


Tree Protection During Design & Construction

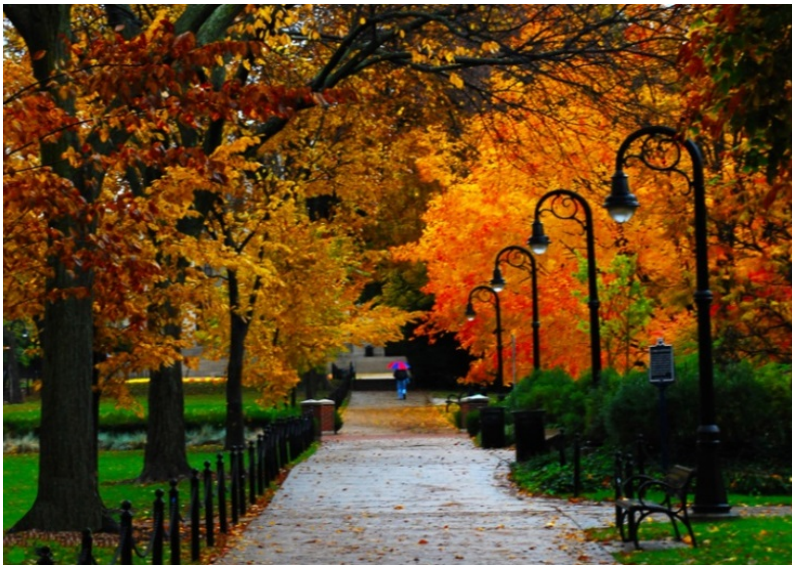
“What ought we to do, what can we do, for the generations still to come, that will cause the citizens of this county in the succeeding centuries to bless us?

Grateful to the past, and anxious to show your gratitude, what can you do for the future?

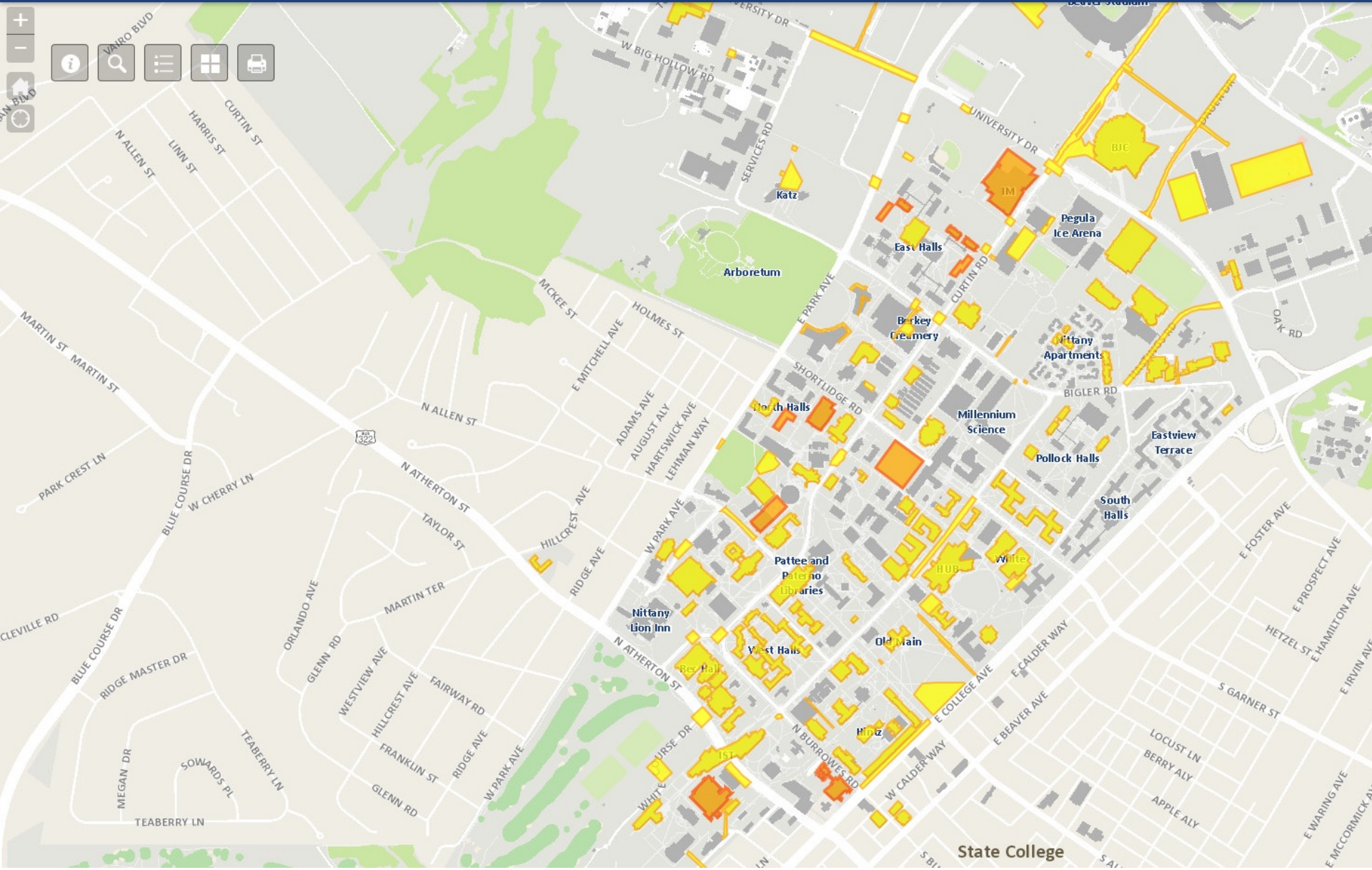
You can plant a tree.”

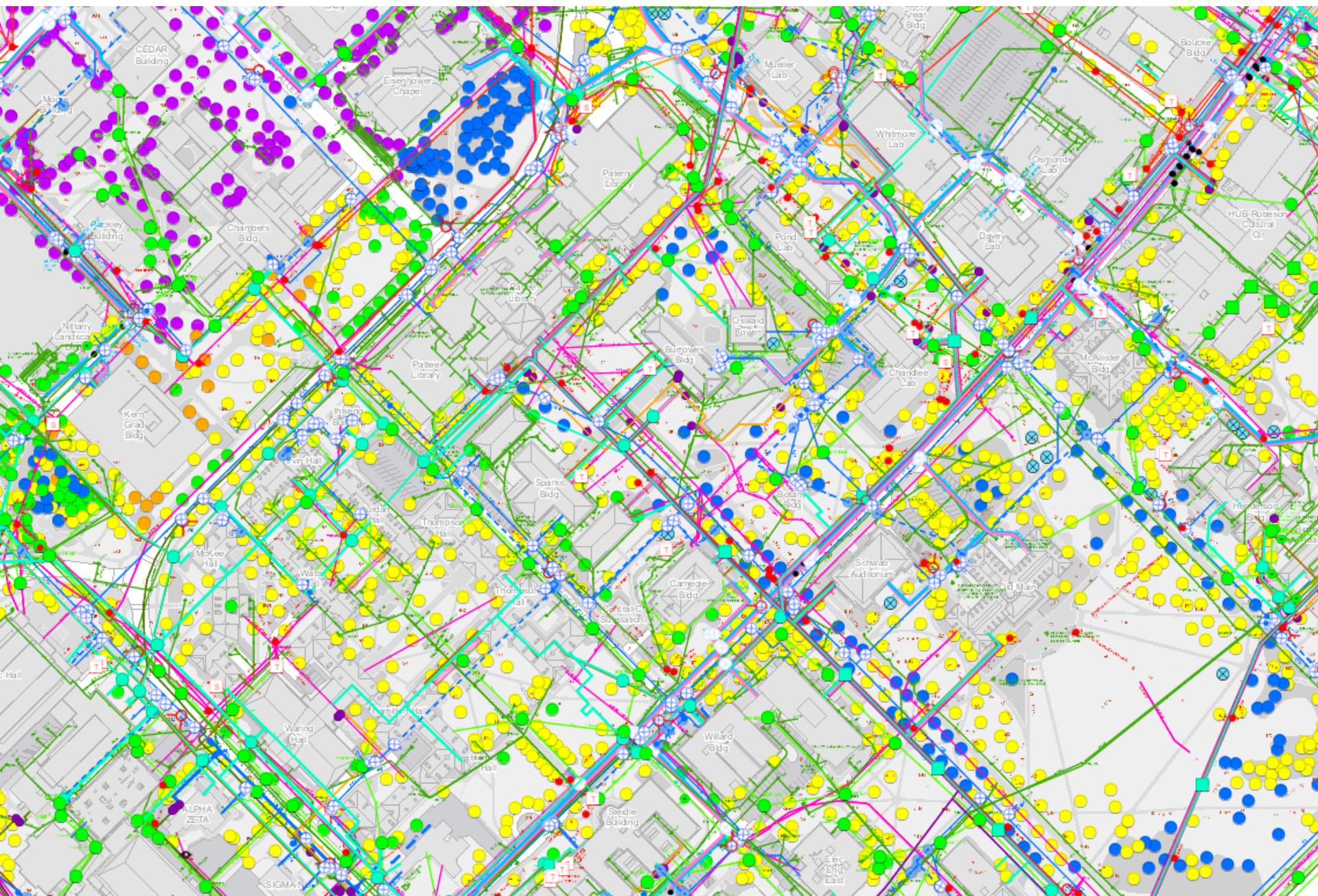


John Hamilton, Professor of Agriculture Penn State College, November 1919









2.11 Tree Canopy/Tree Root Protection Zones

- **A. General**
- **1. Intent:**
 - **a. The Pennsylvania State University is committed to tree protection.**
 - **b. The tree canopy/tree root zones shall be protected during the entire construction process.**
 - **c. Tree trunks and branches shall not be damaged by equipment and/or workers and tree root protection zones shall be protected from soil compaction, damage by trenching or excessive grade changes, and hazardous materials or waste products.**

Soil Protection Zones

Soil protection areas outlined on the plan to not be disturbed shall be protected from unnecessary excavation, compacting, and/or spoiling during the entire construction process. Protection of these zones shall be by the placement of temporary fencing as outlined in Part B.1.b - Materials. (1) NO REMOVAL OF OR ENCROACHMENT INTO SOIL PROTECTION ENCLOSURES SHALL BE PERMITTED UNLESS COORDINATED WITH THE UNIVERSITY REPRESENTATIVE.

- c. The Contractor shall be responsible for the installation and maintenance of all soil protection fencing. Protective fencing shall remain undisturbed until all construction activities have been completed. The Contractor shall remove fencing upon completion of construction and approval by the University Representative. (1) If protective fencing is damaged, the Contractor shall immediately execute the necessary repairs to re-establish it back to its original configurations outlined on the Soil Protection Zone Plan.**

1. **Pre-Installation**
 - Tree Canopy/Root Zone Protection
 - Laydown areas and construction limit fencing
2. **Plant Material Acquisition and Delivery**
 - General plant material quality
 - Branch structure
 - Free from damage
 - True to specification (size / species / cultivar)
3. **Sub-Grade Inspection**
 - Scarified to specified depth
 - Removal of debris / trash and rocks over 2” any dimension
4. **Topsoil Placement Inspection**
 - Visual inspection of soil (free of adverse materials)
 - Meets topsoil specification
 - Depth/ and correct quantity
5. **Plant Material Post-Installation**
 - Planting height/depth – root collar
 - Removal of baskets and burlap
 - Plant spacing as per specification to meet the design intent
6. **Substantial Completion**
 - Verify any mortality of newly planted material
7. **Final Inspection**











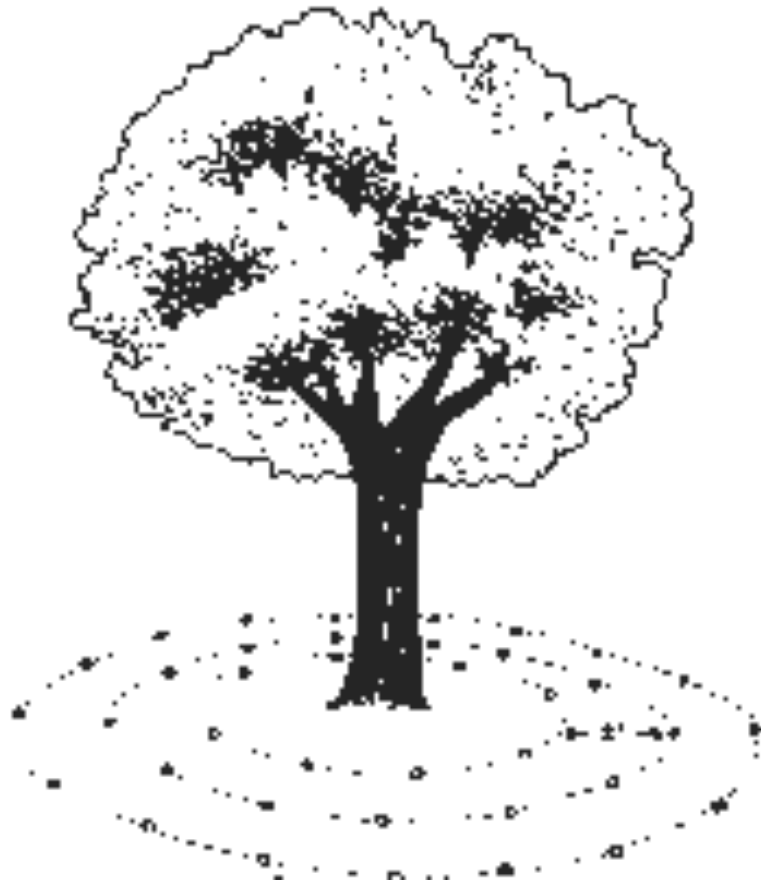








ROAD CLOSED
NO ACCESS TO
RITENOUR PARK



Tree Number	Species (Common Name)
A658	Willow Oak
Diameter (inches)	Species (Scientific Name)
30	Quercus phellos
Spread (feet)	Age
58	planted pre 1940
Height (feet)	Heritage
66	No

Estimated Value (as appraised
using guidelines from Council of Tree
and Landscape Appraisers)

\$7,483.92

**Critical Approach
Distance (Health)
(measured in feet)**

38

Tree Health / Condition
Rating (100 point scale)

63%

**Critical Approach
Distance (Structural)
(measured in feet)**

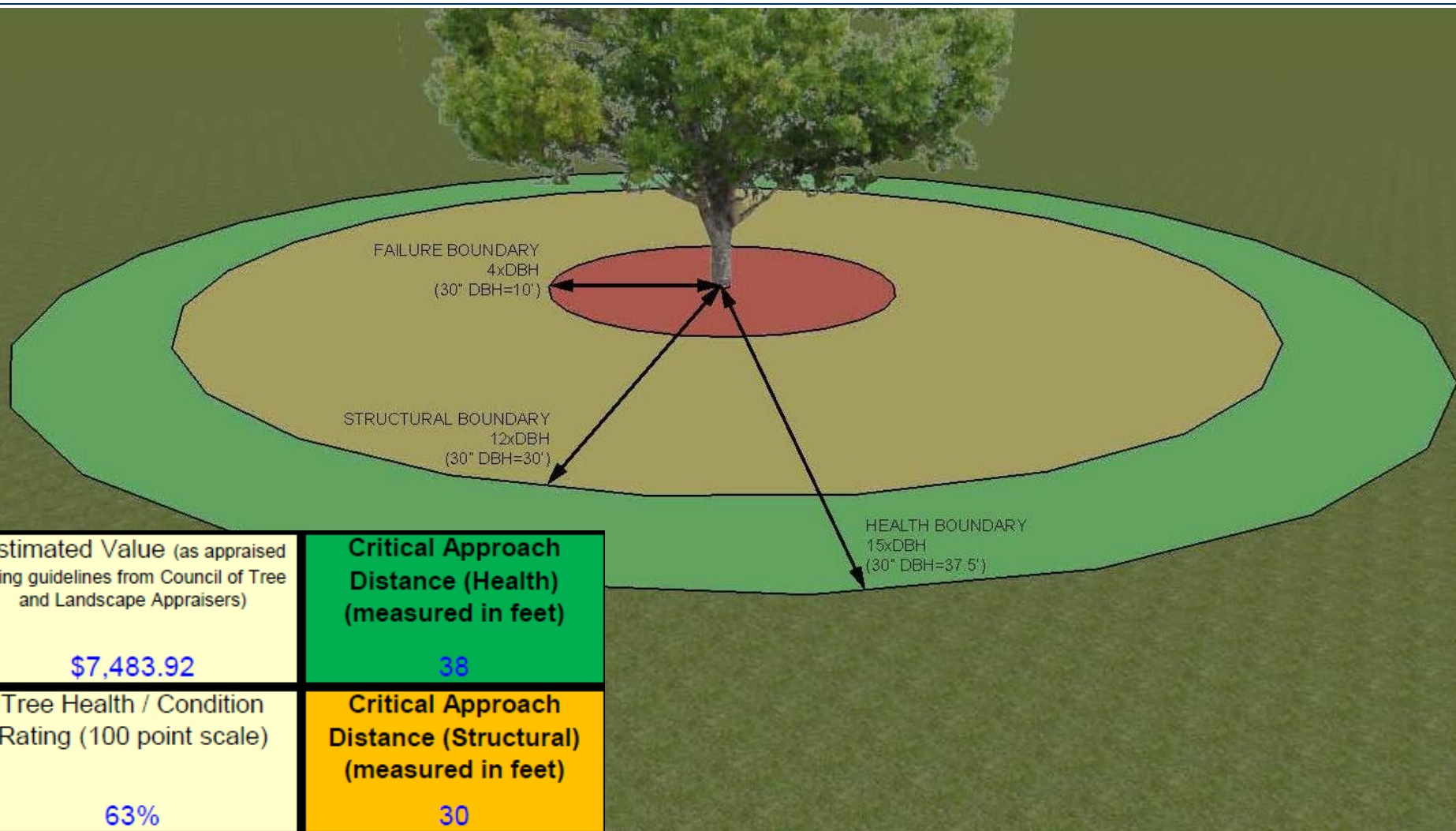
30

TRAQ Risk Assessment

Low

**Critical Approach
Distance (Failure)
(measured in feet)**

10

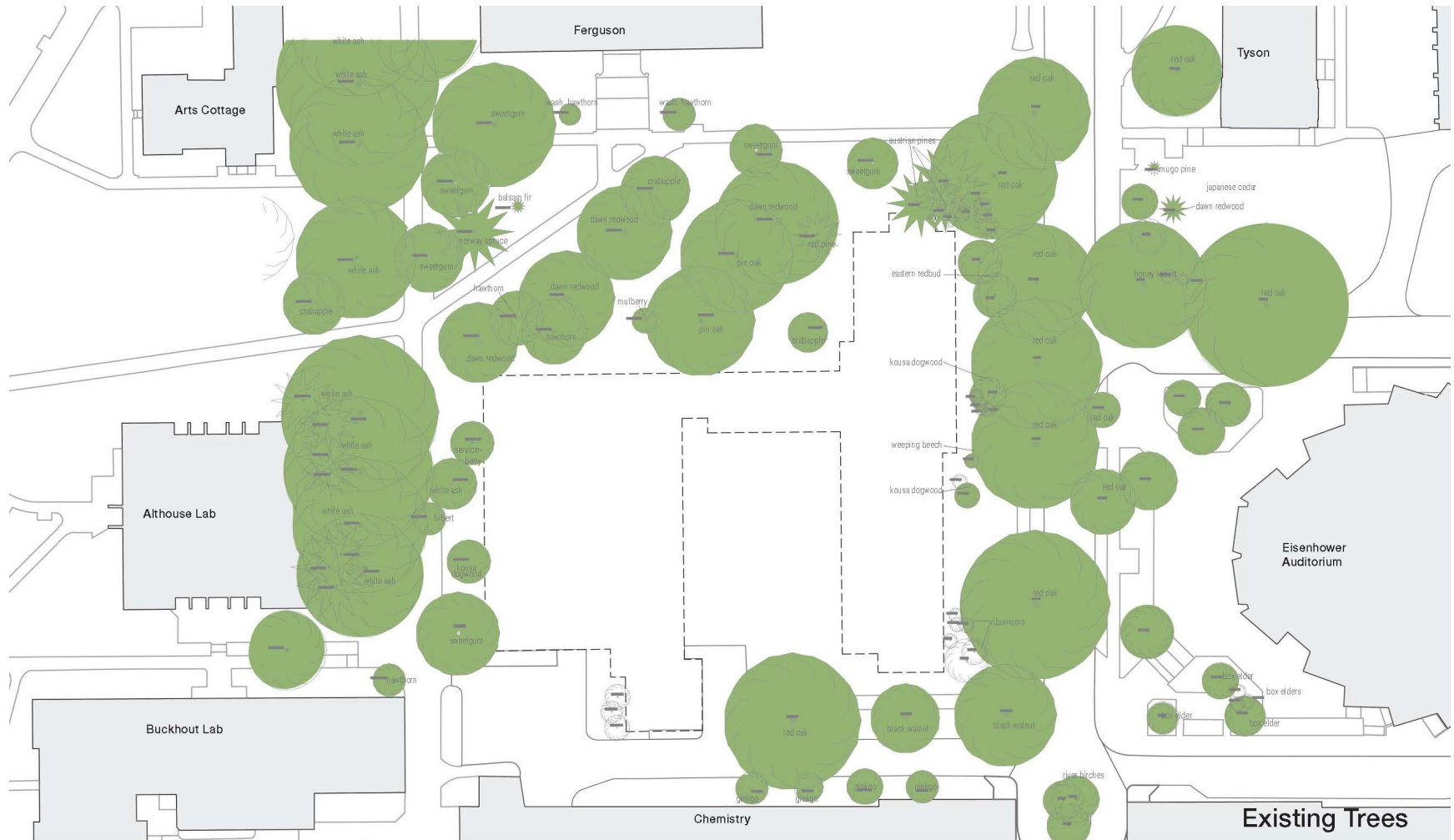


Tree Protection Process

1. Tree Inventory and Survey
2. Tree Assessment and Evaluation
3. Determine Approach Boundaries
4. Assess Potential Impacts
5. Determine Locations for Future Trees
6. Pre-Construction Site Inspection – Establish Tree Protection
7. Ongoing Site Inspections During Construction
8. Site Restoration Following Construction



Step #1: Tree Inventory & Survey – (Land Surveyor)

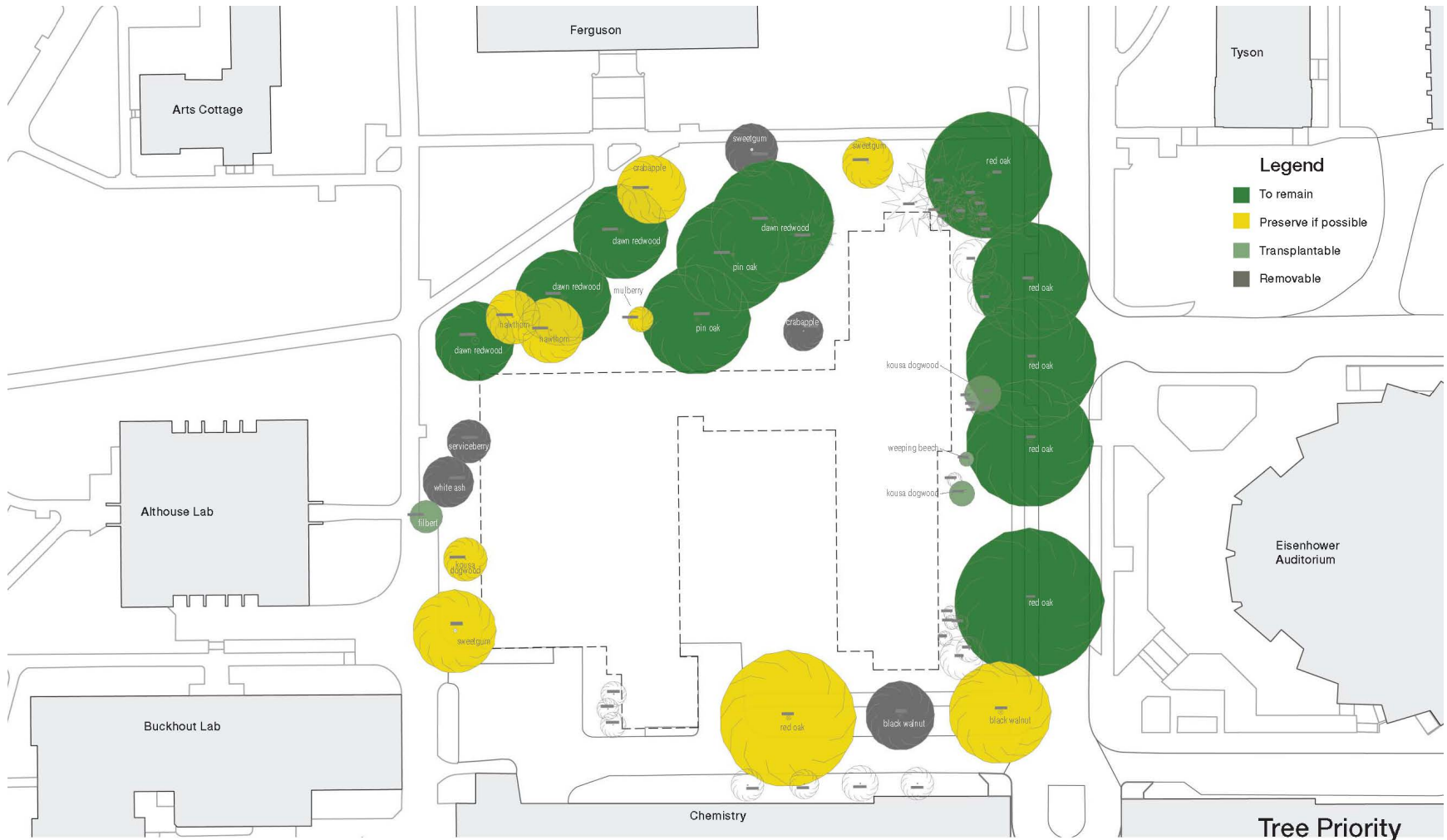


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Step #2: Tree Assessment and Evaluation – (Arborist)



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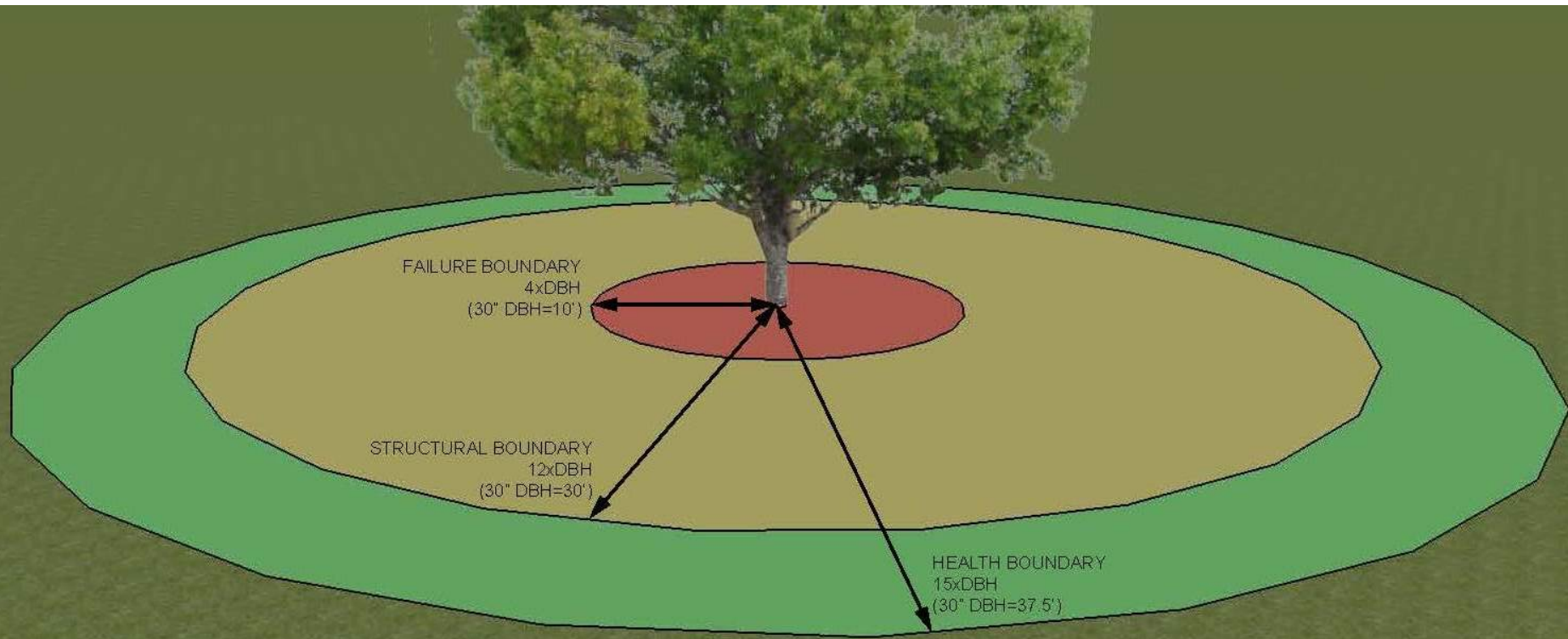
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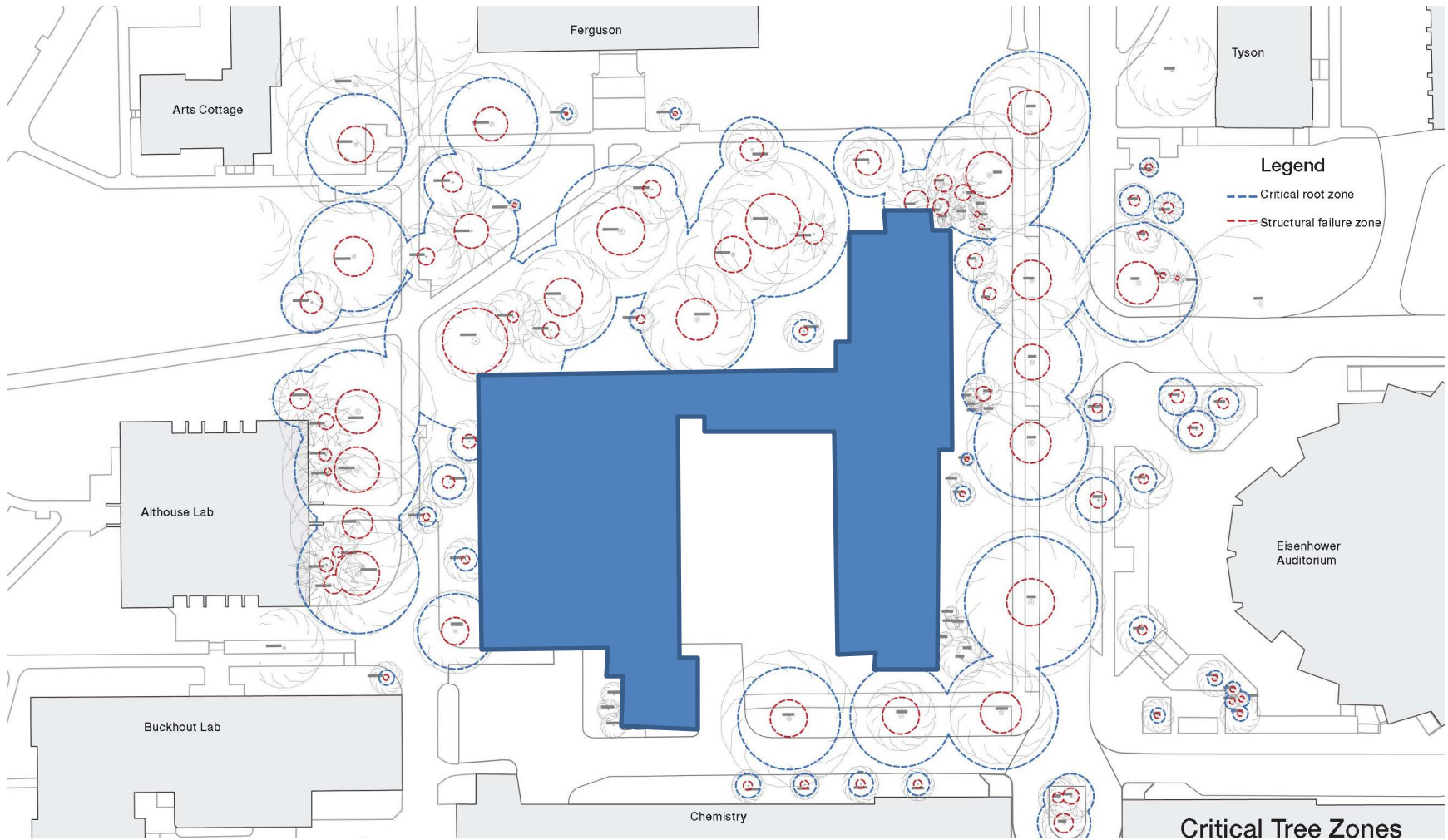
Step #2: Tree Assessment and Evaluation – (Arborist)



Step #3: Determine Approach Boundaries - (Arborist)



Step #3: Map Approach Boundaries – (Architect / Landscape Architect)



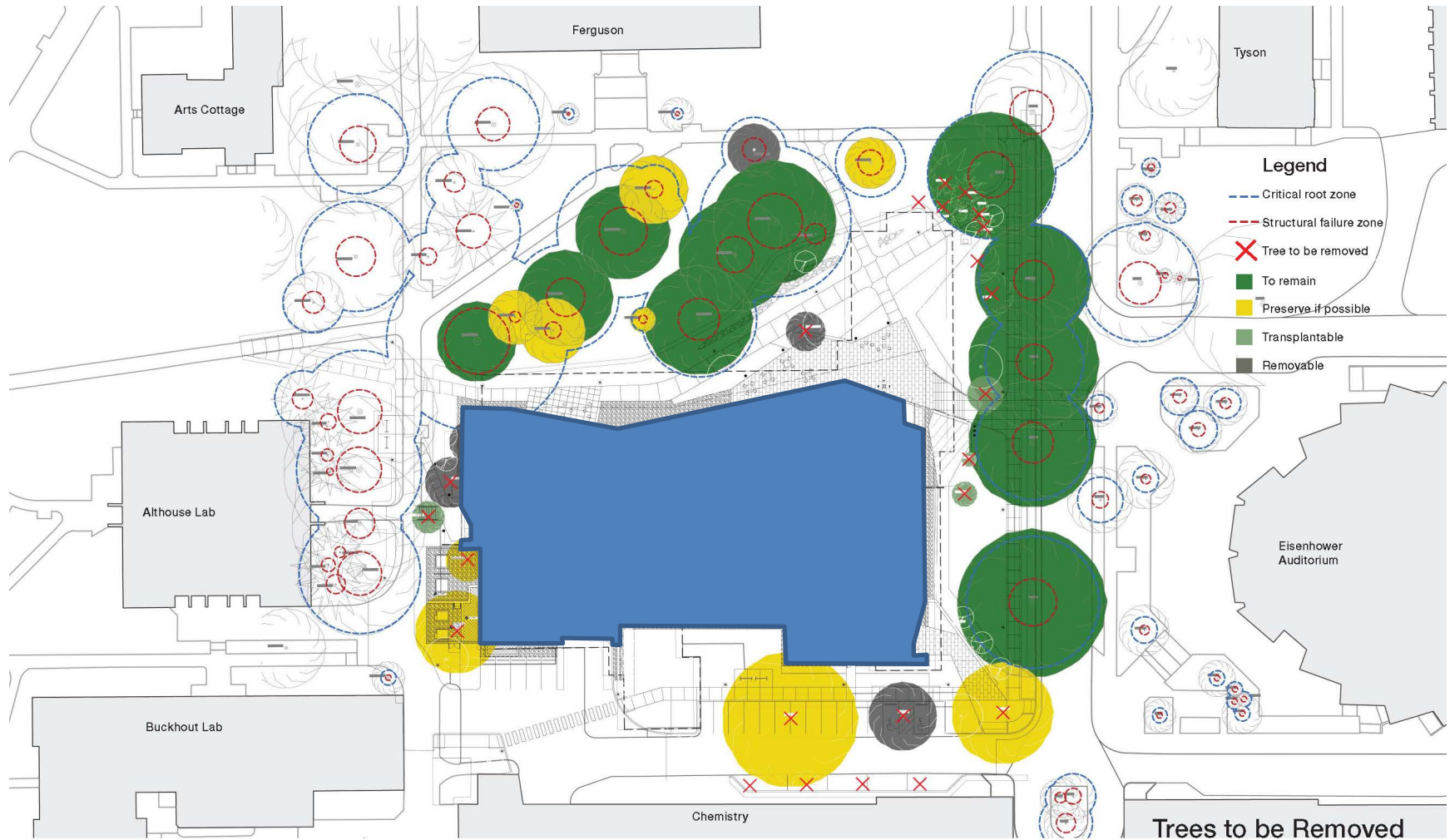
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Step #4: Assess Potential Impacts – Design Team



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Step #5: Determine Potential Locations for New Trees

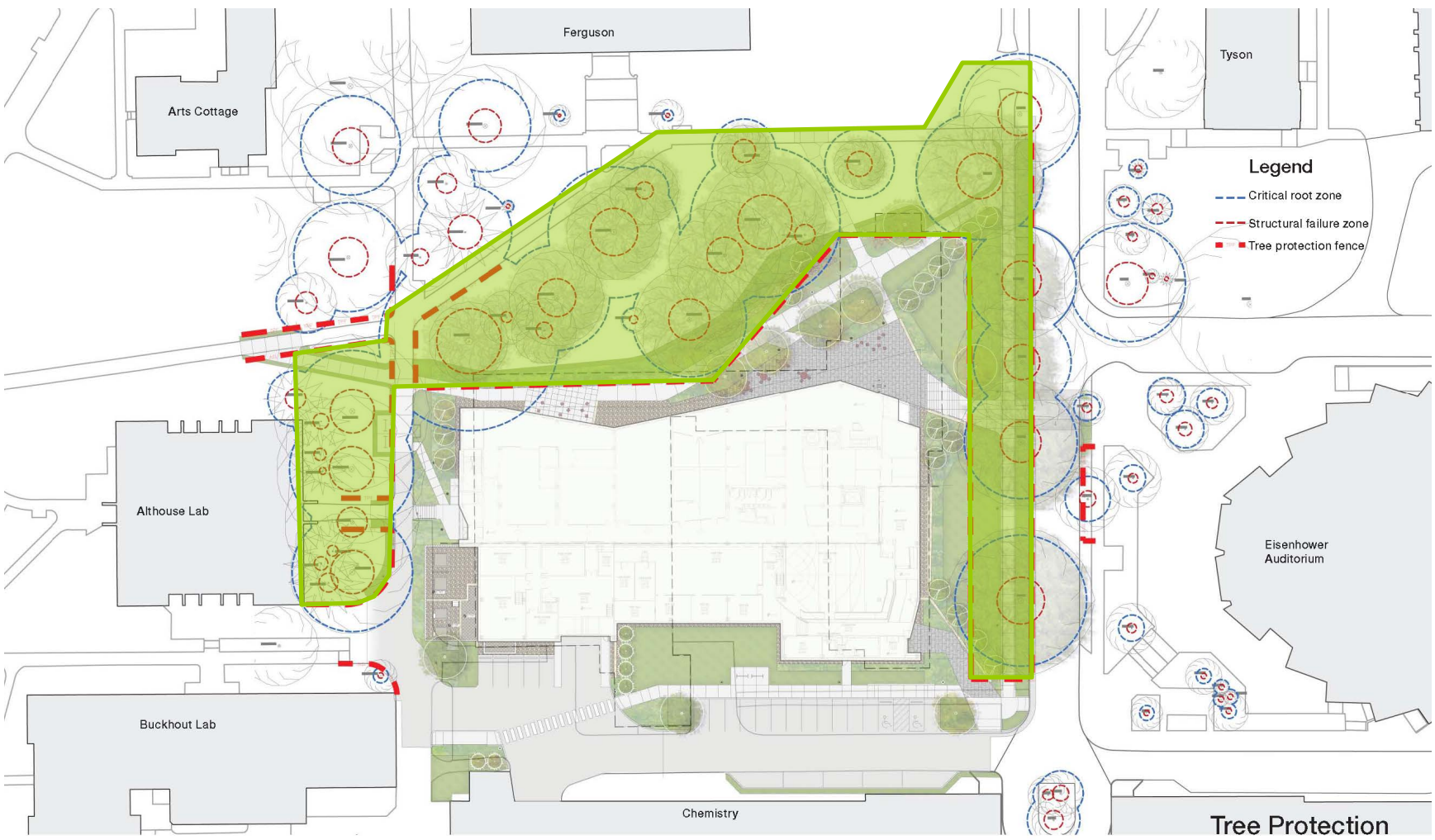


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Step #6: Project Review and Approval – University Tree Commission



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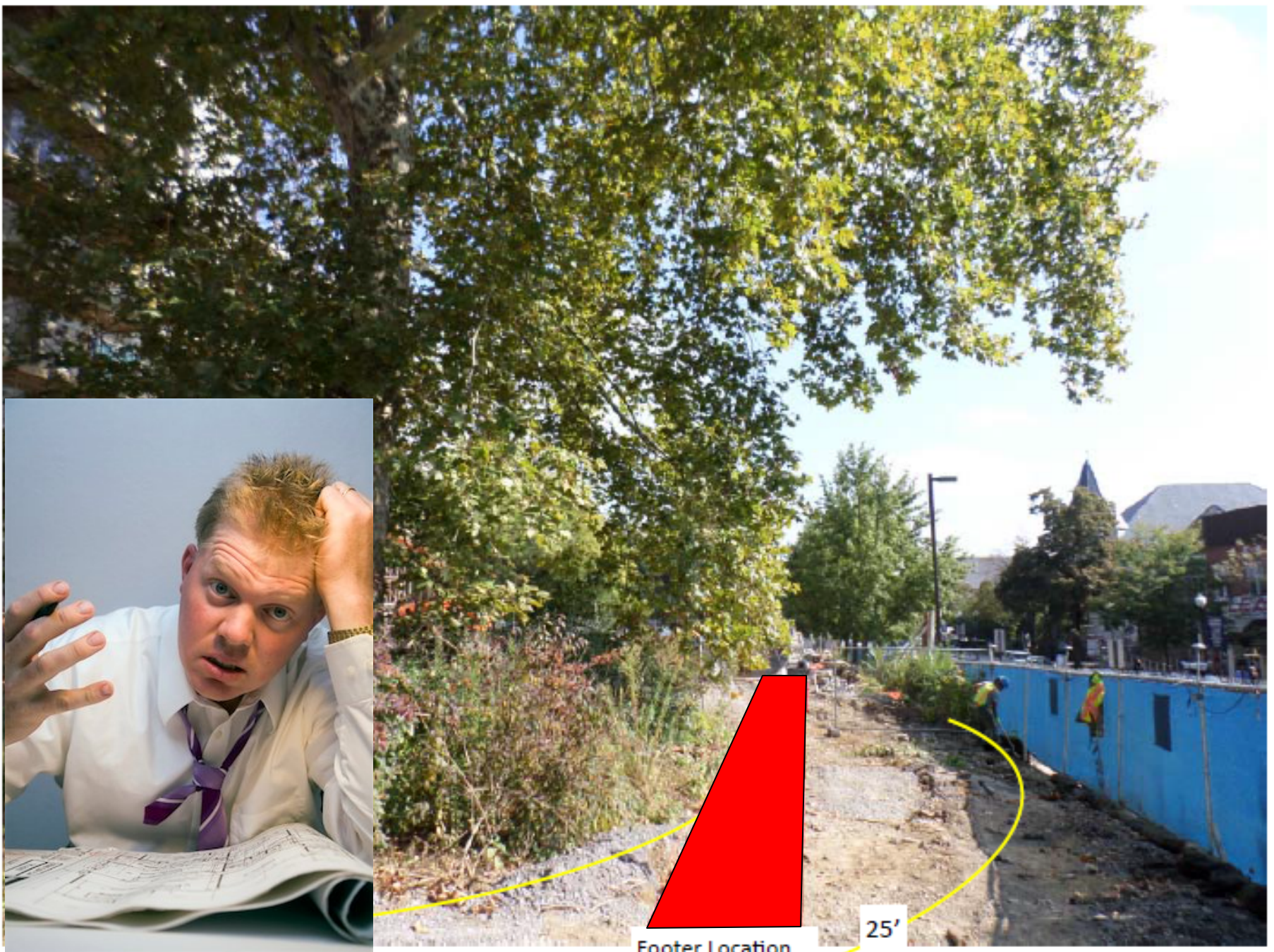




Tree Protection During Construction



Estimated Value (as appraised using guidelines from Council of Tree and Landscape Appraisers)	Critical Approach Distance (Health) (measured in feet)
\$27,561.92	59
Tree Health / Condition Rating (100 point scale)	Critical Approach Distance (Structural) (measured in feet)
79%	47
TRAQ Risk Assessment	Critical Approach Distance (Failure) (measured in feet)
Low	16
Commemorative	Elm Management Zone
No	No



Footer Location

25'







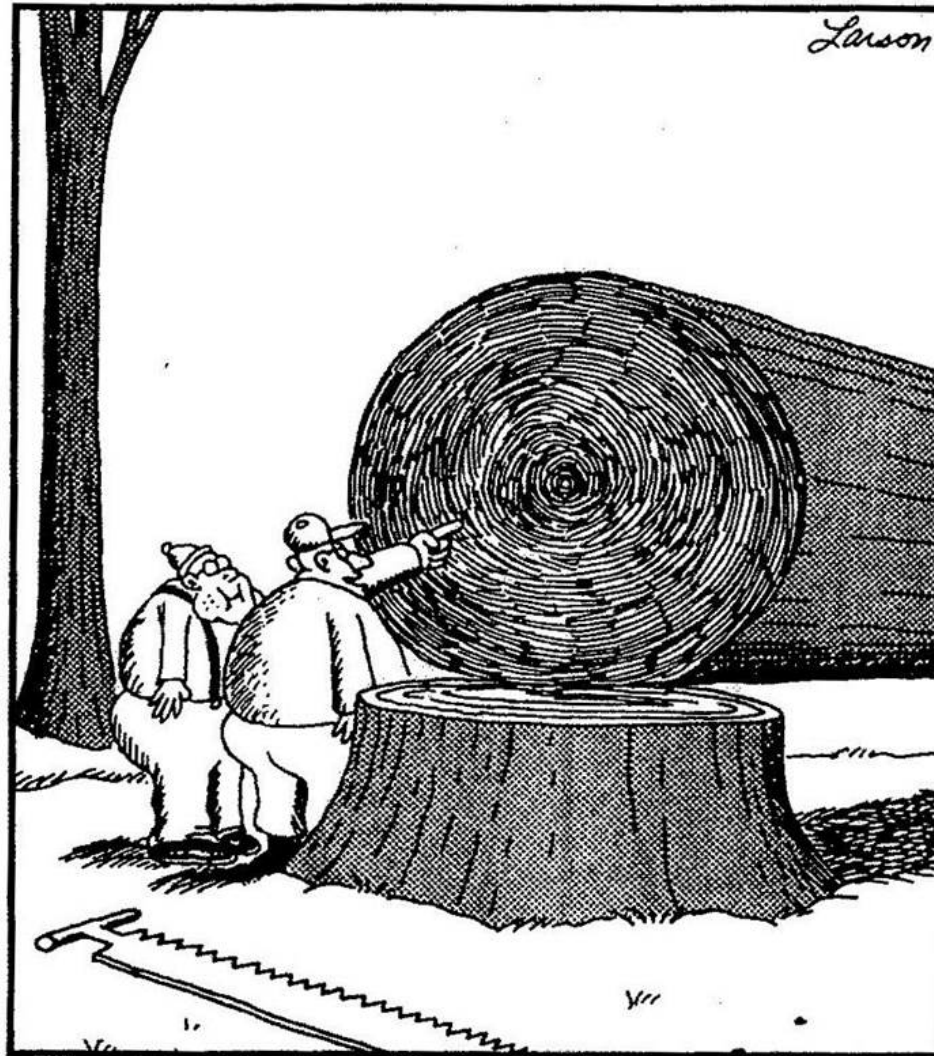
Tree Protection During Construction



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"And see this ring right here, Jimmy? ...
That's another time when the old fellow
miraculously survived the campus master plan."