



**San Francisco Recreation & Parks  
Department**

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**Tree Assessment  
South Park**

*Prepared for:*  
**Recreation & Park Department  
City of San Francisco  
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San Francisco CA 94102**

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**March 2012  
Updated November 2015**



# Tree Assessment

South Park  
San Francisco CA

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### ***Introduction and Overview***

South Park was established as a San Francisco park in 1897. In recent years, the South Park Improvement Association has played an active role in the stewardship of park's vegetation and facilities. In 2012, the Improvement Association requested that HortScience, Inc. assess the health and structural condition of park's trees. The findings were summarized in a DRAFT Tree Assessment and Management Plan. In 2015, the San Francisco Recreation & Parks Department requested that HortScience re-assess the trees and update any recommendations as appropriate. This report presents the following information:

1. Evaluation of tree health and structural condition.
2. Assessment of the risk of tree failure.
3. Recommendations for action.

### ***Survey Methods***

Trees were surveyed in March 2012 and November 2015. The survey was limited to trees greater than 4" diameter. The assessment procedure consisted of the following steps:

1. Identifying the tree as to species.
2. Attaching a numerically coded metal tag to the trunk of each tree.
3. Recording the tree's location on a map.
4. Measuring the trunk diameter at a point 54" above grade.
5. Evaluating the health and structural condition using a scale of 0 – 5:
  - 5** - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
  - 4** - Tree with slight decline in vigor, small amount of twig dieback, or minor structural defects that could be corrected.
  - 3** - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
  - 2** - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
  - 1** - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormic shoots (secondary shoots that arise along the trunk and branches); extensive structural defects that cannot be abated.
  - 0** – Tree is dead.
6. Commenting on the presence of defects in structure, insects or diseases and other aspects of development.
7. Evaluating suitability for preservation as low, moderate and high.
8. Assessing the tree's maturity.
9. Identify the part of the tree most likely to fail and hit a target within the next year.
10. Identify the target(s) that would be impacted by that failure (e.g. street, sidewalk, landscaping).
11. Rate the potential risk using the method described in *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas*.
12. Identify arboricultural treatments to reduce the likelihood of failure and improve tree health, structure, stability and longevity.

**Description of Trees**

Fifty-two (52) trees were evaluated in 2012 and again in 2015, representing 6 species (Table 1). All trees appeared to have been planted as part of the site's landscape development. One species, white alder, is native to San Francisco but is not indigenous to the site. In 2012, I identified trees #38, 46 and 47 as river red gum. In 2015, I identified these three trees as silver dollar gum.

South Park is an elongated oval in form. Almost all trees are planted adjacent to the street within 2' of the curb (Photo 1). There was, however, little apparent displacement of curb and pavement associated with tree roots. Curbing appeared to be worn due to age and weathering.



**Photo 1.** Looking east along south side of park. Note that trees are located within a few feet of the street. But there is little displacement of the curb.

**Table 1. Tree condition & frequency of occurrence. South Park. San Francisco CA.**

Common name	Scientific name	Condition					No. of Trees
		Dead	Poor	Fair	Good	Excel- lent	
White alder	<i>Alnus rhombifolia</i>	--	2	--	1	--	3
Silver dollar gum	<i>Eucalyptus polyanthemos</i>	--	--	2	1	--	3
Olive	<i>Olea europaea</i>	--	--	--	1	--	1
London plane	<i>Platanus x hispanica</i>	4	3	13	11	--	31
Lombardy poplar	<i>Populus nigra 'Italica'</i>	--	--	--	1	--	1
American elm	<i>Ulmus americana</i>	--	--	6	7	--	13
<b>Total, all trees assessed</b>		<b>4</b>	<b>5</b>	<b>21</b>	<b>22</b>	<b>--</b>	<b>52</b>

London plane (31 trees) represented 60% of the surveyed trees. Trunk diameters ranged from 6" to 24" with approximately 50% of trees being smaller than 15". Trees were either mature or semi-mature in development based on crown size and trunk diameter. Most London planes had been pollarded when young. As a result, trees have multiple attachments that arise at one point on the trunk, usually between 8' and 12'. The pollarding treatment was discontinued years ago. Tree crowns are composed of a series of stems that originate at the old pollard (Photo 2).

Several London planes had either been topped (#21, 33, 39, 41, 44) or side-trimmed (#20, 22, 29, 30, 31 32) to provide clearance for the electrical lines that run across the west side of the park and along the street on the northwest side.

In 2012, condition of London planes ranged from poor (4 trees) to fair (14) to good (13). In general, larger diameter trees were in better condition than smaller diameter trees. Small trees have been suppressed by their larger neighbors. In 2015, condition ranged from dead (#6, 42, 43, 45) to poor (3) to fair (13) to good (11). There was no obvious reason for the death of 4 trees and slight decline in condition overall.

Thirteen (13) American elms were present. All were mature in development. Overall trunk diameter had increased since 2012 and ranged 16½" and 33". Elms had been treated like the London planes and have a similar crown structure. Given the close spacing between trees, elm crowns are narrow and upright in form. Long stems often bow out of the canopy (Photo 3). Condition of elms was either fair (6 trees) or good (7).

No other species was represented by more than 3 trees. Included in this group were:

- 3 silver dollar gums on the north side of the park. All were mature in development. Trunk diameters ranged from 20" (#38) to 29" (#47). River red gums #38 and 46 were in fair condition while #47 was in good condition. All three trees possessed serious defects in structure, associated with codominant trunks.
- 3 white alder on the southwest side of the park. Tree #24 was 7" in diameter and in poor condition. Tree #26 was 8" and in poor condition due to poor form and a large trunk wound. Alder #23 was 13" and in good condition. Overall form was narrow with a slight lean to the south.
- Lombardy poplar #37 was 29" in diameter and in good overall condition. It was mature in development with the narrow upright form that is typical of the species.
- Olive #35 was located on the west end of the park. It was 24" in diameter and mature in development. Tree condition was good. The crown is formed by three scaffold limbs that bow apart. The upper canopy appeared thin.

The San Francisco Department of Public Works categorizes trees in three ways:

1. **Street tree.** A tree of any size located within the street right of way. None of the surveyed trees appeared to meet this criterion. Because almost all trees were located immediately adjacent to the curb.
2. **Significant tree.** A tree located within 10' of a lot line abutting the public right-of-way that: 1) are greater than 20' in height, 2) have a canopy spread greater than 15', or 3) have a trunk diameter of 12" or greater (measured at 54" above grade). A tree attains significant status if any one of the three size criteria is met. Based on our observations, 46 of the surveyed trees appeared to meet these criteria.
3. **Landmark tree.** A tree so designated by the City's Urban Forestry Council and Board of Supervisors. None of the trees surveyed had this status.

Description of individual trees is found on the enclosed ***Tree Assessment Form***. Tree locations are found on the ***Tree Assessment Map***. Both are included as **Attachments**.

### ***Suitability for Preservation***

Trees that are preserved on sites where development or other improvements are planned, must be carefully selected to make sure that they may survive construction impacts, adapt to a new environment and perform well in the landscape. Our goal is to identify trees that have the potential for long-term health, structural stability and longevity.

Evaluation of suitability for preservation considers several factors:

- **Tree health**  
Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees. Trees in good condition are in better health than those in poor condition.
- **Structural integrity**  
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. Defects such as codominant or multiple stems, lean and other deviations from the vertical, heavy branches and decay are problematic and may increase the potential for a tree to fail.
- **Species response**  
There is a wide variation in the response of individual species to construction impacts and changes in the environment. In our experience, for example, river red gum is sensitive to construction impacts; while London plane, American elm and olive are more tolerant of site disturbance.
- **Tree age and longevity**  
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change. Most trees at South Park are mature in development.
- **Species invasiveness**  
Species which spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (<http://www.cal-ipc.org/paf/>) lists species identified as having being invasive. San Francisco is part of the Central West Floristic Province. For species present in South Park, olive is rated as "limited".

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Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment (Table 2). In 2012, the terms good, moderate and poor were used. To avoid confusion with tree condition, we now use high, moderate and low.

**Table 2. Tree suitability for preservation. South Park. San Francisco CA.**

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<b>High</b>	Trees with good health and structural stability that have the potential for longevity at the site. Five (5) were rated as having good suitability for preservation: London plane #2, 17, 19; American elm #5, 18.
<b>Moderate</b>	Trees in fair health and/or possessing structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter life-spans than those in the “high” category. Thirty-one (31) trees were rated as having moderate suitability for preservation: 18 London plane, 9 American elm, Lombardy poplar #37. olive #35, silver dollar gum #47, white alder #23.
<b>Low</b>	Trees in poor health or possessing significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Twelve (12) trees were rated as having poor suitability for preservation: 6 London plane, American elm #14, 48; silver dollar gum #38, 46; and white alder #24, 26.

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**Note:** Table 2 does not include 4 dead London planes #6, 42, 43, 45.

We consider trees with high suitability for preservation to be the best candidates for preservation during development. We do not recommend retention of trees with poor suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

### ***Tree Risk Assessment***

Tree Risk Assessment is the systematic process of evaluating the potential for a tree or one of its parts to fail and, in so doing, injure people or damage property. All trees have the potential to fail. The degree of risk will vary with the size of the tree, type and location of the defect, tree species, and the nature of the target. Tree Assessment & Management Plan involves three components:

1. a tree with the potential to fail,
2. an environment that may contribute to that failure, and
3. a person or object that would be injured or damaged (i.e. the target).

The San Francisco Recreation and Park Department employs a standardized procedure for risk assessment.

### **Tree Risk Rating System**

All of the surveyed trees were assessed using the procedure outlined in *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas* (N. Matheny & J. Clark 1994 (2<sup>nd</sup> edition. International Society of Arboriculture. Champaign IL). Following a visual inspection of tree health and structural condition, the part of the tree most likely fail within the next year was identified (e.g. branch, stem, or whole tree). The target that would be impacted by this part of the tree was then identified.

The risk associated with the tree was evaluated using the following components:

**Failure potential** (4 points) - identifies the most likely failure and rates the likelihood that the structural defect(s) will result in failure within the next year. The part of the tree most likely to fail was assessed using the following scale:

- 1 - low - defects are minor (e.g. dieback of twigs, small wounds with good woundwood development)
- 2 - medium - defects are present and obvious (e.g. lean or bow that has developed over time, cavity encompassing 10-25% of the circumference of the stem, codominant stems without included bark)
- 3 - high - compounding and/or significant defects present (e.g. severe lean, cavity encompassing 30-50% of the circumference of the stem, multiple pruning wounds with decay along a branch)
- 4 - severe - defects are very severe (e.g. partial uprooting of leaning tree, decay conks along the main stem, cavity encompassing more than 50% of the stem)

**Size of defective part** (4 points) - rates the size of the part most likely to fail. Larger parts present a greater potential for damage. Therefore, the size of the failure affects the potential for injury or damage. The scoring system was as follows:

- 1 - most likely failure less than 6" in diameter
- 2 - most likely failure 6 - 18" in diameter
- 3 - most likely failure 18 - 30" in diameter
- 4 - most likely failure greater than 30" in diameter

**Target rating** (4 points) - rates the use and occupancy of the area that would be struck by the defective part. For the project areas, the following scoring was employed:

- 1 - occasional use (e.g. lawn or landscaped area)
- 2 - intermittent use (e.g. sidewalk, table)
- 3 - frequent use (e.g. street parking)
- 4 - constant use (e.g. playground structure, high volume streets).

The points in each category were added to obtain the overall hazard rating, with 3 being the minimum and 12 being the maximum value.

**Risk ranking = failure potential + size of defective part + target rating**

Among trees at South Park, the most likely failure included branch (49 trees), one stem (silver dollar gum #38 and 46) and whole tree (white alder #26).. Potential targets included: street parking (43 trees), sidewalk (1), picnic table (3), street (2), bench (2) and none (1).

In both 2012 and 2015, risk rankings ranged from 4 to 9 (see **Attachments**). No trees received a ranking of 10, 11 or 12. In both 2012 and 2015, silver dollar gum #38 received a risk rating of 9 based on a stem failing into the street. In both 2012 and 2015, American elms #7 and 9, and silver dollar gum #46 received rating of 8. In 2015, London planes #6 and 45 also received rankings of 8.

Under a normal management regime, trees with the highest ranking would be abated first, followed in order of decreasing ratings. The City of San Francisco Recreation and Park Department abates risk for trees ranked 9 or greater and for trees in poor condition with a risk ranking of 8.

### ***Summary and Recommendations***

In 2012, trees at South Park were vigorous and in generally good health. With the exception of the death of four London planes, trees in 2015 were similar to those in 2012. No obvious pest or disease problems were evident. Most trees are mature in development but can be expected to continue to shade the park for years to come. In 2012, I described two factors that limit tree performance:

1. **Crowded, dense growing conditions.** South Park receives little direct sun due to the mature tree canopies. This is a limitation on the success of new tree plantings and growth of turf. Neither London plane nor American elm is well-adapted to shade conditions. Small trees located beneath the canopy can be expected to lack vigor and grow poorly. If more sunlight is needed or desired, selectively remove trees in poor condition and/or with low suitability for preservation.
2. **Existing tree structure.** The cessation of pruning to pollard training system resulted in crowns with multiple stems that arise low in the canopy. Many stems have bowed outwards and separated from the rest of the canopy. Such stems are more likely to fail than those that are vertically oriented. A secondary concern is the quality of stem attachments in American elm. Because stems arise at one point on the trunk, they push and constraint each other's diameter development, a situation which is also more likely to fail.

In 2015, I would add a third consideration:

3. **Drought and reduced irrigation.** With the exception of olive, trees at South Park have high and moderate requirements for irrigation. Any reductions in irrigation would likely reduce tree health.

The Recreation & Park Department's threshold for action related to risk is a ranking of 9 on a scale of 3 (lowest) to 12 (highest). In both 2012 and 2015, only silver dollar gum #36 received a rating of 9. In 2015, five trees received a ranking of 8 including London planes #6 and 45 which were dead. The risk assessments from both 2012 and 2015 are consistent with the Department's previous risk assessment in 1984 where none of the 41 trees evaluated was rated as high hazard.

The moderate nature of tree risk at South Park reflects the overall quality of trees as almost all are adjacent to the high value targets of children's play areas, streets and parking. Tree risk can best be abated through pruning rather than a program of removal.

Based on my observations, I recommend the following:

1. Remove silver dollar gum #38 due to significant defects in structure and a risk ranking of 9.
2. Remove London planes #6, 42, 43, 45 which are dead
3. Install cable system in the crowns of American elm #14 and 15 and silver dollar gums #46 and 47. Trees should be pruned at the time the cable system is installed. For elm #15, reduce the length of the south-facing stem at the same time.
4. Prune American elms #7 and 9 to reduce the length and weight of long laterals than extend over the parking and street.
5. Following completion of items #1 to 4, initiate a routine pruning program for mature London planes and American elms. A general pruning specification is located in the **Attachments**.
6. Do not plant American elm or London plane beneath existing canopy. Such sites are too shady for young trees to thrive.
7. Continue to use London plane and American elm as the street trees, associated with high irrigation situation such lawn. Continue to use olive and Marina madrone as accent plants in low irrigation settings and where fruit drop will not be problematic. If irrigation is going to be reduced beyond 25% of prior years, consider a removal and replacement program replacing high water use species like London plane with lower water use species.
8. Discontinue use of Lombardy poplar, white alder and silver dollar gum. Although the one Lombardy poplar (#37) at South Park has performed well, the cultivar has a narrow upright form and is relatively short-lived. White alder has not performed well. Silver dollar gum has grown vigorously but does not possess the structure needed for such a high use area.

**HortScience, Inc.**



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## **ATTACHMENTS**

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**General pruning specification**

***Tree Assessment Form***

***Tree Assessment Map***



## Pruning Specifications

South Park  
South Park Improvement Association

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### Qualifications

An I.S.A. (International Society of Arboriculture) Certified Arborist or Tree Worker is to be present at all times during pruning. Contractor must have a State of Calif. Contractor's License for Tree Service (C61-D49) and provide proof of workman's compensation and general liability insurance.

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### Objectives

The following are general objectives:

1. Clean the crown of diseased, crossing, weak, dead, dying and otherwise structurally unsound branches to 1" diameter.
  2. Reduce the length and weight on long lateral branches and stems, particularly those that are bowed over the street.
  3. Inspect the point of origin of multiple stems in American elm for cracks, splits and decay.
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### Specifications

1. All pruning shall be in accordance with the *Best Management Practices for Pruning* (International Society of Arboriculture, 2002) and adhere to the most recent editions of the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300).
  2. Interior branches shall not be stripped out.
  3. No more than 20% of live foliage shall be removed on any one branch or throughout the entire tree.
  4. Trees shall not be climbed with spurs.
  5. Branch removal or reduction cuts (thinning cuts) are to be employed rather than heading cuts. Trees shall not be topped or headed back.
  6. Do not raise canopies by removing lower branches.
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# Tree Risk Assessment

**South Park**  
San Francisco CA  
March 2012; updated November 2015



TREE No.	SPECIES	TRUNK DIAMETER		CONDITION		SUITABILITY for PRESERVATION	COMMENTS	RISK RANKING			
		2012	2015	2012	2015			Most likely failure	Target	Ranking 2012 2015 (range 3 to 12)	
1	American elm	21	22	4	4	Moderate	Multiple attachments @ 7'; topped @ 12'; restructured; narrow & upright.	Branch	Parking	7	7
2	London plane	24	24	4	4	High	Multiple attachments @ 12'; topped?; good form.	Branch	Parking	7	7
3	London plane	14	14½	3	3	Moderate	Crowded; small crown; bowed SE.	Branch	Parking	6	6
4	London plane	6	6	2	1	Low	Suppressed; small basal wound; codominant trunks @ 8'.	Branch	Parking	6	6
5	American elm	26	27	4	4	High	Multiple attachments @ 10'; topped @ 15'; upright; better than #1.	Branch	Parking	6	6
6	London plane	18	18	3	0	Moderate	Multiple attachments @ 10'; crowded with small crown.	Branch	Parking	6	6
7	American elm	31	33	4	4	Moderate	Multiple attachments @ 8' with poor attachment; codominant trunks @ 11' & 13'; narrow & upright; small girdling root.	Branch	Parking	8	8
8	London plane	22	23	4	4	Moderate	Crowded; multiple attachments @ 10'; laterals bowed over street.	Branch	Parking	7	7
9	American elm	28	29½	4	4	Moderate	Multiple attachments @ 10' poor attachment; topped @ 15'; narrow & upright; no basal flare & flat area @ base on S.	Branch	Parking	8	8
10	London plane	23	24	4	4	Moderate	Multiple attachments @ 10'; topped?; upper crown good.	Branch	Parking	6	6

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		2012	2015	2012	2015			Most likely failure	Target	Ranking 2012 2015 (range 3 to 12)	
11	London plane	7	7	2	2	Low	Suppressed; small crown bowed W.	Branch	None	4	4
12	London plane	11	12	3	3	Low	Suppressed; codominant trunks @ 6'; no vigor.	Branch	Parking	6	6
13	American elm	21	22	4	4	Moderate	Codominant trunks @ 12'; E. stem dominates; 2nd set codominant trunks high in crown; leans SE.	Branch	Parking	7	7
14	American elm	19	19	3	3	Low	Codominant trunks @ 11'; poor attachment; 1 vertical; stem to W. with slight bow & gap in canopy.	Branch	Parking	7	7
15	American elm	24	24	3	3	Moderate	Codominant trunks @ 6'; N. stem dominates; codominant again @ 16'.	Branch	Parking	7	7
16	American elm	17	17	3	3	Moderate	Codominant trunks @ 9'; topped @ 10'; 4 stems; one-sided to E.	Branch	Parking	7	7
17	London plane	14	15	4	4	High	Codominant trunks @ 12'; okay vase-shaped crown.	Branch	Parking	7	7
18	American elm	16	16½	4	4	High	Good form; sinuous trunk; been reduced.	Branch	Parking	6	6
19	London plane	13	15	4	4	High	Codominant trunks @ 16'; vase-shaped crown.	Branch	Parking	7	7
20	London plane	16	16	4	4	Moderate	Multiple attachments @ 10'; side-trimmed on W; lots of sprouts.	Branch	Parking	7	7

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		2012	2015	2012	2015			Most likely failure	Target	Ranking 2012 2015 (range 3 to 12)	
21	London plane	13	13	3	3	Low	<b>No tag?</b> Topped well for electrical lines; heavy lateral branch to N. over lawn.	Branch	Parking	7	7
22	London plane	12	13	4	4	Moderate	Codominant trunks @ 8'; side-trimmed on E.; lots of sprouts.	Branch	Parking	6	6
23	White alder	13	14	4	4	Moderate	Narrow pyramidal form; basal wound on E; leans S.	Branch	Parking	6	6
24	White alder	7	7	2	2	Low	Poor form & structure; suppressed; numerous basal wounds.	Branch	Parking	6	6
25	London plane	19	20	4	4	Moderate	Multiple attachments @ 12'; good form.	Branch	Parking	7	7
26	White alder	8	9	2	2	Low	Bowed E. with long trunk wound on W.	Whole tree	Parking	7	7
27	London plane	18	19	4	4	Moderate	Multiple attachments @ 10'; good form.	Branch	Parking	6	6
28	London plane	18	19	3	3	Moderate	Multiple attachments @ 6'; one-sided to NE.	Branch	Parking	6	6
29	London plane	18	19	3	3	Moderate	Multiple attachments @ 12'; upper crown bowed to S. due to side-trimming on N.	Branch	Parking	6	6
30	London plane	14	16	3	3	Moderate	Asymmetric form due to side-trimming on S.	Branch	Parking	5	5
31	London plane	11	11	3	3	Moderate	Bowed E.; asymmetric due to side-trimming.	Branch	Parking	5	5

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TREE No.	SPECIES	TRUNK DIAMETER		CONDITION		SUITABILITY for PRESERVATION	COMMENTS	RISK RANKING			
		2012	2015	2012	2015			Most likely failure	Target	2012 Ranking	2015 Ranking
32	London plane	13	14	4	4	Moderate	Codominant trunks @ 7'; one-sided to S. due to side-trimming.	Branch	Parking	5	5
33	London plane	19	20	3	3	Low	Multiple attachments @ 8'; topped on W. for electrical lines; wide crown.	Branch	Parking	6	6
34	London plane	14	14	4	4	Moderate	Good form; low laterals sweep upright.	Branch	Parking	6	6
35	Olive	22	24	4	4	Moderate	Rounded form; 3 scaffolds with slight separation; dense canopy.	Branch	Bench	6	6
36	American elm	24	25	4	4	Moderate	Multiple attachments @ 10'; girdling root on E.; 4 stems; 1 dominates; stem to SE. with sharp elbow.	Branch	Parking	7	7
37	Lombardy poplar	27	29	4	4	Moderate	Typical form & structure; narrow & upright; multiple attachments @ 12' to 14'; topped; upright;	Branch	Parking	7	7
38	Silver dollar gum	20	21	3	3	Low	Codominant trunks @ 12'; 1 stem mostly vertical with upper section bowed N., heavy lateral branch; 2nd stem flat to N.; high crown.	Stem	Street	9	9
39	London plane	22	23	3	3	Moderate	Multiple attachments @ 8'; topped @ 12'; upright but crowded.	Branch	Table	6	6
40	American elm	22	23	4	3	Moderate	Codominant trunks @ 7'; 1 stem dominates; narrow & upright.	Branch	Table	6	6

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TREE No.	SPECIES	TRUNK DIAMETER		CONDITION		SUITABILITY for PRESERVATION	COMMENTS	RISK RANKING			
		2012	2015	2012	2015			Most likely failure	Target	Ranking 2012 2015 (range 3 to 12)	
41	London plane	20	20	4	3	Moderate	Multiple attachments @ 10'; topped @ 16'; upright but crowded.	Branch	Table	5	5
42	London plane	18	18	3	0	Low	Small crown; decay in trunk; long cavity on W.	Branch	Bench	6	6
43	London plane	15	15	2	0	Low	Codominant trunks @ 6'; poor form & structure; sparse crown bowed to E.	Branch	Sidewalk	5	5
44	London plane	22	22	3	3	Moderate	Multiple attachments @ 8'; topped @ 12'; upright.	Branch	Parking	7	7
45	London plane	20	20	3	0	Low	Suppressed; multiple attachments @ 10'; small crown lacks vigor.	Branch	Parking	6	6
46	Silver dollar gum	26	29	3	3	Low	Codominant trunks @ 20'; 1 stem vertical with codominant trunks high in crown; 2nd stem bowed N. with heavy lateral limb to W.; high crown.	Stem	Street	8	8
47	Silver dollar gum	29	31	3	4	Moderate	Codominant trunks @ 16'; better structure; nice high vase-shaped crown.	Branch	Parking	7	7
48	American elm	19	19	3	3	Low	Multiple attachments @ 8'; topped @ 12'; upright but small; partly suppressed; no basal flare.	Branch	Parking	7	7

# Tree Risk Assessment

**South Park**  
 San Francisco CA  
 March 2012; updated November 2015



TREE No.	SPECIES	TRUNK DIAMETER		CONDITION		SUITABILITY for PRESERVATION	COMMENTS	RISK RANKING			
		2012	2015	2012	2015			Most likely failure	Target	Ranking 2012 2015 (range 3 to 12)	
49	London plane	23	23	4	3	Moderate	Irregular structure in lower trunk; crown good. <b>2015:</b> numerous dead branches.	Dead branch	Parking	7	7
50	American elm	30	32	3	3	Moderate	Multiple attachments @ 7'; 4 large crowded stems; girdling root; topped @ 16'; several cavities @ topping points.	Branch	Parking	7	7
51	London plane	12	13	3	3	Moderate	Codominant trunks @ 8'; slightly flat to N/S.	Branch	Parking	6	6
52	London plane	7	7½	2	2	Low	Suppressed; poor.	Branch	Parking	6	6

# Tree Assessment Map

**South Park**  
San Francisco, CA

Prepared for:  
South Park Improvement  
Association  
San Francisco, CA

March 2012

No Scale

**Notes:**

- Base map provided by:  
South Park Improvement Association
- Numbered tree locations  
are approximate.



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