# TREEMASTERS

3175 Kerner Blvd Ste. A San Rafael, CA 94901 (415) 455-9933 Main (415) 455-9934 Fax





November 6, 2010

Miguel Micheltorena 255 Glen Dr Sausalito, CA 94965

# ARBORIST REPORT

I have inspected 4 Pittosporum *undulatum* located at 254 Glen Drive and have made the following report.

Pittosporum *undulatum* is an evergreen tree that is often used as an ornamental plant, due to its attractive fragrant flowers. It is a slender-branched shrub or tree, can grow to 60ft tall, with smooth, gray bark. It has a straight bole, regular whorls of branches, and a dense crown, Leaves alternate, shiny, and flowers almost white. It is a hardy tree that takes well to severe pruning. It is native to south-eastern. Australia. This tree is invasive in Australia outside its native range.

The 4 Pittosporum *undulatum* are located in the front yard area of 254 Glen Drive, near street just behind the fence. The overall health of these trees is good. One is to the North side of the gate and other three to the south side. These trees are growing under the PG&E's high voltage power lines and have been pruned various times before to maintain clearance from the high voltage power lines. The constant pruning has unbalanced three of the four Pittosprums. These trees are higher and heavier on the East side; they lean and overhang over the home. The largest of the four (north side of gate) has a multi-spar at about 5 feet from soil line and has weak areas of attachment due to included bark. This along with the unbalanced heavier side has increased the potential for this tree to fail. Pruning these trees will help reduce the potential for tree failure.



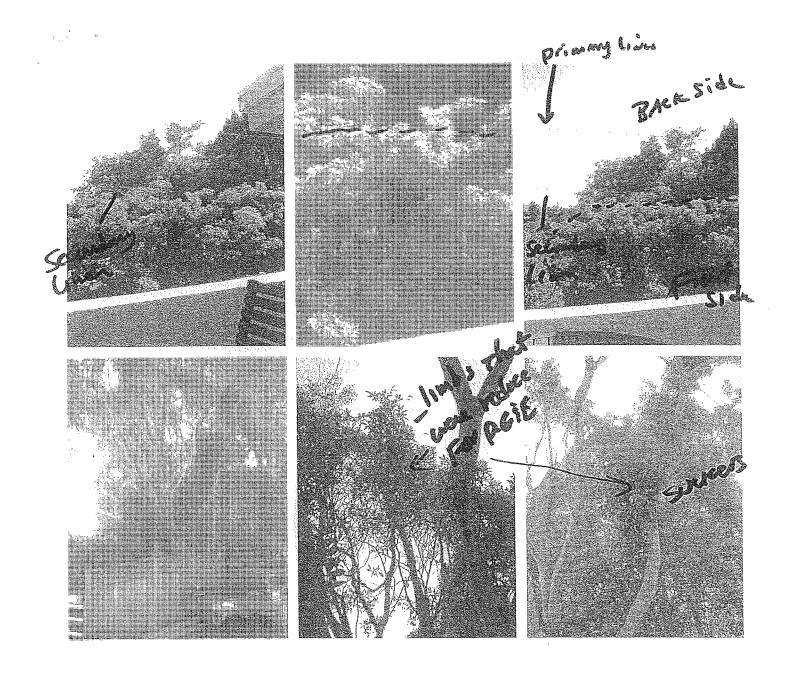
"Providing great care and attention to the ONE TREE we are working on at that moment."

These Pittisporums are also obstructing the view from the property at 255 Glen Dive. In order to improve the view these trees will need to be reduced just below the height of the secondary power lines (second set of lines from the highest). Because these trees are hardy and take to heavy pruning there should not be a problem to reducing these trees. The trees will look bare for a few months because there is no inner canopy. The canopy under the power lines have been reduced and continue to grow and flourish on these trees. Reducing these trees should not be a problem nor have a negative impact on these frees but it will help balance the weight & canopy and reduce potential tree failure. The pruning will also allow for lower canopy to grow and create a better screen and a sound barrier. My recommendation for pruning these trees is in January — March.

If you have any questions or if I can be of service please free to contact our office at (415) 455-9933 or email treemail@treemasters.com

Uriel Barron

ISA Certified Arborist WE-1328A



Fully Insured

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1/4 1/2 3/4 FULL

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(415) 455-9933 • Fax (415) 455-9934 3175 Kerner Blvd Ste. A • San Rafael, CA 94901 WWW.TREEMASTERS.COM



treemail@treemasters.com

Name:	Miguel Micheltorena			Date:	10/29/2010
	•		E-mail:	miguel.mic	heltorena@citi.com
Address:	:255 Glen Dr Sausalito CA	94965			
Phone:	415-971-3190 Cell 650-496-328	6 Office 41:	5-324-5816 H	lome	
и попе Мар:	627-B3 X-Street: Bridgeway ]	Ref. By: Go	ogle	***************************************	
	of Job: TREEMASTERS will perform the f equipment to complete that work:	ollowing work it	emized below and	furnish the follo	wing labor, materials &
Job Items			Set-up, bre	akdown and du	mp fee: \$120
1) Redu	ce just below secondary lines (line	es below high			
	sporum <i>Pittosporum andulatum</i> a				760
	N <sub>1</sub> · ·			A CONTRACTOR OF THE PROPERTY O	
***************************************					
Note: Tre	es not listed on this contract were not in	spected or eve	duated by TRE	EMASTERS	
Haul B	rush & Debris Haul Wood 🗆 Wood 1	eft cut 16" R	ounds piled at b	pase of tree	Leave Stump Mulch.
Fatimator	Unel Barron ISA Certified Arborist WE-1328A Date:	11/6/10		Joh Cast Tats	\$880.00
CLIENT H Authorizati upon in wri completion	AS THE RIGHT TO REQUIRE CONTRACTION TO Proceed: The Client hereby authorizes ting by Treemasters, Client agrees to make to of the Job. By signing below, Client acknowledg Agreement and agrees to abide by all terms and	CTOR TO PRO Treemasters to p tal payment of t es that Client ha conditions. Clie	VIDE A PERFOR erform the job as on the estimated costs or read and underst	tMANCE AND described above, and all authorize the properties of th	PAYMENT BOND. Unless otherwise agreed additional costs upon covisions on the front and
Agreement. diligently p N/Aano when Treen	Completion: Treemasters' work crews and equing Treemasters agrees to substantially commence ursue the Job to completion within14 would all work will be completed approximately on nasters first supplies workers to the job who actually after the approximate date specified is a violate.	work within rking days, subjection N/Asubstant ally start Job ope	days after Clect to permissible al commencement rations. Treemaste	ient has executed delays. Work wil of the work shal rs' failure to com	I this agreement and shall I begin approximately on I be deemed to be the date
	ient agrees to make the following deposit of \$ _ ce, whichever is less). Client shall pay said dep				t exceed \$1,000 or 10% of
	"Providing great care and attention	to the One Tre	E we are working	on at that mon	nent."

DMK Sife

255 Elen Dr.

ITEM NO. CI PAGE 41

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ITEM NO. <u>C1</u> PAGE <u>42</u>

P.O. BOX 111 . WOODACHE, CA 94973 . (415) 419-5197 . KENT.JULIN@GMAIL.COM

August 3, 2011

Tom Skunda 141 Santa Rosa Avenue Sausalito, CA

AUG -9 2011

CITYOF SAUSALITO COMMINITY DEVELOPMENT

View Obstruction Arborist Report 141 Santa Rosa Avenue Sausalito, CA

### ASSIGNMENT

ARBORSCIENCE was hired by Tom Skunda to prepare an arborist report in support of his request to trim three (3) City of Sausalito coast live oaks (*Quercus agrifolia*) to maintain his downslope view of Strawberry Point, Richardson Bay, and the Tiburon Peninsula from his home at 141 Santa Rosa Avenue. I conducted my inspection on July 27, 2011.

#### SCOPE OF WORK AND LIMITATIONS

Information regarding property boundaries, land and tree ownership were provided by Tom Skunda and confirmed by adjoining neighbors. Mr. Skunda also provided a 1996 photograph to document the view at that time. I have neither personal nor monetary interest in the outcome of this matter. All determinations reflected in this report are objective and to the best of my ability. All observations and conclusions regarding the subject trees and site conditions in this report were made by me, independently, based on my education, experience, and inspection of the site.

# SITE PLAN

Attached is a site plan that includes information including trunk location, circumference and diameter at breast height, total height, drip lines, species, appraised value (Trunk Formula Method), nearby structures, parcel lines, and view impairment lines. Appraisal calculation sheets are also attached.

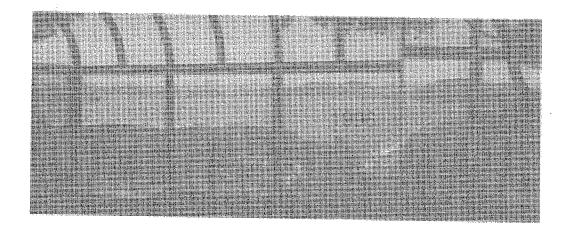
Skunda Arborist Report

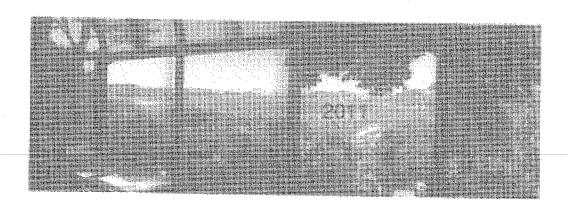
August 3, 2011

Page 1 of 4

# **PHOTOGRAPHS**

Below are two photographs showing the view from the Skunda sun room that were present in 1996 and in 2011. Also included are ground photographs of the four subject trees for which pruning is requested.

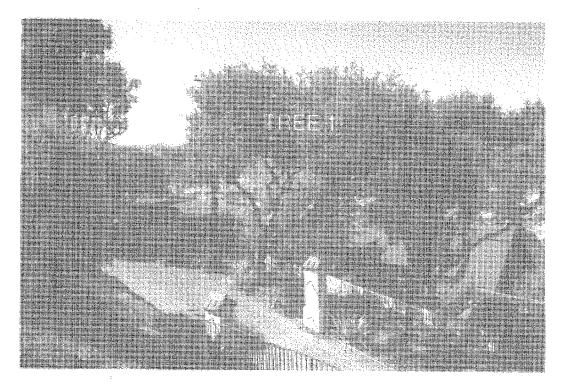


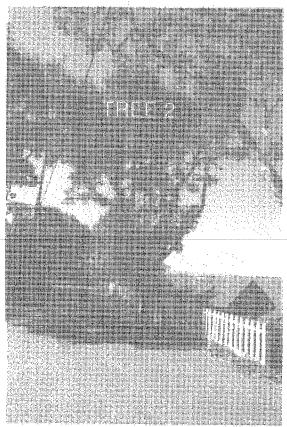


Skunda Arborist Report

August 3, 2011

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August 3, 2011

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#### NARRATIVE

Description and reasons for alteration. Mr. Skunda proposes to maintain three coast live oaks downslope of his property to restore pre-existing views of Strawberry Point, Richardson Bay, and the Tiburon Peninsula from his sun and living rooms. Approximately 2-4 feet of the upper canopies will be pruned per American National Standards Institute (ANSI A300) pruning standards.

<u>Dangers which may result by continued existence of the tree if alteration is not performed.</u> Without this maintenance Mr. Skunda's view will continue to diminish the enjoyment and value of his home.

Structural or health effects on the tree which would result from the proposed alteration. The subject trees have received periodic ongoing maintenance pruning in the past are expected to maintain their structural integrity and systemic health after pruning is completed.

Estimated frequency and future costs to sustain the desired view. Proposed pruning work is estimated to be \$1,625 Future maintenance will occur at 2- to 3-year-intervals at a comparable cost to the proposed work as adjusted by inflation.

Effects of the alteration on neighboring vegetation. The proposed work is not expected to adversely affect the health of surrounding vegetation. A dense blanket of English ivy (*Hedra helix*) covers the ground under all three trees.

Suggestions for improving the health of the tree, such as improving root or soil conditions beneath the tree. I have no recommendations for improving the health of the subject trees. All three trees show no symptoms of sudden oak death (*Phytopthora ramorum*) and are growing under stable soil conditions. Tree #3 has incipient trunk decay that warrants regular safety inspections.

Sincerely,

ARBORSCIENCE

Kent R. Julin, Ph.D.

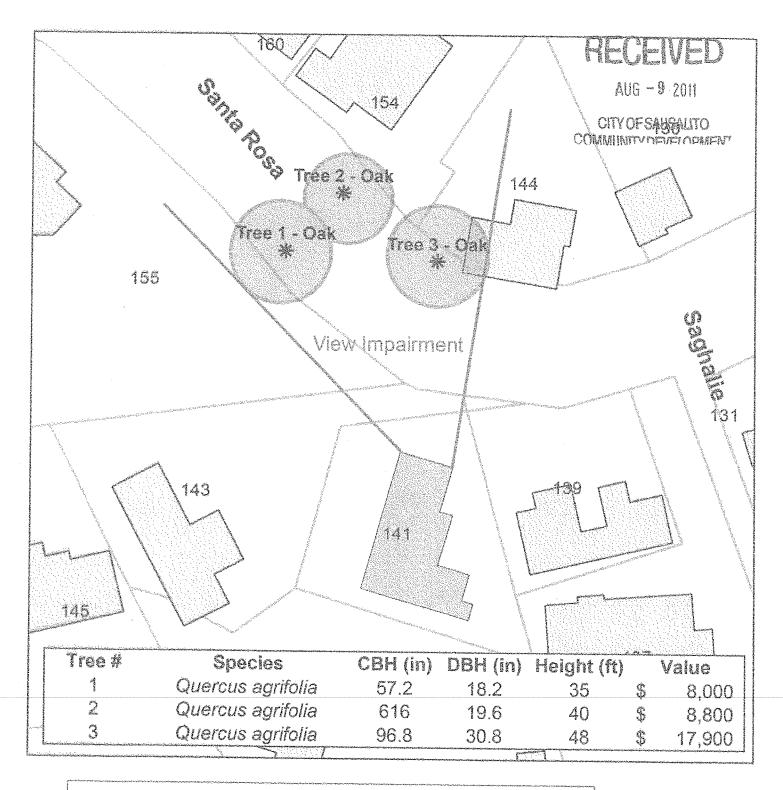
Principal Consulting Arborist and Forester

International Society of Arboriculture Certified Arborist WE-8733A

Skunda Arborist Report

August 3, 2011

Page 4 of 4



Site Map for Pruning Application 141 Santa Rosa Avenue Sausalito, CA

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ARBORSCIENCE

PROVIDING SOUND TREE ADVICE

# 

-- AUG-9.2011

Wine	Trunk Formuk	n Method		CITYOFSALISALITO
T.	1864 Property 141 Santa	Rosa Addiate	8-3-11	COMMINIMANENENDAMENT
		<u>A # 8793A</u>	manus francos transcribertos de especiales de participa de participa de la companya de la compan	
Fi	ield Observations	The state of the s	and Continues and Section (Continues Continues Continues Continues Continues Continues Continues Continues Con	
11-44	1. Species Quescus agrifolia	<b>.</b>		
	. Condition <u>LTD</u> %			
3	3. Trunk Circumference 57.2 (m/cm D	iameter <u>18.2</u> m.	/cm	
4	1. Location % = [Site $\frac{90}{4}$ % + Contributi + $\frac{8}{4}$ = $\frac{87}{4}$ %	on 90%+Placem	ent <u>80</u> %]	
Rej or	gional Plant Appraisal Committee and/c -Modified Information	or Appraiser-Devel	oped	•
	i. Species rating	90 %		
€.	f. Replacement Tree Size (diameter) (Trunk Area) 3.80 (ng/cm² TA <sub>R</sub>	_2.2_@)cm		
۲.	'. Replacement Tree Cost (see Regional Information to use Cost s	<u>172.73</u> relected)		
8.	. Not to the control of the control	172.73		
9.	. Installed Tree Cost (#7 + #8) \$	345,46		
IÚ).	. <b>Unit Tree Cost</b> \$ (see Regional Information to use <b>Cost</b> s	<u>45.46</u> per(in)	cm <sup>2</sup>	· ·
Cali	loulations by Appraiser using Field and	Regional Informa	ion	
11.	Appraised Trunk Area:	, , , , , , , , , , , , , , , , , , , ,		
	(TA <sub>A</sub> or ATA <sub>A</sub> ; use Tables 4.4–4.7) or $c^2$ (#3) × 0.08		,	
	or d <sup>2</sup> (#3) × 0.785	= <u>2602</u> in <sup>2</sup> /cm <sup>2</sup>		
12.	Appraised Tree Trunk Increase (TAIN TAA or ATAA 2002 (12)cm2 (#11) - TAR 5.8	(CR) = _(in)cm² (#6) = <b>25</b> 4	, 28 452/cm²	
13.	Basic Tree Cost = TA <sub>INCR</sub> (#12) 256.22 (perint) cm <sup>2</sup> + Installed Tree Cost (#9) \$	9 N 2	Managaran St.	45.46
14,	Appraised Value = Basic Tree Cost (#1) 40 % × Condition (#2) 85 % × Locatio	121 ¢ 110 QQ 32 .	. Dan a set a se	ting
. 15. )	If the <b>Appraised Value</b> is \$5,000 or more is less, round to the nearest \$10.	e, round it to the ne	arest \$100; i	f <b>i</b> t
	Appraised Value = (#14) \$ <u>8000</u>			
Insta	s 5 through 10 are determined by the Regional desale Replacement Tree Cost, the Retail I alled Tree Cost (#9) divided by the Replacer Init Tree Cost (#10), or it can be set by the Re	Keplacement Tree (	Cost, or the	or

Trunk Formula Method  Gase # 2 Property 141 Santa Rosa Ar Date 8-3-11  Appraiser Kent Julia ISA # 8733A
Field Observations  1. Species Quecus agaifolia  2. Condition 85 %
3. Trunk Circumference 666 (in)cm Diameter 196 (in)cm 4. Location % = [Site 90% + Contribution 80% + Placement 80%] + 3 = 83%
Regional Plant Appraisal Committee and/or Appraiser-Developed or -Modified Information
5. Species rating 90 %
6. Replacement Tree Size (diameter) 2.2 (in)cm (Trunk Area) 3.8 (in)cm <sup>2</sup> TA <sub>B</sub>
7. Replacement Tree Cost \$ 172.73 (see Regional Information to use Cost selected)
8. Installation Cost \$ 172.73
9. Installed Tree Cost (#7 + #8) \$ 345,46
10. Unit Tree Cost \$ 45.46 perfin/cm <sup>2</sup>
(see Regional Information to use Cost selected)
Calculations by Appraiser using Field and Regional Information
11. Appraised Trunk Area:  (TA <sub>A</sub> or ATA <sub>A</sub> ; use Tables 4.4-4.7)  or $c^2$ (#3) × 0.08  or $d^2$ (#3) × 0.785
12. Appraised Tree Trunk Increase (TA <sub>INCR)</sub> = TA <sub>A</sub> or ATA <sub>A</sub> 301.77(n)/cm <sup>2</sup> (#11) - TA <sub>R</sub> 3.8 (n)/cm <sup>2</sup> (#6) = 297.76 m <sup>2</sup> /cm <sup>2</sup>
13. Basic Tree Cost = TA <sub>INCR</sub> (#12) 297.76 (n) cm <sup>2</sup> × Unit Tree Cost (#10) \$ 45.46 per (n) cm <sup>2</sup> + Installed Tree Cost (#9) \$ 345.46 = \$ 13881. \$2
14. Appraised Value = Basic Tree Cost (#13) \$ 1388   .82 × Species rating (#5) 90 % × Condition (#2)85 % × Location (#4) 53 % = \$ 8849 . 66
15. If the <b>Appraised Value</b> is \$5,000 or more, round it to the nearest \$100; if it is less, round to the nearest \$10.
16. Appraised Value = (#14) \$ 8800
lems 5 through 10 are determined by the Regional Plant Appraisal Committee. The Wholesale Replacement Tree Cost, the Retail Replacement Tree Cost, or the installed Tree Cost (#9) divided by the Replacement Tree Size (#6) can be used for the Unit Tree Cost (#10), or it can be set by the Regional Plant Appraisal Committee

Trunk formu	ila Method
Gase # 3 Property 141 Santa	Bosa Ave Date 8-3-11
Appraiser Kont Julia	ISA # 8733A
Field Observations	
1. Species Queccus agrific	3/11/2
2. Condition <u>70</u> %	
3. Trunk Circumference 965 (in/cm	Diameter <u>නව (</u> (n) cm
4. Location % = [Site 90 % + Contribu + 3 = 82 %	tion <u>80</u> %+Placement <u>80</u> %]
Regional Plant Appraisal Committee and or Modified Information	l/or Appraiser-Developed
5. Species rating	<u>90</u> %
6. Replacement Tree Size (diameter) (Trunk Area) 3.80 (in) cm <sup>2</sup> TA <sub>R</sub>	
<ol> <li>Replacement Tree Cost (see Regional Information to use Cost</li> </ol>	\$ <u>172.73</u> :selected)
8. Installation Cost	\$ 172.73
9. Installed Tree Cost (#7 + #8)	\$ 346.46
10. Unit Tree Cost (see Regional Information to use Cost	\$ 45.46 per (n)/cm <sup>2</sup> selected)
Calculations by Appraiser using Field an	d Regional Information
11. Appraised Trunk Area:	
(TA <sub>A</sub> or ATA <sub>A</sub> ; use Tables 4.4–4.7) or $c^2$ (#3) × 0.08	Thera
or $d^2$ (#3) $\times$ 0.785	$=\frac{744.68}{10^{2}/cm^{2}}$
12. Appraised Tree Trunk Increase (TA TA <sub>A</sub> or ATA <sub>A</sub> 74445 (m <sup>2</sup> ) cm <sup>2</sup> (#11) – TA <sub>R</sub> 3	NCR) = .8 in <sup>2</sup> /dm <sup>2</sup> (#6) = <b>740.88</b> m <sup>2</sup> /cm <sup>2</sup>
13. Basic Tree Cost = TA <sub>INCR</sub> (#12) 746.68 per in <sup>2</sup> /cm <sup>2</sup> + Installed Tree Cost (#9)	Milma VII to the Maria Caracas Maria Color
14. Appraised Value = Basic Tree Cost ( (#5) <u>10</u> %× Condition (#2) <u>70</u> %× Locat	#181 \$ 34025 91 Vensain males
15. If the Appraised Value is \$5,000 or mo is less, round to the nearest \$10	re, round it to the nearest \$100; if it
16. Appraised Value = (#14) \$ 17,900	
Items 5 through 10 are determined by the Region Wholesale Replacement Tree Cost, the Retai Installed Tree Cost (#9) divided by the Replactic Unit Tree Cost (#10), or it can be set by the	al Plant Appraisal Committee. The I Replacement Tree Cost, or the

Emergency Removal of both Trees 1 and 2 Approved 22SEP11

# CITY OF SAUSALITO APPROVED TREE REMOVAL / ALTERATION PERMIT

# APPLICATION

TRP <u>162</u>74

APPLICANT INFORMATION Name Regist Streemen & Ecizopo 474 Streemen
Address 49 LOWER CRESCENT AVE SANDONO 94965
Day Phone 415-337-0434 Email Address 137760@ PACKER NET
PROPERTY OWNER INFORMATION (If different from Applicant) Name
Address
Day Phone Email Address
TREE OWNER INFORMATION (If different from Property Owner) If this application is for work on a tree located on property <u>not</u> owned by the applicant, provide the following information and attach a completed "Permission to Enter" Form. If this application is for work on a tree on City-owned property, describe the location and state "City property".
Name Same
Address
Day Phone Email Address
EXPLANATION OF PROPOSED WORK  Describe the extent of the proposed tree work.  AFRICA LIVE COME THESE WISCONDEN COME THESE DISEASE  AT SOCIAL SAST CONVINCE ON PROPOSET AND 200
LIVE OAK NEXT TO DRIVEWBY & HOUSE
Explain why the work is needed.
\$ DEAD TREE

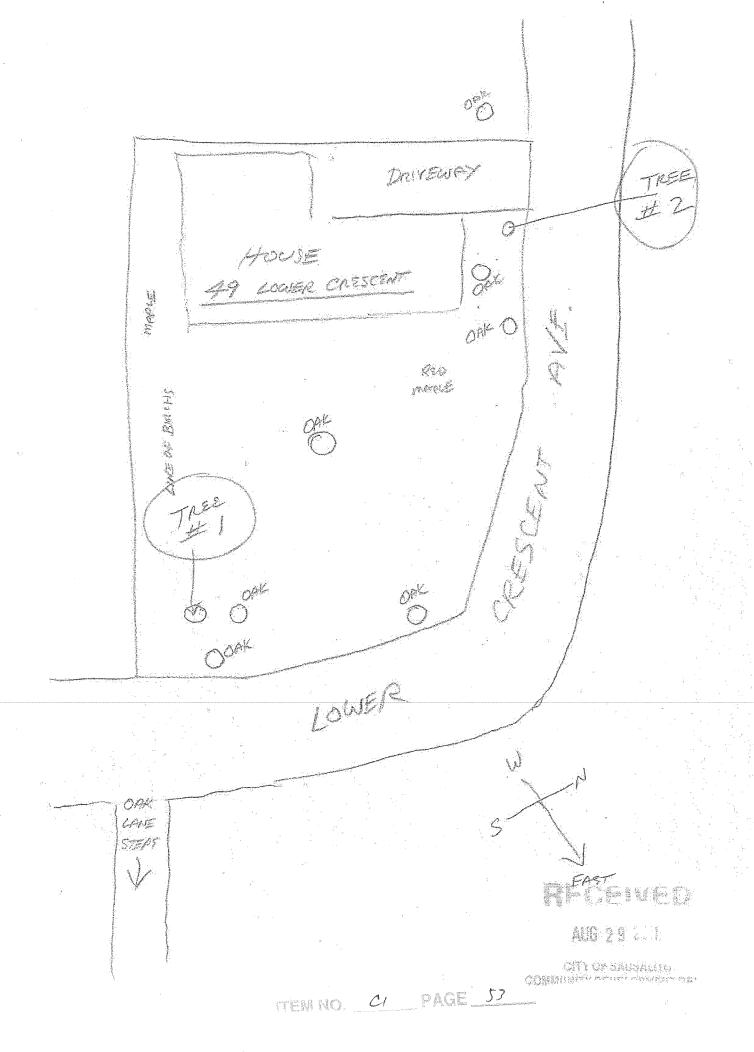
TREE ST

# CITY OF SAUSALITO TREE REMOVAL / ALTERATION PERMIT

If the tree will be removed, will a repl	acement tree be planted?			
[ ] Yes-List species, location, and c	container size of replacement tree.			
No – Explain why not.				
ALKERRY CLECONES	23/ TREES			
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APPLICANT'S AUTHORIZATION AND V				
Officials to enter the property to inspe	e Trees and Views Committee members and any City cet the tree(s) for making a decision on this Permit			
application. If a quorum (three or mor	re members) of the Trees and Views Committee meets on			
the property, a publicly-noticed meeting	ng is required and interested parties are allowed to enter the			
property during the publicly-noticed n	neeting. I (We) grant this permission subject to the			
following conditions. If none, check h	tere [//			
receive the second of the seco	A			
I (we) hereby declare under penalty of	f perjury under the laws of the State of California that the			
mormation in this application and the	accompanying materials are true, complete, and correct.			
SIGNATURES				
A CAL	3 - J			
160e V-2/ Kesman 8/	25/1			
Applicant Date	Permit Fee Paid \$ 250.00			
	Receipt No. 92656			
Property Owner Date	80			
	By (Initials) yelly Schingway			
For questions contact:	Date Stamp			
Community Development Department				
420 Litho Street				
Sausalito, CA 94965				
415/289-4128 Voice	A16 2 3 2011			
415/339-2256 Fax	400 60 600			
	CITY OF BRUSHING			
	COMMINITY DEVELOPMENT DEP			

I:\CDD\Forms\Planning\Applications\Trees\Tree Permit Application -2.doc Revised January 10, 2011

Page 2 of 2



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# RECENSED

ANG 29 2011





Ed Gurka, Consulting Arborist

Member, American Society of Consulting Arborists \*\*\* Consulting Arborists\*\*\* Consulting Arborists\*\* Consulting Arborists\*\*

Member, International Society of Arboriculture Certified Arborist, Western Chapter, # 0418

August 14, 2011

# ASSIGNMENT:

I received a call for a tree evaluation from Robert Stroman to assess two trees on his property. The Stroman's requested my services because of their concern regarding the trees' condition, if they are safe, and how to proceed if any risk is associated with their condition. This report will provide information on the trees' condition and make recommendations from a site inspection, the discoveries, and the risks that are associated.

## **OBSERVATIONS** and DISCUSSIONS:

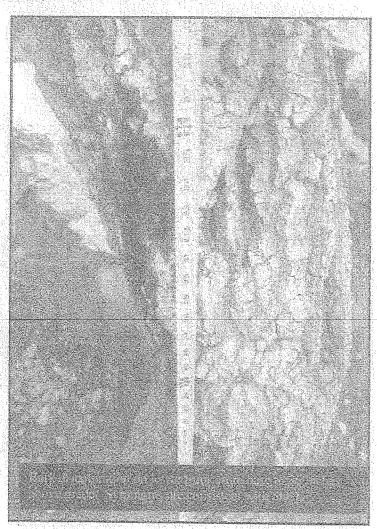
I arrived for the scheduled site visit July 12, 2011. Mr. Stroman led me to the trees of his concern.

## Tree #1

This tree is identified as a *Quercus agrifolia*, Coast Live Oak. The Quercus agrifolia is indigenous to Northern California.

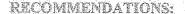
The tree is located in the front yard on a bank above Lower Crescent Avenue. The tree is at the southeast corner of the property 7 feet from the south and east corner inside the propertyfence. It is 12 feet from the street curb with a height of 20 feet. Mr. Stroman stated a discoloration on the tree's lower trunk was discovered, and a tree company owner informed him that it appeared to be symptoms resembling Sudden Oak Disease, and he was referred to I inspected the tree, took a sample specimen, performed an odor test, measured and noted the location of the bark discoloration. The discoloration measured 36 inches in length and 8 inches in width, see photograph. The tree has a 40-degree lean towards Lower Crescent Avenue. The tree is marked with engineering tape around the lower trunk.

42" 004



### Tree #2

This tree is identified as a Ouercus agrifolia. Coast Live Oak. The Circumference at Breast Height, (CBH) is 3.8 feet. This Oak tree is located the North property boundary 12 inches from the curb of Lower Crescent Avenue opposite neighboring property of 54 Lower Crescent Avenue. The tree is 5 feet left of the driveway 49 ai Lower Crescent Avenue, and the canopy extends over the home. A large trunk cavity was noticed at 6 feet above grade. The cavity opening measured 11x6 inches. The interior of the cavity, (cavity pocket) measured 5 inches in depth from the lowest part of the cavity opening. The extent of the decay was masked with tape to indicate the extent of the decay in proportion to the overall circumference of the tree, see photograph at right.



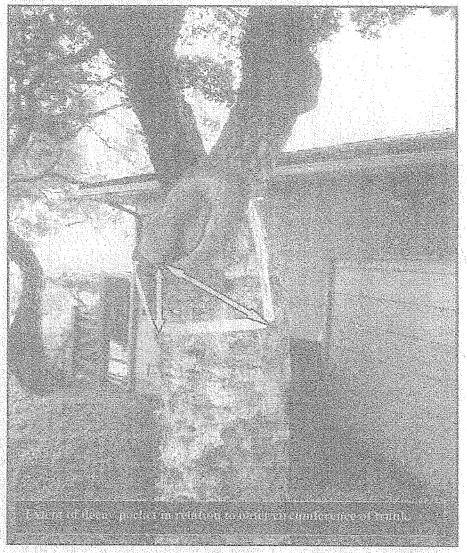
## Coast Live Oak Tree #1

The tree has Sudden Oak

Disease. The odor from the sample has a tannin odor that resembles a wine barrel odor. The discoloration is consistent with Sudden Oak Disease appearing on the lower trunk where the pathogens are in high concentrations. Experience and site inspections confirm the disease to be in the vicinity of and on a property, a short distance from this 49 Lower Crescent address. At this stage of the disease, the only course of action is to remove the tree. It is impossible to control or reverse the disease once established. Oak trees with this disease can fail suddenly without any indication of failure. The path of the failure is directly onto Lower Crescent Avenue. The recommendation is to remove the tree immediately. The removal permit for trees with Sudden Oak Disease should be waived because Sudden Oak Disease failures are unpredictable and trees with this disease can fail at any time.

# Coast Live Oak Tree #2

This tree has an extensive decay pocket at a critical section with scaffold limb that supports the entire canopy. The dense wood tissue that provides support for a tree's canopy is compromised by at least 75 percent and there is only 25 percent of the support wood structure remaining. The most critical factor is that the heartwood which is the



## Arborist Report, Robert Stroman, 49 Lower Crescent Avenue, Sausalito, California Prepared by Ed Gurka, Consulting Arborist Services

densest wood that provides support for the canopy is compromised by the decay. The canopy is positioned over the home and will fall on the home when it fails. The recommendation is that the tree is removed as soon as possible to eliminate structure damage.

# SUMMARY:

The recommendation is to remove the two Coast Live Oak trees identified in this report. Coast Live Oak Tree #1 has Phytophthora ramorum, Sudden Oak Disease and this disease once established cannot be controlled or eliminated. Coast Live Oak Tree #2 has an extensive decay pocket that equals 80 percent of the total wood volume in the area of the trunk decay. The amount of decay cannot support the canopy over the home, and the decay will slowly increase until it cannot support the canopy. At 80 percent of total volume, this is very close to failure point.

Since Oak Disease is present in this area of Sausalito, treatments for Oak Disease are advised. The treatments to remaining Oak trees to increase the chance of further infections are necessary. The application recommended for prevention is Agri Fos and Pentrabark. The minimum scheduled applications are twice the first year in the spring and fall seasons and one application per year every year thereafter. Pruning of Oak trees should only be done in the summer months, and small 2-3-inch cuts are preferred to larger punning cuts. Pruning equipment should be sterilized before moving from one Oak tree to another.

There are several Coast Live Oak trees on the property and replacement planting is not recommended. The canopy cover is adequate and other Coast Live Oak trees will fill the area of the two trees recommended for removal.

# Contact Information:

Ed Gurka
Independent Services
197 Coleman Drive
San Rafael, CA. 94901
Mobile: 415 601-5337
Email: Egurka1@aol.com

# Affiliations and Licenses:

International Society of Arboriculture, Certified Arborist # 418, 1984 to present.

American Society of Consulting Arborists, Member, 2000 to present.

California Department of Pesticide Regulation, Pest Control Advisor PCA 74846, 1989 to present.

City of Sausalito, Municipal Arborist, 1989-2004

Independent Consulting Arborist Services, 2004-present.

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Ed Gurka, Consulting Arborist
Member, American Society of Consulting Arborists

Member, International Society of Arboriculture Certified Arborist, Western Chapter, # 0418

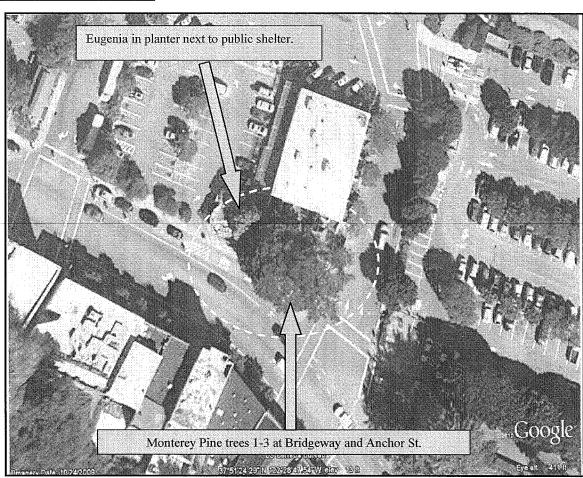
August 3, 2011

# **ASSIGNMENT:**

I received a request to prepare an Arborist Report that will describe trees located within a proposed public works construction project on the public right of way in front of 750 Bridgeway, Sausalito, California. A report is necessary because the trees are located in the construction area and will affect the planning and outcome of the project. This report will provide information on the trees' condition, their compatibility for the location, and make a recommendation based on the information and knowledge of the species.

# **OBSERVATIONS and DISCUSSIONS:**

There were a total of four site visits made to collect information in preparation for this report. The site visits were made July 7<sup>th</sup>, July 13<sup>th</sup>, and July 27<sup>th</sup> 2011. A preliminary appointment occurred June 27<sup>th</sup>, 2011, with the Sausalito Director of Public Works, Jonathan Goldman to provide information and trees within the project site. The second and fourth visits were on July 7<sup>th</sup> and July 27<sup>th</sup> to collect specific



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information on these trees. The third visit was made July 13th, after a large limb failure on one of the trees.

The trees are identified as three mature *Pinus radiata*, Monterey Pine and a *Syzygium paniculatum*, Eugenia paniculata, Australian Brush Cherry. The three Monterey Pine trees are located in a planter area bordered by a brick plaza and Bridgeway sidewalk. The Eugenia tree is located just to the left in a small planter that is next to and below the ramp leading from the bus shelter portion of the structure to the public restrooms. See aerial photograph page 1. The circle indicates the three pine trees in the planter and the Eugenia tree by the bus stop and restrooms.

The Monterey Pine trees are numbered M. Pine 1-3 with aluminum tree tags attached to the trunks beginning from the Tree closest to Anchor Street and proceeding west towards the public restrooms and bus shelter. They are described as follows:

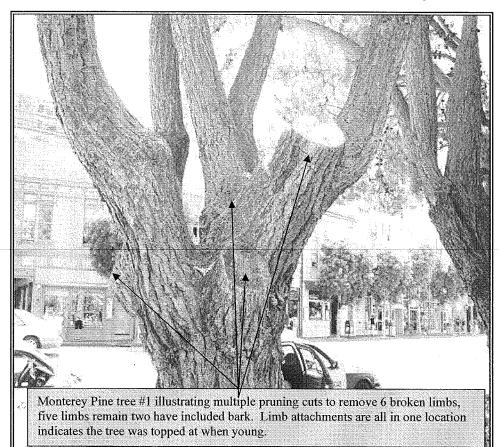
#### Monterey Pine tree #1

Circumference measurement at just below the lowest attachment point is 12.9 feet. Measuring at this location gives a more accurate measurement of the trunk size than if taken where limb attachments are because the attachments bulge there. The status of Monterey Pine trees is described as **undesirable** in the Sausalito Trees and Views Preservation Ordinance, 11.12.030, DEFNITIONS, Undesirable Tree. The tree has several larger diameter pruning cuts including one recent event when a large-diameter limb (16 inches in diameter) fell and damaged a street tree located on Anchor Street approximately 30 feet away from the trunk of the Monterey Pine. A count of remaining and removed limbs was made during the last site visit July 27, 2011. On this tree, there are five of eleven limbs remaining. A total of six large-diameter

limbs were removed because of limb breakage. Two of the remaining limbs have very acute angles at their point of attachment to the trunk.

At the point of attachment, the two limbs have a condition referred to in arboricultural terms as bark inclusion, (bark that becomes embedded in a crotch (union) between branch and trunk or between codominant stems; causing a weak structure, ISA Glossary of Arboricultural Terms.)

This condition presents a very high-risk failure of one of the two limbs because of the extreme pressure of the two limbs against each other. The brick plaza where these trees are located is a very high density of pedestrian traffic. The bank entrance is located here, and the plaza is the location of a self-service bicycle rental location.



A close examination of the lower trunk revealed Pine Bark Beetle attacks very likely to be Red Turpentine Beetle, an important pest that introduces Pine Pitch Canker especially common in Monterey Pine trees. Bark Beetle is an indication

of environmental related stress. Monterey Pine trees are more vulnerable to beetle attacks when weakened by unfavorable environmental conditions.

#### **Monterey Pine Tree #2**

The trunk circumference is 8.75 feet. The height is 40.5 feet with a canopy spread of 57 feet. The live crown ratio is 30 percent. The tree has very sparse foliage because it is competing with the two other Monterey Pines to either side. A rust color sap was visible on the lower trunk. The tree has signs of a fungal disease known as Western Pine Rust. This fungal disease is not treatable and will continue to reduce the health of the tree. The status of Monterey Pine trees is described as **undesirable** in the Sausalito Trees and Views Preservation Ordinance, 11.12.030, DEFNITIONS, Undesirable Tree.

# **Monterey Pine Tree #3**

The trunk circumference is 12.6 feet measured at 24 inches above grade. Height is 44.5 feet, and canopy spread is 57 feet. The canopy structure consists of the main trunk, which divides into six main scaffold limbs attached to the main trunk beginning at 32 inches above grade to a height of 6 feet above grade. The condition rating is 50 percent of normal. The status of Monterey Pine trees is described as **undesirable** in the Sausalito Trees and Views Preservation Ordinance, 11.12.030, DEFNITIONS, Undesirable Tree.

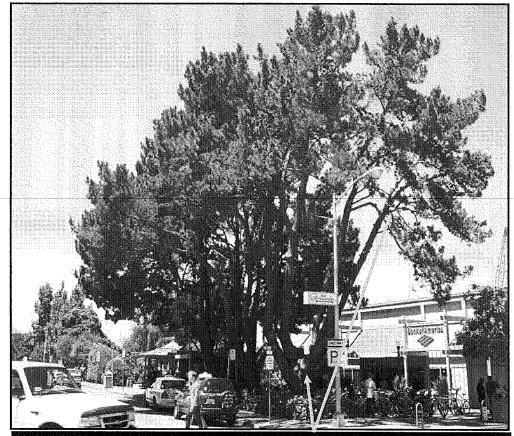
# Syzygium paniculatum, Eugenia paniculata, Australian Brush Cherry

The tree consists of 4 main upright stems that originate at four feet above grade. The average Circumference at Breast Height (CBH) is 24 inches the combined CBH is 8.1 feet. Tree height is 35 feet and canopy spread is 26 feet. The tree is in good condition located in a small planter bed that is 26 inches in width and 16 feet in length, directly next to a walkway that leads to a multi-use building that is the Bus Shelter and Public Restrooms. The restrooms and building are planned to be renovated soon and the tree is located within

the path of the proposed renovation. Removing and transplanting the tree would be a difficult labor intensive job and transplant survival is unpredictable. The impact from construction work is unknown at this point. The removal of the main root system of this tree would produce a negative impact and cause a long-term decline.

#### **RECOMMENDATIONS:**

The three Monterey Pine trees should be considered in the renovation plan for the area. The three trees have developed poor canopy structure because of topping cuts when they were young, Monterey Pine trees. They genetically belong to a group of trees with an excurrent pattern, (tree growth habit



Monterey Pine #1 has large extended scaffold limb leaning over a brick Plaza. This tree has several large diameter pruning cuts due to limb failures caused by poor structure the result of topping when the tree was in its early growth stage.

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characterized by a central leader and a pyramidal crown.) Topping pruning cuts have created a tree with multiple leaders and all origination at the same location on the trunk.

These multiple leaders all compete for space and eventually fail because of their structure. In a location with infrequent traffic, risk would be reduced because potential for injury would be limited. The location of these Pine trees on Bridgeway in the down town business district has constant activity, the frequency of activity, the bicycle rental station, bank, bus shelter, public restrooms, and tourist traffic increase the risk of personal injury exponentially when limb failures occur. There are a poor canopy structure and history of limb failure, especially on Monterey Pine tree #1. There is very little that can be done to correct the trees' structure at this stage of the trees' growth. All three pines have either Pine pitch canker or Western Pine Rust fungal diseases most likely introduced by Pine Beetles. These compound conditions will very likely cause more limb failure that may cause personal injury if the heavy weight limbs strike a pedestrian. Monterey Pine tree #1 should be removed immediately. The Bridgeway corridor is a windy location and wind influence on heavy end-weighted limbs with poor attachments increases limb failure. The two limbs with bark inclusion are high failure potentials. These multiple factors are the basis of the recommendation for removal.

The three Monterey Pine trees are a group of trees that developed to maturity together. Removal of one will impact the remaining two trees. These two trees have the same structure and heavy end weight on each limb. Based on these factors and the fungal symptoms, removal of the two remaining trees is recommended.

The Eugenia tree would be difficult to preserve if proposed construction work requires additional space for the bus shelter and public restroom expansion. The tree is directly against the existing walkway, and any change would require removal of the tree. It would be more practical to replace the tree because relocating the tree would not have successful results.

# **SUMMARY:**

The information and recommendations collected for this report are made to provide an independent study to assist with the decision for the trees as a component of the project. The green space that the Monterey Pine trees create is a benefit to the Sausalito Down Town Business District. If the recommendation made in this report is accepted, and decision granted for removal the approval process should recommend replacement plants with equal mature canopy cover as a requirement for the project. Replacement trees will require additional site improvements to be successful. Soil analysis and addition to existing soil should have adequate organic matter and amendments to be compatible with the surrounding soil. Irrigation to establish newly planted trees is necessary for proper growth and development. Training young trees for structure and health is necessary to grow into maturity. Tree species, container size, and location are necessary for the tree replacement plan.

# **Suggestions for Replacement Trees:**

#### **In Ground Installations:**

#### **Botanical Name**

Tristiana laurina
Metrosideros excelsus
Pinus nigra
Melaleuca leucadendron
Ceratonia siliqua
Pyrus calleryana, 'Chanticleer'
Maytenus boaria

#### Common Name

Tristiana
New Zeland Christmas Tree
Austrian Pine
Cajeput or *Paper* bark tree
Carob Tree
Pyrus
Mayten Tree

#### **Comments**

Evergreen tree, standard growth Evergreen, ht. 30 ft. spread 35ft. Evergreen ht. 35-50ft. spread25-40 ft Evergreen ht. 40ft. spread 15ft. Evergreen, ht. 20-45ft. spread 20-55ft. Deciduous ht.40 spread 16 ft. Evergreen, ht.20-30 spread 10-20

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#### Container Installations suitable for 24 inch box:

Botanical Name Common Name Comments

Podocarpus gracilior Fern Pine Native to East Africa to 60 ft. 40 ft if in

container.

Thuja occidentalis American Arborvitae Height 40-60 ft.

Cupressus sempervirens Italian Cypress narrowly columnar to 60 ft in containers

40 ft. 5 varities depend on shade of

green.

Cupressocyparis leylandii Laeyland Cypress 20-25 ft. tall x 6-8 ft wide.

# **Contact Information:**

Ed Gurka
Independent Services
197 Coleman Drive
San Rafael, CA. 94901
Mobile: 415 601-5337
Email: Egurka1@aol.com

#### **Affiliations and Licenses:**

International Society of Arboriculture, Certified Arborist # 418, 1984 to present.

American Society of Consulting Arborists, Member, 2000 to present.

California Department of Pesticide Regulation, Pest Control Advisor PCA 74846, 1989 to present.

City of Sausalito, Municipal Arborist, 1989-2004

Independent Consulting Arborist Services, 2004-present.

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