Lafayette Park

Public Shade Tree Report

January, 2017

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Purpose: The purpose of this report is to support the Lafayette Park Re-design Working Group in its design process, set parameters to protect trees during construction, and outline what should be done to ensure a long life for the trees at Lafayette Park.

The report includes:

1. Inventory all trees in the park (including the street trees), documenting attributes such as species, size, age, location, and condition.

2. Assessment of the viability of the various species of trees and expected life span.

3. Management plan:

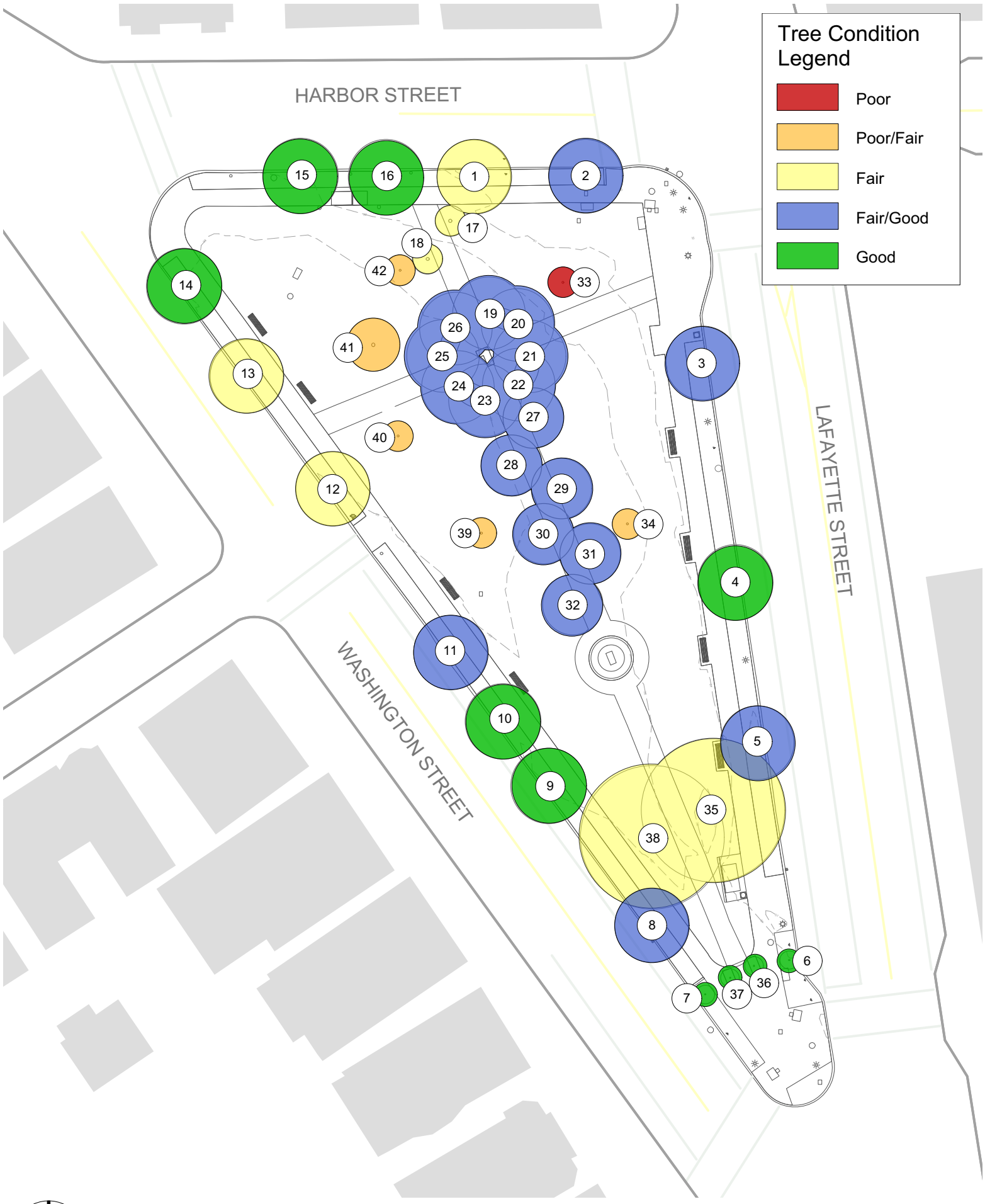
   a. Construction period: Recommend best practices to protect trees during park construction

   b. Post-construction: Recommended care and maintenance necessary to ensure health and viability of each tree

1. Tree Inventory

No.	Location	Species	Diam.	Height	Condition	% Dead Wood	Observation
1	Harbor	Norway Maple	28"	25-30'	Fair	10-20%	Cavities, stubs and deadwood
2	Harbor	Norway Maple	20"	25-30'	Fair-Good	0-10%	Minor deadwood
3	Lafayette	Norway Maple	17"	25-30'	Fair-Good	0-10%	Minor deadwood
4	Lafayette	London Plane	12"	25-30'	Good	0-10%	Nice specimen
5	Lafayette	Norway Maple	15"	25-30'	Fair-Good	15-20%	Cankers; stubs
6	Lafayette	Elm	4"	15'	Good	0-10%	
7	Washington	Elm	4"	15'	Good	0-10%	
8	Washington	Norway Maple	18"	30-35'	Fair-Good	10-15%	Cankers; stubs
9	Washington	London Plane	9"	20-25'	Good	0-10%	Newly planted
10	Washington	London Plane	9"	22-25'	Good	0-10%	Newly planted
11	Washington	Norway Maple	16"	35-40'	Fair-Good	0-10%	
12	Washington	Norway Maple	15"	35-40'	Fair	10-20%	Minor deadwood; cavities
13	Washington	Norway Maple	20"	35-40'	Fair	10-20%	
14	Washington	London Plane	12"	20-35'	Good	0-10%	Minor stubs
15	Harbor	London Plane	10"	20-25'	Good	0-5%	Minor stubs
16	Harbor	London Plane	8"	20-25'	Good	0-5%	Minor stubs
17	Harbor	Kousa Dogwood	5"	10-15'	Fair	10-20%	Water sprouts, cavities near base and multi-stem
18	Harbor	Kousa Dogwood	5"	10-15'	Fair	10-20%	Water sprouts, cavities near base and multi-stem
19	Center Path	Zelkova	12"	25-30'	Fair-Good	0-10%	Minor stubs
20	Center Path	Zelkova	12"	25-30'	Fair-Good	0-10%	Minor stubs
21	Center Path	Zelkova	9"	25-30'	Fair-Good	0-10%	Minor stubs

No.	Location	Species	Diam.	Height	Condition	% Dead Wood	Observation
22	Center Path	Zelkova	9"	25-30'	Fair-Good	0-10%	Minor deadwood; stubs
23	Center Path	Zelkova	10"	25-30'	Fair-Good	0-10%	Minor deadwood; stubs
24	Center Path	Zelkova	10"	25-30'	Fair-Good	0-10%	Included bark at crotch; minor deadwood
25	Center Path	Zelkova	10"	25-30'	Fair-Good	0-10%	Included bark at crotch; minor deadwood
26	Center Path	Zelkova	10"	25-30'	Fair-Good	0-10%	Minor deadwood; stubs
27	Center Path	Chanticleer Pear	9"	20-25'	Fair-Good	0-10%	Minor deadwood; stubs
28	Center Path	Chanticleer Pear	9"	20-25'	Fair-Good	0-10%	Minor deadwood; stubs
29	Center Path	Chanticleer Pear	9"	20-25'	Fair-Good	0-10%	Minor deadwood; stubs
30	Center Path	Chanticleer Pear	9"	20-25'	Fair-Good	0-10%	Minor deadwood; stubs
31	Center Path	Chanticleer Pear	9"	20-25'	Fair-Good	0-10%	Minor deadwood; stubs
32	Center Path	Chanticleer Pear	9"	20-25'	Fair-Good	10-20%	Leaning Remove 3" leader; low prune
33	Harbor/ Lafayette	Crabapple	4"	10'	Poor	60-70%	Consider Removal
34	Lafayette	Crabapple	7"	15'	Fair-Poor	50-60%	Consider Removal
35	Lafayette	Norway Maple	20"	25-30'	Fair	25-30%	Deadwood
36	Lafayette	Aristocrat Pear	3"	10-15'	Good		
37	Lafayette	Aristocrat Pear	3"	10-15'	Good		
38	Lafayette	Norway Maple	20"	20-25'	Fair	25-30%	Deadwood; stubs
39	Lafayette	Crabapple	10"	15-20'	Fair -Poor	10-20%	Cavities;cankers;deadwood
40	Lafayette	Crabapple	10"	15-20'	Fair -Poor	10-20%	Cavities;cankers;deadwood
41	Lafayette	Crabapple	12"	15-20'	Fair -Poor	10-20%	Cavities;cankers;deadwood
42	Lafayette	Crabapple	12"	15-20'	Fair -Poor	10-20%	Cavities;cankers;deadwood



LAFAYETTE PARK

Tree Inventory Key

2. Tree viability; Expected life span

Aristocrat Pear (2): Aristocrat Callery Pear quickly grows 35 to 45 feet high and 30 to 35 feet wide. The more dominant trunk and open form of Aristocrat Callery Pear helps to make it *less* susceptible to wind and ice damage than Bradford Pears. Branch angles are wider and lateral branches grow at a slower rate than on Bradford, therefore the branches are better attached to the trunk. The two (2) Aristocrat pears on the site are relatively small and in good shape. These trees have a life expectancy of 25+years.

Chanticleer Pear (6): Chanticleer Callery Pear, introduced in 1965, was selected Urban Tree of the Year in 2005 by trade arborist magazine *City Trees*. The Chanticleer Callery Pear is a cultivar, partly selected because of its unique combination of good traits including great form and resistance to blight and limb breakage. Poor limb or weak branching has been a major problem with some of the pear's relatives including the Bradford Pear. These trees can grow 30-50'. The six (6) trees on the site should be pruned for deadwood and v-crotches removed. These trees have a life expectancy of 50 years.

Crabapple (6): Crabapple trees have a moderate growth rate and may grow to 25'. The six (6) trees on the side are in fair to poor condition and should be heavily pruned or removed. These trees have a life expectancy of 50 years.

Elm (2):These trees, Princeton or Valley Forge varieties are Dutch Elm Disease resistant. The species on the site are newly planted and in good condition. These trees generally have a life expectancy of over 50 years.

Kousa Dogwood (2): Kousa dogwoods are slow to moderate growing and can reach 25'. These trees are ornamental and on this site they may be pruned or removed and replanted elsewhere (park or other open space). These trees have a life expectancy of 80 years.

London Plane (6): These trees have an interesting, exfoliating bark and can grow over 100 feet in the right location. The trees on site are in good condition, but require minor deadwooding and stub removal. These trees have a life expectancy that may exceed more than a century.

Norway Maple (10): Norway maples can no longer be purchased because they are considered an invasive species and have been removed from the standard street tree purchasing list. The trees on site should be pruned for deadwood and stubs and the canopies shaped. These trees may live 70 years but are extremely susceptible to decay and storm damage.

Zelkova (8): Zelkova trees have a moderate to fast growing growth rate and can reach over 60'. Normally disease-free as it resists Dutch Elm disease and other vascular dieases. The canopies of these trees can reach 60' in the right area. Thinning of these particular trees on the site is recommended by removing two (2). These trees have a life expectancy of 60 years.

3. Management plan:

a. Construction period: Recommend best practices to protect trees during park construction

- Any trenching should outside of the drip line but in no event less than DBH x .5' away from tree trunk (10" caliper tree at breast height = 5 feet away from trench)
- Woodchips (6-8" deep) should be placed around tree to prevent compaction and removed post-construction
- Fencing should be placed below the drip line to protect trees
- Tree guards. If fencing is impractical, all trees within the construction area should be encircled with wooden tree guards
- Tree trunk protection. In addition to the tree guards, each tree must be wrapped with an appropriate protective material
- Stockpiling of materials. Under no circumstances should equipment and materials be stockpiled within the fenced areas.
- Disposal of wastewater and other debris. No contaminants or wastewater from construction activities should be disposed of within or around protected areas.
- Treatment of exposed roots. Where such excavation does occur for the removal of existing features or the installation of new work, the excavated area shall be backfilled immediately. Exposed roots shall be covered with burlap or other approved material, and kept constantly moist. Burlap shall be checked a minimum of two (2) times a day, once in the morning and once in the afternoon in order to maintain appropriate levels of moisture, until backfill is complete. If directed by Tree Warden, soaker hoses shall be installed to facilitate properly moist conditions of excavated areas.

b. Post-construction: Recommended care and maintenance necessary to ensure health and viability of each tree

- Aerate soil of existing trees
- Place 2-3" of mulch (organic) as wide as tree canopy (not against bark)
- Water all trees; check newly planted trees weekly for soil moisture particularly in the first several months of planting
- Staking trees is not recommended because stakes require constant maintenance. Generally, the root ball or container should be large enough to allow the tree to remain upright without staking.