Developed in Partnership with Texas Tree Surgeons, 2025

# Urban Tree Care Plan (Dallas and Plano Campuses)

recognizes trees as integral to its healing environment and sustainability mission.

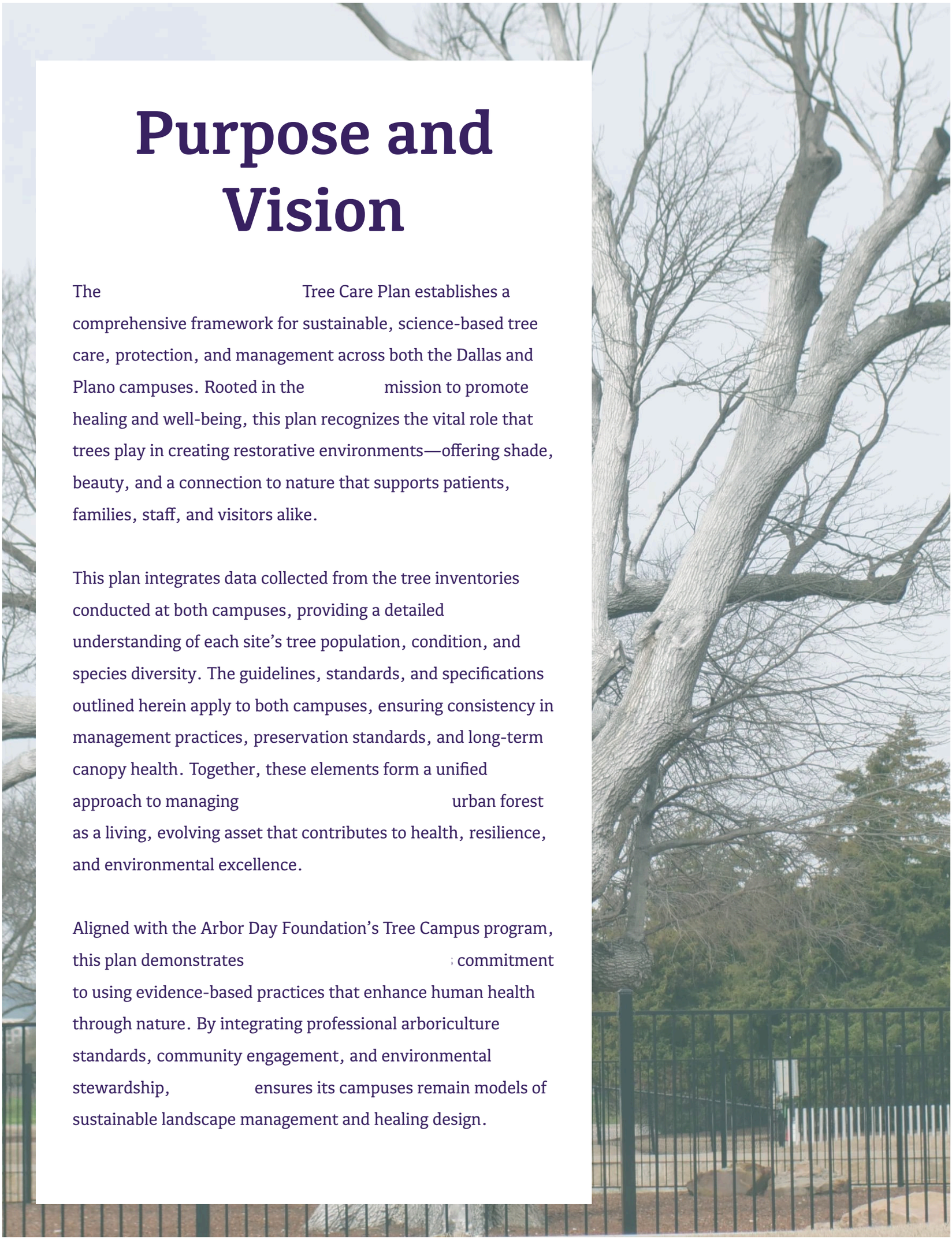
TEXAS TreeSurgeons

# Purpose and Vision

The Tree Care Plan establishes a comprehensive framework for sustainable, science-based tree care, protection, and management across both the Dallas and Plano campuses. Rooted in the mission to promote healing and well-being, this plan recognizes the vital role that trees play in creating restorative environments—offering shade, beauty, and a connection to nature that supports patients, families, staff, and visitors alike.

This plan integrates data collected from the tree inventories conducted at both campuses, providing a detailed understanding of each site's tree population, condition, and species diversity. The guidelines, standards, and specifications outlined herein apply to both campuses, ensuring consistency in management practices, preservation standards, and long-term canopy health. Together, these elements form a unified approach to managing urban forest as a living, evolving asset that contributes to health, resilience, and environmental excellence.

Aligned with the Arbor Day Foundation's Tree Campus program, this plan demonstrates commitment to using evidence-based practices that enhance human health through nature. By integrating professional arboriculture standards, community engagement, and environmental stewardship, ensures its campuses remain models of sustainable landscape management and healing design.



# Plan Objectives

- Maintain a safe, healthy, and diverse tree canopy through proper care, monitoring, and preservation.
- Protect high-value trees during construction and development.
- Enhance environmental and health benefits through evidence-based maintenance and renewal practices.
- Engage staff, volunteers, and the broader community in tree planting, education, and advocacy.
- Integrate tree management into the hospital's sustainability and resilience strategies.

# Program Oversight and Governance

The Planning, Design, and Construction (PDC) Department is responsible for implementing and maintaining the Tree Care Plan. The PDC Department will oversee all tree management activities to ensure consistent standards of care, preservation, and safety.

Representation, including facilities staff and certified arborists, will participate in plan oversight, ensuring that site-specific needs and priorities are addressed. This coordinated approach promotes consistency, sustainability, and effective stewardship of the urban forest system wide.

Oversight will be provided through the Campus Tree Advisory Committee, composed of representatives from Facilities, Sustainability, and Consulting Arborists. The committee meets twice per year (or as needed) to review progress, assess canopy conditions, and update management.

- Facilities Manager
- Director, Planning, Design & Construction
- Sustainability Program Manager
- Consulting Arborist (**Texas Tree Surgeons**)

# Baseline Data and Canopy Analysis

In 2025, partnered with Texas Tree Surgeons to conduct a comprehensive tree inventory across both the Dallas and Plano campus. This survey identified and assessed 440 trees on the Dallas campus, and 642 on the Plano campus, documenting species composition, diameter, condition, and maintenance needs.

## Key Findings

### Species Diversity

### Dallas Campus

19 total species were found on the Dallas Campus. The **top 3** being comprised of **Live oak, Baldcypress and Crepe Myrtles.**

*To promote a resilient and sustainable urban forest, no more than 10% of any single species, 20% of any single genus, or 30% of any single family, should be planted within the landscape (Santamour, 1990).*

### Plano Campus

32 total species were found on the Plano Campus. The **top 3** being comprised of **Eastern Red Cedar, Live oak, and Crepe Myrtles**.

**Figure 1: Dallas Campus Species Breakdown**

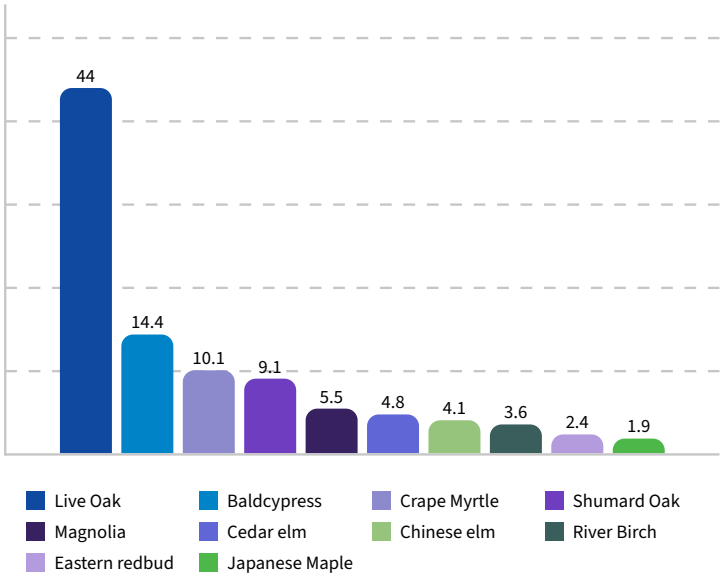
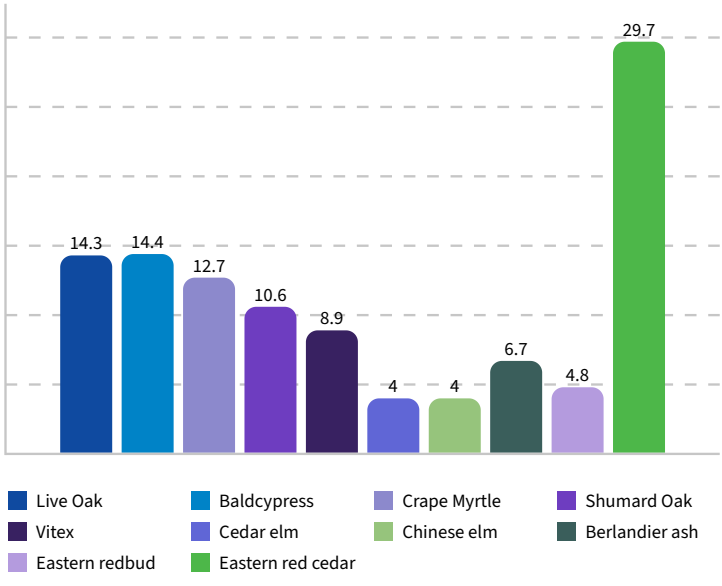



**Figure 2: Plano Campus Species Breakdown**



# Key Findings

## Average Diameter at Breast Height (DBH)

### Dallas Campus

Average DBH: 12.3 inches
Largest Tree: 44-inch DBH specimen

There is a healthy distribution of tree sizes across the Dallas campus, indicating a well-balanced age structure and sustainable canopy for the future. The majority of trees fall within the 12–18-inch DBH range, representing well-established, mature canopy trees that provide significant shade and ecological benefits.

Smaller trees (under 6 inches DBH) make up approximately 20% of the population, reflecting ongoing planting and replacement efforts that will ensure canopy continuity over time. Mid-sized trees (6–12 inches DBH) account for roughly 35% of the population, while larger, mature specimens (18–30 inches DBH) represent about 25%. A select few legacy trees—those exceeding 30 inches DBH—comprise the remaining 5–10%, serving as cornerstone trees that anchor the hospital's landscape identity.

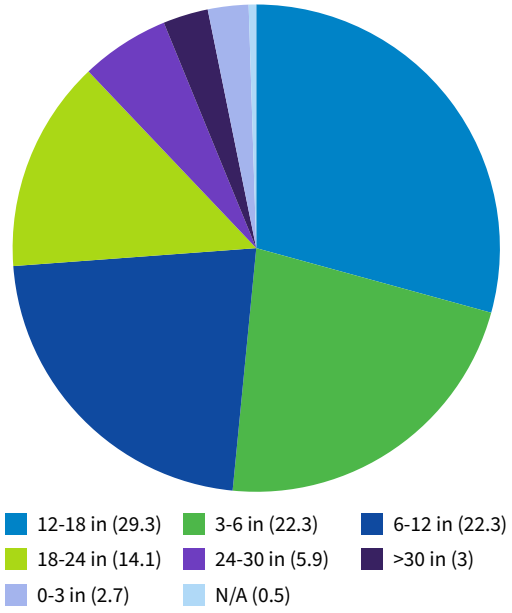
### Plano Campus

Average DBH: 9 inches
Largest Tree: 61 -inch DBH specimen

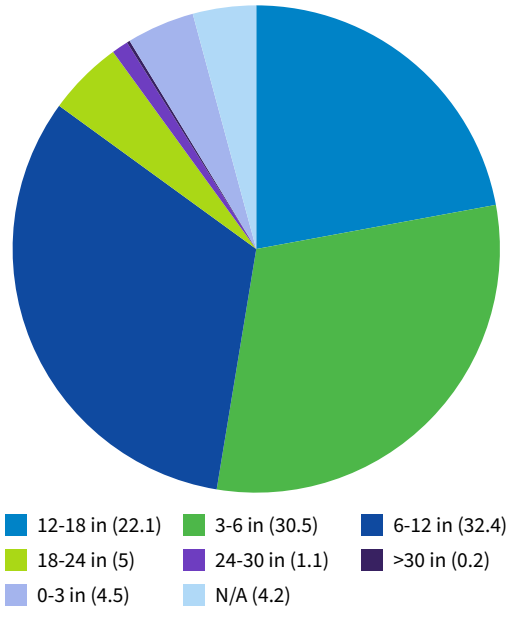
The Plano campus features a predominantly younger canopy, with the majority of trees measuring less than 12 inches in diameter and only about 6% exceeding 25 inches. This size distribution reflects a maturing tree population that is still developing.

The campus was constructed in an area that originally lacked significant mature tree cover, resulting in a landscape composed largely of newer plantings. As these trees continue to grow, the canopy will gradually develop into a more established and functional urban forest.

### Figure 3: DBH range of the Dallas tree population




### Figure 4: DBH range of the Plano tree population



# Key Findings

## Annual Ecosystem Benefits

### Dallas Campus

**Carbon Storage**

**523,000 lbs**

**Annual Carbon Sequestration**

**70,000 lbs**

**Stormwater Interception**

**53,800 $ft^3$**

**Air Quality Improvement**

**480 lbs**

pollutants removed

**Total Annual Monetary Value**

**$6,141.71**

## Lifetime Carbon Sequestration

(lifetime benefits)

**$CO_2$ Storage**


**1,917,873.20 lbs**

**$CO_2$ Storage Monetary Benefit**

**$113,171.46**

# Key Findings

## Annual Ecosystem Benefits

### Plano Campus

**Carbon Storage**

**262,624 lbs**

**Annual Carbon Sequestration**

**38,000 lbs**

**Stormwater Interception**

**26,437 $ft^3$**

**Air Quality Improvement**

**283 lbs**

**pollutants removed**

**Total Annual Monetary Value**

**$3,533.38**

## Lifetime Carbon Sequestration

(lifetime benefits)

**$CO_2$ Storage**


**262,624.06 lbs**

**$CO_2$ Storage Monetary Benefit**

**$56,822.96**

The ecosystem service benefits reported in this plan are derived from i-Tree Eco analysis, a research-based model developed by the U.S. Forest Service. Using inventory data such as tree species, diameter, and condition, i-Tree quantifies the environmental contributions of the campus trees—including carbon storage and sequestration, air quality improvement, and stormwater interception—translating these benefits into measurable and monetary values. These data provide a scientific foundation for understanding and communicating the value of the hospital's urban forest.

# Cultural and Maintenance Practices

All work performed on campus trees shall conform to the latest editions of ANSI A300 (Tree Care Standards) and ANSI Z133 (Safety Requirements). All maintenance must be conducted or supervised by an ISA Certified Arborist.

## Pruning

- Pruning objectives include risk mitigation, structural improvement, and health maintenance.
- Topping and heading cuts are prohibited.
- Young trees will receive structural pruning within the first two years of planting.
- Mature trees will be inspected and pruned on a 3–5-year cycle.

## Removals

Tree removals will only occur when trees:

- Present an immediate safety risk
- Are dead or in irreversible decline
- Conflict with essential development after all preservation options are explored.

**All removals require review by the PDC Department and a Certified Arborist, with a minimum 1:1 replacement policy emphasizing species diversity and canopy value.**

## Soil, Fertilization, and Pest Management

- Fertilization will be based on soil testing and arborist recommendation.
- Integrated Pest Management (IPM) strategies will guide treatment for pests such as oak wilt, borers, and scale.
- Preventive care (mulching, proper irrigation, and aeration) will be prioritized over reactive treatments.

# Tree Planting, Diversity, and Renewal

## Planting Standards

- All planting shall follow ANSI A300 (Part 6 – Planting and Transplanting).
- Planting season: October 1 – May 15.
- The root flare must be visible and above grade; no materials may be left around the root ball.
- Organic mulch (max 3”) applied, keeping mulch clear of the trunk flare.

## Diversity Standards

To improve resilience, future planting will adhere to or improve upon the 10-20-30 rule:


**of any one species**


**of any one genus**


**of any one family**

Species will be selected based on site conditions, native adaptability, and long-term sustainability, prioritizing native and regionally adapted species (e.g., cedar elm, chinquapin oak, Mexican plum, redbud).

# Tree Protection During Construction

## Tree Protection Zones (TPZ)

- TPZ fencing must be installed prior to equipment arrival, at 1.5 ft per inch of DBH or 10 ft minimum.
- No material storage, trenching, or vehicle access within the TPZ.
- All soil disturbance must be mitigated post-construction with aeration or soil profile rebuilding.

## Contractor Accountability

All contractors are responsible for maintaining protection fencing and are liable for damage, which will be assessed and remediated per arborist valuation (CTLA 10th Edition).

# Community Engagement and Education

recognizes trees as integral to its healing environment and sustainability mission.

**Engagement activities will include:**

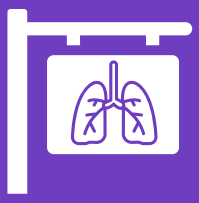
### Annual Arbor Day or Tree Campus Healthcare Event

Featuring tree planting or educational programming.

### Volunteer Opportunities

For staff and community members in planting, mulching, and maintenance.

### Educational Signage



Highlighting tree benefits and environmental performance (e.g., carbon sequestration, stormwater management).

### Communications

Integration of urban forestry themes into sustainability and wellness communications.

# Monitoring, Review, and Continuous Improvement

**The Urban Forest Management Plan will be reviewed every five years or as needed to reflect:**

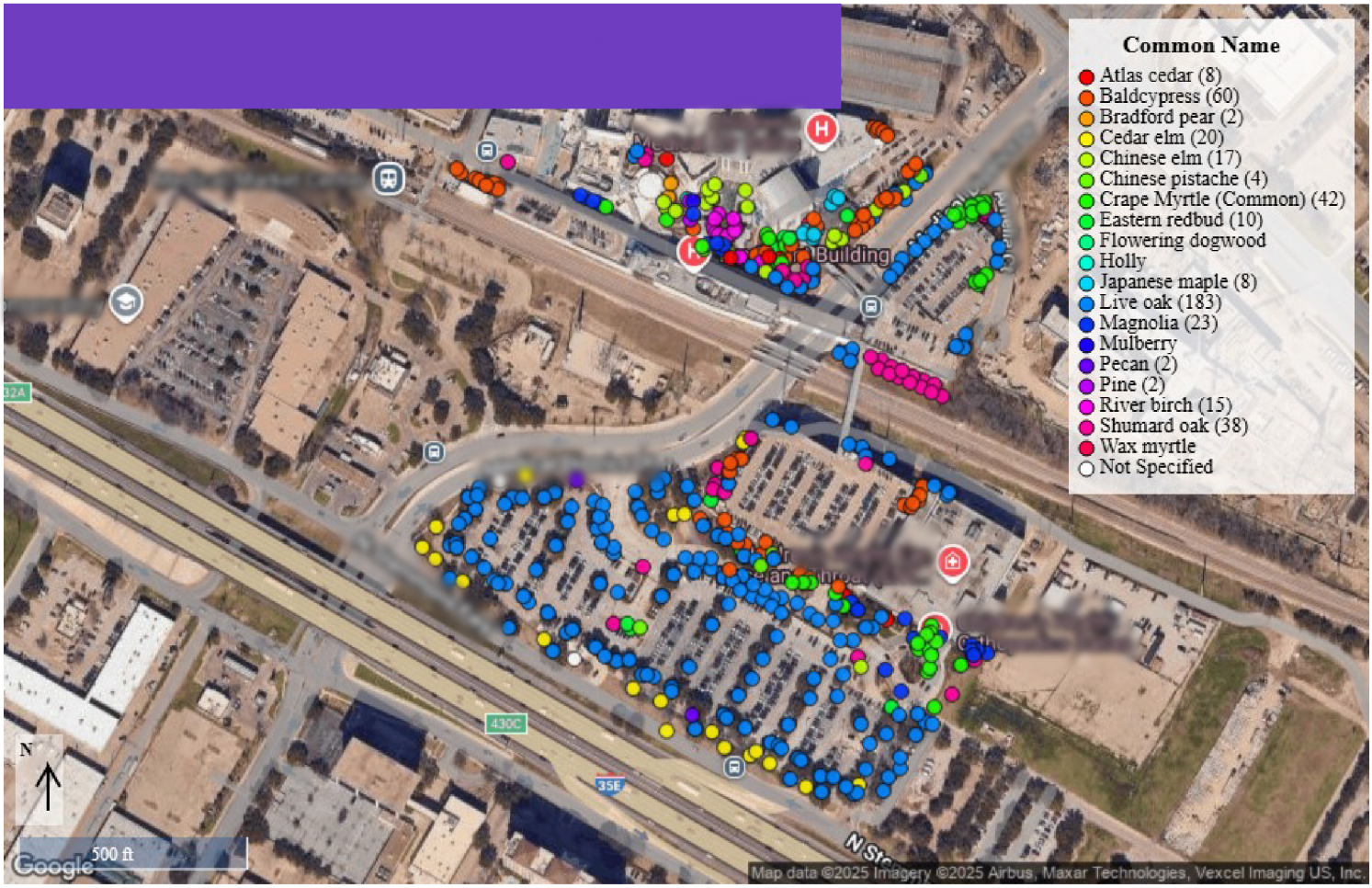
- New development projects
- Updated canopy data
- Environmental changes (e.g., drought, pest outbreaks)
- Shifts in institutional priorities.

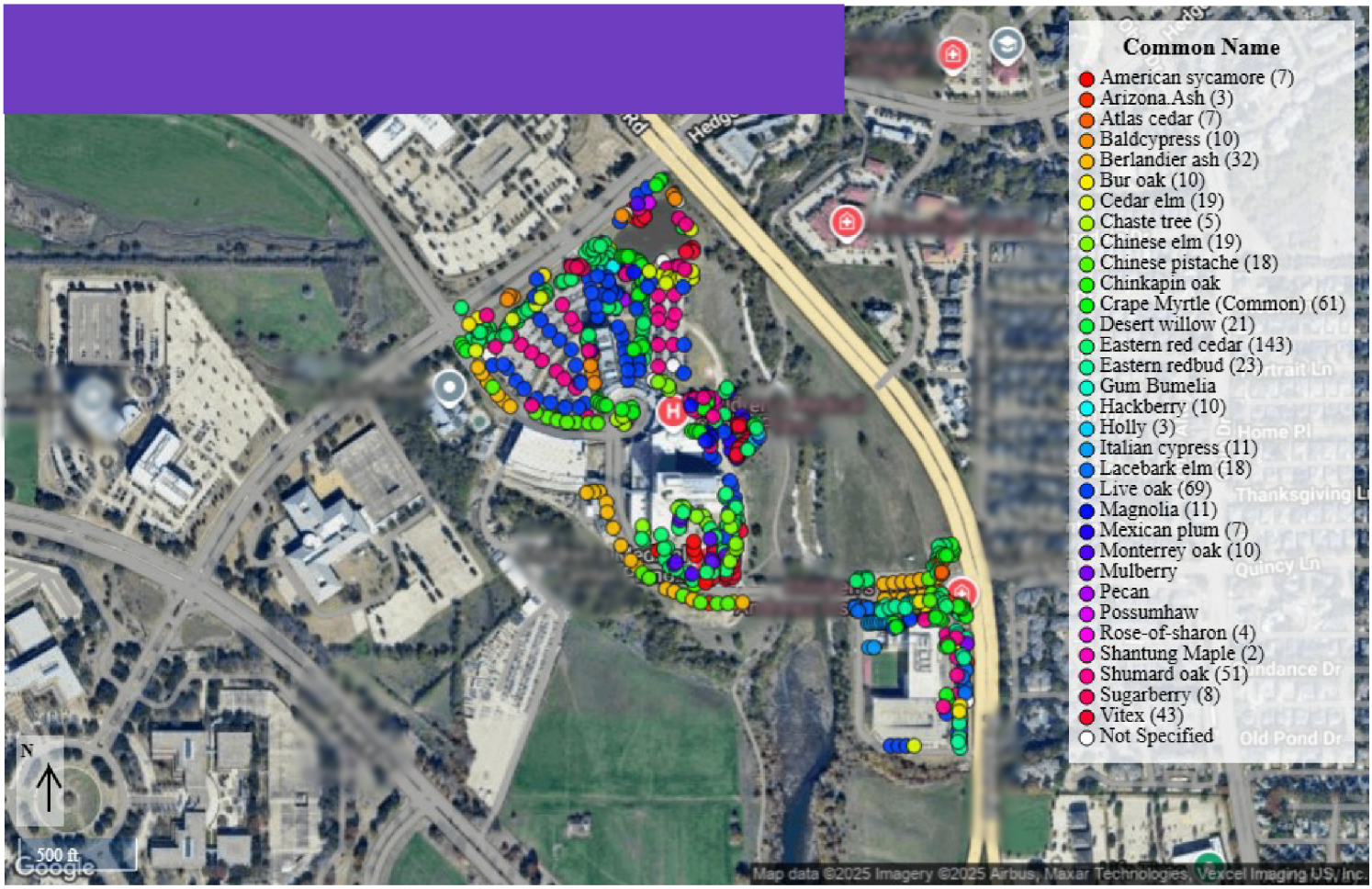
**The Campus Tree Advisory Committee will evaluate performance against the following metrics:**

- Tree health ratings and mortality rates
- Canopy coverage and species diversity
- Annual ecosystem services (carbon, air, stormwater benefits)
- Community engagement participation

## Appendices

1. Campus Tree Inventory (GIS Map)
2. Approved Tree Species List
3. Tree Protection Details and Signage Standards


Common Name
Atlas cedar (8)
Baldcypress (60)
Bradford pear (2)
Cedar elm (20)
Chinese elm (17)
Chinese pistache (4)
Crape Myrtle (Common) (42)
Eastern redbud (10)
Flowering dogwood
Holly
Japanese maple (8)
Live oak (183)
Magnolia (23)
Mulberry
Pecan (2)
Pine (2)
River birch (15)
Shumard oak (38)
Wax myrtle
Not Specified
Building
430C
35E
N
500 ft
Google
Map data ©2025 Imagery ©2025 Airbus, Maxar Technologies, Vexcel Imaging US, Inc.


Common Name
American sycamore (7)
Arizona Ash (3)
Atlas cedar (7)
Baldcypress (10)
Berlandier ash (32)
Bur oak (10)
Cedar elm (19)
Chaste tree (5)
Chinese elm (19)
Chinese pistache (18)
Chinkapin oak
Crape Myrtle (Common) (61)
Desert willow (21)
Eastern red cedar (143)
Eastern redbud (23)
Gum Bumelia
Hackberry (10)
Holly (3)
Italian cypress (11)
Lacebark elm (18)
Live oak (69)
Magnolia (11)
Mexican plum (7)
Monterrey oak (10)
Mulberry
Pecan
Possumhaw
Rose-of-sharon (4)
Shantung Maple (2)
Shumard oak (51)
Sugarberry (8)
Vitex (43)
Not Specified
N
500 ft
Google
Map data ©2025 Imagery ©2025 Airbus, Maxar Technologies, Vexcel Imaging US, Inc.

# Approved Tree List 2025

**Large Size Trees** | Typically attains height over 50’ – must have a minimum of 160 sf of soil area.

| Common Name | Scientific Name | Crown Width | Height |
|---|---|---|---|
| Baldcypress | *Taxodium distichum* | 40 - 50' | 40 - 75' |
| Boxelder | *Acer negundo* | 35 - 50' | 50 - 75' |
| Catalpa | *Catalpa bignonioides* | 30 - 50' | 40 - 60' |
| Deodar Cedar | *Cedrus deodara* | 40 - 50' | 40 - 70' |
| Elm, American | *Ulmus americana* | 40 - 60' | 50 - 70' |
| Elm, Cedar | *Ulmus crassifolia* | 30 - 50' | 40 - 70' |
| Elm, Lacebark | *Ulmus parvifolia* | 30 - 50' | 40 - 60' |
| Gum Bumelia | *Bumelia lanuginosa* | 30 - 50' | 40 - 80' |
| Linden Tree (basswood) | *Tilia americana* | 30 - 50' | 50 - 70' |
| Magnolia, Southern | *Magnolia grandiflora* | 30 - 60' | 60 - 80' |
| Oak, Bur | *Quercus macrocarpa* | 40 - 70' | 40 - 70' |
| Oak, Chinkapin | *Quercus muehlenbergii* | 30 - 50' | 40 - 70' |
| Oak, Comptom's | *Quercus comptoniae* | 40 - 50' | 40 - 60' |
| Oak, Durand | *Quercus durandii* | 40 - 50' | 40 - 60' |
| Oak, Live | *Quercus virginiana* | 40 - 60' | 40 - 60' |
| Oak, Mexican | *Quercus polymorpha* | 30 - 50' | 40 - 80' |
| Oak, Shumard | *Quercus shumardii* | 30 - 70' | 40 - 75' |
| Oak, Southern Red | *Quercus falcata* | 30 - 70' | 40 - 50' |
| Oak, Texas Red | *Quercus buckleyi (texana)* | 30 - 50' | 40 - 50' |
| Pecan | *Carya illinoinensis* | 30 - 70' | 40 - 80' |
| Pine, Italian Stone | *Pinus pinea* | 30 - 50' | 40-50' |
| Pondcypress | *Taxodium ascendens* | 40-60' | 45 - 75' |
| Sycamore | *Platanus occidentalis* | 30 - 60' | 30 - 50' |
| Mexican, Sycamore | *Platanus mexicana* | 30 - 60' | 45 - 75' |
| Black Walnut | *Juglans nigra* | 30 - 50' | 45 - 75' |

# Approved Tree List 2025

**Medium Size Trees** typically attains height over 30’ and width of 15’-50’ – must have a minimum of 160 sf of soil area.

| Common Name | Scientific Name | Crown Width | Height |
|---|---|---|---|
| Bois d' arc | *Maclura pomifera* | 30 - 40' | 40 - 50' |
| Elm, Bosque | *Ulmus parvifolia 'Bosque'* | 30 - 40' | 40 - 60' |
| Siberian Elm | *Ulmus pumila* | 20 - 40' | 25 - 50' |
| Elm, Winged | *Ulmus alata* | 30 - 40' | 40 - 60' |
| Gingko (male only) | *Ginkgo biloba* | 30 - 40' | 40 - 60' |
| Goldenrain Tree | *Koelreuteria paniculata* | 30 - 40' | 30 - 40' |
| Hickory, Black (Thornless) | *Carya texana* | 20 - 40' | 30 - 40' |
| Honeylocust, (Thornless) | *Gleditsia triacanthos* | 30 - 50' | 30 - 50' |
| Thornless Jujube | *Ziziphus jujuba* | 30 - 40' | 30 - 40' |
| Maple, Autumn Blaze | *Acer X freemanii* | 30 - 40' | 40 - 50' |
| Maple, Bigtooth | *Acer grandidentatum* | 20 - 30' | 20 - 40' |
| Maple, Caddo | *Acer barbatum var. caddo* | 30 - 40' | 40 - 50' |
| Maple, October Glory | *Acer rubrum* | 25 - 30' | 40 - 50' |
| Maple, Trident | *Acer buergerianum* | 20 - 30' | 30 - 40' |
| Mesquite, Honey | *Prosopis glandulosa* | 20 - 40' | 20 - 30' |
| Mimosa | *Albizia julibrissin* | 20 - 30' | 20 - 30' |
| Oak, Lacey | *Quercus laceyi* | 40 - 50' | 40 - 50' |
| Pine, Japanese Black | *Pinus thunbergii* | 40 - 50' | 40 - 50' |
| Redbud, Eastern | *Cercis canadensis* | 20 - 40' | 20 - 40' |
| Redbud, Texas | *C. canadensis var. texensis* | 20 - 35' | 20 - 35' |
| Redbud, Mexican | *C. canadensis var. mexicana* | 20 - 35' | 20 - 35' |
| Redcedar, Eastern | *Juniperus virginiana* | 40 - 60' | 40 - 60' |
| River Birch, Dura-heat | *B. nigra ‘Dura Heat’* | 40 - 60' | 40 - 60' |
| American smoketree | *Cotinus obovatus* | 20 - 30' | 20 - 30' |
| Sweetgum | *Liquidambar styraciflua* | 40 - 50' | 40 - 50' |
| Walnut, Texas Black | *Juglans microcarpa* | 20 - 30' | 20 - 30' |

# Approved Tree List 2025

**Small Size Trees** typically attains height no greater than 30’ – must have a minimum of 25 sf of soil area.

| Common Name | Scientific Name | Crown Width | Height |
|---|---|---|---|
| Acacia, Wright | *Acacia greggii var. wrightii* | 20 - 25' | 10 - 15' |
| Buckeye, Mexican | *Ungnadia speciosa* | 8 - 12' | 15 - 25' |
| Buckeye, Red | *Aesculus pavia* | 6 - 10' | 15 - 18' |
| Buckeye, Texas | *Aesculus arguta* | 8 - 15' | 15 - 25' |
| Carolina Buckthorn | *Rhamnus caroliniana* | 10 - 15' | 12 - 15' |
| Cherry-laurel | *Prunus caroliniana* | 15 - 20' | 20 - 40' |
| Chitalpa | *Chitalpa tashkentensis* | 15 - 20' | 15 - 30' |
| Crepe Myrtle | *Lagerstroemia spp* | 20 - 25' | 30 - 40' |
| Cypress, Arizona | *Cupressus glabra* | 10 - 20' | 20 - 50' |
| Desert Willow | *Chilopsis linearis* | 15 - 20' | 15 - 30' |
| Dogwood | *Cornus florida* | 15 - 20' | 20 - 30' |
| Dogwood, Roughleaf | *Cornus drummondii* | 15 - 20' | 20 - 30' |
| Eve's Necklace | *Sophora affinis* | 10 - 20' | 15 - 35' |
| Fringetree | *Chionanthus virginicus* | 15 - 25' | 15 - 30' |
| Golden-ball Lead-tree | *Leucaena retusa* | 15 - 20' | 20 - 25' |
| Hawthorn | *Crataegus spp.* | 15 - 20' | 15 - 20' |
| Holly, American | *Ilex opaca* | 18 – 40' | 40 - 50' |
| Holly, ‘East Palatka’ | *Ilex attentuata ‘East Palatka’* | 10 – 15' | 15 - 30' |
| Holly, ‘Nellie R. Stevens’ | *Ilex x Nellie R Stevens* | 15 – 20' | 20 - 25' |
| Holly, ‘Savannah’ | *Ilex x attenuata ‘Savannah’* | 15 – 20' | 25 - 30' |
| Holly, Possumhaw | *Ilex decidua* | 10 – 15' | 15 - 20' |
| Holly, Yaupon | *Ilex vomitoria* | 15 – 20' | 20 - 25' |
| Loquat | *Eriobotrya japonica* | 15 – 20' | 20 - 25' |
| Vitex / Chaste Tree | *Vitex agnus-castus* | 10 – 15' | 10 – 20' |
| Magnolia, 'Little Gem' | *Magnolia grandiflora 'Little Gem'* | 8 - 10' | 15 – 20' |

# Approved Tree List 2025

**Small Size Trees** typically attains height no greater than 30’ – must have a minimum of 25 sf of soil area.

| Common Name | Scientific Name | Crown Width | Height |
|---|---|---|---|
| Magnolia, saucer | *Magnolia soulangeana* | 20 - 30' | 20 - 30' |
| Mexican Plum | *Prunus mexicana* | 15 - 20' | 15 - 20' |
| Mountain Laurel, Texas | *Sophora secundiflora* | 12 - 15' | 15 - 20' |
| Shin Persimmon, Texas | *Diospyros texana* | 15 - 20' | 15 - 30' |
| Pine, Afghan | *Pinus eldarica* | 15 - 20' | 30 - 50’ |
| Rusty, Blackhaw | *Viburnum rufidulum* | <35' | < 30' |
| Smoketree, European | *Cotinus coggygria* | 12 - 15' | 12 - 15' |
| Sumac, Prairie flameleaf | *Rhus lanceolata* | 10 - 15' | 15 - 20' |
| Sumac, Smooth | *Rhus glabra* | 10 - 15' | 15 - 20' |
| Trifoliate Orange | *Poncirus trifoliata* | 12 - 15' | 12 - 15' |
| Wax-myrtle, Southern | *Myrica cerifera* | 15 - 20' | 6 - 12' |
| Wild Olive | *Cordia boissiere* | 15 - 20' | 20 - 25' |

# Tree Protection and Preservation Guidelines

## Purpose and Scope

These guidelines establish standards for protecting trees and soil resources before, during, and after construction on all properties.

Their purpose is to ensure trees remain safe, stable, and functional long-term, preserving the hospital's green infrastructure and patient-healing environment.

All contractors, subcontractors, and field personnel must comply with these standards. Requirements follow ANSI A300 (Part 5) – Management of Trees During Site Development and ISA Best Management Practices (BMPs).

## Pre-Construction Requirements

**1. Tree Survey & Preservation Plan:**
Conduct a detailed survey identifying tree species, diameter at breast height (DBH), condition rating, and proposed action (remove or protect). Delineate Tree Protection Zones (TPZs) on the plan and include them in the civil drawings.

**2. Pre-Construction Meeting (Mandatory):**
Prior to mobilization, the Owner's Representative (OR) or Certified Arborist (CA) shall meet on site with the General Contractor (GC), project managers, and relevant subcontractors to review protection zones, access routes, staging areas, and irrigation logistics.

**3. Pruning (If Needed):**
Any required clearance pruning shall conform to ANSI A300 Pruning Standards and be performed only by a qualified tree care company under supervision of a Certified Arborist. No other site personnel may prune or alter trees.

**4. Tree Protection Installation:**
All fencing, signage, and mulch shall be installed before mobilization. No clearing, grading, or excavation may begin until the Certified Arborist verifies compliance with these standards.

# Tree Protection and Preservation Guidelines

## Tree Protection Zones (TPZ)

- **Minimum TPZ Radius:** One (1) foot per inch of DBH measured from the trunk (e.g., 20 in DBH = 20 ft radius), or the drip line, whichever is greater. All planting shall follow ANSI A300 (Part 6 – Planting and Transplanting).
- TPZs shall be clearly shown and dimensioned on the site plan.
- Adjustments to TPZ boundaries require approval by the Certified Arborist or Owner's Representative.

## Fencing, Mulch, and Signage

- **Fence Type:** Minimum 4 ft high high-visibility polyethylene or polyurethane fencing secured to steel T-posts at ≤10 ft spacing. (Chain-link fencing may be required in high-traffic or long-term zones.)
- **Signage:** Mount rigid, weather-resistant signs on each accessible side stating:
  **TREE PROTECTION ZONE**
  **No entry, parking, storage, washout, or trenching.**
- **Mulch:** Apply 4–6 in of coarse wood mulch inside the fence, keeping at least 6 in clearance around trunks to prevent decay.
- **Maintenance:** Inspect weekly and after storms. Repair or re-stake fencing within 24 hours if damaged or displaced.

# Tree Protection and Preservation Guidelines

## Prohibited Activities Within TPZ

Absolutely no activities shall occur within the TPZ unless expressly approved by the Certified Arborist.

**Prohibited actions include (but are not limited to):**

- Excavation, grading, or trenching.
- Fill placement, soil compaction, or grade changes.
- Material storage, parking, or lay-down of equipment.
- Concrete/asphalt washout, chemical use, or fueling.
- Fire, exhaust, or heat sources directed toward trees.
- Attaching signs, wires, or fencing to trees.

## Soil and Grade Protection

- **Maintain Original Grades:** Avoid raising or lowering soil within TPZs. If minor adjustments are unavoidable, mitigation such as radial trenching, air-tilling, or root-zone venting must be designed and approved by the CA.
- **Compaction Control:** When temporary access is essential, install ground protection mats or geotextile/aggregate systems as directed by the CA.
- **Erosion Control:** Install silt fencing or sediment barriers outside TPZ limits to prevent runoff and siltation.

# Tree Protection and Preservation Guidelines

## Utilities and Trenching

- **Planning: D**esign all new utilities to avoid TPZs wherever possible.
- **Trenchless Installation:** If conflicts remain, use directional boring or jack-and-bore methods at least 24 in below existing grade to avoid root systems.
- **Root-Safe Excavation:**
  - When hand digging is necessary, use shovels or pneumatic air-spade tools.
  - Roots ≥ ½ in diameter shall be clean-cut with sharp saws or secateurs—never ripped or torn by equipment.
  - Backfill immediately with native soil, water thoroughly, and re-mulch disturbed areas.
  - See Root Pruning Specifications in the Appendixs

## Irrigation and Tree Health Care

- Maintain consistent soil moisture within TPZs during dry or hot periods; frequency and method to be determined by the CA.
- The Arborist may specify supplemental irrigation systems, irrigation bags, or temporary drip lines as needed.
- **Post-construction tree care may include:**
  - Mulch refreshing
  - Soil aeration or decompaction
  - Root-zone fertilization and organic amendments
  - Structural pruning or crown restoration

# Tree Protection and Preservation Guidelines

## Monitoring and Documentation

- **Inspections:** The Certified Arborist shall inspect at minimum:
  - Prior to mobilization
  - After fencing installation
  - Monthly during construction
  - At substantial completion

## Repairs and Mitigation

If a violation or accidental damage occurs:

- Stop work immediately in the affected area and notify the Owner's Representative and Certified Arborist.
- The Arborist may prescribe one or more corrective actions:
  - Additional pruning or crown reduction
  - Soil remediation (air-tilling, vertical mulching)
  - Supplemental irrigation or soil amendment
  - Extended post-construction maintenance period

**All remediation costs shall be borne by the Contractor.**

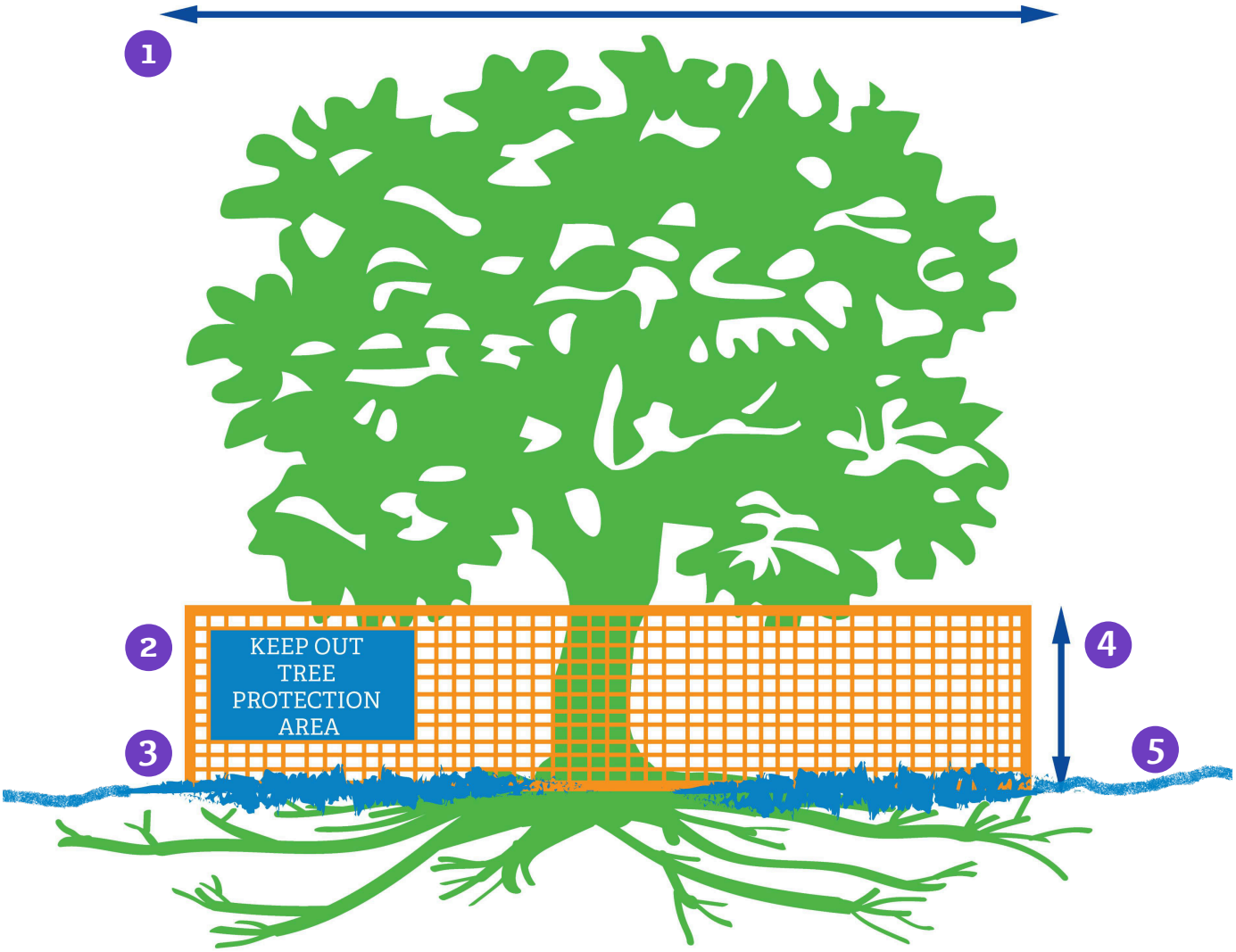
# Tree Protection and Preservation Guidelines

## Penalties

Any damage to protected trees, roots, or soils resulting from non-compliance may result in:

- Back-charges for all corrective and mitigation work.
- Appraisal and replacement costs per the CTLA 10th Edition – Guide for Plant Appraisal, conducted by a Certified Arborist.

# Appendix:
# Tree Protection Detail




1. Fence follows the dripline of the tree canopy to protect critical root zone
2. At minimum letter sized laminated sign space every 50" along the fence
3. 5 inch thick layer of mulch
4. 4 ft tall high density orange polyethylene fencing with 3.5' X 1.5' openings, 2x6' steel posts, installed at 8' o.c.
5. Maintain existing grade withe the tree protection unless indicated on the plans

## Additional Tree Protection Notes:

- See specifications for additional tree protection requirements.
- If there is no existing irrigation, see specifications for water requirements.
- No pruning shall be performed except by an approved arborist.
- No equipment shall operate inside the protective fencing including during fence installation and removal.
- See site preparation plan for any modifications with the Tree Protection area.
- Hand prune roots only by a certified arborist. Do not shear roots.
- Cover roots and provide supplemental water as necessary. If large roots or a large percentage of roots are removed. Extend recovery period may be necessary.
- All work to be done under the supervision of certified arborist or approved contractor. Ensure that trees are in good health and not experiencing unusual stress prior to commencing work.
- Protect tree and tree roots throughout construction. Airs pade or hand dig only within the critical root zone. Document and assess all damages to trees at commencement and through completion of work. Damages to compensated based on pre-agreed terms. See specifications.
- Ensure proper soil moisture levels through duration of work. Soil must be near field capacity, but not saturated, and pass a field moisture test prior to use on an air spade. Hand water trees as necessary before commencement of work within 24 hours of completion. Cover bare roots and water as necessary during work.
- Arborist to evaluate the overall health of trees, and make a report and recommendations for additional tree care, before, during, and after the completion of work.
- Call 811 or contact the appropriate local agencies to locate exiating utilities prior to any excavation. Protect existing utilities thought the construction process and repair any damage to these at no cost to owner.
- See specifications for additional information. Also see manufacturer guide for proper safety and operation.