Shade Tree Inventory of Selinsgrove, PA

2009

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Prepared for the Selinsgrove Borough

Shade Tree Commission

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ABSTRACT

Street trees provide a number of social and environmental benefits to their communities. A shade tree inventory was conducted in Selinsgrove, Pennsylvania to quantify the number of trees, the species present, tree characteristics, and sidewalk characteristics. The data collected was used along with historical aerial photographs to evaluate the sustainability of the urban forest over time, as well as determine diversity and ecology statistics of the population by neighborhood. The analysis determined that more than half of the 1970 population existed in 2009 but that five of the eight neighborhoods lost nearly two-thirds of their trees. The street tree population is dominated by only three species and is not appropriately diverse to withstand potential threats from invasive boring insects that threaten Pennsylvania's trees. Selinsgrove needs to find ways to limit tree losses and diversify the urban forest.

ACKNOWLEDGEMENTS

We thank Karl Mull and the Selinsgrove Shade Tree Commission for their guidance and feedback throughout the survey. Susquehanna University and the Susquehanna University Assistantship Program supported this project financially.

DISCLAIMER

The views and opinions expressed in this report are those of the authors and not those of the Selinsgrove Borough, the Selinsgrove Borough Council, the Shade Tree Commission, or Susquehanna University. All work detailed in this report has been funded by Susquehanna University, and no municipal funds were used in the collection of data, analysis, preparation, or distribution of this report.

INTRODUCTION

Street trees are unique biological resources of communities because of their specialized location between the street curb and the sidewalk and their important role providing environmental services for nearby landowners as well as the larger benefits of defining community aesthetics. Their proximity to the street typically means that their general maintenance and up-keep falls to the landowner, but when extensive pruning or removal is required, the community (often a "Shade Tree Commission") has a voice in the tree's outcome. The environmental services provided by street trees include trapping carbon and filtering air pollution (McPherson et al. 1994; Brack 2002), reducing heating and cooling requirements due to shading and wind breaks (Akbari et al.1992) reducing the "heat-island" effect in the summer (U.S. Dept. Energy 1992), and providing improved wildlife habitat and aesthetic quality to their communities (Schwaab et al. 1995) and extending the useful life of paved streets (McPherson and Muchnick 2005). For a community to understand its urban tree resource, it must have information about the trees. Smiley and Baker (1988) give rationale for conducting inventories, consisting of (1) determining the need for a tree management program, (2) determining tree values, (3) identifying and prioritizing tree work to be done, (4) increasing work efficiency, and (5) providing public information and education. Numerous digital tools have been developed to manage tree information including STRATUM (Maco and McPherson 2003) and the U.S. Forest Services' i-Tree (USFS), and have helped communities understand the value of street trees (McPherson et al. 2005).

Selinsgrove, Pennsylvania is a small borough located on the western bank of the Susquehanna River in Snyder County. The borough was once part of the National Arbor Day Foundation's Tree City USA Program and contained many tree lined streets. Street widening,

underground infrastructure upgrades, and sidewalk replacement projects in the 1990's and 2000's widely removed trees in the borough with virtually no replacements because the projects did not replace adequate planting areas. Public dissatisfaction with the rate street trees were being lost reinvigorated an inactive Shade Tree Commission (established in 1972) to protect trees threatened by proposed projects. Numerous amendments were made to the Selinsgrove Borough Code, §42 in 2007 (Selinsgrove Borough Code 2009) to strengthen the powers of the Commission, one of which was to make the Shade Tree Commission the body with sole authority to approve the removal of trees (§42-8. A). The Shade Tree Commission members had little information about the urban forest and proposed an inventory to quantify the street trees for the work of the Commission. The purpose of this report is to document the 2009 inventory, provide analysis of the geographic distribution and ecological diversity of the urban forest, and provide recommendations for the Commission to partially restore Selinsgrove's street trees.

INVENTORY METHODOLOGY

Study Area

Selinsgrove Borough is located in Eastern Snyder County, Pennsylvania in the USDA plant hardiness zone 6. Geographic coordinates are 40° 47'N, 76° 51'W. The borough covers 1.9 sq. miles and contains approximately 38 named streets that may contain street trees (alleys were excluded during this inventory). These streets encompass approximately 61,000 linear feet of roads.

Field Work

Digital records of roads, buildings, and tax parcels were provided by the Selinsgrove Borough for use in ESRI, Inc. ArcMAP software (ESRI, Inc. Redlands, CA). In consultation

with the Shade Tree Commission, the measurements made for each tree in the inventory were location (geographic coordinates) and street address, species, height, crown radius, circumference of each trunk, number of trunks, distance from the ground to the bottom of the crown, the presence or absence of a weak fork, overhead wires, dead wood, structural cavities, damage to sidewalks, and insect damage. Resources used to identify tree species are listed in the Appendix. Each street was visited to record information about the planting bed between the sidewalk and the street curb: namely, planting width and height to overhead wires. Measurements were made in the field with simple tools: steel tapes and clinometers (to determine height from the angle recorded at a specified distance from the tree). Measurements were recorded digitally on a handheld computer (Compaq iPAQ 5550, Hewlett Packard Co, Palo Alto, CA) running mobile GIS software (ArcPad 6.0, ESRI Inc., Redlands CA) that recorded locations from a connected GPS (Garmin GPS III+, Garmin Ltd. Olathe, KS). Every street and tree in the borough was visited from 2006 to 2009 as part of the inventory. Identification aides are listed in Appendix 1. Appendix 2 explains how each tree was given a unique code.

In addition to field visits, an aerial photograph from 1970 (e.g., two years before the Shade Tree Commission municipal ordinance was enacted) was used to identify probable street trees based on their position along the street. The image was originally taken on 9 x 9 inch film and enlarged to a 36 x 36 inch print for analysis. The photo was taken in the July; trees had sufficient canopy to locate them. Estimated scale of the photo used for digitizing is RF 1:5150, or one inch equals 430 feet.

Statistical Techniques

Species abundance, species richness, and descriptive statistics were calculated for the urban forest. Major roadways and railroad tracks were used to divide the borough into eight

distinct “neighborhoods” to evaluate spatial trends in ecological diversity, susceptibility to invasive pests, increase or decrease in the number of trees, and socio-economic factors. Municipal tax records included in the spatial dataset allowed for each neighborhood to be summarized by resident landowner status and zoning category. We assumed that where the tax mailing address was identical to the street address, the parcel was probably occupied by the owner. Where the tax mailing address was different from the street address of the parcel, we assumed the property was either a commercial entity or a rented, residential parcel. Difficulties in this approach include an owner-occupied parcel which has either a rural route delivery or the owner relies on a post office box. We believe these errors are small compared to all the size of the data set. We assume that people who live in owner-occupied parcels might be more willing to resist orders from the borough to remove trees during street work and might put more effort into preserving and maintaining street trees. Burch and Grove (1993) conclude that urban forestry can raise personal responsibility and increase rental tenures and home ownership in areas where residents have a sense of ownership in their surroundings. Land owned by universities, school districts, churches, other non-profit groups, and borough property were similarly classified based on the owner’s name in the database. From the zoning information, the proportion of parcels listed as “residential” was calculated for each neighborhood, as well as the inferred owner-occupied, rented parcels, and parcels owned by non-profit and municipal organizations.

Statistical analysis of the urban forest measurements and neighborhood compositions was done with SAS v9.1 (SAS Institute, Cary, NC) using the general linear model (GLM) procedure and the linear regression (REG) procedure.

Inventory Interpretations

Ecological statistics determined using the number of individuals and the number of different species (species richness, R) identified in the inventory. The Shannon Index (H) was calculated from the number of individuals in a single species (n_i), the number of trees in the sample (N) and the species richness (R) or number of species present (Odum 1997).

$$H = -\sum_{i=1}^{R} \frac{n_i}{N} \ln\left(\frac{n_i}{N}\right) \qquad \textbf{Eq. 1}$$

The Shannon Index generalizes information so if there are either few species present (low R value) or a single species dominates the population the value of H will be low. On the other hand, when there are many species (high R) and individuals are distributed evenly among all species, then the value of H is high. Diversity in street tree populations is important to prevent a single disturbance from wiping out an entire population. Important examples of street tree disturbances would be the Dutch elm disease which killed millions of trees worldwide (Sinclair and Campana 1978) and the American chestnut blight (Anagnostakis 1987). More recently, the Asian Long-Horned Beetle (LHB) and the Emerald Ash Borer (EAB) are poised to further decimate natural and urban forests as they burrow under the bark of a range of susceptible trees. Lists of susceptible trees given by Raupp et al. (2006) were used to estimate the threat of these insects in the Selinsgrove Borough.

Sidewalks were evaluated for their potential for future planting based on their width and height to (or absence of) overhead wires. Areas with greater than 36 inches planting area and no wires were considered “prime”. Areas with 36 inches planting area with overhead wires 20 feet above the ground or areas 24 inches or wider with no overhead wires were considered “favorable”. Areas 12 to 24 inches wide with or without overhead wires were considered

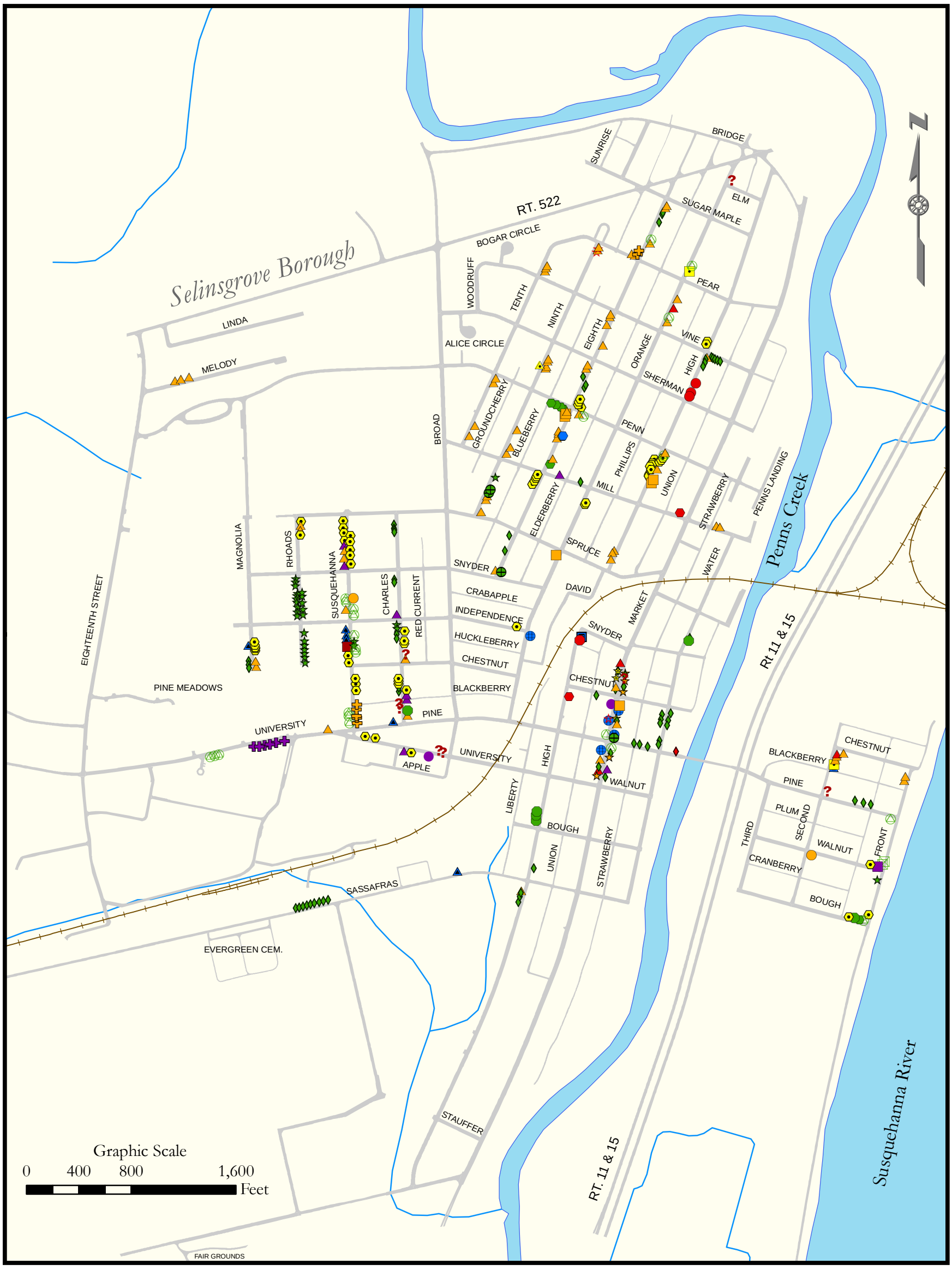
Table 1. The most common tree species in the Borough

Species	Common Name	Number	Proportion
			%
Acer platanoides	Norway maple	69	19.9
Pyrus calleryana	Cleveland pear	67	19.3
Quercus palustris	Pin oak	57	16.5
Gleditsia triancanthos	Honey locust	28	8.1
Acer rubrum	Red maple	22	6.4
Acer saccharum	Sugar maple	8	2.3
Acer saccharinum	Silver maple	7	2.0
Platanus occidentalis	American sycamore	7	2.0
-- 26 other species had less that 2% each --		Total	75.6

"marginal". Finally, areas more narrow than 12 inches were considered "inadequate" for planting new trees.

RESULTS

The inventory was completed between 2006 and 2009. The inventory cataloged 346 street trees and 539 curb segments in Selinsgrove Borough. The distribution of the trees across the borough is shown in Figure 1. Thirty-four species were identified and eight trees remain unidentified. The most common species identified during the inventory are given in Table 1. Tree information is printed in Appendix 3 along with a tree map, and sidewalk data and a map are in Appendix 4.



Legend

alder	river birch	ginkgo	black maple	black oak	ohio buckeye	sycamore
red ash	white birch	golden rain tree	japanese maple	pin oak	japanese pagodatree	tulip
white ash	cherry	hornbeam	norway maple	red oak	cleveland pear	black willow
basswood	horse chestnut	honey locust	red maple	white oak	plum	japanese zelcova
beech	crabapple		silver maple		sweet gum	unknown
	elm		sugar maple			Water

Figure 1: Distribution of street trees in Selinsgrove Borough, Pennsylvania

One notable feature of the distribution of trees is that of the main traffic arteries that run north-south through the borough (Eighteenth Street on the western side, Broad Street in the center, Market Street on the eastern side) only a three block section of Market Street has any street trees. Of the east-west roads (State route 522 on the north edge, Mill Street in the center, University and Pine Streets in the south central section, and Sassafras Street toward the south end), street trees are primarily found on properties owned by a private university, with only a few others located on eastern Mill street and eastern Pine street. The lack of trees on major transportation routes suggests an over-emphasis on traffic speed rather than community character and aesthetics. Recent research has explored the relationship between driver safety and street trees and it has been suggested that street trees reduce driver speeds and reduce the number of crashes in urban areas (Dumbaugh 2005, Wolf and Bratton 2006).

The results of the historical inventory are shown in Figure 2. The estimated number of street trees in 1970 is 708 compared to the present 346 trees, indicating that the borough lost 51.1% of the trees during the last three and one-half decades. The losses that stand out are the near eradication of street trees along Mill Street, Sherman Street, High, Street and Orange Street in the northern section of the borough. From the extent of loss, there is little doubt why the borough lost its place in the Arbor Day Foundation's "Tree City, USA" program.

Several ecological statistics are appropriate to evaluate the street tree population. Because of massive losses of street trees due to infestations like the Dutch elm disease, arborists are recommending that communities try to achieve diverse tree populations, with no more than 30% of any one family, 20% of one genus, or 10% of one species (Santamour 1990). By comparison, the genus *Acer* (the maples) account for 30.6% of the population and exceeds the 30% recommendation for a family and the 20% recommendation for genus. Similarly, three

species, Norway maple, Cleveland pear, and pin oak have proportions that exceed the 10% recommendation for a single species. An alternate way of expressing diversity is the Shannon Index, which is 2.62 for this population. These indices are best interpreted with local comparisons, and as the present inventory only evaluated one community, we have no direct comparison (comparisons between neighborhoods will be discussed later). However, larger numbers indicate both a diverse population and an even distribution among the various species. The value is encouraging because it is relatively high, though if each of the 34 species had equal representation, the value would be 3.4. The difference indicates a significant dominance by just a few species which make up a high proportion of the population. Another measure is the linear tree density, which is the number of trees divided by the length of streets. This value is 5.7 trees per 1000 feet. Expressed in the reciprocal, each tree has an average of 176 feet between its neighbors. Again, these numbers are best used in comparison to other communities or used as a benchmark for studies done in the future.

Invasive species are an ever-present threat and communities have lost trees to Dutch elm disease, the gypsy moth (oaks), the wooly adelgid (hemlocks), and chestnut blight. A spreading threat that is already in eleven Pennsylvania counties (including two that neighbor Snyder County: Mifflin and Juniata Counties) is the emerald ash borer (PA DCNR, 2009). This insect's larvae burrow under the bark and can kill adult trees in three to four years. The Asian longhorned beetle is another burrowing insect that has been found in surrounding states and may become a problem in Pennsylvania communities (PA DCNR 2010). Trees in Selinsgrove that may be susceptible to either of these insects include the maple family, ash, willow, sycamore horse chestnut, elm, and birch trees. These susceptible trees represent 38% of the total

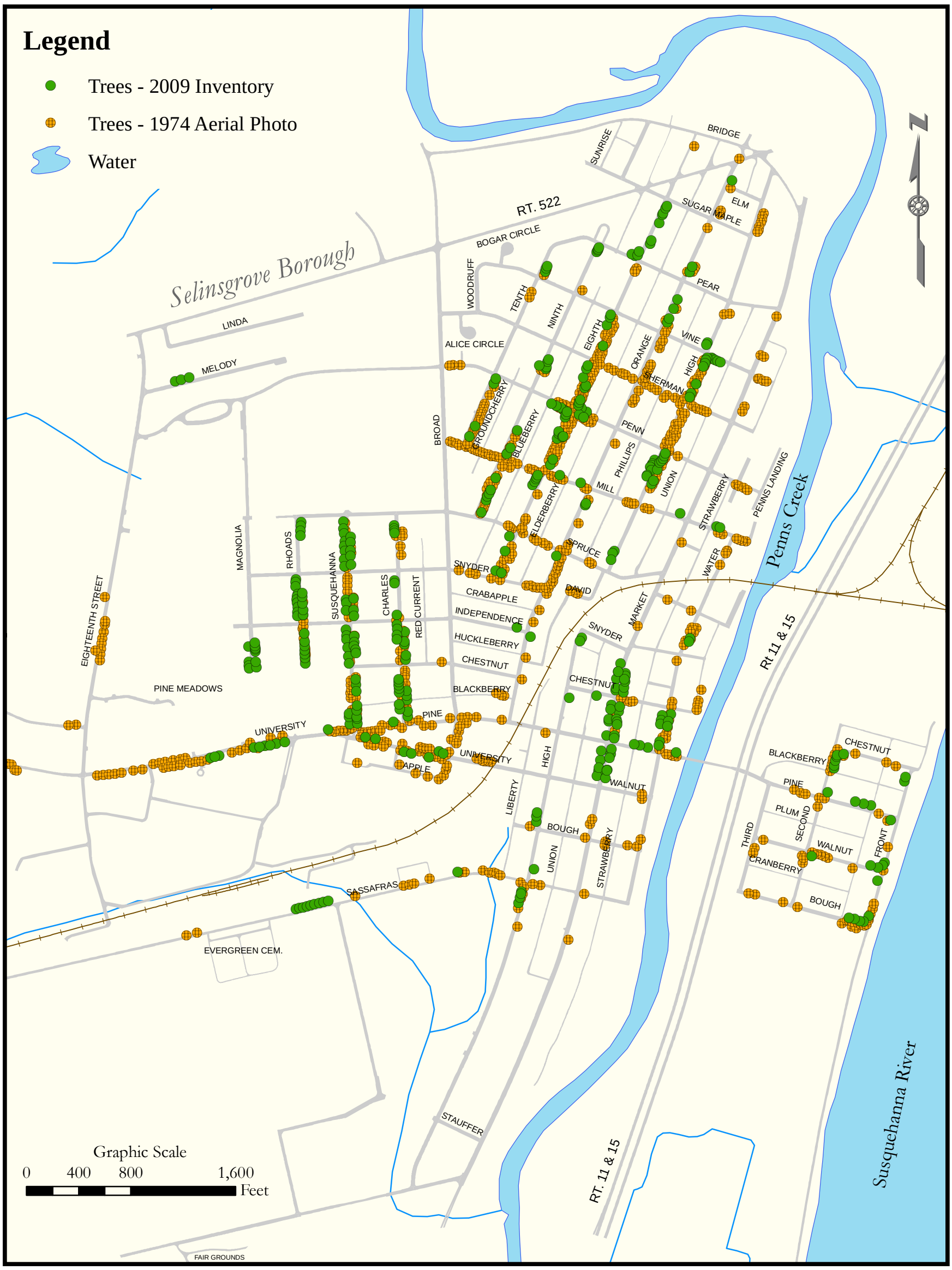


Figure 2. Street trees interpreted from a 1970 aerial photograph along with present day street trees.

population, and signal the importance of maintaining species diversity in the urban forest. The locations of the susceptible trees are shown in Figure 3.

The borough still has many areas that are suitable for planting street trees. Many of the trees in the central business district have been planted by the Shade Tree Commission in the last few years, and there are numerous areas around the rest of the town that are ripe for new plantings. The sidewalk planting areas are shown in Figure 4.

Neighborhoods

For the purposes of this inventory, the borough was divided into eight neighborhoods to further analyze the spatial trends in density, ecological diversity, and zoning and ownership information. Neighborhoods were organized around general characteristics like proximity to major roads, proportions of single-family homes compared with duplexes and apartment houses, and the number of commercial buildings. The neighborhood areas are shown in Figure 5. Neighborhood one consists of a small number of primarily single family residences and large tracts owned by the Selinsgrove Area School District and the municipal swimming pool. The remainder of this section consists of the corridor along State Route 204. This district has very few through streets, and only three street trees were found. All trees are of an identical species, so there is no ecological diversity and all these trees are susceptible to invasive boring insects (see Table 2). Compared to the historical population, this section's tree population decreased 62 percent. These parcels are generally residential, with a high number of non-profit owned parcels. Significant landscaping along the school district properties reduce the aesthetic need for street trees in this section; however, inclusion of "tree wells" near roadway intersections along Broad Street would require minimal disturbance to the street while creating a uneven roadway boundary that could mollify traffic speeds in front of the school buildings.

Neighborhood two consists of the north central part of the borough, and contains a high proportion of residential properties predominantly owner-occupied. This district had nearly 100 trees and was very diverse at 17 different species and a high Shannon index, though nearly half would be susceptible to invasive borers (see Table 2). This district lost more than half its trees since 1970, through there are still many suitable planting areas on neighborhood streets (see Figure 4).

The third neighborhood lies along the northern end of Market Street, the main traffic route through the borough. The district has a slight majority of residential properties, but a significant number are not owner-occupied. The area has just three trees, which is down 88% from the population that existed in 1970. Hardscaping in the area precludes easy changes, which is very unfortunate as this is the main northern entrance to the borough and the area sorely needs street trees to soften the architectural lines, reduce noise, and provide shade. Traffic studies and thoughtful planning will be needed to evaluate whether this street could be altered to allow for lanes that narrow near tree wells. These wells could accommodate trees, define parking areas along North Market Street, and better define pedestrian crossing zones. A prominent entry display with welcome signs, information, and landscaping would be an attractive addition to this section of the borough.

Neighborhood four lies just south of the Selinsgrove Area School District complex and consists predominantly of owner-occupied, residentially-zoned parcels. This neighborhood is one of only two that has more trees today than in 1970, with an increase of nearly 15% due to numerous honey locust trees that were planted on Rhoads Avenue. The neighborhood has the greatest density of trees in the borough, with nearly 100 trees in 40 acres. The population has a

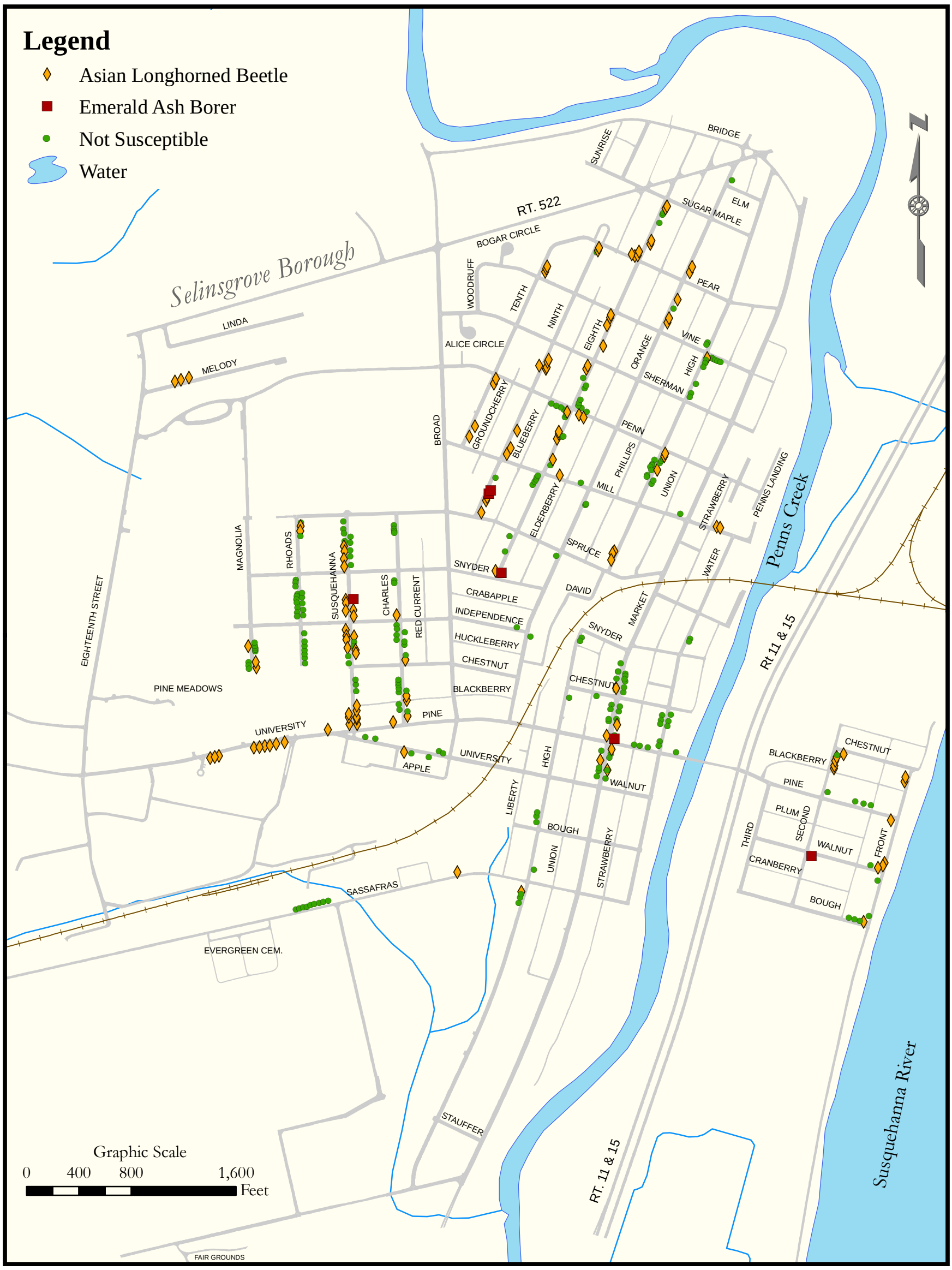
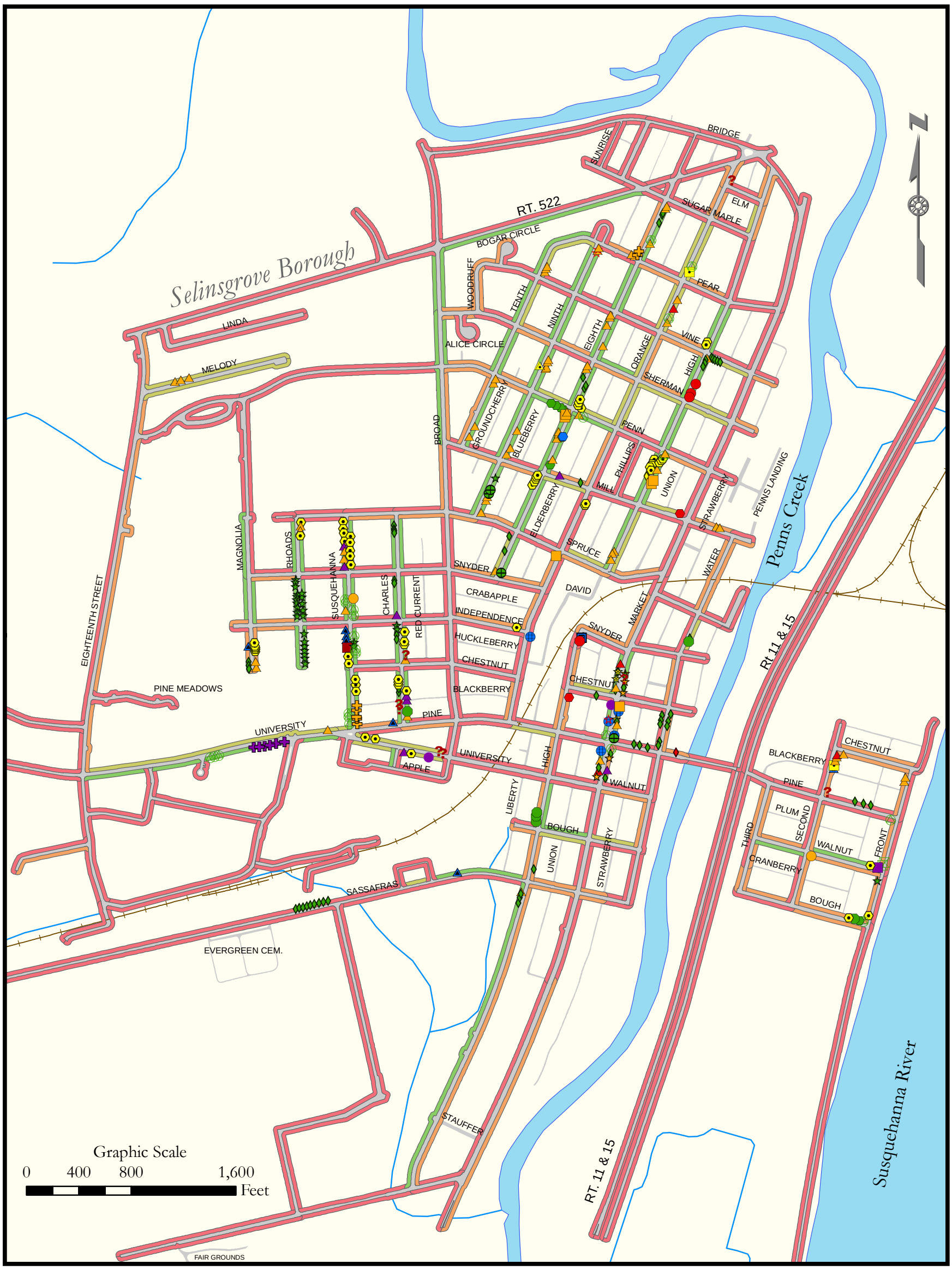


Figure 3. Tree susceptibility to the Asian longhorned beetle and the emerald ash borer.



Legend

Planting Guide

Prime | Favorable | Marginal | Inadequate

Tree Species

- alder
- red ash
- white ash
- basswood
- beech
- river birch
- white birch
- cherry
- horse chestnut
- crabapple
- elm
- ginkgo
- golden rain tree
- hornbeam
- honey locust
- black maple
- japanese maple
- norway maple
- red maple
- silver maple
- sugar maple
- black oak
- pin oak
- red oak
- white oak
- ohio buckeye
- japanese pagodatree
- cleveland pear
- plum
- sweet gum
- sycamore
- tulip
- black willow
- japanese zelcova
- unknown
- Water

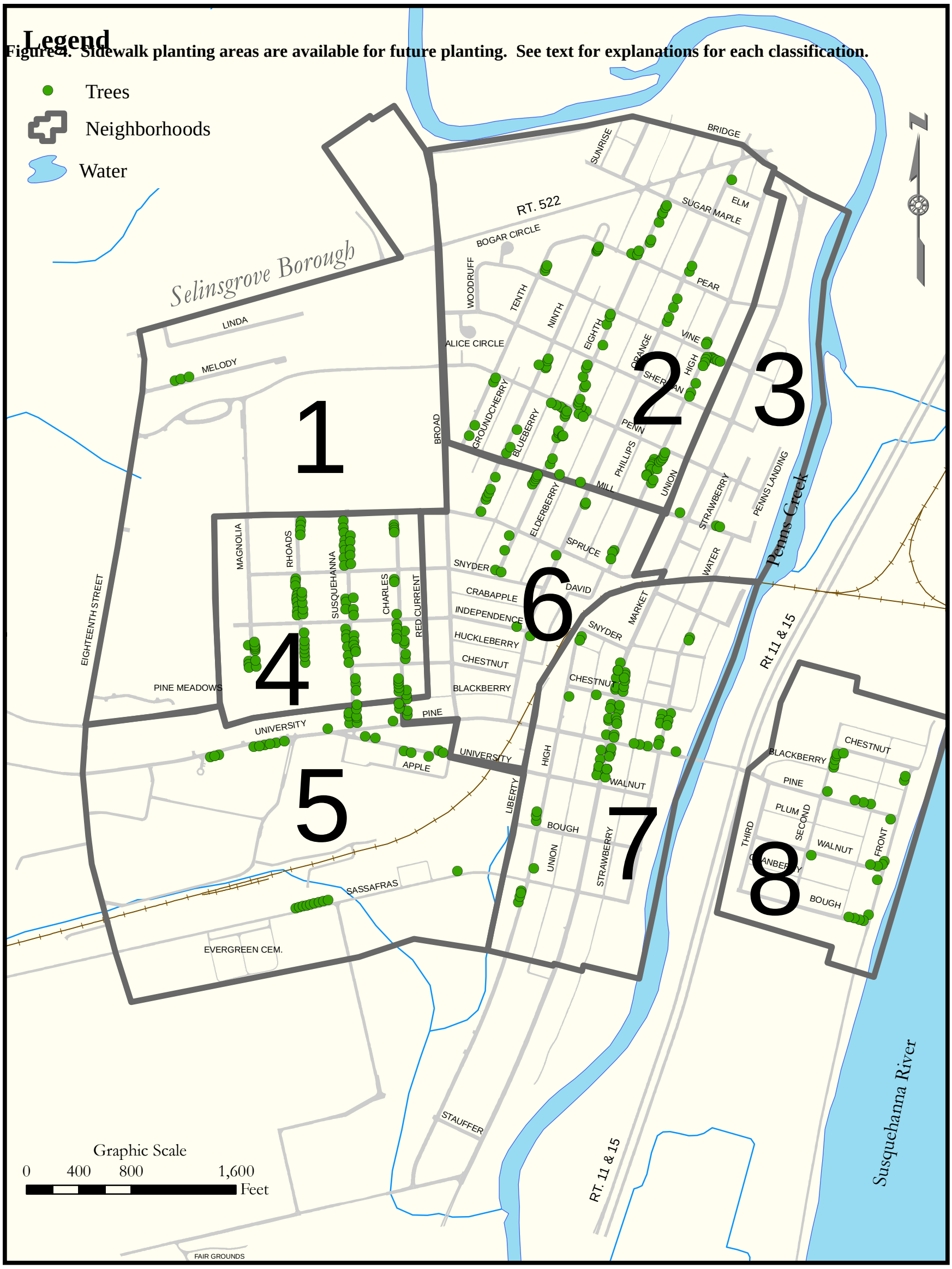


Figure 4. Sidewalk planting areas are available for future planting. See text for explanations for each classification.

Figure 5: Selinsgrove neighborhoods are organized around the transportation routes and housing character.

Table 2: Ecological statistics and parcel character for each neighborhood.

		Tree Statistics							Parcels					
	Neighborhood	No.	Species Richness	Shannon Index	Percent susceptible to EAB or LHB[1]	Height	Diameter	Tree Increase since 1970[2]	No.	Area	Zoning - Residential	Owner Occupied	Rental or Commer-cial	Non-Profit
					%	ft	in	%		Acres	%	%	%	%
1	Bluff and Schools	3	1	0.00	100.0	32.3±2.1 ab[3]	11.5 ±1.0 cd	-62.5	56	126.0	64.6	48.2	37.5	14.3
2	North Residential	98	17	2.05	49.0	34.3±15.8 ab	17.1±0.8 abc	-62.5	439	99.4	87.9	77.4	21.0	0.9
3	North Commercial	3	2	0.64	66.7	33.7±16.2 ab	17.6 ±7.3 abc	-87.5	104	34.8	64.8	64.4	27.9	7.7
4	South School District	93	10	1.82	26.9	35.5±17.2 ab	16.8±0.9 abc	14.8	101	39.7	87.1	88.1	5.9	5.0
5	University/ Industrial	38	10	2.07	55.3	38.7±23.8 a	13.1±1.7 bcd	-64.2	85	118.9	34.9	18.8	14.1	64.7
6	Central Residential	26	9	1.80	46.2	39.4±18.4 a	19.5 ±1.8ab	-75.7	300	46.0	87.7	60.7	37.7	1.3
7	Central Business District	61	19	2.26	13.1	23.5±10.4 b	8.8 ±0.8d	5.2	316	60.0	61.1	47.5	45.6	3.8
8	Isle of Que	24	14	2.45	54.2	28.2±10 ab	21.0 ±2.1a	-55.6	144	37.1	77.6	56.3	43.8	0.0

[1]EAB is Emerald Ash Borer, and LHB is Asian Long Horned Beetle
[2]Percent or trees that were lost between the 2009 inventory and the estimate from the 1970 aerial photo
[3]Values are mean ± standard error of all trees in a neighborhood. Column values with different letters are significantly different at p=0.05.

fairly diverse array of species resulting in a high Shannon Index and species richness, and this subset has one of the lowest susceptibility to invasive borers in the entire borough. Many sidewalks in this area remain suitable for new planting.

The fifth neighborhood is dominated by university-owned parcels. This section has, by far, the highest number of parcels held by non-profit organizations, and the lowest percent of owner occupied parcels. Like many other parts of town, this district has lost more than half of the street trees that were present in 1970, plus the majority of the trees that remain are susceptible to invasive boring insects. This subset has a relatively high Shannon Index and species richness, suggesting a diverse population.

Neighborhood six is another primarily residential neighborhood but has a lower owner-occupied percentage than either neighborhood two or four. Of all the districts in the borough, this one has suffered the greatest loss of trees since 1970, but the ones that remain have both the tallest average height and the widest average diameter. Nearly half the trees are susceptible to invasive borers, but there is reasonable population diversity and species richness. Few streets have suitable planting spaces, so change in this neighborhood will be difficult to accomplish.

Neighborhood seven, the central business district, has a slightly larger population of street trees than in 1970 due to some recent plantings along the main thoroughfare. Because of the thoughtful efforts of the Shade Tree Commission while selecting new trees, this area has the greatest species richness and second largest Shannon Index, plus the lowest fraction of trees that are susceptible to boring insects. Since many of these trees have been recently planted, these trees have the shortest average height and the smallest average diameter compared to other neighborhoods.

The eighth neighborhood is located on the peninsula between the Susquehanna River and Penns Creek. This district lost more than half of the trees from 1970, and has high species richness compared to the total number of trees that are present. However, this subgroup has a majority of trees that are susceptible to boring insects. Recent street work has removed trees after the completion of the survey and it is unclear whether there are plans to add trees now that construction has ended.

The statistical analysis of the inventory data by neighborhood district allowed for comparisons that might be useful to future managers of this resource. Of particular importance is the diversity of the urban forest to try to minimize catastrophic loss of trees like the losses that occurred as a result of Dutch elm disease. Santamour (1990) suggested that not more than 10% of trees be from a single species, 20% from a single genus, and 30% from a single family. The neighborhoods that exceed these recommendations are: neighborhood four which contains nearly 30% each of honey locust and pin oak; neighborhood six which contains nearly 30% each of Norway maple and pin oak; and neighborhood seven which contains 40% Cleveland pears. Gavin (1999) cautioned against making unwise species selections in order to diversify street trees because many trees are incapable of withstanding urban stresses. Selinsgrove contains 29 different species with each less than five percent of the total population, so while recommended tree lists have been proposed for specific communities (for example, see Gavin 1999) decisions made about planting species in the future could be made based on how well present species are faring in the borough, increasing the populations of some of the more underrepresented species rather than continuing to plant Norway maple, Cleveland pear, and pin oak.

Age distribution diagrams are a useful way to evaluate whether the population has sufficient younger trees to replace those that die or are removed. Under ideal conditions, the

greatest proportions of trees would be the youngest age group, with slightly diminishing proportions with each older age group. Because determining the diameter at breast height (DBH) is faster, easier, and safer than determining actual age by tree ring borings, we discuss size distribution rather than age distribution. The five most common species make up 70% of the population, and their size distributions are shown in Figure 6. Of particular concern is the shape of the distribution curve for honey locust, Norway maple, and pin oak. These species have average diameters of nearly 24 inches, and have virtually no trees in the 0-3 inch DBH group, the younger trees which will eventually replace these large trees as they die or are replaced. Cleveland pear and red maple have more appropriate age distribution because there is a significant percent of the population which is young (small diameter) and will eventually replace the older trees.

Figure 7 shows the size distributions by neighborhood, and again the curves suggest future problems with the street trees because there are insufficient trees in the smaller size divisions to eventually replace the high proportion of trees in the 18-30 inch diameter classes. Neighborhoods 5 and 7, the university zone and the central business district, are the best poised to sustain their populations as they age because the majority of these trees have diameters less than 12 inches. All other neighborhoods have average diameters in the 18-30 inch range (see also Table 2). This observation is also expressed in the statistically significant differences between the diameter and the height of trees. Most notably, the trees in the central business district are significantly shorter than those in the University zone and the central residential district. Similarly, the central business district trees are narrower than all other neighborhoods other than the university area. Tree diameter is plotted with the neighborhood boundaries in Figure 8.

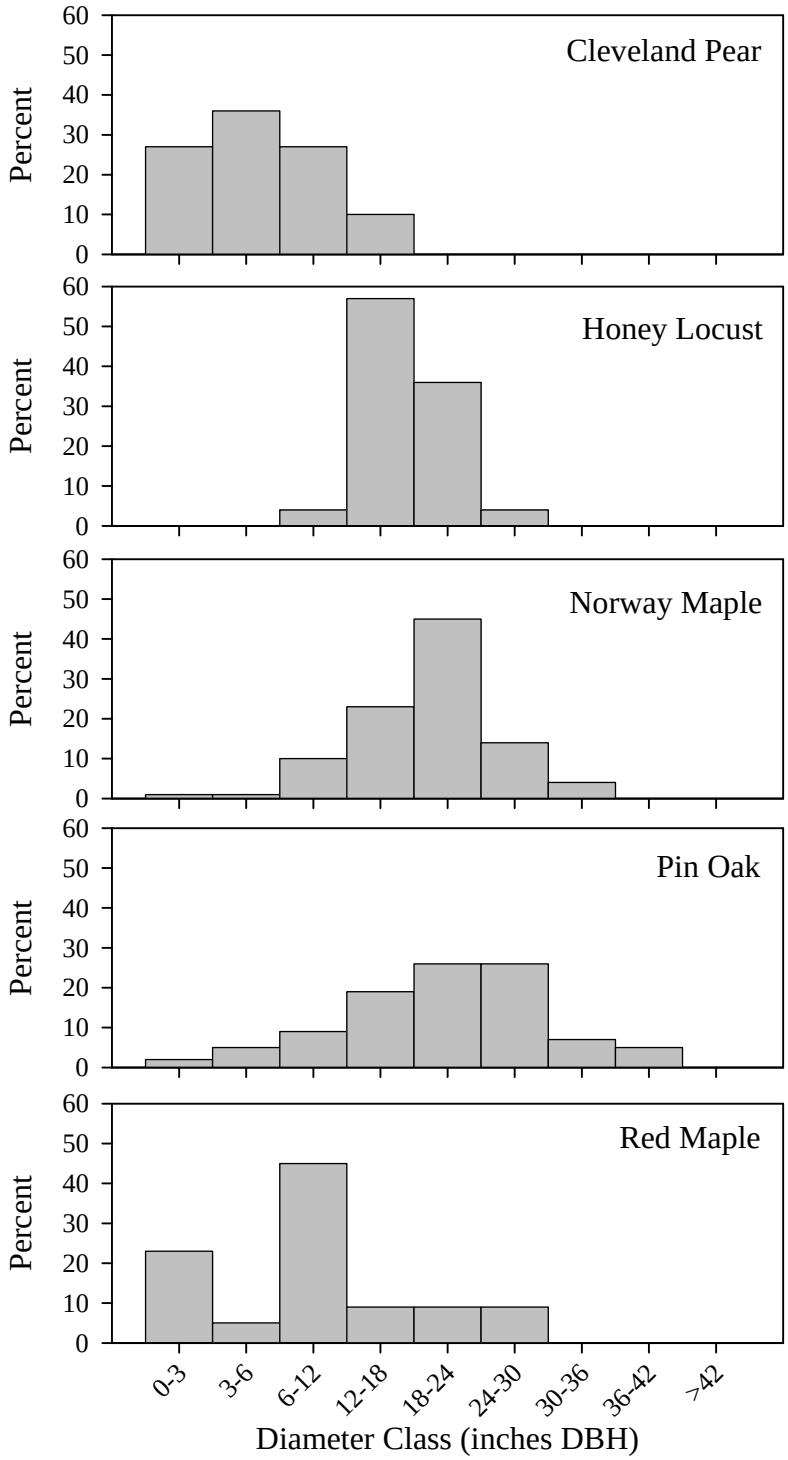


Figure 6. Size distributions of the five most common species in Selinsgrove Borough.

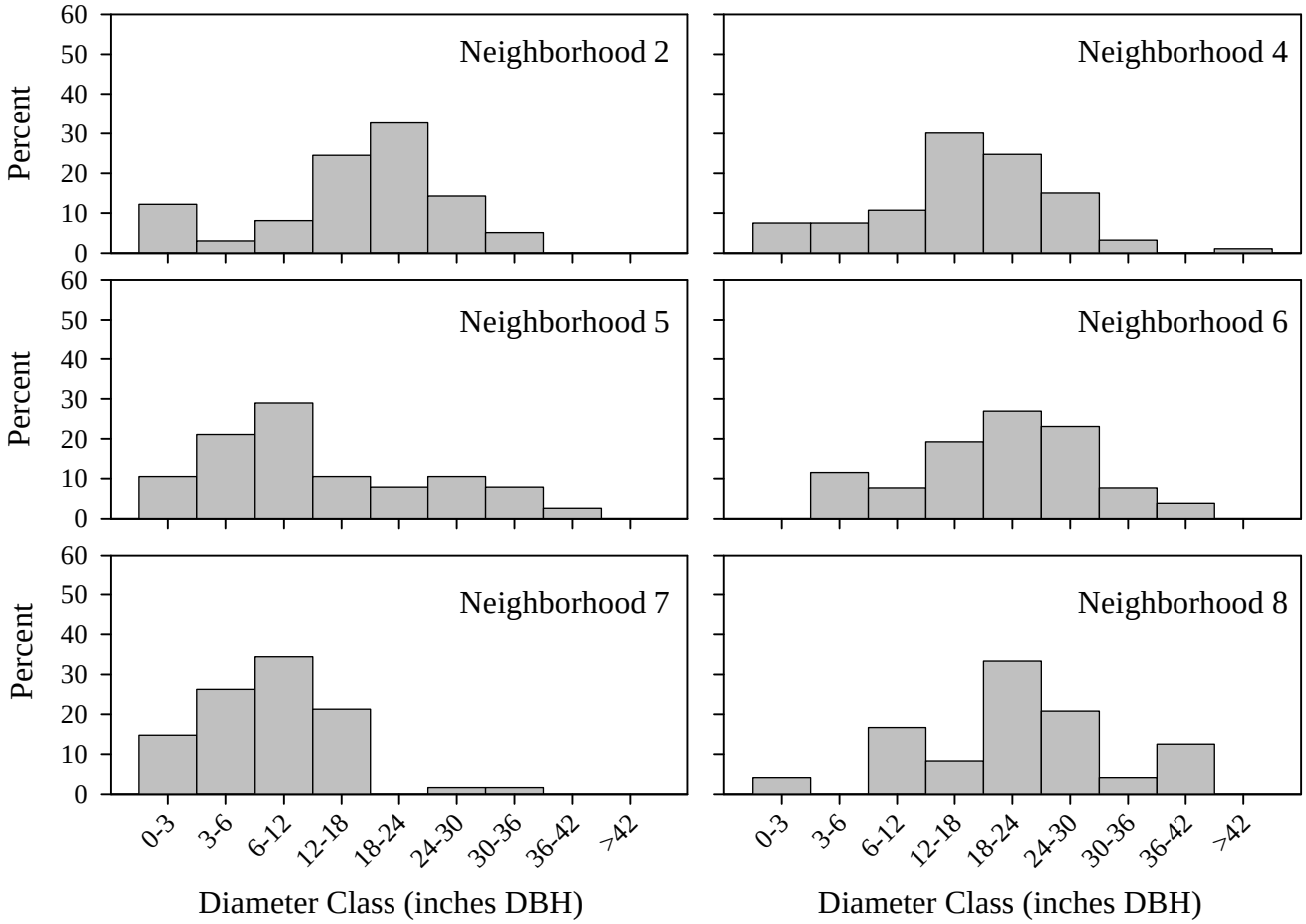


Figure 7. Size distribution of neighborhood trees. Neighborhoods with fewer than 10 trees are not plotted because of the small sample size.

Regression estimates were determined for tree characteristics such as height and density (number of trees per acre) as functions of the socio-economic data that we had available. Two regressions were statistically significant at the 0.10 level. Tree height was negatively correlated to the proportion of tax parcels that were not occupied by their owner (i.e., rental or commercial properties). Two explanations are plausible for this trend: resident owners may resist attempts to remove trees more vigorously than non-owning residents so that trees grow larger when the proportion of renters is smaller; or the Shade Tree Commission may more actively plant trees in

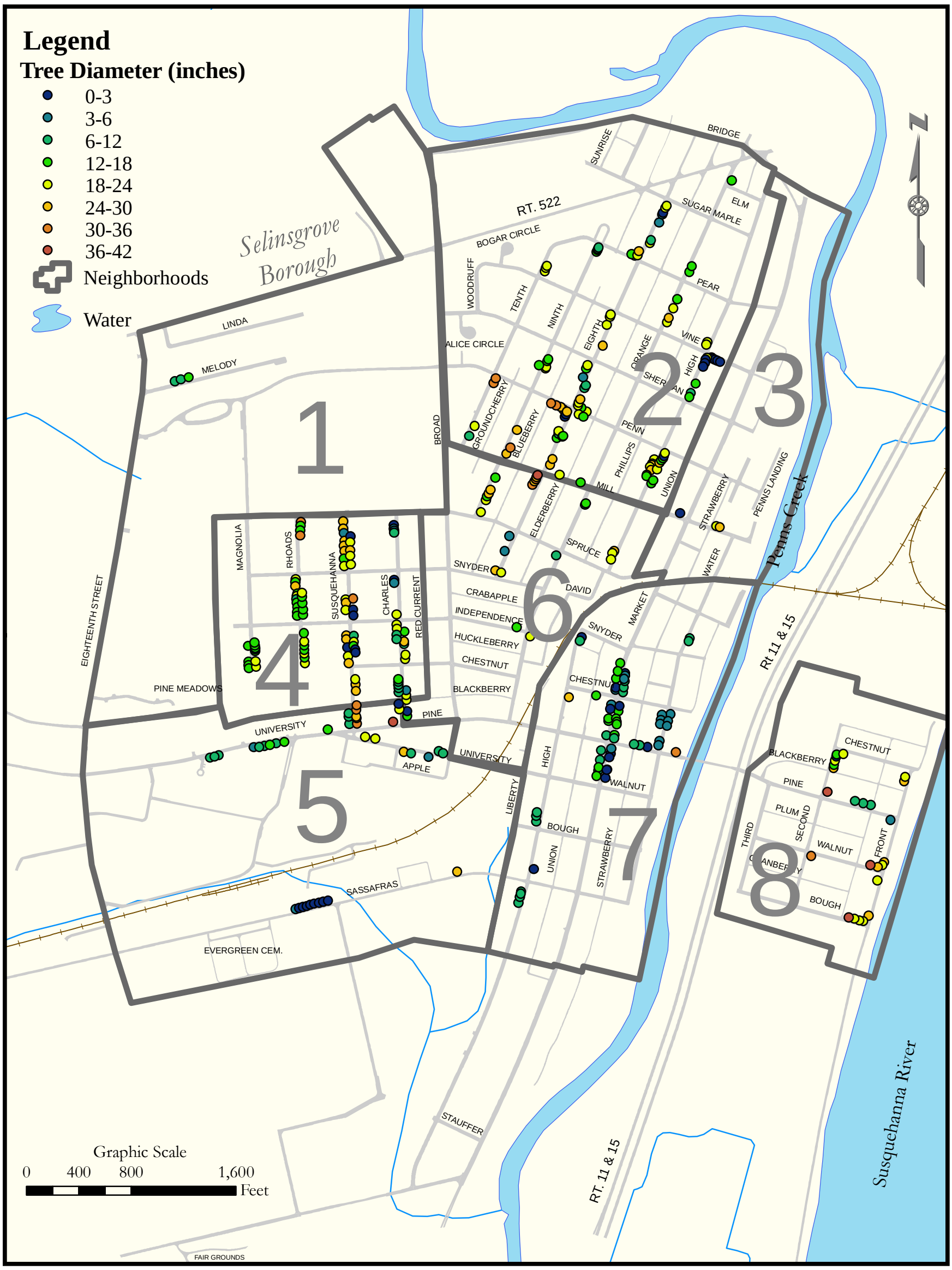


Figure 8. Tree diameter highlights where new trees have been planted and where older trees occur.

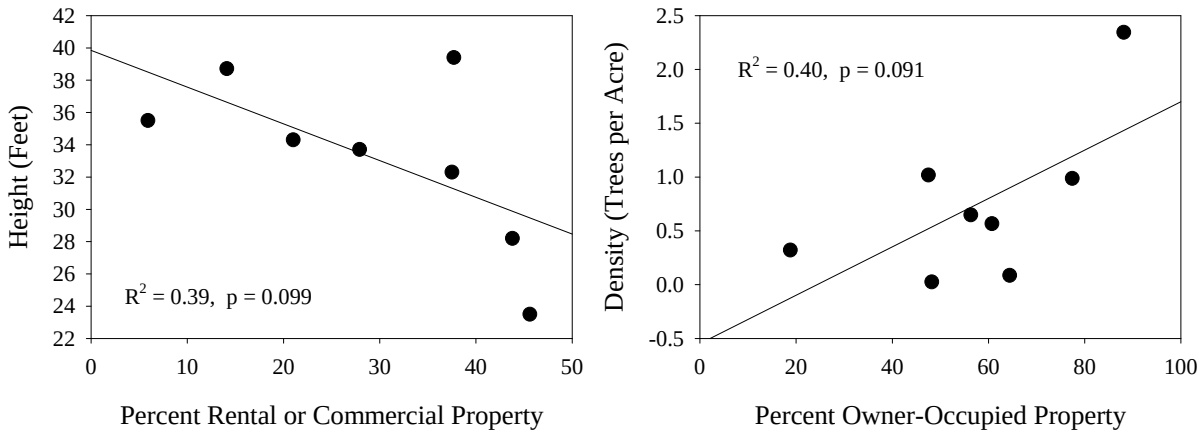


Figure 9. Tree height tends to decrease with increasing proportion of rental properties, and tree density increases with more owner-occupied properties.

neighborhoods where there are fewer resident owners because of the cost or labor associated planting new trees. Similarly, tree density was positively correlated with the percent of owner-occupied tax parcels, again suggesting that home owners act to preserve trees or plant them on their land. These regressions are shown in Figure 9.

CONCLUSIONS

Every street in the Selinsgrove Borough was surveyed for street trees between 2006 and 2009. Statistical analysis and maps of the results suggest:

- There are 346 trees in Selinsgrove consisting of 34 different species. Fifty six percent of the street trees are either Norway maple, Cleveland pear, or pin oak.

- The borough streets have 536 sidewalk zones, 14% are wider than 42 inches which is an ideal planting width. Another 18% are between 24 and 42 inches which could be used for trees known to have a smaller growth habit.
- Based on 1970 aerial photographs, the borough has lost more than half of its street trees in about 35 years.
- The shade tree population is not very diverse. Only three species make up 56% of the population and the most common eight species make up 76% of the population.
- The lack of diversity makes populations susceptible to disease and pests. Emerging concerns are the Asian longhorned beetle and the emerald ash borer. Thirty eight percent of street trees are susceptible these beetles and are at risk if these insects are introduced.
- Histograms of tree diameter suggest that there are insufficient young trees to sustain the street tree population in the decades ahead. Three of the top five species have virtually no trees with diameter smaller than twelve inches. Only 20% of the tree population has a diameter smaller than six inches. Due to the aging process and unavoidable loss of trees in each size class, the smallest tree diameter class should be the most abundant class for the population to be sustained.
- Tree height, diameter, diversity, tree density, and the gains or losses of street trees vary widely by neighborhoods. Only two neighborhoods have more trees today than in 1970.

- Tree height was negatively correlated to the proportion of parcels that were estimated to be occupied by someone other than the property owner, and tree density (trees per acre) was positively correlated to owner-occupied parcels.

The Selinsgrove shade tree population suffers from three important deficiencies: 1) the shade tree population has been in serious decline over the last 40 years as trees have been removed much faster than they have been replaced; 2) the trees that remain are not ecologically diverse in that only three species make up more than one-half of the entire population; and 3) the age structure of the street tree population suggests there are insufficient young trees to sustain the population into the next several decades. These deficiencies put the population at risk of continued decline as natural aging, street projects, and potential spread of invasive boring insects all act to reduce the population. Since street trees do not naturally replace themselves through seedlings, intentional efforts will be required to sustain the population. Assuming a street tree might survive 40 years, the current population will require that 8 replacement trees be planted each year to sustain the population.

RECOMMENDATIONS

1. **Resolve to stop the loss of street trees.** Five of the eight neighborhoods have lost nearly two-third of the trees that existed in them in 1970. Across the entire borough, nearly half of the trees that existed in 1970 are gone. Nearby communities have found a balance between effective sidewalks, modern underground infrastructure, and safe streets while maintaining and even growing their street tree populations. There are certainly competing demands on a budget when street projects are initiated, but greater resolve must be found to preserve trees that are in construction zones; and

when trees must be removed, a removal decision should be made well enough in advance so that a replacement can be scheduled as part of the overall scope of work.

2. **Enforce existing ordinances.** Chapter 42 of the Selinsgrove Borough Code contains the powers and duties of the Shade Tree Commission (accessible here: http://www.selinsgrove.org/Pages/Ordinances.aspx). The Commission has the sole responsibility for the removal of trees, and no tree can be removed without the Commission's written approval (§42-7. A, §42-8. A). The Code allows for trees to be removed in case of an emergency such as an immediate specific threat to public safety and property (§42-8. C). Infrastructure projects should be planned in advance to limit the number of "emergency removals" done without the Commission's approval. Finally, §42-5 allows for an arborist to be hired to advise the Commission in the performance of their duties. An arborist hired by any other borough officer does not have the authority to approve a tree removal. Subcontractors should work in concert with the commission and where differences of opinion exist, the Commission has the sole authority to approve a tree removal.

3. **Plant trees.** Only 20% of the street trees have a diameter of less than six inches. This size class is insufficient to sustain the population as older trees eventually die or are cut down. New trees need to be planted just to maintain the population in the coming decades. Borough Code §42-13 specifies that an official list of public trees is maintained by the Borough Manager. New plantings should be done according to that list, however, no Norway maple, Cleveland pear, or pin oak should be planted because those species already exceed the recommended levels for any single species. Species selection should also be made with consideration for the potential for an

invasion of the Asian longhorned beetle and the emerald ash borer. In general, native species are best suited to any area because of their long history in the local climate and are well acclimated to most native pests and disease organisms.

4. **Distribute public resources equitably.** The only neighborhood that has both high species diversity (high species richness and high Shannon Index) plus an increase in trees since 1970 was the central business district. Clearly traffic volume and pedestrian numbers suggest trees planted in the central business district have the most impact. However, inventory maps suggest this area has enjoyed special favoritism while other parts of the community have been largely ignored. Street trees have been associated with broad positive social benefits and efforts to include all sections of the borough would be helpful in Commission efforts. Many planting areas exist in the north sections of the borough that would readily accommodate new plantings with minimal site preparation. Additionally, potential reconfiguration of Market Street at the northern and southern entrances to the borough should be considered to provide a focal point of entry to the borough. Appropriate trees could be incorporated in the design of these features.

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APPENDIX 1

Tree Identification Sources

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University of Florida: http://orb.at.ufl.edu/TREES/index.html

Arborday Foundation: http://www.arborday.org/trees/whattree/

APPENDIX 2

Notes on the inventory data:

The inventory represents a snapshot of the urban forest in time, approximately September 2009. In the time required to conduct the analysis and prepare this document, changes to the urban forest have probably already happened, and will continue to occur with each passing day. To support the work of the Shade Tree Commission, each tree and sidewalk was coded for mapping and data handling purposes. Updates to the inventory can be recorded by hand in blank rows in Appendix 3, and tree removals can be recorded. The following discussion may make it easier to understand the codes so an individual tree can be found.

Each sidewalk and the trees that exist near them were given a code based on a street/grid concept. For example, the street tree code **UV58S-02** indicates the tree is on **U**ni**V**ersity Ave (every street was abbreviated with a unique, two letter code which is hopefully intuitive), block number **58**, and lies on the **S**outh side of this east-west running street, and was the second tree identified on the block.

The block number was developed by a grid scheme: north-south streets are numbered from 01 at the south end of the borough through 19 at the north end, and 34 to 37 on the Isle of Que. East-west streets were coded 50 at the west end to 71 on the Isle of Que.

Each tree was given a code based on the street that it occupied, and the house number of the property was recorded. For properties that lie on a street corner, the tree code is consistent with the street rather than the property address. For example, trees **PE64S-01** to **04** are all located on Penn Street, but each has a street address on Eighth Street. In Appendix 3, these trees are grouped with the other trees on Penn Street.

New trees can be added to the inventory in sequential numbers for each block.

APPENDIX 3

Table 1. Shade Tree Data.

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Bough Street																				
BG71N -02	113 S Front St	1	61	0	0	0	red oak	34	20	8	F	T	T	F	F	F		9-27-07		
BG71N-01	113 S Front St	1	69	0	0	0	red maple	0	15	30	F	F	F	T	T	F		9-27-07		
BG71N-03	113 S Front St	1	64	0	0	0	sweet gum	32	20	20	F	F	F	T	T	F		9-27-07		
BG71N-04	113 S Front St	1	117	0	0	0	pin oak	41	20	18	F	F	T	F	T	F		9-27-07		
Charles Ave																				
CL08E-01	320 W Pine St	1	44	0	0	0	norway maple	30	10	10	F	T	F	T	T	F		Fall06		
CL08E-02	320 W Pine St	1	10	0	0	0	sweet gum	20	4	4	F	F	F	F	F	F		Fall06		
CL08E-03	21 Charles Ave	1	67	0	0	0	sugar maple	36	20	12	T	T	T	F	F	F		Fall06		
CL08E-04	21 Charles Ave	1	71	0	0	0	sugar maple	43	20	12	F	F	T	T	F	F		Fall06	spr07	
CL08E-05	23 Charles Ave	1	15	0	0	0	pin oak	18	7	4	F	F	F	F	F	F		Fall06		
CL08W-01	12 Charles St	1	67	0	0	0	?	0	20	20	T	T	T	F	F	F		Fall06		
CL08W-02	12 Charles Ave	1	0	0	0	0	?	42	20	18	T	T	T	F	F	F		Fall06		
CL08W-03	22 Charles Ave	1	30	0	0	0	cleveland pear	0	8	6	F	F	F	F	F	F		Fall06		
CL08W-04	22 Charles Ave	1	29	0	0	0	cleveland pear	29	8	5	F	F	F	F	F	F		Fall06		
CL08W-05	22 Charles Ave	1	35	0	0	0	pin oak	35	15	10	F	F	T	F	F	F		Fall06		
CL08W-06	22 Charles Ave	1	29	0	0	0	pin oak	31	10	8	F	F	T	F	F	F		Fall06		
CL08W-07	22 Charles Ave	1	40	0	0	0	pin oak	35	15	9	F	F	F	F	F	F		Fall06		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Charles Ave																				
CL09E-01	101 Charles Ave	1	58	0	0	0	norway maple	26	20	9	F	F	F	F	F	F		Fall06		
CL09E-02	101 Charles Ave	1	61	0	0	0	?	0	20	10	F	F	F	F	F	F		Fall06		
CL09E-03	103 Charles Ave	1	29	0	0	0	pin oak	35	15	10	F	F	F	F	F	F		Fall06		
CL09E-04	103 Charles Ave	1	84	0	0	0	pin oak	74	30	30	F	F	F	F	T	F		Fall06		
CL09E-05	107 Charles Ave	1	42	0	0	0	pin oak	37	10	8	F	F	F	F	T	F		Fall06		
CL09W-01	106 Charles Ave	1	58	0	0	0	honey locust	42	20	10	T	T	F	F	F	F		Fall06		
CL09W-02	106 Charles Ave	1	60	0	0	0	honey locust	41	25	10	T	F	T	F	F	F		Fall06		
CL09W-03	108 Charles Ave	2	21	17	0	0	cleveland pear	25	6	6	F	F	F	F	F	F		10-17-07		
CL09W-04	108 Charles Ave	1	27	0	0	0	cleveland pear	26	7	5	F	F	F	F	F	F		10-17-07		
CL10W-01	206 Charles Ave	1	10	0	0	0	cleveland pear	17	2	3	F	F	F	F	F	F		Fall06		
CL10W-02	206 Charles Ave	1	12	0	0	0	cleveland pear	16	3	5	F	F	F	F	F	F		Fall06		
CL10W-03	200 Charles Ave	1	73	0	0	0	sugar maple	41	30	10	F	F	T	F	T	F		Fall06		
CL11W-01	312 Charles Ave	1	8	0	0	0	cleveland pear	15	1	5	F	F	F	F	F	F		Fall06		
CL11W-02	312 Charles Ave	1	17	0	0	0	cleveland pear	0	6	5	F	F	F	F	F	F		Fall06		
CL11W-03	312 Charles Ave	1	15	0	0	0	cleveland pear	22	5	5	F	F	F	F	F	F		Fall06		
CL11W-04	312 Charles Ave	1	21	0	0	0	cleveland pear	24	7	5	F	F	F	F	F	T		Fall06		
Chestnut St																				
CN67S-01	28 N Market St	1	50	0	0	0	cleveland pear	16	15	10	F	T	F	F	F	F		10-6-07		
CN71E- 01	301 E Chestnut St	1	70	0	0	0	norway maple	26	20	15	T	F	T	F	F	F		9-22-07		
Eighth St																				
EI11E-01	218 W Snyder St	1	65	0	0	0	white ash	41	20	18	F	F	T	F	T	F		9-2-08		
EI11W-01	300 W Snyder St	1	80	0	0	0	norway maple	42	22	10	F	T	T	F	T	F	this thing is massive	8-30-08		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Eighth St																				
EI11W-02	306 N Eighth St	3	15	15	20	0	cleveland pear	24	9	5	F	F	F	F	F	F		8-30-08		
EI11W-03	312 N Eighth St	1	14	0	0	0	cleveland pear	25	8	5	F	F	F	F	F	F		8-30-08		
EI12W-01	422 N Eighth St	1	108	0	0	0	pin oak	65	29	15	F	F	T	F	F	F		8-30-08		
EI12W-02	422 N Eighth St	1	89	0	0	0	pin oak	85	22	20	F	F	F	F	F	F		8-30-08		
EI12W-03	422 N Eighth St	1	101	0	0	0	pin oak	86	30	12	F	F	F	F	T	F		8-30-08		
EI12W-04	424 N Eighth St	1	76	0	0	0	pin oak	71	25	9	F	F	T	F	F	F	some kind of big bird house in tree	8-30-08		
EI12W-05	424 N Eighth St	1	114	0	0	0	pin oak	60	24	15	F	F	T	F	F	F	squirel house in tree	8-30-08		
EI13E-01	505 N Eighth St	1	92	0	0	0	red oak	50	19	18	F	F	F	F	F	F		9-2-08		
EI13E-02	511 N Eighth St	1	78	0	0	0	norway maple	47	12	12	F	F	T	F	F	F		9-2-08		
EI13E-03	529 N Eighth St	1	58	0	0	0	pin oak	42	18	12	F	F	F	F	F	F		9-2-08		
EI13E-04	529 N Eighth St	1	55	0	0	0	white oak	35	15	10	F	F	F	F	F	F		9-2-08		
EI13W-01	518 N Eighth St	1	56	0	0	0	norway maple	48	15	9	F	T	T	T	F	F	growing around a street light	8-30-08		
EI13W-02	528 N Eighth St	1	36	0	0	0	norway maple	30	0	0	F	F	T	T	F	F	dead	8-30-08		
EI13W-03	528 N Eighth St	1	63	0	0	0	norway maple	43	11	15	F	F	T	F	T	F	dying	8-30-08		
EI13W-04	534 N Eighth St	1	4	0	0	0	cherry	8	3	3	F	F	F	F	F	F		8-30-08	08	
EI13W-05	534 n eighth St	1	4	0	0	0	cherry	8	3	4	F	F	F	F	F	F		8-30-08	08	
EI13W-06	534 N Eighth St	1	83	0	0	0	norway maple	56	24	18	T	F	F	T	F	F		8-30-08		
EI14E-01	605 N Eighth St	1	67	0	0	0	pin oak	55	17	15	F	T	T	F	F	F		9-2-08		
EI14E-02	605 N Eighth St	1	75	0	0	0	pin oak	50	12	12	F	F	T	F	T	F		9-2-08		
EI14E-03	605 N Eighth St	1	77	0	0	0	pin oak	57	18	12	F	F	T	F	T	F		9-2-08		
EI14E-04	617 N Eighth St	1	36	0	0	0	cleveland pear	23	8	6	F	F	T	F	F	T		9-2-08		
EI14E-05	619 N Eighth St	3	24	12	9	0	cleveland pear	20	7	6	T	F	F	F	F	T		9-2-08		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Eighth St																				
EI14W-01	622 N Eighth St	2	12	16	0	0	cleveland pear	0	7	6	T	F	F	F	F	T		9-4-08		
EI14W-02	634 N Eighth St	1	48	0	0	0	norway maple	0	0	11	F	F	F	F	F	F		9-4-08		
EI14W-03	634 N Eighth St	1	70	0	0	0	norway maple	0	0	12	T	F	T	F	F	F		9-4-08		
EI15E-01	703 N Eighth St	1	81	0	0	0	norway maple	55	19	12	T	F	F	T	F	F		9-23-08		
EI15W-01	728 N Eighth St	1	65	0	0	0	norway maple	49	15	10	F	F	T	F	T	F		9-23-08		
EI15W-02	734 N Eighth St	1	74	0	0	0	norway maple	45	12	8	F	F	T	T	F	F		9-23-08		
EI15W-03	734 N Eighth St	1	69	0	0	0	norway maple	45	11	10	F	F	T	T	F	F		9-23-08		
EI17E-01	907 N Eighth St	1	60	0	0	0	norway maple	38	14	9	T	F	T	F	F	F		9-23-08		
EI17E-02	909 N Eighth St	1	25	0	0	0	red maple	36	7	9	F	F	F	F	F	F		9-23-08		
EI17E-03	925 N Eighth St	4	17	13	30	26	cleveland pear	20	9	7	F	F	F	F	F	F		9-23-08		
EI17E-04	931 N Eighth St	3	11	5	7	0	cleveland pear	16	5	5	F	F	F	F	F	F		9-23-08		
EI17E-05	931 N Eighth St	4	4	3	5	14	cleveland pear	16	4	5	F	F	F	F	F	F		9-23-08		
EI17E-06	935 N Eighth St	1	60	0	0	0	norway maple	22	9	7	F	F	F	T	F	F		9-23-08		
EI17E-07	935 N Eighth St	1	68	0	0	0	norway maple	22	9	7	F	F	F	F	F	F		9-23-08		
EI17W-01	900 N Eighth St	1	68	0	0	0	sycamore	55	23	10	F	T	F	T	F	F		9-4-08		
EI17W-02	900 N Eighth St	1	91	0	0	0	sycamore	57	29	12	F	T	F	T	T	F		9-4-08		
Front St																				
FR34W-01	106 S Front St	1	62	0	0	0	honey locust	26	20	10	T	F	T	F	F	F		9-27-07		
FR34W-02	116 S Front St	1	77	0	0	0	pin oak	42	18	18	F	F	T	F	F	F		9-27-07		
FR35W-01	18 S Front St	1	82	0	0	0	horse chestnut	31	15	15	F	F	T	T	F	F		9-22-07		
FR35W-02	18 S Front St	1	72	0	0	0	horse chestnut	32	20	12	F	F	T	F	F	F		9-22-07		
FR36W-01	16 N Front St	1	76	0	0	0	norway maple	30	15	10	F	F	T	T	T	F		9-22-07		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Front St																				
FR36W-02	16 N Front St	1	68	0	0	0	norway maple	32	15	16	F	F	T	T	F	F		9-22-07		
High St																				
HI02W-01	304 S High St	1	23	0	0	0	norway maple	18	8	5	F	T	F	F	F	F				
HI02W-02	306 S High St	1	22	0	0	0	cleveland pear	18	12	5	F	F	F	F	F	F		Fall06		
HI02W-03	306 S High St	1	21	0	0	0	cleveland pear	18	12	6	F	F	F	F	F	F		Fall06		
HI02W-04	306 S High St	1	24	0	0	0	cleveland pear	18	13	7	F	F	F	F	F	F				
HI06W-01	120 S High St	1	28	0	0	0	sweet gum	35	14	11	F	F	F	F	F	F				
HI06W-02	118 S High St	1	24	0	0	0	sweet gum	35	9	7	F	F	F	F	F	F		Fall06		
HI06W-03	118 S High St	1	26	0	0	0	sweet gum	35	9	7	F	F	F	F	F	F		Fall06		
HI08E-01	17 N High St	1	94	0	0	0	black oak	30	20	15	T	T	T	T	F	F		10-6-07		
HI09E-01	219 S High St	1	6	0	0	0	cleveland pear	12	2	4	F	F	F	F	F	F				
HI10E-01	111 N High St	3	10	23	19	0	crabapple	18	10	9	T	F	F	F	F	F		10-6-07		
HI10E-02	111 N High St	2	20	21	0	0	plum	14	10	9	T	F	T	F	F	F		10-6-07		
HI12W-01	308 N High St	1	85	0	0	0	norway maple	31	12	10	F	F	T	T	F	F		8-22-08		
HI12W-02	306 N High St	1	74	0	0	0	norway maple	39	20	10	F	F	T	T	T	F		8-22-08		
HI12W-03	492 N High St	1	76	0	0	0	pin oak	50	16	20	F	F	T	F	F	F		8-22-08		
HI12W-03	304 N High St	1	74	0	0	0	norway maple	34	10	8	T	F	T	F	T	F		8-22-08		
HI13E-01	493 N High St	1	45	0	0	0	cherry	15	11	6	T	F	F	F	F	F	sweet cherry?	8-23-08		
HI13E-02	493 N High St	1	48	0	0	0	cherry	18	12	6	T	F	F	F	F	F	sweet cherry?	8-23-08		
HI13E-03	497 N High St	1	66	0	0	0	norway maple	34	13	6	T	F	T	F	F	F		8-23-08		
HI13E-04	497 N High St	1	78	0	0	0	pin oak	48	20	10	F	F	T	F	T	F		8-23-08		
HI13E-05	497 N High St	1	49	0	0	0	pin oak	52	10	15	F	F	T	F	F	F		8-23-08		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
High St																				
HI13E-06	497 N High St	1	48	0	0	0	pin oak	40	11	9	F	F	F	F	F	F		8-23-08		
HI13E-07	499 N High St	3	4	9	9	0	red maple	19	8	6	T	F	F	F	F	F		8-23-08		
HI13E-08	499 N High St	1	61	0	0	0	norway maple	32	10	10	F	T	T	T	F	F		8-23-08		
HI13W-01	492 N High St	1	69	0	0	0	pin oak	55	15	20	F	F	T	F	F	F		8-22-08		
HI13W-02	492 N High St	1	67	0	0	0	pin oak	56	15	25	F	F	T	F	F	F		8-22-08		
HI13W-04	492 N High St	1	61	0	0	0	pin oak	47	15	18	F	F	T	F	F	F		8-22-08		
HI13W-05	492 N High St	1	81	0	0	0	pin oak	49	12	18	F	F	F	F	F	F		8-22-08		
HI13W-06	422 N High St	1	58	0	0	0	japanese pagodatree	42	17	8	F	F	T	F	F	F		8-22-08		
HI13W-07	422 N High St	1	49	0	0	0	japanese pagodatree	42	15	12	T	F	T	F	F	F		8-22-08		
HI15E-01	625 N High St	1	65	0	0	0	norway maple	45	10	9	F	F	F	F	T	F		Fall06		
HI15E-02	625 N High St	1	7	0	0	0	cleveland pear	13	1	4	F	F	F	F	F	F		Fall06		
HI15E-03	625 N High St	1	8	0	0	0	cleveland pear	13	2	4	F	F	F	F	F	F		Fall06		
HI15E-04	625 N High St	1	6	0	0	0	cleveland pear	11	1	4	F	F	F	F	F	F		Fall06		
HI15E-05	601 N High St	2	40	30	0	0	alder	35	15	10	F	F	F	F	F	T		Fall06		
HI15E-06	601 N High St	3	30	40	48	0	alder	35	15	10	T	F	F	F	T	T		Fall06		
HI15E-07	601 N High St	1	47	0	0	0	alder	35	10	10	F	F	F	F	F	T		Fall06		
HI16W-01	700 N High St	1	67	0	0	0	pin oak	69	12	16	F	F	T	F	T	F		Fall06		
HI16W-02	700 N High St	1	73	0	0	0	pin oak	60	15	16	F	F	T	F	T	F		Fall06		
Independence St																				
ID64N-01	200 Orange St	1	54	0	0	0	pin oak	41	12	7	F	T	T	F	T	F		11-18-07		
Mill St																				

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Mill St																				
MI65N-01	503 N Eighth St	1	59	0	0	0	sugar maple	42	15	10	F	F	T	T	F	F		Fall06		
MI65N-02	500 N Orange St	1	50	0	0	0	cleveland pear	32	15	6	T	F	F	F	F	F		Fall06		
MI67N-01	400 N Market St	1	10	0	0	0	black oak	11	3	6	F	F	F	F	F	F	lots of space to become great oak	Fall06		
MI68N-01	10 E Mill St	1	72	0	0	0	norway maple	42	20	10	T	F	F	F	T	F	cavities plugged	Fall06		
MI68N-02	10 E Mill St	1	84	0	0	0	norway maple	48	20	9	T	F	F	F	T	F		Fall06		
Market St																				
MK07E-01	29 S Market St	1	0	0	0	0	cleveland pear	40	15	10	T	F	F	F	F	F		Fall06		
MK07E-02	23 S Market St	1	6	0	0	0	sugar maple	20	2	5	F	T	F	F	F	F	trunk recently damaged/hit	Fall06	fall06	
MK07E-03	7 S Market St	1	7	0	0	0	cleveland pear	25	4	5	F	F	F	F	F	F		Fall06		
MK07E-04	1 S Market St	1	18	0	0	0	red maple	25	10	9	F	F	F	F	F	F	hit before	Fall06		
MK07E-05	7 S Market St	1	10	0	0	0	hornbeam	13	2	5	F	F	F	F	F	F	european?	10-17-07		
MK07E-06	23 S Market St	1	9	0	0	0	japanese zelcova	16	2	8	F	F	F	F	F	F		10-17-07		
MK07W-01	2 S Market St	1	34	0	0	0	basswood	36	14	9	T	F	F	T	T	F		Fall06		
MK07W-02	20 S Market St	1	32	0	0	0	norway maple	35	15	8	F	F	F	F	F	F				
MK07W-03	26 S Market St	1	33	0	0	0	black maple	35	15	14	T	F	F	F	F	F				
MK07W-04	28 S Market St	1	51	0	0	0	cleveland pear	36	14	11	F	F	F	F	F	F		Fall06		
MK07W-05	30 S Market St	1	48	0	0	0	hornbeam	50	15	9	T	F	F	F	F	F				
MK08E-01	29 N Market St	1	9	0	0	0	cherry	12	2	5	F	F	F	F	F	F		10-17-07		
MK08E-02	21-23 N Market St	1	55	0	0	0	basswood	26	15	15	T	F	F	F	T	T		Fall06		
MK08E-03	19 N Market St	1	50	0	0	0	golden rain tree	22	20	7	T	F	T	F	F	F		Fall06		
MK08E-04	17 N Market St	1	42	0	0	0	cleveland pear	36	15	9	F	F	T	F	F	F		Fall06		
MK08E-05	15 N Market St	1	40	0	0	0	norway maple	25	25	8	F	F	F	F	F	F		Fall06		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Market St																				
MK08E-06	7 N Market St	1	52	0	0	0	basswood	35	30	8	F	F	F	F	F	F		Fall06		
MK08E-07	1 N Market St	1	35	0	0	0	white ash	41	20	15	F	F	F	F	F	F	nearly touching stop light	Fall06		
MK08W-01	N Market St	1	33	0	0	0	red maple	25	20	10	T	F	F	F	T	F	badly beaten	Fall06		
MK08W-02	16 N Market St	1	48	0	0	0	basswood	41	10	10	T	F	F	F	T	F		Fall06		
MK08W-03	18 N Market St	1	53	0	0	0	ginkgo	45	25	16	F	F	F	F	F	F		Fall06		
MK08W-04	28 N Market St	1	11	0	0	0	beech	22	9	8	F	F	F	F	F	F	european?	Fall06		
MK08W-05	26 N Market St	1	8	0	0	0	japanese zelcova	12	3	5	F	F	F	F	F	F		10-6-07	spr. 07	
MK09E-01	101 N Market St	1	20	0	0	0	hornbeam	21	8	4	F	F	F	F	F	T	european?	Fall06		
MK09E-02	107 N Market St	1	35	0	0	0	cleveland pear	30	20	9	F	F	F	F	T	F		Fall06		
MK09E-03	107 N Market St	1	35	0	0	0	hornbeam	25	15	6	F	F	F	F	F	F		Fall06		
MK09E-04	113 N Market St	1	11	0	0	0	?	12	4	6	T	F	T	F	F	F	dogwood?	10-6-07		
MK09E-05	113 N Market St	1	19	0	0	0	cleveland pear	17	5	6	F	F	F	F	F	F		10-16-07		
MK09E-06	121 N Market St	1	10	0	0	0	hornbeam	12	2	5	F	F	F	F	F	F	european?	10-6-07		
MK09W-01	100 N Market St	1	16	0	0	0	cleveland pear	26	15	9	F	F	F	F	F	F		Fall06		
MK09W-02	102 N Market St	1	10	0	0	0	norway maple	16	2	7	F	F	F	F	F	F		Fall06		
MK09W-03	106 N Market St	1	48	0	0	0	golden rain tree	26	12	12	F	F	F	F	F	F		Fall06		
MK09W-04	110 N Market St	1	48	0	0	0	golden rain tree	24	10	12	T	F	T	F	F	F		fall06	spr07	
MK09W-05	114 N Market St	1	45	0	0	0	black maple	41	10	10	F	F	F	F	F	F		Fall06		
MK09W-06	110 N Market St	1	9	0	0	0	cleveland pear	12	2	5	F	F	F	F	F	F		10-6-07	spr07	
Magnolia Ave																				
MN09E-01	101 Magnolia Ave	1	57	0	0	0	norway maple	23	15	10	T	F	T	T	F	F		10-16-07		
MN09E-02	101 Magnolia Ave	1	67	0	0	0	norway maple	26	15	9	T	F	T	T	F	F		10-16-07		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Magnolia Ave																				
MN09E-03	103 Magnolia Ave	1	43	0	0	0	pin oak	48	15	18	F	F	T	F	T	F		10-16-07		
MN09E-04	103 Magnolia Ave	1	12	0	0	0	pin oak	20	9	6	F	F	F	F	F	F		10-16-07		
MN09E-05	103 Magnolia Ave	1	40	0	0	0	pin oak	48	20	22	F	F	T	F	F	F		10-16-07		
MN09E-06	103 Magnolia Ave	1	44	0	0	0	pin oak	49	15	25	F	F	T	F	F	F				
MN09E-07	103 Magnolia Ave	1	56	0	0	0	pin oak	50	20	26	F	F	T	F	F	F		10-16-07		
MN09W-01	102 Magnolia Ave	3	51	39	72	0	silver maple	26	10	11	T	F	T	T	F	F		10-16-07		
MN09W-02	100 Magnolia Ave	1	45	0	0	0	cleveland pear	21	10	10	T	F	F	F	T	F		10-16-07		
MN09W-03	100 Magnolia Ave	1	41	0	0	0	cleveland pear	20	15	9	T	F	T	F	F	F		10-16-07		
MN09W-04	100 Magnolia Ave	1	45	0	0	0	cleveland pear	23	10	9	T	F	T	F	F	T		10-16-07		
Melody Lane																				
MY53N-01	6 Melody Ln	1	30	0	0	0	norway maple	32	10	6	F	F	T	F	F	F		10-12-07		
MY53N-02	6 Melody Ln	1	37	0	0	0	norway maple	30	20	7	T	F	T	F	F	F		10-12-07		
MY53N-03	6 Melody Ln	1	41	0	0	0	norway maple	35	20	8	T	F	T	F	F	F		10-12-07		
Ninth St																				
NI12E-01	401 N Ninth St	1	65	0	0	0	norway maple	29	16	9	F	F	T	F	F	F		9-16-08		
NI12E-02	403 N Ninth St	1	61	0	0	0	norway maple	32	16	9	T	F	T	F	F	T		9-16-08		
NI12E-03	403 N Ninth St	1	42	0	0	0	norway maple	27	10	9	T	F	T	F	F	F		9-16-08		
NI12E-04	405 N Ninth St	1	92	0	0	0	white ash	30	15	16	T	F	T	F	T	F		9-16-08	fall 08	
NI12E-05	405 N Ninth St	1	77	0	0	0	white ash	41	13	9	F	F	F	F	F	F		9-16-08		
NI12E-06	409 N Ninth St	1	41	0	0	0	honey locust	36	13	9	F	F	F	F	F	F		9-16-08		
NI13E-01	401 N Ninth St	1	81	0	0	0	norway maple	38	15	9	T	F	T	T	T	F		9-16-08		
NI13E-02	503 N Ninth St	1	96	0	0	0	norway maple	16	6	0	F	F	F	T	F	F	hacked to bits + sprayed w/ roundup?	9-16-08		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Ninth St																				
NI13E-03	507 N Ninth St	1	88	0	0	0	norway maple	42	20	10	F	F	T	F	T	F		9-16-08		
NI14E-01	607 N Ninth St	1	66	0	0	0	norway maple	37	15	12	F	F	F	F	T	F		9-16-08		
NI14E-02	607 N Ninth St	1	75	0	0	0	norway maple	37	12	11	F	F	F	T	F	F		9-16-08		
NI14E-03	609 N Ninth St	1	40	0	0	0	norway maple	35	9	13	F	F	F	F	F	F		9-16-08		
NI14E-04	609 N Ninth St	1	51	0	0	0	norway maple	36	12	9	F	F	F	F	F	F		9-16-08		
NI14W-01	608 N Ninth St	6	42	26	38	26	japanese maple	31	10	6	T	F	T	F	F	F		9-16-08		
NI16E-01	813 N Nineth St	1	42	0	0	0	ginkgo	40	19	10	F	F	F	F	F	F		9-4-08		
NI16E-02	813 N Nineth St	1	50	0	0	0	norway maple	35	10	10	F	F	T	F	T	F		9-4-08		
NI16E-03	813 N Nineth St	1	25	0	0	0	ginkgo	38	12	13	F	F	F	F	F	F		9-4-08		
NI16E-04	813 N Nineth St	2	35	35	0	0	norway maple	36	16	10	F	F	T	F	F	F		9-4-08		
Orange St																				
OG09E-01	117 N Orange St	1	60	0	0	0	basswood	30	10	10	F	T	T	T	T	F		Fall06		
OG11W-01	326 N Orange St	1	29	0	0	0	cherry	13	10	5	T	F	F	F	F	F		Fall06		
OG12E-01	431 N Orange St	1	19	0	0	0	pin oak	26	10	11	F	T	F	F	F	F		Fall06		
OG12E-02	431 N Orange St	1	40	0	0	0	pin oak	31	15	12	F	T	F	F	F	F		Fall06		
OG16E-01	803 N Orange St	1	72	0	0	0	norway maple	21	8	7	F	T	T	T	F	T		10-2-08		
OG16E-03	809 N Orange St	1	57	0	0	0	black maple	42	12	9	F	T	F	F	F	F		10-2-08		
OG16E-04	811 N Orange St	1	46	0	0	0	norway maple	7	17	6	F	T	F	F	F	F	LAST TREE!!! for now	10-2-08		
OG16E-2	803 N Orange St	1	83	0	0	0	red maple	35	10	7	F	T	F	T	F	F		10-2-08		
OG17E-01	903 N Orange St	3	42	38	42	0	white birch	37	20	8	F	T	T	F	T	F		11-25-07		
OG17E-02	903 N Orange St	1	43	0	0	0	red maple	23	12	15	F	T	T	T	F	F	red?	11-25-07		
OG19E-01	1101 N Orange St	1	56	0	0	0	?	21	20	7	T	T	F	F	F	F		10-12-07		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Penn St																				
PE64S-01	534 N Eighth St	1	86	0	0	0	red oak	55	20	20	F	F	F	F	T	F		Fall06		
PE64S-02	534 N Eighth St	1	94	0	0	0	red oak	55	15	20	F	F	F	F	T	F		Fall06		
PE64S-03	534 N Eighth St	1	96	0	0	0	red oak	55	30	18	F	F	T	F	T	F		Fall06		
PE64S-04	534 N Eighth St	1	104	0	0	0	red oak	55	25	18	F	F	F	T	T	F	honey bees nest in cavity	Fall06		
PE65N-01	605 N Eighth St	2	63	37	0	0	tulip	40	20	12	T	T	F	F	T	F		Fall06		
PE65N-02	605 N Eighth St	1	55	0	0	0	pin oak	41	20	20	F	T	T	F	T	F		Fall06		
PE65S-01	207 E Penn St	1	63	0	0	0	norway maple	40	15	10	F	F	F	F	T	F		Fall06		
PE65S-02	207 E Penn St	1	54	0	0	0	red maple	40	20	18	F	F	F	F	T	F		Fall06		
Pine St																				
PI57N-01	404 W Pine St	2	114	0	0	0	silver maple	65	20	18	F	F	F	T	T	F		Fall06		
PI68N-01	24 E Pine St	1	8	0	0	0	cleveland pear	16	4	7	F	F	F	F	F	F		9-27-07		
PI68N-02	18 E Pine St	1	28	0	0	0	cleveland pear	15	8	10	F	T	F	F	F	F		9-27-07		
PI68N-03	16 E Pine St	1	34	0	0	0	cleveland pear	17	9	10	F	T	F	F	T	F		9-27-07		
PI69N-01	104 E Pine St	1	99	0	0	0	ohio buckeye	31	15	12	F	F	F	T	F	F	loses leaves early	9-22-07		
PI71N-01	322 E Pine St	1	21	0	0	0	cleveland pear	14	4	6	F	F	F	F	F	F		9-22-07		
PI71N-02	322 E Pine St	1	24	0	0	0	cleveland pear	16	8	6	F	F	F	F	F	F		9-22-07		
PI71N-03	322 E Pine St	1	25	0	0	0	cleveland pear	14	0	8	F	F	F	F	F	F		9-22-07		
PI71S-61	2 S Front St	1	19	0	0	0	red maple	17	10	7	T	F	T	F	F	T		9-22-07		
Pear St																				
PR64N-01	900 N Eighth St	1	53	0	0	0	norway maple	43	18	7	F	T	F	T	T	F		9-4-08		
PR64N-02	900 N Eighth St	1	53	0	0	0	norway maple	41	20	7	T	T	F	F	T	F		9-4-08		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Rhoads Ave																				
RH09E-01	101 Rhoads Ave	1	62	0	0	0	honey locust	40	20	20	F	F	T	F	T	F	hit by lightning	10-16-07		
RH09E-02	101 Rhoads Ave	1	43	0	0	0	honey locust	36	15	18	F	F	T	F	T	F		10-16-07		
RH09E-03	101 Rhoads Ave	1	72	0	0	0	honey locust	36	20	12	T	F	T	F	T	F		10-16-07		
RH09E-04	107 Independence Ave	1	52	0	0	0	honey locust	35	12	18	T	F	T	F	T	F		10-16-07		
RH09E-05	107 Independence Ave	1	56	0	0	0	honey locust	36	20	10	F	F	T	F	F	F		10-16-07		
RH09E-06	107 Independence Ave	1	65	0	0	0	honey locust	33	15	12	T	F	T	T	T	F		10-16-07		
RH09E-07	107 Independence Ave	1	52	0	0	0	honey locust	32	20	9	F	F	T	F	F	F		10-16-07		
RH10E-01	201 Rhoads Ave	1	50	0	0	0	honey locust	30	20	9	F	F	T	F	F	F		8-30-08		
RH10E-02	201 Rhoads Ave	1	55	0	0	0	honey locust	38	13	10	T	F	T	F	F	F		8-30-08		
RH10E-03	203 Rhoads Ave	2	50	47	0	0	honey locust	55	12	20	T	F	F	F	F	F		8-30-08		
RH10E-04	203 Rhoads Ave	1	53	0	0	0	honey locust	48	11	15	T	F	F	F	F	F		8-30-08		
RH10E-05	203 Rhoads Ave	1	60	0	0	0	honey locust	48	24	20	T	F	F	F	F	F		8-30-08		
RH10W-01	220 Rhoads Ave	1	73	0	0	0	honey locust	38	15	10	F	F	T	F	F	F	in trouble	10-27-07		
RH10W-02	220 Rhoads Ave	1	47	0	0	0	honey locust	36	12	9	T	F	T	F	F	F	in trouble	10-27-07		
RH10W-03	220 Rhoads Ave	1	85	0	0	0	honey locust	37	20	9	T	F	T	F	F	F		10-27-07		
RH10W-04	218 Rhoads Ave	1	53	0	0	0	honey locust	36	18	9	T	F	T	F	F	F		10-27-07		
RH10W-05	218 Rhoads Ave	1	66	0	0	0	honey locust	38	14	10	T	F	T	F	T	T		10-27-07		
RH10W-06	216 Rhoads Ave	1	37	0	0	0	honey locust	33	12	10	T	F	T	F	F	F		10-27-07		
RH10W-07	216 Rhoads Ave	1	46	0	0	0	honey locust	33	12	10	F	F	T	F	T	T		10-27-07		
RH10W-08	216 Rhoads Ave	1	44	0	0	0	honey locust	30	16	12	T	F	T	F	T	F		10-27-07		
RH10W-09	200 Rhoads Ave	1	47	0	0	0	honey locust	40	10	13	F	F	T	F	T	F		10-27-07		
RH10W-10	200 Rhoads Ave	1	44	0	0	0	honey locust	38	16	9	F	F	T	F	T	F		10-27-07		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Rhoads Ave																				
RH11E-01	305 Rhoads Ave	1	97	0	0	0	pin oak	36	20	12	F	F	T	F	T	F		10-27-07		
RH11E-02	305 Rhoads Ave	1	55	0	0	0	norway maple	28	15	7	F	F	T	F	F	F	once hit by lightning	10-27-07		
RH11E-03	305 Rhoads Ave	1	49	0	0	0	norway maple	30	12	8	F	F	T	F	F	F		10-27-07		
RH11E-04	305 Rhoads Ave	1	98	0	0	0	pin oak	47	15	8	F	F	T	F	T	F		10-27-07		
Second St																				
SE36E-01	300 E Pine St	1	124	0	0	0	?	22	20	12	T	F	F	T	T	F		9-22-07		
SE36E-02	301 E Chestnut St	1	90	0	0	0	silver maple	35	15	10	F	F	T	T	T	F		6-22-07		
SE36E-03	301 E Chestnut St	1	54	0	0	0	white birch	30	12	18	F	T	F	F	F	F	european?	9-22-07		
SE36E-04	301 E Chestnut St	1	62	0	0	0	norway maple	27	15	11	T	F	T	T	T	F		9-22-07		
SE36E-05	301 E Chestnut St	1	0	0	0	0	norway maple	30	16	12	F	T	T	T	F	F		9-22-07		
SE36E-06	301 E Chestnut St	1	47	0	0	0	black maple	30	15	15	F	T	T	T	F	F		9-22-07		
Sassafras St																				
SF55N-01	514 University Ave	1	11	0	0	0	cleveland pear	12	3	4	F	F	F	F	F	F				
SF55N-02	514 University Ave	1	10	0	0	0	cleveland pear	12	3	4	F	F	F	F	F	F				
SF55N-03	514 University Ave	1	10	0	0	0	cleveland pear	12	9	3	F	F	F	F	F	F				
SF55N-04	514 University Ave	1	9	0	0	0	cleveland pear	12	3	4	F	F	F	F	F	F				
SF55N-05	514 University Ave	1	9	0	0	0	cleveland pear	15	3	1	F	F	F	F	F	F				
SF55N-06	514 University Ave	1	10	0	0	0	cleveland pear	14	3	3	F	F	F	F	F	F				
SF55N-07	514 University Ave	1	9	0	0	0	cleveland pear	14	3	4	F	F	F	F	F	F				
SF55N-08	514 University Ave	1	10	0	0	0	cleveland pear	15	3	4	F	F	F	F	F	F				
SF55N-09	514 University Ave	1	10	0	0	0	cleveland pear	14	2	3	F	F	F	F	F	F				
SF57N-01	514 University Ave	1	86	0	0	0	silver maple	35	15	0	T	F	T	T	T	F	rotting			

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Susquehanna Ave																				
SQ08E-01	412 W Pine St	1	96	0	0	0	sycamore	80	40	12	F	F	F	F	F	F				
SQ08E-02	214 W Pine St	1	94	0	0	0	sycamore	80	22	12	F	F	F	F	F	F				
SQ08E-03	412 W Pine St	1	84	0	0	0	sycamore	80	25	12	F	F	F	F	F	F				
SQ08E-04	412 W Pine St	1	104	0	0	0	sycamore	80	20	12	T	F	F	F	F	F	main trunk cut			
SQ08E-05	412 W Pine St	1	100	0	0	0	sycamore	80	30	14	F	F	F	F	F	F				
SQ08E-06	55 Susquehanna Ave	1	85	0	0	0	pin oak	90	33	7	F	F	F	F	T	F				
SQ08E-07	55 Susquehanna Ave	1	79	0	0	0	pin oak	90	23	22	F	F	T	F	T	F				
SQ08E-08	55 Susquehanna Ave	1	70	0	0	0	pin oak	90	24	15	F	F	T	F	F	F				
SQ08W-01	500 W Pine St	1	24	0	0	0	red maple	60	14	9	F	F	F	F	F	F				
SQ08W-02	500 W Pine St	1	23	0	0	0	red maple	60	12	9	F	F	F	F	F	F				
SQ08W-03	500 W Pine St	1	24	0	0	0	red maple	62	12	9	F	F	F	F	F	F				
SQ09E-01	107 Susquehanna Ave	1	33	0	0	0	red maple	36	8	9	F	F	T	F	F	F		11-11-07		
SQ09E-02	105 Susquehanna Ave	1	59	0	0	0	honey locust	50	29	20	F	F	T	F	F	T		11-11-07		
SQ09E-03	105 Susquehanna Ave	1	54	0	0	0	honey locust	47	15	14	F	F	T	F	F	T		11-11-07		
SQ09E-04	103 Susquehanna Ave	1	3	0	0	0	red maple	9	2	2	F	F	F	F	F	F		11-11-07	recently	
SQ09E-05	103 Susquehanna Ave	1	3	0	0	0	red maple	10	2	3	F	F	F	F	F	F		11-11-07	recently	
SQ09W-01	108 Susquehanna Ave	1	136	0	0	0	silver maple	41	17	18	T	F	T	F	F	F	wire holding it together	11-11-07		
SQ09W-02	108 Susquehanna Ave	1	83	0	0	0	silver maple	43	16	10	T	F	F	F	F	F		11-11-07		
SQ09W-03	108 Susquehanna Ave	1	78	0	0	0	silver maple	48	17	9	T	F	F	F	F	F		11-11-07		
SQ09W-04	106 Susquehanna Ave	1	7	0	0	0	river birch	18	5	6	F	F	F	F	F	F		11-11-07		
SQ09W-05	100 Susquehanna Ave	1	71	0	0	0	pin oak	57	17	22	F	F	T	F	F	F		11-11-07		
SQ09W-06	100 Susquehanna Ave	1	92	0	0	0	pin oak	57	20	21	F	F	T	F	F	F		11-11-07		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Susquehanna Ave																				
SQ10E-01	205 Susquehanna Ave	1	103	0	0	0	red ash	44	18	9	F	F	T	F	T	F		11-11-07		
SQ10E-02	201 Susquehanna Ave	1	4	0	0	0	red maple	11	1	6	F	F	F	F	F	F		11-11-07	recently	
SQ10E-03	201 Susquehanna Ave	1	4	0	0	0	red maple	12	2	6	F	F	F	F	F	F		11-11-07	recently	
SQ10W-01	200 Susquehanna Ave	1	64	0	0	0	red maple	27	10	8	F	F	T	T	F	T	needs help	10-28-07		
SQ10W-02	200 Susquehanna Ave	1	77	0	0	0	red maple	10	36	7	F	F	T	T	T	F		10-28-07		
SQ10W-03	200 Susquehanna Ave	1	71	0	0	0	norway maple	39	15	7	F	F	T	F	T	F		10-28-07		
SQ11E-01	305 Susquehanna Ave	1	0	0	0	0	pin oak	20	0	0	T	F	T	F	F	F		11-11-07		
SQ11E-02	305 Susquehanna Ave	1	75	0	0	0	pin oak	42	15	17	F	F	F	F	F	F		11-11-07		
SQ11E-03	205 Susquehanna Ave	1	92	0	0	0	pin oak	18	12	50	F	F	T	T	F	F		11-11-07		
SQ11E-04	301 Susquehanna Ave	1	62	0	0	0	pin oak	37	20	16	F	F	T	F	T	F		11-11-07		
SQ11E-05	301 Susquehanna Ave	1	71	0	0	0	pin oak	48	20	15	T	F	T	F	T	F		11-11-07		
SQ11W-01	308 Susquehanna Ave	1	93	0	0	0	pin oak	55	17	12	F	F	F	F	T	F		10-28-07		
SQ11W-02	308 Susquehanna Ave	1	92	0	0	0	pin oak	62	18	17	F	F	F	F	T	F		10-28-07		
SQ11W-03	308 Susquehanna Ave	1	13	0	0	0	pin oak	20	5	4	F	F	F	F	F	F		10-28-07		
SQ11W-04	308 Susquehanna Ave	1	88	0	0	0	pin oak	57	17	20	F	F	T	F	T	F		10-28-07		
SQ11W-05	300 Susquehanna Ave	1	77	0	0	0	sugar maple	55	20	9	F	F	T	F	T	F		10-28-07		
SQ11W-06	300 Susquehanna Ave	1	84	0	0	0	norway maple	36	18	7	F	F	T	F	T	F		10-28-07		
SQ11W-07	300 Susquehanna Ave	1	52	0	0	0	norway maple	32	16	7	F	F	T	F	T	F		10-28-07		
SQ11W-08	300 Susquehanna Ave	1	64	0	0	0	sugar maple	38	15	7	F	F	T	F	T	F		10-28-07		
Tenth St																				
TE13E-01	501 N Tenth St	1	26	0	0	0	norway maple	22	10	8	F	F	T	F	F	F		10-2-08		
TE13E-02	503 N Tenth St	1	57	0	0	0	norway maple	26	15	9	F	F	F	F	F	F		10-2-08		

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
Tenth St																				
TE13E-03	515 N Tenth St	1	98	0	0	0	norway maple	33	20	11	F	F	F	T	T	F		10-2-08		
TE13E-04	515 N Tenth St	1	98	0	0	0	norway maple	27	19	8	T	F	F	F	F	F		10-2-08		
TE16E-01	801 N Tenth St	1	58	0	0	0	norway maple	18	20	8	T	F	F	F	F	F		10-12-07		
TE16E-02	801 N Tenth St	1	60	0	0	0	norway maple	17	20	8	T	F	F	F	F	F		10-12-07		
TE16E-03	801 N Tenth St	1	59	0	0	0	norway maple	18	20	10	T	F	F	F	F	F		10-12-07		
University Ave																				
UV55N-01	514 University Ave	1	48	0	0	0	norway maple	26	17	7	F	T	F	F	F	F	Trimmed drastically around wires	Fall06		
UV55S-01	514 University Ave	1	21	0	0	0	red maple	30	9	6	F	F	F	F	F	F				
UV55S-02	514 University Ave	1	24	0	0	0	red maple	36	14	8	F	F	F	F	F	F		Fall06		
UV55S-03	514 University Ave	1	23	0	0	0	red maple	27	12	6	F	F	F	F	F	F				
UV55S-04	514 University Ave	1	14	0	0	0	black willow	26	9	8	F	F	F	F	F	F				
UV55S-05	514 University Ave	1	36	0	0	0	black willow	42	12	9	F	F	F	F	F	F		Fall06		
UV55S-06	514 University Ave	1	37	0	0	0	black willow	60	15	0	F	F	F	F	F	F				
UV55S-07	514 University Ave	1	42	0	0	0	black willow	50	1	9	F	F	F	F	F	F		Fall06		
UV55S-08	514 University Ave	1	38	0	0	0	black willow	27	12	9	F	F	F	F	F	F				
UV55S-09	514 University Ave	1	42	0	0	0	black willow	40	15	9	F	F	F	F	F	F				
UV57N-01	406 University Ave	1	70	0	0	0	pin oak	50	22	7	F	F	F	F	F	F				
UV57N-01	300 University Ave	1	31	0	0	0	?	42	14	7	F	F	F	F	F	F				
UV57N-02	300 University Ave	1	27	0	0	0	?	0	12	8	F	F	F	F	F	F		Fall06		
UV57N-02	406 University Ave	1	68	0	0	0	pin oak	45	24	8	F	T	T	F	F	F	wire rests on limb			
UV58S-01	313 University Ave	1	93	0	0	0	sugar maple	60	24	13	F	T	F	F	F	F				
UV58S-02	305 University Ave	1	11	0	0	0	beech	25	7	8	F	T	F	F	F	F	wires are bad			

Tree Code	Street Address	Trunks	Circumference 1	2	3	4	Species	Height	Crown Radius	Ground to Crown	Weak Fork	Wires	Dead Wood	Cavity	Side Walk Damage	Insects	Comments	Survey Date	Plant Date	Remove Date
			(Inches)					(Feet)	(Feet)	(Feet)										
University Ave																				
UV58S-03	309 University Ave	1	31	0	0	0	pin oak	40	12	6	F	F	F	F	F	F		Fall06		
Vine St																				
VN67S-01	625 N High St	1	8	0	0	0	cleveland pear	13	1	3	F	F	F	F	F	F		Fall06		
VN67S-02	625 N High St	1	7	0	0	0	cleveland pear	13	1	4	F	F	F	F	F	F		Fall06		
VN67S-03	625 N High St	1	7	0	0	0	cleveland pear	13	1	3	F	F	F	F	F	F		Fall06		
VN67S-04	7 W Vine St	1	9	0	0	0	cleveland pear	13	2	4	F	F	F	F	F	F		Fall06		
VN67S-05	9 W Vine St	1	8	0	0	0	cleveland pear	13	1	3	F	F	F	F	F	F		Fall06		
Water St																				
WA11E-01	207 N Water St	1	34	0	0	0	cleveland pear	30	10	9	T	F	F	F	F	F		Fall06		
WA11E-02	207 N Water St	1	33	0	0	0	sweet gum	27	10	6	F	T	F	F	T	F		Fall06		
WA8E-01	17 N Water St	1	14	0	0	0	cleveland pear	11	3	4	F	T	F	F	F	F		Fall06		
WA8E-02	13 N Water St	1	13	0	0	0	cleveland pear	11	3	5	F	T	F	F	F	F		Fall06		
WA8E-03	9 N Water St	1	13	0	0	0	cleveland pear	11	3	4	F	T	F	F	F	F		Fall06		
WA8W-01	16 N Water St	1	14	0	0	0	cleveland pear	11	3	5	F	F	F	F	F	F		Fall06		
WA8W-02	10 N Water St	1	13	0	0	0	cleveland pear	11	4	5	F	F	F	F	F	F		Fall06		
WA8W-03	10 N Water St	1	13	0	0	0	cleveland pear	12	3	12	F	F	F	F	F	F		Fall06		
WA8W-04	24 E Pine St	1	12	0	0	0	cleveland pear	17	0	3	F	F	F	F	F	F		Fall06		
WA8W-05	24 E Pine St	1	11	0	0	0	cleveland pear	9	2	3	F	F	F	F	F	F		Fall06		
WI71N-02	18 S Front St	1	120	0	0	0	pin oak	43	20	15	F	F	T	F	T	F	Big!	9-23-07		
Walnut St																				
WL71S-01	301 E Walnut St	1	106	0	0	0	red ash	40	15	15	T	F	T	T	F	F		9-27-07		
WL72N-01	18 S Front St	1	77	0	0	0	elm	33	15	15	F	F	T	F	F	F	siberian?	9-22-07		

APPENDIX 3

Table 1. Sidewalk characteristics.

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Alice Circle				
	AC-14E	10	0	
	AC-14W	999	18	
Bogar Circle				
	BC-16E	10	0	
	BC-16W	12	20	
Bough Street				
	BG-66N	999	0	
	BG-66S	19	20	Covers half
	BG-67N	58	0	
	BG-67S	26	25	
	BG-68N	27	20	wires cross in two places
	BG-68S	0	30	
	BG-70N	24	0	
	BG-70S	0	0	
	BG-71N	12	0	
	BG-71S	12	0	
Bridge Street				
	BI-61N	999	20	
	BI-61S	999	20	
	BI-63S	999	25	
	BI-64N	999	20	
	BI-64S	999	29	
	BI-65N	999	0	
	BI-65S	999	20	
Broad Street				
	BR-07E	0	25	
	BR-07W	0	0	
	BR-08E	0	0	
	BR-08W	0	0	
	BR-09E	10	0	
	BR-09W	0	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Broad Street				
	BR-10E	10	0	
	BR-10W	1	0	
	BR-11E	10	0	
	BR-11W	10	0	
	BR-12E	10	0	
	BR-12W	12	0	
	BR-13E	24	0	
	BR-13W	48	0	
	BR-14E	48	0	
	BR-14W	48	0	
	BR-15E	48	0	
	BR-15W	48	0	
	BR-16E	999	30	
	BR-16W	999	30	
Charles Avenue				
	CL-08E	40	0	
	CL-08W	50	0	
	CL-09E	48	0	
	CL-09W	48	0	
	CL-10E	48	0	
	CL-10W	48	0	
	CL-11E	48	0	
	CL-11W	48	0	
Chestnut Street				
	CN-52N	999	0	
	CN-52S	999	0	
	CN-57N	0	0	
	CN-57S	0	0	
	CN-58N	0	0	
	CN-58S	0	0	
	CN-64N	5	0	
	CN-64S	5	18	
	CN-67N	0	0	some 24in
	CN-67S	24	12	
	CN-68N	0	0	
	CN-68S	0	18	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Chestnut Street				
	CN-69N	999	0	
	CN-69S	0	0	
	CN-71N	24	0	
	CN-71S	24	0	
Eighteenth Street				
	ET-08E	24	0	
	ET-08W	999	0	
	ET-09E	24	0	
	ET-09W	999	0	
	ET-14E	24	0	
	ET-15E	0	20	some plant space
Eighth Street				
	EI-11E	62	0	
	EI-11W	35	0	
	EI-12E	60	0	
	EI-12W	48	0	
	EI-13E	55	0	
	EI-13W	50	0	
	EI-14E	60	0	
	EI-14W	60	0	
	EI-15E	60	0	
	EI-15W	55	0	
	EI-16E	50	0	
	EI-16W	40	0	
	EI-17E	60	0	
	EI-17W	69	18	
	EI-18E	999	0	
	EI-18W	999	0	
	EI-19E	999	25	
	EI-19W	999	0	
Elm Street				
	EL-66N	999	0	
	EL-66S	999	12	
Front Street				
	FR-31E	999	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Front Street				
	FR-31W	999	0	
	FR-34E	999	0	
	FR-34W	12	0	
	FR-35E	999	0	
	FR-35W	24	0	
	FR-36E	999	0	
	FR-36W	12	0	
	FR-37E	999	0	
	FR-37S	999	0	
	FR-37W	999	0	
Gregory Lane				
	GR-51E	999	0	
	GR-51W	999	0	
High Street				
	HI-02E	24	15	
	HI-02W	52	0	Some cross in places
	HI-05E	24	0	
	HI-05W	20	0	
	HI-06E	36	0	
	HI-06W	14	0	
	HI-07E	6	0	
	HI-07W	24	0	
	HI-08E	24	0	
	HI-08W	24	0	
	HI-09E	15	0	
	HI-09W	999	0	
	HI-10E	0	0	
	HI-10W	999	40	
	HI-12E	25	0	
	HI-12W	42	0	
	HI-13E	50	0	
	HI-13W	50	0	
	HI-14E	54	0	
	HI-14W	54	0	
	HI-15E	54	0	
	HI-15W	54	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
High Street				
	HI-16E	36	0	
	HI-16W	36	0	
	HI-17E	0	0	
	HI-17W	0	0	
	HI-18E	24	0	
	HI-18W	30	20	
	HI-19E	24	0	
	HI-19W	30	15	
Horizon Drive				
	HZ-16E	999	0	
	HZ-16W	999	0	
Independence Street				
	ID-54N	12	0	fence in way
	ID-54S	999	0	
	ID-55N	12	0	
	ID-55S	12	0	
	ID-56N	0	0	
	ID-56S	0	20	
	ID-57N	0	0	
	ID-57S	0	18	
	ID-58N	0	0	
	ID-58S	0	18	
	ID-64N	20	0	
	ID-64S	0	20	
Industrial Park Drive				
	IP-02E	0	15	
	IP-02W	0	15	in places, mostly crossings
Linda Lane				
	LD-53N	0	20	
	LD-53S	0	0	
Magnolia Avenue				
	MN-09E	24	0	
	MN-09W	24	0	
	MN-10E	36	0	
	MN-10W	36	0	
	MN-11E	0	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Magnolia Avenue				
	MN-11W	36	0	
	MN-12E	999	0	rocks and culvert
	MN-12W	0	0	
Market Street				
	MK-02E	0	30	lawns in places, one small planting width near chu
	MK-02W	0	0	wires cross in places
	MK-02W	0	0	
	MK-03E	0	20	
	MK-03W	0	0	
	MK-05E	0	0	
	MK-05W	0	0	
	MK-06E	0	0	
	MK-06W	0	0	
	MK-07E	44	15	Brick walk with plantings
	MK-07W	48	0	Brick walk w/ plantings
	MK-08E	30	0	
	MK-08W	48	0	brick
	MK-09E	36	0	
	MK-09W	48	0	brick to cement at end
	MK-11E	0	0	
	MK-11W	0	30	20in next to new inn
	MK-12E	0	0	
	MK-12E	0	0	
	MK-12W	0	30	
	MK-12W	0	30	
	MK-13E	0	0	
	MK-13W	0	30	
	MK-14E	0	0	
	MK-14W	0	30	
	MK-15E	0	0	
	MK-15W	0	30	
	MK-16E	0	0	
	MK-16W	0	30	
	MK-17E	0	0	
	MK-17W	0	30	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Melody Lane				
	MY-53N	25	0	
	MY-53S	25	0	
Mill Street				
	MI-61N	10	20	
	MI-61S	10	0	
	MI-61S	12	0	
	MI-63N	7	20	
	MI-64N	10	30	
	MI-64S	12	0	half pavement
	MI-65N	20	0	
	MI-65S	30	0	
	MI-66N	10	0	
	MI-66N	0	0	
	MI-66S	6	0	
	MI-67N	10	0	widens to about 5 yds
	MI-67S	6	18	
	MI-68N	10	0	widens a little around trees
	MI-68S	0	20	
	MI-69N	5	20	
	MI-69S	12	18	
Ninth Street				
	NI-12E	48	0	
	NI-12W	50	0	
	NI-13E	50	0	
	NI-13W	48	0	
	NI-14E	60	0	
	NI-14W	53	0	
	NI-15E	40	0	
	NI-15W	40	0	
	NI-16E	40	0	
	NI-16W	48	0	
	NI-17L	999	0	
	NI-17N	0	0	
	NI-18E	999	0	
	NI-18W	999	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Orange Street				
	OG-08E	12	18	
	OG-08W	12	0	
	OG-09E	12	18	
	OG-09W	10	0	
	OG-10E	5	18	
	OG-10W	12	0	wires cross st
	OG-11E	12	20	
	OG-11W	12	0	wires cross st
	OG-12E	12	20	
	OG-12W	10	0	wires cross
	OG-13E	999	20	
	OG-13W	24	0	
	OG-14E	30	20	
	OG-14W	25	0	
	OG-15E	69	15	
	OG-15W	32	0	
	OG-16E	48	20	
	OG-16W	32	0	
	OG-17E	40	20	
	OG-17W	35	0	
	OG-18E	24	20	
	OG-18W	24	0	
	OG-19E	24	20	
	OG-19W	999	0	
	OG-19W	24	0	
Pear Street				
	PR-64N	12	20	
	PR-64S	10	0	some plant width 0
	PR-65N	0	20	
	PR-65S	12	0	
	PR-66N	12	0	
	PR-66S	0	0	
	PR-67N	0	0	
	PR-67S	10	0	
Penn Street				
	PE-53L	999	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Penn Street				
	PE-53N	999	0	
	PE-53S	999	0	
	PE-55N	999	0	
	PE-55S	999	0	
	PE-61N	12	20	
	PE-61S	12	0	
	PE-63N	12	20	
	PE-63S	12	0	
	PE-64N	36	20	
	PE-64S	36	0	
	PE-65N	36	20	
	PE-65S	36	0	
	PE-66N	0	25	
	PE-66S	5	25	
	PE-66S	5	0	
	PE-67N	0	30	
	PE-67S	12	0	
	PE-68N	0	20	
	PE-68S	0	20	
Phillips Street				
	PH-13E	0	0	wires cross
	PH-13W	0	0	wires cross
Pine Meadows Drive				
	PM-53N	999	0	
	PM-53S	999	0	
Pine Street				
	PI-56N	36	25	
	PI-57N	34	15	Cross over from other side in places
	PI-57S	0	20	
	PI-58N	10	0	
	PI-58S	12	20	
	PI-64N	0	0	
	PI-64S	0	25	
	PI-66N	0	0	
	PI-66S	28	30	
	PI-67N	0	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Pine Street				
	PI-67S	0	25	
	PI-68N	10	0	
	PI-68S	10	20	
	PI-69N	0	0	bridge and such
	PI-69N	24	0	
	PI-69S	0	0	bridge and such
	PI-69S	0	0	
	PI-69S	8	20	
	PI-70N	10	0	
	PI-70N	0	0	
	PI-70N	0	0	
	PI-70S	0	20	
	PI-70S	10	0	
	PI-71N	10	0	
	PI-71S	10	0	
Rhoads Avenue				
	RH-09E	36	0	
	RH-09W	36	0	
	RH-10E	55	0	
	RH-10W	55	0	
	RH-11E	55	0	
	RH-11W	55	0	
Rt 11/15				
	ZA-01E	0	0	
	ZA-01W	0	0	
	ZA-08E	0	0	
	ZA-08W	0	0	
	ZB-01E	0	0	
	ZB-01W	0	0	
	ZB-08E	0	0	
	ZB-08W	0	0	
Rt 522				
	XX-51N	999	0	
	XX-51S	100	0	
	XX-53S	999	0	
	XX-57N	999	20	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Rt. 522				
	XX-57S	999	0	
	XX-58N	999	20	
	XX-58S	999	0	
	XX-64N	999	40	
	XX-64N	999	0	
	XX-65N	999	0	
	XX-66N	999	0	
	XX-65S	999	0	
	XX-66S	999	0	
Sand Hill Road				
	SH-54N	999	0	
	SH-54S	999	0	
	SH-57N	0	15	
	SH-57S	0	0	
	SH-67N	0	15	1 crossing
	SH-67S	0	15	
Sassafras Street				
	SF-55N	999	0	wires along road
	SF-55S	999	30	wire along road
	SF-57S	999	15	
	SF-58N	48	25	
	SF-64N	100	0	from drainage , 16 in wide
	SF-67N	28	15	Wires cross from other side in places
	SF-67S	0	20	planting
	SF-68N	48	15	wires cross in places
	SF-68N	999	0	
	SF-68S	48	15	
	SF-68S	0	20	
Second Street				
	SE-34E	24	0	
	SE-34W	999	0	
	SE-35E	15	0	
	SE-35W	999	0	
	SE-36E	24	0	
	SE-36W	999	20	half w/o sidewalk, varying wire
	SE-37E	999	0	
	SE-37W	999	20	
Sherman Street				
	SR-61N	24	18	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Sherman Street				
	SR-61S	24	0	
	SR-61S	24	0	
	SR-62N	0	0	
	SR-62S	0	0	
	SR-63N	12	0	
	SR-63S	24	0	
	SR-64N	12	0	
	SR-64S	0	0	
	SR-65N	36	0	some crossing wires
	SR-65S	12	0	
	SR-66N	20	0	
	SR-66S	25	0	
	SR-67N	25	0	
	SR-67S	25	0	
	SR-68N	12	0	
	SR-68S	0	0	
Sholl's Alley				
	XJ-58N	0	0	
	XJ-58S	0	0	
Snyder Street				
	SN-39N	0	0	
	SN-39S	0	18	
	SN-55N	0	0	
	SN-55S	24	0	half sidewalk
	SN-56N	0	0	
	SN-56S	0	0	
	SN-57N	0	0	
	SN-57S	0	0	
	SN-58N	0	0	
	SN-58S	0	20	
	SN-64N	18	20	
	SN-64S	0	0	
	SN-65N	18	20	
	SN-65S	0	0	
	SN-67N	24	30	about half is near a building
	SN-67S	5	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Snyder Street				
	SN-68N	0	0	
	SN-68S	0	18	
Spruce Street				
	SP-12E	0	0	
	SP-12W	0	0	
	SP-55N	999	0	
	SP-55S	999	0	
	SP-56N	999	0	
	SP-56S	12	17	
	SP-57N	0	0	
	SP-57S	12	0	
	SP-58N	10	0	
	SP-58S	12	0	
	SP-63N	10	0	
	SP-63S	15	18	
	SP-64N	24	0	
	SP-64S	12	19	
	SP-65N	0	0	
	SP-65S	24	11	
	SP-66N	8	0	wires cross st, eastern half has 29in to work with
	SP-66S	12	0	
	SP-67N	24	0	
	SP-67S	12	12	width of sidewalk varies from none to grass
	SP-68N	0	0	
	SP-68S	0	0	
	SP-69N	0	0	
	SP-69S	0	0	
	SP-69S	0	0	
Sugar Maple Street				
	SM-63N	999	0	
	SM-63S	999	20	
	SM-64N	999	0	
	SM-64S	999	0	
	SM-64S	999	0	
	SM-64S	999	20	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Sugar Maple Street				
	SM-65N	0	0	
	SM-65S	0	10	
	SM-66N	0	0	
	SM-66S	999	0	
Sunrise Street				
	SS-18E	999	14	
	SS-18W	999	0	
Susqu. Univ. Apple Alley				
	XI-57N	999	0	
	XI-57S	0	20	
Susqu. Univ. College Circle				
	XB-52N	999	0	
	XB-52S	0	0	
	XB-54E	999	0	
	XB-54E	0	0	
	XB-54E	0	0	
	XB-54N	999	0	
	XB-54S	999	0	
	XB-54W	999	0	
	XB-54W	999	0	
	XB-54W	999	0	
	XB-54W	999	0	
Susqu. Univ. Keyhole				
	XH-56L	0	0	Removed in 2010
Susqu. Univ. Kurtz Lane				
	XG-54N	999	0	
	XG-54S	999	0	
Susqu. Univ. Unnamed				
	XE-55N	0	0	
	XE-55S	999	0	
	XE-55S	999	0	
	XF-57N	999	0	
	XF-57S	999	0	
	XK-06E	999	20	
	XK-06W	999	0	
	XL-06E	999	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Susqu. Univ. Unnamed				
	XL-06W	995	0	
Susqu. Univ. Weber Way				
	XD-54E	0	0	
	XD-54N	999	0	
	XD-54S	0	0	
	XD-54W	0	0	
Susqu. Univ. Zeigler Lane				
	XC-52N	999	0	
	XC-52S	24	0	
Susquehanna Avenue				
	SQ-08E	46	0	grass
	SQ-08W	65	0	stone pavers
	SQ-09E	54	0	
	SQ-09W	54	0	
	SQ-10E	54	0	
	SQ-10W	54	0	
	SQ-11E	55	0	
	SQ-11W	55	0	
Tenth Street				
	TE-13E	75	0	
	TE-13W	20	0	
	TE-14E	50	0	
	TE-14W	50	0	
	TE-15E	30	0	
	TE-15W	36	0	
	TE-16E	30	0	
	TE-16N	36	0	
Third Street				
	TH-34E	24	0	
	TH-34E	17	0	
	TH-34W	12	0	
	TH-34W	0	0	some places 12 inches
	TH-35E	12	0	
	TH-35W	12	18	
University Avenue				
	UV-52N	999	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
University Avenue				
	UV-52S	999	0	
	UV-55N	48	20	
	UV-55S	88	0	
	UV-55S	88	0	
	UV-55S	0	0	someis 88in
	UV-56S	36	0	
	UV-56S	0	0	
	UV-57N	55	30	
	UV-57S	50	20	
	UV-58S	64	20	
	UV-64N	0	0	
	UV-64S	0	12	
	UV-67N	0	20	
	UV-67S	0	20	
Vine Street				
	VN-63N	0	18	
	VN-63S	0	0	
	VN-64N	12	12	half has sidewalk to curb
	VN-64S	0	0	
	VN-65N	20	12	
	VN-65S	0	0	
	VN-66N	12	25	
	VN-66S	12	0	
	VN-67N	0	20	
	VN-67S	32	0	
	VN-68N	999	0	
	VN-68S	20	0	
Walnut Street				
	WL-68N	0	0	
	WL-68S	20	0	
	WL-70N	24	0	
	WL-70S	108	0	small portion is 24in
	WL-71N	36	0	
	WL-71S	12	0	
Water Street				
	WA-05E	999	0	

[1] Refer to the Sidewalk Map to located each sidewalk by its code
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead

Street	Sidewalk Code[1]	Planting Width[2]	Height of Overhead Wires[3]	Field Notes:
		(Inches)	(Feet)	
Water Street				
	WA-05W	999	0	
	WA-06E	0	18	
	WA-06W	24	0	sidewalk ends halfway
	WA-07E	0	15	
	WA-07W	0	0	
	WA-08E	25	18	
	WA-08W	0	0	
	WA-09E	11	0	
	WA-09W	12	0	
	WA-11E	30	0	
	WA-11W	5	0	
	WA-12E	20	0	narrow and wire @20ft south of tracks
	WA-12W	12	0	narrow south of tracks
Woodruff Avenue				
	WR-15E	24	0	
	WR-15N	10	12	
	WR-15S	10	0	
	WR-15W	24	0	

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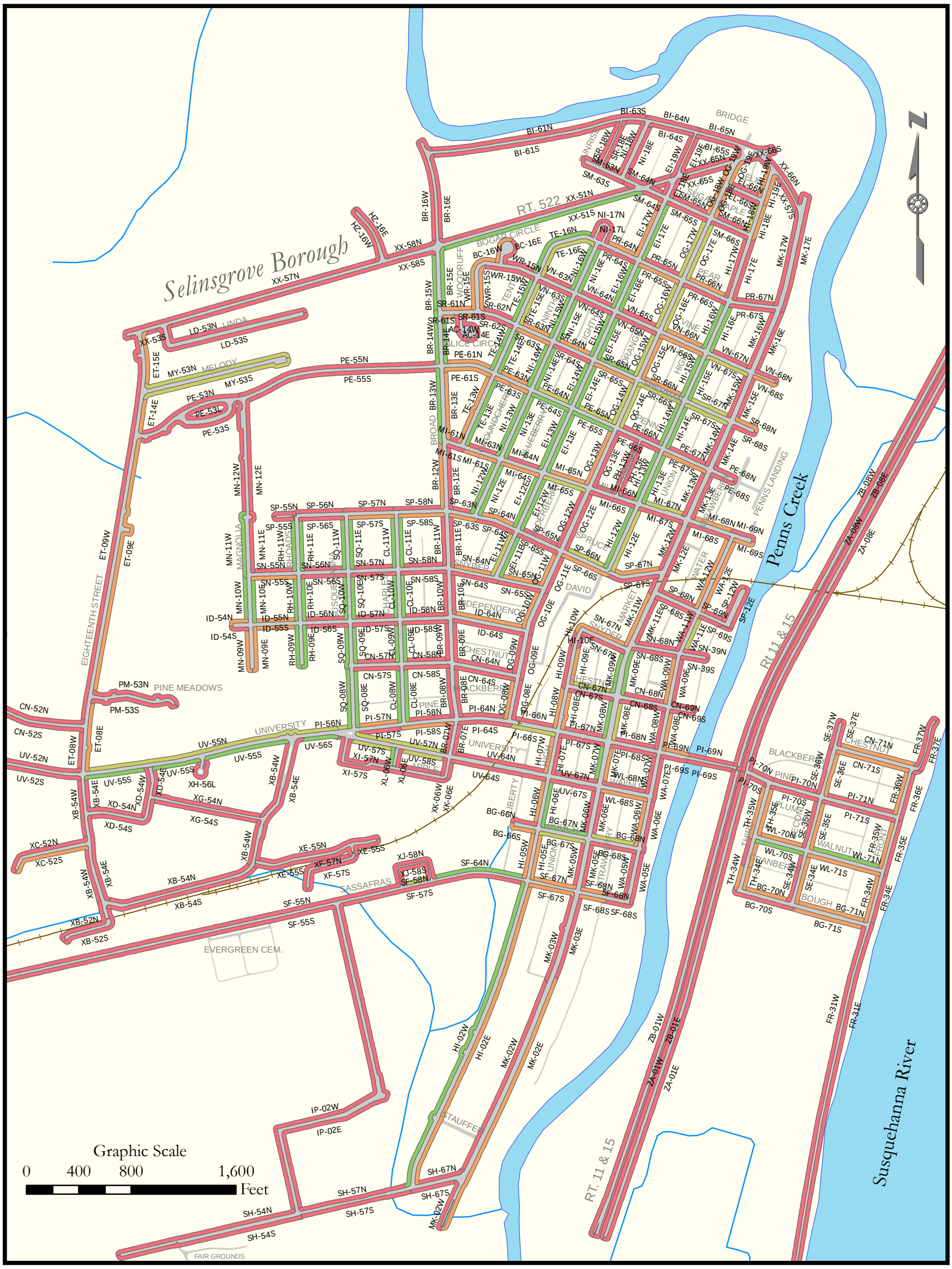
[2] Planting with of 999 indicates unlimited planting area (no sidewalk)
[3] Wire height at 0 indicates no wires overhead



Legend

Planting Guide

- Prime
- Favorable
- Marginal
- Inadequate

SIDEWALK MAP