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EXISTING CONDITION ASSESSMENT

For

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Development Director

For Service at

400 MOFFETT BLVD
MOUNTAIN VIEW, CA



August 2, 2023 ; Revised September 27, 2023



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WHY DID SAVATREE INVENTORY AND ASSESS THE TREES AT 400 MOFFETT BLVD?

You are planning the development of a multi-use property in Mountain View, CA. The property currently contains a strip mall, with various vendors, including a separate building that is currently a restaurant. The rest of the usable space is a parking lot.

You retained SavATree to visually inspect each tree on the property, identify the trees, record the subject trees attributes, and provide a detailed report including map of tree locations.

HOW DID SAVATREE CONDUCT THE ASSESSMENT OF THE SUBJECT TREES?

We visited the site on 7/21/2023.

We reviewed the following documents:

- ALTA survey: 22 1212 22184-ALTA ALTA-400
- Topographic Map: 23 0111 22184-TS-400 Moffett
- Proposed site plan: 400 Moffett site plan
- Google map aerial: 400 Moffett googlemap
- Development application checklist for City of Mountain View
- Chapter 32 of the Mountain View - City Code

The diameter was measured with a diameter tape at 4.5' above grade, otherwise known as Diameter at Breast Height (DBH). Trees were tagged with aluminum tags nailed to the tree with galvanized box nails.

The photos were taken with an iPhone 12 and mapped utilizing a GIS based application. Photos were taken in the app, storing the tree information taken.

Observations in this report are based on visual inspection of the above- ground parts of the tree at the time of the site visit. No soil was removed for below-grade inspection and no aerial inspection was performed. Information in this letter may warrant further investigation as site conditions change over time.

SavATree collected the following data:

- Tree Species
- Tree Health
- Tree size (circumference as measured 4.5' or 54" above grade)
- Heritage or City Street tree designation
- Tag number of each subject tree
- Proposed status (i.e., Retain or remove)
- Graphic site plan labeling all tree locations.

Acronyms and Definitions:

Within the report below we will utilize the following acronyms:

DBH – Diameter of tree as measured 4.5' above grade.

CRZ – Critical Root Zone (1' around the trunk of each tree per 1" of tree diameter).

SRZ – Structural Root Zone (0.5' around the trunk of each tree per 1" of tree diameter).

Epicormic growth – Branches defined as shoots arising from adventitious or dormant buds on the stem or branch of a woody plant, often following exposure to increased light levels.

Heritage Tree – Mountain View City Code Chapter 32, Article II, SEC 32.23 "Definitions" defines that a "Heritage tree" shall mean any one of the following:

1. A tree which has a trunk with a circumference of forty-eight (48) inches or more measured at fifty-four (54) inches above natural grade.
2. A multi-branched tree which has major branches below fifty-four (54) inches above the natural grade with a circumference of forty-eight (48) inches measured just below the first major trunk fork.
3. Any Quercus (oak), Sequoia (redwood), or Cedrus (cedar) tree with a circumference of twelve (12) inches or more when measured at fifty-four (54) inches above natural grade.
4. A tree or grove of trees designated by resolution of the city council to be of special historical value or of significant community benefit.

WHAT DID SAVATREE FIND?

A total of twenty-five trees were inventoried on the property. At this time, all trees are assumed to conflict with the development plans and are not intended to be retained.

Condition Rating

Of the data collected in the field, health and structural ratings were combined to give each tree a cumulative conditional health rating. The health of the tree is determined by its current size, canopy density, coloration, the appearance of any abnormalities or deficiencies and the overall health of the trunk, crown, and visible roots. The structure of the tree is evaluated based on the tree's natural, expected growth habit and form versus current growth habit, as well as the tree's inherent and exhibited structural integrity and deficiencies. Health and condition are subjective and species dependent.

Our rating system is as follows:

Excellent (100%) – Tree is of exceptional health and vigor for species. There are no structural defects, or significant asymmetry in the canopy. There is no visible damage to the trunk or branches and pruning cuts have compartmentalized well. Foliage is of excellent appearance for species.

Good (80%) – The vigor is normal for the tree species with minor twig dieback. Defects are minor and easily corrected. The canopy may have minor asymmetry which could be due to pruning for clearance.

Fair (60%) – The vigor is normal or reduced. There is an accumulation of dead branches. Defects are present in the canopy that may or may not be correctable. There may be an active pest infestation. The canopy has been reduced or is asymmetrical.

Poor (40%) – The tree is in decline and likely will not recover. Foliage quality and color is poor. Dead or missing branches comprise over 50 percent of the tree canopy. There may be serious structural deficiencies in the tree.

Critical (20%) – The tree is functionally dead, with less than 25 percent of canopy left alive. The trees will not recover.

Dead – Little to no indication of life.

Most of the trees on site were in fair condition (18 trees), followed by good (4 trees), poor (2 trees), and critical (1 tree). This is to be expected from the growing conditions, and regional weather for this site.

Details from each tree tree inventoried can be viewed below in Table 1.

Tree Count and Composition

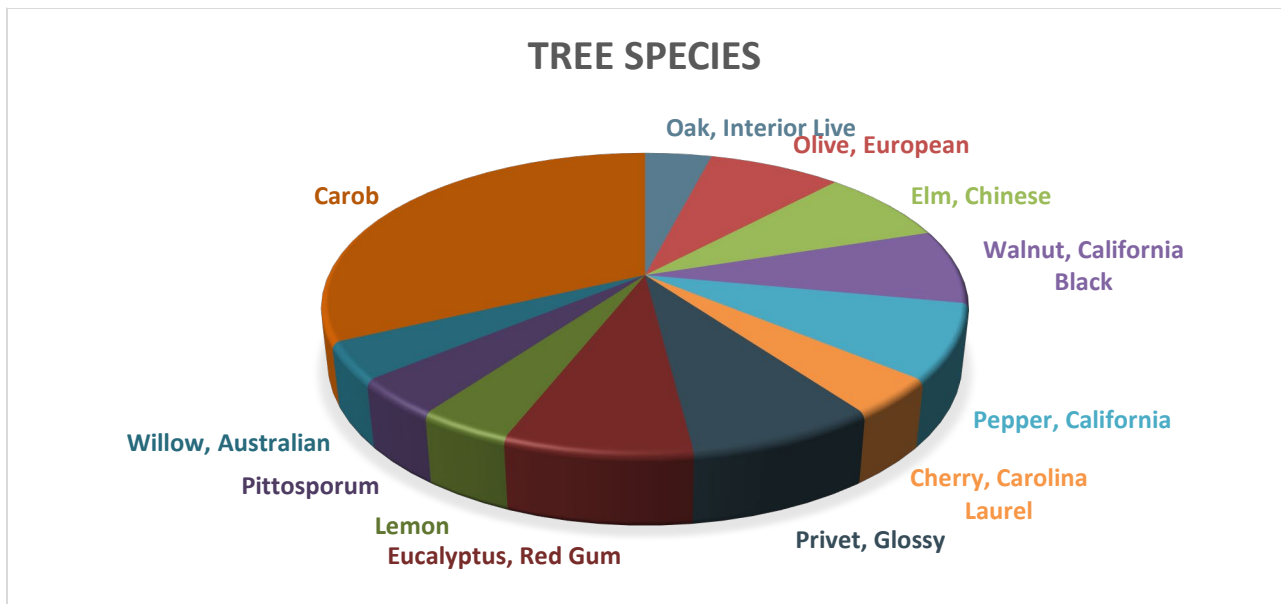
Table 1 - Summary of tree data

ID	Tag #	Species	DBH	Circumference	Health	Proposed Status	Heritage Tree
1	901	Oak, Interior Live	17"	53.4"	60% - Fair	Remove	Yes
2	902	Olive, European	5"	15.7"	80% - Good	Remove	No
3	903	Elm, Chinese	8"	25"	60% - Fair	Remove	No
4	905	Walnut, California Black	12"	37.7"	80% - Good	Remove	No
5	906	Pepper, California	15"	47"	60% - Fair	Remove	No
6	904	Cherry, Carolina Laurel	8"	25"	80% - Good	Remove	No
7	920	Privet, Glossy	5"	15.7"	40% - Poor	Remove	No
8	917	Eucalyptus, Red Gum	25"	78.6"	60% - Fair	Remove	Yes
9	919	Olive, European	11"	34.6"	60% - Fair	Remove	No
10	915	Elm, Chinese	2"	6.3"	60% - Fair	Remove	No
11	918	Lemon	4"	12.6"	80% - Good	Remove	No
12	914	Pittosporum	7"	22"	20% - Critical	Remove	No
13	916	Willow, Australian	3"	9.2"	60% - Fair	Remove	No
14	913	Carob	21"	66"	60% - Fair	Remove	Yes
15	911	Carob	28"	88"	60% - Fair	Remove	Yes
16	908	Carob	20"	63"	60% - Fair	Remove	Yes
17	912	Carob	23"	72"	60% - Fair	Remove	Yes
18	926	Carob	13"	41"	60% - Fair	Remove	No
19	923	Carob	17"	53"	60% - Fair	Remove	Yes
20	921	Carob	16"	50"	60% - Fair	Remove	Yes
21	907	Carob	20"	63"	60% - Fair	Remove	Yes
22	909	Privet, Glossy	4"	12.6"	60% - Fair	Remove	No

23	910	Eucalyptus, Red Gum	22"	69"	60% - Fair	Remove	Yes
24	922	Walnut, California Black	36"	113"	40% - Poor	Remove	Yes
25	934	Pepper, California	13"	41"	60% - Fair	Remove	No

The most prevalent tree on the site was a Carob tree (*Ceratonia siliqua*) with eight individual trees. All other species had two or fewer individual trees. Figure 1 below shows a pie chart depicting the variety of species on the site.

Figure 1 - Tree species disposition



Site and Tree Conditions

Of the eight Carob trees, all are growing in constricted planter beds in the middle of the parking lot. Furthermore, the apparent pruning practices that have been implemented for clearance of parked vehicles, as well as line of site for the building, have resulted in topped canopies that are primarily made up of epicormic growth. Some of the epicormic growth has begun to graft through other branches, suggesting that the trees were topped and concurrently pruned in this manner for some time. The Carob trees in the parking lot appear to be the only tree subject to aggressive topping.

Of the remaining trees, the primary area of concern is heavily compacted soils, and restricted growing spaces. Several of the trees are being girdled by the concrete curbing of their planter beds.

Inadequate pruning earlier in the life of the subject trees, particularly the Heritage trees, has resulted in asymmetrical canopies, with codominant stems. Codominant stems are often combined with a narrow branch union. These narrow branch unions create a space on the tree that will develop included bark, which creates a structural weakness in the tree. These factors contribute to the overall health rating.

Of the twenty-five trees identified on the site, eleven of the trees are designated as Heritage trees at this time. Trees #5 and #25 are California Pepper (*Schinus mole*) that are considered 2 separate trees that originate from the same trunk location in the ground. Table 2 gives additional commentary on the condition of the Heritage trees, and significant observations of their condition.

Table 2 - Comments on Heritage trees

ID	Tag #	Species	Circumference	Note
1	901	Oak, Interior Live	53.4"	Growing into concrete at base causing girdling. Potential wetwood or bacterial infection. Codominant stems grafting
8	917	Eucalyptus, Red Gum	78.6"	Codominant stems roughly 10 feet up. Girdling roots at base. Signs of tortoise beetle damage on leaves. Poor taper in limbs due to epicormic nature.
14	913	Carob	66"	Healthy tree with severely impacted root zone. Major buttress roots, and crowded, overlapping canopy. Significant epicormic growth
15	911	Carob	88"	Measurement below the growth from trunk. The tree has been aggressively topped and has no structure. Trunk flare buried. Mostly adventitious growth
16	908	Carob	63"	Topped tree. Mostly adventitious growth. Significant decay in major limbs and into trunk.
17	912	Carob	72"	Topped tree. Multi trunk tree growing together. Significant included bark. Previously topped and trimmed for height. Mostly adventitious growth.
19	923	Carob	53"	Topped tree. Extremely poor structure with grafting branches.
20	921	Carob	50"	Topped tree. Extremely poor structure with grafting branches.
21	907	Carob	63"	Topped tree. Significant decay in limbs in several areas, crossing and crowded branching
23	910	Eucalyptus, Red Gum	69"	Signs of beetles feeding on leaves. Canopy dying back. Buried trunk flare. Major chlorosis.
24	922	Walnut, California Black	113"	Codominant trunk. Included bark. Buttress roots lifting driveway. Significant chlorosis and dieback in upper canopy

As previously noted, the Carob trees have been aggressively pruned in a manner that has destroyed their structure. Three Heritage trees have a Structural Root Zone (SRZ) that is being impacted by adjacent concrete, contributing to girdling. All trees Critical Root Zone (CRZ) are either covered, or severely impacted by hardscape. This greatly reduces the ability of the subject trees to survive any development.

CONCLUSIONS

The above tree inventory and evaluation should inform the planning committees for the City of Mountain View of the existing conditions of the trees present at 400 Moffett Blvd, as of the inspection date 7/21/2023.

All twenty-five trees found on the property will be impacted by the proposed development (Appendix - Figure 2). It is assumed, based upon tree location and footprint of proposed development, that none of these trees are suitable for preservation.

The tree locations are in direct conflict with the proposed site plan. Tree locations are located in Figure 3 and 4 in the Appendix. Of the trees that are on the border of the property and appear to fall within the green zone highlighted in Figure 2, only tree #4 (California black walnut), and tree #6 (Carolina Cherry Laurel) have a condition better than fair. Both are in good condition. Both trees additionally would be subject to significant impact from construction activity, with a reduced life cycle.

Tree preservation decisions are best identified in the planning phase and provided for in the design phase. As tree preservation occurs later in the sequence from planning->design->pre-construction->construction->post-construction, the cost of implementation increases and the probability of success decreases.

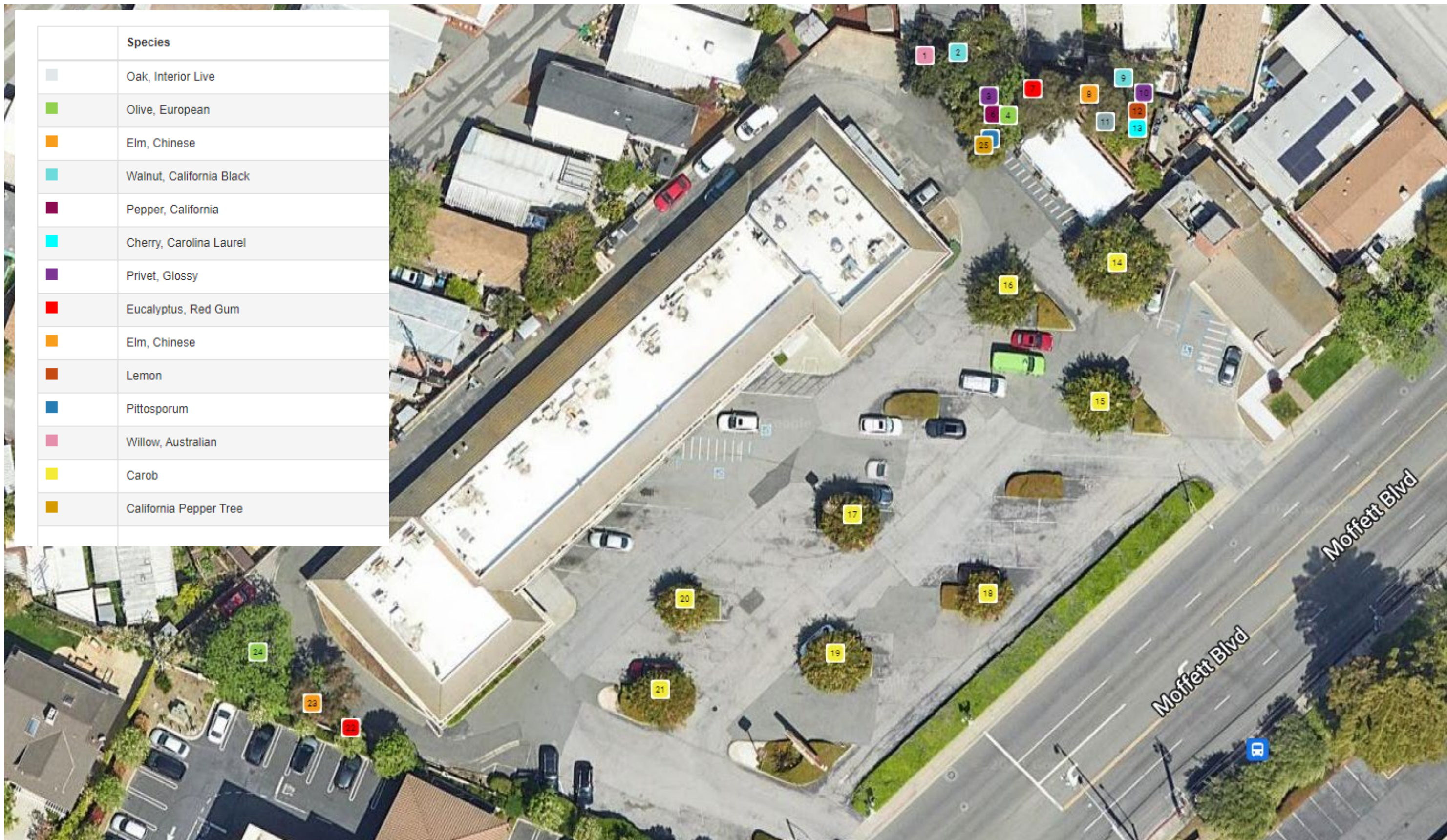
If any of the observed trees are desired to be preserved, proactive preservation strategies should be deployed as promptly as possible. There are no trees adjacent to the development that are expected to be impacted by the construction activity at this time. If changes to the proposed site plan are implemented, tree protection measures outlined in the City of Mountain View Tree Technical Manual, Chapter 8.10.3 "Best Management Practices for Protecting Trees Throughout Construction" shall be followed.

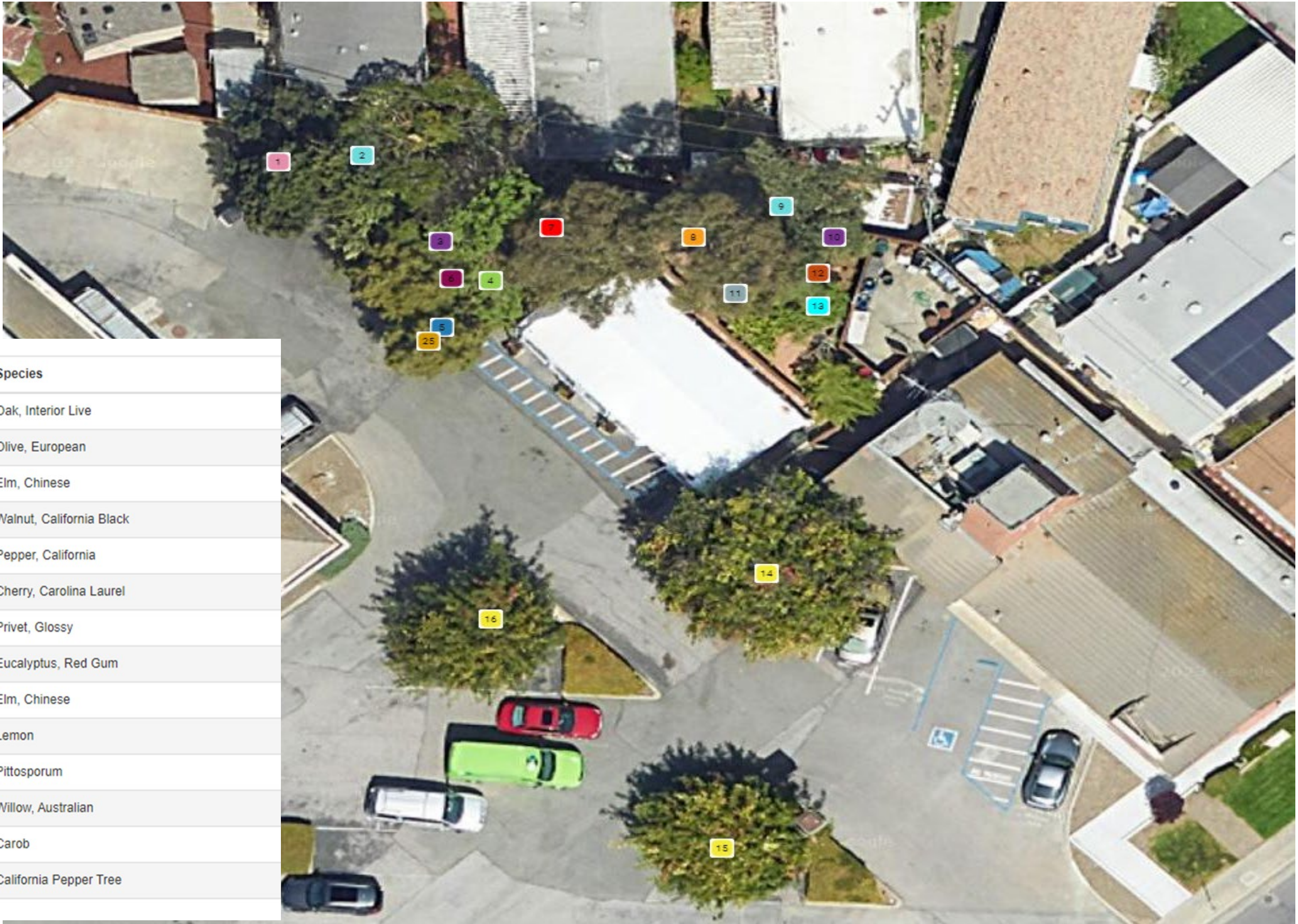
APPENDIX

Appendix A: Proposed Site Plan



Figure 2 - Proposed footprint of new development.





	Species
	Oak, Interior Live
	Olive, European
	Elm, Chinese
	Walnut, California Black
	Pepper, California
	Cherry, Carolina Laurel
	Privet, Glossy
	Eucalyptus, Red Gum
	Elm, Chinese
	Lemon
	Pittosporum
	Willow, Australian
	Carob
	California Pepper Tree



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