

Use the tree ID numbers and the map to see which trees are being pruned, removed, etc.



**Tree Health Assessment Report
Nunziato Field and Dog Park**

Somerville Parks Tree Health Program

IFB #20-19

Prepared by Alden Johnson, MCA, ISA

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December 10, 2019 Amended February 4, 2020

Overview:

Nunziato Field is an active park with off-leash dog park and practice field. It is home to 14 deciduous shade trees growing along the northern, western and southern edges of the park

General tree health

The two large Honeylocust trees on the western side of the park, along Summer st, have good overall vigor, and are a durable species despite a challenging urban site. The group of Sugar Maples around the southern corner of the playing field are showing signs of decline and stress, likely connected to poor soil conditions, damaged and exposed shallow root systems, and large girdling roots. The Red Maple (#41524) and Sugar Maple (#41513) trees on the Putnam St side of the park within the dog park area display some signs of stress, likely connected to poor soil conditions, heavy traffic and excessive dog urine.

Soil Health

The soil within the dog park area is pale gravel, medium compacted in some areas with dog diggings and urine stains around the tree trunks. Very little organic matter. The soil around the south border of the park is typical urban soil, medium-heavily compacted, especially around the Sugar Maples in the southern corner of the ball field. Soil is pale colored sandy-gravel with some organic matter in the top 2 inches. Soil does not stick together. No odor noted. Soil test results showed lower than optimum levels of macronutrients Potassium and Calcium in the soil. We do not generally supplement Calcium in soil at the levels tested, but trees should be monitored for chlorosis and signs of nutrient deficiencies in the foliage going forward.

For the sugar Maples in the ball field area: I recommend airspading the soil around the root flares, adding compost and mulch rings to improve soil condition, limit soil compaction, weed growth and mower damage. I also recommend subsurface liquid bio stimulant and potash injections on these trees to encourage vigor, nutrient uptake and supplement the low potassium results of the soil test.

Pest treatment

No evidence of critical tree pests at this time.

Other correction of adverse conditions

Root crown excavation, root pruning, mulching and subsurface fertilization are recommended to preserve the remaining the Sugar Maple trees in the southern corner of the playing field. For the trees in the dog park: Preventing dogs from digging and urinating on and around trunks would help the long-term health of the trees but due to popularity and heavy use of the dog park area by the public this may not be practical. Our Level 1 TRAQ assessment of all the trees in this park results in a “low” risk rating, with the exception of the tree #43657 which has a “moderate” risk rating.

Removal Needs:

Sugar Maples #41446 (serious decline) and #41484 (dead) should be removed and stumps ground. Additionally the double-stem Eastern Cottonwood #43657 leaning over the ball field is to be removed. This tree has a large decay cavity at the base, visible from the Growing Center side only. Because of this defect and the tree's hard lean over the heavily used play area I recommended removal.

Pruning needs

Sugar Maple and Red Maple trees in the ball field and dog park should be pruned provide 10' off the walkways, field, building and fence where able, as well as 4-6' off the abutter's building. Canopy clean to remove dead and broken branches, and declining sections 1" and larger. Prune to make select structural cuts to encourage dominant central leader and strongly attached lateral scaffolding branches. The two Honeylocust should be pruned to remove large hangers and deadwood greater than 3" in diameter in the lowest 20' of the trees, and raised to 12-14 feet off the ground.

2020 Priorities:

- -Declining/hazard tree removal
- -Air excavation and root pruning for Sugar Maples
- -Soil improvement and amendment for Sugar Maples
- -Pruning: Canopy cleaning, raising, improving structure

Future priorities:

- Continued improvement of soil conditions around Sugar Maples
- Defense of trees from dog damage
- Replacement for removed Sugar Maple



Accredited Tree Care by Certified Arborists

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December 11, 2019
Proposal #: 37446

Job Site:
Somerville Parks Tree Health Program
IFB#20-19
Various Locations
Somerville, MA 02143

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Tree and Shrub Care Recommendations on 12/4/2019

Description of Services

- Nunziato Field Work Plan

Map: See attached

Schedule and sequence: We plan to complete the pruning and removal work proposed during the hours of 7AM-3PM over the course 2 consecutive business days to be named in February-March 2020. Root air excavation work would one day and be scheduled for March-April 2020. Soil amendment will be a short visit of 1-2 hours in May-June 2020.

Crew and Equipment:

Pruning work 2 person crew, including a certified arborist, wood chipper.

Removal work: 3 person crew with a certified arborist, chipper for removal work.

Root air excavation work: 2 person crew including a certified arborist, trailer-mounted air compressor, Air-Spade tool and light-duty dump truck.

Fertilizer Application: 1 licensed applicator with a truck-mounted liquid fertilizer pump and injection needle

Park Closures: Dog park area should be closed for 1 weekday from 7AM-3PM this winter for pruning and removal operations. Practice field should be closed for (1) day during during the winter pruning and removal projects and (1) day.

Traffic and Pedestrian Management plan: Allow for vehicular traffic and pedestrians to safely pass the work site. Use proper signage, cones and caution tape to clearly identify the work site, and utilize a police detail to ensure safety. Written plan to be submitted to city traffic engineer for approval prior to work.

Equipment access and matting: We will need to access the gates through the dog park and gate to the playing field on the north end of the dog park off of Putnam St. Weight dispersal matting will be used for equipment access to minimize impact and soil compaction on the Playing field for access to the Cottonwood tree. All other access will be on foot.



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.



Massachusetts Arborists Association

- (4) **Sugar Maples at the southern corner of the playing field (#41408, 41417, 41425, 41456)**

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.

Canopy Cleaning - Selective pruning to remove declining, dead and broken branches greater than 1.5" in diameter

Canopy Reduction - Selective pruning to decrease height and/or canopy spread of poorly attached limbs through a series of (6-10) 1-3" diameter weight reduction cuts per tree.

Canopy Raising - Selective pruning to provide 10' off the pathway and lawn.

- (4) **Sugar Maples at the southern corner of the playing field (#41408, 41417, 41425, 41456)**

Root Crown Excavation - Utilize air excavation tools to remove soil, organic matter and mulch to expose root flare; inspect and evaluate area for girdling roots, decay, etc.

- (4) **Sugar Maples at the southern corner of the playing field (#41408, 41417, 41425, 41456)**

Root Crown Pruning prune visible girdling roots smaller than 2" in diameter, etc.

- (4) **Sugar Maples at the southern corner of the playing field (#41408, 41417, 41425, 41456)**

Compost addition - mix compost into top layer of air excavated soil.

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Sub-Surface Fertilization - Early season. Inject soils within critical root zone with liquid slow-release mixture to supplement soil supply of essential nutrients and promote vitality. The application area is typically within the dripline with injection sites approximately 6" deep, 24" apart.



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- (4) **Sugar Maples at the southern corner of the playing field (#41408, 41417, 41425, 41456)**

Biostimulant/Potash Application - Apply a bio-stimulant with a higher level of soluble potash within the critical root zone to help increase soil potassium levels within the critical root area of these trees

- **9" diameter declining Sugar Maple (#41446) and 4" Dead Maple (#41484)**

Tree Removal & Stump Grinding - Take down, dispose of brush, logs and chipped debris generated from removal operations. Grind stump and exposed flare 4-6" below grade; backfill and remove excess grinding debris.

- (2) **large Honeylocust (#41475, 41466) on along southwestern border, along Summer St.**

Canopy Cleaning - Selective pruning to remove hangers and dead and broken branches greater than 3" in diameter in the lowest 20' of the trees

Canopy Raising - Selective pruning to provide a 12-14 feet of clearance off the ground.

- (3) **Red Maples (#41493, 41504, 41524) and (1) Sugar Maple (#41513) in the dog park area**

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.

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

Canopy Raising - Selective pruning to provide a 6-8 foot envelope of clearance off the ground, and 4-6 feet off surrounding buildings and fences.

- **Double (11, 14") diameter Eastern Cottonwood (#43657) stems leaning over the playing field fence from the community garden**

Tree Removal - Take down and cut stump low to grade as equipment allows, dispose of brush, logs and chipped debris generated from removal operations.

- Posting of "No Parking" signs on Vinal Ave and Putnam St (1 x \$150 = \$150)

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



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 1/2% per month, 18% per year on unpaid balances.



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

Alden Johnson
Certified Arborist



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Nunziato Field and Dog Park

Site ID	Species	DBH	Work Recommended	Condition	O Risk Rating
Putnam St Trees:					
41375	stump (Stump)		8	N/A	N/A
41524	maple: red (Acer rubrum)		5.6	Good	Low
41513	maple: sugar (Acer saccharum)		11.1	Fair	Low
41504	maple: red (Acer rubrum)		7.8	Good	Low
41493	maple: red (Acer rubrum)		6.6	Good	Low
43657	cottonwood: eastern (populus deltoides)	14, 11	Tree Removal	Poor	Moderate
Summer St. Trees:					
41484	maple: spp. (Acer spp.)		4	Dead	Low
41475	honeylocust: thornless (Gleditsia triacanthos inermis)		22.3	Fair	Low
41466	honeylocust: thornless (Gleditsia triacanthos inermis)		19	Fair	Low
41446	maple: sugar (Acer saccharum)		8.7	Poor	Low
41456	maple: sugar (Acer saccharum)		13.9	Good	Low
41425	maple: sugar (Acer saccharum)		15.8	Fair	Low
41417	maple: sugar (Acer saccharum)		14.1	Fair	Moderate
41408	maple: sugar (Acer saccharum)		11.9	Fair	Low