DEC Lunch and Learn Series
Tree Ordinance 101

By Kay Evanovich, City Arborist

Certified Arborist# SO-4155A

Tree Risk Assessment Qualified

City of Decatur®

Overview

- Tree permits
- Tree ratings guide and sheets
- Canopy calculations
- Plan examples

9.1.16 Plans and Permits

A. The following table lists plan and permit requirements by property type and activity. In the event of ambiguity or inconsistency between the table and other parts of this Section, the provision that results in the greatest protection of trees shall apply.

Permits Requirement Guide

Property Type (Zoning Districts)	Activity	Plan/Permit Requirements
Commercial, High Density Residential and Institutional	**Tree Removal**	• Tree Conservation Plan • Tree Removal Permit • Canopy Loss Fee
(RS-17, RM-18, RM-22, RM-43, PO, C-1, C-2, C-3, MU, NMU, I)	**Disturbance of up to 20% or more of critical root zone** *Project increases impervious cover or gross floor area or proposes underground utility lines or pipes.*	• Tree Conservation Plan • Land Disturbance Permit or Building Permit • Arboricultural Tree Prescription
	No Tree Impact *Project increases impervious cover or gross floor or proposes underground utility lines or pipes*	• No Tree Impact Statement

if you want to do

Residential (R-85, R-60, R-50) If you wish to do	**Tree Removal** *1. Untreatably diseased or dead trees.* *2. Trees at moderate or higher risk of failure with a target present and such risk cannot otherwise be mitigated to an acceptable level as determined by the property owner.* *3. Trees at a high to extreme risk of failure that cannot otherwise be mitigated.*	• No net loss tree planting required
	Tree Removal *Project increases impervious cover or gross floor area or proposes underground utility lines or pipes*	• Tree Removal Permit • Canopy Loss Fee • Tree Conservation Plan • Land Disturbance Permit or Building Permit if applicable • No net loss tree planting required
	Disturbance of up to 20% or more of critical root zone *Project increases impervious cover or gross floor area or proposes underground utility lines or pipes*	• Tree Conservation Plan • Land Disturbance Permit or Building Permit • Arboricultural Tree Prescription
	No Tree Impact	• No Tree Impact Statement

you must provide

you must provide all of this information

Tree Removal Permits

- A Tree Removal Permit is required for any removal or disturbance of a protected tree located on all public and private properties for which a Building Permit or Land Disturbance Permit is or is not required. Tree planting required to achieve no net loss of canopy.

- Protected tree. Any tree that is 6 inches DBH or greater that is structurally sound; any tree that has been planted or conserved to comply with this Section regardless of size, any tree planted on public or private property using Tree Bank funds and any tree planted pursuant to Sec. 9.1.9. Trees listed on the GA EPPC Invasive Species List, Category 1shall not be considered protected trees (https://www.gaeppc.org/list/)

2) Tree Removal Permit

a. A Tree Removal Permit is required for any removal or disturbance of a protected tree located on all public and private properties for which a Building Permit or Land Disturbance Permit is not required. Such tree shall be untreatably diseased, dead or at moderate or higher risk of failure with a target present and such risk cannot otherwise be mitigated to an acceptable level as determined by the property owner or to have a high to extreme risk of failure that cannot otherwise be mitigated.

b. Tree planting required to achieve no net loss of canopy.

c. A Tree Removal Permit application shall include, at minimum:

   (1) Size of all impacted trees including canopy coverage utilizing the canopy measurement methodology in Sec. 9.1.4 and DBH.

   (2) A tree replanting plan that shall result in no net loss of canopy on the site.

   (3) A description of the need for tree removal.

d. The amount of tree canopy cover removed from the site shall be replaced on site by trees of comparable or greater mature canopy size and species quality to maintain no net loss of tree canopy cover.

please note

e. A Tree Removal Permit application must be prepared by a Certified Arborist.

DDH Tree Removal permit

- **Dead, Diseased or Hazardous Tree (DDH).** A tree that is dead, untreatably diseased or infested, has a moderate or higher risk of failure with a target present, or has high to extreme risk of failure that cannot be mitigated. A Tree Risk Assessment Form completed by a Certified Arborist is required
- Upon receiving a complete application an inspection will be scheduled for the Arborist to complete the inspection of your tree(s) within five business days. During periods of heavy volume, turnaround time may be longer. Applications will be processed in the order in which they were received.
- A meeting with the property owner is not required but access to property will be required.
- Upon completion of the inspection, the Arborist will approve, deny, or require additional information on the tree(s).
- If tree(s) are denied for removal, you may file an appeal to the UDO Administrator. To file an appeal, contact John Maximuk at John.maximuk@decaturga.com

Tree Removal Permit

Only for sites increasing square footage or commercial sites

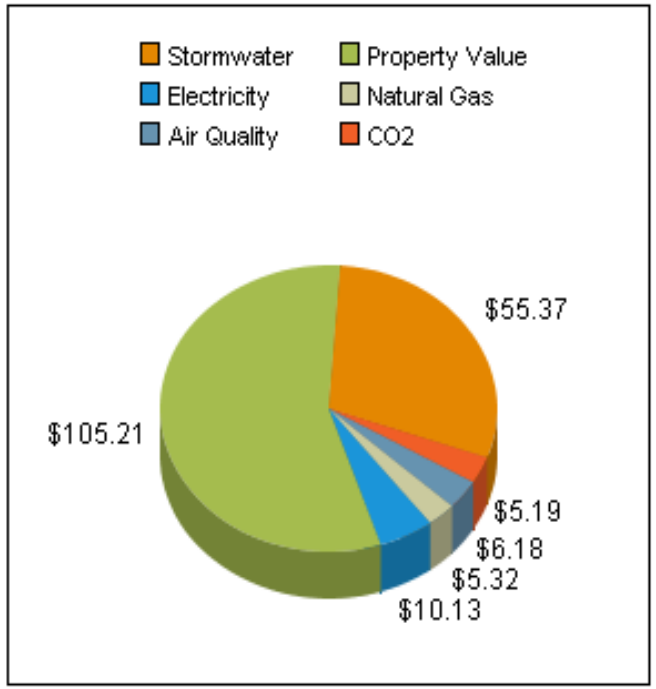
- PROCEDURE TO REQUEST INSPECTION FOR A TREE REMOVAL PERMIT
- Submit a completed application, for tree removal
  - Online through: Community Core began on 3-31-22
  - Print and submit to Permit intake
  - * A Canopy loss fee will be assessed and is based on the amount of yearly tree benefit lost per Fair or higher rated tree removed. Please visit the National Tree Benefit calculator at: https://www.arborday.org/calculator/ to determine the monetary amount. Then use the following formula: $____.__ yearly benefit amount, times 5 years = $___.__ that amount shall be paid to the tree bank.
- A 50% Reduction in canopy loss fees is allowed on commercial and residential properties if the site design includes rooftop solar voltaic panels or green infrastructure practices and no additional trees are removed to install them.

Home Calculate another tree

National Tree Benefit Calculator

Beta

Overal Benefits | Storm Water | Property Value | Energy | Air Quality | CO2 | About the Model



Breakdown of your tree's benefits
Click on one of the tabs above for more detail

This **20 inch White oak** provides overall benefits of: $187 every year.

While some functional benefits of trees are well documented, others are difficult to quantify (e.g., human social and communal health). Trees' specific geography, climate, and interactions with humans and infrastructure is highly variable and makes precise calculations that much more difficult. Given these complexities, the results presented here should be considered initial approximations—a general accounting of the benefits produced by urban street-side plantings.

Benefits of trees do not account for the costs associated with trees' long-term care and maintenance.

If this tree is cared for and grows to 25 inches, it will provide $251 in annual benefits.

White oak
Quercus alba

Tree Rating Guide

The zone 7 species rating list is not the approved planting list for the City of Decatur (see section III. for Tree Species List). The Tree Rating Guide is to be used by Certified Arborists or Registered Foresters only. They should rate trees based on species rating, which includes the species rating guide, condition, and yearly benefit amount which utilizes size. The Arborist or Forester should also assess the sites trees and their existing soils. Then a determination is made that the trees are:

	Poor	Fair	Good	High
Zone 7 Rating:				
Overstory:	0-49	50-64	65-80	81-100
Understory:	0-15	16-35	36-55	56-100
Condition:	uncorrectable major defects	correctable defects	minor correctable defects	no known defects

Yearly Benefits:				
Overstory	$0.00-70.00	$71.00- 165.00	$166.00-186.00	$187.00 or more
Understory	$0.00-10.00	$11.00- 14.00	$15.00-20.00	$21.00 or more

Zone 7 tree ratings are an assigned value based on all the landscape merits of a landscape tree species and its accompanying potential for problems. It is a comparative value given to the tree based upon its individual characteristics. The rating numbers given on the guide can be increased for healthy native low potential invasive trees with a long life expectancy. Those trees that provide the most benefit should also receive a higher rating. Please refer to the National Tree Benefit calculator south edition at:
https://www.arborday.org/calculator/index.cfm

Condition of the tree is a subjective determination made by the appraiser during the inspection. It is an assessment of the tree's structural integrity and health at the time of appraisal. Thought should be given to rooting, branching, health and vigor, any damage or wounds, and evidence of pest infestation. Please use the I.S.A. Basic Tree Risk Assessment Form to provide detailed information concerning trees with target impacts and moderate or high risk without ability to reduce the risk to an acceptable level and for extreme or imminent risk trees.

Size of the tree is measured using common tools and industry standards. A diameter tape or tape measure can be used to measure trunk size, and is typically recorded as the diameter at 4.5 feet above grade, or diameter at breast height. Canopy square footage can be determined using guide in section V. pages 4-6

Tree Ratings Sheet

Tree Rating Guide Sheet

City of Decatur

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Tree #	Species	DBH	Canopy sqft#	Rating

Forms available at https://www.decaturga.com/dec/page/tree-information

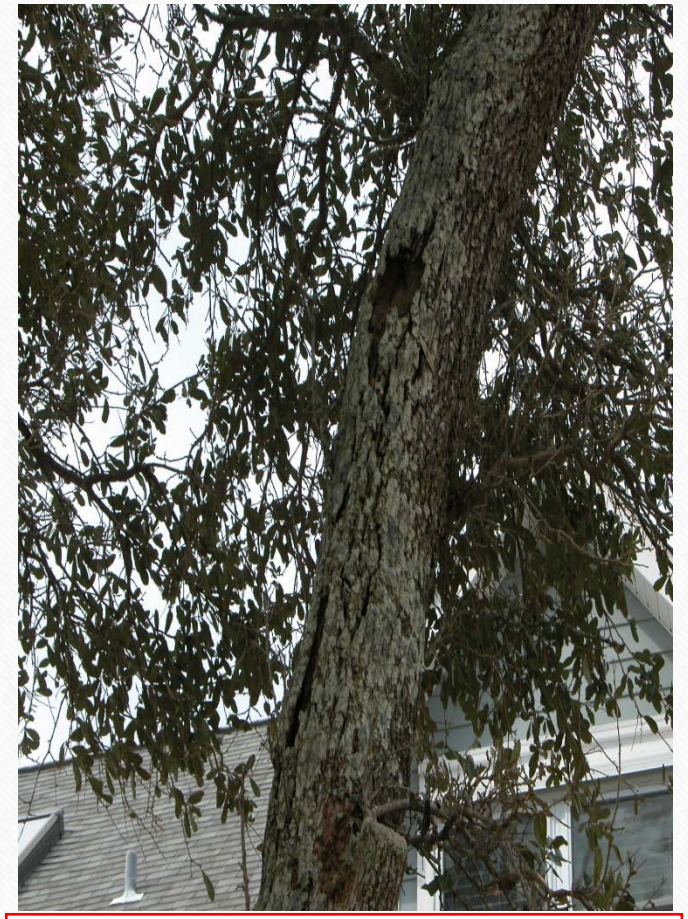
Tree Rating Guide Examples

***Example #1**: 24" White Oak, Overstory tree rating is 99, It has minor correctable defects, Natl benefits calculator: **24 inch White oak** provides overall benefits of: $238 every year.*
*The soils are natural existing and it is mulched, therefore the tree would receive a **High** rating. The same tree and soils with uncorrectable major defects, and a moderate Tree risk rating (target present) would make this a **Poor** tree. The same tree with limited poor soils, with correctable defects could be **Fair** if prescription is received for correction of defects, could be **Good** with added soils remediation.*

***Example #2**: 10" Redbud, Understory tree rating is 67, It has minor correctable defects, Natl benefits calculator: This **10 inch Eastern redbud** provides overall benefits of: $25 every year.*
*The soils are natural existing and it is mulched, therefore the tree would receive a **High** rating.*
*The same tree and soils with uncorrectable major defects would make this a **Poor** tree, with correctable defects it could be a **Good** tree with a prescription for pruning.*
*The same tree with limited poor soils, with correctable defects could be **Fair** if prescription received for correction of defects, could be **Good** with added soil remediation as well.*

Watch out for the following conditions

Ambrosia beetle infestation "toothpicks

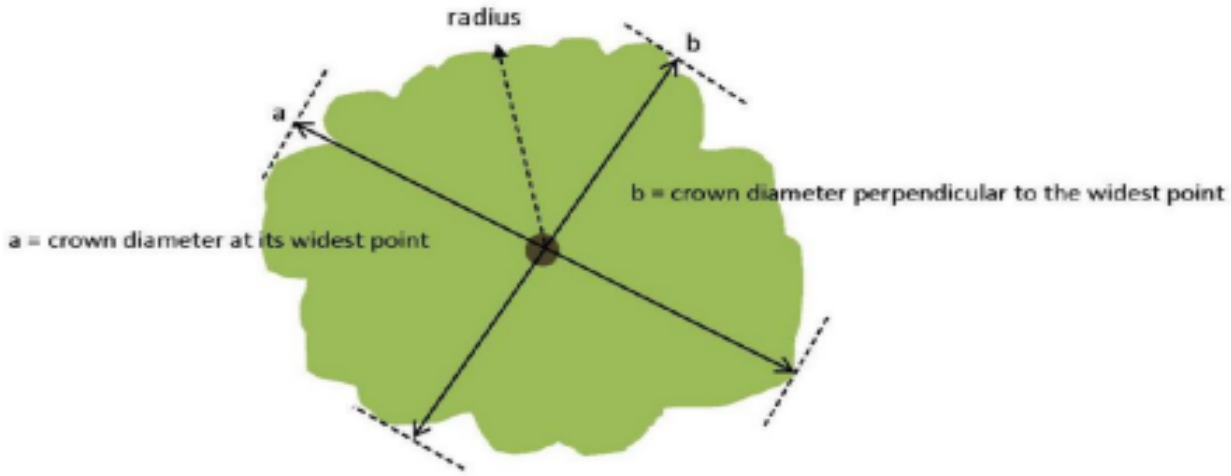


Cracks appear as dark jagged lines in trunks after storms

Heart rot and root rot decay fungus "conks or mushrooms which indicate internal structural strength loss and create high risk trees to people and structures

Canopy Calculations

- Always measured in Square Feet
- Will require canopy cover for: existing, remaining, removed, and proposed canopy
- All Residentially zoned R-85, R-60, and R-50 parcels must achieve 60% canopy cover over the parcel
- All Commercial, High Density Residential, and Institutional parcels must achieve 45% Canopy over the parcel



CALCULATING TREE CANOPY COVER

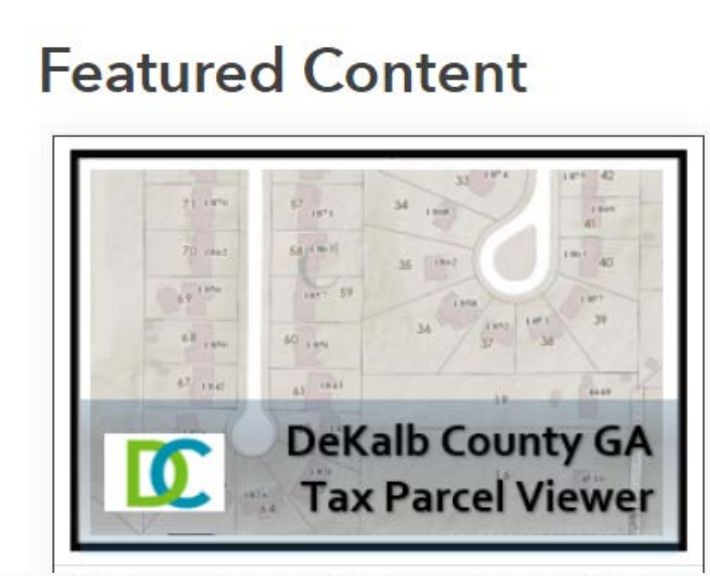
1. Measure the diameter of the crown at its widest point in feet (a).
2. Measure the diameter of the crown perpendicular to its widest point in feet (b).
3. Add those two diameters together, divide by 2 to get the average diameter.
4. Divide the average diameter by 2 to get the average radius.
5. Square the radius (r) and multiply by *pi* (a constant of 3.14) to get the canopy cover in square feet.

For example, if (a) is 65 feet and (b) is 55 feet, then:
65 feet + 55 feet = 120 feet, 120 feet/2 = 60 foot average diameter
60 feet/2 = 30 foot average radius
30 feet x 30 feet x 3.14 = 2,826 square feet

You can also calculate the square foot area of a tree's crown using the city's GIS mapping tool, OneMap Decatur.

GIS Canopy calculation sites

Either of these sites allow you to see an satellite image of your property and use a ruler tool to determine canopy cover



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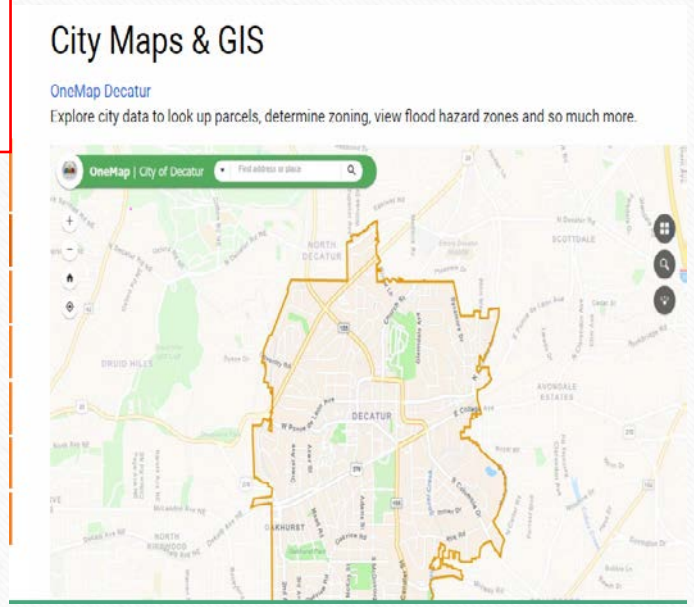

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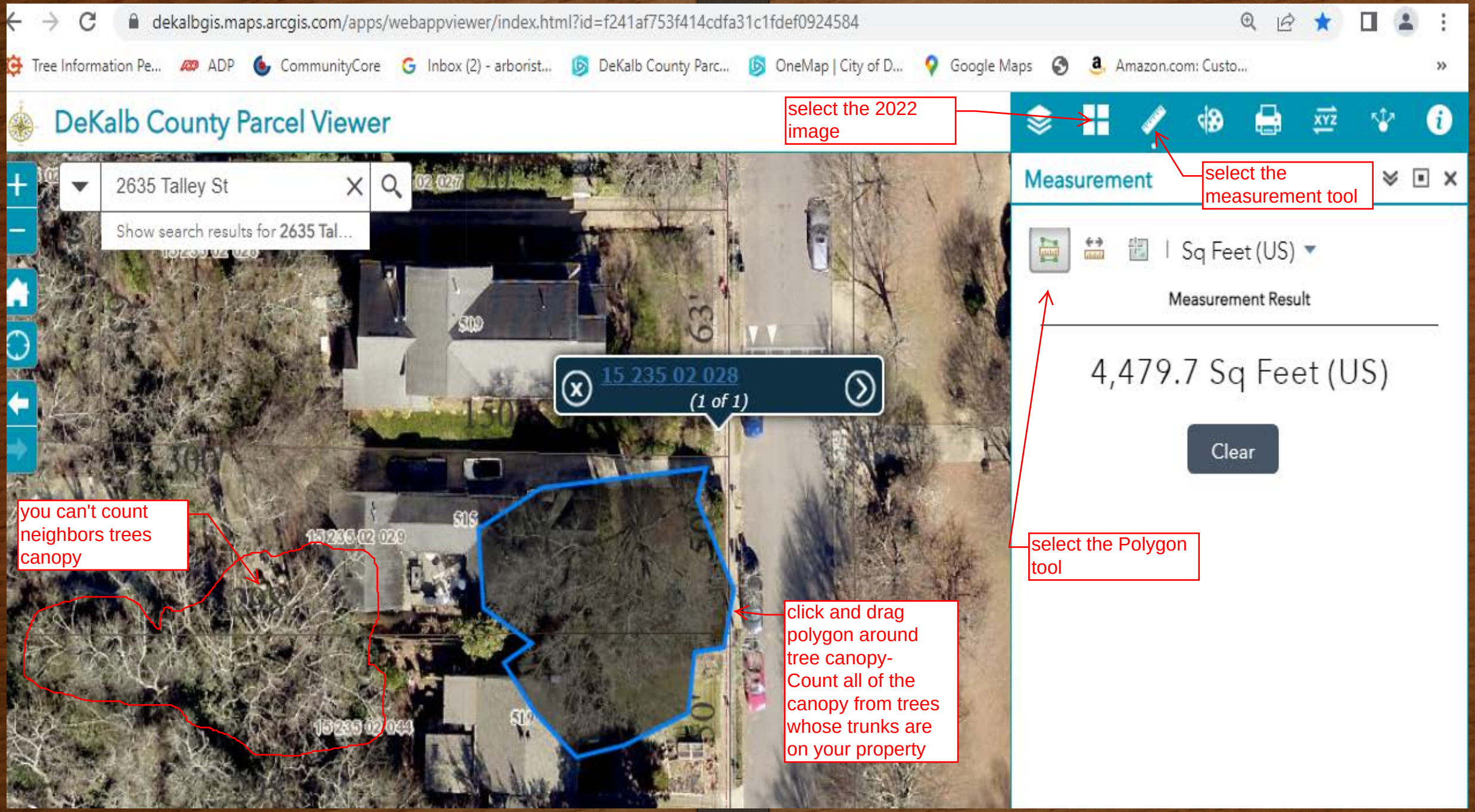

dekalbgis.maps.arcgis.com/apps/webappviewer/index.html?id=f241af753f414cdfa31c1fdef0924584
Tree Information Pe...
ADP
CommunityCore
Inbox (2) - arborist...
DeKalb County Parc...
OneMap | City of D...
Google Maps
Amazon.com: Custo...
DeKalb County Parcel Viewer
select the 2022 image
2635 Talley St
Show search results for 2635 Tal...
Measurement
select the measurement tool
Sq Feet (US)
Measurement Result
4,479.7 Sq Feet (US)
Clear
15 235 02 028
(1 of 1)
you can't count neighbors trees canopy
select the Polygon tool
click and drag polygon around tree canopy- Count all of the canopy from trees whose trunks are on your property

Example plan Demolition

Arborist Report - Pre-Construction Canopy

Tree #	Species	DBH"	Rating	Mitigation	Canopy	CRZ' Dia.	Notes
1	Water Oak	36	Fair	Ivy	1850 sf	90	Cavity, vines to be removed
2	Water Oak	30	Fair	Ivy	1550 sf	76	Ganodaderma, vines
3	White Ash	7	Good	Ivy	250 sf	18	Vines to be removed
4	White Oak	25	Fair	Good	700 sf	62	
5	White Oak	37	Poor	Fair	2500 sf	92	With mitigation
6	American Elm	22	Fair	Fair	275 sf	56	Tree on property line - 1/2 canopy credit
7	White Oak	30	Poor	Poor	2800 sf	76	Mallet negative, crack, high risk
8	White Oak	31	Poor	Poor	1500 sf	78	No mitigation, high risk
9	White Oak	34	Good	Good	0 sf	86	Boundary tree - no canopy credit
10	Mockernut Hickory	9	Good	Good	225 sf	23	
11	Mockernut Hickory	8	Good	Good	225 sf	20	

11,875 sf Total Pre-Construction Canopy

7,575 sf Total Pre-Construction Canopy Rated Fair or Better

11,111 sf Lot Size

68% Pre-Construction Canopy % Rated Fair or Better

Tree Canopy Requirements

6,666 sf **Min. Canopy Cover Required**
60% of the lot area

5,681 sf **Min. Existing Canopy Required to be Saved**
No less than 75% of the existing tree canopy cover from trees in fair or better-rated condition shall be conserved

4,300 sf **No Net Loss of Existing Trees Requirement**
Add up the canopy sf of all existing trees removed (#7, #8)

Concept - Demolition

Concept - Existing Canopy Saved

Tree #	Species	% Net CRZ Impacted	Canopy
1	Water Oak	0%	1850 sf
2	Water Oak	0%	1550 sf
3	White Ash	0%	250 sf
4	White Oak	0%	700 sf
5	White Oak	0%	2500 sf
6	American elm	0%	275 sf
10	Mockernut Hickory	0%	225 sf
11	Mockernut Hickory	0%	225 sf
		Total	7,575 sf

Concept - Proposed Canopy Replaced

Qty.	Tree Size	Proposed Canopy
2	Large	1,600 sf (800 sf/ea)
1	Medium	585 sf/ea

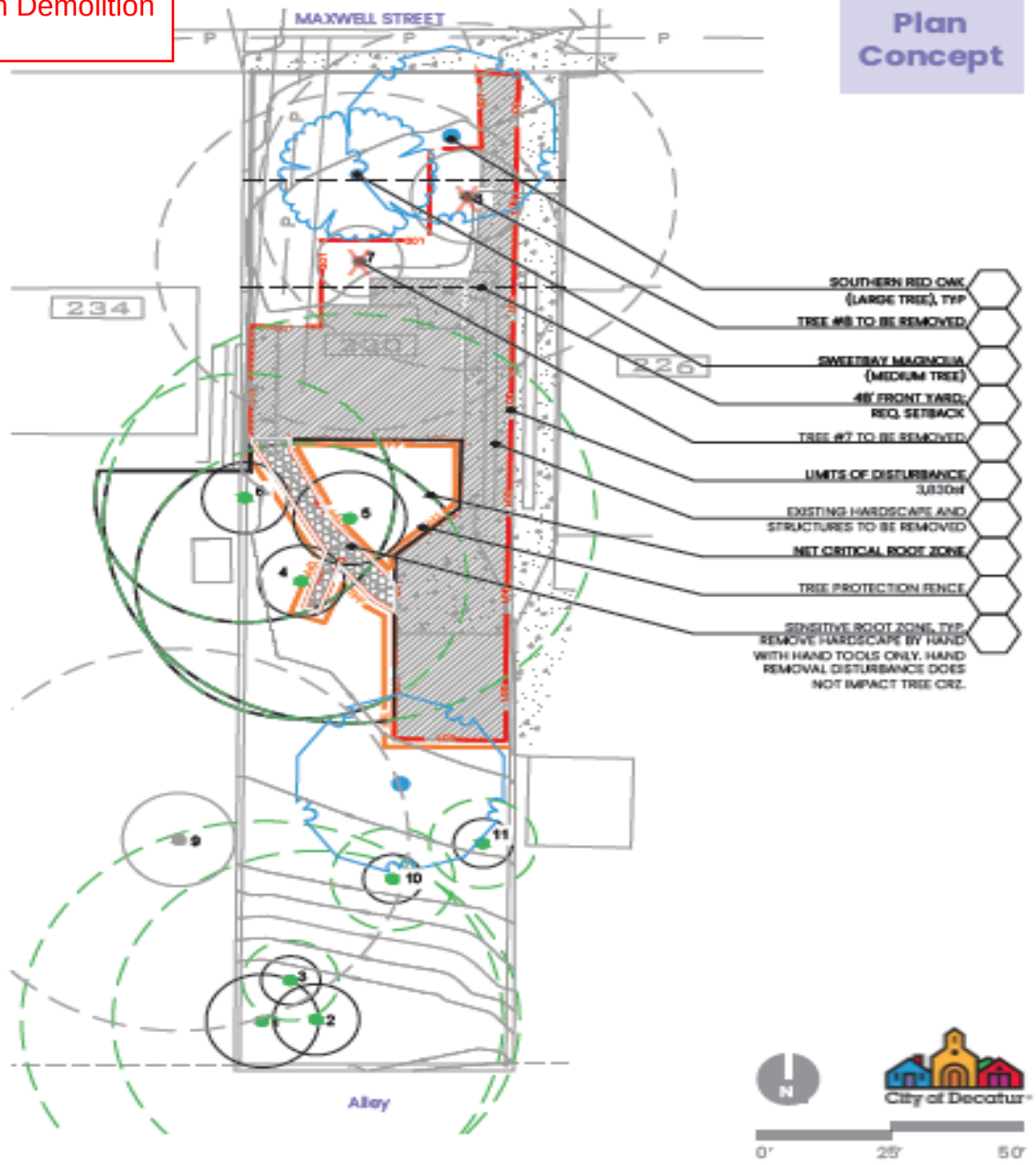
Post-Construction Canopy Calculations

7,575 sf **Total Existing Canopy Saved**

2,185 sf **Total Proposed Canopy Replaced**
To meet min. 50% no net loss requirements on site. Remaining no net loss canopy replacement handled off-site.

9,760 sf **Total Post-Construction Canopy On-Site**

2,115 sf **No Net Loss Replacement Off-Site**



Example plan new Build

Arborist Report - Pre-Construction Canopy

Tree#	Species	DBH"	Rating	Mitigation	Canopy	CRZ' Dia.	Notes
1	Water Oak	36	Fair	Ivy	1850 sf	90	Cavity, vines to be removed
2	Water Oak	30	Fair	Ivy	1550 sf	76	Ganoderma, vines
3	White Ash	7	Good	Ivy	250 sf	18	Vines to be removed
4	White Oak	25	Fair	Good	700 sf	62	
5	White Oak	37	Poor	Fair	2500 sf	92	With mitigation
6	American Elm	22	Fair	Fair	275 sf	56	Tree on property line - 1/2 canopy credit
7	White Oak	30	Poor	Poor	2800 sf	76	Mallet negative, crack, high risk
8	White Oak	31	Poor	Poor	1500 sf	78	No mitigation, high risk
9	White Oak	34	Good	Good	0 sf	86	Boundary tree - no canopy credit
10	Mockernut Hickory	9	Good	Good	225 sf	23	
11	Mockernut Hickory	8	Good	Good	225 sf	20	

11,875 sf Total Pre-Construction Canopy

7,575 sf Total Pre-Construction Canopy Rated Fair or Better

11,111 sf Lot Size

68% Pre-Construction Canopy % Rated Fair or Better

4,496 sf Total impervious area

Tree Canopy Requirements

6,666 sf **Min. Canopy Cover Required**
60% of the lot area

5,681 sf **Min. Existing Canopy Required to be Saved**
No less than 75% of the existing tree canopy cover from trees in fair or better-rated condition shall be conserved

4,525 sf **No Net Loss of Existing Trees Requirement**
Add up the canopy sf of all existing trees removed (#7, #8, #11)

Concept - New Construction

Concept - Existing Canopy Saved

Tree#	Species	% Net CRZ Impacted	Canopy
1	Water Oak	0%	1850 sf
2	Water Oak	0%	1550 sf
3	White Ash	0%	250 sf
4	White Oak	3.7%	700 sf
5	White Oak	4%	2500 sf
6	American elm	0%	275 sf
10	Mockernut Hickory	2.8%	225 sf
		Total	7,350 sf

Canopy loss fee of $260.00 to be paid to tree bank for loss of tree #11

Concept - Proposed Canopy Replaced

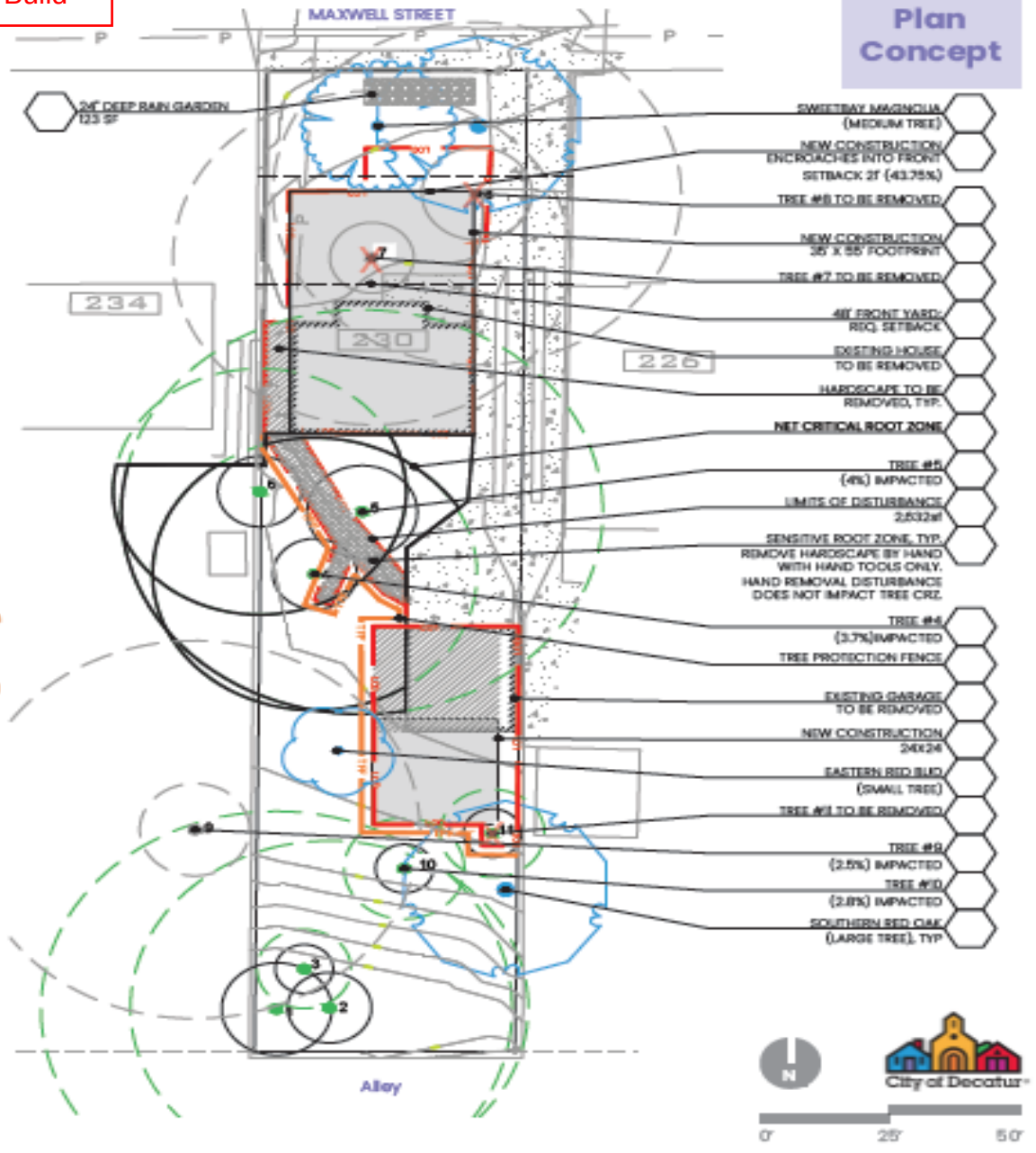
Qty.	Tree Size	Proposed Canopy
2	Large	1,600 sf (800 sf/ea)
1	Medium	585 sf
1	Small	320 sf

Post-Construction Canopy Calculations

7,350 sf **Total Existing Canopy Saved**
2,505 sf **Total Proposed Canopy Replaced**
To meet min. 50% no net loss requirements on-site. Remaining no net loss met via green infrastructure on-site.

9,855 sf **Total Post-Construction Canopy On-Site**

2,150 sf **Total Proposed Green Infrastructure**
rain garden implemented on-site



Questions?

Email: Tree Permits@decaturga.com

City Arborist: Kay Evanovich, Primary Duties Construction Tree plan review and pre-application meetings, enforcement, and all tree related programs
Arborist: India Woodson, Primary duties Tree permit program and site inspections and enforcement