



Tree Health Assessment Report

Chuckie Harris Park

Somerville Parks Tree Health Program

IFB 25-26

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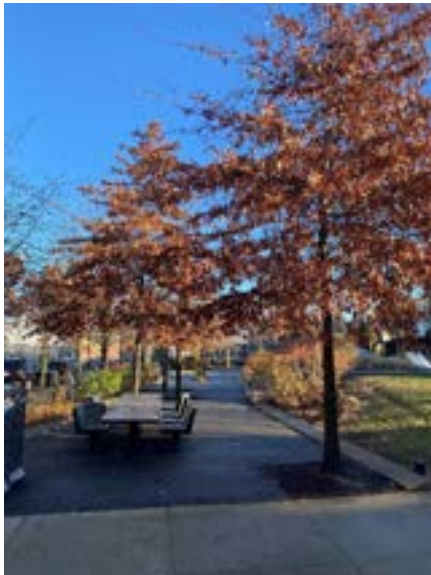
February 8, 2025

Overview:

Chuckie Harris Park is a small, recreational park with a playground, water spray feature, and tables/benches. It contains approximately 50-60 trees, all of them small to medium-sized specimens. In addition to some younger Blackgums and Red Maples, there are a several Pin Oaks and Sweetgums on the site. There are also separate hedgerows of Serviceberries, European Hornbeams, Dogwoods and Umbrella Pines all located on the rear, eastern border.

General Tree Health

Most of the interior shade trees are in fair to good condition and need moderate pruning to address structure or encroachment into park structures or walkways. Some small trees within the rear hedgerows are dead/dying and require removal. Many of the trees in these hedgerows are planted very close to each other, further limiting their root zones. There are approximately (15) Serviceberries on-site that have cankered branches due to Rust infections, which will be addressed below. The major stress factors here are limited root zones, with many trees planted in tree pits and/or surrounded by Poured-In-Place, and reflected heat.



Pin Oaks requiring canopy raising off pathways and structures

Soil Health

Examination of the soil here showed typical urban soils with a mostly sandy feel and gray color. Soils around the perimeter were slightly darker and would stick together more when squeezed in our hand. This is likely due to some leaf litter being left over the perimeter beds which cycles into the soil and moderates moisture loss. Most of the soil here, especially around the interior trees, is quite compacted. This is likely due to high foot traffic and lack of mulch. We could only submerge our soil probe in 3-4 inches in the interior and 6-7 inches in the perimeter. No odor was detected in any of these soils. Soil Test results show above optimum levels of the macronutrients Potassium and Calcium as well as elevated levels of the micronutrients Manganese and Zinc. We

do not recommend corrective measures at this time, but monitoring these levels in the future is advisable.

Because of the limited space and compaction, we recommend treating the soils around most trees here with an injection of organic liquid biostimulant. This blend of humic acids, kelp extract, and natural compounds will aid in enhancing soil structure and nutrient availability, giving trees increased vitality in such limited space.

Pests and Diseases

The Serviceberries on site, mostly located on the eastern border, have evidence of recent infections of Cedar-Quince Rust, a fungal disease that requires a Rosaceous host and a species of *Juniperus* to complete its life cycle. When present in Serviceberries, the pathogen can create gall-like stem cankers that can girdle small branches, resulting in canopy dieback. Treatment with fungicides is both impractical in this park setting and often unsuccessful for this disease. Therefore, we recommend pruning out the infected, cankered stems, thus reducing the inoculum source and lessening the chance of future infections. We also recommend adding a liquid Phosphite solution to the biostimulant soil application of all Serviceberries to help manage the disease and assist these plants in strengthening their natural immunity. We recommend adding this Phosphite solution to the biostimulant soil application of all European Hornbeams located on the eastern border to protect this important hedgerow screen growing in very limited root zones and are showing signs of stress, namely cankered stems.

Other Corrections of Adverse Conditions

Air-spading is not a practical option here because it would be difficult to clean or recover displaced soil from the Poured-In-Place surfaces around many plant bases. As an alternative, we recommend eventually adding mulch to any plant beds or root zones where absent and practical. This will alleviate compaction, regulate temperature and moisture, and cycle some organic matter back into the soil. However, we did observe an excess of mulch around most of the Serviceberries in the rear perimeter of the park and we recommend removing some of this excess that is up against the base of these plants. Excessive mulch around the base of plants can lead to additional fungal issues or bark cankers.

Removal Needs

There is a small, dead Dogwood 42282 located in the rear, northeast border that we recommend removing to create space for another plant. There are also (2) Umbrella Pines located in the extreme rear, northeast corner of the park that are declining/dying. One has needles that are browning throughout the canopy and experiencing approximately 60% dieback. The other is leaning significantly, showing 30-40% dieback, and has extensive decay at the base. We recommend removal of both of these specimens to make way for healthier plantings. Removals are labeled in red on the Tree ID Map

Umbrella Pine 42299 leaning into Umbrella Pine 42309



Pruning Needs

With most of the trees here being younger specimens, the key focus on this site is pruning to improve structure in most trees. We also recommend canopy-cleaning and raising canopies off of walking paths and park structures. The Pin Oaks (pictured above) in particular require removal of their lower, non-permanent branches to allow space for pedestrians and to allow light and airflow to penetrate planting beds or lawn below. As mentioned above, we also recommend pruning out the cankered stems of all the Serviceberries.

Finally, there are (2) trees that have exposed, girdling roots that we recommend pruning out: the Blackgum 42322 located in the northwest corner of the park and the Red Maple 42324, pictured below, located in the center of the park in the northern portion. Root pruning is labeled in brown on the Tree ID Map.



Red Maple 42324 with girdling roots. Note the proximity of Poured-in-Place

2025 Priorities:

- Pruning: Canopy-cleaning, raising, and structural
- Root pruning (2) trees
- Biostimulant soil application to most trees
- Phosphite soil application to Serviceberries and Hornbeams
- Removing (3) small dying/dead trees

5-10 Year Priorities:

- Replace plants where we've removed them
- Monitor for presence of Rust in Serviceberries
- Deter compaction (challenging) and over-mulching (easy)
- Regular structural/containment pruning to manage densely planted trees



Accredited Tree Care by Certified Arborists

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Proposal #: 85911

Job Site: 35
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Tree and Shrub Care Recommendations on 2/8/2025

Description of Services

- Work Plan for Chuckie Harris Pruning/Plant Healthcare Winter/Spring 2025, Starting April 28, 2025.

Park will need to be closed from 7AM- 4PM for 1 business day on Monday, April 28 2025 for the pruning work. We will post permits and arrange for sidewalk closing and police detail as needed on public streets. Equipment access will be limited to sidewalk /street and to paths/weight dispersal matting over lawn areas.

- Pruning on Young-Mature deciduous shade trees throughout the park. Individual tree specs listed on the attached spreadsheet.

Structural Pruning - Selective pruning to improve branch architecture; select, develop and maintain strong, properly spaced scaffold branches by reducing or removing interfering, overextended, defective and poorly attached limbs as specified

Canopy Cleaning - Selective pruning to remove declining, dead and broken branches as specified

Canopy Raising - Selective pruning to provide and envelope of clearance of walkways, roadways, utilities, structures, as specified.



This proposal is valid for 45 days, assuming there are no changes to the site (driveway, plantings, buildings etc. remain unchanged).
All work performed in accordance with ANSI A300 Standards.

Payment due upon completion of work. 1 ½% per month, 18% per year on unpaid balances.



Tree and Shrub Care Recommendations on 2/8/2025

Description of Services

- 6" Red Maple (#42324) and 5" Blackgum (#42322):

Prune to Sever/remove girdling surface roots

- (2) 3" diameter 30-60% declining Umbrella Pines (42299, 42309) and 2" Dead Dogwood (42282) Northeast corner of the park.

Tree Removal & Stump Grinding - Take down, dispose of brush, logs and chipped debris generated from removal operations. Grind stump and exposed flare deep for replant grade; backfill with topsoil and remove excess grinding debris.

- **Bio-stimulant with Phosphite** - Early season. Treat soils within the critical root zone (typically within the dripline) of select trees in the park (detailed in attached sheet) with an organic liquid bio-stimulant and phosphite mixture to enhance soil microbial activity, nutrient availability and to increase natural defenses for disease suppression and promote overall vitality.

- **Debris Disposal:** Costs include removal and disposal of brush, logs and chipped debris generated from tree care operations.

Thank you for considering Barrett Tree Service East, Inc. Sincerely,

Alden Johnson
Certified Arborist



This proposal is valid for 45 days, assuming there are no changes to the site (driveway, plantings, buildings etc. remain unchanged).
All work performed in accordance with ANSI A300 Standards.



Chuckie Harris Park Tree List

Site ID	Species	DBH	Recommendations	Condition	TRAQ-Risk	Pruning	PHC
42174	serviceberry: spp. (Amelanchier spp.)	3.4	Prune to remove deadwood, prune out cankered twigs then raise to provide 1-2' clearance off the building, 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Good	Low		
42180	serviceberry: spp. (Amelanchier spp.)	2	Prune to remove deadwood, prune out cankered twigs then raise to provide 1-2' clearance off the building, 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Good	Low		
42186	serviceberry: spp. (Amelanchier spp.)	3.3	Prune to remove deadwood, prune out cankered twigs then raise to provide 1-2' clearance off the building, 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Good	Low		
42194	serviceberry: spp. (Amelanchier spp.)	3.1	Prune to remove deadwood, prune out cankered twigs then raise to provide 1-2' clearance off the building, 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Good	Low		
42195	hornbeam: European (Carpinus betulus)	2.8	Prune to remove deadwood, then raise to provide 1-2' clearance off the wires, fence, 6-8' off walking paths. Biostim/phosphite	Good	Low		
42203	serviceberry: spp. (Amelanchier spp.)	3.2	Prune to remove deadwood, prune out cankered twigs then raise to provide 1-2' clearance off the building, 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Good	Low		
42204	hornbeam: European (Carpinus betulus)	4.1	Prune to remove deadwood, then raise to provide 1-2' clearance off the fence and wires, 6-8' off walking paths. Biostim/Phosphite	Good	Low		
42212	serviceberry: spp. (Amelanchier spp.)	3.4	Prune to remove deadwood, prune out cankered twigs then raise to provide 1-2' clearance off the building, 6-8' off walking paths. Biostim/phosphite	Good	Low		
42213	serviceberry: spp. (Amelanchier spp.)	2.1	Prune to remove deadwood, prune out cankered twigs then raise to provide 6-8' off walking paths. Biostim/phosphite	Fair	Low		
42221	serviceberry: spp. (Amelanchier spp.)	2.2	Prune to remove deadwood, prune out cankered twigs then raise to provide 6-8' off walking paths. Biostim/phosphite	Fair	Low		
42222	serviceberry: spp. (Amelanchier spp.)	2.2	Prune to remove deadwood, prune out cankered twigs then raise to provide 1-2' clearance off the building, 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Good	Low		
42230	serviceberry: spp. (Amelanchier spp.)	3.1	Prune to remove deadwood, prune out cankered twigs then raise to provide 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Fair	Low		
42231	serviceberry: spp. (Amelanchier spp.)	1.9	Prune to remove deadwood, prune out cankered twigs then raise to provide 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Fair	Low - 1		

Chuckie Harris Park Tree List

42239	serviceberry: spp. (Amelanchier spp.)	2	trunk wounds healing. Prune to remove deadwood, prune out cankered twigs then raise to provide 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Fair	Low - 1	
42240	serviceberry: spp. (Amelanchier spp.)	1.9	Prune to remove deadwood, prune out cankered twigs then raise to provide 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Fair	Low	
42248	serviceberry: spp. (Amelanchier spp.)	2.2	Prune to remove deadwood, prune out cankered twigs then raise to provide 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Fair	Low	
42249	dogwood: spp. (Cornus spp.)	1.5	Gone	Fair	Low	
42254	serviceberry: spp. (Amelanchier spp.)	1.9	Prune to remove deadwood, prune out cankered twigs then raise to provide 6-8' off walking paths. Remove excess mulch against trunks. Biostim/phosphite	Fair	Low	
42258	dogwood: spp. (Cornus spp.)	1.2	gone	Fair	NA	
42263	dogwood: spp. (Cornus spp.)	1.5	gone	Good	Low	
42264	hornbeam: European (Carpinus betulus)	4	Prune to remove deadwood, then raise to provide 1-2' clearance off the wires, fence, 6-8' off walking paths. Biostim/phosphite	Good	Low	
42274	hornbeam: European (Carpinus betulus)	3.3	Girdled. Somehow still alive. Prune to remove deadwood, flower pot then raise to provide 1-2' clearance off the wires, fence, 6-8' off walking paths. Biostim/phosphite	poor	Low	
42282	dogwood: spp. (Cornus spp.)	2	Dead. Remove	Poor	Low	
42283	hornbeam: European (Carpinus betulus)	3.4	Prune to remove deadwood, then raise to provide 1-2' clearance off the wires, fence, 6-8' off walking paths. Biostim/phosphite	Good	Low	
42290	hornbeam: European (Carpinus betulus)	3.2	Prune to remove deadwood, then raise to provide 1-2' clearance off the wires, fence, 6-8' off walking paths. Biostim/phosphite	good	Low	
42291	hornbeam: European (Carpinus betulus)	3.5	Prune to remove deadwood, then raise to provide 1-2' clearance off the wires, fence, 6-8' off walking paths. Biostim/phosphite	Good	Low	
42292	dogwood: spp. (Cornus spp.)	2.4	gone	Fair	NA	
42297	pine: Japanese umbrella (Sciadopitys verticillata)	2.6	Biostim	Good	Low	
42298	hornbeam: European (Carpinus betulus)	2.8	Prune to remove deadwood, then raise to provide 1-2' clearance off the wires, fence, 6-8' off walking paths. Biostim/phosphite	Fair	Low	

Chuckie Harris Park Tree List

42299	pine: Japanese umbrella (Sciadopitys verticillata)	2.8	Leaning, extensive decay at base, 30-40% dieback. Recommend removal	Poor	Low	
42305	pine: Japanese umbrella (Sciadopitys verticillata)	2.7	Biostim	fair	Low	
42307	hornbeam: European (Carpinus betulus)	2.8	Prune to remove deadwood, then raise to provide 1-2' clearance off the wires, fence, 6-8' off walking paths. Biostim/phosphite	Fair	Low	
42308	blackgum (Nyssa sylvatica)	5	Prune to improve structure: remove dead/broken branches, raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below. Biostim	Good	Low	
42309	pine: Japanese umbrella (Sciadopitys verticillata)	2.9	browning- desiccated, drought stress, 60% dieback. Recommend removal	poor	Low	
42311	pine: Japanese umbrella (Sciadopitys verticillata)	2.4	Biostim	Fair	Low	
42313	hornbeam: European (Carpinus betulus)	2.8	Prune to remove deadwood, then raise to provide 1-2' clearance off the wires, fence, 6-8' off walking paths. Biostim/phosphite	Good	Low	
42314	maple: red (Acer rubrum)	7	Prune to improve structure: remove dead/broken branches, encourage single central leader and properly paced lateral branches. Raise canopy to reduce interference with walking paths and play structures. Biostim	Fair	Low	
42315	blackgum (Nyssa sylvatica)	4	Prune to improve structure: remove dead/broken branches, raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below. Biostim	Good	Low	
42317	hornbeam: European (Carpinus betulus)	3	Prune to remove deadwood, then raise to provide 1-2' clearance off the wires, fence, 6-8' off walking paths. Biostim/phosphite	Fair	Low	
42318	maple: red (Acer rubrum)	4	Prune to improve structure: remove dead/broken branches, encourage single central leader and properly paced lateral branches. Raise canopy to reduce interference with walking paths and play structures. Biostim	Fair	Low	
42319	sweetgum: American (Liquidambar styraciflua)	7	Prune and raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below.	Good	Low	

Chuckie Harris Park Tree List

42320	blackgum (<i>Nyssa sylvatica</i>)	5	Prune to improve structure: remove dead/broken branches, raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below. Biostim	Good	Low	
42321	oak: pin (<i>Quercus palustris</i>)	8	Prune and raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below and surrounding trees.	Good	Low	
42322	blackgum (<i>Nyssa sylvatica</i>)	5	Prune out 1.25" girdling root. Prune to improve structure: remove dead/broken branches, raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below. Biostim	Fair	Low	
42323	sweetgum: American (<i>Liquidambar styraciflua</i>)	7	Prune and raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below.	Good	Low	
42324	maple: red (<i>Acer rubrum</i>)	6	Prune out girdling roots. Prune to improve structure: remove dead/broken branches, encourage single central leader and properly paced lateral branches. Raise canopy to reduce interference with walking path, sidewalk, surrounding plants. Biostim	Fair	Low	
42325	sweetgum: American (<i>Liquidambar styraciflua</i>)	8	Prune and raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below.	Good	Low	
42328	oak: pin (<i>Quercus palustris</i>)	7	Prune and raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below.	Good	Low	
42330	oak: pin (<i>Quercus palustris</i>)	6	Prune and raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below.	Good	Low	
42341	oak: pin (<i>Quercus palustris</i>)	10	Large, vigorous, encroaching. Prune and raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below. Prune off low stubs to clear play structure and surrounding trees	Good	Low	
42343	blackgum (<i>Nyssa sylvatica</i>)	5	Prune to improve structure: remove dead/broken branches, raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below. Biostim	Good	Low	
42349	maple: red (<i>Acer rubrum</i>)	10	Prune to improve structure: remove dead/broken branches, encourage single central leader and properly paced lateral branches. Raise canopy to reduce interference with walking path, sidewalk, surrounding plants.	Good	Low	

Chuckie Harris Park Tree List

42356	blackgum (Nyssa sylvatica)	6	Prune to improve structure: remove dead/broken branches, raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below. Biostim	Good	Low		
42483	blackgum (Nyssa sylvatica)	6	Prune to improve structure: remove dead/broken branches, raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below. Biostim	Good	Low		
42486	oak: pin (Quercus palustris)	6	Stunted. Prune and raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below.	Fair	Low		
42488	oak: pin (Quercus palustris)	8	Prune and raise to remove lower non-permanent encourage higher canopy to allow space for pedestrians, light and airflow to planting beds below.	Fair	Low		

