2411 GLASSELL STREET
CITY OF ORANGE
ORANGE COUNTY, CALIFORNIA
TREE REPORT

Prepared by:

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Signature
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EXECUTIVE SUMMARY

This summary addresses the findings and recommendations of this tree report. The following data and information provided to complete this report was collected in an honorable manner to comply with the City of Orange Tree Ordinance. Physical analysis of the parcel was completed to verify current site conditions and to evaluate the surrounding habitat and environment. Two hundred and eighty-two (282) trees were identified during the survey, this includes trees within the project location and within the city of Orange Right-of-Way (ROW). The tree species identified were Aleppo pine (*Pinus halepensis*), Chinese elm (*Ulmus parvifolia*), Canary Island date palm (*Phoenix canarensis*), and Peruvian pepper tree (*Schisnus molle*).

PROJECT OVERVIEW

The purpose of this tree report is to address trees located on 2411 Glassell Street (APN: 374-381-01 and 374-381-02) in the City of Orange in Orange County, California. This tree report was prepared to determine the deposition of the trees on the property in accordance with City of Orange Municipal Code. I also reviewed adjacent properties to see if protected trees or shrubs be impacted by the construction activities.

Tree Retention and Preservation Efforts

Avoidance and Minimization Measures:

This project has been designed to avoid impacting on-site biological resources by having the building footprint moved away from the tree root zone. If encroachment of the tree root zone is necessary, then Air spading technique used for excavation will be required.

Temporary Fencing will be installed to prevent impact to the Tree Root Zone.

This report complies with City of Orange Municipal Code which establishes protection of trees within the public right-of-way. Figure 2 provides the proposed site plan.

The following information is included in this report:

- Mapped location of all native trees of protected size.
- Identification of all trees subject to native tree protection
- A list of trees to be removed or preserved.
- A summary of tree replacement mitigation as required by City of Orange Municipal Code

City of Orange Municipal Code

The following excerpts provide guidance from City of Orange Municipal Code for tree removal permits:

The grantee shall not remove any tree or trim any portion, either above, at or below ground level, of any tree with any public place without the prior consent of the city. The city shall have the right to do the work with the actual cost thereof to be paid by the grantee. If such trimming is not performed by the city, the grantee shall be responsible for any and all damages to any tree as a result of trimming, or to land surround any tree, whether such tree is trimmed or removed.

FIELD METHODOLOGY

All trees were assessed by ISA certified arborist (WE-12191A) and CNPS certified botanist (CFB #0079) Rico Ramirez, on February 1, 2025 and April 18, 2025. The following steps were used to document each tree within the project site:

- Identified tree species.
- Documented Diameter at Standard Height (DSH).
- Recorded the location using a GPS unit with sub-meter accuracy.
- Photo-documented Mature trees.
- Evaluated overall tree health and physical structure.

The location and species identification of these mature trees were verified and included on **Table 1.**

TREE ASSESSMENT

There was a total of two hundred and eighty-two (282) trees evaluated during the site visit. Two Hundred and sixty-eight (268) trees are within the proposed project area, while thirteen (14) Aleppo pines (*Pinus halepensis*) trees are within the City of Orange Right-of-way.

Ninety-nine (99) Chinese elm trees (*Ulmus parvifolia*), eighty-eight (88) Canary island palms (*Phoenix canarensis*), Ninety-four (94) Aleppo pine (*Pinus halepensis*) and one (1) Peruvian pepper tree (*Schinus molle*). See **Table 1** for the tree profile. **Figure 3 and Figure 4** illustrates the location of these trees. All trees examined in this report have a tree trunk diameter of over 4 inches which meets the standard size to be considered a tree and not a sapling.

Longitude	Latitude	Common Name	Species	DSH (Inches)	Health	Insect Damage	Tree Height Estimate	Recommendations and comments
-117.8525029	33.82808527	Chinese Elm	*Ulmus parvifolia*	11	healthy	no	21_30_ft	small dead limbs
-117.8524305	33.8280837	Chinese Elm	*Ulmus parvifolia*	10	healthy	no	21_30_ft	small dead limbs
-117.8523537	33.82807887	Chinese Elm	*Ulmus parvifolia*	11.5	healthy	no	21_30_ft	small dead limbs
-117.8522148	33.82806495	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	no	11_20_ft	small dead limbs
-117.8521488	33.8280534	Chinese Elm	*Ulmus parvifolia*	9.5	healthy	no	11_20_ft	small dead limbs
-117.8520083	33.82825434	Chinese Elm	*Ulmus parvifolia*	8	healthy	no	21_30_ft	small dead limbs
-117.8520654	33.82825814	Chinese Elm	*Ulmus parvifolia*	8	healthy	no	21_30_ft	small dead limbs
-117.8521117	33.82825667	Chinese Elm	*Ulmus parvifolia*	8	healthy	no	21_30_ft	small dead limbs
-117.8521909	33.82826534	Chinese Elm	*Ulmus parvifolia*	7	healthy	no	21_30_ft	small dead limbs
-117.8522776	33.82827228	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	no	21_30_ft	small dead limbs
-117.8523403	33.82827661	Chinese Elm	*Ulmus parvifolia*	9	healthy	no	21_30_ft	small dead limbs
-117.8524236	33.82827984	Chinese Elm	*Ulmus parvifolia*	8	healthy	no	21_30_ft	small dead limb, ivy is starting to climb the tree
-117.8524913	33.82828819	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	no	11_20_ft	small dead limb
-117.8525612	33.82829004	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	no	11_20_ft	small dead limb
-117.8526744	33.82850356	Chinese Elm	*Ulmus parvifolia*	9	healthy	no	21_30_ft	small dead limbs, heavy lean 40°
-117.8526	33.8285	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	21_30_ft	small dead limbs ants on tree
-117.8524717	33.82849167	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	21_30_ft	small dead limbs ants on tree
-117.852375	33.82848667	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	21_30_ft	small dead limbs ants on tree, ivy

								is starting to climb the tree
-117.8523201	33.82848096	Chinese Elm	*Ulmus parvifolia*	10	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8522626	33.82848037	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8522015	33.82847334	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	yes	11_20_ft	small dead limbs, ants on tree, ivy is starting to climb
-117.8521233	33.82845667	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	yes	11_20_ft	small dead limbs, ants on tree, ivy is starting to climb
-117.8520369	33.82845425	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree, ivy is starting to climb
-117.8519945	33.82845444	Chinese Elm	*Ulmus parvifolia*	8.5	healthy	yes	21_30_ft	small dead limbs, ants on tree, leaning 40°
-117.8519633	33.82867019	Chinese Elm	*Ulmus parvifolia*	11	healthy	no	21_30_ft	small dead limbs
-117.8520144	33.82866292	Chinese Elm	*Ulmus parvifolia*	9	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8520547	33.82866627	Chinese Elm	*Ulmus parvifolia*	11	healthy	no	21_30_ft	small dead limbs, ivy starting to climb
-117.852098	33.82867492	Chinese Elm	*Ulmus parvifolia*	11	healthy	no	21_30_ft	small dead limbs, ivy starting to climb
-117.8521705	33.82867865	Chinese Elm	*Ulmus parvifolia*	11	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.852258	33.82869063	Chinese Elm	*Ulmus parvifolia*	11	healthy	yes	21_30_ft	small dead limbs, ants on the tree

-117.8523262	33.82868413	Chinese Elm	*Ulmus parvifolia*	10	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8524148	33.82868715	Chinese Elm	*Ulmus parvifolia*	10	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8524948	33.82869098	Chinese Elm	*Ulmus parvifolia*	10.5	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8525725	33.82869411	Chinese Elm	*Ulmus parvifolia*	10.5	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.852652	33.82870714	Chinese Elm	*Ulmus parvifolia*	11	healthy	no	21_30_ft	small dead limbs, heavy lean 30°
-117.8526802	33.8289044	Chinese Elm	*Ulmus parvifolia*	13	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8526248	33.82891033	Chinese Elm	*Ulmus parvifolia*	11	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8525716	33.82890908	Chinese Elm	*Ulmus parvifolia*	9.5	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8525072	33.82890898	Chinese Elm	*Ulmus parvifolia*	11	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8524223	33.82891267	Chinese Elm	*Ulmus parvifolia*	10	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8523411	33.82890384	Chinese Elm	*Ulmus parvifolia*	10	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8522583	33.82889833	Chinese Elm	*Ulmus parvifolia*	10	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8521746	33.82889165	Chinese Elm	*Ulmus parvifolia*	9.5	healthy	yes	21_30_ft	small dead limbs, ants on the tree
-117.8520681	33.82887642	Chinese Elm	*Ulmus parvifolia*	9.5	healthy	yes	21_30_ft	small dead limbs, ants on the tree, ivy on tree, oozing wound
-117.8519933	33.82887	Chinese Elm	*Ulmus parvifolia*	10.5	healthy	yes	21_30_ft	small dead limbs, ants on the tree, ivy on tree
-117.8519181	33.82886063	Chinese Elm	*Ulmus parvifolia*	11	healthy	no	21_30_ft	small dead limbs

-117.8518246	33.82884529	Chinese Elm	*Ulmus parvifolia*	13	healthy	no	31_40_ft	small dead limbs
-117.8517344	33.82884154	Chinese Elm	*Ulmus parvifolia*	13	healthy	no	31_40_ft	small dead limbs
-117.8517433	33.82871833	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.85179	33.82867664	Canary Island Palm	*Phoenix canariensis*	16.5	healthy	no	41_50_ft	none
-117.8518059	33.82862727	Canary Island Palm	*Phoenix canariensis*	16.5	healthy	no	41_50_ft	none
-117.8518262	33.82857813	Canary Island Palm	*Phoenix canariensis*	16.5	healthy	no	41_50_ft	none
-117.8518339	33.82852898	Canary Island Palm	*Phoenix canariensis*	22	healthy	no	41_50_ft	none
-117.8518455	33.82847819	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.851852	33.82843094	Canary Island Palm	*Phoenix canariensis*	18.5	healthy	no	41_50_ft	none
-117.8518405	33.82838879	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8518441	33.82833981	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8518346	33.8282976	Canary Island Palm	*Phoenix canariensis*	16	healthy	no	41_50_ft	none

-117.8518192	33.82823954	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8517833	33.82817241	Canary Island Palm	*Phoenix canariensis*	23	healthy	no	41_50_ft	none
-117.8517633	33.82813952	Canary Island Palm	*Phoenix canariensis*	23	healthy	no	41_50_ft	none
-117.8517267	33.828095	Canary Island Palm	*Phoenix canariensis*	23	healthy	no	41_50_ft	none
-117.8516885	33.82805167	Canary Island Palm	*Phoenix canariensis*	24	healthy	no	41_50_ft	none
-117.8516564	33.82800427	Canary Island Palm	*Phoenix canariensis*	24	healthy	no	41_50_ft	none
-117.851618	33.82797624	Canary Island Palm	*Phoenix canariensis*	23	healthy	no	41_50_ft	none
-117.8515706	33.82793713	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8515971	33.82795778	Canary Island Palm	*Phoenix canariensis*	23	healthy	no	41_50_ft	none
-117.851521	33.8278899	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8514665	33.8278744	Canary Island Palm	*Phoenix canariensis*	17.5	healthy	no	41_50_ft	none
-117.8514169	33.82785226	Canary Island Palm	*Phoenix canariensis*	19	healthy	no	41_50_ft	none

-117.8513777	33.82783127	Canary Island Palm	*Phoenix canariensis*	17.5	healthy	no	41_50_ft	none
-117.8513205	33.82780677	Canary Island Palm	*Phoenix canariensis*	17.5	healthy	no	41_50_ft	none
-117.852777	33.82789792	Canary Island Palm	*Phoenix canariensis*	14	healthy	no	41_50_ft	none
-117.852717	33.82790438	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8526559	33.82789715	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8525919	33.82789588	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8525284	33.82787919	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.8524424	33.82787488	Canary Island Palm	*Phoenix canariensis*	19	healthy	no	41_50_ft	none
-117.8523767	33.82786722	Canary Island Palm	*Phoenix canariensis*	16	healthy	no	41_50_ft	none
-117.8523099	33.82786452	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8522452	33.8278635	Canary Island Palm	*Phoenix canariensis*	15	healthy	no	41_50_ft	none
-117.8521864	33.82785652	Canary Island Palm	*Phoenix canariensis*	15	healthy	no	41_50_ft	none

-117.8521274	33.82785763	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8520603	33.82784752	Canary Island Palm	*Phoenix canariensis*	23	healthy	no	41_50_ft	none
-117.8520726	33.82774937	Canary Island Palm	*Phoenix canariensis*	16	healthy	no	41_50_ft	none
-117.8521229	33.82775343	Canary Island Palm	*Phoenix canariensis*	16	healthy	no	41_50_ft	none
-117.8521848	33.82775891	Canary Island Palm	*Phoenix canariensis*	15.5	healthy	no	41_50_ft	none
-117.8522517	33.82777167	Canary Island Palm	*Phoenix canariensis*	0	dead	no		Tree was removed
-117.8523083	33.82776519	Canary Island Palm	*Phoenix canariensis*	15.5	healthy	no	41_50_ft	none
-117.8523909	33.82777598	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8524573	33.82778763	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8525197	33.82778672	Canary Island Palm	*Phoenix canariensis*	19	healthy	no	41_50_ft	none
-117.8525846	33.82778685	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8526444	33.82779894	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none

-117.8527082	33.82779901	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8527653	33.82780106	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8527717	33.82769237	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8526523	33.82769813	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8525888	33.82769072	Canary Island Palm	*Phoenix canariensis*	22	healthy	no	41_50_ft	none
-117.8525289	33.82768244	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.8524603	33.82767867	Canary Island Palm	*Phoenix canariensis*	19	healthy	no	41_50_ft	none
-117.8524003	33.82767414	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8523442	33.82767601	Canary Island Palm	*Phoenix canariensis*	19	healthy	no	41_50_ft	none
-117.8522704	33.82767356	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.8521989	33.82766882	Canary Island Palm	*Phoenix canariensis*	19	healthy	no	41_50_ft	none
-117.8521248	33.82766218	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none

-117.8520708	33.82765923	Canary Island Palm	*Phoenix canariensis*	22	healthy	no	41_50_ft	none
-117.8503433	33.82792915	Chinese Elm	*Ulmus parvifolia*	9	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.850296	33.82791723	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8502212	33.82791649	Chinese Elm	*Ulmus parvifolia*	9	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8501484	33.8279107	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8500836	33.82789717	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8500161	33.82789734	Chinese Elm	*Ulmus parvifolia*	9.5	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8497283	33.82808333	Chinese Elm	*Ulmus parvifolia*	11	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8497923	33.82809136	Chinese Elm	*Ulmus parvifolia*	9	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8498473	33.82809485	Chinese Elm	*Ulmus parvifolia*	9	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8499097	33.82809811	Chinese Elm	*Ulmus parvifolia*	9	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8499989	33.82810471	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8500795	33.82810946	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8501184	33.82810963	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8501913	33.82811252	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8501675	33.82830951	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.850126	33.82831628	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree

-117.8500685	33.82831599	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8499885	33.82830996	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.84991	33.82829613	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8498329	33.82829628	Chinese Elm	*Ulmus parvifolia*	3	healthy	yes	1_10_ft	small dead limbs, ants on tree
-117.8497617	33.828285	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8497083	33.82828667	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.849637	33.82828159	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.849591	33.82827408	Chinese Elm	*Ulmus parvifolia*	8.5	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8495469	33.82847702	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8495967	33.828475	Chinese Elm	*Ulmus parvifolia*	8.5	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.84967	33.828485	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8497326	33.82849155	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8498139	33.82849334	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.849889	33.82849714	Chinese Elm	*Ulmus parvifolia*	3	healthy	yes	1_10_ft	small dead limbs, ants on tree
-117.849955	33.82850333	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8500226	33.82850957	Chinese Elm	*Ulmus parvifolia*	6	healthy	yes	1_10_ft	small dead limbs, ants on tree
-117.8500768	33.82851125	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8501436	33.82851691	Chinese Elm	*Ulmus parvifolia*	7.5	healthy	yes	11_20_ft	small dead limbs, ants on tree

-117.8500682	33.82871637	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.849974	33.82871105	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8499195	33.82870555	Chinese Elm	*Ulmus parvifolia*	7	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8498564	33.82870226	Chinese Elm	*Ulmus parvifolia*	6.5	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8497967	33.8287	Chinese Elm	*Ulmus parvifolia*	8.5	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8497209	33.82869008	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8496293	33.82868432	Chinese Elm	*Ulmus parvifolia*	8	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8495686	33.82868538	Chinese Elm	*Ulmus parvifolia*	8.5	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8495017	33.82867833	Chinese Elm	*Ulmus parvifolia*	8.5	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8494511	33.82866981	Chinese Elm	*Ulmus parvifolia*	12	healthy	yes	11_20_ft	small dead limbs, ants on tree
-117.8494845	33.82854108	Allepo Pine	*Pinus halepensis*	22	healthy		31_40_ft	none
-117.8503316	33.82861183	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8503237	33.82854412	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8503122	33.82848675	Canary Island Palm	*Phoenix canariensis*	19	healthy	no	41_50_ft	none
-117.8503107	33.82845667	Canary Island Palm	*Phoenix canariensis*	22	healthy	no	41_50_ft	none

-117.8503187	33.82840488	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.850322	33.82834857	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.8503324	33.82829959	Canary Island Palm	*Phoenix canariensis*	21	healthy	no	41_50_ft	none
-117.8503363	33.82825349	Canary Island Palm	*Phoenix canariensis*	21	healthy	no	41_50_ft	none
-117.8503426	33.82820235	Canary Island Palm	*Phoenix canariensis*	21	healthy	no	41_50_ft	none
-117.8503661	33.82815818	Canary Island Palm	*Phoenix canariensis*	21	healthy	no	41_50_ft	none
-117.8503978	33.82812748	Canary Island Palm	*Phoenix canariensis*	21	healthy	no	41_50_ft	none
-117.8504698	33.82810481	Peruvian Pepper	*Schinus molle*	19,13	healthy	no	21_30_ft	compacted soil
-117.850425	33.82808031	Canary Island Palm	*Phoenix canariensis*	21	healthy	no	41_50_ft	none
-117.850444	33.82804557	Canary Island Palm	*Phoenix canariensis*	22	healthy	no	41_50_ft	none
-117.8504721	33.82802149	Canary Island Palm	*Phoenix canariensis*	22	healthy	no	41_50_ft	none
-117.8505141	33.82797788	Canary Island Palm	*Phoenix canariensis*	22	healthy	no	41_50_ft	none

-117.8505508	33.82794026	Canary Island Palm	*Phoenix canariensis*	22	healthy	no	41_50_ft	none
-117.8505907	33.82791509	Canary Island Palm	*Phoenix canariensis*	22	healthy	no	41_50_ft	none
-117.8506314	33.82789102	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.8506732	33.82786646	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.8507304	33.82783572	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.8507888	33.82781037	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.8508421	33.82779631	Canary Island Palm	*Phoenix canariensis*	20	healthy	no	41_50_ft	none
-117.8509059	33.82778327	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8509528	33.82777868	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.8510067	33.82776	Canary Island Palm	*Phoenix canariensis*	17	healthy	no	41_50_ft	none
-117.851085	33.82776	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none
-117.8511267	33.82776	Canary Island Palm	*Phoenix canariensis*	18	healthy	no	41_50_ft	none

-117.8511724	33.82776609	Canary Island Palm	*Phoenix canariensis*	22	healthy	no	41_50_ft	none
-117.851255	33.82777833	Canary Island Palm	*Phoenix canariensis*	19	healthy	no	41_50_ft	none
-117.8505267	33.827744	Chinese Elm	*Ulmus parvifolia*	16	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8504683	33.82773333	Chinese Elm	*Ulmus parvifolia*	13	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.850385	33.82773	Chinese Elm	*Ulmus parvifolia*	14	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8503183	33.82772167	Chinese Elm	*Ulmus parvifolia*	14	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8502349	33.82771513	Chinese Elm	*Ulmus parvifolia*	14	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8501117	33.82772167	Chinese Elm	*Ulmus parvifolia*	14.5	healthy	yes	21_30_ft	small dead limbs, ants on tree
-117.8528258	33.82909383	Aleppo Pine	*Pinus halepensis*	16	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528383	33.82893333	Aleppo Pine	*Pinus halepensis*	15	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528517	33.82884	Aleppo Pine	*Pinus halepensis*	15	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528408	33.82878926	Aleppo Pine	*Pinus halepensis*	24	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528233	33.82878	Aleppo Pine	*Pinus halepensis*	15	hazard	no	41_50_ft	Located at the boarder of City

								ROW and Rexford parcel
-117.8528326	33.82873426	Aleppo Pine	*Pinus halepensis*	18	hazard	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.852825	33.8287	Aleppo Pine	*Pinus halepensis*	18	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.852815	33.82868167	Aleppo Pine	*Pinus halepensis*	18	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528199	33.82853939	Aleppo Pine	*Pinus halepensis*	18	hazard	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.852818	33.82851639	Aleppo Pine	*Pinus halepensis*	21	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528433	33.82849	Aleppo Pine	*Pinus halepensis*	13	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528086	33.82847178	Aleppo Pine	*Pinus halepensis*	15	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.852839	33.82846265	Aleppo Pine	*Pinus halepensis*	16	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528019	33.82845122	Aleppo Pine	*Pinus halepensis*	16	hazard	no	41_50_ft	Located at the boarder of City

								ROW and Rexford parcel
-117.8528264	33.82842675	Aleppo Pine	*Pinus halepensis*	17	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528005	33.82839538	Aleppo Pine	*Pinus halepensis*	13	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528149	33.82835847	Aleppo Pine	*Pinus halepensis*	16	hazard	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.852807	33.82832607	Aleppo Pine	*Pinus halepensis*	17	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528267	33.82829833	Aleppo Pine	*Pinus halepensis*	15	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528146	33.82827295	Aleppo Pine	*Pinus halepensis*	13, 13	hazard	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528333	33.82823833	Aleppo Pine	*Pinus halepensis*	13	healthy	no	21_30_ft	Located at the boarder of City ROW and Rexford parcel
-117.8527965	33.82823188	Aleppo Pine	*Pinus halepensis*	16	healthy	no	21_30_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528392	33.82820797	Aleppo Pine	*Pinus halepensis*	13	healthy	no	21_30_ft	Located at the boarder of City

								ROW and Rexford parcel
-117.8528183	33.82819833	Aleppo Pine	*Pinus halepensis*	11	healthy	no	21_30_ft	Located at the boarder of City ROW and Rexford parcel
-117.85281	33.82817	Aleppo Pine	*Pinus halepensis*	15	healthy	no	21_30_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528233	33.82815833	Aleppo Pine	*Pinus halepensis*	14	healthy	no	21_30_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528207	33.828146	Aleppo Pine	*Pinus halepensis*	22	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528471	33.82813265	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.852815	33.82811	Aleppo Pine	*Pinus halepensis*	22	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528168	33.82807476	Aleppo Pine	*Pinus halepensis*	21	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528317	33.82803333	Aleppo Pine	*Pinus halepensis*	19	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528133	33.82801667	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City

								ROW and Rexford parcel
-117.8528283	33.82800167	Aleppo Pine	*Pinus halepensis*	14	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528067	33.82800833	Aleppo Pine	*Pinus halepensis*	18	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8528383	33.82799667	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.852805	33.827985	Aleppo Pine	*Pinus halepensis*	15	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8527917	33.828025	Aleppo Pine	*Pinus halepensis*	20	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8526414	33.82912706	Aleppo Pine	*Pinus halepensis*	16	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8525521	33.8291478	Aleppo Pine	*Pinus halepensis*	16	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8524666	33.82913651	Aleppo Pine	*Pinus halepensis*	23	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8523432	33.82911693	Aleppo Pine	*Pinus halepensis*	18	hazard	no	31_40_ft	Located at the boarder of City

								ROW and Rexford parcel
-117.8522278	33.82910133	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8521688	33.82910133	Aleppo Pine	*Pinus halepensis*	13	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8521125	33.82910579	Aleppo Pine	*Pinus halepensis*	15	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8520535	33.82909688	Aleppo Pine	*Pinus halepensis*	14	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8520535	33.82909688	Aleppo Pine	*Pinus halepensis*	22	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8519703	33.8290991	Aleppo Pine	*Pinus halepensis*	20	healthy	yes	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8518711	33.82909242	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8517826	33.82907905	Aleppo Pine	*Pinus halepensis*	17	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8516994	33.82906791	Aleppo Pine	*Pinus halepensis*	15	hazard	no	31_40_ft	Located at the boarder of City

								ROW and Rexford parcel
-117.8516351	33.82907459	Aleppo Pine	*Pinus halepensis*	13	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8515707	33.82907459	Aleppo Pine	*Pinus halepensis*	15	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.851523	33.82905825	Aleppo Pine	*Pinus halepensis*	20	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8514795	33.82906791	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8514446	33.829059	Aleppo Pine	*Pinus halepensis*	17	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8513937	33.82905677	Aleppo Pine	*Pinus halepensis*	11	healthy	yes	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8513266	33.82904563	Aleppo Pine	*Pinus halepensis*	15	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8511818	33.82903449	Aleppo Pine	*Pinus halepensis*	17	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8510638	33.82903672	Aleppo Pine	*Pinus halepensis*	18	healthy	no	31_40_ft	Located at the boarder of City

								ROW and Rexford parcel
-117.8509308	33.82902459	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8512548	33.82904761	Aleppo Pine	*Pinus halepensis*	22	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8508672	33.82902706	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8508672	33.82902706	Aleppo Pine	*Pinus halepensis*	15	hazard	yes	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8508028	33.82902149	Aleppo Pine	*Pinus halepensis*	14	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8507572	33.82901481	Aleppo Pine	*Pinus halepensis*	13	healthy	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8507049	33.82902595	Aleppo Pine	*Pinus halepensis*	17	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8506553	33.82902038	Aleppo Pine	*Pinus halepensis*	22	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8506553	33.82902038	Aleppo Pine	*Pinus halepensis*	15	hazard	no	31_40_ft	Located at the boarder of City

								ROW and Rexford parcel
-117.8505842	33.82900812	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.850534	33.82900243	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8504756	33.82899587	Aleppo Pine	*Pinus halepensis*	18	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8503832	33.82899154	Aleppo Pine	*Pinus halepensis*	17	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8503416	33.82899376	Aleppo Pine	*Pinus halepensis*	15	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8502692	33.82898819	Aleppo Pine	*Pinus halepensis*	18	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8502088	33.82898523	Aleppo Pine	*Pinus halepensis*	19	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8501645	33.82898301	Aleppo Pine	*Pinus halepensis*	15	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8501095	33.82898078	Aleppo Pine	*Pinus halepensis*	19	healthy	no	41_50_ft	Located at the boarder of City

								ROW and Rexford parcel
-117.850025	33.82897298	Aleppo Pine	*Pinus halepensis*	14	hazard	no	41_50_ft	Located at the boarder of City ROW and Rexford parcel
-117.8499379	33.82896964	Aleppo Pine	*Pinus halepensis*	12	healthy	yes	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8498708	33.82895738	Aleppo Pine	*Pinus halepensis*	13	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8497836	33.82896184	Aleppo Pine	*Pinus halepensis*	14	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8497273	33.8289585	Aleppo Pine	*Pinus halepensis*	16	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8496696	33.82894624	Aleppo Pine	*Pinus halepensis*	12	healthy	yes	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.84951	33.82894513	Aleppo Pine	*Pinus halepensis*	17	healthy	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8494108	33.82890391	Aleppo Pine	*Pinus halepensis*	15	hazard	no	31_40_ft	Located at the boarder of City ROW and Rexford parcel
-117.8492546	33.82888299	Aleppo Pine	*Pinus halepensis*	18	healthy	no	31_40_ft	Located at the boarder of City

								ROW and Rexford parcel

RESULTS

Two hundred and eighty-two (282) trees total were surveyed during the site visit.

Two hundred and sixty-eight (268) trees are located within the project site, while thirteen (14) Aleppo pines (*Pinus halepensis*) trees are within the City of Orange Right-of-way see **Figure 4**.

There are ninety-four (94) total Aleppo pines trees border the property line and the City of Orange Right-of-way along the sidewalk and earth berm. See **Figure 4**. Thirteen (13) Aleppo pines belong to the City of Orange. Only One (1) City of Orange tree is expected to be removed.

Forty-three (43) out of the (94) Aleppo pine trees; including the (1) tree belonging to the City of Orange trees, are expected to be removed due to the construction of the retaining wall along Fletcher Ave and the increased risk of failure.

All (43) Aleppo pines (*Pinus halepensis*) trees along the Fletcher Ave and Glassell St have several signs of increased risk of failure. The signs of these trees include, uplifting root plate, off-balanced canopy, shallow root systems, exposed roots, 30° to 45° leans, and heavy trimming for utility line clearance. These trees are at hazard trees to the utility lines and public City of Orange ROW.

Additionally, there will be trees from within the new project footprint that would be removed. All Ninety-nine (99) Chinese elm trees (*Ulmus parvifolia*), eighty-eight (88) Canary island palms (*Phoenix canarensis*), and one (1) Peruvian pepper tree (*Schinus molle*) are expected to be removed.

Figure 3 and Figure 4 illustrate the location of these trees within the parcels. All trees on the parcel are non-native ornamentally planted trees.

There were no native or heritage trees observed during the survey. All trees are listed in Table 1 above. Photographs of the overall landscape were captured and included in Appendix A.

CONCLUSIONS & RECOMMENDATIONS

All two hundred and eighty-two (282) trees that were mapped were above 4 inches DBH and are considered a tree from the City of Orange Municipal Code. There are no native or heritage trees will be removed as a result of this project.

The proposed development project requires the removal **of a total of (232) trees,** consisting of the following**:** Ninety-nine (99) Chinese elm trees (*Ulmus parvifolia*), eighty-eight (88) Canary island palms (*Phoenix canarensis*), and one (1) Peruvian pepper tree (*Schinus molle*) from within the parcels existing parking lots and ornamental landscape plus (43) Aleppo pines (*Pinus halepensis*) trees on the berm adjacent to the City of Orange ROW and only one (1) City of Orange tree is expected to be removed and will require a tree removal permit.

The trees that will be removed should be replanted in accordance with the City of Orange Municipal code. The trees that will remain should be incorporated into the design plan to minimize impacts to these trees, See **Figure 1 landscape plan**.

However, if the avoidance is not feasible, the trees will need to be removed and replaced with the required replacement value of tree.

It is recommended that the mitigation trees will be grown from locally sourced nurseries from the Orange county area to offset excessive carbon emissions from outsourced transport.

Best Management Practices

The following measures will help reduce impacts and promote good tree health for the preserved trees. Tree Protected Zone (TPZ) is the area within the dripline of the tree and extending at least five feet beyond the dripline, or 15 feet from the trunk of the tree, whichever is greater.

Design recommendations

The TPZ of all trees listed in Table 1 should be avoided during project design. Specific TPZs will be identified when construction plans are finalized and shall be shown on the final plan set (civil and landscape). Underground services such as utility lines, irrigation, or piping shall be placed outside the TPZ.

Pre-construction recommendations

Temporary orange safety fencing shall be installed prior to ground-disturbing operations to clearly delineate the TPZ. The fence shall stay in place throughout grading and construction.

If pruning is required to provide adequate construction clearance, all pruning shall be completed by a Certified Arborist or Tree Worker, not by construction personnel. Pruning activities must adhere to the latest edition of the ANSI Z133 and A300 standards as well as the International Society of Arboriculture "Best Management Practices Tree Pruning".

Construction recommendations

All contractors shall conduct operations in a manner that will prevent damage to protected trees. No work, grading, excavation, construction, storage, parking, or dumping shall occur within the fenced TPZ. Construction of underground services shall not cause impacts in the TPZ. The fencing may not be relocated or removed without permission of a qualified arborist or biologist, and shall remain in-place until all site work has been completed.

If injury should occur to any protected tree during construction, it should be evaluated as soon as possible by the qualified arborist or biologist so that appropriate treatments can be applied.

It is recommended that decayed or diseased trees identified during this be removed to prevent the spread of disease, pathogens or pests and for fire safety

Figure 1. Landscape Plan

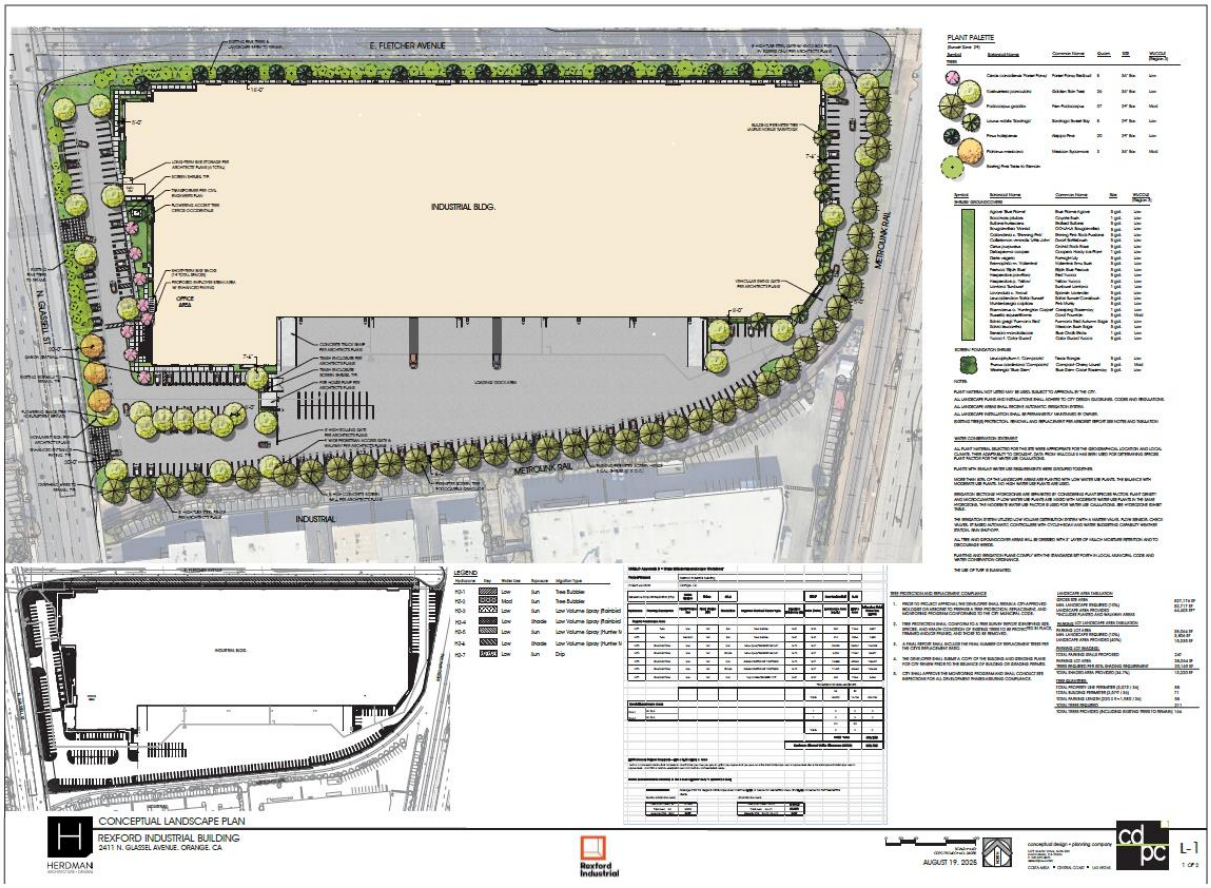


Figure 2. Site Plan

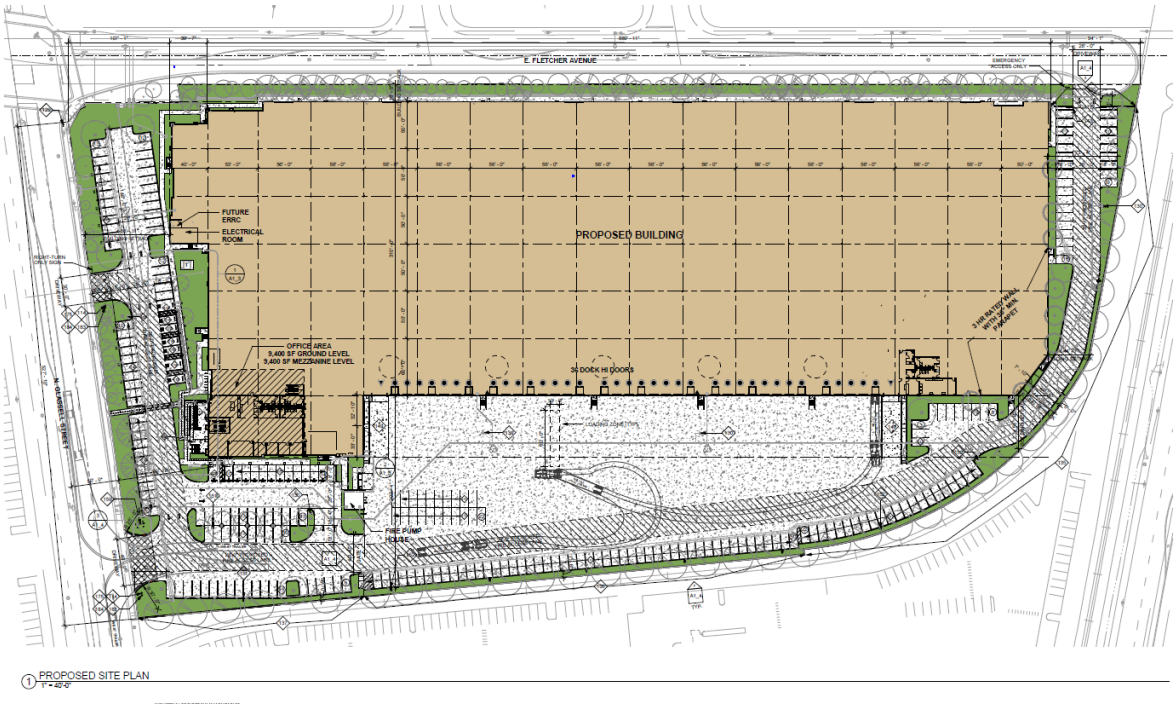


Figure 3. Existing Tree Locations.

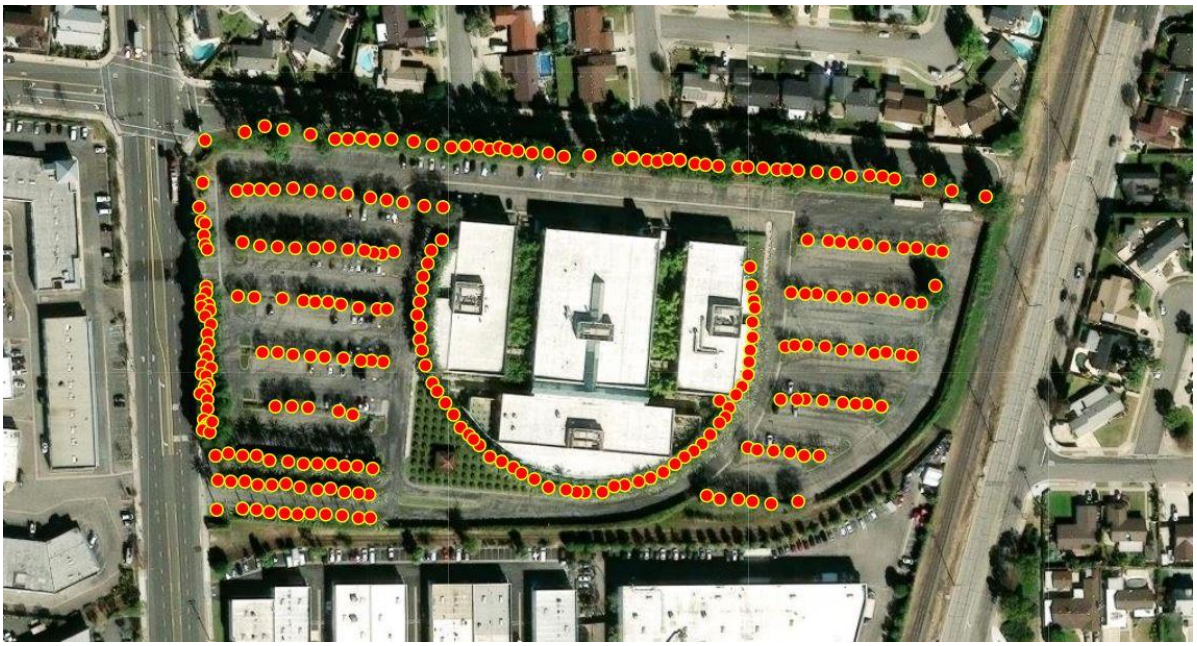


Figure 4. Existing Trees to be Removed and Retained

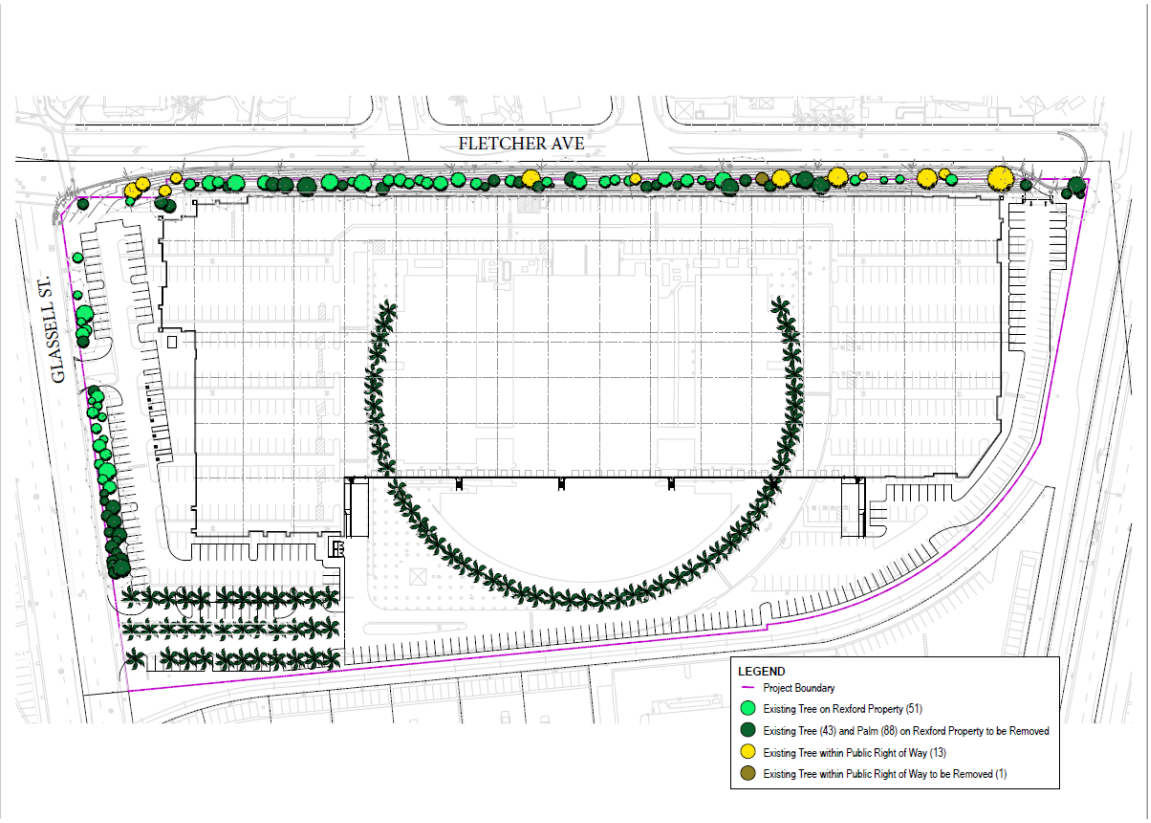
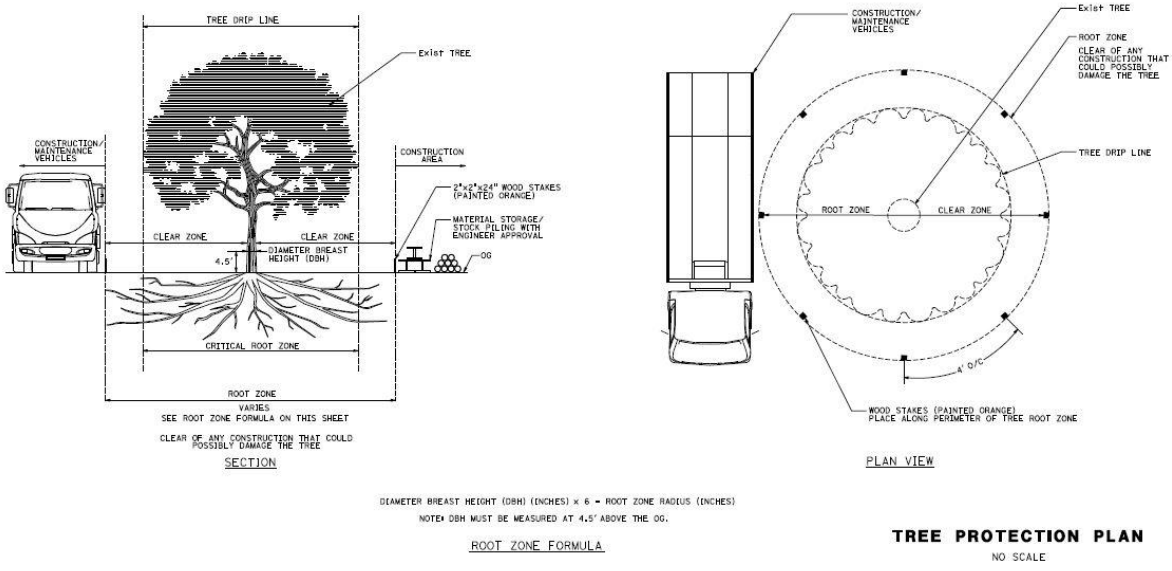


Figure 5. Tree Protection Plan.



Appendix A

Photo Compendium