

TREE AND FOUNDATION PLANT EVALUATION

POLK PLACE

Michael A. Dirr, Ph.D., Horticulture, Margie Bocchieri and Jennifer Wagner

Evaluated May 21, 2008

OBJECTIVE: To identify catalog and evaluate the health of the trees and foundation plantings at Polk Place. Develop thoughtful recommendations for future tree and building plantings.

METHODS: Identified the trees and shrubs and assigned “low”, “moderate”, and “high” ratings based on how a healthy specimen of each taxon should appear. “Moderate”- to “high”-rated plants are in good to excellent condition and require “normal” maintenance. The “low”-rated would ideally be removed and new plantings constituted. Table 1 is the composite; Table 2 presents plants by location.

RESULTS:

Table 1. Total Tree and Shrub Composition of Polk Place

Over 100 woody taxa were cataloged. No genus/species/cultivar dominated the Polk Place landscape. The diversity is important to avoid monoculture and pedestrian aesthetics. The Landscape Department should be lauded for incorporating new/unusual plants. For example, *Camellia sasanqua*, *Caryopteris xclandonensis*, *Fothergilla* ‘Mt. Airy’, *Hydrangea quercifolia*, *Ilex verticillata*,

Illicium floridanum, *Loropetalum chinense* var. *rubrum*, *Osmanthus* species, *Sarcococca confusa*, *Styrax obassia* and *Viburnum tinus* reflect a spirited, vibrant commitment to color, fragrance and texture. Stumbling upon this cornucopia of woodies provided identification challenges. *Ilex taxa*, hollies, comprised 21% (145/680) of the plants surveyed plus several hedges and masses. Hollies are aesthetic, functional, durable, and long-lived; all desirable traits for campus landscapes.

Surprisingly only one *Buxus sempervirens* was cataloged, 0.14%. Many new, disease-resistant boxwoods are now available. The question was raised about moving some of the boxwood from Bell Tower to the Polk Place buildings. Certainly, this is doable.

Several plantings are totally higgledy-piggledy with one each of many taxa. Shade and root competition are factors affecting proper plant selection. Grouping and massing shade-tolerant plants would result in more robust compositions. *Loropetalum chinense* var. *rubrum*, *Sarcococca confusa* and *S. hookeriana* var. *humilis*, *Camellia japonica* and *C. sasanqua*, *Abelia xgrandiflora*, *Aucuba japonica*, *Gardenia augusta*, *Ilex taxa*, *Osmanthus taxa*, *Mahonia taxa*, *Rhododendron taxa*, *Viburnum tinus* and others are shade tolerant and currently performing quite valiantly in the Polk Place matrix. The use of plants to cover the ground instead of mulch results in a more aesthetically-pleasing composition.

Opportunities abound for positive enhancement, and with the commercial introduction of numerous new (and reasonably tested) plants like the red hollies, Encore Azaleas, red loropetalums, cold hardy gardenias, cold hardy camellias (Camellia Forest Nursery, Chapel Hill), new remontant (reblooming) hydrangeas and fragrant viburnums, effective change is easily facilitated.

If a particular building was revamped *in toto*, the resultant landscape would speak to the future. Many nursery growers in North Carolina and the Southeast would possibly donate newer/unique plants. Design, installation and maintenance responsibilities reside with the University.

The majority of trees and shrubs are in “moderate” to “high” condition, with over 80% placed in these categories. Forty-three percent are rated “high”. These numbers reflect the excellent plant selection and maintenance by the Landscape Department. The “low”-rated plants have been *in situ* too long and/or pruned to the degree of no salvation. With the advent of new compact (dwarf) selections of the shrubs listed above, future maintenance costs can be reduced.

The majestic *Quercus alba* on the Quad are generally in excellent condition. Eighty-five percent rated “moderate” to “high”. With the pedestrian traffic, construction, and events in this area, the white oaks are quite robust. I understand that Bartlett Tree, inc. consults on an as-needed basis. I recommend continued monitoring of white oak health. Consider seedling populations from

the five healthiest trees to be utilized as eventual replacements. Contract with North Carolina grower(s) for number of trees and delivery dates. Need to develop (ASAP) replacements for those designated as “low”.

The *Quercus phellos*, willow oaks, range from “low” (6), “moderate” (8) to “high” (4). They form the outer boundary between the buildings and the white oaks. Several in the “low” category are liabilities and should be removed or at the least correctively pruned. These trees are suffering from compaction and reduced root zone spaces.

New design strategies are being proposed to provide more root zone area. If the *Quercus alba* were planted where the *Quercus phellos* currently reside, they would rate “low” or have long since died. The significant root zone area provided the white oaks has contributed to their good health and longevity.

Now is an opportunity to strategize about alternatives to the failing willow oaks. New own-root willow oaks such as Hightower® and an upright selection Upperton™ (‘RT3’, PP 16,444) are choice alternatives. *Quercus falcata* var. *pagodifolia*, cherrybark oak; *Q. lyrata*, overcup oak; *Q. nuttallii*, Nuttall oak; and *Q. michauxii*, swamp chestnut oak; tolerate low O₂ tensions and, in nature, grow in wet soils. Choice specimens already grow on the University campus.

We live in the future so we might as well plan for it...the same applies to the continued care of Polk and the thoughtful regreening.

Addendum: Running Observations
Polk Place – Existing Plants and Notes
May 21, 2008

Overall:

Plants should be placed in the correct place at planting. Many appear to be in decline due to improper siting (shade/sun, etc.)

South Building

- Hodgepodge of overgrown shrubs at north side of building
- The Ilex on the south side of the building have been pruned into too “formal” a shape that does not seem to mesh with the remainder of the quad.
- Recommend adding fastigate oaks along the south side of the building instead of the high shrubs to allow views, lend some formality and offer some softening of the building.
- Recommend removing Bradford Pear on west side of building to allow better views and more room for the two heritage trees on either side.

Groundcover plants:

Liriope on south and east sides of building

Mixture of the following in bed on southeast side:

Loropetalum chinense

Gardenia augusta

Heuchera

Dianthus plumarius

Russian Sage

Hostas

YMCA Building

New plantings

Groundcover Plants:

Liriope in square planters on north side of building

Climbing Hydrangea on east wall of Gerrard

Helleborus and Christmas Ferns in beds on north side of building

Mixture of the following in bed on southeast side:

Cornus kousa × *C. florida*

Hosta

Gardenia augusta

Astilbe

Cercis canadensis

Calycanthus floridus

Hydrangea macrophylla
Heuchera
Arum italicum

Courtyard east of Carroll

- There is construction going on in a large portion of the courtyard.
- Much of the ground in the planters around the courtyard is heavily compacted due to construction activities and pedestrian routes that have developed in order to avoid construction.

There is a huge *Ilex latifolia* in front of Carroll. (Champion?)

There is invasive groundcover (vinca) on the southeast corner of Carroll.

Dwarf Nandina in beds behind walls

Two small patches of juniper in the courtyard

Red Maple in the courtyard is in excellent condition, but is in danger of heavy root damage from construction.

Gardner Building

Carya aquatica(?) on northeast corner of Gardner is in poor condition.

Groundcover Plants:

Autumn Ferns

Pachysandra

Liriope

Dey Building

The three *Quercus phellos* in the planters in front of the east entrance of the building are in poor condition and have been heavily pruned/"topped".

Groundcover Plants:

Liriope

Wilson Library

Groundcover Plants:

Turf

Bingham Building

The shrubs in front of the building are not the same cultivars of Ilex

Groundcover Plants:

Helleborus

Candytuft

Murphey Building

Groundcover Plants:

West side of building:

Helleborus

A small patch of ivy in the memorial garden

North side of building (along courtyard):

Groupings of *Helleborus*

Groupings of *Pachysandra*

Ivy (invasive, amongst *Pachysandra*)

Mismatched and sparse plantings of the following:

Lily of the Valley

Violets

Astilbes

Pachysandra

Liriope

Hosta

Helleborus

East side of building:

Liriope

Courtyard west of Manning Building

Groundcover Plants:

Turf throughout courtyard

Dwarf nandinas in planters behind walls

Turf at northwest corner of Manning Building

Invasive weeds at southwest corner planter

Liriope at north side of building

Saunders Building

Planter on north side of building has drainage issues due to construction at the Steele building and has become mucky.

Groundcover Plants:

Liriope at west side and east side of building

Pachysandra at north side of building

Courtyard east of Saunders Building

Recommend take out walls to allow trees more room to grow.

Red Maple in planter near Bynum Building is heavily compacted – tree will likely not survive.

Gated Sculpture Garden

Ringed with *Abelia xgrandiflora* (moderate), alternating with and accented at corners with Boxwood (poor to moderate)

Turf in center planters

Two *Cercis Canadensis* 'Oklahoma' (high)

Steele Building

Under construction – very little plant material left

A large *Photinia* (Redtip) is planted next to a large Bald Cypress. Recommend removing *Photinia* to encourage health and aesthetics of *Taxodium distichum*.

Theater Building

New plantings

Groundcover plants:

Liriope in street planters

Liriope in planter south of building

Liriope in planter at southeast corner of building

Invasive *Euonymus fortunei* groundcover in planters east of building.

Mixture of the following in planter north of Theater:

Clethra alnifolia

Zenobia pulverulenta (1)

Astilbe

Hosta

Helleborus

Daffodils

Heuchera

Table 1. Total Tree and Shrub Composition of Polk Place

Scientific Name	High	Moderate	Low	Grand Total
<i>Abelia</i> 'Edward Goucher'		1		3
<i>Abelia</i> <i>xgrandiflora</i>		3 + 1 mass	mass	3 + 2 masses
<i>Acer barbatum</i>		2		2
<i>Acer buergerianum</i>		1	1	2
<i>Acer palmatum</i> var. <i>atropurpureum</i>	1			1
<i>Acer rubrum</i>	3		2	5
<i>Acer saccharum</i>	1	1	1	3
<i>Amelanchier xgrandiflora</i>		1		1
<i>Aucuba japonica</i>	16			16
<i>Betula utilis</i> var. <i>jacquemontii</i>		1		1
<i>Buxus sempervirens</i>		1		1
<i>Calocedrus decurrens</i>			1	1
<i>Camellia japonica</i>	3	5		8
<i>Camellia sasanqua</i>	14	11	9	34
<i>Carya aquatica</i>			1	1
<i>Caryopteris xclandonensis</i>	14			14
<i>Cercis canadensis</i>		1	2	3
<i>Cercis canadensis</i> 'Oklahoma'			1	1
<i>Cercis chinensis</i>	1			1
<i>Chaenomeles</i> spp.	4			4
<i>Chionanthus retusus</i>		1		1
<i>Clethra alnifolia</i>	4			4
<i>Cornus xrutgersensis</i>	1			1
<i>Cornus florida</i>		5	6	11
<i>Cornus kousa</i>	2			2
<i>Daphne odora</i> 'Variegata'		1		1
<i>Deutzia gracilis</i> 'Nikko'	30			30
<i>Diospyros virginiana</i>			1	1
<i>Elaeagnus pungens</i>		mass		mass
<i>Euonymus alatus</i> 'Compactus'	several in groupings	several in groupings		several in groupings
<i>Fothergilla major</i> 'Mt. Airy'			4	4
<i>Fraxinus americana</i>	1			1
<i>Gardenia augusta</i>	17			17
<i>Gardenia augusta</i> 'Radicans'		11	5	16
<i>Hydrangea anomala</i> subsp. <i>petiolaris</i>		1		1
<i>Hydrangea macrophylla</i>	6		1	7
<i>Hydrangea macrophylla</i> 'Endless Summer'	2			2
<i>Hydrangea macrophylla</i> 'Pia'	5			5
<i>Hydrangea quercifolia</i>		9		9
<i>Ilex</i> 'Emily Bruner'	1	2		3
<i>Ilex</i> 'Nellie R. Stevens'	21	11	3	35
<i>Ilex xattenuata</i> 'East Palatka'		2	3	5
<i>Ilex xattenuata</i> 'Fosters #2'	2	10		12
<i>Ilex xattenuata</i> 'Savannah'		1		1
<i>Ilex xkoehneana</i>		3		3
<i>Ilex cornuta</i> 'Burfordii'	2 + 1 hedge	7	3	12 + 1 hedge
<i>Ilex cornuta</i> 'Dwarf Burford'	4	17 + 1 mass	6	27 + 1 mass
<i>Ilex cornuta</i> 'Needlepoint'			1	1
<i>Ilex cornuta</i> 'Rotunda'	2 masses			2 masses
<i>Ilex crenata</i>	8		1	9
<i>Ilex crenata</i> 'Hetzii'			2 hedges	2 hedges
<i>Ilex decidua</i>	1			1
<i>Ilex latifolia</i>		1	1	2
<i>Ilex opaca</i>		2		2
<i>Ilex pernyi</i> x <i>I. cornuta</i>		2	1	3
<i>Ilex verticillata</i>		1	1	2
<i>Ilex vomitoria</i>	3	2	mass	5 + 1 mass
<i>Ilex vomitoria</i> 'Nana'	22			22
<i>Illicium floridanum</i>	3			3
<i>Ligustrum japonicum</i>			2	2
<i>Ligustrum sinense</i>			mass	mass
<i>Lirodendron tulipifera</i>	1	4	3	8

Table 1. Total Tree and Shrub Composition of Polk Place

Scientific Name	High	Moderate	Low	Grand Total
<i>Loropetalum chinense</i>		1		1
<i>Loropetalum chinense</i> var. <i>rubrum</i>	1			1
<i>Magnolia grandiflora</i>	1	2	5	8
<i>Mahonia bealei</i>		1		1
<i>Malus</i> spp.			1	1
<i>Nandina domestica</i>		8 masses		8 masses
<i>Nandina domestica</i> 'Gulf Stream'	5			5
<i>Nyssa sylvatica</i> var. <i>biflora</i>	1			1
<i>Osmanthus xfortunei</i>	7			7
<i>Osmanthus heterophyllus</i>	2	2		4
<i>Philadelphus coronarius</i>		1		1
<i>Photinia xfraseri</i>		2	1	3
<i>Pieris japonica</i>		14	15	29
<i>Pistacia chinensis</i>	4			4
<i>Prunus xyedoensis</i>			2	2
<i>Prunus serrulata</i>	1		2	3
<i>Prunus serrulata</i> 'Kwanzan'	1	1	5	7
<i>Pseudotsuga menziesii</i>			1	1
<i>Pyrus calleryana</i> 'Bradford'			1	1
<i>Quercus alba</i>	12	5	3	20
<i>Quercus falcata</i>			1	1
<i>Quercus falcata</i> var. <i>pagodifolia</i>		1		1
<i>Quercus palustris</i>		1	3	4
<i>Quercus phellos</i>	4	9	6	19
<i>Quercus stellata</i>		1	1	2
<i>Raphiolepis umbellata</i>	mass	5	12	17 + 1 mass
<i>Raphiolepis umbellata</i> 'Majestic Beauty'		1		1
<i>Rhododendron catawbiense</i>		10		10
<i>Rhododendron</i> (Evergreen Azalea)		5	13	18
<i>Rhododendron</i> 'PJM'		2	1	3
<i>Rhododendron</i> Satsuki Azalea	25			25
<i>Rhododendron</i> Southern Indica Azalea		51		51
<i>Sarcococca confusa</i>	8			8
<i>Sarcococca hookeriana</i> var. <i>humilis</i>		8		8
<i>Spiraea cantoniensis</i> 'Lanceata'	15			15
<i>Styrax obassia</i>	1			1
<i>Taxodium distichum</i>	1	1		2
<i>Ternstroemia gymnanthera</i> (aka <i>Cleyera</i>)	1	2		3
<i>Thuja</i> 'Green Giant'	2			2
<i>Tilia cordata</i>	2			2
<i>Viburnum awabuki</i>	3			3
<i>Viburnum plicatum</i> var. <i>tomentosum</i>		4	2	6
<i>Viburnum tinus</i>	5			5
<i>Zenobia pulverulenta</i>		1		1
Grand Total	295 + masses, hedges and groupings	252 + masses, hedges and groupings	133 + masses, hedges and groupings	680 + several masses and groupings

Table 2. Polk Place Tree and Shrub Survey by Location

Section	Type	Genus	Species	Cultivar	Condition	Quantity	Note
Theater	Tree	<i>Acer</i>	<i>buergerianum</i>		Low	1	
Theater	Tree	<i>Acer</i>	<i>buergerianum</i>		Moderate	1	
Theater	Tree	<i>Acer</i>	<i>rubrum</i>		High	2	
Theater	Tree	<i>Acer</i>	<i>rubrum</i>		Low	1	
Theater	Tree	<i>Acer</i>	<i>saccharum</i>		Low	1	
Theater	Tree	<i>Cercis</i>	<i>chinensis</i>		High	1	
Theater	Tree	<i>Cornus</i>	<i>florida</i>		Low	1	
Theater	Tree	<i>Cornus</i>	<i>florida</i>		Moderate	2	
Theater	Tree	<i>Magnolia</i>	<i>grandiflora</i>		Moderate	1	
Theater	Tree	<i>Magnolia</i>	<i>grandiflora</i>		Low	1	
Theater	Tree	<i>Magnolia</i>	<i>grandiflora</i>		Low	1	
Theater	Tree	<i>Pseudotsuga</i>	<i>menziesii</i>		Low	1	
Theater	Shrub	<i>Clethra</i>	<i>alnifolia</i>		High	4	
Theater	Shrub	<i>Fothergilla</i>	<i>major</i>	'Mt. Airy'	Low	4	
Theater	Shrub	<i>Gardenia</i>	<i>augusta</i>		High	13	
Theater	Shrub	<i>Hydrangea</i>	<i>macrophylla</i>		Low	1	
Theater	Shrub	<i>Hydrangea</i>	<i>macrophylla</i>	'Pia'	High	5	
Theater	Shrub	<i>Hydrangea</i>	<i>quercifolia</i>		Moderate	5	
Theater	Shrub	<i>Ilex</i>		'Emily Bruner'	Moderate	1	
Theater	Shrub	<i>Ilex</i>	<i>xkoehneana</i>		Moderate	2	
Theater	Shrub	<i>Ilex</i>	<i>vomitorea</i>		High	1	
Theater	Shrub	<i>Nandina</i>	<i>domestica</i>	'Gulf Stream'	High	5	
Theater	Shrub	<i>Osmanthus</i>	<i>xfortunei</i>		High	3	
Theater	Shrub	<i>Raphiolepis</i>	<i>umbellata</i>		Low	12	
Theater	Shrub	<i>Raphiolepis</i>	<i>umbellata</i>	'Majestic Beauty'	Moderate	1	
Theater	Shrub	<i>Rhododendron</i>	Satsuki Azalea		High	25	
Theater	Shrub	<i>Rhododendron</i>	Southern Indica Azalea		Moderate	5	
Theater	Shrub	<i>Viburnum</i>	<i>plicatum</i> var. <i>tomentosum</i>		Low	1	
Theater	Shrub	<i>Zenobia</i>	<i>pulverulenta</i>		Moderate	1	
Murphy	Shrub	<i>Rhododendron</i>		'PJM'	Low	1	
Bingham	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Dwarf Burford'	Low	4	
Bingham	Shrub	<i>Camellia</i>	<i>japonica</i>		Moderate	4	
Bingham	Shrub	<i>Camellia</i>	<i>sasanqua</i>		Low	4	
Bingham	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Burfordii'	Low	2	
Bingham	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Needlepoint'	Low	1	
Bingham	Shrub	<i>Ilex</i>	<i>crenata</i>		Low	1	Male
Bingham	Shrub	<i>Raphiolepis</i>	<i>umbellata</i>		High	Mass	
Bingham	Shrub	<i>Raphiolepis</i>	<i>umbellata</i>		Moderate	5	
Bingham	Shrub	<i>Rhododendron</i>			Moderate	5	Evergreen azalea
Wilson Library	Tree	<i>Magnolia</i>	<i>grandiflora</i>		Moderate	1	

Table 2. Polk Place Tree and Shrub Survey by Location

Section	Type	Genus	Species	Cultivar	Condition	Quantity	Note
Wilson Library	Tree	<i>Magnolia</i>	<i>grandiflora</i>		Low	1	
Wilson Library	Shrub	<i>Ilex</i>		'Nellie R. Stevens'	High	1	
Wilson Library	Shrub	<i>Ilex</i>	<i>xattenuata</i>	'Fosters #2'	High	2	
Wilson Library	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Rotunda'	High	2 masses	
Wilson Library	Shrub	<i>Ilex</i>	<i>pernyi x I. cornuta</i>		Low	1	
Wilson Library	Shrub	<i>Tilia</i>	<i>cordata</i>		High	2	
Dey	Shrub	<i>Abelia</i>	<i>xgrandiflora</i>		Moderate	Mass	
Dey	Shrub	<i>Abelia</i>	<i>xgrandiflora</i>		Low	Mass	
Dey	Shrub	<i>Aucuba</i>	<i>japonica</i>		High	5	
Dey	Shrub	<i>Ilex</i>		'Nellie R. Stevens'	Moderate	8	
Dey	Shrub	<i>Ilex</i>		'Nellie R. Stevens'	Low	3	
Dey	Shrub	<i>Ilex</i>	<i>xkoehneana</i>		Moderate	1	
Dey	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Burfordii'	Moderate	1	
Dey	Shrub	<i>Ilex</i>	<i>vomitorea</i>		High	2	Female
Dey	Shrub	<i>Ternstroemia</i>	<i>gymnanthera</i>	(aka <i>Cleyera</i>)	Moderate	2	
Gardner	Tree	<i>Acer</i>	<i>barbatum</i>		Moderate	2	
Gardner	Tree	<i>Carya</i>	<i>aquatica</i>		Low	1	
Gardner	Tree	<i>Cercis</i>	<i>canadensis</i>		Low	1	
Gardner	Tree	<i>Cornus</i>	<i>xrutgersensis</i>		High	1	
Gardner	Tree	<i>Prunus</i>	<i>xyedoensis</i>		Low	2	
Gardner	Shrub	<i>Camellia</i>	<i>sasanqua</i>		Moderate	6	
Gardner	Shrub	<i>Camellia</i>	<i>sasanqua</i>		Low	4	
Gardner	Shrub	<i>Camellia</i>	<i>sasanqua</i>		High	1	Newly planted
Gardner	Shrub	<i>Cornus</i>	<i>kousa</i>		High	1	
Gardner	Shrub	<i>Gardenia</i>	<i>augusta</i>	'Radicans'	Moderate	11	
Gardner	Shrub	<i>Gardenia</i>	<i>augusta</i>	'Radicans'	Low	5	
Gardner	Shrub	<i>Ilex</i>		'Emily Bruner'	High	1	
Gardner	Shrub	<i>Ilex</i>		'Emily Bruner'	Moderate	1	
Gardner	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Dwarf Burford'	Moderate	17	
Gardner	Shrub	<i>Ilex</i>	<i>vomitorea</i>	'Nana'	High	22	
Gardner	Shrub	<i>Illicium</i>	<i>floridanum</i>		High	3	
Gardner	Shrub	<i>Nandina</i>	<i>domestica</i>		Moderate	Mass in 5 beds	
Gardner	Shrub	<i>Pieris</i>	<i>japonica</i>		Low	11	Lacebug
Gardner	Shrub	<i>Rhododendron</i>	Southern Indica Azalea		Moderate	28	
Gardner	Shrub	<i>Viburnum</i>	<i>awabuki</i>		High	1	
Carroll	Tree	<i>Ilex</i>	<i>latifolia</i>		Moderate	1	Huge--50'
Carroll	Tree	<i>Ilex</i>	<i>latifolia</i>		Low	1	
Carroll	Tree	<i>Magnolia</i>	<i>grandiflora</i>		Low	1	
Carroll	Tree	<i>Prunus</i>	<i>serrulata</i>		Low	2	
Carroll	Shrub	<i>Ilex</i>	<i>crenata</i>	'Hetzii'	Low	2 hedges	Flanking the steps--female
Carroll	Shrub	<i>Ilex</i>	<i>opaca</i>		Moderate	2	
Carroll	Shrub	<i>Viburnum</i>	<i>awabuki</i>		High	2	
Hanes	general						Building under renovation--no foundation plantings
Hanes	Tree	<i>Acer</i>	<i>rubrum</i>		High	1	

Table 2. Polk Place Tree and Shrub Survey by Location

Section	Type	Genus	Species	Cultivar	Condition	Quantity	Note
Hanes	Shrub	<i>Nandina</i>	<i>domestica</i>		Moderate	mass in planting box	
YMCA	Shrub	<i>Aucuba</i>	<i>japonica</i>		High	8	
YMCA	Shrub	<i>Camellia</i>	<i>sasanqua</i>		High	3	
YMCA	Shrub	<i>Ilex</i>	<i>vomitaria</i>		Moderate	2	
Gerrard	Shrub	<i>Hydrangea</i>	<i>anomala</i> subsp. <i>petiolaris</i>		Moderate	1	
Gerrard	Shrub	<i>Ilex</i>	<i>pernyi</i> x <i>I. cornuta</i>		Moderate	2	
Gerrard	Shrub	<i>Pistacia</i>	<i>chinensis</i>		High	4	Newly planted--in plaza b/t Gerrard and South
South	Tree	<i>Acer</i>	<i>palmatum</i> var. <i>atropurpureum</i>		High	1	
South	Tree	<i>Calocedrus</i>	<i>decurrens</i>		Low	1	
South	Tree	<i>Pyrus</i>	<i>calleryana</i>	'Bradford'	Low	1	
South	Tree	<i>Taxodium</i>	<i>distichum</i>		High	1	
South	Shrub	<i>Buxus</i>	<i>sempervirens</i>		Moderate	1	
South	Shrub	<i>Camellia</i>	<i>japonica</i>		High	3	
South	Shrub	<i>Camellia</i>	<i>japonica</i>		Moderate	1	
South	Shrub	<i>Caryopteris</i>	x <i>clandonensis</i>		High	14	
South	Shrub	<i>Gardenia</i>	<i>augusta</i>		High	4	
South	Shrub	<i>Hydrangea</i>	<i>macrophylla</i>	'Endless Summer'	High	2	
South	Shrub	<i>Ilex</i>		'Nellie R. Stevens'	Moderate	3	
South	Shrub	<i>Ilex</i>		'Nellie R. Stevens'	High	9	
South	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Burfordii'	High	hedge and 2 others	
South	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Dwarf Burford'	High	2	
South	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Dwarf Burford'	High	2	
South	Shrub	<i>Ilex</i>	<i>crenata</i>		High	8	
South	Shrub	<i>Loropetalum</i>	<i>chinense</i>	var. <i>rubrum</i>	High	1	
South	Shrub	<i>Osmanthus</i>	x <i>fortunei</i>		High	1	
South	Shrub	<i>Osmanthus</i>	<i>heterophyllus</i>		High	2	
South	Shrub	<i>Pieris</i>	<i>japonica</i>		Moderate	14	
South	Shrub	<i>Rhododendron</i>		'PJM'	Moderate	2	
South	Shrub	<i>Rhododendron</i>	<i>catawbiense</i>		Moderate	10	
South	Shrub	<i>Spiraea</i>	<i>cantoniensis</i>	'Lanceata'	High	15	
South	Shrub	<i>Styrax</i>	<i>obassia</i>		High	1	
South	Shrub	<i>Viburnum</i>	<i>tinus</i>		High	5	
Polk Place	Tree	<i>Diospyros</i>	<i>virginiana</i>		Low	1	
Polk Place	Tree	<i>Quercus</i>	<i>alba</i>		High	12	
Polk Place	Tree	<i>Quercus</i>	<i>alba</i>		Moderate	5	1 with basal heart rot
Polk Place	Tree	<i>Quercus</i>	<i>alba</i>		Low	3	
Polk Place	Tree	<i>Quercus</i>	<i>palustris</i>		Low	3	
Polk Place	Tree	<i>Quercus</i>	<i>phellos</i>		High	4	

Table 2. Polk Place Tree and Shrub Survey by Location

Section	Type	Genus	Species	Cultivar	Condition	Quantity	Note
Polk Place	Tree	<i>Quercus</i>	<i>phellos</i>		Moderate	8	
Polk Place	Tree	<i>Quercus</i>	<i>phellos</i>		Low	6	
Polk Place	Tree	<i>Quercus</i>	<i>stellata</i>		Moderate	1	
Polk Place	Tree	<i>Quercus</i>	<i>stellata</i>		Low	1	
Steele	general						Construction--no vegetation on Polk Place façade
Steele	Tree	<i>Ilex</i>	<i>xattenuata</i>	'East Palatka'	Low	2	
Steele	Tree	<i>Ilex</i>	<i>xattenuata</i>	'East Palatka'	Moderate	1	
Steele	Shrub	<i>Ligustrum</i>	<i>japonicum</i>		Low	2	Poorly pruned
Steele	Shrub	<i>Rhododendron</i>			Low	5	Evergreen azalea
Steele	Shrub	<i>Viburnum</i>	<i>plicatum</i> var. <i>tomentosum</i>		Low	1	
Steele	Shrub	<i>Viburnum</i>	<i>plicatum</i> var. <i>tomentosum</i>		Moderate	1	
Saunders	Tree	<i>Cercis</i>	<i>canadensis</i>		Moderate	1	
Saunders	Tree	<i>Cercis</i>	<i>canadensis</i>		Low	1	
Saunders	Tree	<i>Cercis</i>	<i>canadensis</i>	'Oklahoma'	Low	1	
Saunders	Tree	<i>Cornus</i>	<i>florida</i>		Low	3	
Saunders	Tree	<i>Cornus</i>	<i>florida</i>		Moderate	1	
Saunders	Tree	<i>Fraxinus</i>	<i>americana</i>		High	1	
Saunders	Tree	<i>Ilex</i>	<i>xattenuata</i>	'East Palatka'	Low	1	
Saunders	Tree	<i>Photinia</i>	<i>xfraseri</i>		Low	1	Remove
Saunders	Tree	<i>Prunus</i>	<i>serrulata</i>		High	1	Newly planted
Saunders	Tree	<i>Quercus</i>	<i>phellos</i>		Moderate	1	
Saunders	Tree	<i>Taxodium</i>	<i>distichum</i>		Moderate	1	
Saunders	Tree	<i>Ternstroemia</i>	<i>gymnanthera</i>	(aka Cleyera)	High	1	In ring
Saunders	Shrub	<i>Abelia</i>	<i>xgrandiflora</i>		Moderate	3	
Saunders	Shrub	<i>Aucuba</i>	<i>japonica</i>		High	3	
Saunders	Shrub	<i>Camellia</i>	<i>sasanqua</i>		High	10	
Saunders	Shrub	<i>Camellia</i>	<i>sasanqua</i>		Low	1	
Saunders	Shrub	<i>Chionanthus</i>	<i>retusus</i>		Moderate	1	
Saunders	Shrub	<i>Hydrangea</i>	<i>quercifolia</i>		Moderate	4	
Saunders	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Burfordii'	Moderate	4	
Saunders	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Burfordii'	Low	1	Reverting
Saunders	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Dwarf Burford'	Low	2	
Saunders	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Dwarf Burford'	Moderate	Mass	
Saunders	Shrub	<i>Ilex</i>	<i>verticillata</i>		Moderate	1	
Saunders	Shrub	<i>Loropetalum</i>	<i>chinense</i>		Moderate	1	
Saunders	Shrub	<i>Mahonia</i>	<i>bealei</i>		Moderate	1	
Saunders	Shrub	<i>Osmanthus</i>	<i>heterophyllus</i>		Moderate	2	
Saunders	Shrub	<i>Philadelphus</i>	<i>coronarius</i>		Moderate	1	
Saunders	Shrub	<i>Pieris</i>	<i>japonica</i>		Low	4	
Saunders	Shrub	<i>Rhododendron</i>			Low	8	Evergreen azalea
Saunders	Shrub	<i>Sarcococca</i>	<i>hookeriana</i>	var. <i>humilis</i>	Moderate	8	
Bynum	Tree	<i>Acer</i>	<i>rubrum</i>		Low	1	
Bynum	Tree	<i>Acer</i>	<i>saccharum</i>		Moderate	1	

Table 2. Polk Place Tree and Shrub Survey by Location

Section	Type	Genus	Species	Cultivar	Condition	Quantity	Note
Bynum	Tree	<i>Cornus</i>	<i>florida</i>		Low	2	1 in a planting box surrounded by <i>Euonymus alatus</i> 'Compactus'
Bynum	Tree	<i>Cornus</i>	<i>florida</i>		Moderate	1	In a planting box surrounded by <i>Euonymus alatus</i> 'Compactus'
Bynum	Tree	<i>Quercus</i>	<i>falcata</i>		Low	1	In a planting box surrounded by <i>Euonymus alatus</i> 'Compactus'
Bynum	Tree	<i>Quercus</i>	<i>falcata</i>	var. <i>pagodifolia</i>	Moderate	1	In a planting box surrounded by <i>Euonymus alatus</i> 'Compactus'
Bynum	Shrub	<i>Euonymus</i>	<i>alatus</i>	'Compactus'	Moderate	several in groupings	Surrounding <i>Quercus falcata</i> var. <i>pagodifolia</i> , <i>Cornus florida</i> (L), <i>Cornus florida</i> (M) in planting boxes and alone in a 4th planting box
Bynum	Shrub	<i>Euonymus</i>	<i>alatus</i>	'Compactus'	High	several in groupings	Surrounding <i>Quercus falcata</i> in planting box--good condition but should remove
Hamilton	Tree	<i>Ilex</i>	<i>xattenuata</i>	'East Palatka'	Moderate	1	
Hamilton	Tree	<i>Magnolia</i>	<i>grandiflora</i>		High	1	
Hamilton	Tree	<i>Magnolia</i>	<i>grandiflora</i>		Low	1	
Hamilton	Tree	<i>Malus</i>	spp.		Low	1	
Hamilton	Tree	<i>Nyssa</i>	<i>sylvatica</i> var. <i>biflora</i>		High	1	
Hamilton	Tree	<i>Photinia</i>	<i>xfraseri</i>		Moderate	2	
Hamilton	Tree	<i>Prunus</i>	<i>serrulata</i>	'Kwanzan'	Low	1	
Hamilton	Tree	<i>Quercus</i>	<i>palustris</i>		Moderate	1	
Hamilton	Shrub	<i>Abelia</i>		'Edward Goucher'	Moderate	1	
Hamilton	Shrub	<i>Betula</i>	<i>utilis</i> var. <i>jacquemontii</i>		Moderate	1	
Hamilton	Shrub	<i>Elaeagnus</i>	<i>pungens</i>		Moderate	mass	
Hamilton	Shrub	<i>Ilex</i>	<i>xattenuata</i>	'Fosters #2'	Moderate	10	
Hamilton	Shrub	<i>Ilex</i>	<i>xattenuata</i>	'Savannah'	Moderate	1	
Hamilton	Shrub	<i>Ilex</i>	<i>decidua</i>		High	1	Female
Hamilton	Shrub	<i>Ilex</i>	<i>vomitaria</i>		Low	mass	
Hamilton	Shrub	<i>Ligustrum</i>	<i>sinense</i>		Low	mass	
Murphy	Tree	<i>Cornus</i>	<i>florida</i>		Moderate	1	
Murphy	Tree	<i>Thuja</i>		'Green Giant'	High	1	
Murphy	Shrub	<i>Camellia</i>	<i>sasanqua</i>		Moderate	5	
Murphy	Shrub	<i>Chaenomeles</i>	spp.		High	4	
Murphy	Shrub	<i>Daphne</i>	<i>odora</i>	'Variegata'	Moderate	1	
Murphy	Shrub	<i>Deutzia</i>	<i>gracilis</i>	'Nikko'	High	6	
Murphy	Shrub	<i>Hydrangea</i>	<i>macrophylla</i>		High	6	
Murphy	Shrub	<i>Ilex</i>	<i>verticillata</i>		Low	1	
Murphy	Shrub	<i>Osmanthus</i>	<i>xfortunei</i>		High	3	
Murphy	Shrub	<i>Rhododendron</i>		Southern Indica Azalea	Moderate	9	

Table 2. Polk Place Tree and Shrub Survey by Location

Section	Type	Genus	Species	Cultivar	Condition	Quantity	Note
Murphy	Shrub	<i>Sarcococca</i>	<i>confusa</i>		High	8	
Manning	Tree	<i>Acer</i>	<i>saccharum</i>		High	1	
Manning	Tree	<i>Liriodendron</i>	<i>tulipifera</i>		Low	3	
Manning	Tree	<i>Liriodendron</i>	<i>tulipifera</i>		Moderate	4	
Manning	Tree	<i>Liriodendron</i>	<i>tulipifera</i>		High	1	
Manning	Tree	<i>Prunus</i>	<i>serrulata</i>	'Kwanzan'	Low	4	1 dead
Manning	Tree	<i>Prunus</i>	<i>serrulata</i>	'Kwanzan'	Moderate	1	
Manning	Tree	<i>Prunus</i>	<i>serrulata</i>	'Kwanzan'	High	1	Newly planted
Manning	Tree	<i>Thuja</i>		'Green Giant'	High	1	
Manning	Shrub	<i>Amelanchier</i>	<i>xgrandiflora</i>		Moderate	1	
Manning	Shrub	<i>Cornus</i>	<i>kousa</i>		High	1	
Manning	Shrub	<i>Deutzia</i>	<i>gracilis</i>	'Nikko'	High	24	
Manning	Shrub	<i>Ilex</i>		'Nellie R. Stevens'	High	11	
Manning	Shrub	<i>Ilex</i>	<i>cornuta</i>	'Burfordii'	Moderate	2	
Manning	Shrub	<i>Nandina</i>	<i>domestica</i>		Moderate	2 large beds	
Manning	Shrub	<i>Rhododendron</i>		Southern Indica Azalea	Moderate	9	
Manning	Shrub	<i>Viburnum</i>	<i>plicatum</i>	<i>var. tomentosum</i>	Moderate	3	