

**CITY OF DELAWARE
SHADE TREE COMMISSION
MEETING TO BE HELD VIRTUALLY VIA CISCO Webex **
6:30 P.M.**

AGENDA

April 27, 2021

1. ROLL CALL
2. APPROVAL of the Motion Summary for the meeting held February 23, 2021, as recorded and transcribed.
3. PUBLIC COMMENTS
 - **JOIN VIRTUAL MEETING:** To provide live public comment please email emccloskey@delawareohio.net or call 740-203-1013 to sign up by 3 p.m. the date of the meeting. **Name and address are required for public comment.** Comments are limited to 3 minutes.
 - **EMAIL, LETTER, PETITION:** Emails, letters, and petitions received by 3 p.m. the date of the meeting will be presented to the Committee and submitted into the record. These items will not be read aloud during the meeting but will be available on the website following the meeting at the end of the next business day. **Name and address are required.**
 - **FACEBOOK:** Comments received on Facebook will not be presented during the meeting and will be addressed by staff subsequent to the meeting as appropriate.
4. ARBORIST REPORT
5. REVIEW of Draft Annual Report to Council
6. REVIEW of Urban Forestry Management Plan
7. STAFF COMMENTS
8. MEMBER COMMENTS
9. PLAN REVIEWS
 - A. Communities at Glenross – Section 14
10. INFORMAL REVIEW
 - A. United Dairy Farmers
 - B. Terra Alta Club House
 - C. Houk Road Development
 - D. Park View- Sections 1,2, 7 3
11. ADJOURNMENT

** This meeting will be a virtual meeting. Residents are encouraged to view online through the City of Delaware Facebook page. To comply with the CDC recommendation prohibiting group meetings, no in person attendance by Council, staff, or the public will be available.

SHADE TREE COMMISSION
February 23, 2021
MOTION SUMMARY

ITEM 1. Roll Call

Chairwoman Brewster called the virtual meeting to order at 6:33 p.m.

Members Virtually Present: Nathan Andears, Stan Eddy, Dave Carey, Becki Wood-Meek, Vice-Chairwoman Susan Wright and Chairwoman Shannon Brewster

Members Absent: Melissa Bargar, Tom Glissman, Grace Martin

Council Virtually Present: Drew Farrell, City Council Liaison

Staff Virtually Present: Ted Miller, Parks and Natural Resource Director and Casey McCarty, Arborist

Motion to Excuse: Chairwoman Brewster moved to excuse Ms. Bargar, Mr. Glissman, Ms. Martin, seconded by Ms. Wood-Meek. Motion approved with a 6-0 vote.

ITEM 2. APPROVAL OF MOTION SUMMARY of Shade Tree Commission meeting of November 17, 2020, as recorded and transcribed.
APPROVAL OF MOTION SUMMARY of the Shade Tree Commission meeting held on December 15, 2020, as recorded and transcribed.

Motion: Vice-Chairwoman Wright moved to approve the Motion Summary for the November 17, 2020 meeting, seconded by Ms. Wood-Meek. Motion approved with a 5-0-1 (Andears) vote.

Motion: Vice-Chairwoman Wright moved to approve the Motion Summary for the December 15, 2020 meeting, seconded by Ms. Wood-Meek. Motion approved with a 6-0 vote.

ITEM 3. PUBLIC COMMENTS

There was no public comment received.

ITEM 4. ARBORIST REPORT

Mr. McCarty discussed tree removals for December and January as well as the tree pruning efforts by the City.

ITEM 5. REVIEW of Draft Urban Forestry Management Plan

Mr. Miller informed the Commission that this item was not ready to present at this meeting and will be discussed at a future meeting.

ITEM 6. STAFF COMMENTS

Mr. Miller discussed plans for invasive species removal at Mingo Park.

ITEM 7. MEMBER COMMENTS

A discussion was held regarding Arbor Day celebrations. Mr. Miller discussed plans to reach out to the student representative and the schools to determine if they would like to be involved.

The Commission also discussed if they would like to hand out saplings at the May First Friday event. At this time this discussion may have to continue through email and at the next meeting as it has not been determined when First Friday events will resume to have vendors and public involvement.

Mr. Carey recognized the past efforts of former Commissioner Tom Wolber. The Commission discussed reaching out to Mr. Wolber to receive the template for the annual report and for the Commission to work on a 2-year report to Council.

ITEM 8. PLAN REVIEWS

- A. Communities at Glenross – Section 17 & 19 – approved as submitted
- B. Penick Avenue Extension – approved as submitted
- C. Boulder Reserve – approved as submitted

ITEM 9. ADJOURNMENT

Motion: Ms. Wood-Meek moved to adjourn the meeting, seconded by Vice-Chairwoman Wright. The Shade Tree Commission meeting adjourned at 7:22 p.m.

Chairperson

Clerk

ARBORIST REPORT

April 2021
MONTHLY SUMMARY

Street Trees			
	City Staff	Contractor	Year to Date
Planting	0	0	0
Pruning	17	6	683
Tree Removal	5	0	40
Stump Removal	7	0	22
Service Requests	8	0	37
Other	0	0	7
Park Trees			
Planting	0	0	
Arbor day Tree	0	0	
Pruning	2	0	13
Tree Removal	3	0	23
Stump Removal	3	0	5
Service Requests	0	0	0
Other	4	0	5

Plan Review			
Project	Tree Survey	Landscape Plan	Tree Inspection
Park View	Completed	Informational	
Glen Ross Sec 5 & 6	Completed	In progress	
Davis Tract	In progress	In progress	
Communities at glen ross sec 14	Completed	To be approved	
Houk Rd Condos	Completed	Informational	
UDF	Completed	Informational	
Coughlin Crossing	Completed	Approved	
Boulder reserve street and water	Completed	Approved	
Communities at Glen Ross 17&19	Completed	Approved	
Penick	Completed	Approved	

City of Delaware Has been named as a Tree City USA for the 40th consecutive year.

**City of Delaware, Ohio
Shade Tree Commission
Annual Report for 2019 and 2020**

Duties

The Shade Tree Commission (STC) of the City of Delaware was established in 1977 as an advisory board to City Council. Ordinance 77-2 regulates “the planting, transplanting, maintenance, and protection of trees and shrubs on city owned or controlled property.” The STC, composed of 9 members from the public, is tasked “to study, investigate, plan, advise, report, and recommend to City Council any action, program, plan, or legislation which the commission shall find or determine to be necessary or advisable for the care, preservation, trimming, planting, removal, or disposition of trees and shrubs in public ways, streets, and alleys.” Another duty of the STC is to assist City Council and Delaware residents “in the dissemination of news and information regarding the selection, planting, and maintenance of trees,” whether they are on public or private property, and to make recommendations. Section 1168 of Delaware’s Codified Ordinances regulates tree preservation for developments. The stated goal is “to maintain an equivalent tree canopy citywide before and after removal / construction” (1168.07).

Tree City USA

Delaware is one of more than 3,400 communities that are part of the national Tree City USA program, which is run by the Arbor Day Foundation (www.arborday.org). More than 143 million people live in a Tree City USA, according to the foundation. The four core standards to qualify are: a local city ordinance, the establishment of a tree board or commission, an annual budget of no less than \$2 per resident, and an annual Arbor Day proclamation and celebration. In 2020 Delaware’s community forestry expenditures were about \$156,293 or \$3.81 per capita, according to City Arborist Casey McCarty. As of 2020, Delaware has been a proud Tree City USA member for 40 consecutive years. It has an urban forest of more than 18,000 trees, valued at about \$18 million.

Tree Benefits

Trees provide numerous benefits to residents and enhance a community’s quality of life. The esthetic beauty of the tree canopy increases curb appeal and thus property values. Their shading and wind-breaking effect helps with heating and cooling bills. Delaware’s trees save the community \$193,000 annually in electricity and gas bills, according to researchers at The Ohio State University (OSU). Trees also absorb carbon dioxide (CO₂) and produce oxygen, improving air quality. Nearly 16 million pounds, or 8,000 tons, of carbon have been sequestered by Delaware’s street trees over time and would represent carbon credits worth \$24,000 per year if a carbon-trading system were in place. Another noteworthy aspect is the trees’ ability to retain considerable amounts of rainwater, which helps reduce storm-water runoff and flooding. Delaware’s public trees intercept more than 6 million gallons of storm water annually. Each tree—depending on its size, health, and the climate it grows in—provides an annual benefit of no less than \$50. Linda Unterhill (in *Way of the Woods*, 2009) even claims that patients with a view of trees outside their windows heal faster and have fewer post-operative complications. Public-housing projects lacking trees and green spaces report nearly twice the crime rates as those that are landscaped attractively. Similar claims are made by Jill Jonnes in her 2016 book, *Urban Forests: A Natural History of Trees and People in the American Cityscape*. The STC believes that Delaware’s urban forest is a worthwhile investment, as the benefits, both material and immaterial, are substantial. The same OSU researchers have calculated the value of Delaware’s urban forest to be more than \$700,000 in total annual benefits to residents through ecosystem services such as storm-water remediation and decreased cooling and heating costs. Last, but not least, trees provide habitat and a food source for countless pollinators, birds, and other urban wildlife such as squirrels.

Shifting to Remote Meetings

As with other city boards and commissions, the Shade Tree Commission shifted to meeting online during 2020, due to the novel coronavirus pandemic. In addition, public-outreach efforts were suspended during the same period. We hope to resume normal meeting events and public outreach efforts later in 2021.

2019 and 2020 Statistics

The following table shows an overview of the 2019 and 2020 maintenance activities related to Delaware's urban forest. The numbers were provided by City Arborist Casey McCarty in the "Year-End Summary" for each of the past two years.

STREET TREES				
	2019		2020	
	City Staff	Contractor	City Staff	Contractor
Planting	35	70	10	106
Pruning	1219	8	1000	413
Tree Removal	27	40	100	36
Stump Removal	40	24	105	6
Service Requests	255	--	263	--
Other	0	--		--
PARK TREES*				
	City Staff	Contractor	City Staff	Contractor
Planting	2	0	7	0
Pruning	43	0	0	0
Tree Removal	8	0	0	0
Stump Removal	4	0	0	0
Service Requests	0	--	0	--
Other	0	--	0	--

- Includes trees in Oak Grove Cemetery

These numbers show that during the past two years, new trees planted outnumbered trees removed, 230 to 211. Typically, about two dozen different species or varieties (cultivars) are planted from the commission's recommend tree list, continuing the STC's desire and practice to see the urban forest diversified. These recommendations call for clusters of about six to eight trees (three or four on each side of the street) of one species, followed by a similar cluster of a different species, while maintaining the desired visual continuity. Pruning normally occurs every five years, barring unforeseen circumstances.

STC also reviewed, commented on, and approved 19 development and building landscape planting plans in 2019 and 16 plans in 2020. In several cases, the City Arborist and the STC recommended replacement of listed species with more resilient and less problematic tree species or cultivars.

Budget

Taxpayers do not pay for Delaware's street trees. The acquisition, planting, and maintenance of street trees is largely funded by developers who have the option of replacing and replanting lost trees or by paying a replacement fee into a tree-bank fund. At times, significant amounts accumulate that are then used to purchase and plant new trees so that Delaware's tree canopy can be maintained and increased. The STC continued to provide City Council feedback when that body discussed Ordinance 1128, which relates to tree replacement and the tree bank. The commission decided that a tree replacement cost of \$100.00 / caliper inch was satisfactory. That equation was adopted and placed into the annually updated City's Fee Schedule. The commission also continues to agree that it makes sense to set aside a rainy-day fund for those lean years when new tree-bank revenue is low or non-existent.

Public Outreach

The Commission continued public-outreach efforts in 2019 by participating in the "Healthy Kids Day" event at the YMCA in April, Delaware's First Friday event in May, and the annual Northern Olentangy Watershed (NOW) Festival at Mingo Park in June. At these events, members of the STC gave away about 300 white pine seedlings that were provided by the Delaware Soil and Water Conservation District (SWCD). The practice has been going on for many years. At all events, members of the STC fielded questions about tree species and tree health and handed out informational flyers. The STC also created a hand-out to illustrate proper mulching technique (see attached document). That hand-out was expected to be used at the public-outreach events in 2020 that were eventually cancelled due to the pandemic. We hope to use it at future events.

In addition, several STC documents are available for public inspection on the website of the City of Delaware (www.delawareohio.net) under Recreation, Parks & Natural Resources: tree-care instructions, and lists of permitted and restricted trees.

Arbor Day

In 2019, for the 39th consecutive year, the City of Delaware was awarded the recognition of Tree City USA. Arbor Day was celebrated with a tree planting at Hayes High School on Euclid Avenue. The Arbor Day tree was provided by the City of Delaware. In 2020, Arbor Day tree planting in was postponed.

Respectfully submitted

Shade Tree Commission
April 2021

The 2021 members are listed below. The STC meets bimonthly on the fourth Tuesday at 6:30 p.m. Current meetings are streamed live; in-person meetings, when they resume, are held in City Hall. The meetings are open to the public and can be viewed live or at a later time.

Shannon Brewster (Chair)
Dave Carey
Stan Eddy
Tom Glissman
~~Fredericka Shanks (Hayes High School)~~
~~Tom Wolber~~
Rebecca Wood-Meek
Susan Wright (Vice Chair)

Our thanks to City Staff & Clerical Support

Elaine McCloskey
Ted Miller (Director of Parks and Natural Resources)
Casey McCarty (City Arborist)

[rev. 4/12/2021]

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Acknowledgements

Shade Tree Commission

Shannon Brewster- Chair
Susan Wright- Vice Chair
Nathan Andears
Melissa Bargar
Dave Carey
Stan Eddy

Drew Farrell (City Council Representative)
Tom Glissman
Grace Martin (Student Representative)
Rebecca Wood-Meek

Parks and Natural Resource Department

Ted Miller (Director)
Stacy Davenport (Parks Superintendent)
Casey McCarty (City Arborist)
JP Linkous (Parks Supervisor)
Doug Richmond (former City Arborist)
Bridget Donahue (Parks AA)

Introduction and Background

Purpose of the Plan

The 2021 City of Delaware Urban Forestry Management Plan provides a framework for policy and action that guides city government decision making to maintain, enhance, preserve, and sustain its urban forest.

Goals of this document:

- Increase and maximize the value of the urban forest.
- Create a maintenance plan to care for these valuable assets through various programs such as development of a pruning plan; identification, removal, and replacement of hazardous older trees; and creating a more diversified tree canopy.

What is the urban forest?

Delaware’s urban forest consists of the trees that extend across public property including street rights-of-way, parks, cemeteries, golf courses and natural areas.

Statutory Requirements

The City of Delaware Ordinance Chapter 153.03 (d) requires the Shade Tree Commission “To study and recommend to Council a Master Street Tree and Shrub plan for the City.” This document is intended to fulfill this obligation.

Urban Forest Status

In 2021, the City of Delaware is Celebrating its 40th year as a Tree City USA. Since 2012, the City’s tree population has grown from 14,000 to over 20,000 trees, planted in the City Parks, along streets and in Oak Grove Cemetery. By year 2024, it is estimated that the tree population will increase to well above 20,000 trees to be cared for by the City of Delaware. The City of Delaware, along with the Shade Tree Commission of Delaware, comprised of citizens that live in the City, has always been committed to maintain the urban forest canopy and educate the public about the benefits of trees including improved air quality, carbon sequestration and the reduction of storm water runoff. Implementation of the plan will allow the city to take a proactive approach to managing the urban forest instead of a reactive approach.



City of Delaware has been a Tree City since 1981.

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Responsibilities of the Urban Forestry Department:

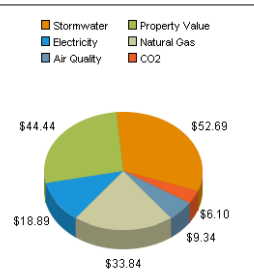
- Tree inspection and inventory
- Tree pruning
- Tree removal
- Tree planting
- Respond to citizen service requests
- Inspect trees for pests and disease upon request
- Assist with storm response and cleanup
- Correct conflicts between trees and sidewalks, streets, or other infrastructure.
- Inspect trees planted by developers to ensure appropriate species, location, condition and mortality.
- Update Shade Tree Commission on new street trees and status of the urban forest
- Oversee park, cemetery and golf course trees
- Assist with selecting, watering and fertilization of hanging baskets

Currently, these responsibilities fall on the city Arborist with assistance from the parks staff.



Benefits of the Urban Forest

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



This 18 inch Norway maple provides overall benefits of: \$165 every year.

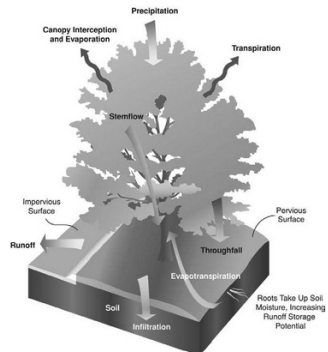
While some functional benefits of trees are well documented, others are difficult to quantify (e.g., human social and communal health). Trees' specific geography, climate, and interactions with humans and infrastructure is highly variable and makes precise calculations that much more difficult. Given 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 23 inches, it will provide \$202 in annual benefits.

Image: Norway maple Acer platanoides

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



Your 18 inch Norway maple will intercept 1,944 gallons of stormwater runoff this year.


Urban stormwater runoff (or "non-point source pollution") washes chemicals (oil, gasoline, salts, etc.) and litter from surfaces such as roadways and parking lots into streams, wetlands, rivers and oceans. The more impervious the surface (e.g., concrete, asphalt, rooftops), the more quickly pollutants are washed into our community waterways. Drinking water, aquatic life and the health of our entire ecosystem can be adversely affected by this process.

Trees act as mini-reservoirs, controlling runoff at the source. Trees reduce runoff by:

- Intercepting and holding rain on leaves, branches and bark
- Increasing infiltration and storage of rainwater through the tree's root system
- Reducing soil erosion by slowing rainfall before it strikes the soil

For more information visit: [The Center for Urban Forest Research](#)

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



Located in front of a single family home, this 18 inch Norway maple will raise the property value by \$44 this year.

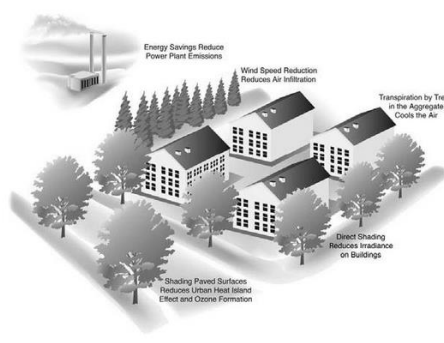
Trees in front of single family homes have a greater property value benefit than those in front of multi-family homes, parks or commercial properties. Real estate agents have long known that trees can increase the "curb appeal" of properties thereby increasing sale prices. Research has verified this by showing that home buyers are willing to pay more for properties with ample versus few or no trees.

This model uses a tree's Leaf Surface Area (LSA) to determine increases in property values. That's a researcher's way of saying that a home with more trees (and more LSA) tends to have a higher value than one with fewer trees (and lower LSA). The values shown are annual and accumulate incrementally over time because each tree typically adds more leaf surface area each growing season. The amount of that increase depends on the type of tree – some add more, some less.

The 18 inch Norway maple you selected will add 184 square feet of LSA this year. In subsequent years it will add more, and the property value will increase accordingly.

For more information visit: [The Center for Urban Forest Research](#)

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



Your 18 inch Norway maple will conserve 249 Kilowatt hours of electricity for cooling and reduce consumption of oil or natural gas by 35 therm(s).

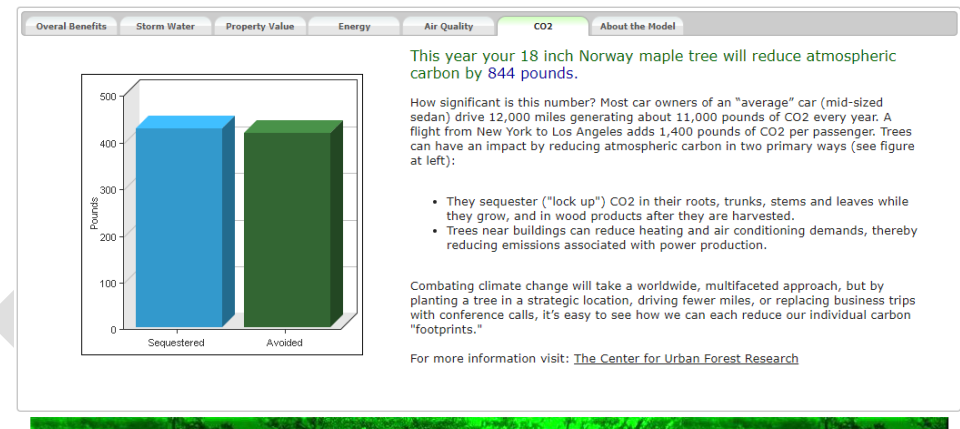
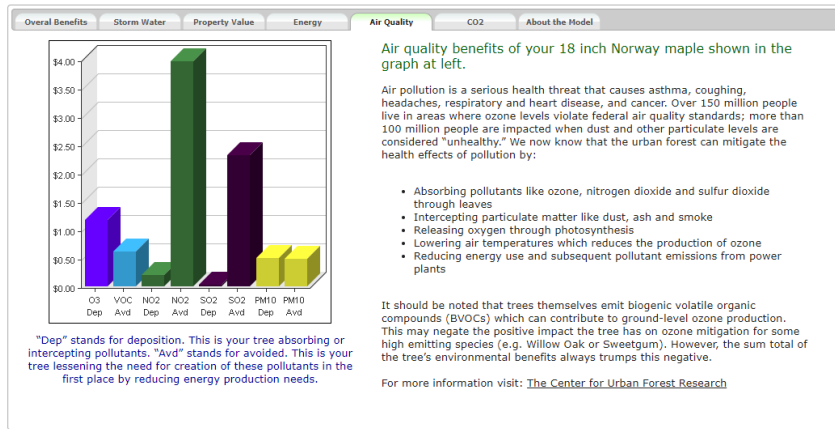
Trees modify climate and conserve building energy use in three principal ways (see figure at left):

- Shading reduces the amount of heat absorbed and stored by buildings.
- Evapotranspiration converts liquid water to water vapor and cools the air by using solar energy that would otherwise result in heating of the air.
- Tree canopies slow down winds thereby reducing the amount of heat lost from a home, especially where conductivity is high (e.g., glass windows).

Strategically placed trees can increase home energy efficiency. In summer, trees shading east and west walls keep buildings cooler. In winter, allowing the sun to strike the southern side of a building can warm interior spaces. If southern walls are shaded by dense evergreen trees there may be a resultant increase in winter heating costs.

For more information visit: [The Center for Urban Forest Research](#)

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The National Tree Benefit Calculator was conceived and developed by Casey Trees and Davey Tree Expert Co.



The National Tree Benefit Calculator was conceived and developed by Casey Trees and Davey Tree Expert Co.



Credits:

- The National Tree Benefit Calculator was conceived and developed by [Casey Trees](#) and [Davey Tree Expert Co.](#)
- This tool is powered by i-Tree; the data generating the results comes from the i-Tree Tools CD ROM: <http://www.itreetools.org/>
- Significant text and graphical content was originally published by the USDA Forest Service's Center for Urban Forest Research through their [Tree Guide](#) series of publications. Credit should be given to authors of these publications.
- Facts about personal carbon production based on driving and flying courtesy of [Conservation International](#)
- For questions about this tool, contact [Scott Maco](#) (Davey Tree Expert Co.)

Tree Inventory Analysis and Recommendations

Tree Canopy Coverage

Tree canopy coverage is a measure of the portion of the town that is shaded by trees. iTree Canopy software was used in 2019 to estimate the citywide canopy at 24% \pm 2%. The Shade Tree Commission undertook this exercise using i-Tree which estimates tree cover and tree benefits for a given area with a random sampling process. The data was broken into City wards to determine areas that were inconsistent with the overall coverage.

Recommendation: The Shade Tree Commission recommends a 30-40% tree canopy coverage for Delaware. The current tree population has a significant number of younger trees and as these trees mature the coverage area will move higher into the recommended range. It is recommended that staff identify canopy-deficient areas of the city and prioritize tree planting in these areas.



Trees on Public Grounds

It is estimated that there are more than 5,000 maintained trees in city parks and cemeteries and around public facilities. Smith, Mingo, Veterans & Blue Limestone community parks and Oak Grove Cemetery represent some of the most highly visible and appreciated trees in town, and should be maintained at a level equal to or exceeding the city's street trees.

Recommendation: It is recommended that the trees continued to be maintained prioritizing preventative maintenance practices. In addition, specimen trees in public locations could be highlighted to educate the community on the value of these trees.

Street Tree Population

The City of Delaware is currently responsible for maintaining approximately 20,000 trees along the public right of way. The city has a street tree population that exceeds many comparable or larger cities, such as Grove City (10,000), Westerville (15,000), and Springfield (17,000). The total number of street trees has grown rapidly due to the large number of new developments.

Recommendation: Identify funding sources that will allow for adequate staffing to increase the level of service in the city. The urban forest will likely continue to grow at a rapid pace and the Urban Forestry department will need to continue to dedicate staff time to monitoring tree installations and mortality counts to promote a healthy forest. The street tree population continues to climb and has become larger than other cities of comparable size. The City should focus on a healthy urban forest and a 30-40% canopy coverage which would include a more manageable tree planting requirement. This would require an evaluation of the current tree preservation ordinance that would allow for a manageable urban forest growth and review funding sources that could be used for the urban forest. In addition, we will need to continually research use of additional species that can diversify the urban forest.

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Maintenance Needs and Recommendations

Removal of hazardous trees in older neighborhoods

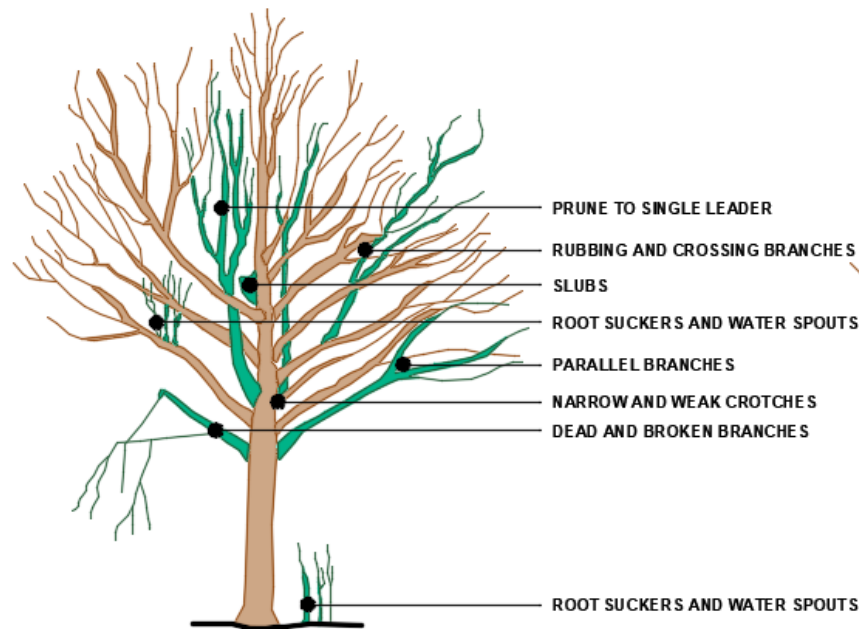
A hazardous tree can be defined as having rotten limbs, excessive fruit debris, roots affecting infrastructure, disease, insect infestation, weather damaged or as determined by the city Arborist. Older areas of the City have many older silver maple and various other species. The maples are beginning to reach their lifespan limits and walnut trees are not only reaching their lifespan limits but also drop their fruit in the fall creating hazardous issues for people and property. Resources should be allocated for the safe and timely removal of these trees.

Recommendation: Complete a bi-annual inspection of older trees to determine hazardous trees. It's estimated that there are 250-300 trees that may be approaching their final years. The trees should be inspected regularly to be proactive in recognizing issues and taking corrective actions.

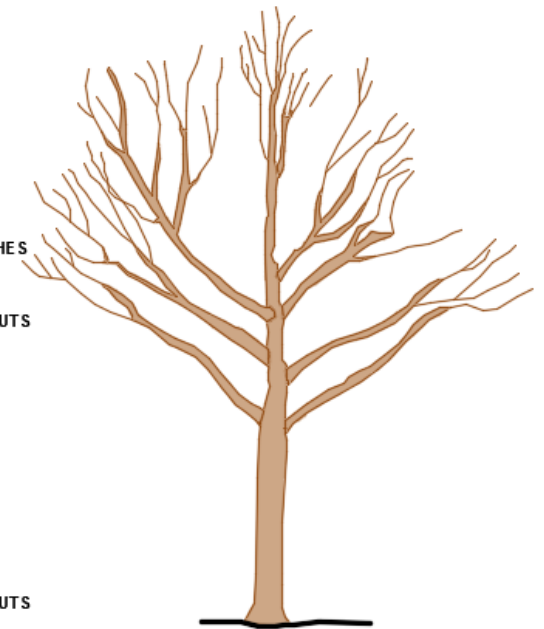
Pruning Program

Currently there is a limited scheduled pruning program and most tree issues are dealt with through the Service Request system. A proactive tree pruning program has many advantages over on-demand maintenance, the most significant of which is reduced risk. In a proactive program, trees are regularly assessed and pruned, which generally means that most defects will be discovered and eliminated before they escalate to a hazardous situation with an unacceptable level of risk. Other advantages of a proactive pruning program:

BEFORE PRUNING



AFTER PRUNING

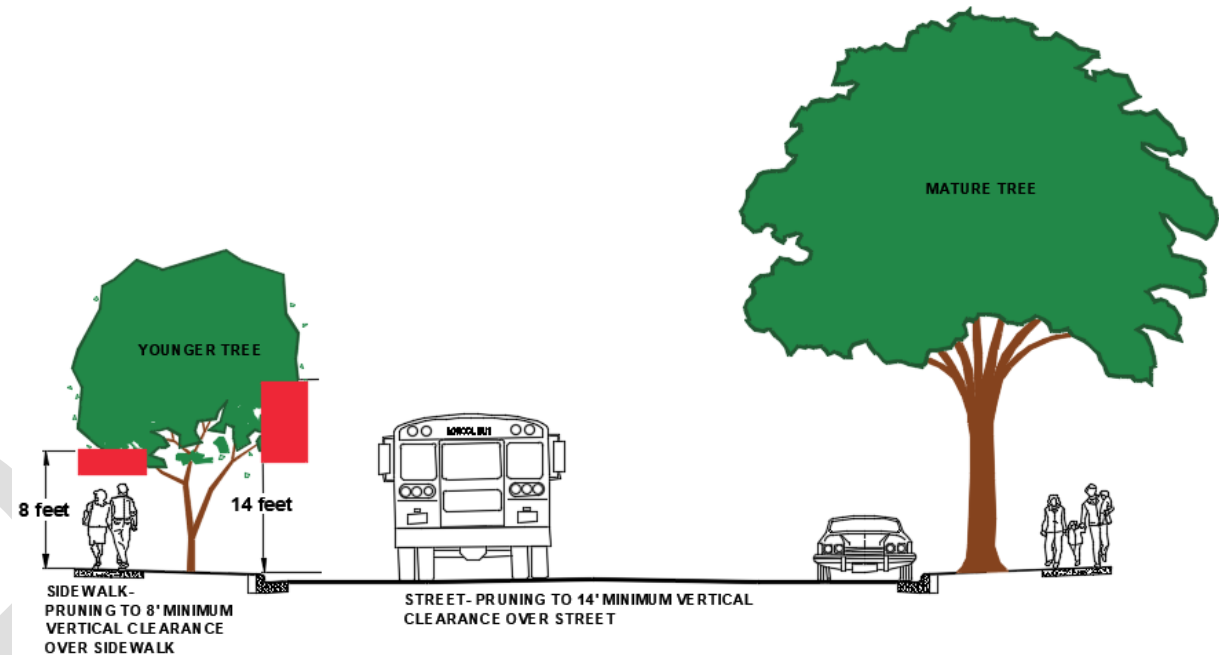


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- Increased environmental and economic benefits
- More predictable budgets and projectable workloads
- Reduced long-term tree maintenance costs if pruned correctly
- Extending the life and longevity of trees

Young trees that are less than 8 inches Diameter at Breast Height (DBH) will generally require more frequent pruning cycles (3 years) because they typically grow faster than mature trees and correcting structural problems at a younger age can greatly benefit the health of the tree. In addition, the pruning in young trees can often be done at the ground level without the use of specialized equipment making it much more economical.

City code calls for eight feet of clearance over sidewalks, fourteen feet over roadways. Pruning of trees within the “Sight Line Triangle” at street intersections, should be done as needed to maintain safe visual clearance.



The city arborist is currently utilizing parks staff and increasingly relying on contractors to prune street trees and public spaces. Seasonal staffing has been included in the 2021 budget that will allow an increase in pruning but will still be well short of a pruning cycle that would meet the appropriate level of service.

Recommendation: Increase staff and funding to prune approximately 9,000 trees per year. The city is currently pruning 1,300 (5 year average) trees per year, using staff and contractors. A significant increase in pruning is proposed to promote a healthy forest but also reduce long term maintenance. Regular pruning in the first eight years (after the guarantee period of 2 years) and as needed in later years. Structurally pruning a young plant will require less corrective pruning as the plant matures and is more likely to have a healthier formation. After initial installation, street trees have a 2 year warrant by the developer. Following that 2 year period, the City would regularly prune trees until about 8 years. This is estimated to be about 8,000 young trees per year. In addition, another 1,000 mature trees would be pruned to sustain a health forest. This approach will take several years to see results but will ultimately promote a sustainable urban forest.

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Staffing

Current staffing in the Urban Forestry Department is not sufficient to support the proposed regular pruning in the first 8 years (species dependent) maintenance and pruning plan without increased use of outside certified contractors. The current and growing workload is large enough to support a crew that would be responsible for planting, maintaining and removing trees. In addition, tree inspection could be expanded. The current staff is not able to adequately monitor built sites to verify that The workload would continue to be supplemented by fewer contractors.

Recommendation: Utilize seasonal staff through 2021 and propose a full-time staff member in 2022 to help handle the increased workload and reduce the reliance on contractors. Increased pruning will be a significant task that will make it more economical to hire a full-time staff instead of continually increasing contractor budgets. Increasing pruning by 7,700 trees is feasible because many of trees will be younger trees that can be pruned in less time than a mature tree however, in the initial phase of this pruning program staff will still need to address mature trees that have not been pruned as frequently when younger. In addition, due to the current workload, staff has not been able to fully complete consistent inspection and counts of installed landscape plans particularly in non-public areas. The result of this is that installed landscapes may not match approved plans.

Sidewalk Program

The City's Safe Sidewalk Program has had a significant impact on the urban forest. Trees roots have damaged sidewalks due to a variety of issues that could be mediated with some updates to design standards. While these repairs are necessary to maintain the safety of the sidewalk, an emphasis needs to be made to preserve trees through the process.

Recommendation: Root pruning with specialized tools would greatly increase the health of the tree where the repair is made and will help maintain the structure of the sidewalk. The following recommendations would benefit the long-term care of street trees and cost efficiency in maintaining sidewalks:

1. Communication with Arborist and Streets Department when evaluating sidewalk issues caused by street trees. Communication will allow both teams to determine the best management practice for each instance.
2. Update the Standard Sidewalks Specifications (RDWD-19.1) to replace the sidewalk base material from 4" of #57 limestone gravel to 4" of #304 aggregate base and compact the base material prior to pouring concrete. Tree roots naturally search for well drained soil with plenty of oxygen which is found in the #57 base material. The compacted #304 base will discourage tree roots and should have a positive impact on reducing sidewalk damage from street trees.
3. Continue to follow the standard roadway detail that details an 8'-0" to 10'-0" tree lawn measured from the back curb to beginning of sidewalk. The tree lawn area does not include the sidewalk width and all new developments are following this standard.

Species Diversity

Understanding we're working with species exceeding recommended limits, diversity is a problem that must be addressed. The City was able to catch up with the backlog of removed Ash Trees last season. However costly infestation is evidence that overplanting of any one species will create more possibility for significant tree loss in the event of another introduced pest problem. The Asian Longhorn Beetle (ALB) has infested a rural area near Claremont County in South Western Ohio. While it has wide range of host trees, Maple is its main choice of tree to infest. Should the ALB arrive in Delaware, there would be a monumental loss of trees.

Recommendation: As the current challenges manifest themselves, we will have the opportunity to improve species diversity as we plant replacement trees. Staff will also need to consider species that are not currently listed as approved trees and create pilot programs that can evaluate these species.

Volcano Mulching

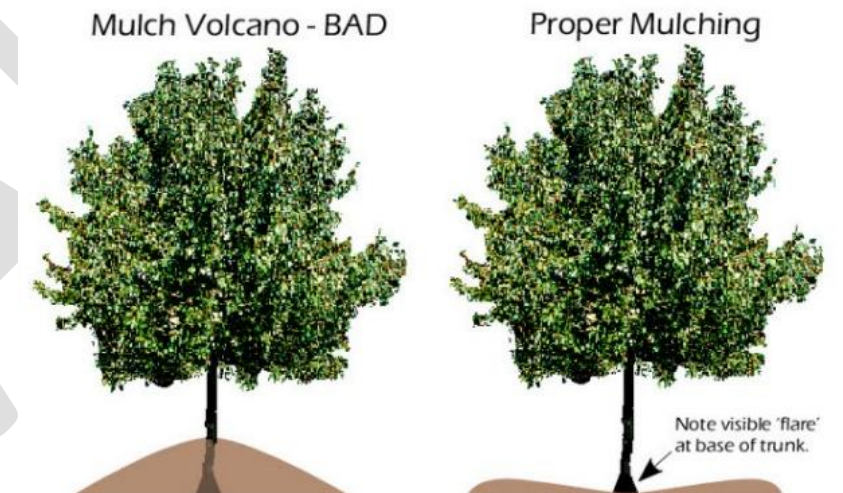
There are many new street trees that have been improperly mulched by contractors and homeowners which has increased mortality and maintenance issues. Staff has been diligent about recognizing new plantings that have excessive mulch around the trunk but much of the problem after the initial planting when re-mulching continues to add layers of mulch.

Recommendation: Create public awareness through workshops and social media. Attend HOA meetings to bring awareness to the issue and promote proper mulching techniques.

Broadleaf Herbicides

Lawn fertilizer that includes a broadleaf weed killer is often dangerous to trees, particularly younger trees. The fertilizer is frequently applied to lawns without realizing the damage to young trees. Delaware has frequently seen this damage with the abundance of newer subdivisions and young trees.

Recommendation: Create public awareness through workshops and social media. Attend HOA meetings to bring awareness to the issue and limit use of broadleaf herbicides.



Work Management Plan, Staffing and Budget

Street Tree Management Priorities

To meet the goal of maximizing the value of the urban forest canopy, trees must be maintained and species diversity must increase. Working with the Shade Tree Commission and City staff, continued selection of proper and diverse replacement trees and best management practices for maintenance, pruning and planting, the urban forest will age and mature while moving from a removal and replacement phase to a maintenance and growth phase. The ability to load the City's Tree Inventory to City Works GIS will allow for a valuable monitoring / management tool.

To minimize the safety concerns and costs along with developing a sustainable urban forest, the following management activities are recommended, in order of descending priority:

1. **Tree inspection program**, inspect potential hazard trees, and maintain inventory by inspecting 1/5 of the city's trees annually. This will ensure the safety of the public and property and deliver accurate information to guide management decisions.
2. **Remove any hazardous trees** and correct any dangerous structural issues such as dead limbs, signage visibility and site distance issues to ensure public safety.
3. **Sidewalk Program:** Monitoring the industry for new and successful procedures will help in the preservation of existing trees during construction events. Root pruning trees prior to sidewalk excavation will help prevent the need for removal at the time of excavation. Any trees requiring removal will be replaced following the Street Tree Master List.
4. **Maintain large trees**, as these are the city's most valuable trees, and those most likely to become hazardous if not maintained.
5. **Maintain young trees** to prevent problems that may become public safety concerns in the future, or which could lead to the decline or death of the tree in the future.
6. **Update the Street Tree Master List.** This list was created by the Shade Tree Commission and City Staff. Using the information provided from a tree inventory analysis, the Street Tree Master List would be updated to help determine what tree species are appropriate and needed to diversify the tree canopy in Delaware. The list now recommends species of trees for streets that will be designed to place the appropriately sized tree species in each space. Trees will be selected to maximize the value at each planting site by planting the largest tree species for the site. Using at least three different species for each street when possible in new developments will help to diversify the urban forest.
7. **Tree Replacement Program.** The City of Delaware plants replacement trees for removed street trees at no cost to residents. This program takes place each Fall and replaces as many trees as possible. Removal locations are evaluated for

DRAFT 1 - 4/21/21

replacement using recommended guidelines for spacing from other infrastructure to lessen the chance of damage in the future as trees mature. Replacement trees are selected using the Street Tree Master List.

8. **Public Education:** Using some of the newer tools to the industry, the value in economic benefits that trees provide can now be identified. With these numbers we can help to educate the public on the importance of each individual tree and help show them how much value they could receive if they plant just one tree in their own yard. Some ways to share this information are using the City’s website, Tree Talk Articles, and attending public events such as First Friday.
9. **Funding:** Continued funding for tree maintenance and replacement is vital to allow for future growth of the tree count and health of the urban forest. Continued implementation of these action steps will allow the urban forest to grow and maximize the benefit to citizens and visitors of Delaware.

Figure 1: Estimated total workload and cost comparison between city staff & contractors

ACTIVITY	CURRENT ESTIMATED WORKLOAD	2020 WORKLOAD COMPLETION	TOTAL WORKLOAD ESTIMATED COST FOR CONTRACTORS	TOTAL WORKLOAD ESTIMATED COSTS FOR STAFF
Inspection and Inventory	4,000 trees	800 trees (20% staff/80% incomplete)	\$53,320 (\$80/hr-6 trees/hr)	\$12,060 (\$18/hr intern) (670 hrs-10 min/tree)
Young Tree Pruning (1-8 years)	8,000 trees	1,300 trees (70% staff/30% contractor)	\$64,000 (\$8/tree)	\$53,320 (\$40/hr) (1,333 hrs-10 min/tree)
Large Tree Pruning (<8 years)	1,000 trees		\$20,000 (\$20/tree)	\$16,680 (\$40/hr) (417 hrs-25 min/tree)
Tree Removal	110 trees	110 trees (100% staff)	\$22,000 (\$200/tree)	\$20,000 (\$40/hr) (500 hrs-4.5 hrs/tree)
Large Tree Removal	10 trees	10 trees (100% contractor)	\$25,000 (\$2,500/tree)	Staff not currently equipped
Tree Planting	130 trees	130 trees (18% staff, 82% contractor)	\$9,750 (\$75/tree)	\$5,200 (\$40/hr) (130 hrs-1 tree/hour)
Totals			\$194,070	\$107,260

Figure 2: Urban Forestry Program Budget

	ACTUAL BUDGET						PROPOSED BUDGET		
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Salary and Benefits	\$62,629	\$72,251	\$76,247	\$81,000	\$82,395	\$46,044	\$92,123		
Professional Services	\$10,045	\$21,640	\$24,955	\$46,183	\$49,237	\$52,906	\$80,000		
Tree Maintenance	\$4,245	\$3,999	0	\$5,000	\$4,022	\$3,021	\$5,000		
Operation & Small Equip.	\$2,113	\$1,614	\$687	\$1,447	\$1,074	\$731	\$1,750		
Tree Purchases	\$28,861	\$24,986	\$513	\$433	\$95	\$5,000	\$5,000		
Total	\$107,893	\$124,490	\$102,402	\$141,729	\$136,823	\$107,702	\$183,873		
Population	36,794	37,554	38,193	39,219	40,568	42,600	43,995		
Urban Forestry Expenses per capita	\$2.84	\$3.28	\$2.63	\$3.54	\$3.33	\$2.53	\$4.17		

Notes:

- 2020 Salary and benefits was lower due to a 6-month vacancy in the position

Comparison to other Municipalities’ Budgets

Figure 3: Comparison to other Municipalities’ Budgets

STREET TREE PROGRAM COMPARISON							
	Delaware	Grove City	Hilliard	Marysville	Springfield	Upper Arlington	Westerville
Forestry Staff	1	3	3	1	7	6	2
Forestry operating budget	\$80,000	\$200,000	\$200,000	\$110,000	\$425,000	\$500,000	\$325,000
# of trees	20,0000	10,000	9,500	7,500	17,000	17,000	15,000
Population	40,568	41,820	36,534	24,667	58,877	35,366	41,103

Summary and Recommendations

General Recommendations

- Develop a pruning cycle for younger trees (1-8 years) and older trees (as necessary) and institute an annual plan that will keep up with current tree populations.
- Campaign to discourage volcano mulching.
- Educational material to promote proper pruning techniques.

Fiscal Year 2022-2023

- Hire additional full-time arborist technician.
- Hire seasonal intern to collect data for the tree inventory during the summer and purchase data collection unit.
- Update street tree list and propose potential trial species.
- Propose a stormwater fee that aligns with the urban forestry value contributing to stormwater management
- Review the City’s tree ordinance and revise as needed.

Fiscal Year 2023-2028

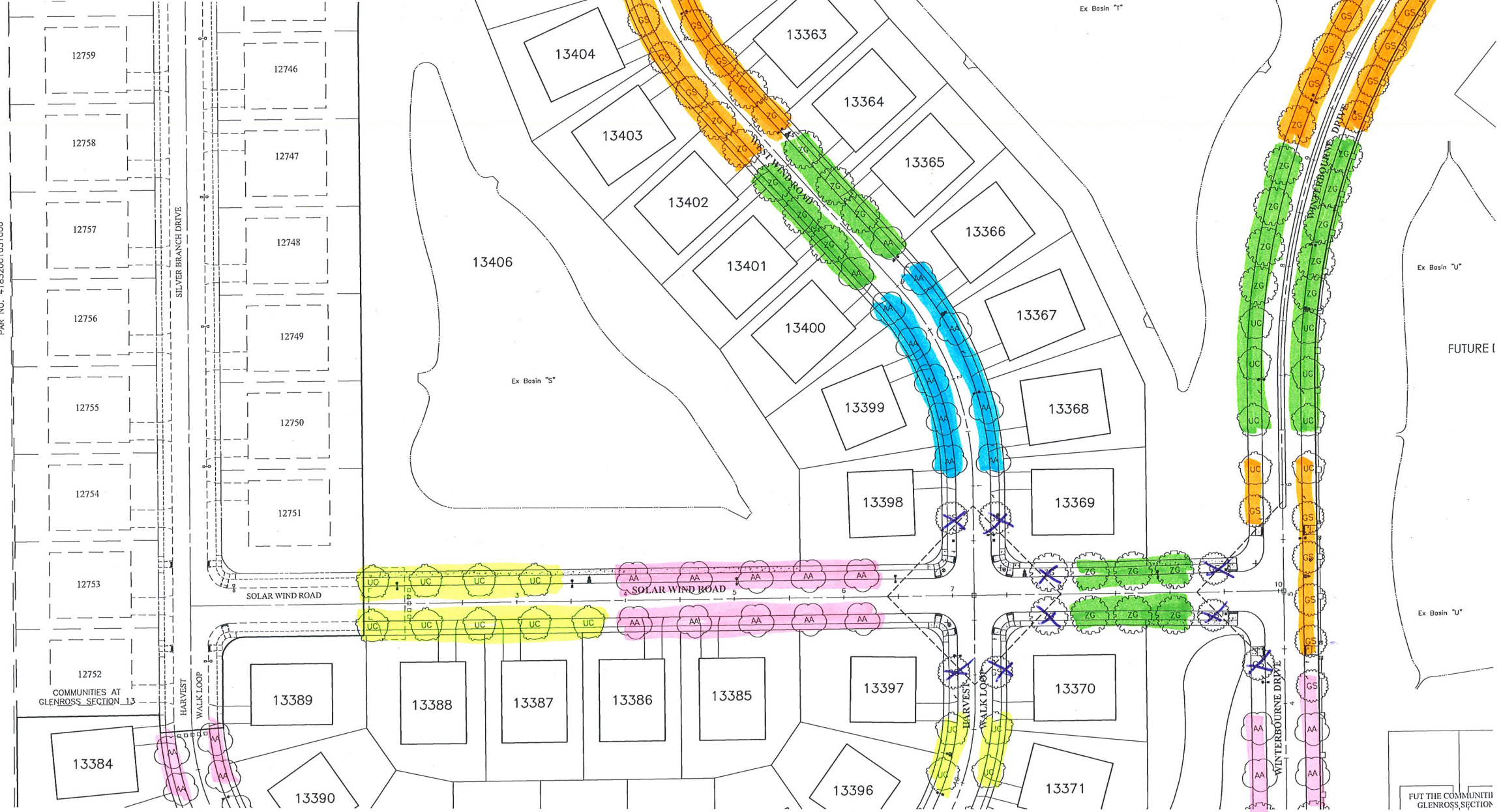
- Hire additional seasonal staff
- Review canopy coverage and determine if 30-40% goal is being met.
- Evaluate sidewalk issues and update standard construction methods as necessary.

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Ginkgo Biloba 9


PLANT SCHEDULE SHEET 30

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	
AA	AA	21	Acer x freemanii 'Jeffers'	Autumn Blaze Freeman Maple	2.5" Cal.	B&B	28
GS	GS	34	Gleditsia triacanthos 'Skyline'	Skyline Honey Locust	2.5" Cal.	B&B	47
UC	UC	17	Ulmus x 'Frontier'	Frontier Hybrid Elm	2.5" Cal.	B&B	21
ZG	ZG	28	Zelkova serrata 'Green Vase'	Green Vase Sawleaf Zelkova	2.5" Cal.	B&B	46
							Total 151




Trees owed by contractor
13

REVISIONS	MARKET	DATE	DESCRIPTION


COMMUNITIES AT GLENROSS SECTION 14
 STREET TREE PLAN

CITY OF DELAWARE, DELAWARE COUNTY, OHIO
 FINAL DEVELOPMENT PLAN
COMMUNITIES AT GLENROSS SECTION 14
 STREET TREE PLAN


 EMHT
 5000 New Albany Road, Columbus, OH 43224
 Phone: 614.297.7344
 Email: info@emht.com

DATE	20190747
SCALE	1" = 50'
JOB NO.	20190747
SHEET	8/10

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I:\20190727\DWG\04\Sheets\Final Development Plan\8 Street Tree Planting_Land Saved By: saron, 2/23/2021 2:51 PM Last Printed By: O'hara, Shaun, 2/25/2021 12:14 PM (No Xrefs)

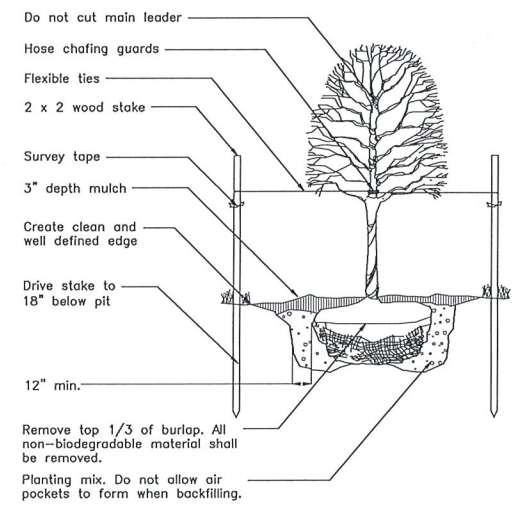
GRADY MEMORIAL HOSPITAL
PAR NO. 41832001031000



GRDEN, LLC
PAR NO. 41832001038000

PLANT SCHEDULE SHEET 31

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION
	AA	15	Acer x freemanii 'Jeffsred'	Autumn Blaze Freeman Maple	2.5" Cal.	B&B
	GS	12	Gleditsia triacanthos 'Skyline'	Skyline Honey Locust	2.5" Cal.	B&B
	UC	15	Ulmus x 'Frontier'	Frontier Hybrid Elm	2.5" Cal.	B&B
	ZG	22	Zelkova serrata 'Green Vase'	Green Vase Sawleaf Zelkova	2.5" Cal.	B&B

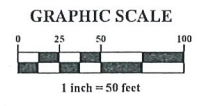


1 DECIDUOUS TREE UNDER 3" CALIPER
N.T.S.

Trees shall be centered in the tree lawn.
No trees shall be placed within 10' of a hydrant.

GENERAL NOTES

- Street tree selections shall be approved by the City of Delaware Street Tree Commission prior to installation.
- Prior to installation, the landscape contractor shall inspect the general site conditions and verify the subgrade, elevations, utility locations and topsoil provided by general contractor. The landscape contractor shall notify the general contractor of any unsatisfactory conditions and work shall not proceed until such conditions have been corrected and are acceptable to the landscape contractor.
- All trees shall meet or exceed standards set in the American Standard for Nursery Stock, ANSI Z60.1, 2004. All trees shall equal or exceed the measurements and sizes specified in the schedule.
- All planting operations shall adhere to American Nursery & Landscape Association standards unless noted otherwise.
- Substitutions shall be permitted with notification and written approval from the Owner & City. Substituted material shall be equivalent or greater in size than the specified plant. Substituted trees shall have the same essential characteristics and growth habit of the specified plant.
- Confirm location of all utilities and subsurface drain lines prior to plant installation.
- A pre-installation conference shall be conducted prior to planting operations with Owner & Contractor present.
- Contractor may slightly field adjust plant locations as necessary to avoid utilities.
- Contractor shall repair all lawn areas disturbed during construction with seed and warrant a healthy, weed free lawn prior to project acceptance.
- Mulch tree rings with shredded hardwood mulch of uniform dark brown color. It shall be free of twigs, leaves, disease, pest or other material slightly or injurious to trees. Average applied thickness shall be 3" depth.
- Install all trees in accordance with planting details.
- Street trees shall have a clear canopy height of 6' min.
- Trees shall be placed a minimum of 3' from sidewalks and curbs.
- All trees to be backfilled with prepared planting mix. Prepared planting mix shall be mixed on site and consist of one part topsoil, one part soil amendment, one part soil from excavation. Topsoil: ASTM D5268, pH range of 5.5 to 7, min. 4 percent organic material, free of stones 1 inch and larger. Soil amendment: Source separated yard waste compost from an Ohio EPA rated class IV compost facility.
- All trees to be fertilized with a commercial grade fertilizer tablets consisting of fast and slow release nitrogen.
- Contractor to determine plant list quantities from the plan. Graphic representation on plan supersedes in case of discrepancy with quantities on schedule.
- Any item or areas damaged during construction shall be repaired or replaced to its original condition at the contractor expense.
- Contractor shall thoroughly water all trees at time of installation and as needed until project acceptance by Owner. Contractor shall guarantee all trees installed for one full year from date of acceptance by the Owner. All trees shall be alive and at a vigorous rate of growth at the end of the guarantee period.

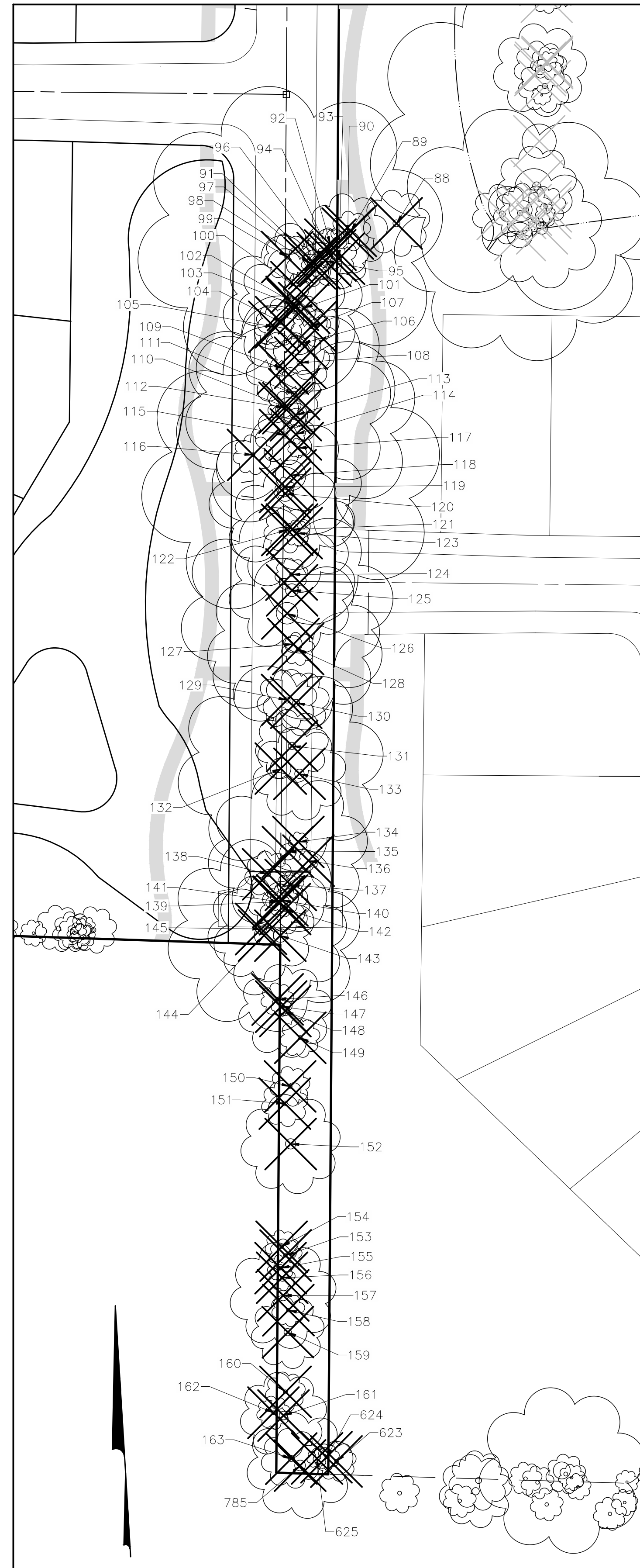


REVISIONS	MARK	DATE	DESCRIPTION

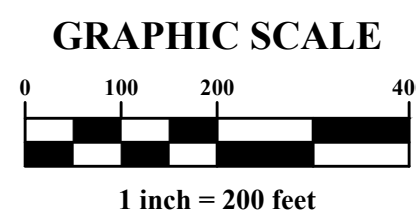
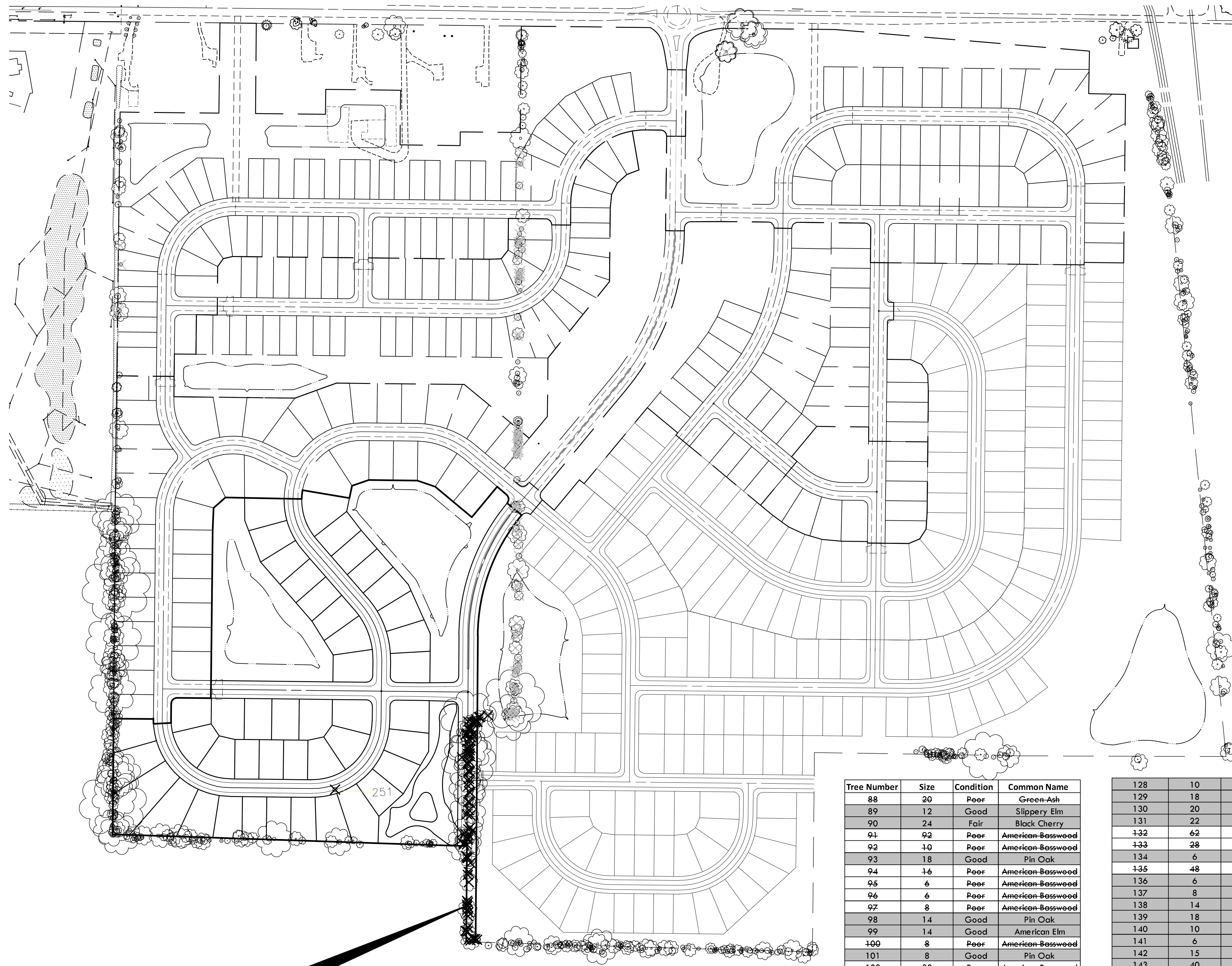
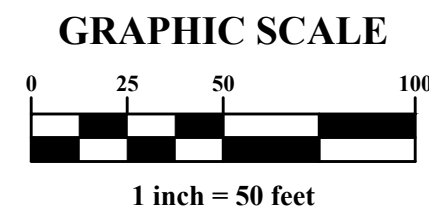
CITY OF DELAWARE, DELAWARE COUNTY, OHIO
 FINAL DEVELOPMENT PLAN
 FOR
COMMUNITIES AT GLENROSS
SECTION 14
STREET TREE PLAN

DATE 20190747
SCALE 1" = 50'
JOB NO. 20190747
SHEET 9/10

J:\20190747\Draw\04Sheets\Final Development Plan\7 Tree Inventory & Removal Plan.dwg, Last Saved By: sghara, 3/1/2021 1:35 PM, Last Printed By: O'hara, Shaun, 3/2/2021 8:57 AM (No Xrefs)



SCALE 1"=50'



TREE INVENTORY

Total Number of Trees: 81 (1763 Caliper Inches)
 Trees Removed (not including poor, dead or ash trees): 57 (905 Caliper Inches)
 Poor, Dead or Ash Trees: 24 (858 Caliper Inches)

✕ Trees to be Removed
 ABC Trees to be Removed Requiring Replacement
 Poor, Dead or Ash Trees to be Removed

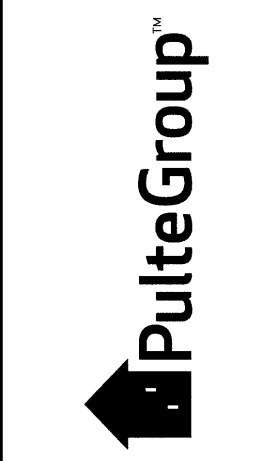
OVERALL TREE INVENTORY

	Removed	Replaced
Section 11	379	551.5
Section 12	0	293.5
Section 13	199	468
Section 14	905	127.5
Section 15	0	204.5
Section 16	435	254
Section 17	0	0
Section 18	0	265
Section 19	0	0
Section 20	0	0
Section 21	0	113.5
Section 22	0	217
Total	1918	2467.5

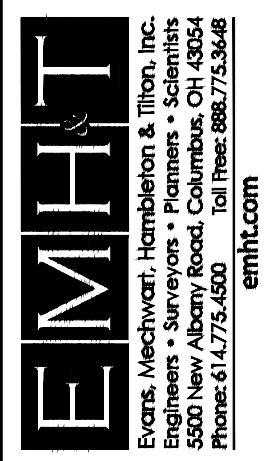
Tree Number	Size	Condition	Common Name
88	20	Poor	Green-Ash
89	12	Good	Slippery Elm
90	24	Fair	Black Cherry
91	92	Poor	American-Basswood
92	10	Poor	American-Basswood
93	18	Good	Pin Oak
94	16	Poor	American-Basswood
95	6	Poor	American-Basswood
96	6	Poor	American-Basswood
97	8	Poor	American-Basswood
98	14	Good	Pin Oak
99	14	Good	American Elm
100	8	Poor	American-Basswood
101	8	Good	Pin Oak
102	32	Poor	American-Basswood
103	42	Poor	American-Basswood
104	14	Good	American Elm
105	12	Good	Pin Oak
106	22	Poor	American-Basswood
107	12	Good	Pin Oak
108	18	Good	Pin Oak
109	22	Poor	American-Basswood
110	62	Poor	American-Basswood
111	16	Good	Black Cherry
112	10	Fair	American Elm
113	72	Poor	American-Basswood
114	6	Poor	Green-Ash
115	18	Good	Shagbark Hickory
116	12	Fair	Pear
117	6	Fair	Pear
118	90	Poor	American-Basswood
119	6	Good	American Elm
120	46	Good	Pin Oak
121	38	Dead	Green-Ash
122	14	Poor	American-Elm
123	8	Good	Pin Oak
124	10	Good	Hackberry
125	38	Dead	Green-Ash
126	64	Poor	American-Basswood
127	62	Poor	Green-Ash

128	10	Good	Pin Oak
129	18	Good	Pin Oak
130	20	Good	Pin Oak
131	22	Good	Pin Oak
132	62	Poor	American-Basswood
133	28	Poor	American-Basswood
134	6	Good	Red Mulberry
135	48	Dead	Green-Ash
136	6	Good	Red Mulberry
137	8	Good	Hackberry
138	14	Good	Hackberry
139	18	Good	Hackberry
140	10	Good	Hackberry
141	6	Good	Hackberry
142	15	Good	Hackberry
143	40	Good	Shagbark Hickory
144	58	Fair	Silver Maple
145	32	Good	Pin Oak
146	10	Good	Black Locust
147	6	Fair	Black Cherry
148	28	Good	Pin Oak
149	12	Good	Pin Oak
150	12	Good	Pin Oak
151	14	Good	Shagbark Hickory
152	30	Good	Pin Oak
153	10	Good	Shagbark Hickory
154	10	Good	Pin Oak
155	8	Good	Shagbark Hickory
156	8	Good	Shagbark Hickory
157	32	Good	Pin Oak
158	10	Good	Shagbark Hickory
159	22	Good	Pin Oak
160	12	Good	Pin Oak
161	26	Good	Pin Oak
162	10	Good	Pin Oak
163	18	Good	Pin Oak
251	8	Good	Black Cherry
623	12	Good	Pin Oak
624	8	Good	Pin Oak
625	6	Good	Pin Oak
785	32	Good	Pin Oak

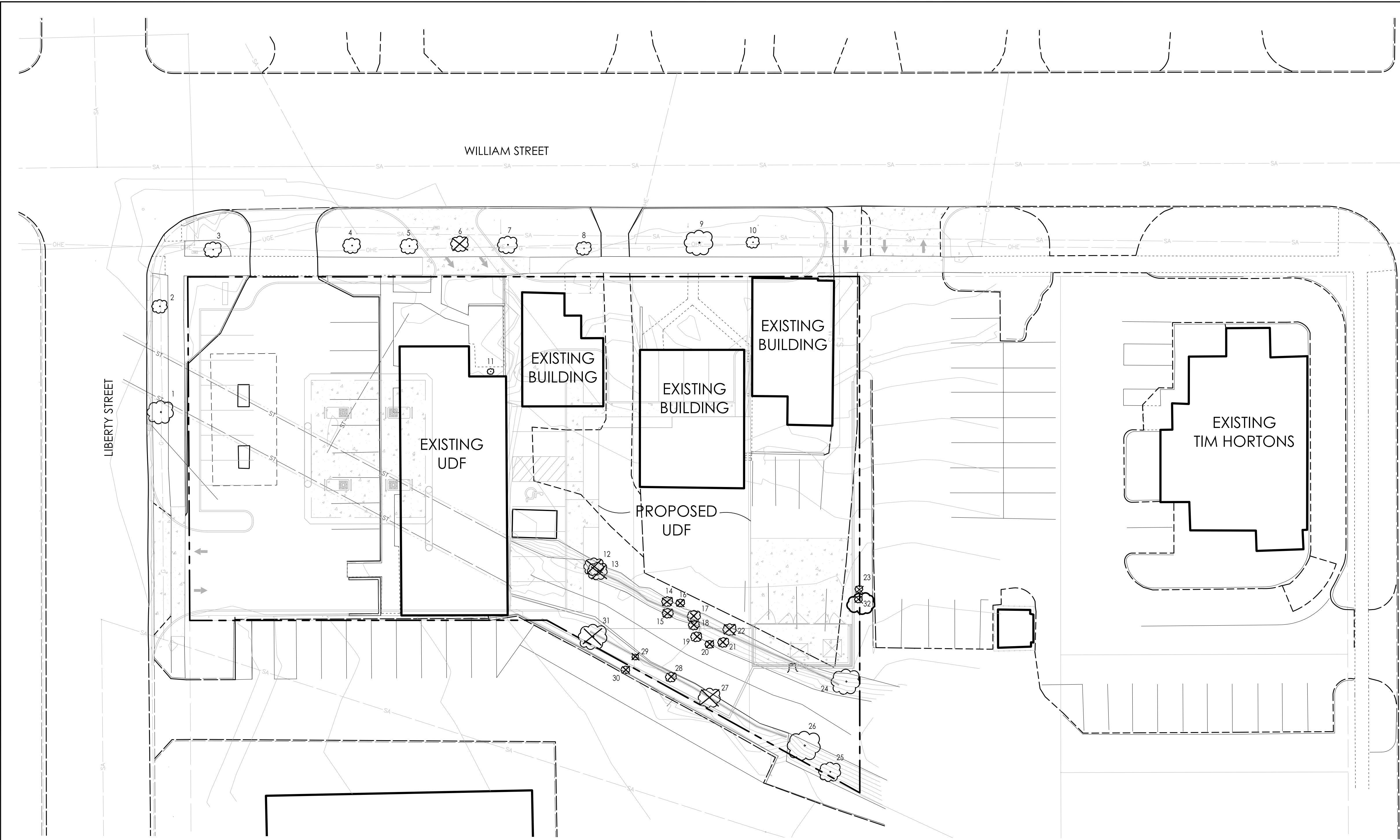
REVISIONS	MARK	DATE	DESCRIPTION



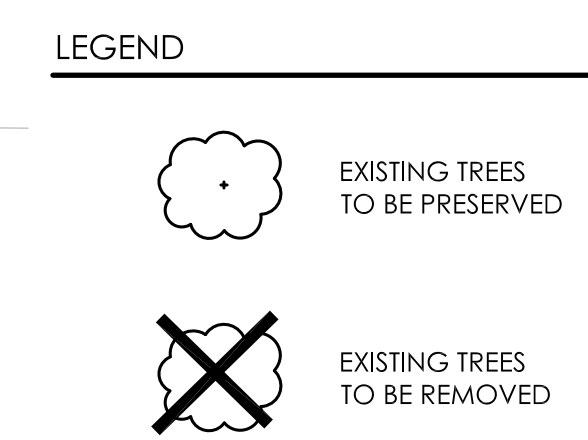
CITY OF DELAWARE, DELAWARE COUNTY, OHIO
 FINAL DEVELOPMENT PLAN
 FOR
COMMUNITIES AT GLENROSS
 SECTION 14
 TREE INVENTORY & REMOVAL PLAN



DATE	20190747
SCALE	As Noted
JOB NO.	20190747
SHEET	7/10



- GENERAL NOTES:**
1. ALL TREES IN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED. TREES TO BE PRESERVED SHALL BE PROTECTED WITH HIGH VISIBILITY TREE PROTECTION FENCE AS SHOWN.
 2. ONLY TREES 6" CAL. (DBH) AND LARGER WITHIN DEVELOPMENT LIMITS NOTED ON THESE PLANS.
 3. PROTECTION FENCING OR BARRIER SHALL REMAIN THROUGHOUT CONSTRUCTION AND ANY SUBSEQUENT GRADING OR EXCAVATION UNLESS OTHERWISE APPROVED ON A CLEARING AND GRADING PLAN. IN NO CASE SHALL MATERIALS, DEBRIS, FILL, VEHICLES OR EQUIPMENT BE STORED WITHIN THIS ENCLOSURE.



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REVISIONS / SUBMISSIONS		
NO.	DESCRIPTION	DATE
	CITY SUBMITTAL	06/10/20
	REVISED TREE SURVEY	03/02/21

TREES INVENTORY WITHIN PROJECT LIMITS
 TREES LISTED IN INVENTORY BELOW ARE 'MAJOR TREES' AS DEFINED BY DELAWARE CODE 1168.02 AND ARE A MINIMUM SIX-INCH DIAMETER AT BREAST HEIGHT (DBH).

TREE INVENTORY SCHEDULE

KEY	TREE SPECIE (COMMON NAME)	DBH	CONDITION	COMMENTS	EXEMPT FROM REPLACEMENT
1	HONEYLOCUST	16"	FAIR	PRESERVE	
2	HONEYLOCUST	14"	FAIR	PRESERVE	
3	HONEYLOCUST	14"	GOOD	PRESERVE	
4	HONEYLOCUST	18"	GOOD	PRESERVE	
5	HONEYLOCUST	12"	GOOD	PRESERVE	
6	HONEYLOCUST	12"	GOOD	REMOVE	
7	HONEYLOCUST	20"	GOOD	PRESERVE	
8	CHERRY	8"	GOOD	PRESERVE	
9	FLOWERING PEAR	20"	FAIR	PRESERVE	
10	CHERRY	12"	GOOD	PRESERVE	
11	JAPANESE MAPLE	5"	FAIR	PRESERVE	
12	HACKBERRY	18"	FAIR	REMOVE	
13	HACKBERRY	18"	FAIR	REMOVE	
14	BLACK LOCUST	10"	FAIR	REMOVE	
15	BLACK LOCUST	10"	FAIR	REMOVE	

TOTAL TREE CALIPER (DBH) REMOVED = 68"

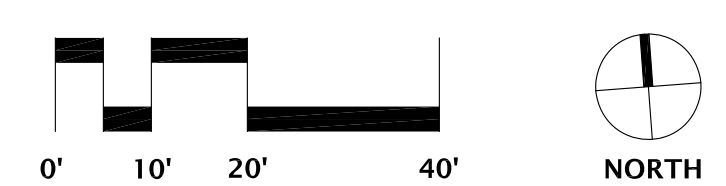
TREE INVENTORY SCHEDULE

KEY	TREE SPECIE (COMMON NAME)	DBH	CONDITION	COMMENTS	EXEMPT FROM REPLACEMENT
16	BLACK LOCUST	8"	FAIR	REMOVE	
17	ELM	12"	POOR	REMOVE	
18	ELM	10"	FAIR	REMOVE	
19	BLACK LOCUST	10"	POOR	REMOVE	
20	ELM	8"	FAIR	REMOVE	
21	UNKNOWN	10"	DEAD	REMOVE	X
22	ELM	18"	FAIR	REMOVE	
23	BLACK LOCUST	5"	FAIR	REMOVE	
24	BLACK LOCUST	26"	FAIR	PRESERVE	
25	WALNUT	20"	FAIR	PRESERVE	
26	HORNBEAM	30"	FAIR	PRESERVE	
27	ELM	20"	POOR	REMOVE	
28	CATALPA	10"	FAIR	REMOVE	
29	UNKNOWN	6"	FAIR	REMOVE	
30	UNKNOWN	8"	FAIR	REMOVE	
31	UNKNOWN	26"	FAIR	REMOVE	
32	UNKNOWN	8"	FAIR	REMOVE	

TOTAL TREE CALIPER (DBH) REMOVED = 108"

TOTAL TREE CALIPER (DBH) REMOVED = 174"
 CALCULATION DOES NOT INCLUDE TREES IN 'POOR' CONDITION

EDGE PLANNING LANDSCAPE ARCHITECTURE URBAN DESIGN
 330 W. SPRING STREET, SUITE 350
 COLUMBUS, OH 43215
 614.486.3343
 www.edgela.com









TREE SURVEY

Drawn By: BDF
 Scale: AS NOTED
 Job No.: 19-2111

L1.01

KEY

-  EXISTING TREE
-  EXISTING TREE TO BE REMOVED (SEE "TREE REMOVAL PLAN" SHEET)
-  TREE PRESERVATION AREA
-  TREE PROTECTION FENCE (SEE DETAIL 1, "TREE REMOVAL PLAN" SHEET)
-  GRADING LIMITS
-  100-YEAR FLOOD PLAIN

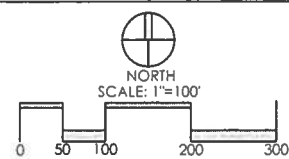
NOTE: SEE "TREE SURVEY DATA" SHEET FOR INDEX OF EXISTING TREES

OVERALL TREE SURVEY PLAN DELAWARE, OH

HOUK ROAD DEVELOPMENT

PREPARED FOR ARCHITECTURAL ALLIANCE

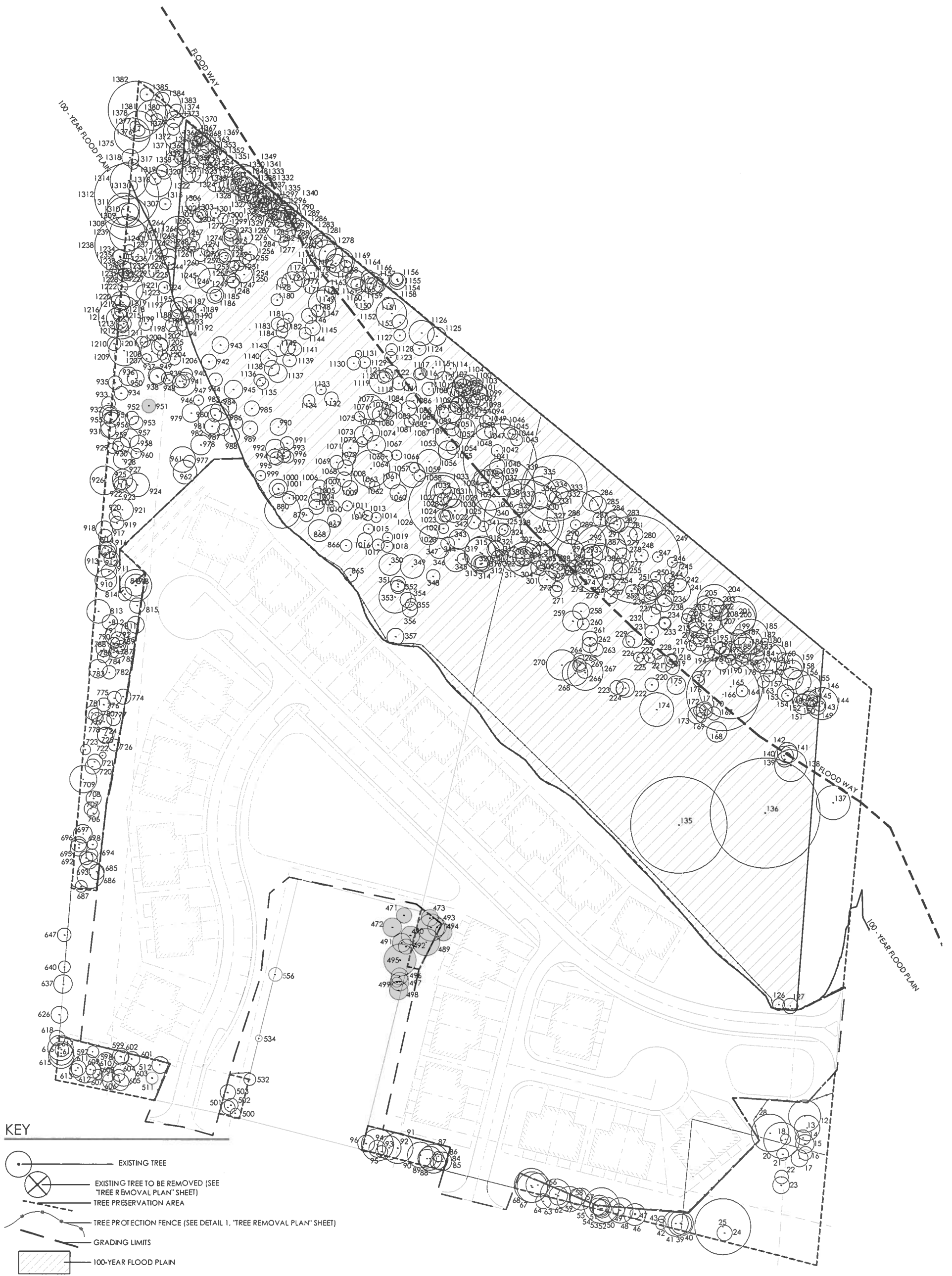
DATE: 1.13.2021



Faris Planning & Design

LAND PLANNING LANDSCAPE ARCHITECTURE
 243 N. 5th Street Suite 401 Columbus, OH 43215
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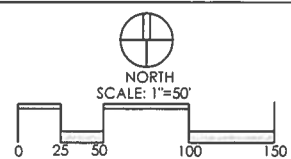
NOTE: SEE "TREE SURVEY DATA" SHEET FOR INDEX OF EXISTING TREES

TREE PRESERVATION PLAN DELAWARE, OH

HOUK ROAD DEVELOPMENT

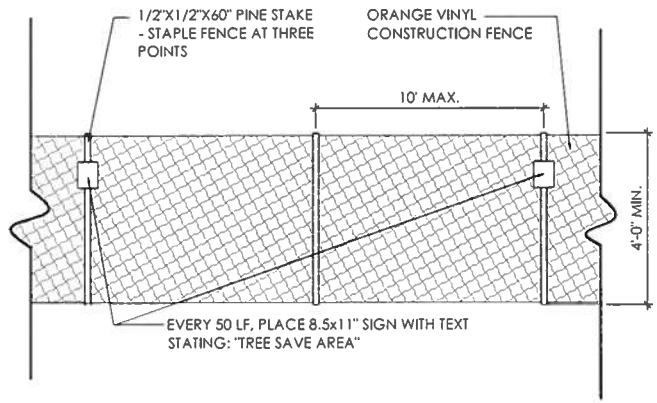
PREPARED FOR ARCHITECTURAL ALLIANCE

DATE: 1.13.2021



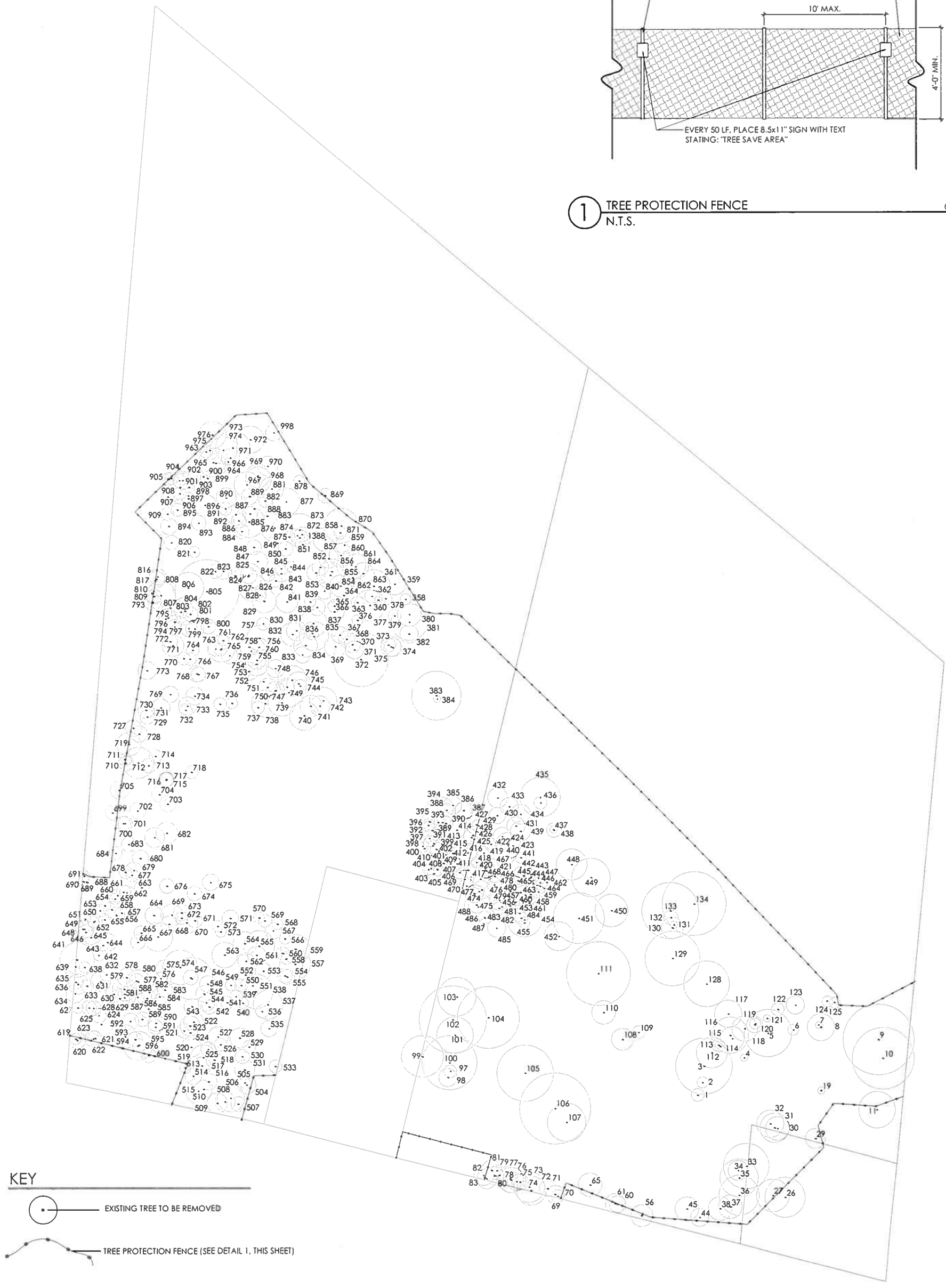
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1 TREE PROTECTION FENCE
N.T.S.

05-2809



- KEY**
- EXISTING TREE TO BE REMOVED
 - TREE PROTECTION FENCE (SEE DETAIL 1, THIS SHEET)

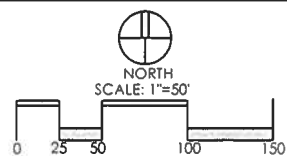
NOTE: SEE "TREE SURVEY DATA" SHEET FOR INDEX OF EXISTING TREES

TREE REMOVAL PLAN DELAWARE, OH

HOUK ROAD DEVELOPMENT

PREPARED FOR ARCHITECTURAL ALLIANCE

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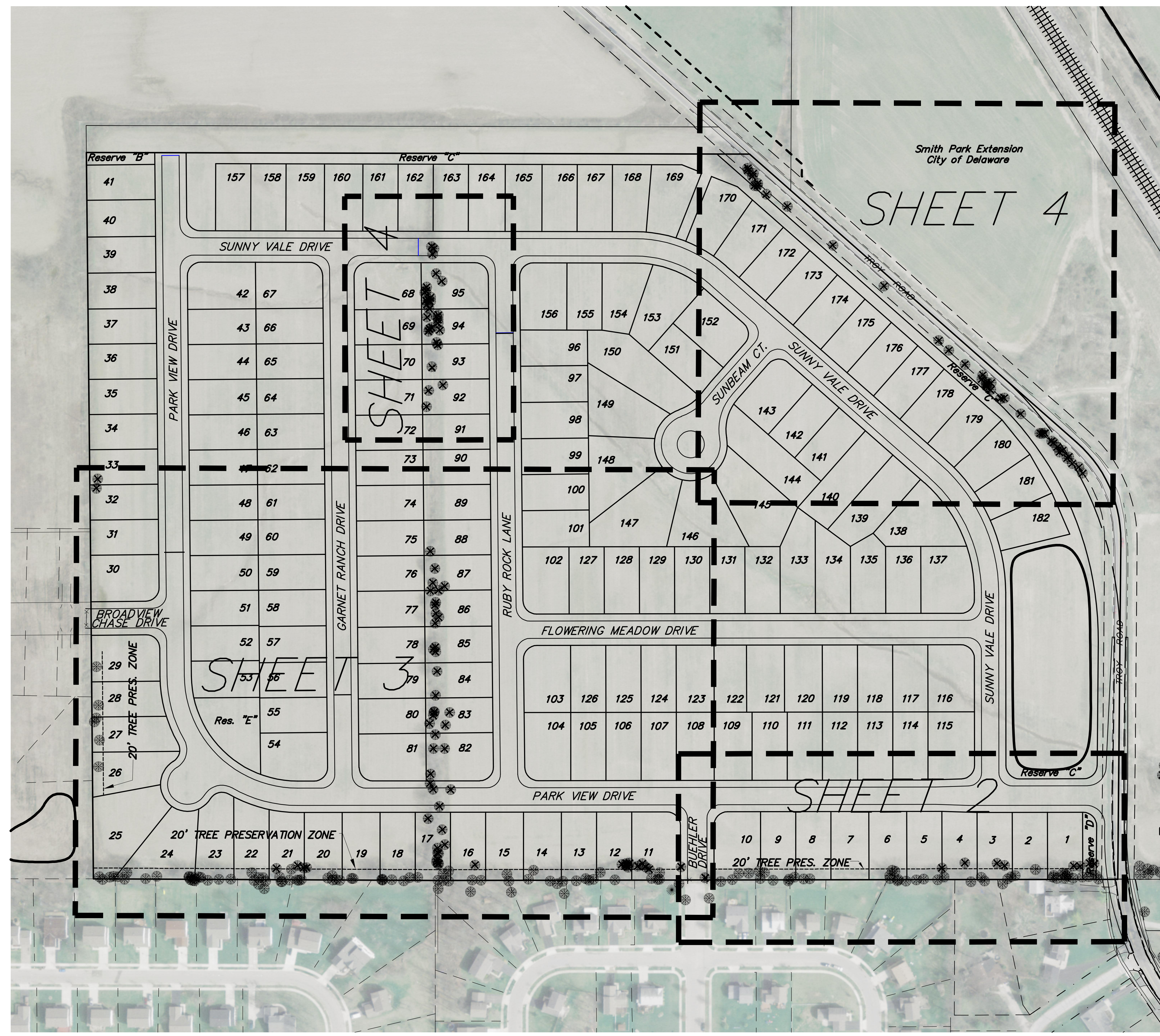
TREE #	SIZE	SPECIES	CONDITION	STATUS
1	7	CHERRY	GOOD	REMOVE
2	6	PINE	GOOD	REMOVE
3	13	MAPLE	GOOD	REMOVE
4	13	TREE	DEAD	REMOVE
5	26	HACKBERRY	GOOD	REMOVE
6	6	SPRUCE	POOR	REMOVE
7	11	TREE	DEAD	REMOVE
8	15	WALNUT	GOOD	REMOVE
9	39	WALNUT	GOOD	REMOVE
10	34	MAPLE	GOOD	REMOVE
11	20	MAPLE	GOOD	REMOVE
12	19	MAPLE	GOOD	REMOVE
13	15	ASH	POOR	PRESERVE
14	9	MULBERRY	FAIR	PRESERVE
15	11	MULBERRY	POOR	PRESERVE
16	8	HACKBERRY	GOOD	PRESERVE
17	10	HACKBERRY	GOOD	PRESERVE
18	6	HICKORY	FAIR	PRESERVE
19	7	TREE	DEAD	REMOVE
20	2	HICKORY	FAIR	PRESERVE
21	7	APPLE	FAIR	PRESERVE
22	8	SPRUCE	GOOD	PRESERVE
23	10	SPRUCE	GOOD	PRESERVE
24	9	HACKBERRY	FAIR	PRESERVE
25	33	HACKBERRY	GOOD	PRESERVE
26	22	SPRUCE	GOOD	REMOVE
27	18	SPRUCE	GOOD	REMOVE
28	22	PINE	GOOD	REMOVE
29	11	SPRUCE	GOOD	REMOVE
30	13	PINE	FAIR	REMOVE
31	16	PINE	GOOD	REMOVE
32	15	PINE	FAIR	REMOVE
33	25	MULBERRY	POOR	REMOVE
34	11	PINE	GOOD	REMOVE
35	21	PINE	GOOD	REMOVE
36	22	PINE	GOOD	REMOVE
37	13	SWEETGUM	GOOD	REMOVE
38	13	SWEETGUM	GOOD	REMOVE
39	15	MULBERRY	FAIR	PRESERVE
40	12	MULBERRY	POOR	PRESERVE
41	15	PINE	GOOD	PRESERVE
42	6	HACKBERRY	FAIR	PRESERVE
43	12	TREE	DEAD	PRESERVE
44	10	SWEETGUM	GOOD	REMOVE
45	10	SWEETGUM	GOOD	REMOVE
46	13	LOCUST	GOOD	PRESERVE
47	6	HACKBERRY	GOOD	PRESERVE
48	15	LOCUST	GOOD	PRESERVE
49	7	LOCUST	FAIR	PRESERVE
50	15	HACKBERRY	GOOD	PRESERVE
51	11	MULBERRY	POOR	PRESERVE
52	10	MULBERRY	FAIR	PRESERVE
53	21	ASH	FAIR	PRESERVE
54	12	HICKORY	FAIR	PRESERVE
55	10	PINE	FAIR	REMOVE
56	12	PINE	FAIR	REMOVE
57	13	PINE	GOOD	PRESERVE
58	10	HACKBERRY	GOOD	PRESERVE
59	15	LOCUST	FAIR	PRESERVE
60	9	PINE	FAIR	REMOVE
61	11	PINE	GOOD	REMOVE
62	11	PINE	FAIR	PRESERVE
63	18	PINE	FAIR	PRESERVE
64	9	LOCUST	GOOD	PRESERVE
65	13	WALNUT	GOOD	REMOVE
66	14	PINE	FAIR	PRESERVE
67	18	LOCUST	FAIR	PRESERVE
68	20	MULBERRY	FAIR	PRESERVE
69	7	HACKBERRY	GOOD	REMOVE
70	10	HACKBERRY	FAIR	REMOVE
71	9	APPLE	POOR	REMOVE
72	16	LOCUST	GOOD	REMOVE
73	17	LOCUST	FAIR	REMOVE
74	9	PINE	FAIR	REMOVE
75	10	PINE	FAIR	REMOVE
76	14	LOCUST	FAIR	REMOVE
77	14	LOCUST	GOOD	REMOVE
78	7	PINE	POOR	REMOVE
79	10	LOCUST	GOOD	REMOVE
80	6	PINE	GOOD	REMOVE
81	11	PINE	FAIR	REMOVE
82	11	LOCUST	FAIR	REMOVE
83	11	MAPLE	FAIR	REMOVE
84	11	PINE	FAIR	PRESERVE
85	9	PINE	FAIR	PRESERVE
86	17	PINE	POOR	PRESERVE
87	17	LOCUST	POOR	PRESERVE
88	14	LOCUST	FAIR	PRESERVE
89	11	LOCUST	FAIR	PRESERVE
90	15	LOCUST	FAIR	PRESERVE
91	18	LOCUST	GOOD	PRESERVE
92	14	PINE	FAIR	PRESERVE
93	7	PINE	FAIR	PRESERVE
94	13	LOCUST	GOOD	PRESERVE
95	10	LOCUST	FAIR	PRESERVE
96	10	PINE	FAIR	PRESERVE
97	7	HACKBERRY	FAIR	REMOVE
98	10	HACKBERRY	GOOD	REMOVE
99	23	OAK	GOOD	REMOVE
100	30	COTTONWOOD	FAIR	REMOVE
101	20	PINE	GOOD	REMOVE
102	37	WALNUT	POOR	REMOVE
103	21	PINE	FAIR	REMOVE
104	34	MAPLE	FAIR	REMOVE
105	31	MAPLE	FAIR	REMOVE
106	39	MAPLE	GOOD	REMOVE
107	21	SWEETGUM	FAIR	REMOVE
108	12	RED CEDAR	POOR	REMOVE
109	7	MULBERRY	FAIR	REMOVE
110	13	APPLE	POOR	REMOVE
111	30	MAPLE	FAIR	REMOVE
112	17	SWEETGUM	FAIR	REMOVE
113	7	PINE	FAIR	REMOVE
114	6	PINE	FAIR	REMOVE
115	13	SPRUCE	GOOD	REMOVE
116	20	SWEETGUM	FAIR	REMOVE
117	15	PINE	FAIR	REMOVE
118	14	MAPLE	GOOD	REMOVE
119	9	SPRUCE	FAIR	REMOVE
120	6	SPRUCE	GOOD	REMOVE
121	10	TREE	DEAD	REMOVE
122	7	SPRUCE	FAIR	REMOVE
123	10	SPRUCE	GOOD	REMOVE
124	6	SPRUCE	GOOD	REMOVE
125	6	SPRUCE	POOR	REMOVE
126	7	SPRUCE	FAIR	PRESERVE
127	9	SPRUCE	FAIR	PRESERVE
128	25	PINE	FAIR	REMOVE
129	30	PINE	FAIR	REMOVE
130	12	MULBERRY	POOR	REMOVE
131	8	TREE	DEAD	REMOVE
132	8	PINE	POOR	REMOVE
133	31	PINE	FAIR	REMOVE
134	35	PINE	GOOD	REMOVE
135	57	MAPLE	GOOD	PRESERVE
136	65	MAPLE	GOOD	PRESERVE
137	30	COTTONWOOD	FAIR	PRESERVE
138	19	COTTONWOOD	FAIR	PRESERVE
139	9	COTTONWOOD	POOR	PRESERVE
140	11	COTTONWOOD	POOR	PRESERVE
141	10	COTTONWOOD	FAIR	PRESERVE
142	12	COTTONWOOD	POOR	PRESERVE
143	6	COTTONWOOD	FAIR	PRESERVE
144	19	LOCUST	POOR	PRESERVE
145	11	TREE	DEAD	PRESERVE
146	7	COTTONWOOD	GOOD	PRESERVE
147	9	LOCUST	FAIR	PRESERVE
148	9	ASH	FAIR	PRESERVE
149	11	ASH	GOOD	PRESERVE
150	9	TREE	DEAD	PRESERVE
151	12	COTTONWOOD	FAIR	PRESERVE
152	7	HACKBERRY	POOR	PRESERVE
153	10	WALNUT	FAIR	PRESERVE
154	7	COTTONWOOD	GOOD	PRESERVE
155	15	HACKBERRY	GOOD	PRESERVE
156	14	LOCUST	GOOD	PRESERVE
157	13	LOCUST	FAIR	PRESERVE
158	11	LOCUST	GOOD	PRESERVE
159	16	HACKBERRY	GOOD	PRESERVE
160	6	HACKBERRY	GOOD	PRESERVE
161	6	HACKBERRY	FAIR	PRESERVE
162	9	WALNUT	FAIR	PRESERVE
163	7	ELM	GOOD	PRESERVE
164	7	COTTONWOOD	GOOD	PRESERVE
165	38	MAPLE	GOOD	PRESERVE
166	43	MAPLE	GOOD	PRESERVE
167	8	COTTONWOOD	FAIR	PRESERVE
168	12	COTTONWOOD	POOR	PRESERVE
169	6	COTTONWOOD	GOOD	PRESERVE
170	7	COTTONWOOD	FAIR	PRESERVE
171	10	MULBERRY	FAIR	PRESERVE
172	7	COTTONWOOD	POOR	PRESERVE
173	10	MULBERRY	FAIR	PRESERVE
174	20	ELM	GOOD	PRESERVE
175	11	WALNUT	POOR	PRESERVE
176	7	MAPLE	POOR	PRESERVE
177	7	MAPLE	FAIR	PRESERVE
178	7	COTTONWOOD	FAIR	PRESERVE
179	7	COTTONWOOD	FAIR	PRESERVE
180	19	LOCUST	GOOD	PRESERVE

TREE #	SIZE	SPECIES	CONDITION	STATUS
181	10	HONEYSUCKLE	GOOD	PRESERVE
182	8	TREE	DEAD	PRESERVE
183	4	COTTONWOOD	FAIR	PRESERVE
184	9	COTTONWOOD	GOOD	PRESERVE
185	21	OSAGE ORANGE	FAIR	PRESERVE
186	14	HACKBERRY	GOOD	PRESERVE
187	11	LOCUST	GOOD	PRESERVE
188	15	LOCUST	FAIR	PRESERVE
189	7	ASH	FAIR	PRESERVE
190	6	COTTONWOOD	FAIR	PRESERVE
191	8	WALNUT	FAIR	PRESERVE
192	6	WALNUT	FAIR	PRESERVE
193	7	COTTONWOOD	FAIR	PRESERVE
194	7	WALNUT	FAIR	PRESERVE
195	7	COTTONWOOD	GOOD	PRESERVE
196	8	ASH	GOOD	PRESERVE
197	6	ASH	GOOD	PRESERVE
198	7	COTTONWOOD	FAIR	PRESERVE
199	9	HACKBERRY	GOOD	PRESERVE
200	20	COTTONWOOD	GOOD	PRESERVE
201	22	COTTONWOOD	GOOD	PRESERVE
202	7	CHERRY	GOOD	PRESERVE
203	9	LOCUST	GOOD	PRESERVE
204	20	LOCUST	FAIR	PRESERVE
205	9	ELM	FAIR	PRESERVE
206	6	COTTONWOOD	GOOD	PRESERVE
207	20	LOCUST	POOR	PRESERVE
208	20	LOCUST	FAIR	PRESERVE
209	20	LOCUST	GOOD	PRESERVE
210	8	COTTONWOOD	FAIR	PRESERVE
211	7	ASH	GOOD	PRESERVE
212	13	WALNUT	GOOD	PRESERVE
213	7	ASH	FAIR	PRESERVE
214	7	WALNUT	FAIR	PRESERVE
215	13	WALNUT	GOOD	PRESERVE
216	6	COTTONWOOD	FAIR	PRESERVE
217	6	ASH	FAIR	PRESERVE
218	8	ASH	POOR	PRESERVE
219	8	ASH	FAIR	PRESERVE
220	8	ASH	FAIR	PRESERVE
221	10	WALNUT	FAIR	PRESERVE
222	11	COTTONWOOD	FAIR	PRESERVE
223	8	ASH	FAIR	PRESERVE
224	8	ASH	POOR	PRESERVE
225	7	WALNUT	FAIR	PRESERVE
226	6	WALNUT	POOR	PRESERVE
227	6	ASH	FAIR	PRESERVE
228	6	ASH	POOR	PRESERVE
229	7	WALNUT	FAIR	PRESERVE
230	10	WALNUT	GOOD	PRESERVE
231	8	WALNUT	FAIR	PRESERVE
232	11	ELM	GOOD	PRESERVE
233	7	ASH	GOOD	PRESERVE
234	7	ASH	FAIR	PRESERVE
235	8	WALNUT	GOOD	PRESERVE
236	10	LOCUST	GOOD	PRESERVE
237	6	ASH	FAIR	PRESERVE
238	10	HACKBERRY	GOOD	PRESERVE
239	7	HACKBERRY	GOOD	PRESERVE
240	11	HACKBERRY	POOR	PRESERVE
241	10	HACKBERRY	GOOD	PRESERVE
242	10	HACKBERRY	GOOD	PRESERVE
243	10	HACKBERRY	FAIR	PRESERVE
244	6	HACKBERRY	GOOD	PRESERVE
245	10	HACKBERRY	FAIR	PRESERVE
246	6	HACKBERRY	GOOD	PRESERVE
247	6	ELM	FAIR	PRESERVE
248	8	WALNUT	GOOD	PRESERVE
249	52	WALNUT	GOOD	PRESERVE
250	6	HACKBERRY	GOOD	PRESERVE
251	9	HACKBERRY	GOOD	PRESERVE
252	11	HACKBERRY	FAIR	PRESERVE
253	7	HACKBERRY	FAIR	PRESERVE
254	7	ASH	POOR	PRESERVE
255	10	LOCUST	FAIR	PRESERVE
256	7	WALNUT	GOOD	PRESERVE
257	8	WALNUT	FAIR	PRESERVE
258	10	COTTONWOOD	FAIR	PRESERVE
259	12	COTTONWOOD	GOOD	PRESERVE
260	7	ELM	FAIR	PRESERVE
261	9	ELM	POOR	PRESERVE
262	9	WALNUT	FAIR	PRESERVE
263	8	LOCUST	GOOD	PRESERVE
264	6	HACKBERRY	FAIR	PRESERVE
265	7	WALNUT	POOR	PRESERVE
266	9	COTTONWOOD	FAIR	PRESERVE
267	21	COTTONWOOD	GOOD	PRESERVE
268	15	COTTONWOOD	GOOD	PRESERVE
269	8	WALNUT	FAIR	PRESERVE
270	18	COTTONWOOD	GOOD	PRESERVE
271	7	COTTONWOOD	FAIR	PRESERVE
272	6	COTTONWOOD	FAIR	PRESERVE
273	8	HACKBERRY	GOOD	PRESERVE
274	18	HACKBERRY	GOOD	PRESERVE
275	9	WALNUT	GOOD	PRESERVE
276	28	LOCUST	GOOD	PRESERVE
277	10	WALNUT	GOOD	PRESERVE
278	9	ELM	POOR	PRESERVE
279	12	ASH	POOR	PRESERVE
280	8	ELM	FAIR	PRESERVE
281	11	HACKBERRY	FAIR	PRESERVE
282	14	ASH	FAIR	PRESERVE
283	14	HACKBERRY	FAIR	PRESERVE
284	7	HACKBERRY	FAIR	PRESERVE
285	10	HACKBERRY	GOOD	PRESERVE
286	12	ELM	POOR	PRESERVE
287	9	HACKBERRY	GOOD	PRESERVE
288	32	LOCUST	GOOD	PRESERVE
289	6	HACKBERRY	FAIR	PRESERVE
290	7	WALNUT	POOR	PRESERVE
291	9	HACKBERRY	GOOD	PRESERVE
292	20	LOCUST	GOOD	PRESERVE
293	13	LOCUST	FAIR	PRESERVE
294	16	COTTONWOOD	GOOD	PRESERVE
295	7	COTTONWOOD	FAIR	PRESERVE
296	7	COTTONWOOD	FAIR	PRESERVE
297	7	WALNUT	FAIR	PRESERVE
298	10	HACKBERRY	GOOD	PRESERVE
299	13	HACKBERRY	FAIR	PRESERVE
300	0	COTTONWOOD	GOOD	PRESERVE
301	10	COTTONWOOD	POOR	PRESERVE
302	10	HACKBERRY	FAIR	PRESERVE
303	6	HACKBERRY	GOOD	PRESERVE
304	8	HACKBERRY	GOOD	PRESERVE
305	6	HACKBERRY	POOR	PRESERVE
306	6	HACKBERRY	GOOD	PRESERVE
307	20	LOCUST	FAIR	PRESERVE
308	11	HACKBERRY	FAIR	PRESERVE
309	9	HACKBERRY	GOOD	PRESERVE
310	14	HACKBERRY	FAIR	PRESERVE
311	14	COTTONWOOD	POOR	PRESERVE
312	8	HACKBERRY	FAIR	PRESERVE
313	11	HACKBERRY	GOOD	PRESERVE
314	8	HACKBERRY	GOOD	

TREE #	SIZE	SPECIES	CONDITION	STATUS
221	9	CHERRY	FAIR	PRESERVE
222	10	TRF	DEAD	PRESERVE
223	6	HACKBERRY	GOOD	PRESERVE
224	9	PINE	GOOD	PRESERVE
225	10	ELM	GOOD	PRESERVE
226	9	ELM	FAIR	REMOVE
227	9	ELM	FAIR	REMOVE
228	9	CHERRY	FAIR	REMOVE
229	8	ELM	FAIR	REMOVE
230	9	ELM	FAIR	REMOVE
231	10	WALNUT	GOOD	REMOVE
232	7	WALNUT	GOOD	REMOVE
233	10	WALNUT	GOOD	REMOVE
234	10	WALNUT	FAIR	REMOVE
235	7	WALNUT	GOOD	REMOVE
236	6	WALNUT	GOOD	REMOVE
237	7	OAK	GOOD	REMOVE
238	15	PINE	FAIR	REMOVE
239	15	PINE	FAIR	REMOVE
240	16	PINE	GOOD	REMOVE
241	12	PINE	GOOD	REMOVE
242	11	PINE	GOOD	REMOVE
243	15	PINE	GOOD	REMOVE
244	7	HONEYUCKLE	FAIR	REMOVE
245	13	PINE	FAIR	REMOVE
246	16	WILLOW	GOOD	REMOVE
247	8	HONEYUCKLE	FAIR	REMOVE
248	10	PINE	GOOD	REMOVE
249	16	PINE	FAIR	REMOVE
250	10	PINE	FAIR	REMOVE
251	10	PINE	FAIR	REMOVE
252	17	PINE	GOOD	REMOVE
253	10	OAK	GOOD	REMOVE
254	13	PINE	GOOD	REMOVE
255	10	ASH	FAIR	REMOVE
256	10	PINE	FAIR	REMOVE
257	14	PINE	GOOD	REMOVE
258	10	PINE	FAIR	REMOVE
259	10	PINE	GOOD	REMOVE
260	16	PINE	FAIR	REMOVE
261	6	WALNUT	POOR	REMOVE
262	15	PINE	GOOD	REMOVE
263	8	PINE	GOOD	REMOVE
264	7	ELM	FAIR	REMOVE
265	7	PINE	FAIR	REMOVE
266	7	ELM	FAIR	REMOVE
267	8	WALNUT	GOOD	REMOVE
268	7	WALNUT	FAIR	REMOVE
269	9	WALNUT	GOOD	REMOVE
270	7	ELM	FAIR	REMOVE
271	12	ELM	GOOD	REMOVE
272	8	PINE	GOOD	REMOVE
273	10	HACKBERRY	GOOD	REMOVE
274	9	WALNUT	GOOD	REMOVE
275	8	PINE	POOR	REMOVE
276	8	PINE	FAIR	REMOVE
277	8	PINE	POOR	REMOVE
278	9	PINE	FAIR	REMOVE
279	7	HONEYUCKLE	FAIR	REMOVE
280	8	HONEYUCKLE	POOR	REMOVE
281	8	ASH	FAIR	REMOVE
282	8	HONEYUCKLE	POOR	REMOVE
283	11	HACKBERRY	FAIR	REMOVE
284	7	HACKBERRY	POOR	REMOVE
285	6	HACKBERRY	FAIR	REMOVE
286	9	PINE	POOR	REMOVE
287	8	ELM	FAIR	REMOVE
288	9	PINE	GOOD	REMOVE
289	9	ELM	FAIR	REMOVE
290	7	PINE	POOR	REMOVE
291	8	PINE	FAIR	REMOVE
292	14	ELM	GOOD	REMOVE
293	9	PINE	GOOD	REMOVE
294	11	PINE	GOOD	REMOVE
295	10	PINE	GOOD	REMOVE
296	8	ELM	FAIR	REMOVE
297	8	ELM	FAIR	REMOVE
298	9	PINE	FAIR	REMOVE
299	10	PINE	GOOD	REMOVE
300	8	PINE	FAIR	REMOVE
301	8	PINE	FAIR	REMOVE
302	15	LOCUST	FAIR	REMOVE
303	7	LOCUST	POOR	REMOVE
304	9	PINE	GOOD	REMOVE
305	35	LOCUST	GOOD	REMOVE
306	17	LOCUST	FAIR	REMOVE
307	9	PINE	GOOD	REMOVE
308	16	LOCUST	GOOD	REMOVE
309	8	LOCUST	GOOD	REMOVE
310	10	LOCUST	GOOD	REMOVE
311	10	PINE	GOOD	REMOVE
312	9	PINE	GOOD	REMOVE
313	14	LOCUST	GOOD	REMOVE
314	8	LOCUST	FAIR	REMOVE
315	9	LOCUST	FAIR	REMOVE
316	9	LOCUST	GOOD	REMOVE
317	9	LOCUST	GOOD	REMOVE
318	9	LOCUST	GOOD	REMOVE
319	13	LOCUST	FAIR	REMOVE
320	8	ELM	FAIR	REMOVE
321	6	ELM	FAIR	REMOVE
322	8	ELM	FAIR	REMOVE
323	9	LOCUST	FAIR	REMOVE
324	9	HACKBERRY	FAIR	REMOVE
325	9	LOCUST	GOOD	REMOVE
326	15	PINE	GOOD	REMOVE
327	5	PINE	GOOD	REMOVE
328	7	ELM	POOR	REMOVE
329	13	PINE	GOOD	REMOVE
330	7	HACKBERRY	GOOD	REMOVE
331	11	WALNUT	POOR	REMOVE
332	13	PINE	FAIR	REMOVE
333	13	HONEYUCKLE	POOR	REMOVE
334	13	ELM	FAIR	REMOVE
335	16	PINE	FAIR	REMOVE
336	6	HONEYUCKLE	FAIR	REMOVE
337	15	PINE	POOR	REMOVE
338	9	ASH	FAIR	REMOVE
339	6	ELM	FAIR	REMOVE
340	9	PINE	POO	REMOVE
341	12	PINE	POOR	REMOVE
342	7	HACKBERRY	FAIR	REMOVE
343	6	LOCUST	FAIR	REMOVE
344	6	HACKBERRY	GOOD	REMOVE
345	6	HACKBERRY	FAIR	REMOVE
346	7	HACKBERRY	FAIR	REMOVE
347	19	LOCUST	GOOD	REMOVE
348	15	ELM	FAIR	REMOVE
349	8	ELM	FAIR	REMOVE
350	7	ELM	FAIR	REMOVE
351	11	HACKBERRY	GOOD	REMOVE
352	8	HACKBERRY	POOR	REMOVE
353	7	HACKBERRY	GOOD	REMOVE
354	7	HACKBERRY	FAIR	REMOVE
355	6	HACKBERRY	FAIR	REMOVE
356	13	COTONWOOD	GOOD	REMOVE
357	6	HACKBERRY	FAIR	REMOVE
358	9	COTONWOOD	POOR	REMOVE
359	7	COTONWOOD	FAIR	REMOVE
360	9	COTONWOOD	FAIR	REMOVE
361	9	COTONWOOD	GOOD	REMOVE
362	6	HACKBERRY	GOOD	REMOVE
363	7	HACKBERRY	FAIR	REMOVE
364	14	ELM	GOOD	REMOVE
365	6	HACKBERRY	FAIR	REMOVE
366	6	HACKBERRY	GOOD	REMOVE
367	8	HACKBERRY	GOOD	REMOVE
368	10	HACKBERRY	FAIR	REMOVE
369	7	HACKBERRY	FAIR	REMOVE
370	15	COTONWOOD	GOOD	REMOVE
371	23	LOCUST	GOOD	REMOVE
372	7	ELM	GOOD	REMOVE
373	10	LOCUST	GOOD	REMOVE
374	8	HACKBERRY	FAIR	REMOVE
375	21	LOCUST	FAIR	OFF SITE
376	7	HACKBERRY	FAIR	REMOVE
377	6	HACKBERRY	POOR	REMOVE
378	18	LOCUST	GOOD	REMOVE
379	7	LOCUST	POOR	REMOVE
380	7	HACKBERRY	FAIR	REMOVE
381	18	LOCUST	FAIR	REMOVE
382	34	ASH	GOOD	REMOVE
383	18	COTONWOOD	FAIR	REMOVE
384	8	HACKBERRY	GOOD	REMOVE
385	11	HACKBERRY	GOOD	REMOVE
386	31	LOCUST	GOOD	REMOVE
387	10	HACKBERRY	GOOD	REMOVE
388	9	PINE	GOOD	REMOVE

** INDICATES TREES WITHIN 100 YEAR FLOOD PLAIN

TREE #	SIZE	SPECIES	CONDITION	STATUS
901	7	ELM	FAIR	REMOVE
902	10	PINE	GOOD	REMOVE
903	10	PINE	GOOD	REMOVE
904	7	ELM	FAIR	REMOVE
905	7	MAPLE	GOOD	REMOVE
906	16	PINE	GOOD	REMOVE
907	7	ELM	GOOD	REMOVE
908	7	MAPLE	FAIR	REMOVE
909	7	ELM	FAIR	REMOVE
910	13	LOCUST	FAIR	REMOVE
911	9	HACKBERRY	FAIR	REMOVE
912	9	LOCUST	FAIR	REMOVE
913	19	OAK	GOOD	REMOVE
914	8	ELM	GOOD	REMOVE
915	8	ELM	GOOD	REMOVE
916	10	LOCUST	GOOD	REMOVE
917	8	HACKBERRY	GOOD	REMOVE
918	10	HACKBERRY	GOOD	REMOVE
919	8	CHERRY	FAIR	REMOVE
920	7	CHERRY	FAIR	REMOVE
921	13	HACKBERRY	FAIR	REMOVE
922	8	CHERRY	FAIR	REMOVE
923	9	PINE	GOOD	REMOVE
924	14	LOCUST	GOOD	REMOVE
925	8	ELM	GOOD	REMOVE
926	17	LOCUST	GOOD	REMOVE
927	12	PINE	GOOD	REMOVE
928	11	HACKBERRY	GOOD	REMOVE
929	6	HACKBERRY	FAIR	REMOVE
930	6	HACKBERRY	GOOD	REMOVE
931	9	LOCUST	POOR	REMOVE
932	11	HACKBERRY	FAIR	OFF SITE
933	8	HACKBERRY	GOOD	OFF SITE
934	8	ASH	FAIR	REMOVE
935	8	HACKBERRY	POOR	REMOVE
936	11	HACKBERRY	GOOD	REMOVE
937	10	CHERRY	POOR	REMOVE
938	10	CHERRY	FAIR	REMOVE
939	7	HACKBERRY	GOOD	REMOVE
940	7	HACKBERRY	GOOD	REMOVE
941	8	CHERRY	FAIR	REMOVE
942	9	WALNUT	FAIR	REMOVE
943	10	ELM	FAIR	REMOVE
944	8	HACKBERRY	FAIR	REMOVE
945	11	LOCUST	GOOD	REMOVE
946	6	HACKBERRY	FAIR	REMOVE
947	14	CHERRY	GOOD	REMOVE
948	8	CHERRY	FAIR	REMOVE
949	7	HACKBERRY	FAIR	REMOVE
950	10	LOCUST	FAIR	REMOVE
951	8	AILANTHUS	FAIR	REMOVE
952	8	HACKBERRY	FAIR	REMOVE
953	8	LOCUST	FAIR	REMOVE
954	9	HACKBERRY	GOOD	REMOVE
955	9	LOCUST	GOOD	REMOVE
956	17	LOCUST	FAIR	REMOVE
957	11	LOCUST	GOOD	REMOVE
958	10	ASH	GOOD	REMOVE
959	10	CHERRY	FAIR	REMOVE
960	6	ELM	FAIR	REMOVE
961	15	PINE	GOOD	REMOVE
962	14	PINE	FAIR	REMOVE
963	7	HONEYUCKLE	FAIR	REMOVE
964	16	LOCUST	GOOD	REMOVE
965	11	LOCUST	GOOD	REMOVE
966	10	TREE	DEAD	REMOVE
967	14	LOCUST	FAIR	REMOVE
968	14	PINE	GOOD	REMOVE
969	13	PINE	GOOD	REMOVE
970	11	LOCUST	POOR	REMOVE
971	10	LOCUST	POOR	REMOVE
972	15	MAPLE	GOOD	REMOVE
973	19	PINE	GOOD	REMOVE
974	15	PINE	FAIR	REMOVE
975	10	LOCUST	POOR	REMOVE
976	15	PINE	FAIR	REMOVE
977	7	HONEYUCKLE	POOR	REMOVE
978	12	CHERRY	POOR	REMOVE
979	11	CHERRY	GOOD	REMOVE
980	8	HACKBERRY	FAIR	REMOVE
981	9	CHERRY	FAIR	REMOVE
982	19	CHERRY	GOOD	REMOVE
983	11	CHERRY	FAIR	REMOVE
984	10	CHERRY	POOR	REMOVE
985	9	HACKBERRY	FAIR	REMOVE
986	8	CHERRY	FAIR	REMOVE
987	7	HACKBERRY	FAIR	REMOVE
988	9	HACKBERRY	GOOD	REMOVE
989	9	CHERRY	FAIR	REMOVE
990	10	HONEYUCKLE	FAIR	REMOVE
991	8	WILLOW	GOOD	REMOVE
992	11	LOCUST	FAIR	REMOVE
993	7	HONEYUCKLE	FAIR	REMOVE
994	9	AILANTHUS	FAIR	REMOVE
995	8	HONEYUCKLE	POOR	REMOVE
996	8	HONEYUCKLE	FAIR	REMOVE
997	7	AILANTHUS	FAIR	REMOVE
998	9	HONEYUCKLE	FAIR	REMOVE
999	6	HACKBERRY	GOOD	REMOVE
1000	11	LOCUST	FAIR	REMOVE
1001	7	AILANTHUS	FAIR	REMOVE
1002	8	WALNUT	FAIR	REMOVE
1003	9	LOCUST	GOOD	REMOVE
1004	10	LOCUST	GOOD	REMOVE
1005	8	ELM	FAIR	REMOVE
1006	8	WALNUT	GOOD	REMOVE
1007	10	WALNUT	GOOD	REMOVE
1008	9	HACKBERRY	GOOD	REMOVE
1009	9	ELM	GOOD	REMOVE
1010	6	WALNUT	GOOD	REMOVE
1011	6	WALNUT	FAI	REMOVE
1012	6	WALNUT	FAIR	REMOVE
1013	6	WALNUT	FAIR	REMOVE
1014	6	WALNUT	POOR	REMOVE
1015	6	LOCUST	FAIR	REMOVE
1016	9	ELM	GOOD	REMOVE
1017	7	HACKBERRY	GOOD	REMOVE
1018	7	HACKBERRY	FAIR	REMOVE
1019	6	HACKBERRY	GOOD	REMOVE
1020	11	HACKBERRY	FAIR	REMOVE
1021	6	HACKBERRY	FAIR	REMOVE
1022	7	HACKBERRY	GOOD	REMOVE
1023	7	HACKBERRY	GOOD	REMOVE
1024	7	HACKBERRY	GOOD	REMOVE
1025	14	HACKBERRY	FAIR	REMOVE
1026	39	HACKBERRY	POOR	REMOVE
1027	9	HACKBERRY	POOR	REMOVE
1028	7	HACKBERRY	GOOD	REMOVE
1029	8	HACKBERRY	FAIR	REMOVE
1030	12	HACKBERRY	GOOD	REMOVE
1031	13	HACKBERRY	FAIR	REMOVE
1032	10	ELM	FAIR	REMOVE
1033	20	HACKBERRY	GOOD	REMOVE
1034	7	HACKBERRY	FAIR	REMOVE
1035	24	HACKBERRY	GOOD	REMOVE
1036	6	HACKBERRY	FAIR	REMOVE
1037	7	ELM	POOR	REMOVE
1038	9	HACKBERRY	FAIR	REMOVE
1039	6	ELM	FAIR	REMOVE
1040	9	HACKBERRY	GOOD	REMOVE
1041				



Scale: 1"=100'(H)

DRFT	CKD
SAL	JTW

CITY OF DELAWARE, DELAWARE COUNTY, OHIO

PARK VIEW
OVERALL TREE SURVEY INDEX

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Prepared For:
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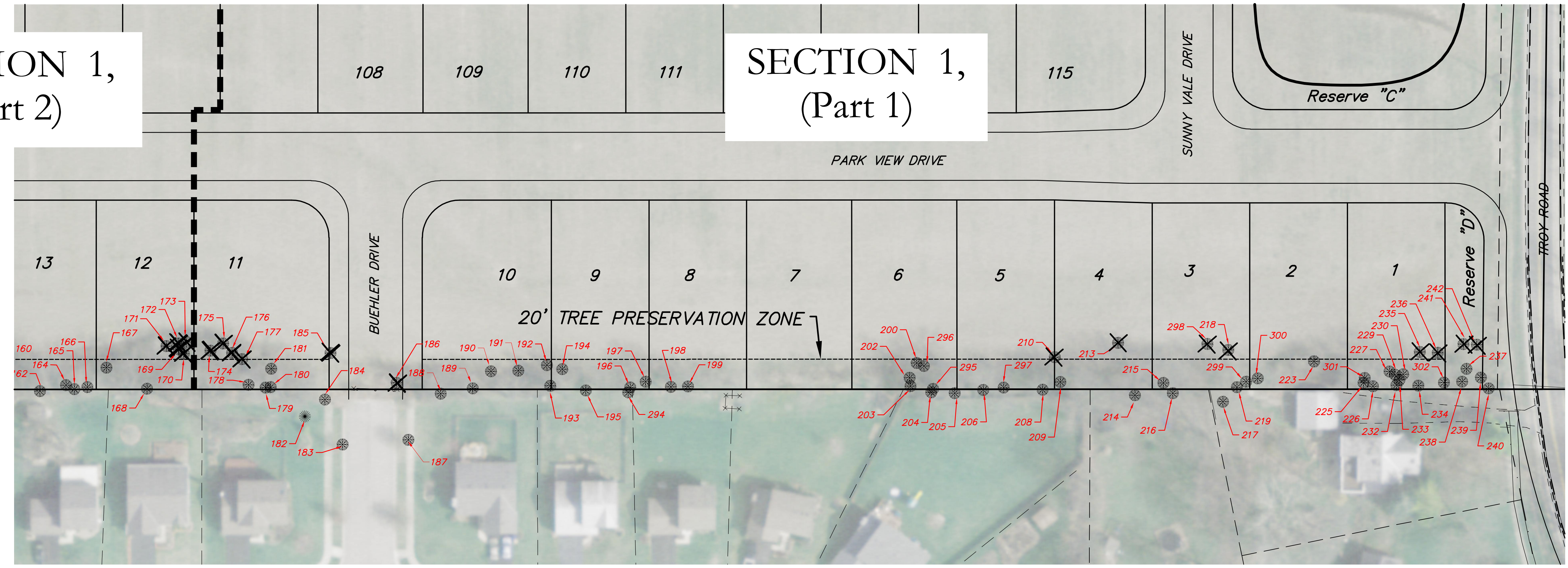
NO.	REVISION DESCRIPTION	SHT(S)	INITIAL	DATE

Z:\PARK VIEW (TROY ROAD)\DRAWINGS\2-TREE CLEARING EXHIBITS\PARK VIEW TREE SURVEY INDEX.DWG - I.XREFS - Park View Engineering Base - PLOTTED BY JM WATKINS - March 22, 2021 - 1:49 PM



SECTION 1,
(Part 2)

SECTION 1,
(Part 1)



Scale: 1"=40'(H)	
DRFT	CKD
SAL	JTW

CITY OF DELAWARE, DELAWARE COUNTY, OHIO
PARK VIEW
OVERALL TREE SURVEY

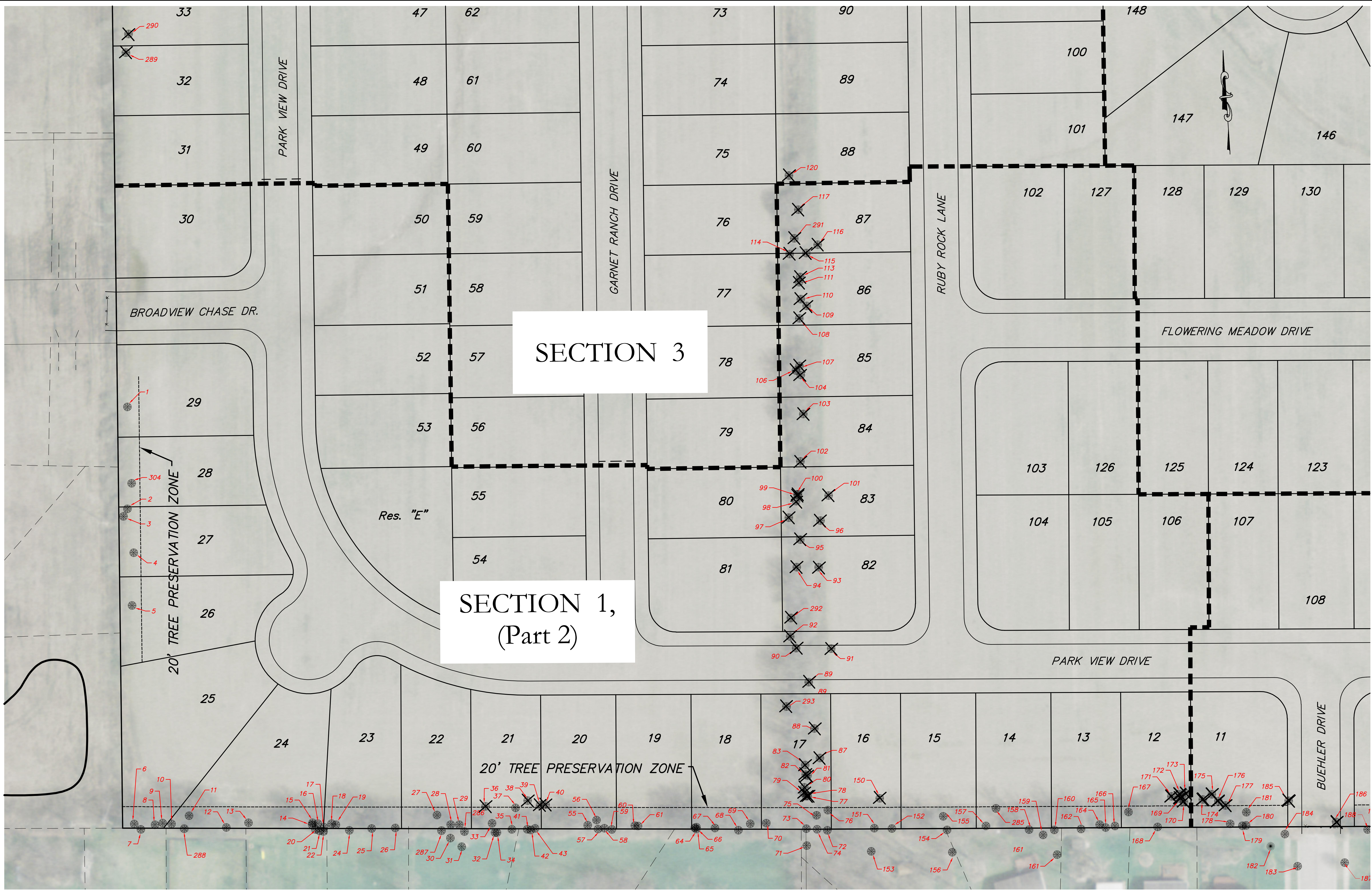
Prepared By:
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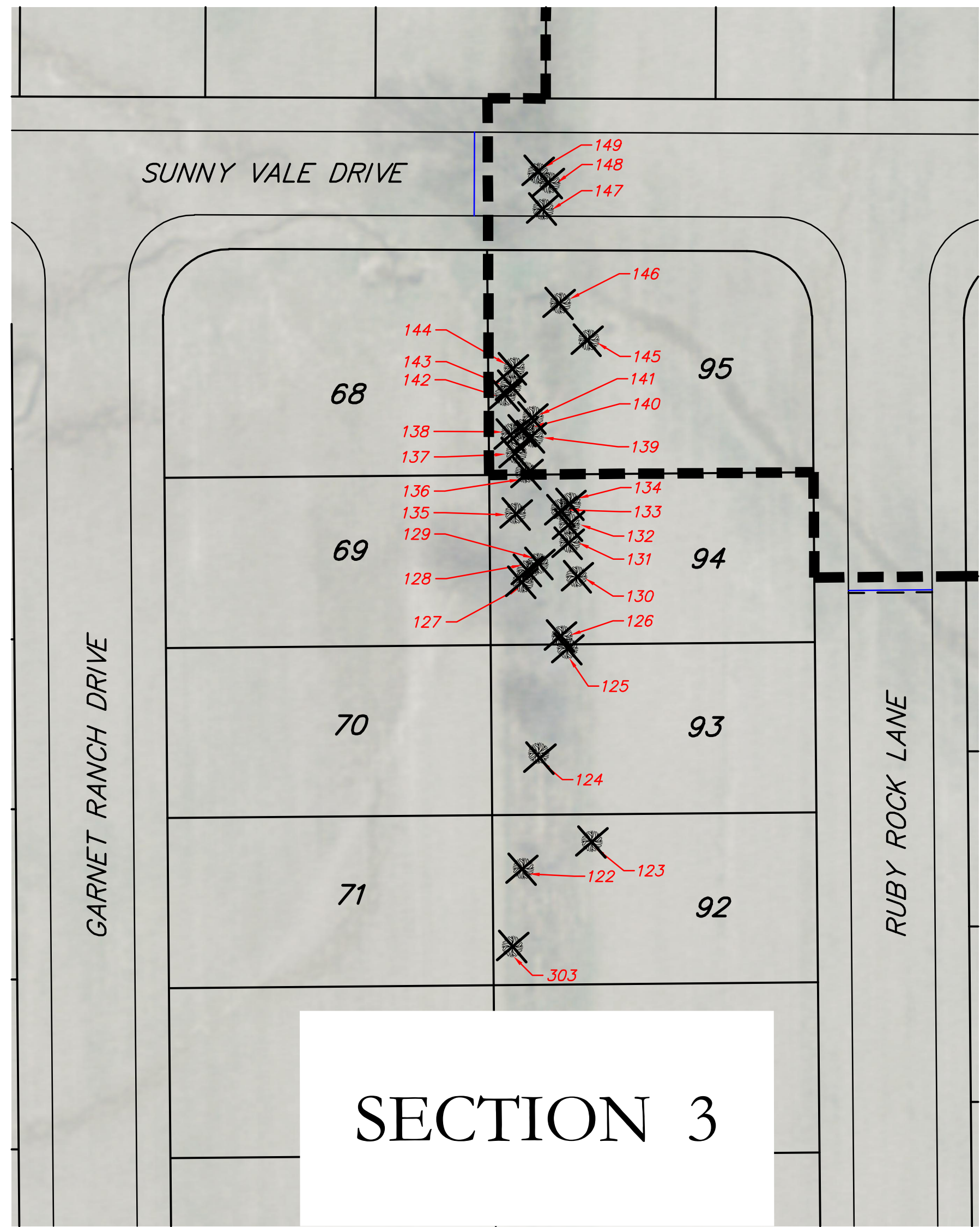
507 Executive Campus Dr.
Suite 100
Westerville, Ohio 43082

REVISION DESCRIPTION	SHT(S)	INITIAL	DATE

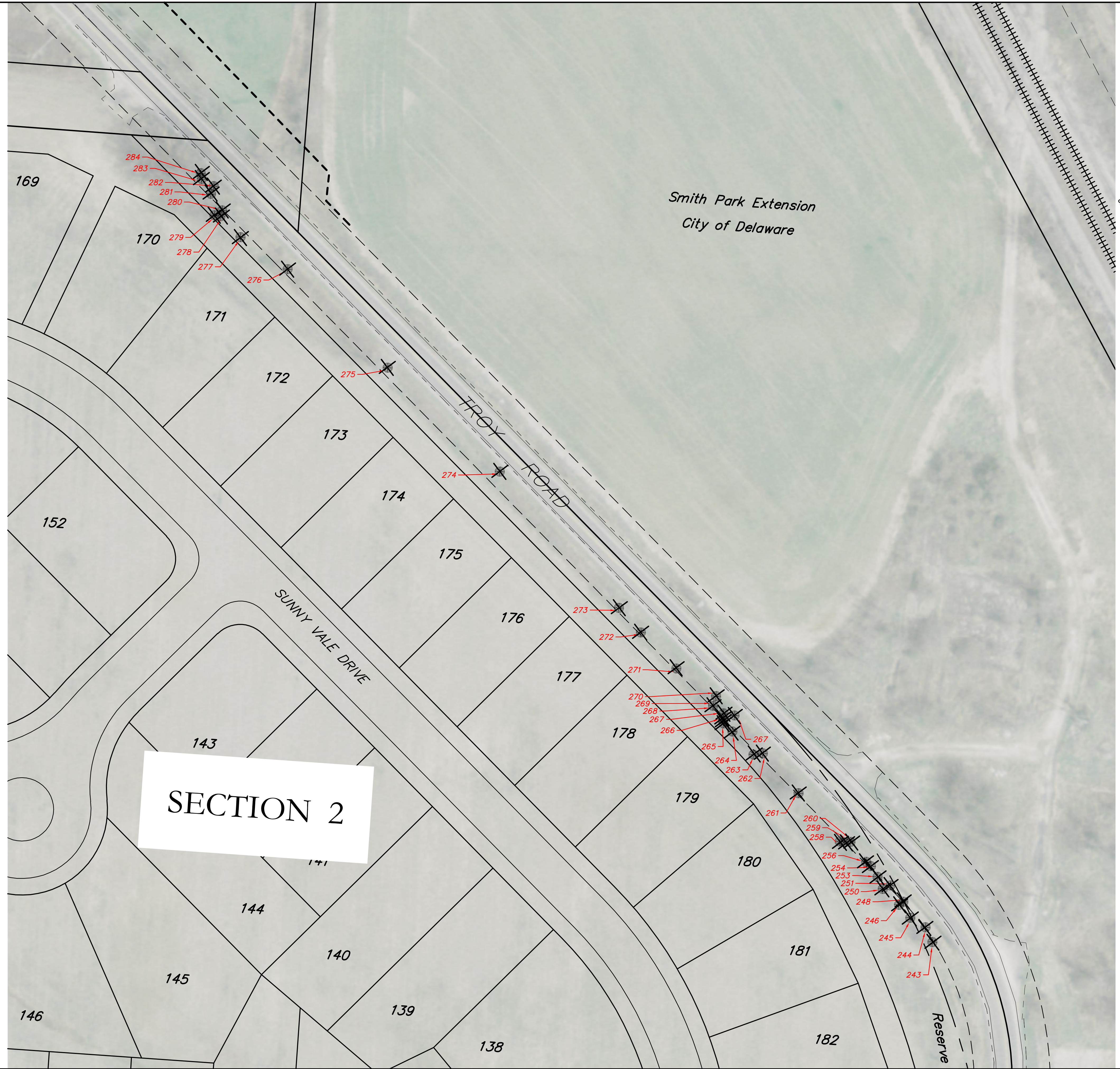
2. PARK VIEW (TROY ROAD) DRAWINGS - TREE CLEARING EXHIBITS (PARK VIEW TREE SURVEY INDEXING - 1 XREFS: Park View Engineering Base - PLOTTED BY JM WATKINS - March 22, 2021 - 1:49 PM



Z:\PARK VIEW (TROY ROAD)\DRAWINGS\2-TREE CLEARING EXHIBITS\PAK VIEW TREE SURVEY INDEX.DWG - 1.XREFS: Park View Engineering Base - PLOTTED BY JIM WATKINS - March 22, 2021 - 1:49 PM



SECTION 3



SECTION 2

<p>Scale: 1"=40'(ft)</p>	DRFT	CKD		<table border="1"> <tr> <th>REVISION</th> <th>DESCRIPTION</th> <th>SHT(S)</th> <th>INITIAL</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISION	DESCRIPTION	SHT(S)	INITIAL	DATE					
	REVISION	DESCRIPTION			SHT(S)	INITIAL	DATE							
<table border="1"> <tr> <td>4</td> <td>5</td> </tr> </table>	4	5	SAL	JTW	<p>Prepared By: JAY WATSON WATSON CONSULTING ENGINEERS & SURVEYORS 83 Shull Avenue Gannock, Ohio 43230 (614) 474-7979</p>	<p>Prepared For: D. RHORTON America's Builder</p>	<p>507 Executive Campus Dr. Suite 100 Westerville, Ohio 43082</p>							
4	5													

Z:\PARK VIEW (TROY ROAD)\DRAWINGS\2-TREE CLEARING EXHIBITS\PARK VIEW TREE SURVEY INDEX.DWG - 1.XREFS - Park View Engineering Base - PLOTTED BY JIM WATKINS - March 22, 2021 - 1:49 PM

Table with 6 columns: ID, Common Name, Scientific Name, Size, Trunks, Condition. Contains tree survey data for IDs 1 through 87.

Table with 6 columns: ID, Common Name, Scientific Name, Size, Trunks, Condition. Contains tree survey data for IDs 88 through 166.

Table with 6 columns: ID, Common Name, Scientific Name, Size, Trunks, Condition. Contains tree survey data for IDs 167 through 246a.

Table with 6 columns: ID, Common Name, Scientific Name, Size, Trunks, Condition. Contains tree survey data for IDs 246b through 304b.

Summary table with 3 columns: Description, Inches, Number. Totals: 1473 inches, 116 trees saved; 1459 inches, 141 trees removed; 394 inches, 36 trees removed.

DEAD, POOR CONDITION
TREES TO BE REMOVED
TREES TO REMAIN

Project information including: DATE, SHT(S), INITIAL, REVISION DESCRIPTION, 507 Executive Campus Dr., Suite 100, Westerville, Ohio 43082, DR. RHORTON America's Builder, Prepared For: WATSON CONSULTING ENGINEERS & SURVEYORS, 83 Shurl Avenue, Gannock, Ohio 43230, (614) 474-7979, CITY OF DELAWARE, DELAWARE COUNTY, OHIO, PARK VIEW OVERALL TREE SURVEY DATA, Scale: NONE, DRAFT, JTW, SG, 5.