DRAFT Arborist Report

Crocker Amazon Park Athletic Fields

Prepared for:
Recreation & Park Department
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December 2021

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Table of Contents

	Page
Introduction and Overview	1
Survey Methods	1
Description of Trees	2
Suitability for Preservation	5
Evaluation of Impacts and Recommendations	6
Maintenance Recommendations	11
Tree Preservation Guidelines	12

List of Tables

Table 1. Tree condition and frequency of occurrence.	2
Table 2. Suitability for preservation	6
Table 3. Recommendations for action	7
Table 4. Maintenance recommendations	12

Exhibits

Tree Assessment Form

Tree Assessment Plan

DRAFT Arborist Report
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Introduction and Overview
The San Francisco Recreation & Park Department are proposing upgrades to the Crocker Amazon Park Athletic Fields, located at the corners of Moscow St. and Geneva Avenue. HortScience | Bartlett Consulting (HBC), Divisions of the F. A. Bartlett Tree expert Co. was asked to prepare an **Arborist Report** for the project.

This report provides the following information:

1. An assessment of trees within and immediately adjacent to the project site.
2. An assessment of the impacts of constructing the proposed project on the trees.
3. Recommendations for tree preservation and removal.
4. Guidelines for tree preservation during the design, construction and maintenance phases.

Assessment Methods
Trees were assessed on October 27, 2021. Trees #45-48, 50 and 59 were part of a previous assessment and the remaining trees were tagged as #401-567. All trees measuring 6" or greater in diameter, within the project area or with portions of their crowns extending into the project area, were included. The assessment procedure consisted of the following steps:

1. Identifying the tree as to species;
2. Tagging each tree with an identifying number and recording its location on a map;
3. Measuring the trunk diameter at a point 54" above grade;
4. 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, 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 epicormics; extensive structural defects that cannot be abated.
   - ***0*** - Dead.
5. Rating the suitability for preservation as "high", "moderate" or "low". Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.
   - ***High***: Trees with good health and structural stability that have the potential for longevity at the site.
   - ***Moderate***: Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'good' category.
   - ***Low***: Tree in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees

One hundred and seventy-three (173) trees were assessed, representing 11 species (Table 1). Descriptions of each tree are found in the ***Tree Assessment Form*** and locations are plotted on the ***Tree Assessment Plan*** (see Exhibits).

The project site represents the western half of the Crocker Amazon Park, including all of the trees around the clubhouse, parking lot and both baseball fields. Trees #442-463 were located east of the pathway separating the baseball fields and soccer fields and appear to be outside the project limits.

Table 1. Tree condition and frequency of occurrence.
Crocker Amazon Park Athletic Fields, San Francisco

Common name	Scientific name	Condition				No. of Trees
		Dead	Poor	Fair	Good-Exclnt.	
Blackwood acacia	*Acacia melanoxylon*	-	4	7	-	11
Hopseed bush	*Dadonea viscosa*	-	-	1	-	1
River red gum	*Eucalyptus camaldulensis*	-	3	-	-	3
Spider gum	*Eucalyptus conferruminata*	-	1	1	-	2
Blue gum	*Eucalyptus globulus*	1	20	31	2	54
Monterey cypress	*Hesperocyparis macrocarpa*	-	7	40	30	77
Myoporum	*Myoporum laetum*	-	-	1	-	1
Olive	*Olea europaea*	-	-	-	2	2
Blue spruce	*Picea pungens* 'Glauca'	-	-	-	1	1
Monterey pine	*Pinus radiata*	1	6	7	-	18
Coast redwood	Sequoia sempervirens	-	2	1	-	3
Total		**2**	**47**	**89**	**35**	**173**
		1%	27%	52%	20%	100%

The park was dominated by Monterey cypress (77 trees or 55% of the trees) and blue gum eucalyptus (54 trees), making up more than 85% of the population.

The 77 Monterey cypress were concentrated on the northern half of the project site. Thirty-six of the Monterey cypress were over-mature specimens, with trunk diameters between 36” and 82”. The remaining 41 trees included 8 young trees (7” to 12” in diameter), 6 semi-mature trees (13” to 18”) and 27 mature trees (19” to 34”). The species has performed well at the site, with 40 trees in fair condition, 30 in good to excellent, and only 7 in poor condition. Nineteen (19) of the mature specimens that were in good condition (**Photo 1**, following page).

The 54 blue gum eucalyptus were concentrated on the southern half of the project site. In the case of the blue gums, 34 were over-mature (36” to 78” in diameter), 15 were mature and 5 were semi-mature (13” to 18”). Blue gums had not performed as well at the site, with 2 in good or excellent condition, 31 in fair, 20 in poor condition and #541 was dead. The poor condition was at least in part due to the fact that a row of 33 blue gums growing on the west side of the site were closely spaced and had limited growing space, producing leaning trees with narrow and one-sided crowns (**Photo 2**).

Photo 1 (L): Looking west at Monterey cypress #46, Monterey pine #47 and Monterey cypress #48 (R to L). Monterey cypress #46 was in fair condition and leaned to the south. Monterey cypress #48 was in good condition, with a slight lean north. Monterey pine #47 was standing dead.

Photo 2 (below): Looking west at blue gum eucalyptus #528-540 (R to L). The close spacing between trees and the limited growing space provided for some had produced leaning trees with asymmetric and one-sided crowns.

Eighteen (18) Monterey pines were growing on the norther half of the site. These were part of the original park planting and 8 were mature (21" to 33" in diameter), with the remaining 10 over-mature (36" to 65" in diameter). The pines were at the end of their useful life, with 6 in poor condition, 7 in fair and #47 was dead (**Photo 1**). We noted several stumps where Monterey pines had been removed.

The 11 blackwood acacias were growing adjacent to the paring lot. They were generally young to semi-mature, with just 2 trees having trunk diameters over 18". Condition was fair (7 trees) to poor (4 trees) and several leaned or were windswept to the south and southeast.

The remaining species were represented by 3 or fewer individuals, including:

- Coast redwoods #412, 413 and 465. They were all young and in fair to poor condition.
- Red river gum eucalyptus #414-416. These were growing on the slope at the north end of the project site. They were semi-mature and in poor condition, having been topped for the overhead utilities.
- Olives #565 and 566 were growing in an island between the parking lot and club house. They were young and in good condition.
- Spider gums #464 and 470 were large shrubs growing along the path between baseball fields. #464 was in fair condition and #470 was in poor.
- Blue spruce #453 was semi-mature (17" in diameter) and in excellent condition.
- Myoporum #561 and hopseed #563 were growing in the northeast corner of the site (outside the project limits). The hopseed was young (10" in diameter) and in fair condition and the myoporum was mature (21" in diameter) and in fair condition.

Average tree condition for the site was fair, with 89 trees or 52% of the population. Forty-seven (47) trees were in poor condition (27%) and 35 were in poor condition (20%). Trees #47 and 541 were standing dead. Table 1 (previous page) provides a summary of condition by species.

Fruiting bodies of a *ganoderma sp.* were identified on the trunks of blackwood acacia #406 and blue gum #560 and sulfur fungus (*Laetiporous sulfureus*) was identified on the trunks of blue gums #528 and 556. These decay organisms have the potential to degrade wood strength and contribute to tree failures.

The Department of Public Works categories trees in three ways:

1. **Street tree**. A tree of any size located within the street right of way. None of trees met this criterion.

1. **Significant tree**. 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 Monterey pine #45 and Monterey cypress #50 and 59 appear to meet these criteria.

2. **Landmark tree.** A tree so designated by the City's Urban Forestry Council and Board of Supervisors. None of the trees assessed had this status.

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to make sure that they may survive development 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. For trees growing in open fields, away from areas where people and property are present, structural defects and/or poor health presents a low risk of damage or injury if they fail. However, we must be concerned about safety in use areas. Therefore, where development encroaches into existing plantings, we must consider their structural stability as well as their potential to grow and thrive in a new environment. Where development will not occur, the normal life cycles of decline, structural failure and death should be allowed to continue.

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.

- **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. Trees #406, 528, 556 and 560, where fruiting bodies of Ganoderma and sulfur fungus were noted, are examples of such trees.

- **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, coast redwood and is tolerant of site disturbance, while Monterey pine, Monterey cypress and blue gum eucalyptus (especially over-mature specimens) are more sensitive to 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.

- **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 being invasive. San Francisco is part of the Central West Floristic Province. None of the species assessed at the Crocker Amazon Park Athletic Fields were considered invasive.

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 provides a summary of suitability ratings. Suitability ratings for individual trees are provided in the ***Tree Assessment Forms*** (see Exhibits).

We consider trees with high suitability for preservation to be the best candidates for preservation. We do not recommend retention of trees with low 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.

Table 2: Tree Suitability for Preservation
Crocker Amazon Park Athletic Fields, San Francisco

High	These are trees with good health and structural stability that have the potential for longevity at the site. Thirteen (13) of the trees were highly suitable for preservation, including 11 Monterey cypress, blue spruce #453, and olive #565.
Moderate	Trees in this category have fair health and/or 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. Eighty-seven (87) of the trees were of moderate suitability for preservation, including 53 Monterey cypress, 27 blue gum eucalyptus, 3 Monterey pines, blackwood acacia #404, spider gum #464myoporum #561 and olive #566.
Low	Trees in this category are in poor health or have significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. Sixty-nine (69) trees were of low suitability for preservation, including 27 blue gum eucalyptus, 14 Monterey pines, 13 Monterey cypress, 10 blackwood acacias, 3 coast redwoods, spider gum #470 and hopseed bush #563.

Evaluation of Impacts and Recommendations

Appropriate tree retention develops a practical match between the location and intensity of construction activities and the quality and health of trees. The ***Tree Assessment*** was the reference point for tree condition and quality. Potential impacts from construction were evaluated using the Croker Amazon Baseball Complex Graphic and Grading Plan, produced by Verde Design (dated October 11, 2021).

Grading, drainage and accurate trunk locations were included on the plans. No utility information was reviewed.

The plan proposes to renovate the existing baseball fields on the western half of the site, including new synthetic turf, new dugouts, bathrooms, batting cages, new parking lot, small and large dog parks, a gardener apprentice program building and storage yards for equipment and vehicles. The entire area would be regraded, adding new storm water infrastructure, drainage and irrigation systems and retaining walls.

173 trees
- 45 to keep
= 128 to cut

Potential impacts from construction were estimated for each tree. Based on my review of the graphic and grading plans, 124 of the trees would be removed to accommodate the site improvements, 65 of which were of low suitability for preservation. An additional 11 trees outside the limits of the work were in decline and are recommended for removal (#45, 414-416, 422, 424, 447, 452, 459, 461 and 562). *Significant Tree* #45 is recommended for removal due to its poor health and lean northwest over Moscow Avenue. Table 3 (following page) provides the recommendations for each tree along with a description of the impacts.

Forty-five (45) trees have been identified for preservation, including *Significant Trees* #50 and 59. Preservation of trees is predicated on following the ***Tree Preservation Guidelines*** provided on page 12. Root and canopy pruning may be required for construction clearance. Pruning guidelines are also provided in the ***Tree Preservation Guidelines***

Table 3. Recommendations for action.
Crocker Amazon Park Athletic Fields, San Francisco

Tree No.	Common Name	Trunk Diameter	Significant?	Recommendation
45	Monterey pine	33	Yes	Remove, declining
46	Monterey cypress	32	No	Remove, within grading
47	Monterey pine	36	No	Remove, within grading
48	Monterey cypress	53	No	Remove, within grading
50	Monterey cypress	68	Yes	**Preserve**, outside grading
59	Monterey cypress	50	Yes	**Preserve**, outside grading
401	Blackwood acacia	13	No	Remove, within grading
402	Blackwood acacia	9	No	Remove, within grading
403	Blackwood acacia	6	No	Remove, within grading
404	Blackwood acacia	15	No	Remove, within parking lot
405	Blackwood acacia	10	No	Remove, within parking lot
406	Blackwood acacia	13	No	Remove, within parking lot
407	Blackwood acacia	19,14,12,12,11	No	Remove, within grading
408	Blackwood acacia	26	No	Remove, within grading
409	Blackwood acacia	15,15	No	Remove, within grading
410	Blackwood acacia	26	No	Remove, within grading
411	Blackwood acacia	22,15	No	Remove, within grading
412	Coast redwood	11	No	Remove, impacted by ret. wall
413	Coast redwood	9,8	No	Remove, impacted by ret. wall
414	River red gum	11,7	No	Remove, declining
415	River red gum	15,12,11,8	No	Remove, declining
416	River red gum	11,4,4	No	Remove, declining
417	Monterey cypress	40	No	**Preserve**, outside grading
418	Monterey cypress	37	No	**Preserve**, outside grading
419	Monterey cypress	37	No	**Preserve**, outside grading
420	Monterey cypress	33	No	**Preserve**, outside grading
421	Monterey cypress	53	No	**Preserve**, outside grading
422	Monterey pine	32	No	Remove, declining
423	Monterey pine	38	No	**Preserve**, outside grading
424	Monterey pine	30	No	Remove, declining
425	Monterey cypress	33	No	**Preserve**, outside grading
426	Blue gum	76	No	**Preserve**, outside grading
427	Monterey cypress	59	No	**Preserve**, ~24' E. of grading
428	Monterey cypress	16	No	**Preserve**, ~15' E. of grading
429	Blue gum	66	No	Remove, within grading
430	Monterey cypress	52	No	Remove, within grading
431	Monterey cypress	46	No	Remove, within grading
432	Blue gum	64	No	Remove, within grading
433	Monterey cypress	51	No	**Preserve**, outside grading
434	Monterey cypress	60	No	**Preserve**, outside grading
435	Monterey cypress	47	No	**Preserve**, outside grading

(**Continued, following page**)

15 - grading
3 - parking lot
2 - ret. wall
6 - declining
15 - keep

Table 3. Recommendations for action, continued.
Crocker Amazon Park Athletic Fields, San Francisco

Tree No.	Common Name	Trunk Diameter	Significant?	Recommendation
436	Monterey cypress	60	No	**Preserve**, outside grading
437	Monterey pine	40	No	**Preserve**, outside grading
438	Monterey cypress	34	No	**Preserve**, outside grading
439	Monterey pine	41	No	**Preserve**, outside grading
440	Monterey cypress	43	No	**Preserve**, outside grading
441	Monterey cypress	60	No	**Preserve**, outside grading
442	Monterey cypress	50	No	**Preserve**, outside grading
443	Monterey cypress	82	No	**Preserve**, outside grading
444	Monterey cypress	60	No	**Preserve**, outside grading
445	Monterey cypress	48	No	**Preserve**, outside grading
446	Monterey cypress	45	No	**Preserve**, outside grading
447	Monterey cypress	37	No	Remove, declining
448	Monterey cypress	53	No	**Preserve**, outside grading
449	Monterey cypress	53	No	**Preserve**, outside grading
450	Blue gum	60	No	**Preserve**, outside grading
451	Monterey cypress	46	No	**Preserve**, outside grading
452	Blue gum	16	No	Remove, declining
453	Blue spruce	17	No	**Preserve**, outside grading
454	Monterey cypress	16,10	No	**Preserve**, outside grading
455	Monterey cypress	9	No	**Preserve**, outside grading
456	Monterey cypress	12	No	**Preserve**, outside grading
457	Monterey cypress	16	No	**Preserve**, outside grading
458	Monterey cypress	7	No	**Preserve**, outside grading
459	Monterey cypress	12	No	Remove, declining
460	Monterey cypress	14	No	**Preserve**, outside grading
461	Monterey cypress	9	No	Remove, declining
462	Monterey cypress	8	No	**Preserve**, outside grading
463	Monterey cypress	7	No	**Preserve**, outside grading
464	Spider gum	18,12,8	No	Remove, within grading
465	Coast redwood	12,10	No	Remove, within grading
466	Monterey cypress	34	No	Remove, within grading
467	Monterey cypress	36	No	Remove, within grading
468	Monterey cypress	22	No	Remove, within grading
469	Monterey pine	50	No	Remove, within grading
470	Spider gum	9	No	Remove, within grading
471	Monterey cypress	19	No	Remove, within grading
472	Monterey cypress	21	No	Remove, within grading
473	Monterey cypress	23	No	Remove, within grading
474	Monterey cypress	14,7	No	Remove, within grading
475	Monterey pine	31	No	Remove, within grading
476	Monterey cypress	55	No	Remove, within grading

13 - grading
4 - declining
24 - keep

(**Continued, following page**)

Table 3. Recommendations for action, continued.
Crocker Amazon Park Athletic Fields, San Francisco

Tree No.	Common Name	Trunk Diameter	Significant?	Recommendation
477	Monterey pine	30	No	Remove, within grading
478	Monterey cypress	27	No	Remove, within grading
479	Monterey pine	21	No	Remove, within grading
480	Monterey cypress	45	No	Remove, within grading
481	Monterey cypress	20	No	Remove, within grading
482	Monterey cypress	18	No	Remove, within grading
483	Monterey cypress	34	No	Remove, within grading
484	Monterey cypress	50	No	Remove, within grading
485	Monterey cypress	50	No	Remove, within grading
486	Blue gum	69	No	Remove, within grading
487	Monterey cypress	51	No	Remove, within grading
488	Monterey cypress	48	No	Remove, within grading
489	Monterey pine	25	No	Remove, within grading
490	Monterey cypress	24	No	Remove, within grading
491	Monterey cypress	21,7,4,4	No	Remove, within grading
492	Monterey cypress	26	No	Remove, within grading
493	Monterey cypress	9	No	Remove, within grading
494	Monterey cypress	25	No	Remove, within grading
495	Blue gum	74	No	Remove, within grading
496	Blue gum	66	No	Remove, within grading
497	Blue gum	52	No	Remove, within grading
498	Monterey pine	53	No	Remove, within grading
499	Monterey cypress	28	No	Remove, within grading
500	Monterey cypress	23	No	Remove, within grading
501	Blue gum	52	No	Remove, within grading
502	Blue gum	75	No	Remove, within grading
503	Blue gum	71	No	Remove, within grading
504	Monterey cypress	24	No	Remove, within grading
505	Monterey pine	50	No	Remove, within grading
506	Monterey cypress	23	No	Remove, within grading
507	Monterey pine	45	No	Remove, within grading
508	Monterey cypress	28	No	Remove, within grading
509	Monterey cypress	27	No	Remove, within grading
510	Monterey cypress	38	No	Remove, within grading
511	Monterey cypress	29	No	Remove, within grading
512	Monterey pine	41	No	Remove, within grading
513	Monterey cypress	24	No	Remove, within grading
514	Monterey cypress	26	514	Remove, within grading
515	Blue gum	75	515	Remove, within grading
516	Monterey cypress	28	516	Remove, within grading
517	Monterey cypress	22	517	Remove, within grading

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Table 3. Recommendations for action, continued.
Crocker Amazon Park Athletic Fields, San Francisco

Tree No.	Common Name	Trunk Diameter	Significant?	Recommendation
518	Blue gum	42	No	Remove, within grading
519	Blue gum	43	No	Remove, within grading
520	Blue gum	42	No	Remove, within grading
521	Monterey cypress	46	No	Remove, within grading
522	Monterey cypress	50	No	Remove, within grading
523	Blue gum	45	No	Remove, within grading
524	Blue gum	37	No	Remove, within grading
525	Blue gum	40	No	Remove, within grading
526	Blue gum	41	No	Remove, within grading
527	Blue gum	36	No	Remove, within grading
528	Blue gum	34	No	Remove, within grading
529	Blue gum	42	No	Remove, within grading
530	Blue gum	41,11	No	Remove, within grading
531	Blue gum	20	No	Remove, within grading
532	Blue gum	38	No	Remove, within grading
533	Blue gum	22	No	Remove, within grading
534	Blue gum	29	No	Remove, within grading
535	Blue gum	42	No	Remove, within grading
536	Blue gum	25	No	Remove, within grading
537	Blue gum	37	No	Remove, within grading
538	Blue gum	37	No	Remove, within grading
539	Blue gum	27	No	Remove, within grading
540	Blue gum	45,32	No	Remove, within grading
541	Blue gum	14	No	Remove, within grading
542	Blue gum	39	No	Remove, within grading
543	Blue gum	23	No	Remove, within grading
544	Blue gum	21	No	Remove, within grading
545	Blue gum	37	No	Remove, within grading
546	Blue gum	21	No	Remove, within grading
547	Blue gum	40,27,24	No	Remove, within grading
548	Blue gum	23	No	Remove, within grading
549	Blue gum	47	No	Remove, within grading
550	Blue gum	15	No	Remove, within grading
551	Blue gum	13	No	Remove, within grading
552	Blue gum	16	No	Remove, within grading
553	Blue gum	30	No	Remove, within grading
554	Blue gum	22	No	Remove, within grading
555	Blue gum	34	No	Remove, within grading
556	Blue gum	37	No	Remove, within grading
557	Blue gum	55	No	Remove, within grading
558	Blue gum	32	No	Remove, within grading

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Table 3. Recommendations for action, continued.
Crocker Amazon Park Athletic Fields, San Francisco

Tree No.	Common Name	Trunk Diameter	Significant?	Recommendation
559	Blue gum	27	No	Remove, within grading 2 - grading
560	Blue gum	56	No	Remove, within grading 1 - declining
561	Myoporum	21	No	**Preserve**, outside grading
562	Monterey pine	29	No	Remove, declining 6 - keep
563	Hopseed bush	6,3	No	**Preserve**, outside grading
564	Monterey pine	65	No	**Preserve**, outside grading
565	Olive	6,4	No	**Preserve**, outside grading
566	Olive	9	No	**Preserve**, outside grading
567	Monterey cypress	44	No	**Preserve**, outside grading

Maintenance Recommendations

In an effort to help guide management of the trees identified for preservation as part of the Crocker Amazon Park Athletic Fields project, the following maintenance recommendations are provided. These are recommendations that will help correct existing defects in tree structure, reduce the potential for future failures and improve the health and longevity of those trees that will be retained as part of the renovations. Table 4 (following page) summarizes the maintenance recommendations and recommendations for individual trees are also provided in the ***Tree Assessment Form***.

- **Pruning practices** – Pruning (proper and improper) has long-term impacts on tree structure and health. Having employees knowledgeable in proper pruning of ornamental trees and what the industry standards are for pruning trees is critical to maintaining the beauty and longevity of the tree resource.
    - Five (5) trees were identified for pruning to clean the crowns of dead, broken and weakly attached branches and to reduce the length and extension of heavy lateral limbs (426, 427, 436, 439 and 567).
- **Monitor health** – Where trees were showing signs of decline and were of low suitability for preservation, they were recommended for annual monitoring for changes in health and structure. These are trees we expect to continue to decline irrespective of management. Following inspections, additional management may be required.
    - Three (3) trees were showing signs of decline and should be monitored annually for changes in health and structure (#439, 449 and 564).
- **Mulching -** Mulches provide aesthetic, economic and environmental benefits to the landscape. In general, mulches improve soil health, improve water holding capacity of the soil and return nutrients to the soil as they break down. Mulched landscapes are more resistant to stress, are more aesthetically pleasing, require fewer applications of pesticides and fertilizers, and are ultimately more sustainable than those without mulch cover. I recommend a 3-4” layer of course, wood chip mulch, spread within the dripline of trees. Use of wood chips produced through pruning of trees as mulch is acceptable and encouraged.

Table 4. Maintenance recommendations
Crocker Amazon Park Athletic Fields, San Francisco

Tree No.	Common Name	Trunk Diameter	Suitability for Preserv.	Recommendation
426	Blue gum	76	Moderate	Prune to clean crown
427	Monterey cypress	59	Moderate	Prune to clean crown
436	Monterey cypress	60	Moderate	Prune to clean crown
439	Monterey pine	41	Low	Prune to clean crown & monitor
449	Monterey cypress	53	Low	Monitor
564	Monterey pine	65	Low	Monitor
567	Monterey cypress	44	High	Prune to reduce laterals

Tree Preservation Guidelines

The goal of tree preservation is not merely tree survival during development but maintenance of tree health and beauty for many years. Trees retained on sites that are either subject to extensive injury during construction or are inadequately maintained become a liability rather than an asset. The response of individual trees will depend on the amount of excavation and grading, the care with which demolition is undertaken, and the construction methods.

The following recommendations will help reduce impacts to trees from development and maintain and improve their health and vitality through the clearing, grading and construction phases.

Design recommendations

1. Any plan affecting trees should be reviewed by the Consulting Arborist with regard to tree impacts. These include, but are not limited to, improvement plans, utility and drainage plans, grading plans, landscape and irrigation plans and demolition plans.

2. A **TREE PROTECTION ZONE** must be established for trees to be preserved, in which no disturbance is permitted. No trenching, excavation, construction or storage of materials shall occur within that zone. No underground services including utilities, sub-drains, water or sewer shall be placed in the **Tree Protection Zone**. Spoil from trench, footing, utility or other excavation shall not be placed within the **Tree Protection Zone**, either temporarily or permanently. **TREE PROTECTION ZONES** for trees identified for preservation are provided in the following table.

Specific Tree Protection Zones

Tree No.	TPZ
#50, 59, 561 & 563-567	Dripline (DL) in all directions
#427	24' W., DL in all other directions
#428	15' W., DL in all other directions
#417-421, 423, 425, 426, 433-466, 448-451, 453-458, 460, 463 & 463	Edge of ped. Path W., DL in all other directions.

3. ***Tree Preservation Guidelines*** prepared by the Consulting Arborist should be included on all plans.

4. No underground services including utilities, sub-drains, water or sewer shall be placed in the **TREE PROTECTION ZONE**. To minimize impacts to trees, locate underground services to provide as much room as possible from trees identified for preservation.

5. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.

6. Irrigation systems must be designed to avoid trenching within the **TREE PROTECTION ZONE**.

7. Do not apply lime to soil for stabilization within 25' of trees to be preserved. Lime is toxic to tree roots.

Pre-construction treatments and recommendations

1. The demolition contractor and construction superintendent shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection.

2. Fence all trees to be retained to completely enclose the **TREE PROTECTION ZONE** prior to demolition, grubbing or grading. Fences shall be 6' chain link. Fences are to remain until all grading and construction is completed. Place weather proof signs, 2' x 2', on the fencing that read "**Tree Protection Zone** Keep Out" (eg. one sign for each of the four compass points).

3. Where possible, cap and abandon all existing underground utilities within the **TPZ** in place. Removal of utility boxes by hand is acceptable but no trenching should be performed within the **TPZ** in an effort to remove utilities, irrigation lines, etc.

4. Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain must be removed by a qualified arborist and not by demolition or construction contractors. The qualified arborist shall remove the tree in a manner that causes no damage to the tree(s) and understory to remain. Stumps shall be ground below grade.

5. Any brush clearing required within the **TREE PROTECTION ZONE** shall be accomplished with hand-operated equipment.

6. Any work within the **TREE PROTECTION ZONE** shall be approved and monitored by the Consulting Arborist.

7. Prune trees to be preserved to provide adequate clearance and correct any existing defects in structure. All pruning shall be completed by a Certified Arborist or Tree Worker and adhere to the latest edition of the ANSI Z133 and A300 standards as well as the *Best Management Practices -- Tree Pruning* published by the International Society of Arboriculture.

8. All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Wildlife code 3503-3513 to not disturb nesting birds. To the extent feasible tree pruning and removal should be scheduled outside of the breeding season. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.

9. Apply and maintain 4-6" of wood chip mulch within the **TREE PROTECTION ZONE.**

Recommendations for tree protection during construction

1. Prior to beginning work, all contractors working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.

2. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.

3. Fences have been erected to protect trees to be preserved. Fences define a specific **TREE PROTECTION ZONE** for each tree or group of trees. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the Consulting Arborist.

4. Construction trailers, traffic and storage areas must remain outside fenced areas at all times.

5. Prior to grading, pad preparation, excavation for foundations/footings/walls, trenching, trees may require root pruning outside the **TREE PROTECTION ZONE** by cutting all roots cleanly to the depth of the excavation. Roots shall be cut by manually digging a trench and cutting exposed roots with a saw, with a vibrating knife, rock saw, narrow trencher with sharp blades, or other approved root pruning equipment. The Consulting Arborist will identify where root pruning is required and monitor all root pruning activities

6. Any roots damaged during grading or construction shall be exposed to sound tissue and cut cleanly with a saw.

7. All underground utilities, drain lines or irrigation lines shall be routed outside the **TREE PROTECTION ZONE**. If lines must traverse through the protection area, they shall be tunneled or bored under the tree as directed by the Consulting Arborist.

8. No materials, equipment, spoil, waste or wash-out water may be deposited, stored, or parked within the **TREE PROTECTION ZONE** (fenced area).

9. Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel.

10. If temporary haul or access roads must pass over the root area of trees to be retained, a road bed of 6” of mulch or gravel shall be created to protect the soil. The road bed material shall be replenished as necessary to maintain a 6” depth.

Maintenance of impacted trees
Trees preserved as part of the Crocker Amazon Park Athletic Fields project may experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority. As trees age, the likelihood of failure of branches or entire trees increases. Therefore, annual inspection for structural condition is recommended.

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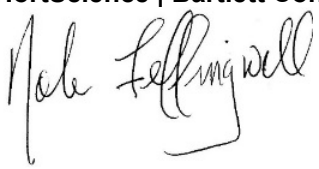

John Leffingwell
Board Certified Master Arborist WE-3966B
Registered Consulting Arborist #442

Exhibits

Tree Assessment Form

Tree Assessment Plan

Tree Assessment

Crocker Amazon Playground
San Francisco, California
October 2021

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TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
45	Monterey pine	33	1	Low	Poor form & structure; leans NW. to Moscow; high crown.
46	Monterey cypress	32	2	Low	Leans W.; base outside dripline; growing over & braking ret. wall; dieback.
47	Monterey pine	36	0	Low	Dead.
48	Monterey cypress	53	4	Moderate	Multiple attachments @ 18'; slight lean NE.; crown
50	Monterey cypress	68	4	Moderate	Flat-topped; upright laterals; reduced N. for overhead
59	Monterey cypress	50	3	Low	One-sided to W.; pruned for overhead utilities.
401	Blackwood acacia	13	3	Low	Leans SE.; history of branch failures.
402	Blackwood acacia	9	2	Low	Leans E.; declining.
403	Blackwood acacia	6	2	Low	Windswept SE.; small crown.
404	Blackwood acacia	15	3	Moderate	Multiple attachments at 10’; windswept SE.
405	Blackwood acacia	10	2	Low	Leans E.; very sparse crown.
406	Blackwood acacia	13	3	Low	Ganoderma at base E.; basal swelling; dead branches to
407	Blackwood acacia	19,14,12,12,11	3	Low	Multiple attachments at base; weak attachments; one stem forms lateral S.
408	Blackwood acacia	26	3	Low	Codominant trunks at 5’; one stem topped; narrow form;
409	Blackwood acacia	15,15	3	Low	Codominant trunks at 2’; wide attachment; poor form; dieback.
410	Blackwood acacia	26	3	Low	Codominant trunks at 2’; wide attachment; long laterals E. & W.
411	Blackwood acacia	22,15	2	Low	Codominant trunks at 4’; leaning & one sided E.; moderate dieback.
412	Coast redwood	11	2	Low	Topped for overhead utilities; declining.
413	Coast redwood	9,8	2	Low	Codominant trunks at base; topped for overhead utilities;
414	River red gum	11,7	2	Low	Codominant trunks at base; topped for overhead utilities.

Tree Assessment

Crocker Amazon Playground
San Francisco, California
October 2021

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TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
415	River red gum	15,12,11,8	2	Low	Multiple attachments at base; one sided SW.; topped for overhead utilities.
416	River red gum	11,4,4	2	Low	Codominant trunks at base; topped for overhead utilities.
417	Monterey cypress	40	4	Moderate	Slight lean SW.; laterals; minor dieback.
418	Monterey cypress	37	3	Moderate	Slight lean NE.; stems removed at 8'; moderate dieback.
419	Monterey cypress	37	3	Moderate	Very one sided E.; a little sparse.
420	Monterey cypress	33	3	Low	Codominant trunks in upper crown; stems cross; poor structure.
421	Monterey cypress	53	3	Moderate	One sided SE.; good tree; moderate dieback.
422	Monterey pine	32	1	Low	Little remains; poor form.
423	Monterey pine	38	3	Low	Codominant trunks at 30'; narrow, upright form; moderate dieback.
424	Monterey pine	30	2	Low	High crown; bowed E.
425	Monterey cypress	33	3	Moderate	Crowded; crowded; intertwined w/ #426; narrow form
426	Blue gum	76	3	Moderate	Multiple attachments at 15'; windswept E.; dead branches to 2".
427	Monterey cypress	59	4	Moderate	Multiple attachments at 20'; upright form; history of branch failures; dead branches to 6".
428	Monterey cypress	16	4	High	Slight lean E.; good young tree.
429	Blue gum	66	3	Moderate	Multiple attachments at 20'; windswept E.; epicormics; dead branches to 2".
430	Monterey cypress	52	3	Low	Stem removed N. w/ decay column below; one sided W.; sparse crown.
431	Monterey cypress	46	4	Moderate	Crowded; upright, narrow form; small dead branches over path.
432	Blue gum	64	3	Moderate	Multiple attachments at 15'; good form; twig dieback.

Tree Assessment

Crocker Amazon Playground
San Francisco, California
October 2021

HORT SCIENCE
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TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
433	Monterey cypress	51	4	High	Multiple attachments at 6'; good form and structure; a little sparse.
434	Monterey cypress	60	4	Moderate	Multiple attachments at 6'; upright form; a little sparse.
435	Monterey cypress	47	3	Moderate	One sided SW.; laterals over path; a little sparse.
436	Monterey cypress	60	4	Moderate	Multiple attachments at 6'; upright; narrow form; small hangers/dead branches.
437	Monterey pine	40	3	Moderate	High, sparse crown; corrected lean SE.
438	Monterey cypress	34	3	Moderate	Multiple attachments at 15'; one sided W.
439	Monterey pine	41	3	Low	High crown; history of branch failures; dead branches to 5".
440	Monterey cypress	43	4	Moderate	Multiple attachments at 10'; upright, narrow form; laterals S. over path reduced.
441	Monterey cypress	60	4	Moderate	Multiple attachments at 5'; upright form; E stem bowed away from others; displaced v-ditch 6".
442	Monterey cypress	50	3	Moderate	Crowded; corrected lean W.; reduced S. over path.
443	Monterey cypress	82	4	Moderate	Multiple attachments at 15'; upright form; history of branch failures; small laterals.
444	Monterey cypress	60	4	Moderate	Multiple attachments at 8'; crowded & one sided N.
445	Monterey cypress	48	3	Moderate	Multiple attachments at 12'; crowded; narrow form; lateral NE. bowed.
446	Monterey cypress	45	3	Moderate	Crowded; very one sided S.; sparse crown.
447	Monterey cypress	37	2	Low	High crown; very sparse crown.
448	Monterey cypress	53	4	Moderate	Multiple attachments at 20'; narrow attachments; crowded & one sided S.
449	Monterey cypress	53	3	Low	Crowded; one sided E.; moderate dieback.

Tree Assessment

Crocker Amazon Playground
San Francisco, California
October 2021

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TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
450	Blue gum	60	4	Moderate	Multiple attachments at 10'; one sided S.; laterals S. reduced; twig dieback.
451	Monterey cypress	46	4	Moderate	Multiple attachments at 15'; good form; a little sparse; reduced.
452	Blue gum	16	2	Low	Poor form and structure; trunk wounds & decay.
453	Blue spruce	17	5	High	Good form and structure; small girdling roots.
454	Monterey cypress	16,10	3	Moderate	On slope; crowded & one sided NW.
455	Monterey cypress	9	3	Moderate	On slope; upright form.
456	Monterey cypress	12	3	Moderate	On slope; upright, narrow form.
457	Monterey cypress	16	3	Low	On slope; lost top; very one sided W.
458	Monterey cypress	7	2	Low	On slope; lost top; small crown.
459	Monterey cypress	12	1	Low	On slope; mostly dead.
460	Monterey cypress	14	3	Moderate	On slope; crowded & one sided W.
461	Monterey cypress	9	2	Low	On slope; crowded; narrow form.
462	Monterey cypress	8	3	Moderate	On slope; crowded; narrow form.
463	Monterey cypress	7	3	Moderate	On slope; crowded; one sided W.
464	Spider gum	18,12,8	3	Moderate	Multiple attachments at 3'; large shrub; minor chlorosis.
465	Coast redwood	12,10	3	Low	Codominant trunks at base; lost top; declining.
466	Monterey cypress	34	3	Moderate	Multiple attachments at 10'; one sided E.; a little sparse.
467	Monterey cypress	36	4	Moderate	Good form; low lateral W. turns up; recent branch failure E. left stem above cracked.
468	Monterey cypress	22	3	Moderate	Crowded; one sided SW.; a little sparse.
469	Monterey pine	50	2	Low	Codominant trunks at 30'; several long laterals; declining.
470	Spider gum	9	2	Low	Suppressed; crown bowed N.
471	Monterey cypress	19	4	High	Good form and structure; a little sparse.

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
472	Monterey cypress	21	5	High	Good form and structure.
473	Monterey cypress	23	5	High	Good form and structure.
474	Monterey cypress	14,7	4	High	Good form and structure; some bleeding along trunk.
475	Monterey pine	31	2	Low	Codominant trunks at 20'; strong lean S. over path.
476	Monterey cypress	55	3	Moderate	High crown; laterals N. & W.
477	Monterey pine	30	3	Low	Poor form and structure; leans S. over path.
478	Monterey cypress	27	3	Moderate	Crowded; small crown; one sided W.
479	Monterey pine	21	1	Low	Very small, high crown; leans E.
480	Monterey cypress	45	3	Moderate	Crowded; one sided W.; poor form and structure.
481	Monterey cypress	20	2	Low	Crown is formed by one lateral; leans W.
482	Monterey cypress	18	2	Low	One stem removed; decay in lower trunk; what's left is one sided W.
483	Monterey cypress	34	3	Low	Crowded; narrow form; sparse.
484	Monterey cypress	50	4	Moderate	Codominant trunks at 10'; one stem forms low lateral W.; one sided SW.
485	Monterey cypress	50	3	Moderate	Codominant trunks at 10'; upright form; sparse crown.
486	Blue gum	69	3	Moderate	Multiple attachments at 15'; old topping points; reduced but a little one sided N.
487	Monterey cypress	51	4	Moderate	Good form and structure; basal wounds E.; laterals reduced.
488	Monterey cypress	48	3	Moderate	High, small crown; heavily reduced S.
489	Monterey pine	25	2	Low	Lost top; little remains; leans E.
490	Monterey cypress	24	4	High	Crowded; one sided SW.
491	Monterey cypress	21,7,4,4	3	Moderate	Crowded; narrow form.
492	Monterey cypress	26	4	High	Crowded; upright form.
493	Monterey cypress	9	3	Low	Partial failure; sweeps NE. from base.

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
494	Monterey cypress	25	5	High	Good form and structure.
495	Blue gum	74	4	Moderate	Multiple attachments at 15'; spreading form; twig dieback.
496	Blue gum	66	3	Moderate	Codominant trunks at 15'; one sided NE.; dead branches to 7".
497	Blue gum	52	3	Moderate	Codominant trunks at 10'; narrow form; reduced E.; long lateral SW.; twig dieback
498	Monterey pine	53	3	Moderate	Narrow form; long laterals W.; minor dieback.
499	Monterey cypress	28	4	High	Good form and structure; a little crowded by #498.
500	Monterey cypress	23	3	Moderate	Small crown; basal cavity W.
501	Blue gum	52	3	Moderate	Multiple attachments at 10'; crowded; leaning & one sided N.; twig dieback
502	Blue gum	75	3	Moderate	High, asymmetric crown; cavity at 10' N. w/ active bee hive; long, heavy laterals E. over path.
503	Blue gum	71	2	Low	Multiple attachments at 25'; wounds & decay on lower trunk; sulfur fungus.
504	Monterey cypress	24	4	Moderate	Crowded; one sided E.
505	Monterey pine	50	2	Low	High, asymmetric crown; dieback.
506	Monterey cypress	23	3	Moderate	Crowded; narrow form.
507	Monterey pine	45	1	Low	Poor form; extensive dieback.
508	Monterey cypress	28	3	Moderate	Crowded; leans E.; a little sparse.
509	Monterey cypress	27	3	Moderate	Crowded; one sided E.; low laterals.
510	Monterey cypress	38	3	Moderate	Multiple attachments at 10'; one sided W.; laterals.
511	Monterey cypress	29	3	Moderate	Narrow, asymmetric form; lost top; one sided W.; laterals.
512	Monterey pine	41	3	Moderate	Codominant trunks at 15'; high crown; one sided E.

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
513	Monterey cypress	24	3	Moderate	Narrow, asymmetric form; laterals.
514	Monterey cypress	26	3	Moderate	Suppressed; lost top; asymmetric form.
515	Blue gum	75	3	Low	Codominant trunks at 10'; vase shape form; extensive dieback.
516	Monterey cypress	28	3	Moderate	Crowded; leaning & one sided E.; a little sparse.
517	Monterey cypress	22	4	Moderate	Crowded; leaning & one sided E.
518	Blue gum	42	2	Low	Slight lean E.; reduced W.; extensive dieback.
519	Blue gum	43	2	Low	Slight lean E.; topped; poor form and structure; extensive dieback.
520	Blue gum	42	3	Moderate	Narrow form; moderate dieback.
521	Monterey cypress	46	4	Moderate	Codominant trunks at 12'; one sided E.; laterals reduced over path.
522	Monterey cypress	50	3	Moderate	Lost top; very one sided SE.
523	Blue gum	45	3	Moderate	Multiple attachments at 30'; leans & one sided SW.; moderate dieback.
524	Blue gum	37	3	Moderate	Multiple attachments at 20'; narrow form; moderate dieback.
525	Blue gum	40	3	Moderate	Codominant trunks at 20'; high crown; laterals E.; moderate dieback.
526	Blue gum	41	2	Low	Small crown; all weight W. over ball field; extensive dieback.
527	Blue gum	36	2	Low	Poor form and structure; only laterals E. remain.
528	Blue gum	34	3	Low	Growing at top of wall; pillowing over wall; sulfur fungus where stem removed E.
529	Blue gum	42	3	Moderate	Multiple attachments at 15'; narrow form; slight lean E.
530	Blue gum	41,11	3	Moderate	Multiple attachments at 10'; leans E.; reduced W.

Tree Assessment

Crocker Amazon Playground
San Francisco, California
October 2021

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TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
531	Blue gum	20	2	Low	Codominant trunks at 6'; one stem topped; poor form.
532	Blue gum	38	3	Moderate	Multiple attachments at 15'; leaning & one sided E.; large surface root.
533	Blue gum	22	2	Low	Crowded; leans NE.; poor form.
534	Blue gum	29	2	Low	Codominant trunks at 10'; leans E.; poor form.
535	Blue gum	42	3	Moderate	Codominant trunks at 12'; slight lean E.; narrow form; twig dieback.
536	Blue gum	25	2	Low	Crowded; very one sided E.; poor form; large surface root.
537	Blue gum	37	3	Moderate	Codominant trunks at 15'; slight lean E.; upright, narrow form; twig dieback; base growing against curb W.
538	Blue gum	37	3	Moderate	Multiple attachments at 15'; one sided E.; stems fused; twig dieback.
539	Blue gum	27	2	Low	Crowded; poor form; dieback.
540	Blue gum	45,32	3	Moderate	Codominant trunks at 4'; one sided E.; basal cavities; twig dieback; base growing against curb W.
541	Blue gum	14	0	Low	Dead.
542	Blue gum	39	3	Low	Multiple attachments at 15'; one sided E.; long laterals; twig dieback.
543	Blue gum	23	2	Low	Crowded; narrow form; extensive dieback.
544	Blue gum	21	3	Low	Crowded; upright, narrow form; dieback.
545	Blue gum	37	3	Moderate	Codominant trunks at 15'; one stem upright; one stem forms lateral W. over courts.
546	Blue gum	21	2	Low	Crowded; leans E.; poor form.
547	Blue gum	40,27,24	3	Moderate	Multiple attachments at base; large stem upright and good; other stems suppressed; leaning E. & poor.

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
548	Blue gum	23	2	Low	Crowded; narrow form; extensive dieback.
549	Blue gum	47	3	Moderate	Codominant trunks at 20’; high crown; slight lean NE.
550	Blue gum	15	1	Low	Topped at 10’; little remains.
551	Blue gum	13	1	Low	Dead top; little remains.
552	Blue gum	16	1	Low	Leans E.; poor form; extensive dieback.
553	Blue gum	30	3	Moderate	Codominant trunks at 8’; narrow form; reduced W.
554	Blue gum	22	1	Low	Failed at base; leans NE. but hung up in neighbors.
555	Blue gum	34	3	Low	Codominant trunks at 12’; poor form; dieback.
556	Blue gum	37	3	Low	Codominant trunks at 8’; one sided E.; poor form; sulfur fungus at base S.; dieback.
557	Blue gum	55	3	Moderate	Codominant trunks at 6’; narrow form; dieback.
558	Blue gum	32	2	Low	Strong lean N.; crown reduced.
559	Blue gum	27	2	Low	Crowded; one sided & leans NE.; topped.
560	Blue gum	56	3	Moderate	Multiple attachments at 15’; good form; ganoderma at 2’ NE.; dieback.
561	Myoporum	21	3	Moderate	Multiple attachments at 7’; dense crown; basal cavity.
562	Monterey pine	29	2	Low	Codominant trunks at 12’; mostly dead.
563	Hopseed bush	6,3	3	Low	Leans NE. against railing; small crown.
564	Monterey pine	65	3	Low	Codominant trunks at 4’; reduced S.; moderate dieback.
565	Olive	6,4	4	High	Codominant trunks at 3’; leans SE.
566	Olive	9	4	Moderate	Codominant trunks at 6’; crown bowed S.
567	Monterey cypress	44	4	High	Good form and structure; low laterals E.

Tree Assessment Plan

Crocker Amazon Athletic Fields San Francisco, Ca

Prepared for:
San Francisco Recreation and Park Department

October 2021

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No Scale

Notes:
Base map provided by:
San Francisco Public Works

Numbered tree locations with no survey point were approximately located in the field.

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