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Ecological Consultants

**Google Caribbean Campus
200 Caribbean
Biological Resources Report**

Project #3475-45

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Section 1. Introduction

This report provides a preliminary assessment of special-status and protected plant and wildlife species that potentially occur in the area of Google's Caribbean Campus.

The approximately 32.4 -acre project site is located in Sunnyvale, California on the *Mountain View, California* U.S. Geological Survey quadrangle, and is bounded to the north by West Caribbean Drive, to the west by North Mathilda Avenue, to the south by commercial development and Bordeaux Drive, and to the east by the Sunnyvale West Channel (Figure 1). The City of Sunnyvale Water Pollution Control Plant (WPCP) is located to the north across West Caribbean Drive from the site. The project site is developed with light industrial and commercial uses, and the current buildings on the site are generally offices and warehouses with associated parking.

In addition to this site, a Biological Resources Report was developed for the Google West Borregas Campus across the West Channel (east) from the Caribbean project site (H. T. Harvey & Associates 2019a). The Sunnyvale West Channel, which is owned and maintained by the Santa Clara Valley Water District (SCVWD), flows south to north along the eastern boundary of the Caribbean project site. The overall project comprises the Caribbean project site, the West Borregas project site and the portion of the Caribbean Campus project site bounded by both projects. As is the case with West Borregas, the West Channel portion of the overall project is covered under a separate biological resources report (H. T. Harvey & Associates, 2019b). Thus, biological resources for the entire project comprising the three project components, Caribbean, West Borregas and the relevant portion of the Sunnyvale West Channel were all addressed.

It is our understanding that Google is considering redevelopment of the Caribbean Campus and that the City of Sunnyvale is expected to require the submittal of a biological resources report analyzing potential impacts on nesting birds and other special-status and protected plant and wildlife species. This report evaluates the special-status and protected plant and wildlife species that may potentially be impacted by future redevelopment of Google's Caribbean Campus.

The City of Sunnyvale Land Use and Transportation Element Environmental Impact Report (LUTE EIR) analyzes the potential environmental effects associated with the implementation of the LUTE, which is an element of the City of Sunnyvale General Plan. The EIR analysis focuses on environmental impacts that could arise through development of the land uses in Sunnyvale as regulated and guided by the LUTE. The EIR was prepared as a program EIR per CEQA guidelines Section 15168. Thus, any impacts previously analyzed by the LUTE EIR will be acknowledged, in this report, as being covered under the LUTE program EIR. Any impacts not covered by the LUTE EIR will be identified as such within this report.



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Figure 1. Habitats Map
Google Caribbean Campus Biological Resources Report (3475-45)
August 2019

1.1 Special-Status and Protected Species

For the purpose of this assessment, *special-status* and *protected* plants are considered plant species that are:

- Listed under the Federal Endangered Species Act (FESA) as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under the California Endangered Species Act (CESA) as threatened, endangered, rare, or a candidate species.
- Listed by the California Native Plant Society (CNPS) as California Rare Plant Rank (CRPR) 1A, 1B, 2, 3, or 4.

For the purpose of this assessment, *special-status* and *protected* animals are considered animal species that are:

- Listed under FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under CESA as threatened, endangered, or a candidate threatened or endangered species. Designated by the California Department of Fish and Wildlife (CDFW) as a California species of special concern.
- Listed in the California Fish and Game Code as fully protected species (fully protected birds are provided in Section 3511, mammals in Section 4700, reptiles and amphibians in Section 5050, and fish in Section 5515).
- Bird species protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.
- Bat species protected under the California Fish and Game Code.

Section 2. Methods

Prior to conducting field work, H. T. Harvey & Associates ecologists reviewed aerial images (Google Inc. 2017); a U.S. Geological Survey (USGS) topographic map; the CDFW's California Natural Diversity Database (CNDDB) (2017); and other relevant reports, scientific literature, and technical databases. Previous reports prepared for the project site and vicinity were also reviewed, including the *Google Caribbean Campus Arborist Report* (H. T. Harvey & Associates 2019c; Appendix A) and *Sunnyvale East and West Channels Flood Protection Project Final Environmental Impact Report* (SCVWD 2014). For the purposes of this report, the "site vicinity" encompasses a 5-mile radius surrounding the project site.

In addition, for plants, we reviewed all species on current CNPS CRPR 1A, 1B, 2A, and 2B lists occurring in the project region, which is defined as the *Mountain View, California* USGS 7.5-minute quadrangle and surrounding eight quadrangles (*Redwood Point, Newark, Niles, Palo Alto, Milpitas, Mindego Hill, Cupertino, and San Jose West*). Quadrangle-level results are not maintained for CRPR 3 and 4 species, so we also conducted a search of the CNPS Inventory records for these species occurring in Santa Clara County (CNPS 2017). For birds, we also perused records reported in nearby areas, such as at the Sunnyvale Baylands Park and Sunnyvale Water Pollution Control Plant on eBird (Cornell Lab of Ornithology 2017) and on the South-Bay-Birds List Serve (2017).

Following our background review, H. T. Harvey & Associates wildlife ecologist Robin Carle, M.S., conducted a reconnaissance-level survey of the Caribbean Campus site upland areas and the West Channel on March 24, 2017 and the West Channel additionally on July 18, 2017 and Scott Terrill, Ph.D., conducted a site visit on February 5, 2019 to evaluate the current habitats associated with the channel. The purpose of these surveys was to identify existing biological conditions and the site's potential to support special-status and protected plants and animals. The surveys included an assessment of habitats for these species both on the Caribbean campus site, the West Channel and adjacent areas (e.g., in developed and landscaped areas on adjacent properties) that could be impacted either directly or indirectly by proposed activities, as well as an assessment of adjacent habitats that could potentially support source populations of sensitive species that could be affected by future redevelopment of the site (e.g., habitat on adjacent sites that may be used as breeding habitat by burrowing owls [*Athene cunicularia*]). The biological resources of the West Channel are covered in a separate biological resources report (H. T. Harvey & Associates 2109a).

Section 3. Existing Conditions

The project site and surrounding areas have been heavily disturbed by anthropogenic activities as a result of urbanization and the development of commercial buildings.

The reconnaissance-level survey identified two general habitat types on the site: developed/landscaped and ruderal grassland. Approximately 32.2 acres, or 99%, of the site is developed, consisting of asphalt pavement and existing commercial buildings with associated landscaping (Photos 1 and 2). A complete list of trees on the project site is provided in the arborist report for the project (Appendix A). Non-native tree species on the site include Canary Island pine (*Pinus canariensis*), lemonwood (*Pittosporum eugenoides*), glossy privet (*Ligustrum lucidum*), carob (*Ceratonia siliqua*), eucalyptus (*Eucalyptus* spp.), and liquidambar (*Liquidambar styraciflua*). The

only locally native trees on the site are four coast live oaks (*Quercus agrifolia*) located on the eastern boundary of the site along the Sunnyvale West Channel. Landscaped areas also contained a variety of non-native plants and shrubs, such as oleander (*Nerium oleander*), as well as ground cover, such as grass lawns and English ivy (*Hedera helix*). The existing conditions of the West Channel are covered in H. T. Harvey & Associates 2019).



Photo 1. Developed/Landscaped Land Cover Type on the Project Site



Photo 2. Typical Non-Native Trees on the Site

The areas of ruderal grassland habitat on the site are extremely small, comprising 0.1 acre (1% of the project site), and are associated with a long strip of ruderal grassland habitat that occurs along the Sunnyvale West Channel (Photo 3, Figure 1). This habitat is dominated by non-native grasses such as wild oat (*Avena* sp.) and ripgut brome (*Bromus diandrus*), as well as weedy forbs such as wild radish (*Raphanus sativus*), sow thistle (*Sonchus* sp.), cutleaf geranium (*Geranium dissectum*), and cheeseweed (*Malva parviflora*).

Wildlife species that are associated with the project site include species that are accustomed to urban environments and high levels of human disturbance. Native bird species observed during the March 2017 site visit included the black phoebe (*Sayornis nigricans*), mourning dove (*Zenaida macroura*), lesser goldfinch (*Spinus psaltria*), Anna's hummingbird (*Calypte anna*), dark-eyed junco (*Junco hyemalis*), bushtit (*Psaltiriparus minimus*), house finch (*Haemorhous mexicanus*), California scrub-jay (*Aphelocoma californica*), and California towhee (*Melospiza crissalis*). Each of these species may use the trees, shrubs, or ground vegetation on the site for nesting. Mammal species expected to use the site include the nonnative black rat (*Rattus rattus*) and Virginia opossum (*Didelphis virginiana*), as well as the native striped skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*). Native western fence lizards (*Sceloporus occidentalis*) are also common in developed areas.



Photo 3. Ruderal Grassland Habitat on the Project Site

Wildlife use of grasslands on the project site is limited by human disturbance, the small extent of the grassland area, and the isolation of these habitat remnants from more extensive grasslands. Many of the species that occur in this habitat occur primarily in adjacent urban areas and use these grasslands for foraging. Such species include the house finch, bushtit, and lesser goldfinch, which forage on seeds in ruderal areas, and the black phoebe, cliff swallow (*Petrochelidon pyrrhonota*), and Mexican free-tailed bat (*Tadarida brasiliensis*), which forage aerially over ruderal habitats for insects. Burrows of small mammals, including California ground squirrels, were not present in this area during the March 2017 focused survey.

No nests of raptors (e.g., hawks, falcons, and owls) were observed on the site or in adjacent areas. A red-tailed hawk (*Buteo jamaicensis*) carrying nesting material was observed flying to the north of the site, but this bird carried the material off to the west and did not land in any trees on the project site. Numerous large trees on the site are suitable for nesting by raptors, and due to the presence of large areas of open grassland foraging habitat for these species associated with the WPCP immediately to the north, there is a moderate possibility that raptors may nest on or near the project site.

No signs of the presence of roosting bats (e.g., guano, urine staining, or visual or auditory detections of bats) were observed on the existing buildings on the site. The majority of these buildings are occupied and are unlikely to provide suitable roosting habitat for bats due to regular human disturbances and a lack of crevices through which bats can potentially enter.

Section 4. Summary of Special-Status and Protected Plant and Wildlife Species with Potential to be Impacted by the Project

4.1 Special-Status and Protected Plants

The CNDDDB (2017) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2017) were queried for rare plant species that occur in the project region. The majority of potentially occurring rare plant species were determined to be absent from the project site for at least one of the following reasons: (1) absence of suitable habitat types; (2) lack of specific microhabitat or edaphic requirements, such as serpentine soils; (3) the elevation range of the species is outside of the range on the site; and/or (4) the species is presumed extirpated from the project region. Based on this analysis and the habitat types observed during the site survey, Congdon's tarplant, which has a CNPS Rare Plant Ranking of 1B.1 (seriously threatened in California), was the only special-status plant species determined to have the potential to occur on the site. A discussion of this species follows.

4.1.1 Congdon's Tarplant

Congdon's tarplant is an annual herb in the composite family (Asteraceae) that is endemic to California. It has a variable blooming period extending from May through November. Congdon's tarplant occurs in valley and foothill grassland habitat, floodplains, and swales (particularly those with alkaline substrates) and in disturbed areas with non-native grasses (CNDDDB 2017, CNPS 2017, Baldwin et al. 2012). The CNDDDB has recorded two occurrences of Congdon's tarplant in buffer lands within 2.0 mile of the site (CNDDDB 2017), and the species can persist in disturbed grassland habitats such as the ruderal habitat on the project site. The closest occurrences of the species to the project site (CNDDDB occurrences #41 and 102) are located approximately 1.3 mile to the west at Moffett Federal Airfield and 1.3 mile to the east at the Sunnyvale Baylands Park in disturbed grasslands (CNDDDB 2017). Thus, the ruderal grassland habitat on the project site could potentially support this special-status plant species, as suitable habitat is present on the site and populations of the species are present in similar habitats nearby. However, protocol-level surveys conducted by H. T. Harvey & Associates staff in August 2012 along the Sunnyvale West Channel, which included the area of ruderal grassland habitat on the project site, did not detect this species (SCVWD 2014), and there have been no changes to this habitat since the surveys were performed to indicate the species would now be present. Thus, **Congdon's tarplant is determined to be absent** from the project site.

4.2 Special-Status and Protected Animals

The dense urban surroundings and absence of specific habitat features favored by various special-status wildlife species make the site unsuitable for the vast majority of special-status wildlife species that occur in the region. The only special-status animal species that could potentially reside on the site or close enough to the site to be affected by the project are the burrowing owl and white-tailed kite (*Elanus leucurus*).

4.2.1 Burrowing Owl

The burrowing owl, a California species of special concern, occurs year-round in the Santa Clara Valley (Trulio 2007) and is commonly present in open, agricultural, or grassland areas with active burrows of California ground squirrels. They exhibit strong site fidelity, and may return to a nesting site and attempt to nest even after the site has been developed. However, burrowing owls are increasingly disappearing from “infill” locations on the urban Santa Clara Valley floor. In the 1990s, prior to development of the site, burrowing owls were known to occur on, or at least in the immediate vicinity of, a larger tract of land that included the project site. There are no recent records of burrowing owls from the project site, although burrowing owls are known to currently occur in several locations in the site vicinity. Burrowing owls are known to occur in grassland areas surrounding the WPCP within 0.2 mile of the project site (Cornell Lab of Ornithology 2017). Several historical records of burrowing owls overlap the project site, and burrowing owls are known to occur more recently at the Moffett Federal Airfield 1.0 mile to the west, the WPCP to the north, and Twin Creeks Sports Complex/Sunnyvale Baylands Park 0.9 mile to the east (CNDDDB 2017). However, our focused survey of the project site in March 2017 did not detect any burrowing owls, suitable habitat for owls (i.e., burrows of California ground squirrels) or signs of owl presence (e.g., feathers, whitewash, or pellets) on the project site.

Suitable nesting and roosting habitat for burrowing owls is absent from the site due to the lack of burrows of California ground squirrels and the extremely narrow strip of ruderal habitat available to support this species. However, this ruderal habitat provides ostensibly suitable foraging habitat for burrowing owls that may nest or roost in nearby areas at the WPCP. Albion Environmental (2008) assessed the potential impact of the SCVWD’s proposed burrow management under the Stream Maintenance Program on burrowing owls, which included an assessment of the Sunnyvale West Channel. Because no evidence existed that SCVWD levees provided important burrowing owl nesting or roosting habitat (i.e., used regularly or by a sizeable proportion of the South San Francisco Bay population), Albion Environmental concluded that management of burrows on the SCVWD’s levees would not result in a substantial impact on burrowing owl habitat. Thus, although ostensibly suitable foraging habitat for burrowing owls occurs along the Sunnyvale West Channel on the project site, the potential for project activities to impact burrowing owls and their habitat is expected to be relatively low.

Burrowing Owls are a special-status species covered under the LUTE EIR. This species (including eggs and young) is protected under the federal Migratory Bird Treaty Act and under Section 3503 and 3513 of the California Fish and Game code. Suitable nesting and roosting habitat for burrowing owls occurs within 250 feet of the site at the WPCP and burrowing owls are known to occur in this area. There is some potential for construction activities that occur in close proximity to active burrows to disturb owls to the point of abandoning their burrows. Based on the density of known occurrences of burrowing owls at the WPCP, up to one pair of owls could potentially nest or roost at the WPCP within 250 feet of the site. Therefore, to comply with federal and state law, pre-construction surveys for burrowing owls shall be conducted prior to the initiation of all Project activities within suitable burrowing owl habitat (i.e., ruderal/grassland habitat with burrows of California ground squirrels on the WPCP/Landfill site) within 250 feet of project activities. Pre-construction surveys will be completed in conformance with the CDFW’s 2012 guidelines (CDFG 2012). An initial habitat

assessment will be conducted by a qualified biologist to determine if suitable burrowing owl habitat (suitable burrows) is present in the buffer zone as access is allowed. During the initial site visit, a qualified biologist will survey the entire buffer area for suitable burrows that could be used by burrowing owls for nesting or roosting. If no suitable burrowing owl habitat (i.e., ruderal grasslands with burrows of California ground squirrels) is present within the 250 buffer zone area, no additional surveys will be required. If suitable burrows are determined to be present within 250 feet of work areas, a qualified biologist will conduct three additional surveys to investigate each burrow within the survey area for signs of owl use, and to determine whether owls are present in areas where they could be affected by proposed activities. The final survey shall be conducted within the 24-hour period prior to the initiation of Project activities in any given area. Because Project activities may be phased, these survey efforts may also need to be performed in phases to ensure that burrowing owls are not present within 250 feet of work areas when Project activities commence.

If burrowing owls are present during the non-breeding season (generally September 1 to January 31), a 150-foot buffer zone shall be maintained around the occupied burrow(s), if feasible. If maintaining such a buffer is not feasible, then the buffer must be great enough to avoid injury or mortality of individual owls, or else the owls should be passively relocated in consultation with the California Department of Fish and Wildlife. During the breeding season (generally February 1 to August 31), a 250-foot buffer, within which no new Project-related activities will be permissible, will be maintained between Project activities and occupied burrows. Owls present between February 1 and August 31 will be assumed to be nesting, and the 250-foot protected area will remain in effect until August 31. If monitoring evidence indicates that the owls are no longer nesting or the young owls are foraging independently, the buffer may be reduced or the owls may be relocated prior to August 31, in consultation with the CDFW.

4.2.2 White-Tailed Kite

As noted in the LUTE EIR, the white-tailed kite is a state fully protected species, and, this species (including eggs and young) is protected under the federal Migratory Bird Treaty Act and under Section 3503 and 3513 of the California Fish and Game code. In California, white-tailed kites can be found in the Central Valley and along the coast in grasslands, agricultural fields, cismontane woodlands, and other open habitats (Zeiner et al. 1990, Dunk 1995, Erichsen et al. 1996). White-tailed kites are year-round residents of the state, establishing nesting territories that encompass open areas with healthy prey populations and snags, shrubs, trees, or other substrates for nesting (Dunk 1995). Nonbreeding birds typically remain in the same area over the winter, although some movements do occur (Polite 1990). The presence of white-tailed kites is closely tied to the presence of prey species, particularly voles, and prey base may be the most important factor in determining habitat quality for white-tailed kites (Dunk and Cooper 1994, Skonieczny and Dunk 1997). Although the species recovered after population declines during the early 20th century, its populations may be exhibiting new declines because of recent increases in habitat loss and disturbance (Dunk 1995, Erichsen et al. 1996).

White-tailed kites are common residents in less-developed portions of the project region where open grassland, ruderal, or agricultural habitats are present. No white-tailed kites, or potential nests of this species, were observed on the site during the March 2017 focused survey. However, this species occurs year-round at the

WPCP to the north and at the Sunnyvale Baylands Park approximately 1.1 mile to the east. Large trees on the site, especially along West Caribbean Drive, provide potential nesting sites for this species, and additional large trees are present along the north side of West Caribbean Drive at the southern boundary of the WPCP. These trees provide suitable sites for nesting by up to one pair of white-tailed kites, and this species may forage in the open grassland habitat along the Sunnyvale West Channel on the project site year-round.

Based on our site observations, the areal extent of the study area, and known breeding densities of these species, it is likely that no more than one pair of white-tailed kites could potentially nest in the vicinity of the project site. Therefore, to comply with state and federal law, if project construction cannot occur outside the breeding season (February 1 to August 31) surveys will be conducted for active white-tailed kite nests within 300 feet of the project construction area. If an active kite nest is found, a 300 foot (or an alternative buffer area established via consultation with the California Department of Fish and Wildlife) non-construction buffer area shall be established between the nest and project construction activities.

4.2.3 Nesting Birds

As noted in the LUTE EIR, native bird species are protected under the Migratory Bird Treaty Act and the California Fish and Game Code and protected species may nest in trees, shrubs, or on buildings on or immediately adjacent to the project site. Redevelopment of the site has the potential to result in the direct injury or mortality of common, native birds, especially eggs or young in nests. For instance, disturbance, building demolition, and vegetation removal that takes place during the nesting season (i.e., February 1 through August 31) could result in the removal of active bird nests. In addition, increased disturbance near active nests could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Common (i.e., non-special-status) bird species that may nest on the site include the black phoebe, mourning dove, lesser goldfinch, Anna's hummingbird, dark-eyed junco, bushtit, house finch, California scrub-jay, and California towhee. All of these species are abundant to fairly common in the region (Bousman 2007). Based on site observations, the areal extent of the site, and the density at which these birds typically nest in the region, one to a few pairs of each of these species could potentially nest on or adjacent to the site.

The removal of vegetation or demolition of a building supporting active nests may cause the direct loss of eggs or young, while construction-related activities located near an active nest may cause adults to abandon their eggs or young. This type of impact would not be significant under CEQA, in our opinion, because of the local and regional abundances of the species that could potentially nest on the site and the very low magnitude of the potential impact of development on these species (i.e., the project is expected to impact only a few pairs of these species, at most, which is not a substantial impact on their regional populations). However, the following measures should be implemented to ensure that project activities do not violate the MBTA or California Fish and Game Code.

Measure 1. Avoidance of the Nesting Season. To the extent feasible, commencement of demolition and construction activities should be scheduled to avoid the nesting season. If demolition and construction activities are scheduled to take place outside the nesting season, all potential demolition/construction impacts on nesting

birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31.

Measure 2. Pre-Activity/Pre-Disturbance Surveys. If it is not possible to schedule demolition and construction activities between September 1 and January 31, then pre-activity surveys for nesting birds should be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. We recommend that these surveys be conducted no more than seven days prior to the initiation of demolition or construction activities. During this survey the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, and buildings) in and immediately adjacent to the impact areas for nests.

Measure 3. Non-Disturbance Buffers. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for diurnal raptors, including the white-tailed kite, 250 feet for burrowing owl nests and active burrows, and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.

Measure 4. Inhibition of Nesting. If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This will preclude the initiation of nests in this vegetation, and minimize the potential delay of the project due to the presence of active nests in these substrates.

4.2.4 Roosting Bats

The office buildings on the site provide ostensibly suitable roosting habitat for colonies of common species of bats, possibly including the Yuma myotis (*Myotis yumanensis*) and Mexican free-tailed bat. All bat species in California are protected under the California Fish and Game Code. Bats do not commonly roost in office buildings and warehouses such as those on the project site, but if these buildings are unoccupied for extended periods of time and crevices are present through which bats can enter and exit, there is a very low possibility that bats could colonize one or more of these buildings.

4.3 Potential Impacts Due to Avian Collisions with New Buildings

It has been well documented that glass windows and building facades can result in injury or mortality of birds due to birds' collisions with these surfaces. Because birds do not perceive glass as an obstruction the way humans do, they may collide with glass when the sky or vegetation is reflected in glass (e.g., they see the glass as sky or vegetated areas); when transparent windows allow birds to perceive an unobstructed flight route through the glass (such as at corners); and when the combination of transparent glass and interior vegetation (such as in planted atria) results in attempts by birds to fly through glass to reach that vegetation. Building exterior and interior lighting can also attract birds, causing them to collide with structures. The greatest risk of

avian collisions with buildings occurs in the area within 40–60 feet of the ground, because this is the area in which most bird activity occurs (Sheppard and Phillips 2015). Very tall buildings (e.g., buildings 500 feet or higher) may pose a threat to birds that are migrating through the area, particularly to nocturnal migrants that may not see the buildings or that may be attracted to lights on the buildings (San Francisco Planning Department 2011). These risks are highest for buildings in or near areas of high avian activity or movement, such as migratory corridors, large open spaces, large water bodies, and riparian habitats.

Under existing conditions, terrestrial land uses and habitat conditions on the project site and in surrounding areas consist primarily of urban development such as low- and mid-rise buildings (i.e., 1–6 stories), parking lots, and roads. Vegetation in these areas is very limited in extent, and consists primarily of non-native landscaped trees and shrubs. Non-native vegetation supports fewer of the resources required by native birds than native vegetation, and the structural simplicity of the vegetation (without well-developed ground cover, understory, and canopy layers) further limits resources available to birds. In contrast, the buffer lands of the WPCP, located approximately 95 feet north of the project site across West Caribbean Drive, provide an area of extensive grassland habitat for large numbers of resident and migratory bird species. Birds attracted to the extensive grasslands north of the project site may utilize or fly through urban areas, but are expected to do so primarily when large natural areas are present on or immediately adjacent to a site to provide resources for these species. The Sunnyvale West Channel is located immediately adjacent to the site, but this channel does not provide important habitat for birds (i.e., extensive tree cover), although the planned increased landscaping with native vegetation will result in increased habitat value to birds, or a migratory corridor via which birds can travel to reach other natural areas upstream. No parks or other natural areas are located on or immediately adjacent to the project site. The nearest natural areas the Sunnyvale Baylands Park approximately 1.1 mile to the east and Moffett Federal Airfield located approximately 0.7 mile to the west. These areas provide important habitat for birds, but are separated from the project site by dense urban development, and the site is not located in an area where large numbers of birds traveling between the WPCP buffer lands, Sunnyvale Baylands Park, and/or Moffett Federal Airfield are expected to travel. Thus, the large numbers of birds expected to occur in the region in association with the WPCP buffer lands, Sunnyvale Baylands Park, and Moffett Federal Airfield are not expected to make substantial use of the site or travel through the site when en route between natural areas in the region. However, resident, wintering and migrant birds attracted to local habitats, including vegetation on the site could be a risk of collisions with buildings. Therefore, in accordance with The Sunnyvale Bird Safe Building Guidelines and the LUTE EIR, which refers to these guidelines, The Google Caribbean design team worked with Senior Ornithologist Scott Terrill, PhD and Ornithologist Robin Carle, both of whom have worked on bird-safe design and management for a number of projects in the South Bay region, to identify areas of the buildings that were likely to pose a notable risk to birds (transparent glass facades near vegetation and open space areas, transparent corners, etc. The ornithologists worked with the design team to incorporate bird-safe cues into the glass in those areas. The ornithologists also advised on the placement of vegetation to minimize bird strikes and on bird-safe lighting, all of which have been incorporated into the project. This approach was based on the overall approach developed by the City of San Francisco Standards for Bird-Safe Buildings (San Francisco Planning Department 2011) and the American Bird Conservancy (Sheppard, C. and

G. Phillips 2015), and conforms to the City of Sunnyvale's Bird Safe Building Design Guidelines, which are referenced in the LUTE EIR.

Section 5. Conclusion

Overall, the potential for the project to impact special-status and protected plant and wildlife species is relatively low. Potential impact issues, such as nearby nesting white-tailed kites, burrowing owls, and other birds protected under federal and state law, and bird-window interactions, would be minimized through project design and/or the implementation of standard avoidance and minimization measures (e.g., preconstruction surveys), the City's existing Sunnyvale Bird Safe Building Design Guidelines, and/or applicable measures previously identified, analyzed, and adopted in the LUTE EIR to address these potential impacts.

Section 6. References

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Appendix A. Caribbean Campus Arborist Report



H. T. HARVEY & ASSOCIATES

Ecological Consultants



Google Caribbean Campus

Arborist Report

Project #3475-45



Prepared for:

Google DevCo



Prepared by:

H. T. Harvey & Associates

Matt Pollock

ASCA Registered Consulting Arborist #631

ISA-Certified Arborist WE-11610A

March 15, 2019

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Section 1. Introduction

H. T. Harvey & Associates has prepared this preliminary arborist report, which describes current conditions on a complex of light-industrial properties (collectively referred to as the site) located in Sunnyvale, California (Table 1). This report provides an inventory of all trees on the project site (with diameter at breast height [DBH] greater than 4 inches) including species, DBH, an assessment of each tree's health and structural condition, and figures showing the location of each tree in the inventory. In addition, this arborist report includes a list of trees to be removed. Appropriate mitigation measures are also provided, per the City of Sunnyvale (City) Municipal Code (code). This arborist report is sufficient to submit with initial planning applications to the City.

Table 1. Properties Included in this Report

Street Address	Assessor's Parcel Number
390 - 394 Caribbean Drive	110 - 26 - 020
380 - 382 Caribbean Drive	110 - 26 - 021
370 - 376 Caribbean Drive	110 - 26 - 022
360 - 364 Caribbean Drive	110 - 26 - 023
1330 - 1370 Bordeaux Drive	110 - 26 - 025
140 - 146 Caribbean Drive	110 - 26 - 027
1393 - 1395 Borregas Avenue	110 - 26 - 028
1383 Borregas Avenue	110 - 26 - 029
1325 Borregas Avenue and 133 Caspian Court	110 - 26 - 030
141 Caspian Court	110 - 26 - 031

Section 2. Methods

This report is based on a tree inventory that was completed in November 2016, with a follow up site visit on January 8, 2019 to document any changes in tree health, structure or survival. H. T. Harvey & Associates' arborist Matt Pollock performed both the inventory and follow-up visit. Matt is an American Society of Consulting Arborists (ASCA) Registered Consulting Arborist (#631) and an International Society of Arboriculture (ISA) Certified Arborist (WE-11610A). All trees with a DBH greater than 4 inches were included in the inventory. Tasks conducted during the tree inventory consisted of the following:

- identifying each tree to species (scientific name and common name);
- tagging each tree with an identifying number;
- recording the approximate location of each tree;
- measuring tree trunk diameter at 54 inches above finish grade (DBH);
- determining the protected status of each tree; and
- evaluating tree health and structural condition using a scale of 0 to 5 as shown in Table 2.

Tree assessments were based on ground-level visual observations and physical measurements. Field data collection was conducted using a diameter tape to measure DBH. A Trimble Geo 7X GPS with laser offset capability was used to determine and record the location of each tree. Evaluations of tree health considered crown indicators such as vigor, density, leaf size and quality, and stem shoot extensions. Evaluations of tree structural condition considered root condition/form, trunk condition/form, and branch assembly and arrangement as well as any visible indicators of diminished structural integrity including cavities, dead limbs, and excessive leaning.

An advanced assessment to quantify interior wood structure, root condition, and upper canopy condition was not performed as part of this assessment. Therefore, tasks performed did not include an excavation of the root zones of the trees, drilling for decay detection, collecting soil samples for laboratory testing, sending animal or vegetative material for laboratory testing, climbing the trees for an aerial inspection, a tree risk assessment, or a valuation (see Appendix A: Assumptions and Limiting Conditions and Appendix B: Certification of Performance). These tasks are not typically included in a standard arborist report.

Table 2. Tree Health and Structural Condition Evaluation Criteria

Condition Rating	Tree Health	Tree Structure
5	A healthy, vigorous tree with a well-balanced crown. No apparent pest problems or signs and symptoms of disease. Normal to exceeding shoot length on new growth. Leaf size and color normal. Exceptional life expectancy for the species.	Root plate undisturbed and clear of any obstructions. Root flare has normal development. Trunk is sound and solid. No visible trunk defects or cavities. Branch spacing / structure and attachments are free of any defects.
4	Tree with slight decline in vigor. Imperfect canopy density in few parts of the tree, 10% or less, lacking natural symmetry. Less than half normal growth rate and minor deficiency in leaf development. Few pest issues or damage, controllable. Normal branch and stem development with healthy growth. Small amount of twig dieback. Typical life expectancy for the species.	Root plate appears normal; only minor damage may be found. Possible signs of root dysfunction around trunk flare. Minor trunk defects from previous injury, with good closure; less than 25% of bark section missing. Good branch habit, minor dieback with some signs of previous pruning. Co-dominant stem formation may be present. Minor corrections required.
3	Tree with moderate vigor. Crown decline and dieback up to 30% of the canopy. Overall poor symmetry. Leaf color somewhat chlorotic with smaller leaves. Shoot extensions indicate some stunting and stressed growing conditions. Obvious signs of pest problems contributing to lesser condition. Some decay areas found in main stem and branches. Below average life expectancy.	Root plate reveals previous damage or disturbance and dysfunctional roots may be visible around main stem. Evidence of trunk damage or cavities with decay or defects present. Less than 30% of bark sections missing on trunk. Co-dominant stems are present. Branching habit and attachments indicate poor pruning or damage, which requires moderate corrections.
2	Tree in decline. Epicormic growth. Lacking full crown, more than 50% decline and dieback, especially affecting larger branches. Stunting obvious with little evidence of growth on smaller stems. Leaf size and color reveal overall stress in the plant. Insect or disease infestation may be severe. Overmature. Life expectancy is low.	Root plate disturbance and defects indicate major damage with girdling roots around the trunk flare. Trunk reveals more than 50% of bark section missing. Branch structure has poor attachments, with several structurally important dead or broken branches. Canopy reveals signs of severe damage or topping, with major corrective actions required. Extensive decay or hollow.
1	Tree in severe decline. Crown has very little vigor and/or has a disease or insect problem that is ultimately fatal and, if not corrected, may threaten other nearby trees.	Root plate has major structural problems that present an unacceptable risk. Tree is in severe decline, with dieback of scaffold branches and/or trunk.
0	Dead	Dead

Section 3. Results

3.1 Site History and General Condition

The site is located on land historically used for agriculture (row crops) (Google Earth 2019). The buildings that currently occupy the site were constructed prior to 1991 and the configuration of planting beds appears largely unchanged since that time. Therefore, some trees on the site could potentially be more than 27 years old.

3.2 Summary of Findings

Four hundred and twenty-five trees were identified on the site (Figures 1a and 1b). Descriptions of each tree are included in Appendix C (Tree Assessment), including DBH, tree health and structural scores, and protected status. Table 3 provides a summary of the assessed trees, which represent 35 species. Of the 425 trees located on the site, 293 (69%) met the City of Sunnyvale's criteria for protected trees (see Section 3.4 below). The most common species on the site (27%) was Canary Island pine (*Pinus canariensis*). Forty-three percent of trees were in good condition, 48% were in fair condition, and 9% were in poor condition. Many of the trees in fair or poor condition were overmature, short-lived species such as lemonwood (*Pittosporum eugenioides*), sweetgum (*Liquidambar styraciflua*), and glossy privet (*Ligustrum lucidum*). However, 52 of the 116 Canary Island pines were also in fair or poor condition due to excessive pruning or other visible flaws.

3.3 Tree Condition

A summary of tree condition ratings is provided in Table 3. The condition ratings in the table are based on both the tree health and structural ratings from Appendix C. Tree condition was rated as follows:

- **Poor** if their combined rating was less than 40%.
- **Fair** if their combined rating was between 40% and 60%; or
- **Good** if their combined rating was 60% or greater;

Table 3. Tree Condition Summary

Scientific Name	Common Name	Poor	Fair	Good	Total Trees
<i>Afrocarpus falcatus</i>	African fern pine	0	11	7	18
<i>Alnus rubra</i>	Red alder	3	6	0	9
<i>Betula pendula</i>	White birch	1	2	2	5
<i>Ceratonia siliqua</i>	carob tree	2	13	5	20
<i>Corymbia citriodora</i>	lemon scented gum	0	1	1	2
<i>Eriobotrya japonica</i>	Loquat	0	1	0	1

Scientific Name	Common Name	Poor	Fair	Good	Total Trees
<i>Eucalyptus nicholii</i>	peppermint eucalypt	0	2	2	4
<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	1	9	11	21
<i>Eucalyptus sideroxylon</i>	red ironbark	2	7	2	11
<i>Eucalyptus sp.</i>	Eucalyptus sp.	0	1	1	2
<i>Fraxinus uhdei</i>	shamel ash	0	1	6	7
<i>Gleditsia triacanthos 'inermis'</i>	thornless honey locust	0	1	2	3
<i>Jacaranda mimosifolia</i>	Jacaranda	1	2	4	7
<i>Juniperus chinensis</i>	Hollywood juniper	0	1	1	2
<i>Ligustrum lucidum</i>	glossy privet	1	15	7	23
<i>Liquidamber styraciflua</i>	Sweetgum	1	14	23	38
<i>Maytenus boaria</i>	Mayten tree	0	1	2	3
<i>Olea europaea</i>	Olive	0	1	2	3
<i>Osmanthus fragrans</i>	Fragrant Olive	0	8	5	13
<i>Picea pungens glauca</i>	Blue Spruce	1	0	0	1
<i>Pinus canariensis</i>	Canary Island pine	3	49	64	116
<i>Pinus halapensis</i>	Aleppo pine	0	2	0	2
<i>Pinus mugo</i>	Mugho pine	0	1	0	1
<i>Pinus pinea</i>	Italian stone pine	1	3	2	6
<i>Pittosporum eugenioides</i>	Lemonwood	13	27	6	46
<i>Populus nigra 'italica'</i>	Lombardy poplar	4	5	3	12
<i>Prunus cerasifera</i>	purple leaf plum	2	4	3	9
<i>Prunus serrulata</i>	Kwanzan cherry	0	0	0	0
<i>Pyrus calleryana</i>	Callery pear	0	1	0	1
<i>Quercus agrifolia</i>	California live oak	0	2	3	5
<i>Quercus ilex</i>	Holly oak	0	3	3	6
<i>Salix lasiandra</i>	Pacific willow	1	0	0	1
<i>Schinus molle</i>	Peruvian pepper	0	1	0	1
<i>Sequoia sempervirens</i>	Coast redwood	0	7	9	16
<i>Ulmus parvifolia</i>	Chinese elm	1	3	6	10
Total		38	205	182	425

3.4 Protected Trees

The protected status of trees is defined under items 3 and 4 in the City of Sunnyvale Municipal Code (code), Section 19.94.030 as:

- 3) *“Protected tree” means a tree of significant size.*
- 4) *“Significant size” means a tree thirty-eight inches or greater in circumference measured four and one-half feet above ground for single-trunk trees. For multi-trunk trees “significant size” means a tree which has at least one trunk with a circumference thirty-eight inches or greater measured four and one-half feet above ground level, or in which the measurements of the*

circumferences of each of the multi-trunks, when measured four and one-half feet above the ground level, added together equal an overall circumference one hundred thirteen inches or greater.

Based on this definition, 293 protected trees were identified on the site. Protected trees include 112 Canary Island pine, 35 sweetgum, and 20 silver dollar eucalypt (*Eucalyptus polyanthemos*) (see Appendix C: Tree Assessment).

If redevelopment of this parcel creates impacts to or requires removal of protected status trees, the City may require reasonable alterations to the project design in order to retain protected trees per Section 19.94.110 of the Code. For protected trees to be preserved, a tree protection plan is required. For protected trees to be removed, a replanting plan is required, per Section 19.94.090 of the Code. Typically, the minimum size for the replacement of a protected tree is a standard twenty-four inch box size tree, subject to review by the city's director of community development. Tree removal, replacement, and preservation are discussed in further detail in Section 4.

3.5 Invasive Trees

Of the 425 trees (35 species) on the site, 36 trees (4 species) are listed by the California Invasive Plant Council (Cal-IPC, 2019) as a limited invasive species. A single Callery pear (*Pyrus calleryana*) on the site is watch-listed by Cal-IPC as a species of potential concern. These results are shown in Table 4.

Table 4. Invasive Species

Scientific Name	Common Name	Count	Cal-IPC Rating
Ligustrum lucidum	glossy privet	23	Limited
Olea europaea	Olive	3	Limited
Prunus cerasifera	purple leaf plum	9	Limited
Pyrus calleryana	Callery pear	1	Watch
Schinus molle	Peruvian pepper	1	Limited
Total		37	



N:\Projects\3400\3475-01\45\Report\Figure 1a. Locations of Existing Trees.mxd



H. T. HARVEY & ASSOCIATES
Ecological Consultants



N:\Projects\3400\3475-01\45\Report\Figure 1b. Locations of Existing Trees.mxd



H. T. HARVEY & ASSOCIATES
Ecological Consultants

Section 4. Tree Removal, Replacement, and Preservation

4.1 Tree Removal

There were 425 trees (35 species) identified on the site. According to the Planning Submittal dated October 26, 2018, 382 trees will be removed. Table 5 provides a summary of the trees to be removed. Two hundred and fifty of the trees to be removed are of sufficient size to be “protected” under the City’s Code (see Section 3.4 above).

Table 5. Tree Removal

Scientific Name	Common Name	Total	Non-Protected Trees		Protected Trees	
			Preserve	Remove	Preserve	Remove
<i>Afrocarpus falcatus</i>	African fern pine	18	0	11	0	7
<i>Alnus rubra</i>	Red alder	9	0	0	0	9
<i>Betula pendula</i>	White birch	5	0	4	0	1
<i>Ceratonia siliqua</i>	carob tree	20	0	4	0	16
<i>Corymbia citriodora</i>	lemon scented gum	2	0	0	0	2
<i>Eriobotrya japonica</i>	Loquat	1	0	1	0	0
<i>Eucalyptus nicholii</i>	peppermint eucalypt	4	0	1	0	3
<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	21	0	1	2	18
<i>Eucalyptus sideroxylon</i>	red ironbark	11	0	0	0	11
<i>Eucalyptus sp.</i>	Eucalyptus sp.	2	0	0	0	2
<i>Fraxinus uhdei</i>	shamel ash	7	0	4	3	0
<i>Gleditsia triacanthos</i>	thornless honey locust	3	0	0	0	3
<i>Jacaranda mimosifolia</i>	Jacaranda	7	0	5	0	2
<i>Juniperus chinensis</i>	Hollywood juniper	2	0	0	0	2
<i>Ligustrum lucidum</i>	glossy privet	23	0	15	0	8
<i>Liquidamber styraciflua</i>	Sweetgum	38	0	3	1	34
<i>Maytenus boaria</i>	Mayten tree	3	0	1	0	2
<i>Olea europaea</i>	Olive	3	0	3	0	0
<i>Osmanthus fragrans</i>	Fragrant Olive	13	0	13	0	0
<i>Picea pungens glauca</i>	Blue Spruce	1	0	1	0	0
<i>Pinus canariensis</i>	Canary Island pine	116	0	4	28	84
<i>Pinus halapensis</i>	Aleppo pine	2	0	0	0	2
<i>Pinus mugo</i>	Mugho pine	1	0	1	0	0
<i>Pinus pinea</i>	Italian stone pine	6	0	0	0	6
<i>Pittosporum eugenioides</i>	Lemonwood	46	0	45	0	1
<i>Populus nigra 'italica'</i>	Lombardy poplar	12	0	0	0	12

Scientific Name	Common Name	Total	Non-Protected Trees		Protected Trees	
			Preserve	Remove	Preserve	Remove
<i>Prunus cerasifera</i>	purple leaf plum	9	0	9	0	0
<i>Prunus serrulata</i>	Kwanzan cherry	0	0	0	0	0
<i>Pyrus calleryana</i>	Callery pear	1	0	0	0	1
<i>Quercus agrifolia</i>	California live oak	5	0	4	0	1
<i>Quercus ilex</i>	Holly oak	6	0	2	0	4
<i>Salix lasiandra</i>	Pacific willow	1	0	0	0	1
<i>Schinus molle</i>	Peruvian pepper	1	0	0	0	1
<i>Sequoia sempervirens</i>	Coast redwood	16	0	0	9	7
<i>Ulmus parvifolia</i>	Chinese elm	10	0	0	0	10
Total - Trees to be Preserved		43	0	-	43	-
Total - Trees to be Removed		382	-	132	-	250
Total - All Trees		425				

4.2 Tree Replacement

The 250 protected trees to be removed are to be replaced per the City's Code, Section 19.94.080, which considers factors such as the following:

- (1) *The number, species, size and location of existing trees on the site; and*
- (2) *Good forestry practices such as, but not limited to, the number of healthy trees a given parcel of land will support.*

The City typically requires planting of a replacement tree somewhere on the property as a standard condition of approval for removal of each protected tree. At the time of writing this report, a detailed planting plan was not available. To meet the City's requirements for replacement of protected trees, the Project will need to include a minimum of 250 new trees with a container size of 24-inches or larger.

4.3 Tree Preservation

A total of 43 trees will be preserved on the site, as shown in Table 6. The tree protection measures described in Section 5 will apply to these trees.

Table 6. Tree Preservation

Tree Tag	Scientific Name	Common Name	Protected?
82	<i>Pinus canariensis</i>	Canary Island pine	Yes
1006	<i>Pinus canariensis</i>	Canary Island pine	Yes
1009	<i>Pinus canariensis</i>	Canary Island pine	Yes
1020	<i>Pinus canariensis</i>	Canary Island pine	Yes
1021	<i>Pinus canariensis</i>	Canary Island pine	Yes

Tree Tag	Scientific Name	Common Name	Protected?
1022	<i>Pinus canariensis</i>	Canary Island pine	Yes
1023	<i>Pinus canariensis</i>	Canary Island pine	Yes
1024	<i>Pinus canariensis</i>	Canary Island pine	Yes
1025	<i>Pinus canariensis</i>	Canary Island pine	Yes
1026	<i>Sequoia sempervirens</i>	Coast redwood	Yes
1027	<i>Sequoia sempervirens</i>	Coast redwood	Yes
1028	<i>Pinus canariensis</i>	Canary Island pine	Yes
1029	<i>Sequoia sempervirens</i>	Coast redwood	Yes
1030	<i>Sequoia sempervirens</i>	Coast redwood	Yes
1031	<i>Pinus canariensis</i>	Canary Island pine	Yes
1032	<i>Pinus canariensis</i>	Canary Island pine	Yes
1033	<i>Sequoia sempervirens</i>	Coast redwood	Yes
1034	<i>Sequoia sempervirens</i>	Coast redwood	Yes
1097	<i>Pinus canariensis</i>	Canary Island pine	Yes
1099	<i>Pinus canariensis</i>	Canary Island pine	Yes
1100	<i>Pinus canariensis</i>	Canary Island pine	Yes
1101	<i>Pinus canariensis</i>	Canary Island pine	Yes
1102	<i>Pinus canariensis</i>	Canary Island pine	Yes
1103	<i>Pinus canariensis</i>	Canary Island pine	Yes
1105	<i>Pinus canariensis</i>	Canary Island pine	Yes
1107	<i>Pinus canariensis</i>	Canary Island pine	Yes
1108	<i>Pinus canariensis</i>	Canary Island pine	Yes
1109	<i>Pinus canariensis</i>	Canary Island pine	Yes
1110	<i>Pinus canariensis</i>	Canary Island pine	Yes
1111	<i>Pinus canariensis</i>	Canary Island pine	Yes
1112	<i>Pinus canariensis</i>	Canary Island pine	Yes
1113	<i>Pinus canariensis</i>	Canary Island pine	Yes
1114	<i>Pinus canariensis</i>	Canary Island pine	Yes
1241	<i>Sequoia sempervirens</i>	Coast redwood	Yes
1242	<i>Sequoia sempervirens</i>	Coast redwood	Yes
1243	<i>Sequoia sempervirens</i>	Coast redwood	Yes
1320	<i>Fraxinus uhdei</i>	shamel ash	Yes
1321	<i>Fraxinus uhdei</i>	shamel ash	Yes
1322	<i>Fraxinus uhdei</i>	shamel ash	Yes
1323	<i>Pinus canariensis</i>	Canary Island pine	Yes
2196	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	Yes
2197	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	Yes
2301	<i>Liquidamber styraciflua</i>	Sweetgum	Yes

Section 5. Tree Protection

5.1 Tree Protection Plan

The City of Sunnyvale requires a Tree Protection Plan to safeguard the health of Protected trees before and during construction (Municipal Code Sections 19.94.110, 19.94.120, and 19.94.140).

5.2 Tree Protection Zones (TPZ)

For each tree to be preserved, a Tree Protection Zone (TPZ) will be established. The size and layout of each TPZ are required by the City of Sunnyvale to be no smaller than the dripline of each protected tree to be preserved. However, we recommend that the size of each TPZ be increased based on each species' sensitivity to construction impacts, the health and age of the tree, the root and crown conformation, and development constraints. It may be necessary to identify where roots actually are through hand excavation in order to properly protect a highly valued tree (Matheny and Clark 1998). The following activities shall be prohibited within each Tree Protection Zone:

- Storage of construction materials, debris, excavated material, waste, or washout water.
- Parking construction trailers, vehicles, or equipment.
- Foot traffic.
- Erection of sheds or structures.
- Impoundment of water.
- Excavation for underground utilities, drain or irrigation lines, or other digging unless approved by the City or Consulting Arborist.
- Attachment of signs to or wrapping materials around trees or plants unless approved by the City or Consulting Arborist.

5.3 Requirements for Tree Protection during Construction

Protected trees designated for preservation shall be protected during construction by use of the following methods:

- Protective fencing shall be installed no closer to the trunk than the dripline, and far enough from the trunk to protect the integrity of the tree. The fence shall be a minimum of four (4) feet in height and shall be set securely in place. The fence shall be of a sturdy but open material (i.e., chain link) to allow visibility to the trunk for inspections and safety.

- The existing grade level around a tree shall normally be maintained out to the dripline of the tree. Alternate grade levels, as described in the tree protection plan, may be approved by the director of community development.
- Drain wells shall be installed whenever impervious surfaces will be placed over the root system of a tree (the root system generally extends to the outermost edges of the branches).
- Pruning that is necessary to accommodate a project feature, such as a building, road or walkway shall be reviewed and approved by the department of community development and the department of public works. Pruning, if necessary, shall be reviewed and approved by the City Arborist.
- New landscaping installed within the dripline of an existing tree shall be designed to reproduce a similar environment to that which existed prior to construction.
- Appropriate city staff shall be authorized to conduct on-site inspections during construction to ensure that tree preservation procedures are being followed and replanting plans implemented.

5.3.1 Recommendations for Tree Protection during Construction

The following recommendations are intended to supplement City requirements.

- Protective fencing should completely enclose the Tree Protection Zone and should be installed prior to demolition, grubbing, or grading. Protective fencing should be maintained in good condition and free of trash, debris, excess soil, chemicals, or equipment until construction is completed and accepted by the City inspector.
- Pruning prior to construction with the intent of improving tree health is not recommended. Where temporary clearance is needed for access, tree branches should be tied back to provide clearance. If any tree to be preserved requires pruning to provide construction clearance, the work must be approved in advance by the City or Consulting Arborist and performed by a Certified Arborist or Tree Worker according 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. Pruning should not occur during periods of flight of adult boring insects.
- Any work that is expected to encounter tree roots should be monitored by the City or Consulting Arborist.
- Excavation at the edge of Tree Protection Zones should include the following tree protection measures:
 - Hand excavate under or around tree roots to depth of three (3) feet.
 - Tunneling should only be employed with approval of the City or Consulting Arborist.
 - Do not cut main lateral tree roots or taproots. When main lateral tree roots or taproots are exposed, excavation should be discontinued until instructions to resolve the conditions are received from the City or Consulting Arborist.
 - Redirect roots in backfill areas where possible.

- Expose main lateral roots beyond excavation limits as required to bend and redirect them without breaking.
- If redirection is not practical, cut roots approximately three (3) inches back from new construction.
- Protect exposed roots from drying out before placing permanent backfill.
- Prune roots that are affected by temporary and permanent construction only with the prior approval of the City or Consulting Arborist. Prune roots as follows:
 - Cut roots manually.
 - Cleanly cut exposed roots one (1) inch diameter and greater with sharp pruning instrument.
 - Do not use a backhoe or other equipment that rips, tears, or pulls roots.
 - Do not paint cut root ends.
- Injuries to any Protected trees during construction should be reported to the City or Consulting Arborist, who can evaluate the injury and recommend appropriate treatments.

Section 6. References

- [Cal-IPC] California Invasive Plant Council. 2019. California Invasive Plant Inventory Database. Accessed online at <http://cal-ipc.org/paf/> [January 2019].
- Google Earth. 2019. Aerial imagery of project site in Sunnyvale, California. <<https://www.google.com/earth/>>. Accessed March 13, 2019.
- Matheny, N. and J.R. Clark. 1998. Trees and Development: A Technical Guide to Preservation of Trees during Land Development. Champaign, IL: International Society of Arboriculture.
- Sunnyvale [City of]. *Municipal Code*. Title 19. Zoning, Article 6, Discretionary Permits and Procedures, Chapter 19.94. Tree Preservation. Accessed online at qcode.us/codes/sunnyvale.

Appendix A. Assumptions and Limiting Conditions

1. Any legal description provided to the consultant is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
2. Property lines were not clearly surveyed or marked in the field by the owner, consultant attempted to provide as accurate of boundary for the inventory as possible using the limited data available.
3. Care has been taken to obtain all information from reliable sources. All data have been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
4. The consultant shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
5. Loss or alteration of any part of this report invalidates the entire report.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant.
7. Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales, or other media, without the prior expressed written or verbal consent of the consultant particularly as to value conclusions, identity of the consultant, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant as stated in her qualifications.
8. This report and values expressed herein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
9. Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
10. Unless expressed otherwise: a) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection and b) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

Appendix B. Certification of Performance

I, Matthew Pollock, certify that:

I have personally inspected the trees and the property referred to in this report and have stated my findings accurately. The extent of the evaluation is stated in the attached report and the terms of the assignment.

I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.

The analysis, opinions, and conclusions stated herein are my own and are based on current scientific procedures and facts.

My analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.

No one provided significant professional assistance to me, except as indicated within the report.

Compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.



Matthew Pollock

ASCA-Registered Consulting Arborist #631

ISA-Certified Arborist WE-11610A

Appendix C. Tree Assessment

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
71	<i>Jacaranda mimosifolia</i>	Jacaranda	12	2	4	Yes	Fair	-
72	<i>Ligustrum lucidum</i>	glossy privet	10, 10, 9, 7, 4, 3	4	3	Yes	Fair	-
82	<i>Pinus canariensis</i>	Canary Island pine	23	4	4	Yes	Good	Yes
1001	<i>Pinus canariensis</i>	Canary Island pine	26	3	3	Yes	Fair	-
1002	<i>Pinus canariensis</i>	Canary Island pine	22	3	4	Yes	Fair	-
1003	<i>Pinus canariensis</i>	Canary Island pine	24	3	3	Yes	Fair	-
1004	<i>Pinus canariensis</i>	Canary Island pine	21	3	3	Yes	Fair	-
1005	<i>Pinus canariensis</i>	Canary Island pine	23	3	3	Yes	Fair	-
1006	<i>Pinus canariensis</i>	Canary Island pine	24	4	4	Yes	Good	Yes
1007	<i>Eucalyptus sp.</i>	Eucalyptus sp.	22	4	4	Yes	Good	-
1008	<i>Pinus canariensis</i>	Canary Island pine	29	4	4	Yes	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1009	<i>Pinus canariensis</i>	Canary Island pine	21	3	4	Yes	Fair	Yes
1010	<i>Pinus canariensis</i>	Canary Island pine	20	4	4	Yes	Good	-
1011	<i>Prunus cerasifera</i>	purple leaf plum	9	3	4	No	Fair	-
1012	<i>Prunus cerasifera</i>	purple leaf plum	9	4	4	No	Good	-
1013	<i>Prunus cerasifera</i>	purple leaf plum	6	2	4	No	Fair	-
1014	<i>Olea europaea</i>	Olive	7, 7, 6	5	5	No	Good	-
1017	<i>Pinus canariensis</i>	Canary Island pine	22	5	4	Yes	Good	-
1018	<i>Pinus canariensis</i>	Canary Island pine	9	4	4	No	Good	-
1020	<i>Pinus canariensis</i>	Canary Island pine	18	4	3	Yes	Fair	Yes
1021	<i>Pinus canariensis</i>	Canary Island pine	12	3	4	Yes	Fair	Yes
1022	<i>Pinus canariensis</i>	Canary Island pine	21	4	4	Yes	Good	Yes
1023	<i>Pinus canariensis</i>	Canary Island pine	15	5	4	Yes	Good	Yes
1024	<i>Pinus canariensis</i>	Canary Island pine	14	5	5	Yes	Good	Yes
1025	<i>Pinus canariensis</i>	Canary Island pine	21	5	4	Yes	Good	Yes

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1026	<i>Sequoia sempervirens</i>	Coast redwood	15	5	4	Yes	Good	Yes
1027	<i>Sequoia sempervirens</i>	Coast redwood	12	5	3	Yes	Good	Yes
1028	<i>Pinus canariensis</i>	Canary Island pine	13	3	4	Yes	Fair	Yes
1029	<i>Sequoia sempervirens</i>	Coast redwood	12	5	4	Yes	Good	Yes
1030	<i>Sequoia sempervirens</i>	Coast redwood	14	5	3	Yes	Good	Yes
1031	<i>Pinus canariensis</i>	Canary Island pine	25	5	4	Yes	Good	Yes
1032	<i>Pinus canariensis</i>	Canary Island pine	15	5	5	Yes	Good	Yes
1033	<i>Sequoia sempervirens</i>	Coast redwood	16	3	4	Yes	Fair	Yes
1034	<i>Sequoia sempervirens</i>	Coast redwood	17	5	4	Yes	Good	Yes
1035	<i>Fraxinus uhdei</i>	shamel ash	6	5	4	No	Good	-
1036	<i>Fraxinus uhdei</i>	shamel ash	5	5	4	No	Good	-
1037	<i>Fraxinus uhdei</i>	shamel ash	6	5	4	No	Good	-
1038	<i>Fraxinus uhdei</i>	shamel ash	7	4	2	No	Fair	-
1039	<i>Ulmus parvifolia</i>	Chinese elm	18	4	3	Yes	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1040	<i>Ulmus parvifolia</i>	Chinese elm	14	5	4	Yes	Good	-
1041	<i>Ulmus parvifolia</i>	Chinese elm	17	5	4	Yes	Good	-
1042	<i>Afrocarpus falcatus</i>	African fern pine	15	5	3	Yes	Good	-
1043	<i>Afrocarpus falcatus</i>	African fern pine	35, 11, 9	5	3	Yes	Good	-
1044	<i>Afrocarpus falcatus</i>	African fern pine	11	3	3	No	Fair	-
1046	<i>Prunus cerasifera</i>	purple leaf plum	9	2	2	No	Poor	-
1047	<i>Eucalyptus nicholii</i>	peppermint eucalypt	8	4	5	No	Good	-
1048	<i>Ulmus parvifolia</i>	Chinese elm	15	5	3	Yes	Good	-
1049	<i>Ulmus parvifolia</i>	Chinese elm	18	5	3	Yes	Good	-
1050	<i>Ulmus parvifolia</i>	Chinese elm	17	5	3	Yes	Good	-
1051	<i>Ulmus parvifolia</i>	Chinese elm	17	5	3	Yes	Good	-
1052	<i>Eucalyptus sideroxylon</i>	red ironbark	28	4	4	Yes	Good	-
1053	<i>Eucalyptus sideroxylon</i>	red ironbark	19	4	3	Yes	Fair	-
1054	<i>Quercus agrifolia</i>	California live oak	6	4	5	No	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1055	<i>Ceratonia siliqua</i>	carob tree	22	4	3	Yes	Fair	-
1056	<i>Quercus agrifolia</i>	California live oak	9	5	4	No	Good	-
1057	<i>Ceratonia siliqua</i>	carob tree	15	4	3	Yes	Fair	-
1058	<i>Prunus cerasifera</i>	purple leaf plum	8, 6, 3	4	4	No	Good	-
1059	<i>Ceratonia siliqua</i>	carob tree	25	3	3	Yes	Fair	-
1060	<i>Ceratonia siliqua</i>	carob tree	29	3	3	Yes	Fair	-
1061	<i>Ligustrum lucidum</i>	glossy privet	4	4	5	No	Good	-
1062	<i>Quercus agrifolia</i>	California live oak	4	3	3	No	Fair	-
1063	<i>Olea europaea</i>	Olive	5, 4, 4, 3, 2	5	3	No	Good	-
1064	<i>Ceratonia siliqua</i>	carob tree	21	4	4	Yes	Good	-
1065	<i>Quercus agrifolia</i>	California live oak	4, 4	5	4	No	Good	-
1066	<i>Prunus cerasifera</i>	purple leaf plum	6, 4	4	3	No	Fair	-
1067	<i>Quercus ilex</i>	Holly oak	14	5	5	Yes	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1068	<i>Ceratonia siliqua</i>	carob tree	21	3	4	Yes	Fair	-
1069	<i>Ceratonia siliqua</i>	carob tree	12	4	5	Yes	Good	-
1070	<i>Ceratonia siliqua</i>	carob tree	15	4	3	Yes	Fair	-
1071	<i>Ligustrum lucidum</i>	glossy privet	6, 2	5	5	No	Good	-
1072	<i>Ligustrum lucidum</i>	glossy privet	7, 6, 4, 4, 3	5	5	No	Good	-
1073	<i>Ceratonia siliqua</i>	carob tree	16	4	5	Yes	Good	-
1074	<i>Ceratonia siliqua</i>	carob tree	18	4	4	Yes	Good	-
1075	<i>Ceratonia siliqua</i>	carob tree	18	3	4	Yes	Fair	-
1076	<i>Ceratonia siliqua</i>	carob tree	5, 4, 4	3	4	No	Fair	-
1077	<i>Ceratonia siliqua</i>	carob tree	12	3	4	Yes	Fair	-
1078	<i>Ceratonia siliqua</i>	carob tree	20	4	5	Yes	Good	-
1079	<i>Ceratonia siliqua</i>	carob tree	13	4	3	Yes	Fair	-
1080	<i>Ceratonia siliqua</i>	carob tree	6	5	1	No	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1081	<i>Ceratonia siliqua</i>	carob tree	10, 7, 7, 5	4	2	No	Fair	-
1082	<i>Ceratonia siliqua</i>	carob tree	10	3	2	No	Fair	-
1083	<i>Ceratonia siliqua</i>	carob tree	25	1	1	Yes	Poor	-
1084	<i>Ceratonia siliqua</i>	carob tree	23	1	2	Yes	Poor	-
1085	<i>Prunus cerasifera</i>	purple leaf plum	6	1	1	No	Poor	-
1086	<i>Prunus cerasifera</i>	purple leaf plum	6	4	1	No	Fair	-
1087	<i>Ulmus parvifolia</i>	Chinese elm	20	2	1	Yes	Poor	-
1088	<i>Ulmus parvifolia</i>	Chinese elm	15	3	3	Yes	Fair	-
1089	<i>Ulmus parvifolia</i>	Chinese elm	19	4	2	Yes	Fair	-
1090	<i>Liquidamber styraciflua</i>	Sweetgum	18	5	3	Yes	Good	-
1091	<i>Afrocarpus falcatus</i>	African fern pine	17	5	2	Yes	Fair	-
1092	<i>Pinus canariensis</i>	Canary Island pine	26	3	3	Yes	Fair	-
1093	<i>Pinus canariensis</i>	Canary Island pine	26	4	1	Yes	Fair	-
1094	<i>Pinus canariensis</i>	Canary Island pine	11	3	4	No	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1095	<i>Olea europaea</i>	Olive	7, 7, 6, 5, 4, 4	4	3	No	Fair	-
1096	<i>Eucalyptus nicholii</i>	peppermint eucalypt	28	5	1	Yes	Fair	-
1097	<i>Pinus canariensis</i>	Canary Island pine	18	4	4	Yes	Good	Yes
1098	<i>Pinus canariensis</i>	Canary Island pine	18	4	1	Yes	Fair	-
1099	<i>Pinus canariensis</i>	Canary Island pine	19	5	4	Yes	Good	Yes
1100	<i>Pinus canariensis</i>	Canary Island pine	26	4	4	Yes	Good	Yes
1101	<i>Pinus canariensis</i>	Canary Island pine	18	5	4	Yes	Good	Yes
1102	<i>Pinus canariensis</i>	Canary Island pine	27	4	4	Yes	Good	Yes
1103	<i>Pinus canariensis</i>	Canary Island pine	18	5	4	Yes	Good	Yes
1104	<i>Pinus canariensis</i>	Canary Island pine	9	4	2	No	Fair	-
1105	<i>Pinus canariensis</i>	Canary Island pine	18	5	4	Yes	Good	Yes
1106	<i>Pinus canariensis</i>	Canary Island pine	15	1	4	Yes	Fair	-
1107	<i>Pinus canariensis</i>	Canary Island pine	20	4	3	Yes	Fair	Yes

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1108	<i>Pinus canariensis</i>	Canary Island pine	22	4	4	Yes	Good	Yes
1109	<i>Pinus canariensis</i>	Canary Island pine	14	3	4	Yes	Fair	Yes
1110	<i>Pinus canariensis</i>	Canary Island pine	17	5	3	Yes	Good	Yes
1111	<i>Pinus canariensis</i>	Canary Island pine	18	5	5	Yes	Good	Yes
1112	<i>Pinus canariensis</i>	Canary Island pine	23	5	5	Yes	Good	Yes
1113	<i>Pinus canariensis</i>	Canary Island pine	20	5	5	Yes	Good	Yes
1114	<i>Pinus canariensis</i>	Canary Island pine	15	5	5	Yes	Good	Yes
1184	<i>Quercus ilex</i>	Holly oak	17	5	5	Yes	Good	-
1185	<i>Ligustrum lucidum</i>	glossy privet	5, 4, 3	5	5	No	Good	-
1186	<i>Salix lasiandra</i>	Pacific willow	19	3	1	Yes	Poor	-
1187	<i>Osmanthus fragrans</i>	Fragrant Olive	4, 4, 3, 3	4	3	No	Fair	-
1188	<i>Pinus canariensis</i>	Canary Island pine	19	3	4	Yes	Fair	-
1189	<i>Pinus canariensis</i>	Canary Island pine	22	3	4	Yes	Fair	-
1190	<i>Afrocarpus falcatus</i>	African fern pine	7	3	4	No	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1191	<i>Afrocarpus falcatus</i>	African fern pine	11	3	5	No	Good	-
1192	<i>Afrocarpus falcatus</i>	African fern pine	8, 7, 6, 5	3	4	No	Fair	-
1193	<i>Afrocarpus falcatus</i>	African fern pine	9	3	4	No	Fair	-
1194	<i>Afrocarpus falcatus</i>	African fern pine	11	5	4	No	Good	-
1195	<i>Afrocarpus falcatus</i>	African fern pine	11	3	4	No	Fair	-
1196	<i>Afrocarpus falcatus</i>	African fern pine	12	4	4	Yes	Good	-
1197	<i>Afrocarpus falcatus</i>	African fern pine	13	4	3	Yes	Fair	-
1198	<i>Pinus canariensis</i>	Canary Island pine	26	4	3	Yes	Fair	-
1199	<i>Pinus canariensis</i>	Canary Island pine	26	4	4	Yes	Good	-
1200	<i>Pinus canariensis</i>	Canary Island pine	20	4	5	Yes	Good	-
1201	<i>Afrocarpus falcatus</i>	African fern pine	9	3	4	No	Fair	-
1202	<i>Afrocarpus falcatus</i>	African fern pine	9	4	5	No	Good	-
1203	<i>Afrocarpus falcatus</i>	African fern pine	12	4	3	Yes	Fair	-
1204	<i>Pinus mugo</i>	Mugho pine	11	3	4	No	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1205	<i>Afrocarpus falcatus</i>	African fern pine	6, 5	3	3	No	Fair	-
1206	<i>Afrocarpus falcatus</i>	African fern pine	11	5	4	No	Good	-
1207	<i>Afrocarpus falcatus</i>	African fern pine	13	4	3	Yes	Fair	-
1208	<i>Eriobotrya japonica</i>	Loquat	9, 5	5	2	No	Fair	-
1209	<i>Maytenus boaria</i>	Mayten tree	17, 14	2	3	Yes	Fair	-
1210	<i>Maytenus boaria</i>	Mayten tree	21	5	3	Yes	Good	-
1211	<i>Maytenus boaria</i>	Mayten tree	3, 3	5	3	No	Good	-
1212	<i>Pinus canariensis</i>	Canary Island pine	23	3	4	Yes	Fair	-
1213	<i>Pinus canariensis</i>	Canary Island pine	23	3	4	Yes	Fair	-
1214	<i>Eucalyptus sideroxylon</i>	red ironbark	21	4	3	Yes	Fair	-
1215	<i>Sequoia sempervirens</i>	Coast redwood	12	3	5	Yes	Good	-
1216	<i>Sequoia sempervirens</i>	Coast redwood	19	4	4	Yes	Good	-
1217	<i>Sequoia sempervirens</i>	Coast redwood	15	5	4	Yes	Good	-
1218	<i>Sequoia sempervirens</i>	Coast redwood	20	4	5	Yes	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1219	<i>Populus nigra 'italica'</i>	Lombardy poplar	53, 21, 3 20, 18, 11		1	Yes	Poor	-
1221	<i>Betula pendula</i>	White birch	11	3	4	No	Fair	-
1222	<i>Betula pendula</i>	White birch	6	3	1	No	Poor	-
1228	<i>Juniperus chinensis</i>	Hollywood juniper	15	5	4	Yes	Good	-
1229	<i>Juniperus chinensis</i>	Hollywood juniper	15	4	1	Yes	Fair	-
1230	<i>Betula pendula</i>	White birch	12, 10	5	4	Yes	Good	-
1231	<i>Betula pendula</i>	White birch	9	3	4	No	Fair	-
1232	<i>Betula pendula</i>	White birch	11	5	5	No	Good	-
1233	<i>Pinus pinea</i>	Italian stone pine	31	4	3	Yes	Fair	-
1234	<i>Pinus pinea</i>	Italian stone pine	25	3	2	Yes	Fair	-
1235	<i>Pinus pinea</i>	Italian stone pine	25	3	1	Yes	Poor	-
1236	<i>Pinus pinea</i>	Italian stone pine	28	3	3	Yes	Fair	-
1237	<i>Alnus rubra</i>	Red alder	24	2	1	Yes	Poor	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1238	<i>Alnus rubra</i>	Red alder	24	3	2	Yes	Fair	-
1239	<i>Alnus rubra</i>	Red alder	22	3	2	Yes	Fair	-
1240	<i>Alnus rubra</i>	Red alder	26	3	1	Yes	Poor	-
1241	<i>Sequoia sempervirens</i>	Coast redwood	13	4	3	Yes	Fair	Yes
1242	<i>Sequoia sempervirens</i>	Coast redwood	13	4	3	Yes	Fair	Yes
1243	<i>Sequoia sempervirens</i>	Coast redwood	14	4	3	Yes	Fair	Yes
1244	<i>Pyrus calleryana</i>	Callery pear	15	4	3	Yes	Fair	-
1245	<i>Alnus rubra</i>	Red alder	19	4	2	Yes	Fair	-
1256	<i>Pinus pinea</i>	Italian stone pine	32	4	4	Yes	Good	-
1257	<i>Pinus pinea</i>	Italian stone pine	29	5	4	Yes	Good	-
1258	<i>Alnus rubra</i>	Red alder	26	3	1	Yes	Poor	-
1259	<i>Pinus halapensis</i>	Aleppo pine	23	3	2	Yes	Fair	-
1261	<i>Sequoia sempervirens</i>	Coast redwood	26	3	4	Yes	Fair	-
1262	<i>Sequoia sempervirens</i>	Coast redwood	24	3	4	Yes	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1263	<i>Sequoia sempervirens</i>	Coast redwood	26	3	4	Yes	Fair	-
1264	<i>Pinus halapensis</i>	Aleppo pine	24	3	3	Yes	Fair	-
1271	<i>Alnus rubra</i>	Red alder	15	3	4	Yes	Fair	-
1273	<i>Alnus rubra</i>	Red alder	21	5	1	Yes	Fair	-
1276	<i>Alnus rubra</i>	Red alder	23	4	1	Yes	Fair	-
1277	<i>Liquidamber styraciflua</i>	Sweetgum	16	3	3	Yes	Fair	-
1278	<i>Liquidamber styraciflua</i>	Sweetgum	16	4	2	Yes	Fair	-
1279	<i>Liquidamber styraciflua</i>	Sweetgum	22	3	3	Yes	Fair	-
1280	<i>Liquidamber styraciflua</i>	Sweetgum	18	5	3	Yes	Good	-
1281	<i>Liquidamber styraciflua</i>	Sweetgum	14	5	3	Yes	Good	-
1282	<i>Liquidamber styraciflua</i>	Sweetgum	12	5	4	Yes	Good	-
1283	<i>Liquidamber styraciflua</i>	Sweetgum	12	4	4	Yes	Good	-
1284	<i>Liquidamber styraciflua</i>	Sweetgum	20	5	3	Yes	Good	-
1285	<i>Liquidamber styraciflua</i>	Sweetgum	12	4	4	Yes	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
1286	<i>Liquidamber styraciflua</i>	Sweetgum	14	4	4	Yes	Good	-
1318	<i>Picea pungens glauca</i>	Blue Spruce	6	2	1	No	Poor	-
1319	<i>Liquidamber styraciflua</i>	Sweetgum	5, 4	3	4	No	Fair	-
1320	<i>Fraxinus uhdei</i>	shamel ash	21	4	4	Yes	Good	Yes
1321	<i>Fraxinus uhdei</i>	shamel ash	17	5	4	Yes	Good	Yes
1322	<i>Fraxinus uhdei</i>	shamel ash	23	4	4	Yes	Good	Yes
1323	<i>Pinus canariensis</i>	Canary Island pine	22	3	4	Yes	Fair	Yes
1324	<i>Pinus canariensis</i>	Canary Island pine	23	4	4	Yes	Good	-
2001	<i>Populus nigra 'italica'</i>	Lombardy poplar	49	3	1	Yes	Poor	-
2002	<i>Populus nigra 'italica'</i>	Lombardy poplar	53	3	4	Yes	Fair	-
2003	<i>Populus nigra 'italica'</i>	Lombardy poplar	58, 35	5	3	Yes	Good	-
2004	<i>Corymbia citriodora</i>	lemon scented gum	22	5	4	Yes	Good	-
2005	<i>Populus nigra 'italica'</i>	Lombardy poplar	52	5	4	Yes	Good	-
2006	<i>Schinus molle</i>	Peruvian pepper	54	4	3	Yes	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2007	<i>Eucalyptus nicholii</i>	peppermint eucalypt	46	4	2	Yes	Fair	-
2008	<i>Pinus canariensis</i>	Canary Island pine	26	3	3	Yes	Fair	-
2009	<i>Pinus canariensis</i>	Canary Island pine	21	2	3	Yes	Fair	-
2010	<i>Pinus canariensis</i>	Canary Island pine	15	2	4	Yes	Fair	-
2011	<i>Eucalyptus sp.</i>	Eucalyptus sp.	28, 21	4	3	Yes	Fair	-
2012	<i>Eucalyptus nicholii</i>	peppermint eucalypt	31	5	4	Yes	Good	-
2013	<i>Pinus canariensis</i>	Canary Island pine	21	4	4	Yes	Good	-
2014	<i>Pinus canariensis</i>	Canary Island pine	30	4	2	Yes	Fair	-
2015	<i>Pinus canariensis</i>	Canary Island pine	20	4	3	Yes	Fair	-
2016	<i>Pinus canariensis</i>	Canary Island pine	21	4	3	Yes	Fair	-
2017	<i>Pinus canariensis</i>	Canary Island pine	23	4	3	Yes	Fair	-
2018	<i>Ligustrum lucidum</i>	glossy privet	11	3	3	No	Fair	-
2020	<i>Ligustrum lucidum</i>	glossy privet	6	4	3	No	Fair	-
2023	<i>Ligustrum lucidum</i>	glossy privet	13	4	2	Yes	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2024	<i>Ligustrum lucidum</i>	glossy privet	17	4	4	Yes	Good	-
2025	<i>Ligustrum lucidum</i>	glossy privet	13	3	4	Yes	Fair	-
2028	<i>Ligustrum lucidum</i>	glossy privet	15	3	3	Yes	Fair	-
2029	<i>Jacaranda mimosifolia</i>	Jacaranda	13	2	2	Yes	Poor	-
2030	<i>Jacaranda mimosifolia</i>	Jacaranda	10	4	4	No	Good	-
2031	<i>Jacaranda mimosifolia</i>	Jacaranda	8	4	4	No	Good	-
2032	<i>Jacaranda mimosifolia</i>	Jacaranda	11	4	4	No	Good	-
2033	<i>Jacaranda mimosifolia</i>	Jacaranda	9	2	3	No	Fair	-
2034	<i>Ligustrum lucidum</i>	glossy privet	9	4	3	No	Fair	-
2035	<i>Ligustrum lucidum</i>	glossy privet	10	4	1	No	Fair	-
2037	<i>Ligustrum lucidum</i>	glossy privet	16	4	3	Yes	Fair	-
2038	<i>Pinus canariensis</i>	Canary Island pine	19	4	5	Yes	Good	-
2039	<i>Pinus canariensis</i>	Canary Island pine	25	4	3	Yes	Fair	-
2040	<i>Ligustrum lucidum</i>	glossy privet	6	4	3	No	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2043	<i>Ligustrum lucidum</i>	glossy privet	8	2	2	No	Poor	-
2044	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	35	5	4	Yes	Good	-
2045	<i>Corymbia citriodora</i>	lemon scented gum	23	5	2	Yes	Fair	-
2046	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	24	3	4	Yes	Fair	-
2047	<i>Pinus canariensis</i>	Canary Island pine	33	5	4	Yes	Good	-
2048	<i>Pinus canariensis</i>	Canary Island pine	26	2	3	Yes	Fair	-
2049	<i>Pittosporum eugenioides</i>	Lemonwood	6, 3, 3	1	1	No	Poor	-
2050	<i>Pittosporum eugenioides</i>	Lemonwood	7, 6, 6	1	1	No	Poor	-
2051	<i>Pittosporum eugenioides</i>	Lemonwood	5, 4	1	1	No	Poor	-
2052	<i>Pinus canariensis</i>	Canary Island pine	27	4	3	Yes	Fair	-
2053	<i>Pinus canariensis</i>	Canary Island pine	21	4	4	Yes	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2054	<i>Pinus canariensis</i>	Canary Island pine	25	4	2	Yes	Fair	-
2055	<i>Pittosporum eugenioides</i>	Lemonwood	6	0	0	No	Poor	-
2056	<i>Pittosporum eugenioides</i>	Lemonwood	7, 6	1	1	No	Poor	-
2057	<i>Pittosporum eugenioides</i>	Lemonwood	9, 6, 5	1	1	No	Poor	-
2058	<i>Pinus canariensis</i>	Canary Island pine	24	5	4	Yes	Good	-
2059	<i>Pinus canariensis</i>	Canary Island pine	23	5	4	Yes	Good	-
2060	<i>Pittosporum eugenioides</i>	Lemonwood	7	0	0	No	Poor	-
2061	<i>Pittosporum eugenioides</i>	Lemonwood	8, 7	0	0	No	Poor	-
2062	<i>Pinus canariensis</i>	Canary Island pine	22	4	4	Yes	Good	-
2063	<i>Pittosporum eugenioides</i>	Lemonwood	9, 5	2	1	No	Poor	-
2064	<i>Pittosporum eugenioides</i>	Lemonwood	5, 4	4	2	No	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2065	<i>Pittosporum eugenioides</i>	Lemonwood	7	3	1	No	Poor	-
2066	<i>Pittosporum eugenioides</i>	Lemonwood	10, 10, 5	4	3	No	Fair	-
2067	<i>Ligustrum lucidum</i>	glossy privet	12	4	3	Yes	Fair	-
2068	<i>Pinus canariensis</i>	Canary Island pine	24	5	3	Yes	Good	-
2069	<i>Pinus canariensis</i>	Canary Island pine	22	4	3	Yes	Fair	-
2070	<i>Pinus canariensis</i>	Canary Island pine	19	4	3	Yes	Fair	-
2071	<i>Pinus canariensis</i>	Canary Island pine	22	4	4	Yes	Good	-
2072	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	29	5	3	Yes	Good	-
2073	<i>Pinus canariensis</i>	Canary Island pine	14	3	4	Yes	Fair	-
2074	<i>Pittosporum eugenioides</i>	Lemonwood	6, 5, 5, 3, 3	3	4	No	Fair	-
2076	<i>Pittosporum eugenioides</i>	Lemonwood	6, 5, 5	1	2	No	Poor	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2078	<i>Pittosporum eugenioides</i>	Lemonwood	6	1	2	No	Poor	-
2079	<i>Ligustrum lucidum</i>	glossy privet	10	5	4	No	Good	-
2080	<i>Ligustrum lucidum</i>	glossy privet	7	3	4	No	Fair	-
2081	<i>Ligustrum lucidum</i>	glossy privet	13	3	4	Yes	Fair	-
2082	<i>Pinus canariensis</i>	Canary Island pine	24	5	4	Yes	Good	-
2083	<i>Eucalyptus sideroxylon</i>	red ironbark	27	4	4	Yes	Good	-
2085	<i>Ligustrum lucidum</i>	glossy privet	9	4	5	No	Good	-
2086	<i>Ligustrum lucidum</i>	glossy privet	5	3	2	No	Fair	-
2089	<i>Ligustrum lucidum</i>	glossy privet	5	4	2	No	Fair	-
2091	<i>Populus nigra 'italica'</i>	Lombardy poplar	51	5	3	Yes	Good	-
2092	<i>Pinus canariensis</i>	Canary Island pine	31	5	5	Yes	Good	-
2093	<i>Pinus canariensis</i>	Canary Island pine	17	5	4	Yes	Good	-
2094	<i>Pinus canariensis</i>	Canary Island pine	18	5	5	Yes	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2095	<i>Pinus canariensis</i>	Canary Island pine	23	5	4	Yes	Good	-
2096	<i>Pinus canariensis</i>	Canary Island pine	24	4	4	Yes	Good	-
2097	<i>Pittosporum eugenioides</i>	Lemonwood	7, 6, 6, 5, 5	4	3	No	Fair	-
2098	<i>Pittosporum eugenioides</i>	Lemonwood	7, 6, 6, 5, 3	4	3	No	Fair	-
2099	<i>Pittosporum eugenioides</i>	Lemonwood	7, 7, 6	4	1	No	Fair	-
2100	<i>Pittosporum eugenioides</i>	Lemonwood	7, 5, 5	4	3	No	Fair	-
2101	<i>Pittosporum eugenioides</i>	Lemonwood	6, 4, 4	2	4	No	Fair	-
2102	<i>Pittosporum eugenioides</i>	Lemonwood	7, 4	4	3	No	Fair	-
2103	<i>Pittosporum eugenioides</i>	Lemonwood	5, 3	4	3	No	Fair	-
2104	<i>Pittosporum eugenioides</i>	Lemonwood	6, 6	4	3	No	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2105	<i>Pinus canariensis</i>	Canary Island pine	22	5	5	Yes	Good	-
2106	<i>Pinus canariensis</i>	Canary Island pine	17	5	4	Yes	Good	-
2107	<i>Pinus canariensis</i>	Canary Island pine	26	5	5	Yes	Good	-
2108	<i>Pittosporum eugenioides</i>	Lemonwood	6, 5, 4, 4, 4, 3	4	4	No	Good	-
2109	<i>Pittosporum eugenioides</i>	Lemonwood	8, 5, 5, 4, 4, 3	3	4	No	Fair	-
2110	<i>Pittosporum eugenioides</i>	Lemonwood	4, 3, 2	3	4	No	Fair	-
2111	<i>Pittosporum eugenioides</i>	Lemonwood	8, 5, 3, 3, 3, 3	3	3	No	Fair	-
2112	<i>Pittosporum eugenioides</i>	Lemonwood	4, 3, 3, 3, 3, 3	4	4	No	Good	-
2113	<i>Pittosporum eugenioides</i>	Lemonwood	9, 4, 4, 2, 2	4	3	No	Fair	-
2114	<i>Pittosporum eugenioides</i>	Lemonwood	5, 2, 2, 2	4	4	No	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2115	<i>Pittosporum eugenioides</i>	Lemonwood	9, 8, 7, 5	3	4	No	Fair	-
2116	<i>Pittosporum eugenioides</i>	Lemonwood	5	0	0	Yes	Poor	-
2118	<i>Pinus canariensis</i>	Canary Island pine	22	5	4	Yes	Good	-
2119	<i>Pinus canariensis</i>	Canary Island pine	19	4	4	Yes	Good	-
2120	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	30	4	3	Yes	Fair	-
2121	<i>Liquidamber styraciflua</i>	Sweetgum	14	5	4	Yes	Good	-
2122	<i>Liquidamber styraciflua</i>	Sweetgum	17	5	3	Yes	Good	-
2123	<i>Liquidamber styraciflua</i>	Sweetgum	15	4	4	Yes	Good	-
2124	<i>Liquidamber styraciflua</i>	Sweetgum	18	5	3	Yes	Good	-
2125	<i>Liquidamber styraciflua</i>	Sweetgum	16	5	4	Yes	Good	-
2126	<i>Liquidamber styraciflua</i>	Sweetgum	12	5	3	Yes	Good	-
2127	<i>Liquidamber styraciflua</i>	Sweetgum	16	5	3	Yes	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2128	<i>Liquidamber styraciflua</i>	Sweetgum	16	5	3	Yes	Good	-
2129	<i>Pinus canariensis</i>	Canary Island pine	25	3	4	Yes	Fair	-
2130	<i>Pinus canariensis</i>	Canary Island pine	20	4	5	Yes	Good	-
2131	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	18	5	4	Yes	Good	-
2132	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	20	4	5	Yes	Good	-
2133	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	25	4	3	Yes	Fair	-
2134	<i>Pinus canariensis</i>	Canary Island pine	16	3	4	Yes	Fair	-
2135	<i>Pinus canariensis</i>	Canary Island pine	23	4	4	Yes	Good	-
2140	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	9	4	4	No	Good	-
2142	<i>Pinus canariensis</i>	Canary Island pine	21	5	4	Yes	Good	-
2143	<i>Pinus canariensis</i>	Canary Island pine	21	5	4	Yes	Good	-
2144	<i>Jacaranda mimosifolia</i>	Jacaranda	9	5	4	No	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2147	<i>Pinus canariensis</i>	Canary Island pine	27	3	3	Yes	Fair	-
2148	<i>Pinus canariensis</i>	Canary Island pine	27	5	5	Yes	Good	-
2149	<i>Pittosporum eugenioides</i>	Lemonwood	4, 4, 2	5	4	No	Good	-
2151	<i>Gleditsia triacanthos</i> 'inermis'	thornless honey locust	12	4	4	Yes	Good	-
2152	<i>Liquidamber styraciflua</i>	Sweetgum	16	5	4	Yes	Good	-
2153	<i>Liquidamber styraciflua</i>	Sweetgum	18	3	4	Yes	Fair	-
2154	<i>Liquidamber styraciflua</i>	Sweetgum	18	5	4	Yes	Good	-
2156	<i>Liquidamber styraciflua</i>	Sweetgum	15	3	1	Yes	Poor	-
2157	<i>Liquidamber styraciflua</i>	Sweetgum	17	3	2	Yes	Fair	-
2158	<i>Liquidamber styraciflua</i>	Sweetgum	16	4	3	Yes	Fair	-
2159	<i>Pinus canariensis</i>	Canary Island pine	24	5	4	Yes	Good	-
2160	<i>Pinus canariensis</i>	Canary Island pine	22	3	4	Yes	Fair	-
2161	<i>Pinus canariensis</i>	Canary Island pine	22	4	5	Yes	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2162	<i>Eucalyptus sideroxylon</i>	red ironbark	19	4	2	Yes	Fair	-
2163	<i>Pinus canariensis</i>	Canary Island pine	28	4	5	Yes	Good	-
2164	<i>Pinus canariensis</i>	Canary Island pine	22	4	3	Yes	Fair	-
2165	<i>Pinus canariensis</i>	Canary Island pine	24	5	2	Yes	Fair	-
2166	<i>Eucalyptus sideroxylon</i>	red ironbark	35	5	2	Yes	Fair	-
2167	<i>Eucalyptus sideroxylon</i>	red ironbark	19	5	2	Yes	Fair	-
2168	<i>Eucalyptus sideroxylon</i>	red ironbark	22	5	2	Yes	Fair	-
2170	<i>Quercus ilex</i>	Holly oak	5, 4	5	2	No	Fair	-
2172	<i>Quercus agrifolia</i>	California live oak	16, 13	15, 4	3	Yes	Fair	-
2173	<i>Liquidamber styraciflua</i>	Sweetgum	12	5	2	Yes	Fair	-
2174	<i>Liquidamber styraciflua</i>	Sweetgum	10	4	4	No	Good	-
2175	<i>Liquidamber styraciflua</i>	Sweetgum	14	5	2	Yes	Fair	-
2176	<i>Liquidamber styraciflua</i>	Sweetgum	9	5	2	No	Fair	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2177	<i>Liquidamber styraciflua</i>	Sweetgum	13	4	3	Yes	Fair	-
2180	<i>Pinus canariensis</i>	Canary Island pine	25	3	4	Yes	Fair	-
2181	<i>Pinus canariensis</i>	Canary Island pine	19	4	4	Yes	Good	-
2182	<i>Pinus canariensis</i>	Canary Island pine	24	4	4	Yes	Good	-
2183	<i>Pittosporum eugenioides</i>	Lemonwood	6, 5	3	2	No	Fair	-
2184	<i>Eucalyptus sideroxylon</i>	red ironbark	23	2	2	Yes	Poor	-
2185	<i>Pittosporum eugenioides</i>	Lemonwood	5, 3, 2	4	3	No	Fair	-
2186	<i>Pittosporum eugenioides</i>	Lemonwood	3, 2, 2, 1	4	3	No	Fair	-
2187	<i>Pittosporum eugenioides</i>	Lemonwood	4, 3	5	3	No	Good	-
2188	<i>Pinus canariensis</i>	Canary Island pine	20	4	3	Yes	Fair	-
2189	<i>Pinus canariensis</i>	Canary Island pine	18	4	4	Yes	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2190	<i>Pittosporum eugenioides</i>	Lemonwood	3, 3	3	3	No	Fair	-
2191	<i>Pittosporum eugenioides</i>	Lemonwood	4, 3, 3, 3, 3, 3	3	3	No	Fair	-
2192	<i>Pittosporum eugenioides</i>	Lemonwood	3, 3, 2	3	2	No	Fair	-
2193	<i>Gleditsia triacanthos</i> 'inermis'	thornless honey locust	12	5	4	Yes	Good	-
2194	<i>Liquidamber styraciflua</i>	Sweetgum	13	5	3	Yes	Good	-
2195	<i>Liquidamber styraciflua</i>	Sweetgum	16	5	3	Yes	Good	-
2196	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	30	4	3	Yes	Fair	Yes
2197	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	24	4	3	Yes	Fair	Yes
2198	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	22	2	3	Yes	Fair	-
2199	<i>Eucalyptus sideroxylon</i>	red ironbark	17	2	2	Yes	Poor	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2200	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	20	2	3	Yes	Fair	-
2201	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	28	5	3	Yes	Good	-
2202	<i>Populus nigra 'italica'</i>	Lombardy poplar	71	3	1	Yes	Poor	-
2203	<i>Populus nigra 'italica'</i>	Lombardy poplar	37, 36	3	3	Yes	Fair	-
2204	<i>Populus nigra 'italica'</i>	Lombardy poplar	27	3	4	Yes	Fair	-
2205	<i>Populus nigra 'italica'</i>	Lombardy poplar	57	3	4	Yes	Fair	-
2206	<i>Populus nigra 'italica'</i>	Lombardy poplar	29	3	1	Yes	Poor	-
2207	<i>Populus nigra 'italica'</i>	Lombardy poplar	60	3	4	Yes	Fair	-
2208	<i>Pinus canariensis</i>	Canary Island pine	9	3	2	No	Fair	-
2209	<i>Pinus canariensis</i>	Canary Island pine	29	4	4	Yes	Good	-
2210	<i>Eucalyptus sideroxylon</i>	red ironbark	20	3	4	Yes	Fair	-
2213	<i>Pinus canariensis</i>	Canary Island pine	20	4	4	Yes	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2214	<i>Prunus cerasifera</i>	purple leaf plum	4, 3, 3, 2, 2	5	4	No	Good	-
2218	<i>Pittosporum eugenioides</i>	Lemonwood	4, 3, 3, 3, 3	4	2	No	Fair	-
2219	<i>Pinus canariensis</i>	Canary Island pine	15	3	1	Yes	Poor	-
2220	<i>Pinus canariensis</i>	Canary Island pine	27	4	4	Yes	Good	-
2221	<i>Pinus canariensis</i>	Canary Island pine	19	3	4	Yes	Fair	-
2222	<i>Pinus canariensis</i>	Canary Island pine	17	3	4	Yes	Fair	-
2223	<i>Pittosporum eugenioides</i>	Lemonwood	5, 5, 4, 3	3	2	No	Fair	-
2224	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	21	4	2	Yes	Fair	-
2225	<i>Pittosporum eugenioides</i>	Lemonwood	7	4	4	No	Good	-
2226	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	29	4	4	Yes	Good	-
2227	<i>Osmanthus fragrans</i>	Fragrant Olive	6, 4	4	4	No	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2228	<i>Osmanthus fragrans</i>	Fragrant Olive	8, 6, 2, 1	4	4	No	Good	-
2229	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	23	5	3	Yes	Good	-
2230	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	22	4	4	Yes	Good	-
2231	<i>Osmanthus fragrans</i>	Fragrant Olive	5, 4, 3	3	3	No	Fair	-
2232	<i>Osmanthus fragrans</i>	Fragrant Olive	6, 6, 1	3	3	No	Fair	-
2233	<i>Osmanthus fragrans</i>	Fragrant Olive	7, 5, 4	3	3	No	Fair	-
2234	<i>Pinus canariensis</i>	Canary Island pine	30	4	4	Yes	Good	-
2235	<i>Pinus canariensis</i>	Canary Island pine	26	4	5	Yes	Good	-
2236	<i>Liquidamber styraciflua</i>	Sweetgum	18	4	2	Yes	Fair	-
2238	<i>Osmanthus fragrans</i>	Fragrant Olive	10	4	3	No	Fair	-
2239	<i>Osmanthus fragrans</i>	Fragrant Olive	11	4	2	No	Fair	-
2240	<i>Osmanthus fragrans</i>	Fragrant Olive	9, 8, 4, 4	4	2	No	Fair	-
2241	<i>Osmanthus fragrans</i>	Fragrant Olive	9, 8, 4	4	4	No	Good	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2242	<i>Liquidamber styraciflua</i>	Sweetgum	15	4	4	Yes	Good	-
2243	<i>Osmanthus fragrans</i>	Fragrant Olive	7, 7, 6	4	4	No	Good	-
2244	<i>Osmanthus fragrans</i>	Fragrant Olive	6, 5, 4	4	3	No	Fair	-
2245	<i>Osmanthus fragrans</i>	Fragrant Olive	6, 5, 5	4	4	No	Good	-
2246	<i>Liquidamber styraciflua</i>	Sweetgum	12	5	4	Yes	Good	-
2247	<i>Quercus ilex</i>	Holly oak	17	5	4	Yes	Good	-
2248	<i>Quercus ilex</i>	Holly oak	11	3	4	No	Fair	-
2249	<i>Quercus ilex</i>	Holly oak	21	4	2	Yes	Fair	-
2250	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	33	4	4	Yes	Good	-
2251	<i>Pinus canariensis</i>	Canary Island pine	21	3	3	Yes	Fair	-
2252	<i>Pinus canariensis</i>	Canary Island pine	26	1	1	Yes	Poor	-
2253	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	27	2	1	Yes	Poor	-

Tree Tag	Scientific Name	Common Name	DBH	Health	Structure	Protected Tree?	Health and Structure Rating	Preserve?
2254	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	26	4	3	Yes	Fair	-
2255	<i>Eucalyptus polyanthemos</i>	silver dollar eucalypt	18	4	5	Yes	Good	-
2256	<i>Gleditsia triacanthos</i> 'inermis'	thornless honey locust	12	3	2	Yes	Fair	-
2257	<i>Liquidamber styraciflua</i>	Sweetgum	12	4	3	Yes	Fair	-
2259	<i>Pittosporum eugenioides</i>	Lemonwood	9, 4, 3	3	2	No	Fair	-
2260	<i>Pittosporum eugenioides</i>	Lemonwood	7, 5, 4, 4	4	2	No	Fair	-
2261	<i>Pittosporum eugenioides</i>	Lemonwood	6, 5	3	2	No	Fair	-
2301	<i>Liquidamber styraciflua</i>	Sweetgum	14	3	3	Yes	Fair	Yes
2302	<i>Pinus canariensis</i>	Canary Island pine	23	2	2	Yes	Poor	-

Appendix D. Representative Photos



Photo 1. Tree #1043, African fern pine (*Afrocarpus falcatus*).



Photo 2. Tree 1006 (left side), Canary Island pine (*Pinus canariensis*). Tree #1011 (right side), purple leaf plum (*Prunus cerasifera*).



Photo 3. Tress 1048-1051 (left to right), all are Chinese elm (*Ulmus parvifolia*).



Photo 4. Trees 2124-2126 (left to right), all are sweetgum (*Liquidambar styraciflua*).



Photo 5. Tree 2144 (foreground), jacaranda (*Jacaranda mimosifolia*) and Trees 2142-2143 (background), Canary Island pine (*Pinus canariensis*).