



Callander Associates
Landscape Architecture



ARBORIST'S REPORT

For West Santa Inez Condos

San Mateo, CA

Submitted To:

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Revised June 13, 2017

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1.0 INTRODUCTION

Callander Associates has been retained to evaluate and report on trees located on and adjacent to the property at 4 West Santa Inez Avenue in San Mateo. The plan is to remove the existing structures and build a multi-family building, which would require the removal of all of the existing trees on site as well as protecting a Heritage redwood tree and a row of Italian Cypressess on the adjacent properties.

Specific tasks performed were as follows:

- Visited site 8/20/2015
- Identify and confirm tree locations and obtain photographs of trees; see Appendix D.
- Determine the trees trunk diameter (DBH) at approximately 48 inches above grade per the City of San Mateo's *Municipal Code, Chapter 13.52* (trunk diameters are rounded to the nearest inch).
- Identify heritage trees on property.
- Identify trees on adjacent properties and provide protection measures.
- Ascertain each tree's health and structural integrity. (Scale of 1-5).
- Provide a Tree Evaluation Schedule with the value assessment for each existing tree per the City of San Mateo's *Municipal Code, Section 27.71.180*

2.0 TREE SUMMARY

A total of 33 trees were identified on and adjacent to the site and were inventoried for this report. **Tree #23** is not on the property, but located at 11 Engle Road adjacent to the project. **Trees #24-33** are also not on the property, but located on West Santa Inez Avenue. They are numbered and the table below identifies their name, assigned numbers, counts and percentages of total.

NAME	TREE NUMBER(S)	COUNT	% OF TOTAL
Field Maple	6,7,9-11	5	15%
Coast Live Oak	2,4,5,13	4	12%
California Privet	18,22	2	6%
Apple Tree	8	1	3%
California Pepper	19	1	3%
Canary Island Date Palm	12	1	3%
Coast Redwood	14, 23	2	6%
English Hawthorne	15	1	3%
Fig Tree	20	1	3%
Flowering Plum	3	1	3%
Lemon Tree	21	1	3%
Myrtle	16	1	3%
Sweet Gum	1	1	3%
Pineapple Guava	17	1	3%
Italian Cypress	24-33	10	30%

Total Trees

33

100%

Specific Information regarding each tree is presented within the *Tree Inventory Spreadsheet* in **Appendix A.**

The locations of trees are presented on the *Tree Disposition Plan* in **Appendix C.**

Photos of the majority of trees are presented in **Appendix D**.

A total of 6 trees are designated as Heritage Trees pursuant to *San Mateo Municipal Code, Chapter 13.52*:

- (1) Any bay (Umbellularia californica), buckeye (Aesculus spp.), oak (Quercus spp.), cedar (Cedrus) or redwood (Sequoia) tree that has a diameter of ten (10) inches or more measured at forty-eight (48) inches above natural grade;*
- (2) Any tree or stand of trees designated by resolution of the City Council to be of special historical value or of significant community benefit;*
- (3) A stand of trees, the nature of which makes each dependent on the others for survival;*
- (4) Any other tree with a trunk diameter of sixteen (16) inches or more, measured at forty-eight (48) inches above natural grade.*

Five Heritage Trees are recommended for removal for this project.

3.0 TREE SCORING CRITERIA

Each tree has been evaluated for health and structural condition using a scale of 1-5 based on the International Society of Arboriculture (ISA) standard guidelines on the Tree Inventory Spreadsheet:

- 5:** A healthy, vigorous tree, reasonably free of signs and symptoms of disease with good structure and form typical of species.
- 4:** Tree with slight decline vigor, small amount of twig dieback, minor structural defects that could be corrected.
- 3:** Tree with moderate vigor, moderate amount of twig and small branch dieback and structural defects that might be corrected with regular care.
- 2:** Tree in decline, extensive dieback of medium to large branches and significant structural defects that cannot be corrected.
- 1:** Trees in severe decline, dieback of scaffold branches and/or trunk; extensive structural defects that cannot be corrected.

4.0 ASSUMPTIONS AND LIMITATIONS

1. The scope of work assigned for this report pertains solely to trees listed in Appendix A.
2. All information presented in this report considers the condition and appearance of trees observed at the time of the site visit.
3. My observations were performed visually without extensive probing, excavating or testing.
4. The information provided herein represents my opinion and may differ from other professionals, arborists or consultants.
5. This report has been prepared for the sole and exclusive use of the parties to whom it is submitted for the purpose of consulting services provided by Callander Associates.
6. If any part of this report or copy is lost or altered, the entire evaluation shall be invalid.

Prepared by: _____



Date: June 7, 2017

Shawn Sanfilippo

ISA Certified Arborist WE-8874A

APPENDIX A

TREE INVENTORY SPREADSHEET

**TREE INVENTORY SPREADSHEET
4 W. SANTA INEZ AVE., SAN MATEO**

TOTAL		TO BE REMOVED
27	<9" DBH FOR OAKS & CEDARS/15" FOR ALL OTHERS-NOT A HERITAGE TREE	17
6	>10" DBH FOR OAKS & CEDARS/16" FOR ALL OTHERS-HERITAGE TREE	5
33	TOTAL	22

Tree #	Botanical Name	Common Name	DBH	Condition	Comments	Remove
1	Liquidamber styraciflua	Sweet Gum	12"	4	Surface roots raising asphalt	X
2	Quercus agrifolia	Coast Live Oak	10"	4	Covered with ivy	X
3	Prunus cerasifera	Flowering Plum	4"	2	Covered with ivy	X
4	Quercus agrifolia	Coast Live Oak	8"	3	Covered with ivy	X
5	Quercus agrifolia	Coast Live Oak	8"	3	Covered with ivy	X
6	Acer campestre	Field Maple	6"	2	Covered with ivy	X
7	Acer campestre	Field Maple	8"	2	Covered with ivy	X
8	Malus domestica	Apple Tree	15"	2	Fungus evident	X
9	Acer campestre	Field Maple	8"/6"	3	Multi-trunk	X
10	Acer campestre	Field Maple	10"	3	Multi-trunk	X
11	Acer campestre	Field Maple	8"/6"	3	Multi-trunk	X
12	Phoenix canariensis	Canary Is. Date Palm	32"	4	Prune old fronds	X
13	Quercus agrifolia	Coast Live Oak	18"/16"	4	Next to house	X
14	Sequoia sempervirens	Coast Redwood	28"	4	Next to house	X
15	Crataegus laevigata	English Hawthorn	7"	2	Stressed	X
16	Myrtus communis	Myrtle	6"	4		X
17	Feijoa sellowiana	Pineapple Guava	6"	3		X
18	Ligustrum lucidum	California Privet	8"	3	Covered with ivy	X
19	Schinus molle	California Pepper	20"	3		X

TREE INVENTORY SPREADSHEET
4 W. SANTA INEZ AVE., SAN MATEO

20	Fig	Fig Tree	12"	4		X
21	Citrus spp.	Lemon Tree	6"	4		X
22	Ligustrum lucidum	California Privet	8"	3		X
23	Sequoia sempervirens	Coast Redwood	40"	4	Neighboring property	
24	Cupressus sempervirens	Italian Cypress	4"	4	Neighboring property	
25	Cupressus sempervirens	Italian Cypress	4"	4	Neighboring property	
26	Cupressus sempervirens	Italian Cypress	4"	4	Neighboring property	
27	Cupressus sempervirens	Italian Cypress	4"	4	Neighboring property	
28	Cupressus sempervirens	Italian Cypress	4"	4	Neighboring property	
29	Cupressus sempervirens	Italian Cypress	4"	4	Neighboring property	
30	Cupressus sempervirens	Italian Cypress	4"	4	Neighboring property	
31	Cupressus sempervirens	Italian Cypress	4"	4	Neighboring property	
32	Cupressus sempervirens	Italian Cypress	4"	4	Neighboring property	
33	Cupressus sempervirens	Italian Cypress	4"	4	Neighboring property	

TREE EVALUATION SCHEDULE

APPENDIX B

TREE EVALUATION SCHEDULE
4 W. SANTA INEZ
SAN MATEO

TO BE REMOVED

27	≤9" DBH FOR OAKS & CEDARS/15" FOR ALL OTHERS-NOT A HERITAGE TREE			17
6	≥10" DBH FOR OAKS & CEDARS/16" FOR ALL OTHERS-HERITAGE TREE			5

33 TOTAL

Tree #	Common Name	Species ** Value %	Condition Value %	Location Value %	Multiplier	Tree Caliper in.	.70 if in allowable building area	1.25 if Heritage Tree	Total LU Value	Removal LU Value
1	Sweet Gum	0.4	0.6	0.4	.35	12	0.7	1	2.3	X
2	Coast Live Oak	1.0	0.6	0.6	.35	10	0.7	1.25	9.0	X
3	Flowering Plum	0.4	0.4	0.6	.35	4	0.7	1	0.8	X
4	Coast Live Oak	1.0	0.6	0.6	.35	8	0.7	1	5.8	X
5	Coast Live Oak	1.0	0.6	0.6	.35	8	0.7	1	5.8	X
6	Field Maple	0.6	0.6	0.6	.35	6	0.7	1	2.6	X
7	Field Maple	0.6	0.6	0.6	.35	8	0.7	1	3.5	X
8	Apple Tree	0.2	0.2	0.2	.35	15	0.7	1	0.2	X
9	Field Maple	0.6	0.6	0.7	.35	8	0.7	1	4.0	X
10	Field Maple	0.6	0.6	0.7	.35	10	0.7	1	5.0	X
11	Field Maple	0.6	0.6	0.7	.35	8	0.7	1	4.0	X
12	Canary Is. Date Palm	0.8	0.7	0.6	.35	32	0.7	1.25	26.9	X
13	Coast Live Oak	1.0	0.6	0.6	.35	18	0.7	1.25	16.2	X
14	Coast Redwood	1.0	0.7	0.7	.35	28	0.7	1.25	34.3	X
15	English Hawthorn	0.6	0.5	0.5	.35	7	0.7	1	2.1	X
16	Myrtle	0.2	0.6	0.6	.35	6	0.7	1	0.9	X
17	Pineapple Guava	0.2	0.6	0.6	.35	6	0.7	1	0.9	X
18	California Privet	0.4	0.6	0.6	.35	8	0.7	1	2.3	X
19	California Pepper	0.7	0.7	0.6	.35	20	0.7	1.25	14.7	X

22

TREE EVALUATION SCHEDULE
4 W. SANTA INEZ
SAN MATEO

20	Fig	0.2	0.6	0.6	.35	12	0.7	1	1.7	X
21	Lemon Tree	0.2	0.7	0.6	.35	6	0.7	1	1.0	X
22	California Privet	0.4	0.6	0.6	.35	8	0.7	1	2.3	X
23	Coast Redwood	1.0	0.7	0.7	.35	40	1.0	1.25	70.0	
24	Italian Cypress	0.6	0.6	0.6	.35	4	1.0	1	2.5	
25	Italian Cypress	0.6	0.6	0.6	.35	4	1.0	1	2.5	
26	Italian Cypress	0.6	0.6	0.6	.35	4	1.0	1	2.5	
27	Italian Cypress	0.6	0.6	0.6	.35	4	1.0	1	2.5	
28	Italian Cypress	0.6	0.6	0.6	.35	4	1.0	1	2.5	
29	Italian Cypress	0.6	0.6	0.6	.35	4	1.0	1	2.5	
30	Italian Cypress	0.6	0.6	0.6	.35	4	1.0	1	2.5	
31	Italian Cypress	0.6	0.6	0.6	.35	4	1.0	1	2.5	
32	Italian Cypress	0.6	0.6	0.6	.35	4	1.0	1	2.5	
33	Italian Cypress	0.6	0.6	0.6	.35	4	1.0	1	2.5	
Total LU Calculation of Trees to be Removed									199.5	146.2

* Species Value % is based on Species Classification and Group Assignment, published by the Western Chapter ISA.

APPENDIX C
TREE DISPOSITION PLAN

KEY NUMBER (REFER TO TREE DISPOSITION LIST)	EXISTING TREE TO BE REMOVED	EXISTING TREE TO REMAIN
21	<input checked="" type="checkbox"/>	<input type="checkbox"/>



SECT	DIA	BOTANICAL NAME	COMMON NAME	TO BE REPRODUCED	COMMENTS	CONDITION	HERITAGE VALUE
1	10"	LIGUARIUM STRACAPILLIA	SOFT GUM	YES	ROOTS LIFTING ASPHALT	GOOD CONDITION	NO
2	12"	QUERCUS AGRIFFOLIA	COAST LIVE OAK	YES	COVERED WITH IVY	GOOD CONDITION	YES
3	4"	PRUNUS CERASIFERA	FLOWERING PLUM	YES	COVERED WITH IVY	GOOD CONDITION	NO
4	8"	QUERCUS AGRIFFOLIA	COAST LIVE OAK	YES	COVERED WITH IVY	GOOD CONDITION	NO
5	5'	QUERCUS AGRIFFOLIA	COAST LIVE OAK	YES	COVERED WITH IVY	GOOD CONDITION	NO
6	6"	ACER CAMPESTRE	FIELD MAPLE	YES	COVERED WITH IVY	GOOD CONDITION	NO
7	8"	ACER CAMPESTRE	FIELD MAPLE	YES	COVERED WITH IVY	GOOD CONDITION	NO
8	15'	MALUS DOMESTICA	APPLE TREE	YES	FINDING EVIDENT	GOOD CONDITION	NO
9	8 1/2"	ACER CAMPESTRE	FIELD MAPLE	YES	MULTI-TRUNK	GOOD CONDITION	NO
10	10"	ACER CAMPESTRE	FIELD MAPLE	YES	MULTI-TRUNK	GOOD CONDITION	NO
11	8 1/2"	ACER CAMPESTRE	FIELD MAPLE	YES	MULTI-TRUNK	GOOD CONDITION	NO
12	32'	PHOENIX CANARIENSIS	CANARY IS. DATE PALM	YES	PRUNE OLD FRONDS	GOOD CONDITION	YES
13	18 1/2"	QUERCUS AGRIFFOLIA	COAST LIVE OAK	YES	ADJACENT TO HOUSE	GOOD CONDITION	YES
14	20"	QUERCUS SEMPERVIRENS	COAST REDWOOD	YES	ADJACENT TO HOUSE	GOOD CONDITION	YES
15	1'	CRATAEGUS LAEVIVENTA	ENGLISH HAWTHORN	YES	STRESSED	GOOD CONDITION	NO
16	6'	MYRTUS COMMNIS	MYRTLE	YES		GOOD CONDITION	NO
17	6"	FELDIA BELLONIANA	PINEAPPLE GUAVA	YES		GOOD CONDITION	NO
18	6"	LIGUSTRUM LUCIDUM	CALIFORNIA PRIVET	YES	COVERED WITH IVY	GOOD CONDITION	NO
19	20"	SCINUS MOLLE	CALIFORNIA PEPPER	YES		GOOD CONDITION	YES
20	12"	FIG	FIG TREE	YES		GOOD CONDITION	NO
21	6"	CITRUS SPP.	LEMON TREE	YES		GOOD CONDITION	NO
22	6"	LIGUSTRUM LUCIDUM	CALIFORNIA PRIVET	YES		GOOD CONDITION	NO
23	40"	QUERCUS SEMPERVIRENS	COAST REDWOOD	YES	NEIGHBORING PROPERTY	GOOD CONDITION	YES
24	4"	CUPRESSUS SEMPERVIRENS	ITALIAN REDWOOD	NO	NEIGHBORING PROPERTY	GOOD CONDITION	NO
25	4"	CUPRESSUS SEMPERVIRENS	ITALIAN REDWOOD	NO	NEIGHBORING PROPERTY	GOOD CONDITION	NO
26	4"	CUPRESSUS SEMPERVIRENS	ITALIAN REDWOOD	NO	NEIGHBORING PROPERTY	GOOD CONDITION	NO
27	4"	CUPRESSUS SEMPERVIRENS	ITALIAN REDWOOD	NO	NEIGHBORING PROPERTY	GOOD CONDITION	NO
28	4"	CUPRESSUS SEMPERVIRENS	ITALIAN REDWOOD	NO	NEIGHBORING PROPERTY	GOOD CONDITION	NO
29	4"	CUPRESSUS SEMPERVIRENS	ITALIAN REDWOOD	NO	NEIGHBORING PROPERTY	GOOD CONDITION	NO
30	4"	CUPRESSUS SEMPERVIRENS	ITALIAN REDWOOD	NO	NEIGHBORING PROPERTY	GOOD CONDITION	NO
31	4"	CUPRESSUS SEMPERVIRENS	ITALIAN REDWOOD	NO	NEIGHBORING PROPERTY	GOOD CONDITION	NO
32	4"	CUPRESSUS SEMPERVIRENS	ITALIAN REDWOOD	NO	NEIGHBORING PROPERTY	GOOD CONDITION	NO
33	4"	CUPRESSUS SEMPERVIRENS	ITALIAN REDWOOD	NO	NEIGHBORING PROPERTY	GOOD CONDITION	NO

TOTALS	93	TREES EXISTING BEFORE DEMOLITION	
	22	TREES TO BE REMOVED	146.2
	11	TREES TO REMAIN	70.0
		TOTAL L.V. VALUE OF PROPOSED TREES,	TO 0
		TOTAL L.V. VALUE OF TREES TO BE REMOVED,	146.2

* DIAMETER IS BASED ON CITY OF SAN MATEO'S STANDARDS, MEASURED AT 48" ABOVE GRADE

Acquired Trees: As per the requirements of Zone Code, Section 27.71 – Landscape, all projects must have a minimum ratio of 1 tree per 400 square feet of landscaped area. Existing trees that are a minimum of 6 inch diameter may count toward this total. Any trees with 6 inch or greater diameter that are being removed must be replaced with an equivalent ratio of trees. Values are to be determined as stated in Section 27.71.180 of the zoning code and recorded on the Tree Evaluation Schedule and/or any required abhorit report.

Landscaping Area: $2520 \text{ sq. ft.} \div 400 =$

Number of existing trees with a 6 inch or greater diameter to be preserved:

Landscaping Unit (LU) value deficit from the Tree Evaluation Schedule:

Minimum LU value to be replaced and/or met through payment of in-lieu fees: $[a - b + c = d]$

A minimum number of trees equivalent to (a), above, must be planted (or existing on the site) in order to make up the required LU value from the removal of trees, additional or smaller trees may be planted. If the LU value shown at (e) is not equal or greater than (d), then an in-lieu fee must be paid to the City's street tree planting fund at the rate defined annually in the City's Comprehensive Fee Schedule for each deficient LU.

New Trees Being Planted		Total L.U. Value
Quantity	Size	
	15 gallon	1
16	24 inch box	2
12	36 inch box	3
	48 inch box	4

Total LU Value of new trees being proposed:

Fees Owed to the City Street Tree Planting Fund:

If (d) is greater than (c), there will be an LU value deficit calculated as follows:

$$(45) \quad F(\mathcal{L}_S) = \{G\} \wedge \exists H = \mathcal{L} - \{G\}$$
$$u - t = \frac{8.5}{2} \times \frac{369}{2} = \$ 1,552.50$$

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APPENDIX D

SITE PHOTOS



#1



#2



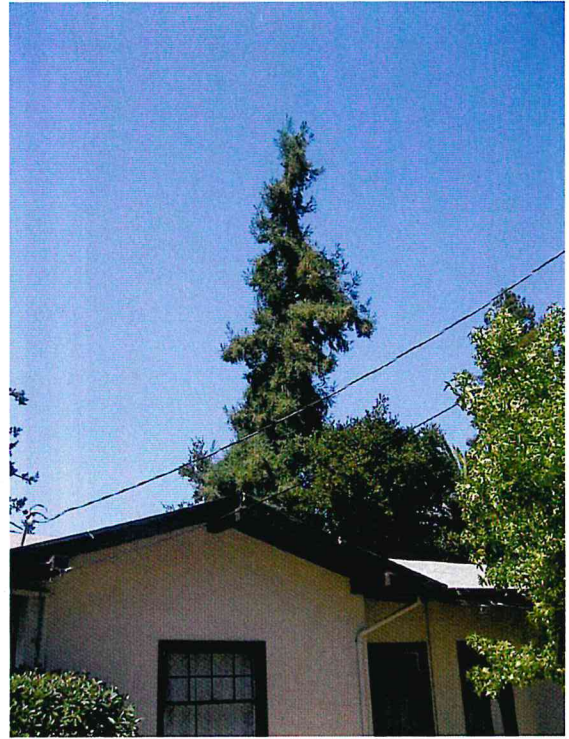
#6-11



#12



#13



#14



#15



#16



#17



#22



#23



#23

APPENDIX E

TREE PROTECTION PLAN

The recommendations presented are intended to serve as guidelines for the protection and preservation of the redwood tree located at 15 Engle Road (tree #23), which is located adjacent to the property and considered a protected tree, and a row of Italian Cypresses located on West Santa Inez Avenue. Following these guidelines should maximize the survivability of the trees.

Arborist Services

A Certified Arborist shall be retained during construction to provide monthly monitoring of the project site and health of protected trees. The arborist shall be present whenever activities occur that could pose a potential threat to the health of protected trees, or whenever any work needs to be done within the Tree Protection Zone (TPZ).

Tree Protection Zone

The TPZ shall be regarded as the existing area beneath the canopy of a protected tree. The dripline of protected trees shall not be altered in any way to reduce the TPZ. No grading or trenching is allowed within the TPZ.

Temporary Fencing

Prior to the commencement of construction, a six foot tall temporary chain link fence shall be installed around the TPZ of protected trees. The temporary fence shall be installed on blocks and not driven into the ground. The fence may be moved during construction, but only as authorized by the Project Arborist. The approximate location of the temporary fence for tree #23 is indicated on the Tree Protection Plan. Do not attach wires, signs and ropes to any protected trees.

Root Protection

To minimize compaction during construction related activities around protected trees, a six inch layer of mulch shall be installed within the TPZ. Care shall be taken when removing existing pavement within the TPZ to not disturb existing roots. If any roots over two inches in diameter are encountered during construction, the Project Arborist shall be on-site to document excavation and determine if the roots can be cut. Any roots that are encountered shall be cut clean with sharp tools and covered immediately with a six inch layer of mulch or native backfill and thoroughly watered.

The Project Arborist is to determine the irrigation schedule for protected trees. The General Contractor is expected to apply supplemental water at the direction of the Project Arborist. The General Contractor shall regularly water the mulch area within the TPZ and keep the tree's roots moist throughout construction. Irrigation method may be a drip system or soaker hose and should occur 3-4 times per week. Soil shall be saturated to a depth of 18" - 36" per watering. Coordinate any watering of protected trees with neighboring property owners.

In order to decrease root damage from the required foundation excavation indicated on the drawings, the trench should be dug under the supervision of the Project Arborist. The equipment used shall scrape the ground slowly and only a few inches at time. Once the trench is dug, any damaged roots are to be pruned cleanly by skilled labor. When completed, the pruned portions should be covered with burlap or similar material and kept moist until the excavation is backfilled.

Construction Activities within the TPZ

Storage of any construction materials, equipment or other materials inside the TPZ is prohibited. Do not dispose of oil, gasoline, chemicals, paints, solvents or other materials within the TPZ, or in drainage channels, swales or areas that may lead to the TPZ.

Excavation, grading, soil deposit, drainage and leveling within the TPZ shall be prohibited. Utility service and irrigation lines shall be located outside of the TPZ. No trenching for irrigation and/or utilities shall occur within the TPZ. The General Contractor shall install 1-inch-thick, 4' x 8' plywood along the outside of the tree protection fencing. The plywood shall be well secured for reasons of safety.

Landscape Design within the TPZ

The proposed landscape design inside the TPZ shall conform to the following additional guidelines:

1. Install six inches of clean wood chip mulch within the TPZ of tree #23. No plants are to be installed within the dripline of tree #23.
2. Mulch shall not be placed directly against the trunk of protected trees.
3. Grading within the TPZ should not change from the existing condition.

Tree Pruning

Protected trees are not expected to require pruning during construction. If tree pruning is for some reason considered during construction, the Project Arborist shall be consulted. No pruning of protected trees shall occur unless agreed upon between the property owner and Project Arborist.

Tree Damage

A City Building Official shall be notified whenever any damage or injury occurs to protected trees during construction so that proper treatment may be administered.

Plan Acceptance

The Tree Protection Plan shall contain the signature of the property owner and permit applicant prior to the issuance of a building permit.