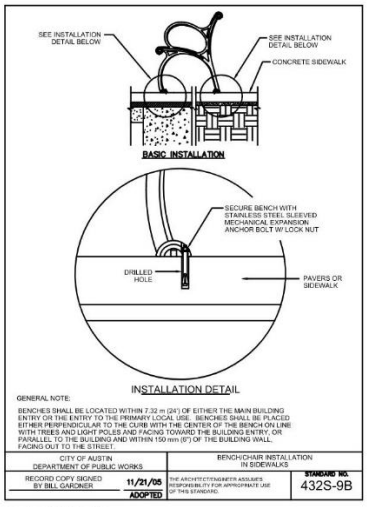
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EXHIBIT K: Site Development Permit Landscape Plan

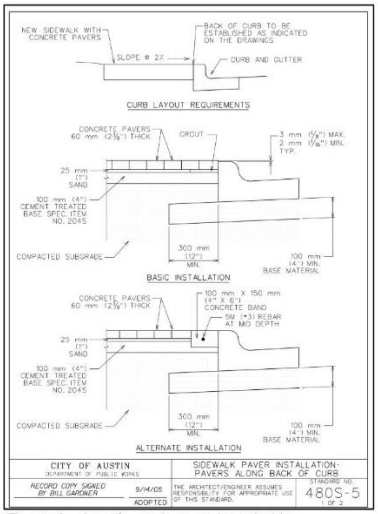




1 BIKE RACK SECTION NTS



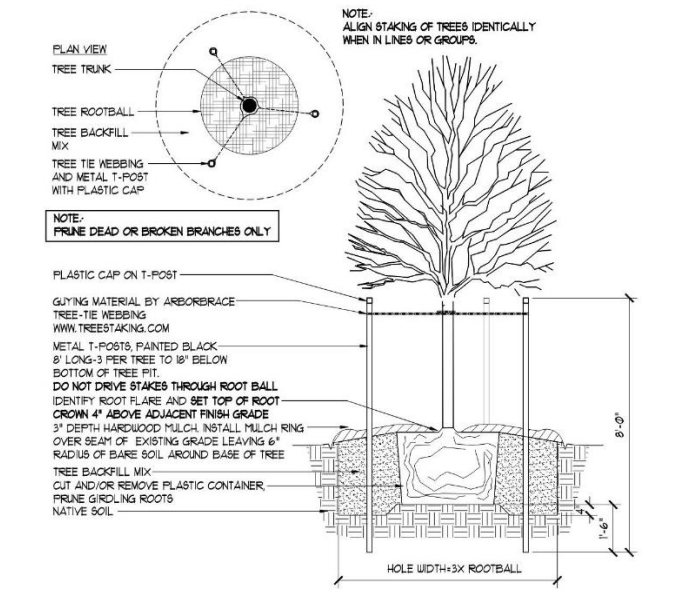
2 BENCH SECTION NTS



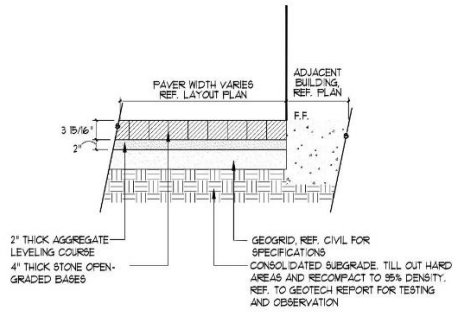
3 PAVERS ON CONCRETE SECTION NTS

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DRENNER GROUP



4 SHADE TREE STAKING
SECTION
SCALE: 3/4"=1'-Ø"



5 PERMEABLE PAVERS
SECTION
SCALE: 1"=1'-Ø"

PLANT SCHEDULE

ORNAMENTAL	QTY	COMMON / BOTANICAL NAME	CONT	CALIPER	HEIGHT
	4	TEXAS MOUNTAIN LAUREL SOPHORA SECUNDIFLORA	45 GAL	3" CAL.	6' HT.
	2	SOUTHERN LIVE OAK QUERCUS VIRGINIANA	100 GAL	5" CAL.	16' HT.

Live Oak at 812 West 11th Street
Austin, TX 78701

Tree Risk Assessment Report

PREPARED FOR:
Coleman & Associates
Attn: Aan Coleman
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Austin, TX 78737

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BARTLETT TREE EXPERTS
SCIENTIFIC TREE CARE SINCE 1907

Tree Risk Assessment Report

812 West 11th Street
Austin, TX 78756
May 16, 2022

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Summary

In April 2022 Ms. Coleman agreed to the recommendation of completing a **Level 2: Basic assessment** and **Level 3: Advanced assessment** of **tree risk** of two regulated trees. This report provides data for the live oak (*Quercus fusiformis var. virginiana*) tree, located in the front yard of the residence to determine the tree's **overall risk rating**. The initial concern of Ms. Coleman was to determine the relative risk of the tree, and to identify mitigation strategies. This information may be used to help determine the suitability for preservation in a pending development plan.

I visited the property to assess the tree on May 9 and an aerial inspection occurred on May 10, 2022. ArborSonic 3D™ tomograms indicated minimal loss of structural integrity at three planes. Using the methods outlined in this report and the results of the visual and aerial assessment of this tree, it is my professional judgment that the overall risk rating for the live oak was ***moderate*** because of a moderate risk rating for crown or branch failure within the next three years.

Options to mitigate the risk associated with the live oak are listed below. Please make sure the estimated overall residual risk rating is acceptable to you before deciding on a specific option.

- Option One: Prune to remove 2-inch dead branches in the canopy. Removing dead branches will eliminate their residual risk.
- Option Two: Reduce weight of west branches and install cables to reduce the risk of branch failure. Pruning and cabling will reduce the residual risk of trunk, crown, and branch failure to low.
- Option Three: Remove the entire tree to remove the risk of root, root collar, trunk, crown, and branch failure. Grind the resulting stump and back fill the hole. There will be no residual risk for the trunk, crown, or branches, but there may be a tripping hazard with the remaining roots, stump, or grindings that you will need to address. The tree's risk may increase in the future as a result of not performing mitigation.

If you elect not to remove the 2-inch dead branches, and reduce and cable the tree, the tree will remain a *low* risk for trunk, roots, and root flare failure, and *moderate risk* for crown and branch failure. The tree's risk may increase in the future as a result of not performing mitigation.

If the live oak should remain, I recommend a Level 3 Advanced Assessment to monitor internal decay every three years. In addition, a Level 1 Assessment should occur after major storm events.

Additional assessments include the quantification of the level of decay in the west stem and an investigation of the substrate to determine the viability of the rooting system.

Tree risk assessment definitions are provided at the end of this report to help with understanding the terminology and with selecting the level of risk you are comfortable with when making decisions on your tree care needs.

Introduction

The subject property was located in a commercial district in central Austin, TX. In November 2021, Ms. Coleman requested that Bartlett Tree Experts conduct a tree risk assessment of one live oak tree to help determine tree risk and information for future preservation considerations. The live oak was located in the front yard of the residence. The result of the project would be a written report describing our observations, findings, and recommendations. The assignment was to:

1. Perform a ground -Level 2: Basic assessment of the tree and site to determine the tree or tree part's **likelihood of failure**, **likelihood of impact** to **targets**, and the **consequences** of failure and impact, in order to determine tree risk.
2. Perform a Level 3: Advanced assessment to provide additional information for the risk assessment. This assessment will include the use of sonic tomography to identify the potential loss of structural integrity within the lower trunk of the tree.
3. Provide a written report that documents the tree conditions of concern/defects detected, specific targets assessed, results of the assessments, results of the sonic tomography, risk ratings, mitigation options with estimated **residual risk**, and a recommended inspection interval(s).

Assessment Procedures

The risk of root, root collar, trunk, crown, and branch failure for the live oak via a ground-based basic assessment was performed. In addition, the lower trunk had an advanced assessment for failure performed using sonic tomography. The assessments occurred on March 10 and 11, 2022 and followed the *International Society of Arboriculture's (ISA) Best Management Practices for Tree Risk Assessment* and *American National Standards Institute A300 Tree Risk Assessment Standard).*

Tree risk ratings are derived from a combination of three factors: the likelihood of failure, the likelihood of the failed tree part impacting a target, and the consequences of the target being struck. These factors are then used to categorize tree risk as ***extreme, high, moderate,* or *low*.** The factors used to define your risk rating are identified in this report.

Tools used in the assessment included a Certified Arborist climber to inspect the tree canopy, a trowel to examine soil conditions and loose bark, binoculars to evaluate the canopy, and a sounding mallet to detect concealed internal cavities. An aerial assessment was provided

In addition to these hand tools, sonic tomography was used to identify the potential loss of structural integrity within the lower trunk, and provide images used for analysis within this report. The ArborSonic 3D™ sonic tomography device uses soundwaves to estimate the presence of internal loss of structural integrity. Soundwaves move from sensor to sensor quicker through wood that is intact and not structurally compromised. Soundwaves have to move around compromised areas such as a crack, cavity, decay, or void, causing it to take longer to reach the other sensors. The times for a soundwave to reach the other sensors are presented as a graphic image, called a tomogram. Estimated structural integrity is represented by a color scale from areas with high structural integrity to areas of no structural integrity.

Observations

The live oak was on level grade adjacent to the south side of a commercial building. It was in the center of a mulched landscape bed that measured 16-feet x 16-feet x 15-feet in length. Diameter at breast height (DBH) measured 32-inches. Tree height was approximately 35-feet.

Prevailing winds are from the south in the spring, summer and fall, while northern winds are prevalent in the winter months. The tree had partial wind exposure, some protection was provided by the 3-story building and adjacent trees. Ninety-five percent of the root zone was covered by impervious surfaces. Aeriation holes were installed south of the tree to increase aeriation and water to the root zone. An electric service line ran through the tree canopy.

The mature live oak was in fair condition. The canopy was asymmetrical and leaned southwest. The live crown ratio was approximately 60%. The tree canopy was somewhat thin. Approximately 80% of the expected leaf surface area was present. Most of the foliage that was present was green and healthy in appearance. Twenty percent of the leaf surface area (near the center at the top of the tree) was chlorotic (yellow). Ball moss was present in the tree canopy.



Image 1: The mature 32-inch diameter live oak tree #287 was located south of the commercial building at 812 West 11th Street. Image 5/9/22.

The canopy of the mature live oak divided at approximately 10-feet above grade into a codominant union (a union where the branches arise from the trunk at the same location). Cables were present in the tree. The west stem was overextended. It had a large pruning wound approximately 10-inches in diameter. An area of missing sapwood was associated with this pruning wound that was approximately 30-inches in length and 12-inches in width. It comprised 1/3 of the circumference of the west branch. Very little response wound was present around the wound.

The east stem supported most of the tree's branches and foliage. At 25-feet from grade an 8-inch limb had decay that comprised 1/3 of the limb's circumference.

Fifteen percent of the tree canopy was comprised of dead twigs and branches with a maximum diameter of 2-inches. Pruning evidence suggested that branches had been removed to provide clearance for the building, vehicles, and to remove dead branches.

The root collar had 10 inches of fill removed. No decay was observed.

A mallet was used to sound the trunk. Sounding did not suggest the presence of decay.

Sonic tomography suggests moderate decay at three planes:

- 22 percent at 70-centimeters from grade
- 24 percent at 150-centimeters from grade
- 22 percent at 180-centimeters from grade.



Image 2: Eight-inch branch arising from east stem had sapwood and heartwood decay (circled).

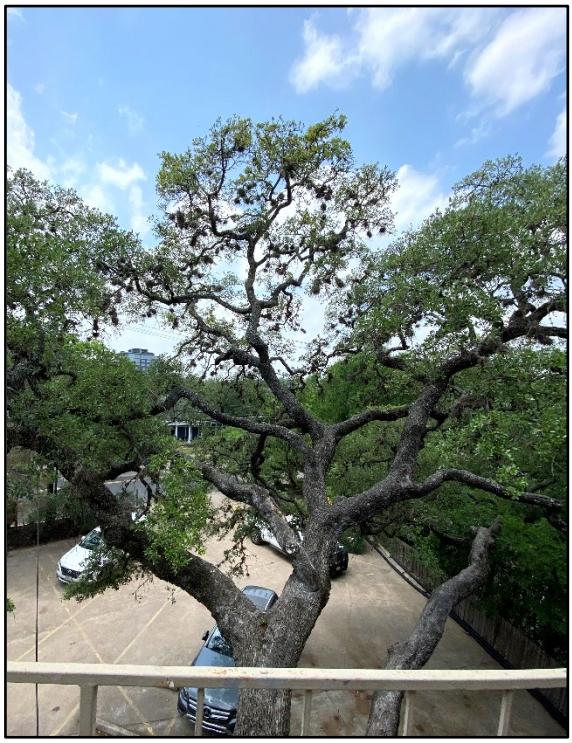


Image 3: Center portion of the canopy was thin and chlorotic. East stem is in the center of the image and the west stem is on the right.



Image 4: Codominant union is on the left. The west stem arises from this union and has a large pruning wound approximately 10-inches in diameter. Sapwood and heartwood decay are present for an area approximately 30-inches in length and 12-inches in width. It comprises 1/3 of the circumference of the west branch with little response wood.



Image 5: Tree leans southwest over the parking area. Tree canopy is asymmetrical. Sonic tomography locations indicated by the yellow lines. A column of decay was located in the center of the stem. Pruning wound with decay on west stem is visible.

Tree Risk Assessment

After discussing the site's usage and **occupancy rates** throughout the course of the year with you, combined with my observations during the assessment, we determined that within the tree's **target zone**:

- People were an **occasional** target,
- Vehicles were a **frequent** target, and
- The building was a **constant** target

In determining the risk ratings, I considered a tree or tree part failure impacting a person to have one of the highest consequences, either **significant** or **severe**. I considered a tree or tree part failure impacting a vehicle as having **significant** consequences. I considered a tree or tree part failure impacting a residence as having **significant** consequences.

I used a time frame of three years when I assessed the likelihood of tree or tree part failure. Following industry standards, the time frame is one factor used in the equation to determine tree risk. Trees and sites change daily. You should not consider this time frame a "guarantee period" for the risk assessment or that the tree will not fail or is safe within this time frame.

The main concerns observed during the assessment and their associated risk ratings are provided in the following table. Information not specifically summarized in the table was not considered a significant factor at the time of assessment.

TABLE 2. TREE RISK ASSESSMENT AND RATINGS

Tree Part of Concern	Condition of Concern	Target	Likelihood of Failure	Likelihood of Impact	Likelihood of Failure & Impact	Consequences	Risk Rating
Trunk	Codominant stems with 24% decay suggested by tomography	People	Possible	Low	Unlikely	Severe	Low
Trunk	Codominant stems with 24% decay suggested by tomography	Vehicles	Possible	Medium	Unlikely	Significant	Low
Trunk	Codominant stems with 24% decay suggested by tomography	Building	Possible	Low	Unlikely	Significant	Low
Crown and Branches	West branch: over-extended, heartwood and sapwood decay	People	Possible	Low	Unlikely	Severe	Low
Crown and Branches	West branch: over-extended, heartwood and sapwood decay	Vehicles	Possible	Medium	Unlikely	Significant	Low
Crown and Branches	West branch: over-extended, heartwood and sapwood decay	Building	Possible	Low	Unlikely	Significant	Low
Crown and Branches	2” dead branches	People	Imminent	Low	Somewhat likely	Significant	Moderate
Crown and Branches	2” dead branches	Vehicles	Imminent	Low	Somewhat likely	Minor	Low
Crown and Branches	2” dead branches	Building	Imminent	Low	Unlikely	Negligible	Low
Root and Root Collar	Root flare not visible, 10+ in. of fill present over root zone	People	Improbable	Low	Unlikely	Severe	Low
Root and Root Collar	Root flare not visible, 10+ in. of fill present over root zone	Vehicles	Improbable	Low	Unlikely	Significant	Low
Roots and Root Collar	Root flare not visible, 10+ in. of fill present over root zone	Building	Improbable	Low	Unlikely	Significant	Low

Using the methods outlined in this report and the results of the assessment of this tree, it is my professional judgment that this tree has an overall tree risk rating of ***moderate***. If this level of risk is not acceptable to you, then mitigation actions should be taken as soon as practical to reduce the risk to an acceptable level.

Discussion

Six conditions potentially elevate the risk associated with the subject tree:

- The tree was asymmetrical and leaned over the parking lot.
- The root flare was not visible for assessment.
- A codominant union supported the tree canopy.
- The west branch was over-extended; it had sapwood decay and heartwood decay.
- An 8-inch diameter limb with decay at 25' from grade.
- Two-inch dead branches throughout the canopy.

The tree was in fair condition. There was 22 - 24% structural integrity loss suggested by sonic tomography imaging at 70, 150, and 180 centimeters from grade. The shell wall thickness appears adequate for trunk support; however, it is possible that the west scaffold branch will fail due to the codominant branch structure, sapwood decay, heartwood decay, and over-extended form. The origin of decay in the trunk may be due to the defects described on the west branch.

Additional assessment of root zone may be helpful in determining the location of viable roots.

Conclusions and Risk Mitigation Options

I determined the overall tree risk rating for the live oak to be *moderate.* Options to mitigate the risk associated with the live oak are listed below. Please make sure the estimated overall residual risk rating is acceptable to you before deciding on a specific option.

- Option One: Prune to remove 2-inch dead branches in the canopy. Removing dead branches will eliminate their residual risk.
- Option Two: Reduce weight of west branch and install cables to reduce the risk of branch failure. Pruning and cabling will reduce the residual risk of trunk, crown, and branch failure to low.
- Option Three: Remove the entire tree to remove the risk of root, root collar, trunk, crown, and branch failure. Grind the resulting stump and back fill the hole. There will be no residual risk for the trunk, crown, or branches, but there may be a tripping hazard with the remaining roots, stump, or grindings that you will need to address. The tree's risk may increase in the future as a result of not performing mitigation.

If you elect not to remove the 2-inch dead branches, and reduce and cable the tree, the tree will remain a *low* risk for trunk, root and root flare failure, and *moderate risk* for crown and branch failure. The tree's risk may increase in the future as a result of not performing mitigation.

If the live oak should remain, I recommend a Level 3 Advanced Assessment to monitor internal decay every three years. In addition, a Level 1 Assessment should occur after major storm events. All recommended work should be performed by qualified arborists and in accordance with industry accepted standards and best management practices set forth by the *American National Standards Institute* and the *International Society of Arboriculture.*

Limitations

Assignment
My ground-based assessment of the designated tree was based on a site visit that occurred on May 9 and an aerial assessment occurred on May 10, 2022. All photographs, samples, and readings, if applicable, were taken at the time the assessment was performed. The assessment was limited to visible and accessible portions of the root collar and canopy.

Sonic Tomography
Sonic tomography devices can provide sophisticated results related to tree structure. This is done by using sound wave technology that is directed through the tree and recorded. However, as with any higher-level technology, the amount of loss of structural integrity shown can vary based on the version of the program software used. Therefore, this technology can be limited and should not be used by the tree owner/manager as the sole decision-making criteria, but rather one of many factors used in the decision-making process.

Limitations of Tree Risk Assessments
It is important for the tree owner or manager to know and understand that all trees pose some degree of risk from failure or other conditions. The information and recommendations within this report have been derived from the level of tree risk assessment identified in this report, using the information and practices outlined in the *International Society of Arboriculture's Best Management Practices for Tree Risk Assessment* and *Assessment* and *American National Standards Institute A300 Tree Risk Assessment Standard*, as well as the information available at the time of the inspection. However, the overall tree risk rating, the mitigation recommendations, or any other conclusions do not preclude the possibility of failure from undetected conditions, weather events, or other acts of man or nature. Trees can unpredictably fail even if no defects or other conditions are present. Tree failure can cause adjacent trees to fail resulting in a "domino effect" that impacts targets outside the foreseeable target zone of this tree. It is the responsibility of the tree owner or manager to schedule repeat or advanced assessments, determine actions, and implement follow up recommendations, monitoring and/or mitigation.

Bartlett Tree Experts can make no warranty or guarantee whatsoever regarding the safety of any tree, trees, or parts of trees, regardless of the level of tree risk assessment provided, the risk rating, or the residual risk rating after mitigation. The information in this report should not be considered as making safety, legal, architectural, engineering, landscape architectural, land surveying advice or other professional advice. This information is solely for the use of the tree owner and manager to assist in the decision-making process regarding the management of their tree or trees. Tree risk assessments are simply tools which should be used in conjunction with the owner or tree manager's knowledge, other information and observations related to the specific tree or trees discussed, and sound decision making.

Thank you for the opportunity to provide this information. Please contact me if you wish to review these results or discuss the next steps to take with mitigation, or if I can be of any other service in the management of your landscape.

Signed: April Rose

April Rose, TX-3503A

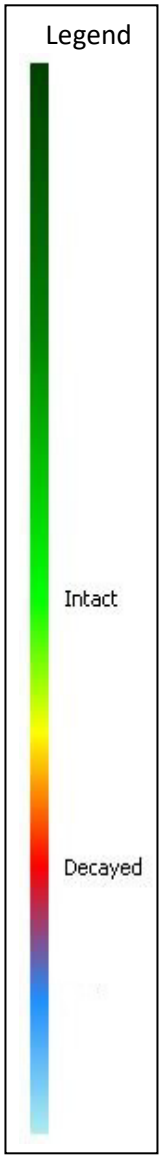
Encl. **Site Map**
Advanced Assessment Readings
Tree Risk Assessment Definitions

Site Map

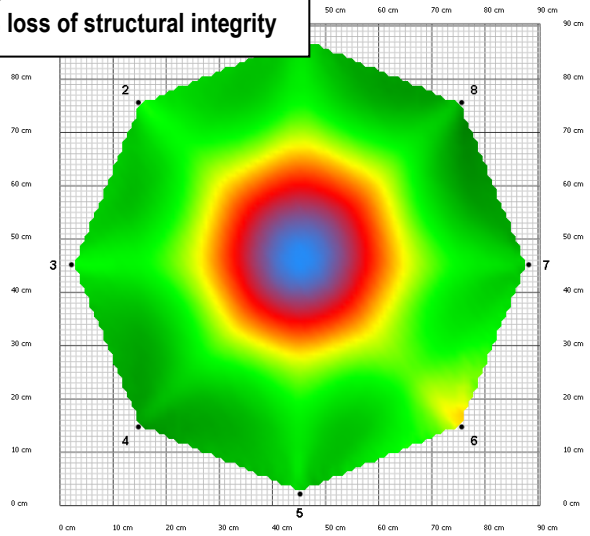
Google Earth Images May 2022.



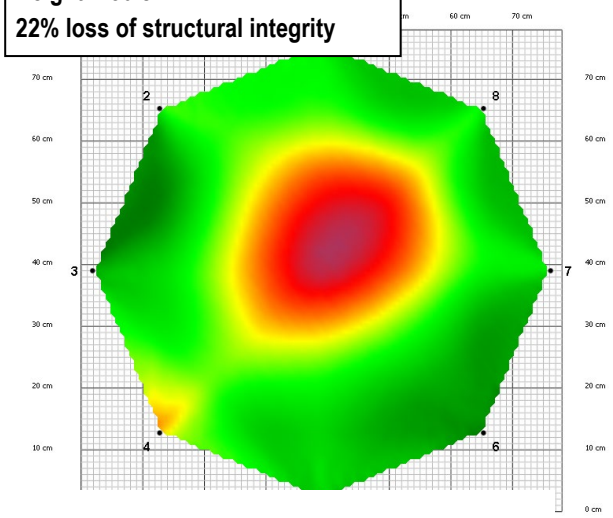
ArborSonic 3D™ Tomograms



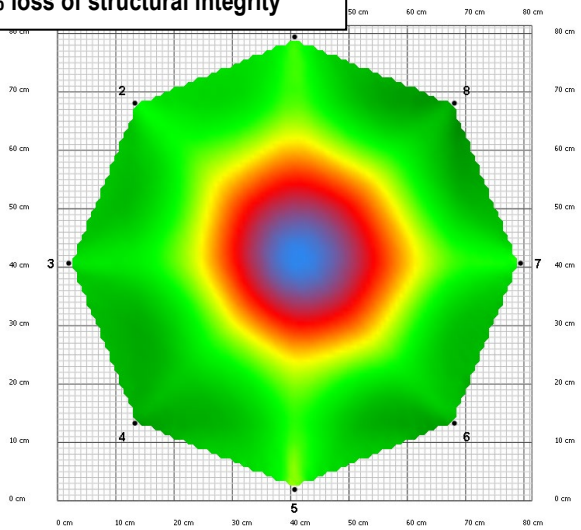
Height: 70 cm
22% loss of structural integrity



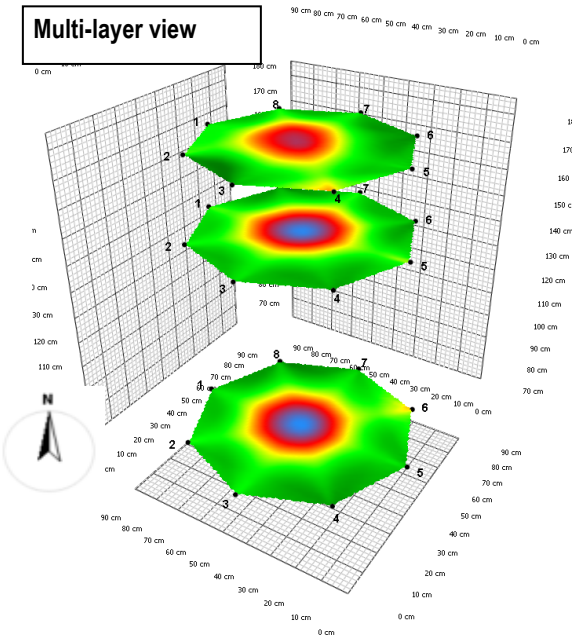
Height: 180 cm
22% loss of structural integrity



Height: 150 cm
24% loss of structural integrity



Multi-layer view



Tree Risk Assessment Definitions

Overview

Tree risk assessment has a unique set of terms with specific meanings. Specific terminology and procedures may be found in the International Society of Arboriculture's (ISA) *Best Management Practice (BMP) for Tree Risk Assessment* or the American National Standards Institute (ANSI) *A300 Tree Risk Assessment Standard*.

Tree Risk Assessment Levels

The three levels of tree risk assessment defined in the *ANSI A300 Tree Risk Assessment Standard are:*

I. Level 1: Limited Visual Assessment

The visual assessment from a specific perspective (e.g. from the sidewalk, street, parking lot, wood line) of an individual tree or population of trees near specified targets. These assessments are conducted to identify obvious defects or specified conditions. The assessor typically views only of one side of the tree from the specified perspective.

Level 1 assessments are typically performed to quickly assess large populations of trees.

A Level 1 assessment requires the client to identify the location and/or selection criteria of trees to be assessed. The assessor will:

1. Determine the most efficient route and document the route taken.
2. Assess the tree(s) within the area from the defined perspective (e.g. walk-by, drive-by).
3. Record the location of trees that meet the defined criteria (e.g. significant defects or other conditions of concern).
4. Evaluate the risk (risk rating is optional).
5. Identify trees requiring a higher level of assessment (Level 2 or Level 3) and/or prompt action.
6. Submit risk mitigation recommendations and/or report.

Limitations: Level 1 assessments are the least thorough means of assessment. They are typically from one perspective, such as a walk-by, a drive-by, or a fly-over. This level of assessment is most commonly used to prioritize higher-risk trees within larger groups of trees when budgetary, time, or other management factors are a concern. Given the visual restrictions, the information can be limited. Some conditions may not be visible from the one-sided inspection. Not all conditions are visible at all times of the year, and the assessment may not be adequate to make a risk mitigation recommendation. Residual risk designations for trees may not be included.

II. Level 2: Basic Assessment

A Level 2 assessment is a detailed visual inspection of a tree and its surrounding site and a synthesis of the information collected. It requires a 360° inspection around a tree including the site, visible buttress roots, trunk, branches, and crown.

The assessment may include the use of tools such as binoculars, mallet, or probe at the discretion of the assessor or at the request of the owner/manager.

The assessor will:

1. Locate and identify the tree or trees to be assessed.
2. Determine the targets and target zone for the tree or tree part(s) of concern.
3. Review the site history and conditions, and species failure profile.
4. Assess potential load on the tree and its parts.
5. Assess general tree health.
6. Inspect the tree visually and using binoculars, mallet, probes, and/or shovels, as desired by the arborist or as specified in the Scope of Work.
7. Record observations of site condition, defects, indicators of internal defects, and response growth.
8. If necessary, recommend a Level 3 advanced assessment.
9. Analyze data to determine the likelihood of failure, likelihood of impact and consequences of failure in order to evaluate the degree of risk.
10. Develop mitigation options and estimate residual risk for each option.
11. Recommend a re-inspection intervals,
12. Develop and submit the report/documentation.

Limitations: Level 2 assessments only include conditions and defects that can be detected from a ground-based visual inspection on the day of the assessment. Internal below-ground, or upper-crown conditions, decay, and defects, may not be detected.

III. Level 3: Advanced Assessment

A Level 3 assessment is performed to provide detailed information about specific tree parts, defects, targets, or site conditions. These are usually conducted in conjunction with or after a Level 2 assessment with owner/manager approval. Specialized equipment, data collection and analysis, and/or expertise are usually required for Level 3 assessments.

A Level 3 assessment provides detailed information about a specific tree part or condition. It involves the use of specialized equipment or techniques. The assessor will:

1. Locate and identify the tree or trees to be assessed.
2. Determine the targets and target zone for the tree or tree part(s) of concern.
3. Review the site history and conditions, and species failure profile.
4. Assess potential load on the tree and its parts.
5. Assess general tree health.
6. Inspect the tree using advanced techniques as specified in the Scope of Work.
7. Record results from advanced techniques.
8. Analyze data to determine the level of risk.
9. Develop mitigation options and estimate residual risk for each option.
10. Recommend a re-inspection intervals.
11. Recommend other advanced assessments if necessary.
12. Develop and submit the report/documentation.

*Items 1-5 may be included in the associated Level 2 assessment.
Level 3 procedures and methodologies, which are referred to as technologies, may include:

Procedure	Methodology
Aerial inspection and evaluation of structural defects in upper stems and branches	• visual inspection from within the tree crown or from a lift • unmanned aerial vehicle (UAV) photographic inspection • decay testing of branches
Detailed target analysis	• property value of anything potentially impacted by tree failure • use and occupancy statistics • potential disruption of activities such as road blockage or an electrical outage
Detailed site evaluation	• history evaluation • soil profile inspection to determine root depth • soil mineral and structural testing
Decay testing	• increment boring • drilling with small-diameter bit • resistance-recording drilling • single path sonic (stress) wave • sonic tomography • electrical impedance tomography • radiation (radar, X-ray) • advanced analysis for pathogen identification
Health evaluation	• tree ring analysis (in temperate zone trees) • shoot length measurement • detailed health/vigor analysis • starch assessment
Root inspection and evaluation	• root and root collar excavation • root decay evaluation • ground-penetrating radar
Storm/wind load analysis	• detailed assessment of tree exposure and protection • computer-based estimations according to engineering models • wind reaction monitoring over a defined interval
Measuring and assessing the change in trunk lean	• visual documentation • digital level
Load testing	• hand pull • measured static pull • measured tree dynamics

Limitations: Level 3 assessments that include the use of specialized technologies may have uncertainty and require qualified estimations. Exact measures may not be feasible.

Common Terminology

The most common terms are provided below, and were taken or modified from the ISA and ANSI documents.

General Terms Used Throughout Reports
Inspection interval is the recommended amount of time between inspections or assessments.
Occupancy rates categorize the estimated time that a target is physically within a target zone. Occupancy rate is classified as rare, occasional, frequent, or constant.
Overall risk rating is the highest individual risk identified for the tree.
Residual risk is the estimated level of risk after the recommended mitigation.
Risk is the likelihood of an event and its consequences.
Risk rating for a tree or tree part is the combination of the likelihood of failure, likelihood of impact, and the consequences
Time frame is the length of time (typically a one, two, or three-year period) the assessor considers when determining the likelihood of failure of a tree or tree part. A short time frame may result in a lower likelihood of failure rating (less likely to fail) where a longer time frame may result in a higher likelihood of failure rating (more likely to fail). The time frame is one factor in the equation to determining the likelihood of failure of a tree or tree part. Changes in the targets, site use, occupancy rates, and tree and site conditions may result in changes to the likelihood of failure and tree risk, even if the time frame does not change. Tree and site changes are why the owner/manager should not consider the specified time frame a "guarantee period" for the risk assessment or that the tree will not fail or is safe within the stated time frame.
Targets are people, property, or activities that could be injured, damaged or disrupted by a tree or tree part failure.
Targets and occupancy rates are typically identified based on information derived from the client prior to conducting the assessment, as well as information during the limited time the assessor evaluates the tree and site. Targets, target zones, and occupancy rates may be adjusted based on observations during the assessment.
Target zones are the areas where a tree or tree part is likely to land if it were to fail. The target zone(s) is determined in the field at the time of the assessment.
Trees can generally be defined as woody plants that continue to grow each year, reaching a height of at least five feet.
Tree parts include branches, fruit, and trunks.
Tree risk is the likelihood of a tree failure impacting a target and the severity of the consequences.
Tree risk assessment is the systematic process used to identify, analyze, and evaluate tree risk. Tree risk assessments are generally conducted to assist the tree owner/manager to better understand the risk their trees pose so they can make management decisions to reduce or minimize those risks. Tree risk assessments focus on evaluating the structural integrity of the tree crown, branches, trunks, and roots and root collar.
Tree risk assessors are trained arborists or qualified professionals with experience in performing tree risk assessments.

Terms Used to Communicate Occupancy Rates
Constant indicates a target is present in the target zone at nearly all times, 24 hours a day, seven days a week.
Frequent indicates a target is present in the target zone for a large portion of the day or week.
Occasional indicates a target is present in the target zone infrequently or irregularly.
Rare indicates a target zone is not commonly used by people or other mobile/movable targets.

Terms Used to Communicate the Likelihood of Failure
Imminent indicates that failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load.
Probable indicates that failure may be expected under normal weather conditions within the specified time frame.

Terms Used to Communicate the Likelihood of Failure

Possible indicates that failure could occur, but is unlikely under normal weather conditions within the specified time frame.

Improbable indicates that failure is not likely during normal weather conditions and it may not fail in extreme weather conditions within the specified time frame.

Terms Used to Communicate the Likelihood of Impacting a Target

High indicates that a failed tree or tree part will most likely impact a target.

Medium indicates the failed tree or tree part could impact the target but is not expected to do so.

Low indicates that the failed tree or tree part is not likely to impact a target.

Very low indicates that the likelihood of a failed tree or tree part impacting the specified target is remote.

Terms Used to Communicate the Likelihood of a Failure Impacting a Target

Very likely to impact a target is reached by an imminent likelihood of failure and high likelihood of impact.

Likely to impact a target can be reached by an imminent likelihood of failure and medium likelihood of impact; or probable likelihood of failure and high likelihood of impact.

Somewhat likely to impact a target can be reached by one of the following combinations; an imminent likelihood of failure and low likelihood of impact; probable likelihood of failure and medium likelihood of impact; or possible likelihood of failure and high likelihood of impact.

Unlikely to impact a target can be reached by one of the following combinations; a possible or probable likelihood of failure and low likelihood of impact; possible likelihood of failure and medium likelihood of impact; improbable likelihood of failure with any likelihood of impact rating; or any likelihood of failure rating with very low likelihood of impact.

Terms Used to Communicate the Consequences of Failure and Impact

Severe consequences could involve serious personal injury or death, high-value property damage, or major disruption to important activities

Significant consequences are those that could involve substantial personal injury, property damage of moderate to high value, or considerable disruption of activities

Minor consequences are those that are believed will only cause minor personal injury, low-to-moderate-value property damage, or small disruption of activities

Negligible consequences are those that are believed will not result in personal injury, will only involve low-value property damage, or disruptions that can be replaced or repaired

Terms Used to Communicate Risk Ratings

Extreme risk applies in situations in which failure is imminent, there is a high likelihood of impacting the target, and the consequences of the failure are severe.

High risk situations are those for which consequences are significant and likelihood is very likely or likely; or consequences are severe and likelihood is likely.

Moderate risk situations are those for which consequences are minor and likelihood is very likely or likely; or likelihood is somewhat likely and consequences are significant or severe.

Low risk applies when consequences are negligible and likelihood is unlikely; or consequences are minor and likelihood is somewhat likely.

Conclusion

The tree risk assessment process is not an exact science. Regardless of the level of assessment conducted, every assessment is limited to the trees identified in the scope of services, conditions detectable at the time of the assessment, the level of communication with the owner/manager, and other conditions that affect the assessor's ability to collect information.

Not all defects and conditions are detectable, and not all tree failures can be predictable. Tree conditions do change over time. Tree inspections are recommended annually and after major weather event.

PUBLIC HEARING INFORMATION

Although applicants and/or their agent(s) are expected to attend a public hearing, you are not required to attend. However, if you do attend, you have the opportunity to speak FOR or AGAINST the proposed development or change. You may also contact a neighborhood or environmental organization that has expressed an interest in an application affecting your neighborhood.

During a public hearing, the board or commission may postpone or continue an application's hearing to a later date, or recommend approval or denial of the application. If the board or commission announces a specific date and time for a postponement or continuation that is not later than 60 days from the announcement, no further notice is required.

A board or commission's decision may be appealed by a person with standing to appeal, or an interested party that is identified as a person who can appeal the decision. The body holding a public hearing on an appeal will determine whether a person has standing to appeal the decision.

A zoning ordinance amendment may include a conditional overlay which would include conditions approved by the Land Use Commission or the City Council. If final approval is by a City Council's action, there is no appeal of the Land Use Commission's action.

An interested party is defined as a person who is the applicant or record owner of the subject property, or who communicates an interest to a board or commission by:

- delivering a written statement to the board or commission before or during the public hearing that generally identifies the issues of concern *(it may be delivered to the contact listed on a notice)*; or
- appearing and speaking for the record at the public hearing;

and:

- occupies a primary residence that is within 500 feet of the subject property or proposed development;
- is the record owner of property within 500 feet of the subject property or proposed development; or
- is an officer of an environmental or neighborhood organization that has an interest in or whose declared boundaries are within 500 feet of the subject property or proposed development.

A notice of appeal must be filed with the director of the responsible department no later than 14 days after the decision. An appeal form may be available from the responsible department.

For additional information on the City of Austin's land development process, visit our web site: www.austintexas.gov/devservices.

Written comments must be submitted to the board or commission (or the contact person listed on the notice) before or at a public hearing. Your comments should include the name of the board or commission, or Council; the scheduled date of the public hearing; the Case Number; and the contact person listed on the notice.

Case Number: SP-2021-0350C
Contact: Caitlin Campbell, Caitlin.Campbell@austintexas.gov or Kate Castles, Kate.Castles@austintexas.gov
Public Hearing: Planning Commission, September 27, 2022

Jessica Warren / Red Buffalo Properties

Your Name (please print)

☐ I am in favor
☑ I object

1100 West Ave

Your address(es) affected by this application

Jessica Warren

Signature

9/18/2022

Date

Daytime Telephone: 512 469 9500

Comments: The Tree is hundreds of years old. It Should not be cut down.

If you use this form to comment, it may be returned to:
City of Austin / Development Services Department
Kate Castles
P. O. Box 1088
Austin, TX 78767-8810

CITY OF AUSTIN Development SERVICES DEPARTMENT

Building a Better and Safer Austin Together

Shoal Cycle SP-2021-0350C

September 27, 2022

Heritage Tree Variance Request

NAME OF APPLICANT OR ORGANIZATION:	CJI Properties Inc.
LOCATION:	812 West 11th Street, Austin, Texas, 78701
COUNCIL DISTRICT:	District 9
CITY ARBORIST:	Naomi Rotramel (512) 974-9135, naomi.rotramel@austintexas.gov
ORDINANCE:	Heritage Tree Ordinance (LDC 25-8-641)
REQUEST:	The applicant is seeking the removal of a Heritage tree with a single stem over 30 inches in diameter.
STAFF RECOMMENDATION:	The request meets City Arborist approval criteria set forth in LDC 25-8-624(A)(2). The variance is recommended.

Reasonable Use

- Heritage Tree Code Criteria
- Project Description
- Zoning
- Site Constraints
- Tree Evaluation
- Staff Recommendation

Heritage Tree Code Criteria

The variance request is to allow removal of a Heritage tree with a stem greater than 30 inches as allowed under LDC § 25-8-643 and § 25-8-624(A)(2)

Land Development Code § 25-8-643 – LAND USE COMMISSION VARIANCE.

(A) The land use commission may grant a variance from Section 25-8-641 (Removal Prohibited) to allow removal of a heritage tree that has at least one stem that is 30 inches or larger in diameter measured four and on-half feet above natural grade only after determining, based on the city arborist's recommendation, that the heritage tree meets the criteria in Section 25-8-624(A) (Approved Criteria) and that:

(1) the applicant has applied for and been denied a variance, waiver, exemption modification, or alternative compliance from another City Code provision which would eliminate the need to remove the heritage tree, as required in Section 25-8-646 (Variance Prerequisites); and

Land Development Code § 25-8-624 – APPROVAL CRITERIA.

(A) The Planning and Development Review Department may approve an application to remove a protected tree only after determining that the tree:

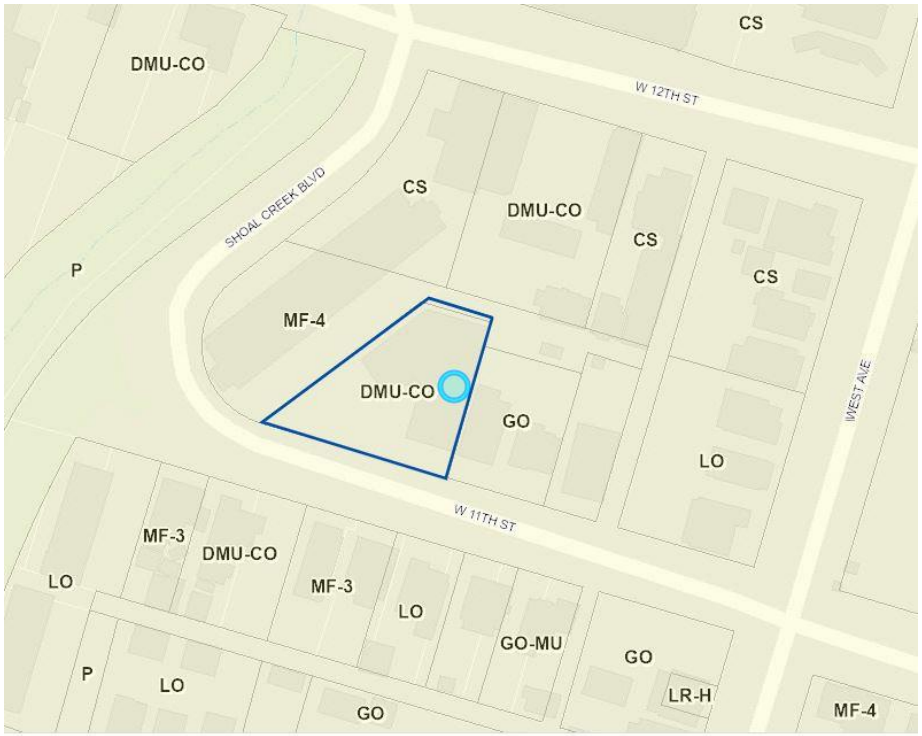
(2) prevents a reasonable use of the Property;

Project Description

- The subject property is located at 812 West 11th Street. The lot size is 0.4052 acres and is zoned Downtown Mixed Use – Conditional Overlay (DMU-CO) Combining District.
- The property is located in the Northwest Subdistrict of the Downtown Austin Plan.
- The site is currently being operated as an office building with associated tuck-under and surface parking. The proposed use is for a 67-unit workforce multifamily project and 3,500 square feet of ground floor retail.
- The applicant requested a predevelopment site consultation with the City Arborist. There is one (1) Heritage Live Oak with a single stem of 32” diameter that is centrally located on the property.
- The 32” Heritage Live Oak is requested for removal.

Zoning

- The subject property was rezoned from Limited Office (LO) to Downtown Mixed Use – Conditional Overlay (DMU-CO) Combining District in August 2021.



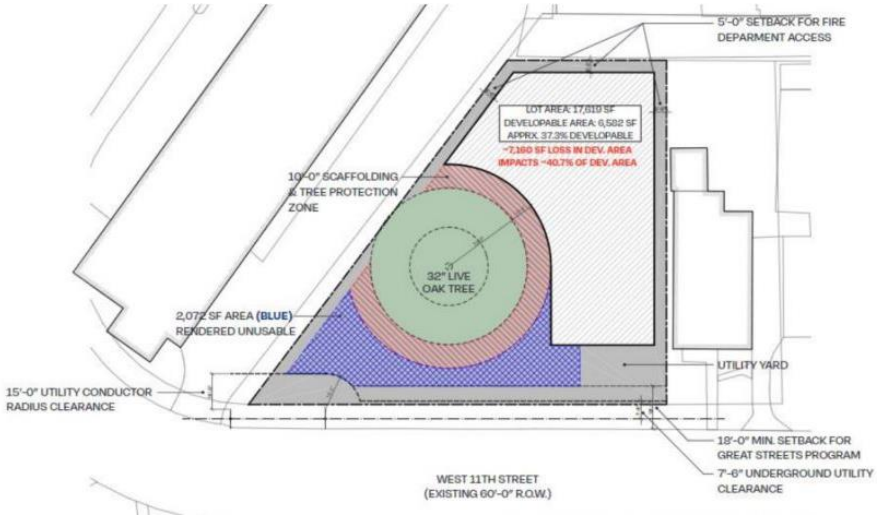
Zoning Code Compliance

- Per Ordinance 20210826-091, the Conditional Overlay requires the following conditions:
  - Maximum height of building/structure limited to 90 feet.
  - Administrative and business offices land uses is a conditional use above the ground floor of a building

- Upon rezoning the property, additional requirement were agreed upon under restrictive covenant (2021199382) that include:
  - Streetscape improvements along West 11th Street to be consistent with COA Great Streets Standards – requires at least an 18'-0" setback along the street.

Site Constraints:

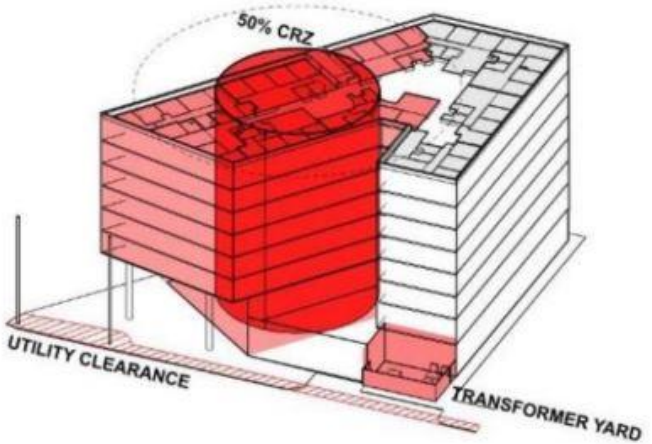
- The property is located in a portion of Downtown Austin that is ineligible for participation in the Downtown Density Bonus Program
- Restrictive Covenant requires 18'-0" setback along West 11th Street to align with Great Street Standards
- 5'-0" setback required along the northern, eastern and western property lines for fire department access
- The 32” Live Oak is centrally located on the property which divides the property and renders the southwestern portion (hatched in blue) unbuildable

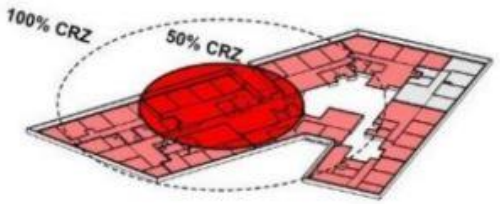


Site Constraints- buildable floorplates

The root zone of the 32” Heritage Live Oak occupies 28.9% of site

- Current location results in a reduction of over 50% of the gross square feet of buildable area
- Preservation of the Half critical root zone would result in a loss of 28 units (or 42%) of the proposed 67 units
- Preservation of the Full critical root zone would result in a loss of 60 units (or 91%) of the proposed 67 units





50% CRITICAL ROOT ZONE

67 UNITS → 39 UNITS
42% UNIT LOSS

100% CRITICAL ROOT ZONE

67 UNITS → 7 UNITS
91% UNIT LOSS

Mitigation

- The Environmental Criteria Manual standard is 300% mitigation for a Heritage Tree.

- Mitigation for this site shall be addressed by:
  - Planting two (2) 5” caliper Live Oaks to be planted within improved streetscape with adequate soil mass to ensure survivability.
  - Paying $18,500 to Urban Forest Replenishment Fund.

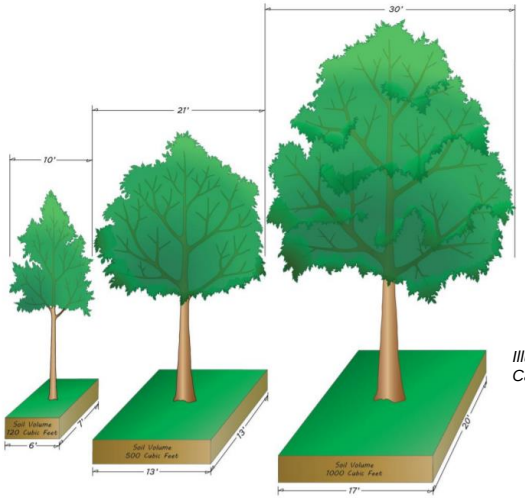


Illustration from Casey Trees 2008

CITY OF AUSTIN Development SERVICES DEPARTMENT

Illustration courtesy of epa.gov

Condition Evaluation Tree #287

Tree #287 – 32-inch Live Oak

The tree was assessed by City Arborist Staff on February 16, 2022. Staff found that it did not meet Code criteria as dead, diseased, or imminent hazard but that removal under § 25-8-642 at the time of previous applications.

Measurements

- The subject tree is one Heritage 32-inch Live Oak.

Canopy Conditions

- Asymmetric crown; thin canopy; chlorotic (likely due to nutrient deficiency); copious amount of epiphytic ball moss usually prevalent on declining trees; leans southwest due to existing location of existing building; overhead utility lines run through the canopy.

Structure / Trunk

- Trunk leans over the parking lot. Sonic tomography was conducted of the trunk which indicated moderate decay present at three different vertical planes with the tree – estimates 22-24% loss in structural integrity of the tree. Large decay pockets on upper side of two scaffolding limbs observed.

Root System

- 95% of the critical root zone is impacted by existing concrete pavement and building envelope; chlorosis in canopy likely due to impervious cover.

Overall Condition

- Fair condition; poor structure; moderate risk determination



Tree structure

Large scaffold leader decay – west stem





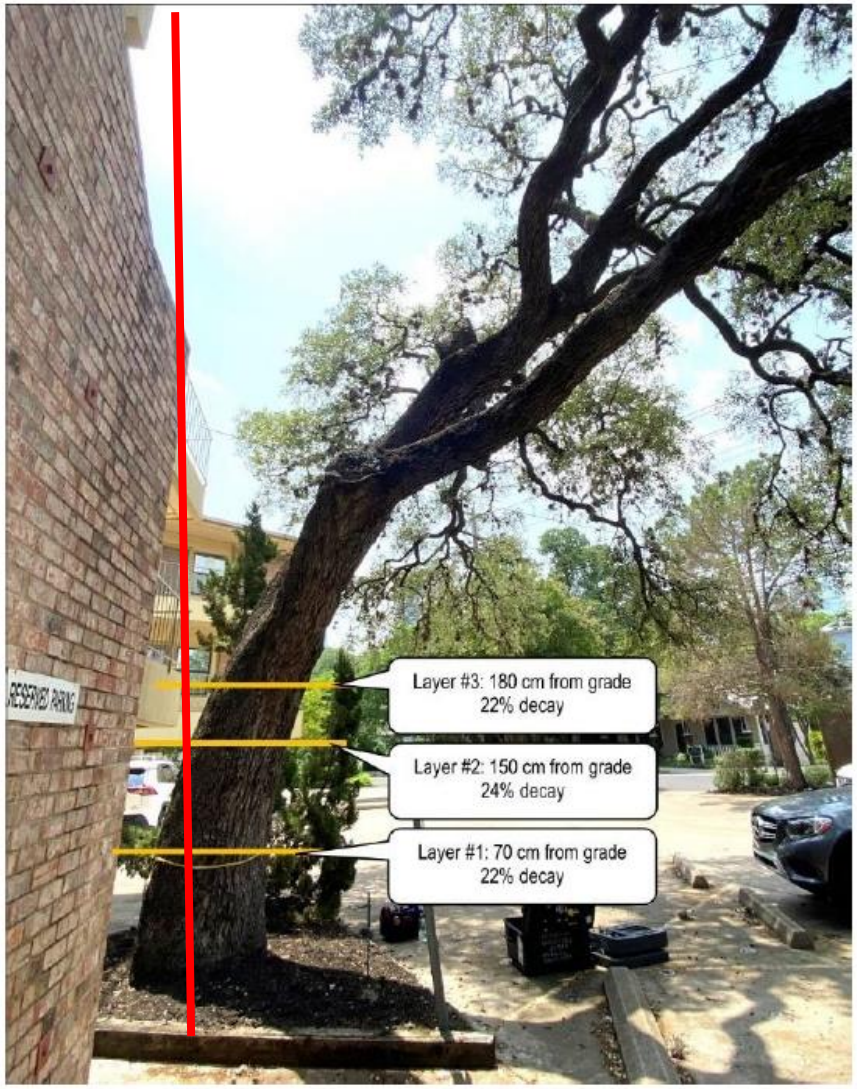
Tree structure (cont.)

Large scaffold leader decay – east stem



Tree structure (cont.)

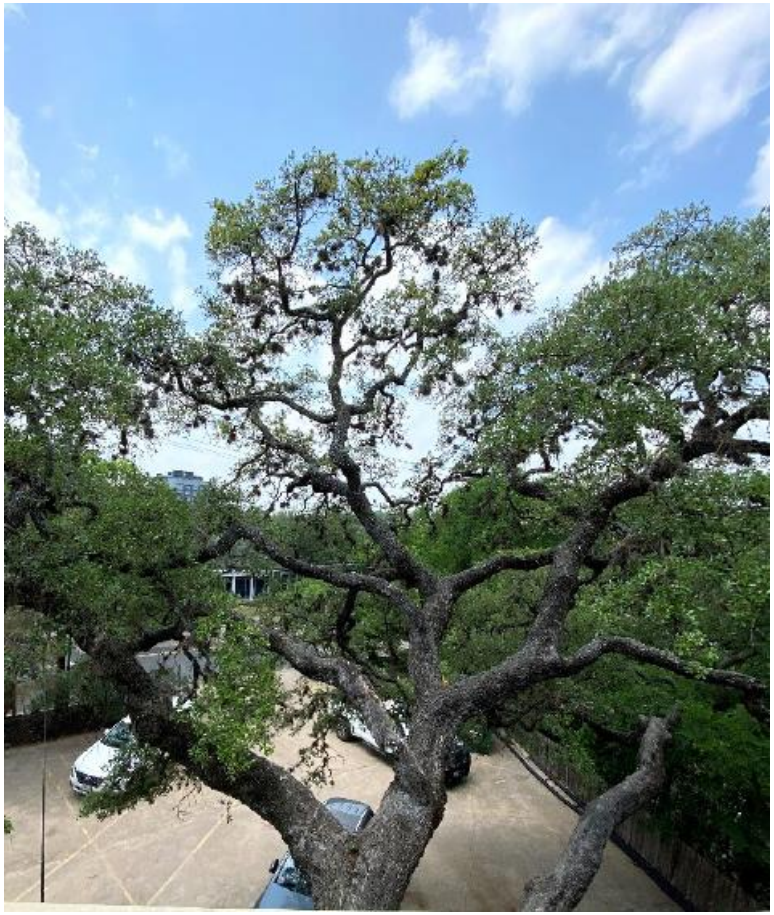
- Unbalanced crown
- High load on top of asymmetrical structure



Tree Canopy/Crown

- Thin canopy
- Epiphytic ball moss
- Chlorosis

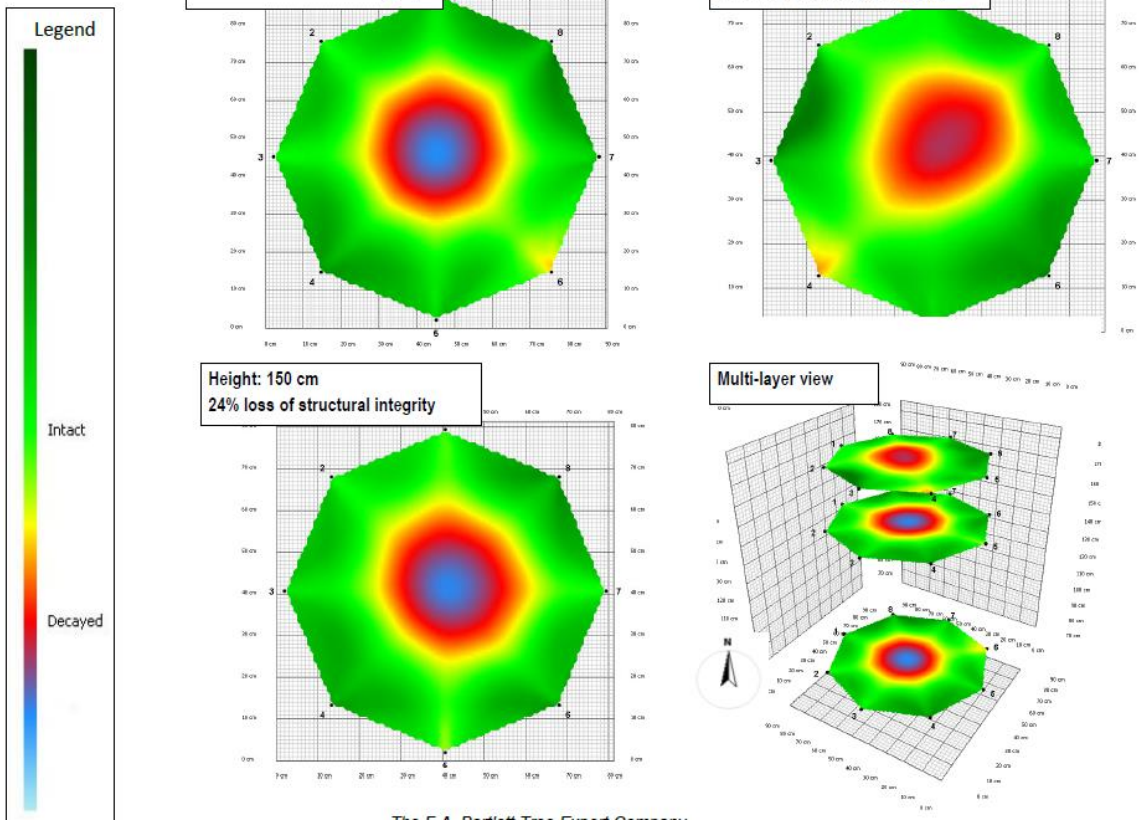




Tree structure (cont.)

Sonic tomography report

ArborSonic 3D™ Tomograms



Staff Recommendation

The City Arborist recommends removal of the tree due to the applicant demonstrating that the tree prevents reasonable use of the site.

- Based upon tree location, zoning, site characteristics, and the proposed use, the City Arborist believes the applicant has provided sufficient evidence that LDC 25-8-624(A)(2) has been met.
- Further there do not appear to be any waivers, variances, or modifications of code that would allow development concurrent with the preservation of the tree.
- Early in design phase, applicant met with Shoal Creek Conservancy and PARD for a suitable location to transplant the tree but was denied a location.
- Transplant feasibility analysis by qualified tree moving company proved the tree was unsuitable to be transplanted.
- Applicant has demonstrated that due to the poor health of the tree, relocation is not feasible.


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