



**CITY OF SUNNYVALE
REPORT
Planning Commission**

November 10, 2008

SUBJECT: **2008-0741** - Appeal of a Decision by the Director of Community Development denying a Tree Removal Permit for an Oak tree in the rear yard of a single-family residence. The property is located at **1384 La Bella Avenue** in an R-1 (Low-Density Residential) Zoning District.

REPORT IN BRIEF

Existing Site Conditions Single Family Residence. Oak tree located in the rear yard.

Surrounding Land Uses

North Single Family Residential

South Single Family Residential

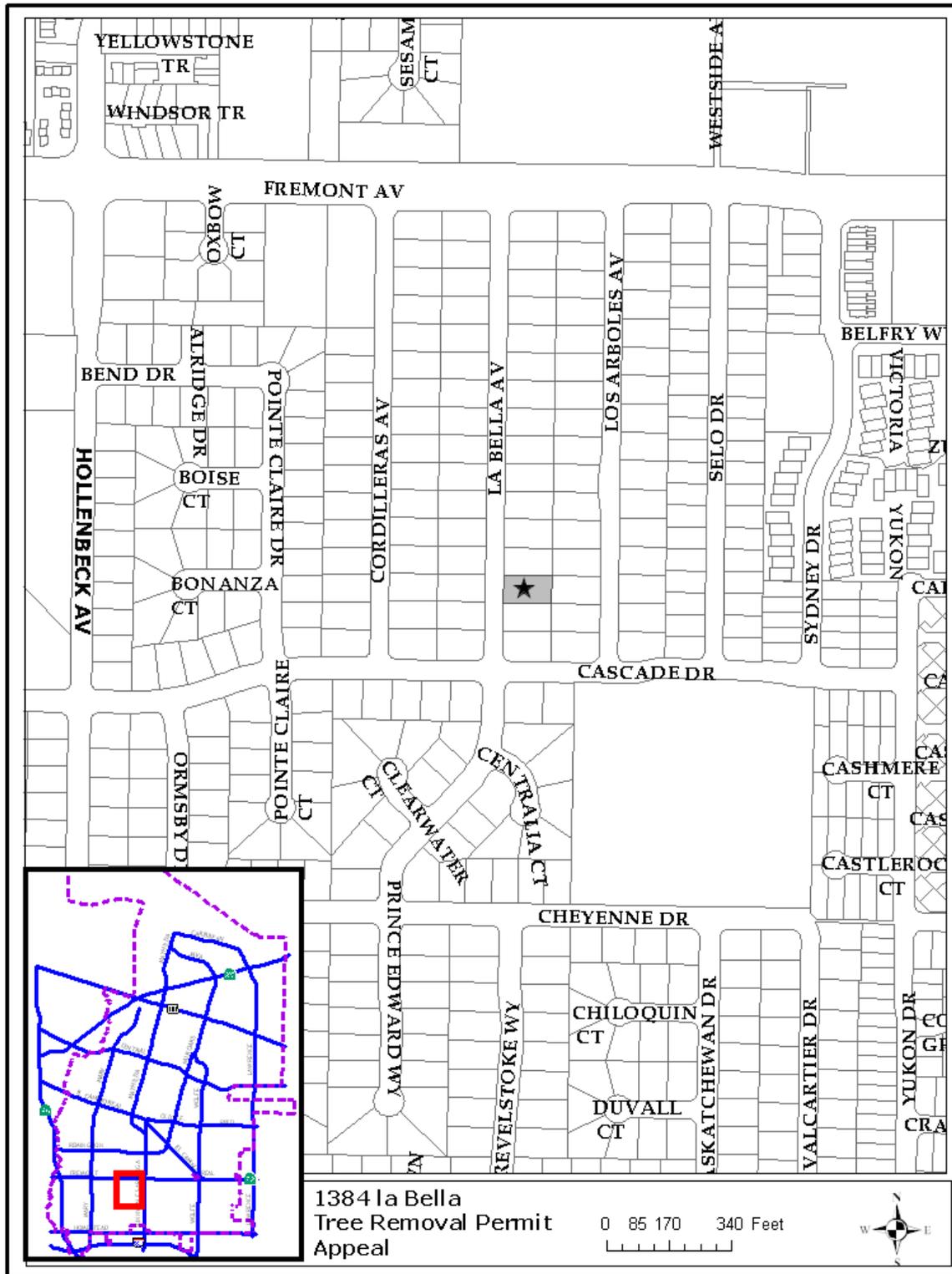
East Single Family Residential

West Single Family Residential (across La Bella Ave.)

Issues Tree Removal Permit - Appeal

Environmental Status A Class 4 Categorical Exemption relieves this project from California Environmental Quality Act provisions and City Guidelines.

Staff Recommendation Deny the appeal and uphold the decision of the Director of Community Development to deny the Tree Removal Permit.



PROJECT DATA TABLE

	EXISTING	PROPOSED	REQUIRED/ PERMITTED
General Plan	Low Density Residential	Same	---
Zoning District	R-1	Same	R-1
Lot Size (s.f.)	9,633	Same	8,000 min.

ANALYSIS**Description of Proposed Project**

A Tree Removal Permit was requested by the property owner (the “appellant”) on July 10, 2008 to remove an Oak tree with a height estimated at 50 feet and a crown spread of approximately 75 feet, located in the rear yard (see Attachment C – Photographs) and two Camphor trees located in the front yard. On July 15, 2008, the City Arborist inspected the trees and recommended denial of the Tree Removal Permit, as he was not able to make the required findings to allow removal. Following this recommendation, Planning Division staff visited the site and concurred with the City Arborist’s recommendation of denial for one of the Camphor trees and for the Oak tree. The Tree Removal Permit for one Camphor tree and the Oak tree was denied on August 14, 2008 (see Attachment D – Permit Letter). After the appellant provided more information about damage the Camphor tree roots were causing the foundation, she reapplied for a new Tree Removal Permit. An approval was granted to remove the second Camphor tree on September 8, 2008. However, based on the available evidence, staff still does not believe that the findings can be made to remove the Oak tree. The appellant is appealing the decision to deny the Tree Removal Permit for the Oak tree. She believes there is sufficient information and evidence to make the findings that that the tree poses a significant hazard, and has provided extensive documents that she asserts support her position (Attachment E, et seq.).

Background

Previous Actions on the Site: The following table summarizes previous planning applications related to the subject site.

File Number	Brief Description	Hearing/Decision	Date
2004-0238	Design Review for an addition to the residence with major changes to the front of the structure	Approved	03/25/04

File Number	Brief Description	Hearing/Decision	Date
2001-0723	Variance to side yard setbacks to protect the significant Oak tree	Approved	11/28/01

The proposed addition for which the appellant received a variance and design review approval was never constructed. The foundation of the whole house would have had to be upgraded, which ultimately made the project impractical for the appellant to complete.

This is the appellant's first time requesting removal of this Oak tree.

Environmental Review

A Class 4 Categorical Exemption relieves this project from California Environmental Quality Act provisions and City Guidelines. Class 4 Categorical Exemptions includes minor alterations to land.

Tree Preservation Ordinance (SMC 19.94)

On December 12, 1991, the City's Tree Preservation Ordinance was established in order to preserve mature trees of significant size. Chapter 19.94 of the Sunnyvale Municipal Code defines a 'protected tree' as a tree with circumference equal to or greater than 38 inches when measured at a height of four feet six inches above the ground. A Tree Removal Permit must be obtained prior to removal of a protected tree from private property in any zoning district. A permit to remove a protected tree may be issued only if:

1. The tree is diseased or badly damaged;
2. The tree represents a potential hazard to people, structures or other trees;
3. The tree is in sound condition, but restricts the owner's or the neighbor's ability to enjoy reasonable use or economic potential of the property.

On May 9, 2006, the City Council adopted additional regulations related to tree preservation. Two new criteria for tree removal were established as listed in Attachment A, Findings 3(f) and 3(g).

Property Owner's Appeal

The appellant has submitted a great deal of information to staff, including her appeal letter dated September 12, 2008 (Attachment T), another appeal letter containing more information dated October 17, 2008 (Attachment E), four studies by arborists (Attachments F-I), a limited foundation inspection (Attachment J), another report from a builder (Attachment K), two plumbing estimates (Attachments L and M), two sewer reports (Attachment N), an

estimate to demolish the addition portion of the house (Attachment O), a letter from her insurance company (Attachment P), an estimate to install a solar system on the subject property (Attachment Q), and several letters of support from family, friends, and neighbors (Attachment R). The appellant's arguments break down to the following points (Attachment E):

- The tree roots have invaded sewer lines and disrupt sewer service to her property. The appellant does not wish to install a root barrier system as City Staff recommended, or comply with any of the City's recommendations, because she believes such recommendations are "excessive, financially burdensome, and does not address or mitigate the significant hazard to people and structures with the aggressive growth of tree roots and damages caused." (Attachment E, page 1).
- Tree roots are threatening the foundation of the home;
- The tree restricts any use of the property and makes the dwelling completely uninhabitable;
- The tree has outgrown its containment area;
- The tree is affected by various diseases and infestations;
- The tree exhibits signs of leaning/weakness;
- Attempts to repair the plumbing and/or foundation of the house will cause significant damage to the tree in a critical root zone which will potentially cause the tree to fall;
- There is a complete loss of use and economic potential of the property;
- The significant canopy of this tree will interfere with the future addition of solar panels on the property;
- The tree restricts reasonable use of the property because the owner feels she is required to keep "urban forest like (wild)" conditions on the property to allow the tree to thrive (Attachment E, page 4);
- The tree is a fire hazard since it is within 30-100 feet of the house;
- The owner feels that allowing the tree to live would be negligence on her part since the tree poses a danger of which the owner is aware.

After Staff upheld the City Arborist's recommendation of denial of the Tree Removal Permit, staff advised the appellant to provide additional expert opinions to support her claims regarding the tree's intrusion into the foundation, or other information that might meet one of the required findings. The owner then provided the above-mentioned studies and estimates, which were then examined by City Staff.

Staff Discussion

The City Arborist and several other members of the City Staff have visited the site on two occasions. During both visits, the City Arborist determined that the tree is healthy, appears to be structurally sound, and has at least 75-100 years of remaining life. The City Arborist also concluded that there are methods that

the appellant could use to prevent the tree's intrusion into her plumbing and foundation without endangering the tree.

Staff observed the following site conditions:

- The Oak tree is located approximately 12 feet away from the house (not an ideal location);
- The Oak tree is large, healthy, and is an asset to the aesthetics of the subject property and neighborhood;
- The appellant has provided service records and inspection tapes as evidence of root intrusion in the sewer line, which has required frequent clean-outs;
- The exploratory trench dug by Kielty Arborist Services showed root growth, but was done at the edge of the concrete walkway, approximately 5 feet from the structure, not close enough to prove definitively that root growth is the cause of the cracks in the foundation.
- The Oak tree is an ecological asset to the community by sequestering significant amounts atmospheric CO₂.

Staff has the following comments regarding the concerns expressed by the appellant.

Roots in lateral/sewer line: The City Arborist has stated that the tree root intrusion in the sewer lines may be addressed by replacing the existing sewer lines. According to the Arborist, tree roots will only invade a pipe which is already broken and leaking. Once a pipe is severely damaged (as on the subject property), it must be replaced regardless of whether or not the tree is removed. A new, properly installed pipe will have no leaks and therefore will not attract tree roots. Staff's recommendation is to replace the sewer service line under and around the house which has failed and through its failure allows roots of trees and plants to enter and interfere with proper operation of the plumbing facilities within the house. This would resolve the root intrusion problem while still saving the tree.

Staff notes the need for replacement of laterals is primarily due to the use of older/poor materials and the age of pipes. This condition leads to leaks, which draw roots toward the pipe and lead to root intrusion. This is a common problem for older homes in Sunnyvale. New laterals are either made of gasketed PVC or VCP (4 inch diameter), materials which are less susceptible to root intrusion.

Staff also notes that the Tree Preservation Ordinance (19.94.060 (b)) does not specify damage to infrastructure such as underground utilities as one of the findings for tree removal. Infrastructure such as underground utilities could

be considered as part of the structure and therefore subject to finding #2 (that the tree represents potential hazard). However, if reasonable alternatives exist to repair the damage without removing the tree, staff does not believe tree removal is warranted. In this case reasonable alternatives do exist.

Roots threatening the foundation of the house: The City Arborist notes that the Oak tree has prolific roots that often spread a significant distance. The appellant pointed out visible cracks in the floor of the addition area of the home and provided a limited foundation inspection that attributed the cracks to tree root growth, though gave no direct evidence to support that assumption. However, the limited foundation inspection report also said that foundation repair is not now indicated (Attachment J, page 2).

At this time, there is no evidence to clearly determine whether foundation damage is occurring due to the presence of the tree. If it is found to be occurring, there may be methods such as root barriers that could be used to resolve the problem without removing the tree. In order to conclusively determine whether root intrusion under the foundation is occurring, whether it is causing damage, and whether there are methods available to stop the intrusion, a root excavation along the edge of the structure would have to be performed by a Certified Arborist. The City Arborist and the Planning Division have recommended that the appellant hire a Certified Arborist to conduct a root excavation along the edge of the structure and provide the results to the City. This recommendation was made in the denial letter from Staff to the Appellant dated August 14, 2008 (Attachment D, pages 2-3). However, the root excavation that was performed was done so several feet away from the structure and, to the best of staff's knowledge, no other additional investigation has been performed to conclusively establish whether the tree is threatening the home's foundation.

Another factor in the cracking of the foundation in the addition area, also addressed in the letter of August 14, 2008, is that the addition appears to have been built on an un-reinforced concrete slab typical to outdoor patios. Un-reinforced patio slabs are placed on the surface of the soil and are prone to settling, shifting, and cracking even in the absence of surrounding trees. This is another reason why additional evidence would be needed to establish whether or not the tree is the primary cause of damage and what may be done to address the issue.

Should the roots be affecting the foundation, the City Arborist believes that a root barrier system can be installed to block the roots from growing under the house, such as the City uses with all City Street Trees. Installing a root barrier would require removing the five foot wide rear sidewalk and using a root pruning machine to dig a six inch wide trench adjacent to the slab foundation of the structure to a depth of thirty-six inches. Installing a root barrier would

then require digging a 4' long trench between the tree and the structure. Though the appellant makes the argument that this would require cutting into the roots of the tree and therefore destabilizing it, the City Arborist disagrees. As similar to all large trees, the Oak tree has large support roots emanating from the base of the tree's trunk. The roots are the largest immediately adjacent to tree and taper down in size as they grow radially away from the trunk. At the rear sidewalk the roots are six inches below the soil surface and only two to three inches in diameter. Severing the smaller roots passing under the structure would not affect this Oak tree's stability and physical support.

Loss of economic use of the property: The City Arborist believes that the Oak tree provides great value to the subject property. The damage to the house has already been done and has not been proven to be originated by the tree. Removal of the tree would not stop the appellant from having to make the required repairs to the plumbing. Also, the appellant has not applied for permits for any future development that are being prevented by the presence of the tree. Should she apply for something in the future that is blocked by the tree, she can then apply for another Tree Removal Permit and the matter will be reconsidered at that time.

Potential hazard due to instability/leaning: The City Arborist has inspected the tree on multiple occasions and has not found any evidence of instability. One arborist report provided by appellant mentioned that it appears that the tree was topped in the past, which has now created some poorly formed limbs (Attachment F, page 1). The City Arborist believes that proper pruning would easily solve any issues with the limbs. The tree appears to be healthy and structurally sound. Given the available evidence including the City Arborist's findings, staff does not believe the tree currently poses a hazard.

The tree is diseased/dying: The City Arborist has examined the tree and finds it to be in good health. Browning foliage and minor infestations are a normal part of a tree's life and not indicative of poor health in this case. There are other options to treat minor tree diseases besides complete removal of the tree. The arborists hired by the appellant describe the tree as having "good vigor" and "reasonably good health". (Attachments F and G)

Tree is too large for yard: The City Arborist has inspected the tree and does not believe it is too large or inappropriately located. The tree currently has sufficient space and has not outgrown its useful landscape value. Staff understands that the appellant desires additional open space in the yard; however, this does not meet the findings necessary to remove a tree.

Tree canopies will interfere with a future solar addition: The appellant has not submitted an application for a solar addition. Staff cannot consider the tree's potential impacts on a solar addition in the absence of an approved or pending

project. If the appellant chooses to develop and submit a proposal for a solar project, a new Tree Removal Permit request may be filed at that time. Currently, City Staff has discretion in considering applications for tree removal permits, so approval cannot be guaranteed. Whenever the appellant submits for approval in the future, all relevant and current state and local laws will be included as part of the analysis.

Presence of tree prevents landscaping: Large trees such as the subject Oak can have extensive surface root systems and also take up water and nutrients from the soil and provide shade, which can inhibit the growth of smaller plants. However, the City of Sunnyvale places a high value on large mature trees. Large trees contribute to the scenic beauty and economic prosperity of the city and are considered more valuable than other landscaping. The appellant claims that she must leave the entire yard in a natural state since any watering effort would harm the tree. The City Arborist disagrees with this assessment. This Oak species has evolved to survive in California's Mediterranean climate, which means that it lives through at least six months of little to no rainfall. While Oak trees do not like a lot of water, a moderate amount of watering would be beneficial to the tree and would actually stop the tree from sending roots under the house and into the plumbing to look for other sources of water. Also, though the tree canopy covers a large section of the yard, it does not cover the entire yard. The City Arborist states, except for the first six to eight feet around tree, this Oak should not be irrigated, but the remaining area under and beyond the canopy can be irrigated. There are places in the yard of the subject property that still do receive plenty of sunshine and could be freely landscaped; even shade tolerant turfgrass species could be planted in the canopy of this tree. (See Attachment S, page 3 for an example of such landscaping.)

Fire hazard/negligence issues: While Staff can appreciate that the appellant is concerned about any potential liability issues, the standards set by insurance companies are not the same as the findings set by the Sunnyvale City Code. In the letter from the appellant's insurance company, the company claims that trees within 30-100 feet of a home pose a fire hazard and removing them would be "good forestry practice." (Attachment P) In a city as developed as Sunnyvale, the fire dangers are much different than in an area that requires "good forestry practice" to be maintained.

Expected Impact on the Surroundings: The subject Oak tree, estimated to be 50-60 feet high, is clearly visible from the street and appears to frame the house. Also, the appellant has no other trees on her property (Attachment C(A), page 1), so removing this last tree would reduce the landscape value of the property to nothing. Staff finds that the removal of this tree would have a detrimental effect on the overall streetscape as well as a significant ecological loss.

Fiscal Impact

No fiscal impacts other than normal fees and taxes are expected.

Public Contact

Notice of Public Hearing	Staff Report	Agenda
<ul style="list-style-type: none"> Published in the <i>Sun</i> newspaper 39 notices mailed to property owners and residents adjacent to the project site 	<ul style="list-style-type: none"> Posted on the City of Sunnyvale's Web site Provided at the Reference Section of the City of Sunnyvale's Public Library 	<ul style="list-style-type: none"> Posted on the City's official notice bulletin board Posted on the City of Sunnyvale's Web site

Conclusion

Findings and General Plan Goals: Staff is recommending denial of the appeal because the Findings for tree removal (Attachment A) were not made.

Conditions of Approval: If the Planning Commission is able to make the required findings to approve the Tree Removal Permit, staff is recommending the Conditions of Approval listed in Attachment B.

Alternatives

1. Deny the appeal and uphold the denial of the Tree Removal Permit.
2. Grant the appeal and approve the Tree Removal Permit subject to the conditions in Attachment B.
3. Grant the appeal and approve the Tree Removal Permit with modified conditions.

Recommendation

Alternative 1

Prepared by:

Erin Haley
Project Planner

Reviewed by:

Gerri Caruso
Principal Planner

Reviewed by:

Trudi Ryan
Planning Officer

Attachments:

- A. Recommended Findings
- B. Recommended Conditions of Approval
- C(A). Photographs of Subject Oak Tree
- C(B). Photographs of Subject Oak Tree provided by Appellant
- D. Letter Denying the Tree Removal Permit, Dated 8/14/2008
- E. Appeal Letter and Additional Information Submitted by the Appellant, dated October 17, 2008
- F. Kielty Arborist Services - Arborist Report
- G. Tree Management Services - Arborist Report
- H. Mayne Tree Expert Company, Inc. - Arborist Report
- I. Saratoga Tree Service - Arborist Report
- J. Special Building Inspections, LLC - Limited Foundation Inspection
- K. Anderson Builder - Report
- L. Thomas Plumbing Inc – Proposal
- M. A Good Plumber, Inc – Proposal
- N. Thomas Plumbing Inc – Sewer Reports
- O. Allerding Construction – Estimate to demo addition
- P. Farmers Insurance Group – Letter
- Q. Rec Solar – System Quotation
- R. Letters from appellant’s friends and family
- S. Attachments from City Arborist
 - a. Biographical information on Coast Live Oak
 - b. Photo of subject Oak tree showing distance from structure, dated July 22, 2008

- c. Sample photo showing similar Oak tree surviving in a well-landscaped area
- T. Appeal Letter from Appellant, dated September 12, 2008

Recommended Findings – Tree Removal Permit

In order to grant a Tree Removal Permit, one or more of the following findings must be met. Staff was unable to make these required findings.

1. The tree is diseased or badly damaged.

The subject tree is not diseased or damaged. It has been found to be in good health by the City Arborist and has 75 to 100 years of remaining life.

2. The tree represents a potential hazard to people, structures or other trees.

The subject tree has not been found to be posing a hazard. The roots of the Oak tree have intruded in the plumbing. This can be addressed through trenchless sewer replacement methods. Cracks in the structure were reported by the appellant. However, no conclusive evidence was presented to establish that foundation damage is occurring. Cracks could be the result settling of the structure or the ground (a common occurrence), and exacerbated by the apparently unreinforced concrete slab foundation. No further investigation has been conducted by the appellant to conclusively determine whether any foundation damage has occurred or is likely due to the subject tree's roots. The City Arborist recommends installation of a root barrier system to prevent the roots from intruding into the foundation of the house in the future. The tree has been found to be structurally sound by the City Arborist, and no additional evidence has been presented by the appellant to contradict these findings. The areas of possibly poor form and various minor infestations are a normal part of tree growth and can be addressed by pruning and other methods than removal.

3. The tree is in basically sound condition, but restricts the owner's ability to enjoy the reasonable use or economic potential of the property, or unreasonably restricts an adjoining property's use or economic potential of the adjoining property. In the event this is the sole basis for the application, the following criteria shall be used to evaluate the application under this subsection:

- a. The necessity of the requested removal to allow construction of improvements such as additions to existing buildings or incidental site amenities or to otherwise allow economic or reasonable enjoyment of property;
- b. The topography of the land and the effect of the requested action on water retention and diversion or increased flow of surface water;
- c. The approximate age of the tree relative to its average life span;
- d. The potential effect of removal on soil erosion and stability where the tree is located;

- e. Current and future visual screening potential
- f. A property has sufficient landscaping or is over landscaped
- g. Allow removal of overgrown, but healthy, trees.
- h. Any other information the Director of Community Development finds pertinent to the application.

The subject Oak tree is not restricting reasonable use or economic potential of the property or adjoining property. City staff has visited the site and has determined that the tree has a remaining life expectancy of at least 75-100 years. Staff notes that the tree is not in an ideal location on the property and could be better located, but the tree's size precludes any relocation. Although damage to the sewer lines of the property is apparent, repairs must take place whether the tree is removed or not, and alternatives exist to replace the sewer lines and save the tree. The subject tree is in good health and has a significant remaining lifespan that merits preservation.

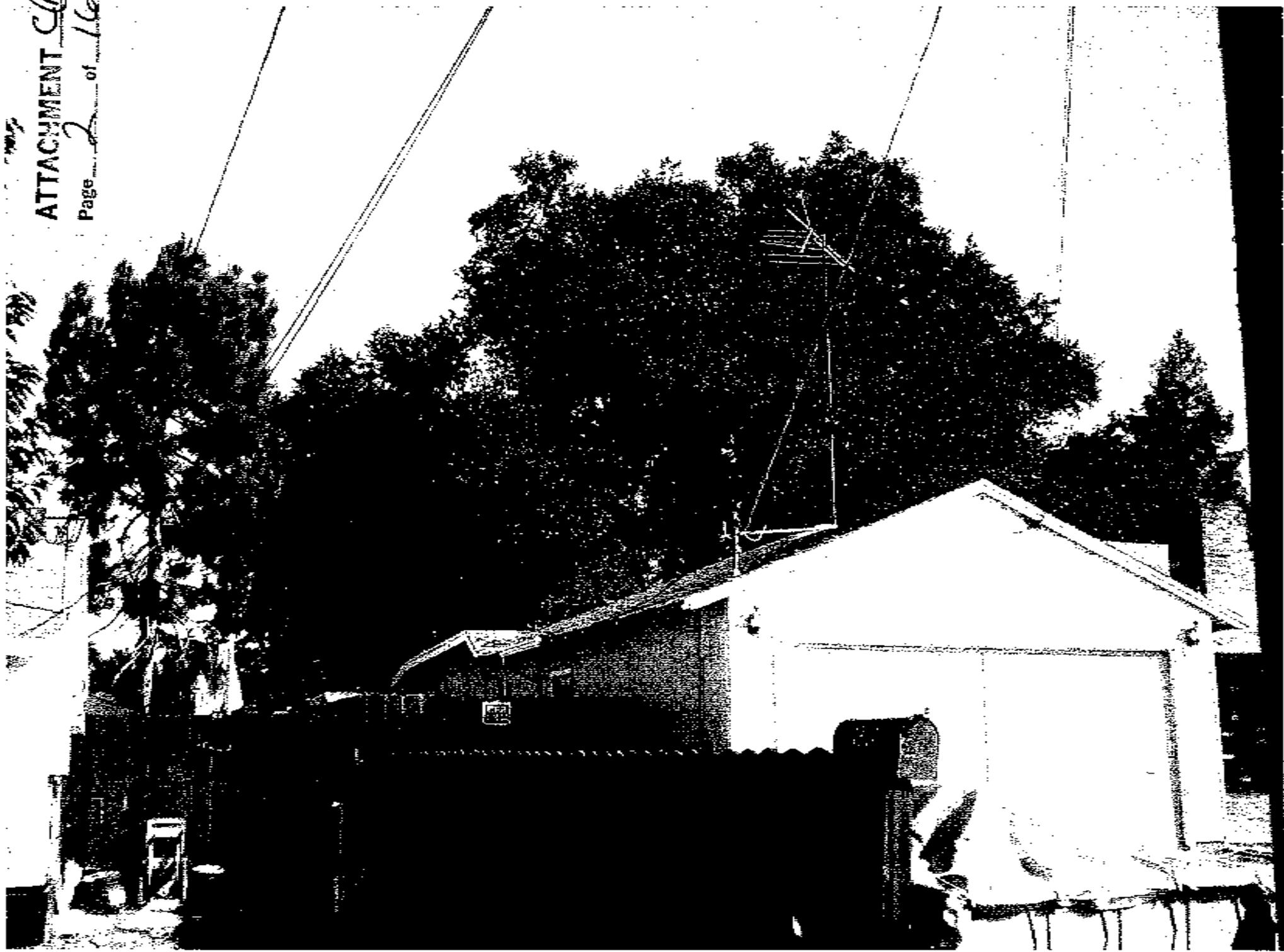
Recommended Conditions of Approval – Tree Removal Permit

In addition to complying with all applicable City, County, State and Federal Statutes, Codes, Ordinances, Resolutions and Regulations, Permittee expressly accepts and agrees to comply with the following conditions of approval of this Permit:

Unless otherwise noted, all conditions shall be subject to the review of approval of the Director of Community Development.

1. One replacement tree, a minimum of 15-gallon size, shall be planted anywhere on the property within 90 days of removal of the subject tree. If a replacement tree is not planted, an in-lieu fee of \$230.00 shall be paid to the City within 90 days of removal of the subject tree to allow a tree to be planted on City property.

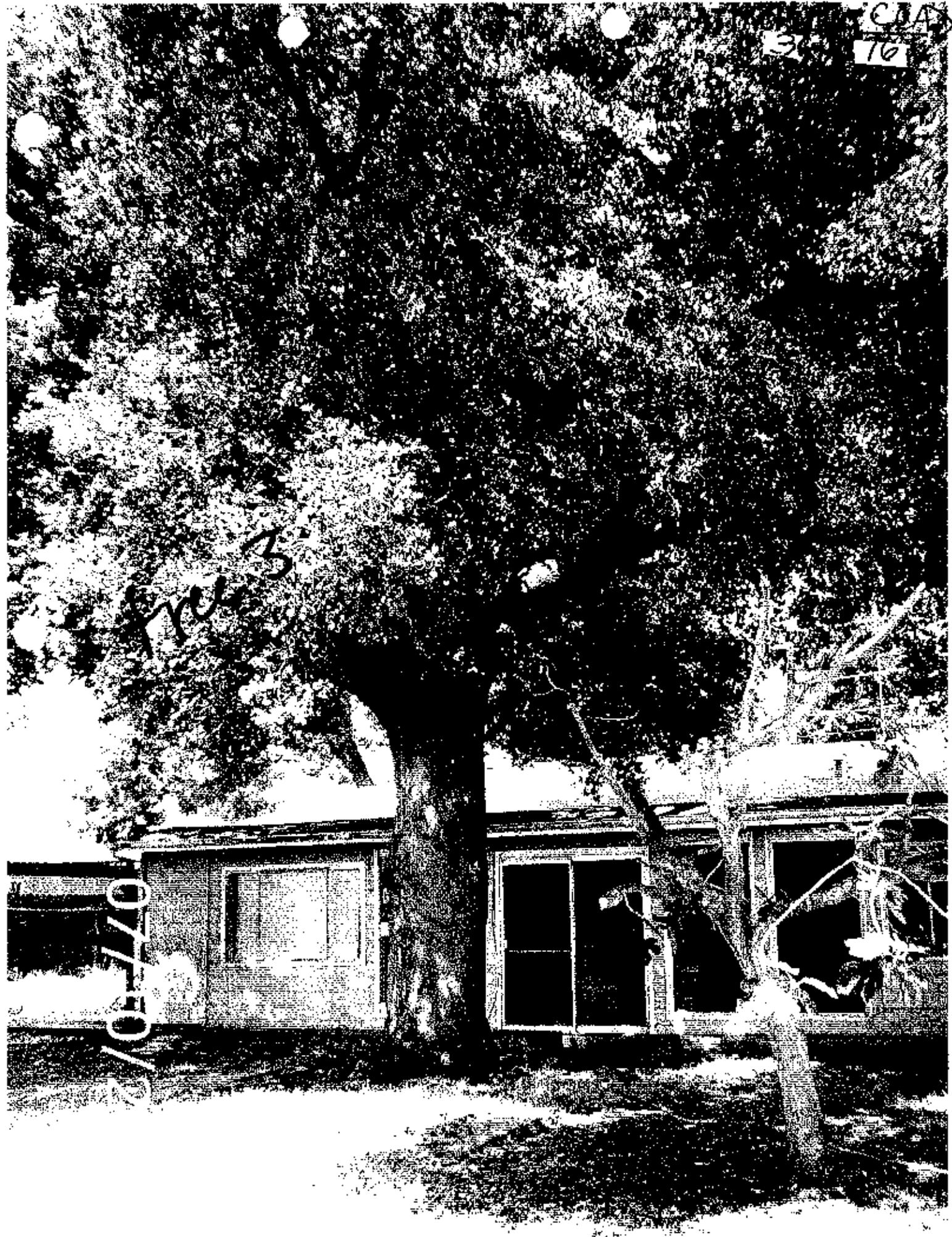




CLAS
5/10

10/13

07/10/13



07/10/2008



Remarks: Proximity too close to the house
Potential hazard.
No defensible space in case of a fire
hazard.



Remarks: Proximity
Tree too close to the house
Roots damaging foundation
get the nutrients under foundation.

①

ATTACHMENT (CB)

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Roots
showing
distribution

Roots
showing
distribution

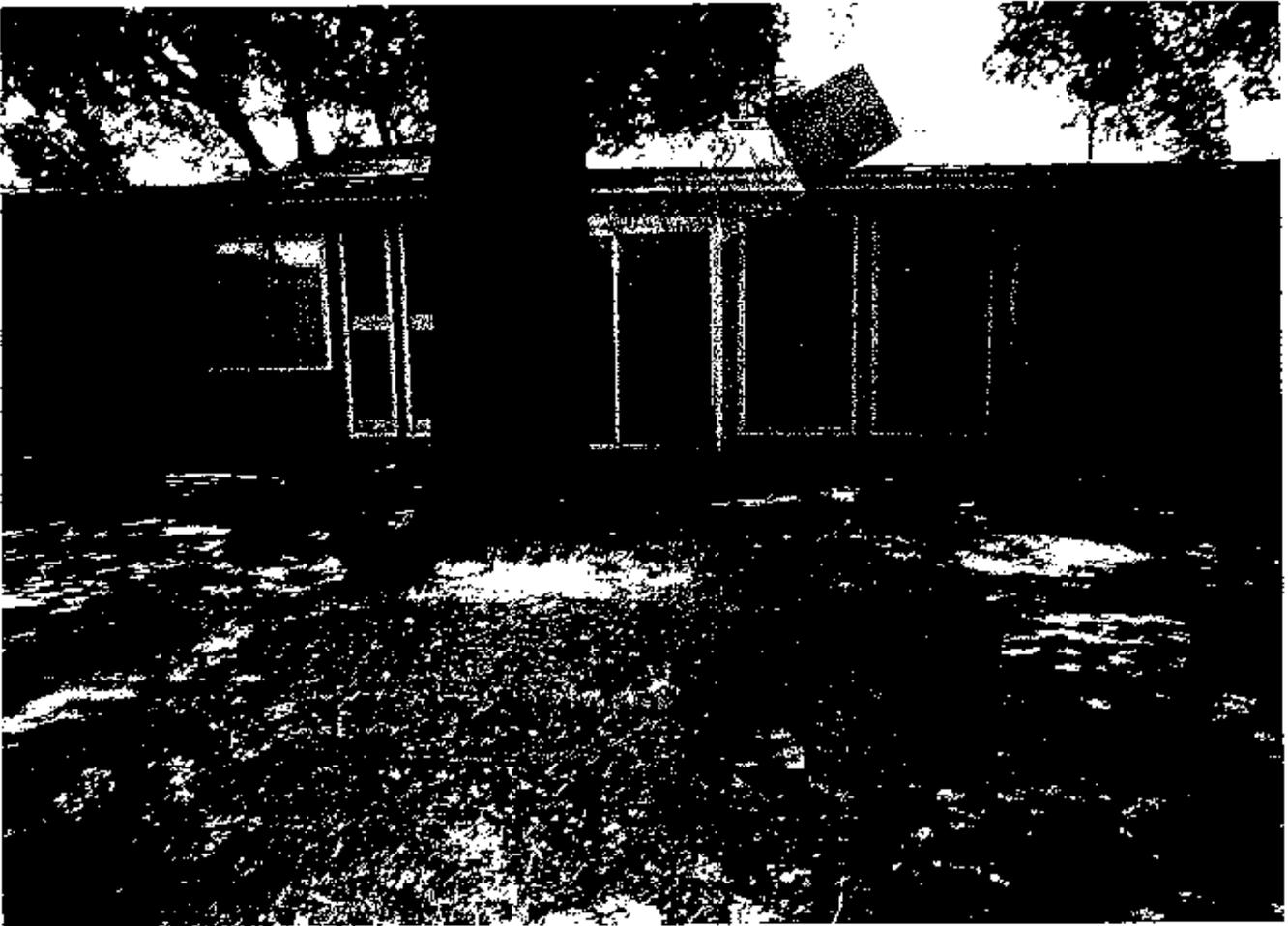


Roots
showing
distribution

Roots
showing
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showing
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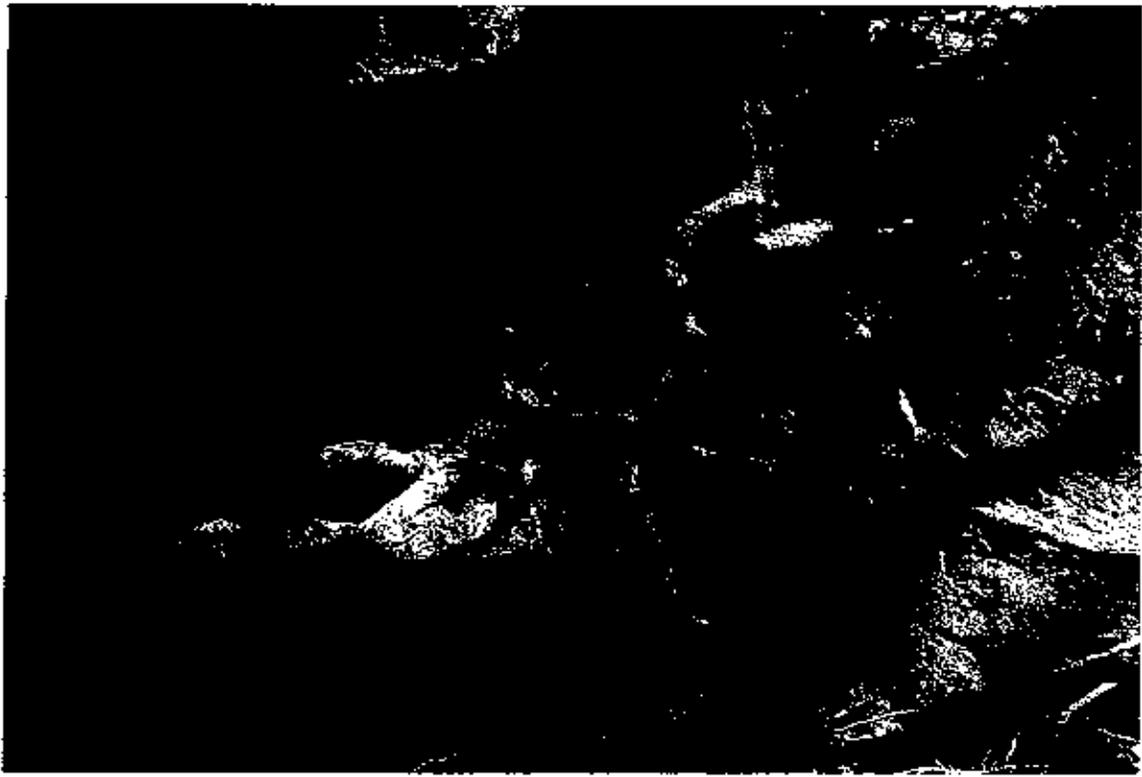
(30)



(H)



*Side wall
damage by
next to*

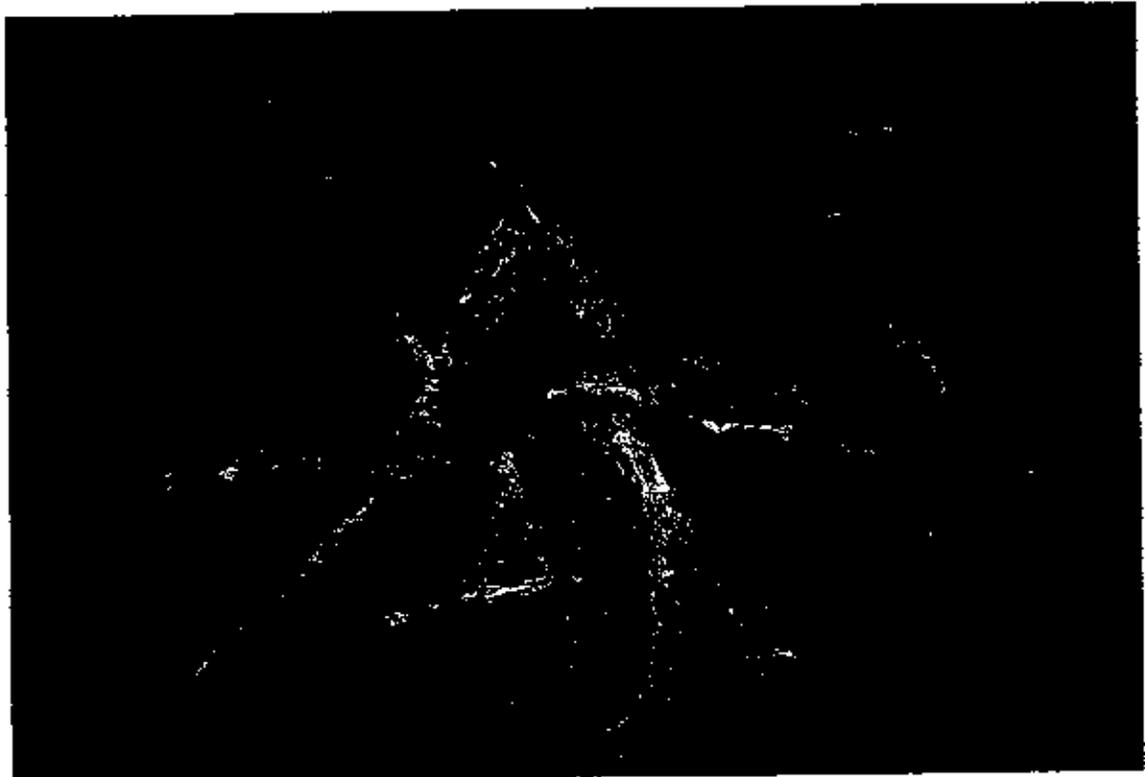


*Repet's Carby
Damage*



5

ATTACHMENT C (8)
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Calcareous
shale
in the
vicinity

Critical
root zone

Low rocks
at the
junction

Removal
of vegetation

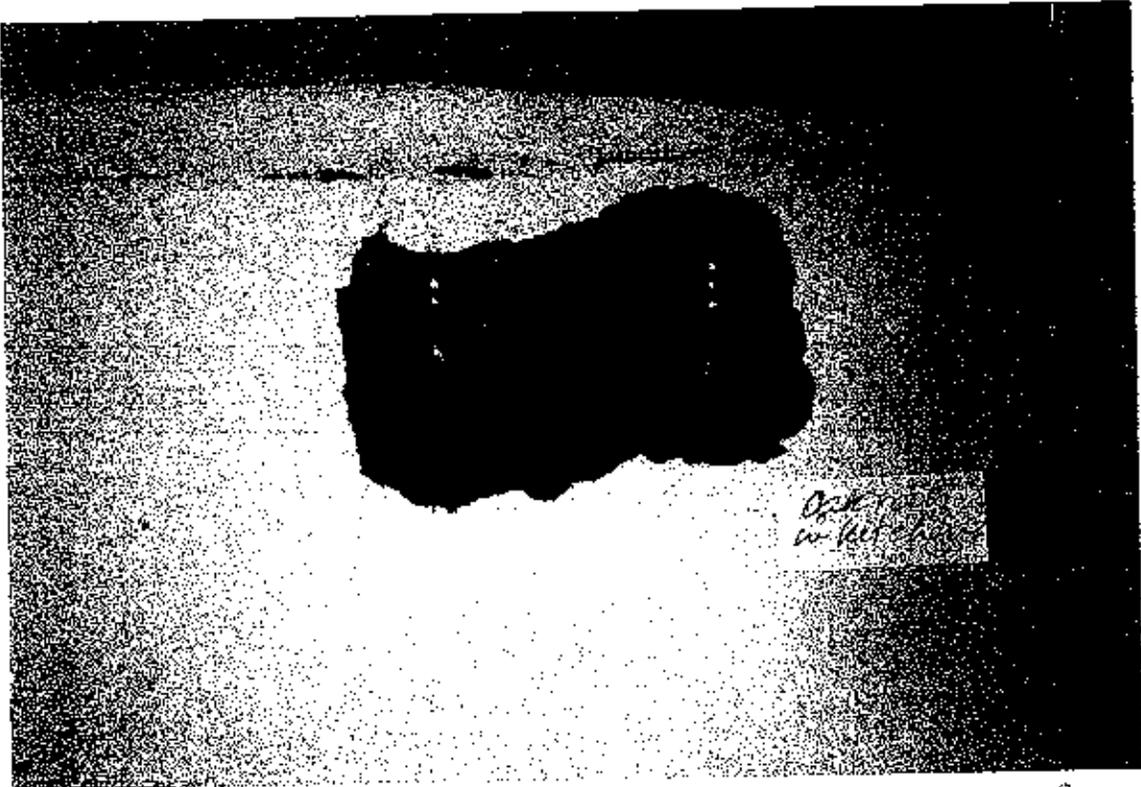






Roots gnarled
growing toward

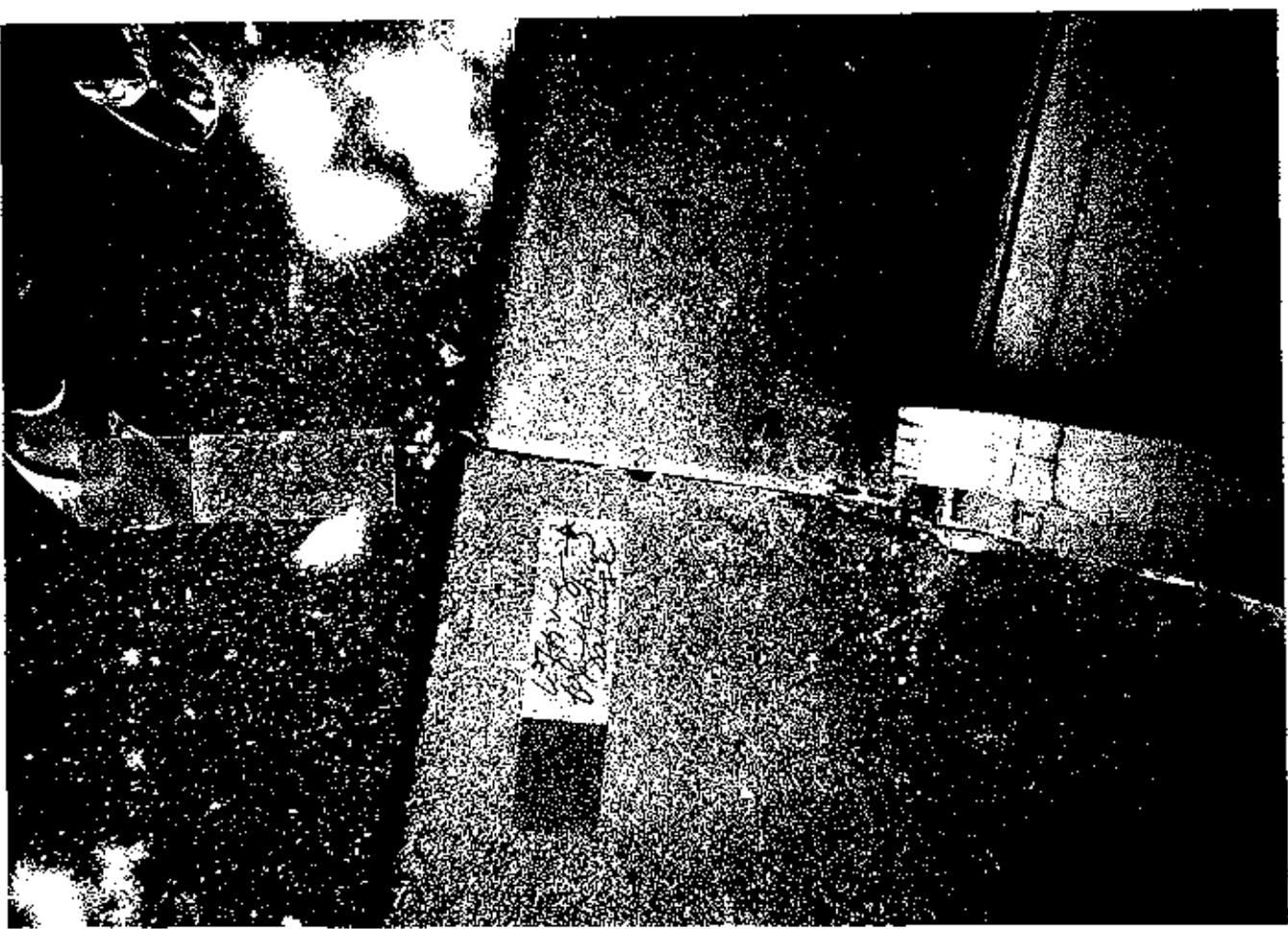
Roots in
ground 700



Remarks Damage in the kitchen plumbing
Oak roots extracted from kitchen &
laundry 3 buckets.



Remarks Extensive foundation & plumbing
damages by tree roots. No use of property
balcony, kitchen, laundry not functional
damaged. No economical potential value of
property.





Remarks
weeping
branch
Disease.
Red flag.



Remarks
Red
Flag
Tree
showing
signs of
leaving
signs of
weakening

(=)

limited
landscape
value

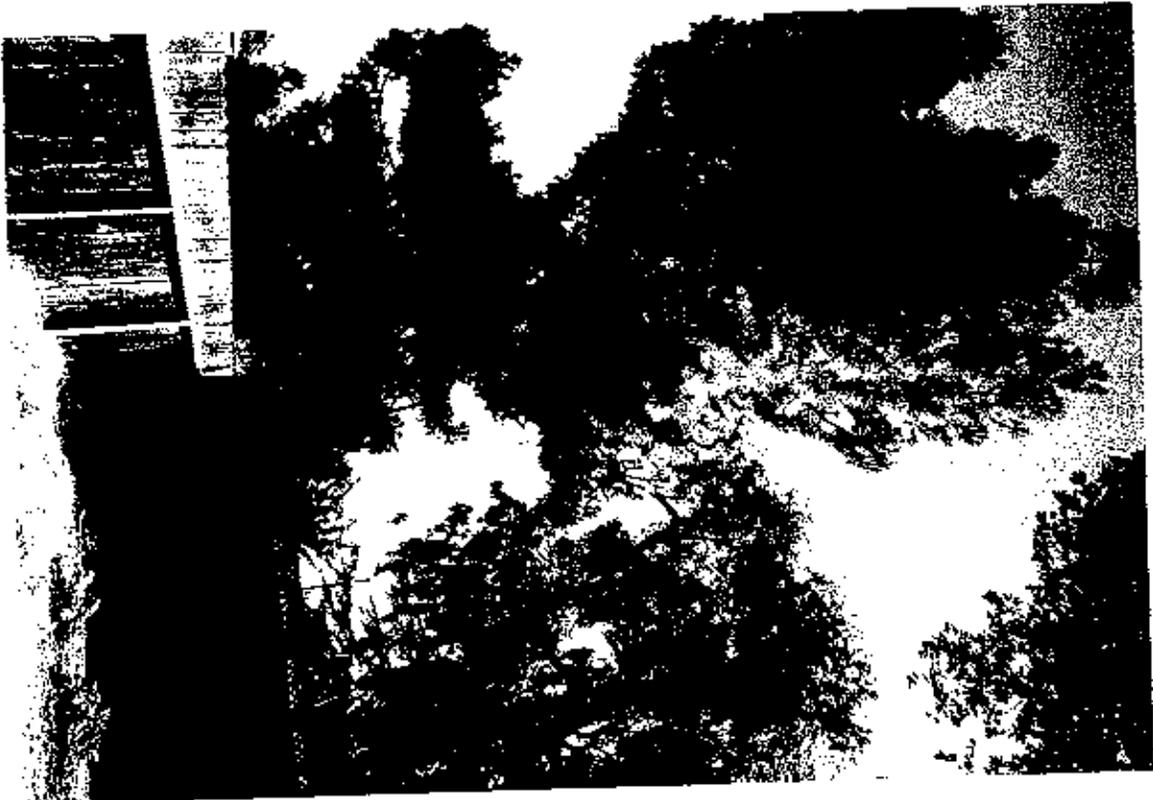


Remarks: Deprived of landscape. urban forest like
w/ed conditions for tree

tree canopy
shades entire
roof & N.E. side



Remarks: Tree canopy expansive deprived of all sunlight
& solar access. Entire roof & N.E. side shaded.



Remarks
Nearby trees (type)
proper planting



Remarks
Nearby large tree;
suitable surrounding
property.



August 14, 2008

Sent Via E-mail to: george.janet@gmail.com

Janet Maria George
1384 La Bella Avenue
Sunnyvale, CA 94087

Subject: Tree Removal Permit - 1384 La Bella Avenue, Sunnyvale, CA 94087
File No.: 2008-0741

Dear Janet Maria George:

The Department of Community Development has reviewed your application for a Tree Removal Permit for **two (2) Camphor trees** located in the front yard and **one (1) Oak tree** located in the rear yard at the above referenced address.

Approval was granted for removal of one (1) Camphor tree located closest to the side property line on July 11, 2008. Please refer to our previous letter for details and conditions of approval. If there is any question as to which tree has been approved for removal, please contact me.

The Department of Community Development has **denied** your request for removal of **one (1) Camphor tree** located toward the center of the front yard and **one (1) Oak tree** located in the rear yard. In order to grant a tree removal permit, at least one of the following findings is necessary: (1) the tree is not healthy, (2) it represents a potential hazard, or (3) it unreasonably restricts the use of your property or your neighbor's use of their property. Based on an examination of the subject trees, none of these findings can be made. The City Arborist notes that these trees are not diseased, damaged, or posing an immediate hazard. Please see below for additional information.

You have stated that your concerns with these trees are root intrusion in the sewer lines and root damage to the foundation of the home. You also submitted evidence of your concerns in the form of letters, invoices for services, and tapes of a sewer line inspection. Thank you for providing this information to assist us in evaluating your application. The City has inspected the evidence presented and we acknowledge that you have a severe root intrusion problem and have suffered a great deal of difficulty due to this problem, but we do not believe tree removal is the appropriate solution. Please see below for additional details.

After reviewing the evidence and conducting site visits, the City Arborist and Planning Division note the following related to your concerns:

1. Root intrusion in sewer lines:

It is clear from the evidence presented that roots have invaded the sewer lines and plumbing on the property. However, the City does not believe tree removal is the appropriate solution for this issue. Tree roots invade sewer lines only when those lines are already broken and leaking. The water from leaks draws tree roots to the lines.

Tree roots should not invade a new, properly-installed pipe without leaks. Even if trees are removed, the root problem would continue until pipes are replaced. As a result, the City generally recommends trenchless sewer replacement for cases of sewer line intrusion when pipes are beneath the tree canopy.

It appears from the inspection tapes you provided that the intrusion is occurring primarily in the pipes located below and directly adjacent to the home. The sewer lateral from the cleanout to the front property line appears to be in good condition and has only one minor area of intrusion which may be addressed with cleaning and root foam (contact herbicide). Two offsets with root intrusion were identified in the sewer lateral from the front property line to the City main (on City property) and these will be repaired by the City. Public Works is aware of the need for repair and is scheduling the work. If you have questions about when the repair of the section of pipe on City property will be completed, you can contact Eric Tokutomi in the Public Works Storm & Sewer Program at (408) 730-7510. Based on the information in the inspection tapes, it appears replacement is needed only for the plumbing running beneath the house and possibly the lateral extending from the home to the cleanout. Once these pipes are properly replaced, the problem should be resolved without a need to remove the trees.

You stated that you have already had the sewer lines replaced in the past and the root intrusion problem was not solved by this action. However, you have not been able to provide the date of replacement or produce any evidence of what may have been replaced. The City has a record of the home's sewer system being connected to the City main in 1991 (where a septic tank appears to have been the previous on-site sewer system), therefore it is likely the lateral line was installed in 1990 or 1991. The City has no evidence of permits issued for later replacement of the sewer lateral or for replacement of any of the home's plumbing located beneath the slab (which appears to be the source of the problem). Based on the age of the house, the plumbing beneath the slab is most likely cast iron pipe which has reached the end of its useful life and needs to be fully replaced whether or not the trees are removed. We believe this replacement can be completed without damaging or removing the trees. We recommend full replacement of the pipes below the house as well as inspection of all on-site plumbing lines to ensure the joints and connections are secure and free of leaks. If proper replacement is done, no further root intrusion should occur.

2. Root damage to the foundation:

You have stated that the foundation of the addition in the rear of the house is cracked and lifted due to root activity from the nearby Oak tree. Cracks are visible in the walls and floor of this addition, but no evidence has been presented to establish that roots are the cause of damage. Also, it is not clear that this addition ever had a properly constructed and reinforced foundation. According to available records, this addition was made in the 1960s when the subject site was on unincorporated County land. The available records show the project was to enclose a previously unenclosed patio. It is not clear whether this addition was inspected by County inspectors or whether any requirements were established related to structural and foundation issues. However, based on an exterior visual inspection, it appears this addition may have been placed on an un-reinforced concrete slab typical to outdoor patios. Un-reinforced patio slabs are placed on the surface of the soil and are prone to settling, shifting, and cracking even in the absence of surrounding trees. As a result, additional evidence would be needed to establish whether or not the trees are the primary cause of damage and

what may be done to address the issue. A root excavation performed by a Certified Arborist would be needed to identify the size and location of roots near the edge of the foundation and confirm whether any damage is occurring. A structural inspection of the foundation of this area may also be needed to confirm the type of foundation. If the foundation is an un-reinforced concrete slab as suspected by staff, replacement of the entire foundation, not tree removal, may be the necessary solution.

You have also stated that the Camphor trees in the front yard are threatening the home's foundation due to their proximity to the house. However, no evidence has been presented to establish the roots are actually damaging the home's foundation. Although roots may be close to the edge of a foundation, it is rare for significantly-sized roots to go beneath a foundation at a shallow enough level to cause damage (assuming a properly installed and reinforced foundation). A root excavation performed by a Certified Arborist would be needed to clearly identify the size and location of roots at the edge of the foundation and confirm whether any damage is occurring. If roots are threatening the foundation, protective measures such as root barriers are often an option to save the tree. A Certified Arborist's report (with results of a root excavation) would be required to establish whether such measures are feasible in this case.

As a result of the evidence presented and the information described above, the Community Development Department was not able to make the required findings to remove the two trees as required by the Sunnyvale Tree Preservation Ordinance. We understand this is a difficult situation for you and you are facing expensive plumbing replacement and other work. However, we do not believe tree removal will resolve your issues. We believe full plumbing replacement is necessary to resolve the problem. As a result, we were not able to make the required findings to allow removal of the two trees.

If you are in disagreement with this decision, you may appeal this decision to the Planning Commission by filing a written appeal within fifteen (15) calendar days of the date of this notice. There is a \$117.00 filing fee for the appeal. We will make every effort to schedule a timely appeal hearing if you choose to appeal. It appears we may be able to schedule a hearing as early as September 22, 2008, if necessary. However, we strongly recommend you consider plumbing replacement, as we believe this to be the only way to resolve your issues in a timely fashion.

If you have any questions regarding this letter, please contact me at (408) 730-7659. Thank you for your cooperation.

Sincerely,



Mariya Hodge
Assistant Planner

1384 La Bella Ave.
Sunnyvale, CA
Oct 17th, 2008

To: Planning Commission; Bo Chang, Harriet Rowe; and Members Charles Hungerford, Larry Klein, Brandon Sulser, Dianne McKenna and Nick Travis of the City of Sunnyvale:

Re: Oak Tree on my property at 1384 La Bella Ave, Sunnyvale.

Dear Planning Commission Officials, Bo Chang, Harriet Rowe; and Members Charles Hungerford, Larry Klein, Brandon Sulser, Dianne McKenna and Nick Travis:

I need to appeal the decision of denial by the Department of Community Development regarding my application for a Tree Removal Permit for Oak tree located in the rear yard at the above referenced address.

The Sunnyvale tree ordinance states that one or more of the following standards must be met before a tree removal permit can be granted:

- (a) The tree is diseased or damaged;
- (b) The tree represents a potential hazard to people, structures or other trees;
- (c) The tree is in basically sound condition, but restricts the owner's ability to enjoy the reasonable use or economic potential of the property.
- (d) The limited useful landscape value due to its inappropriate species, size and location relative to the existing structures on the property.

The Oak tree roots are a significant hazard, wrecking and damaging the property, the foundation, house, side walk, and entire plumbing. I am currently unable to use my property and dwelling due to repeated tree root growth, foundation damages and intrusion with continuous raw sewage backups. The tree restricts my ability to any use of my property and dwelling making it completely inhabitable. I am also unable to allow anyone else in my house and on my property for hazard, health and safety reasons.

The recommendations provided in the denial report by the staff members of the Department of Community Development is excessive, financially burdensome and does not address or mitigate the significant hazard to people and structures with the aggressive growth of tree roots and damages caused.

All the professionals have continued to advise me to remove the tree and treat the remaining dead roots from any further growth, causing the significant damage and safely eliminating the hazard.

I am more than willing to mitigate removal by planting other trees and I look forward to presenting my case before the Planning Commission.

Thank you for all your help. I really appreciate it.

Sincerely
Janet George (Home Owner)
Cell phone 408 396 5727

Providing data and notifying the City Staff of Potential Tree Hazard with appeal in Planning Commission.

CRITERIA TO REMOVE A TREE

One or more of the following criteria must be met before a Tree Removal Permit can be granted:

1. The tree is diseased or badly damaged.
2. The tree represents a potential hazard to people, structures or other trees.
3. The tree is in sound condition but restricts the owners' ability to enjoy the reasonable use or economic potential of the property.
 - The limited useful landscape value due to its inappropriate species, size and location relative to the existing structures on the property.

PROBLEM STATEMENT

1. Problem caused by improper planting decision (pre-existing mistake). Decision made with the here and now with little thought to the future. Tree has outgrown its containment area. A large tree cannot conform to an inadequate growing space.
2. Roots causing significant structural and foundation damage, with creation of havoc in the plumbing under the slab foundation.
3. As the roots continue to grow larger in diameter the hazard and destruction is uncontainable. (See Structural Engineering Report)
4. Tree exhibiting many red flags. Affected by a disease variety called Phytopthera that causes a weeping in the trunk (See Arborist Report on tree condition and health and pictures)
5. Tree exhibiting signs of leaning, a weakness, which is a red flag. (See pictures)
6. Complete loss of use and economic potential of the property with expensive structural and plumbing repairs that cannot be accomplished safely and prevent significant damage to the tree in critical root zone without causing foreseeable injury including potential falling of the tree on people and structures.
7. Fire Hazard. Large tree within defensible space 30-100 feet around the house represents a fire hazard. The hazard is based on its proximity to existing property and structures.

8. Deprived of access to sunlight and unable to install solar panels on the roof, due to very large tree canopy and shade surrounding the entire structure and property with no solar access benefit. (See letter and Solar Panel Estimates)
9. Limited useful landscape value on the property, because of inappropriate size and location relative to the existing structure on the property. Deprived of any landscape on the property as the tree requires urban forest like (wild) conditions to thrive in the limited space which conflicts with putting a lawn landscaping the yard.

POTENTIAL SOLUTIONS AND TRADEOFFS

1. Feasibility of Root Barriers - Root Barriers were installed 10 years ago and proved to be useless and ineffective as the oak roots are 4 feet deep and the roots continued to cause damages in spite of the barriers, especially considering the proximity of the tree to the structure. For large mature trees it is debatable if root barriers are effective. (See Arborist Report)
2. Feasibility of root cutting- Root cutting not recommended by experts due to the close proximity and critical root zone and the devastating effects on the tree. Drastic procedures compound the risk and hazard, making the large tree candidate for topping with foreseeable injury to people and structures. Creating temporary survival by root cutting induces and increases the hazard and risk significantly. Trying to get a few more years from a hazardous tree is a poor tradeoff. (See Arborist Report)
3. Extensive plumbing repairs - Financially burdensome and excessive, with tree roots continuing to grow and cause damage. (See Plumbing estimates and repair recommendations)
4. Extensive foundation repairs - Financially burdensome and excessive, with hazard and destruction becoming uncontrollable. The property and house is dilapidated and non-habitable (See Contractor estimates and foundation repair recommendations)
5. Excavation and trenching the foundation for existing damages and repairs, causes irreparable damage to the critical root zone and supporting lateral root structure. Trees struggle to get established after extensive root surgery and damage to lateral supporting roots expediting decline, decay and toppling. (See Arborist Report)
6. The root system of a large tree spreads out to the edges of the canopy and beyond. The space the tree needs and protection of the roots is significantly compromised due to proximity.

CORRECTIVE ACTION, ACCOUNTABILITY AND PROPER PLANTING

1. Safe elimination and removal of the potential hazard.
Industry experts recommend safe removal and elimination of hazard. Seeking permit from the city staff, for safe removal, appealing to the Planning Commission and providing data and notice to the city regarding potential hazard and liability issues.
2. Removal of Tree posing a fire hazard is "good urban forestry practice"
3. Mindful intent to proper planting of similar and different trees in proper locations with adequate growing and flourishing space for the trees, expansive root structures and environment.

RESPONSIBILITY OF PROPERTY OWNER AND ACTIONS TAKEN

1. Knowledge and identification of tree being a potential hazard is vital to take preventive action before people or property are injured or ruined. As the old adage goes an ounce of prevention is worth a pound of cure. Property owners are responsible for watching the signs, red flags of sickness or weakness and damages with Structural Engineering, Arborist reports and notification.
2. When a sapling grows and the tree becomes a nuisances and a potential threat to the safety of those who live under its expansive canopies, action must be taken. Property owners are responsible to take reasonable steps to remove hazardous trees, to avert potential foreseeable injury to life and limb or if they create a hazard by root cutting or induced structural vulnerability and the tree falls they are personally liable beyond the protections of the their insurance policy. Even stable trees can become hazardous due to root cutting, creating a structurally unsound tree and expediting the risk drastically. (See Arborist Report and Letter from Insurance Agent)
3. When a tree poses a danger in urban areas, due to its proximity the responsibility of the property owner is higher, the risk of harm and damage increases along with the duty to take action. Property owners breach and failure to maintain their duty to removal of a hazardous tree is negligence. Under California law, insurance companies need not pay for intentional acts of their policy holders. (See letter from Insurance Agency)
4. Negligence is not only just knowing, but whether you know or should have known. Negligence is often defined by determining what a reasonable person of ordinary prudence" would do to prevent injury.
5. The concept of notice is important to determining liability and negligence. City needs to be provided with data and notice of the damages and hazard and refusal/failure of City staff to take corrective action under dangerous conditions. (Appealing through Planning Commission)

6. A property owner who has control over the cause and repair of a defect in a side walk does have a duty to warn pedestrians or repair the defect. Without mortally wounding the tree or damaging the tree roots considered as active negligence. Property owner should refrain from cutting roots and causing foreseeable injury. (Unable to perform necessary repairs without significant damage to the tree roots due to close proximity. See Arborist report)
7. Large trees pose a widespread silent threat and some live oaks do not show outward sign of disease affecting the trunk, the health of the tree cannot always be ascertained simply by looking at it. If the property owner noticed the tree showing signs, red flags of sickness, weakness and leaning, they must take action and reasonable steps including removal to avert potential tree related injuries. They should also notify the local city government officials to take corrective action, failure of which is passive negligence. (See Tree pictures, Arborist report and letter from Insurance Agent). For example saturation makes it difficult for good roots to grow and tree becomes unsafe in a less formal manner with conflicting Arborist report (Information from Insurance Agent during investigation of a tree that caused injury and death)
8. An oak may be giving us signs if its trunk leans. Trees talk to us. They give us messages and indicate warning signs and red flags. More than half the cases that were initially called an "ACT OF GOD", once thoroughly investigated were found out to be the responsibility of the property owner to identify the hazard. God does not plant trees and god does not ignore or neglect the red flags and signs (Information from the Insurance Agent and accident reconstruction source)

DOCUMENTS ENCLOSED FOR PLANNING COMMISSION REVIEW

1. Letter to Planning Commission
2. Data and Notification Document
3. Presentation to Planning Commission
4. Photograph Copies
5. Arborist Report -Kielty Arborist
6. Arborist Report - Tree Management Experts
7. Arborist Report - Mayne Tree Experts
8. Arborist Report - Saratoga Tree Service
9. Special Building Inspection Report.
10. Thomas Plumbing Proposal and Estimates
11. A Good Plumber, Inc, Estimates
12. Allerding Construction - Estimates
13. Farmers Insurance Agent Letter
14. Solar Panel Installation Estimates
15. Solar Panel Installation Letter
16. Anderson Builder Letter
17. Thomas Plumbing Letter Recommendation 1
18. Thomas Plumbing Letter Recommendation 2
19. Family & Friends Letters
20. Neighbors Letters

Kielty Arborist Services

Certified Arborist WE#0476A

P.O. Box 6187

San Mateo, CA 94403

650 - 515 - 9783

September 10, 2008

Ms. Janet George
1324 La Bella
Sunnyvale, CA

Dear Ms. George,

As requested on Wednesday, September 10, 2008, I visited the above site for the purpose of inspecting and commenting on the oak tree at the rear of the house. It is suspected that roots from this oak have clogged the plumbing. Your concern as how to remedy this problem has prompted this visit.

Method:

An exploratory trench was dug 18 inches deep along the edge of the rear walkway. An air knife was used to dig the trench. The air knife is an air excavation tool. This tool causes far less that damage to the tree's roots than the conventional method (shovel). The tree was climbed to inspect the upper portions. ANSI standards for tree care were followed during the climbing process.

Observations:

The tree in question is a coast live oak (*Quercus agrifolia*) with a diameter at breast height of 35.4 inches. The tree is located in the rear yard, 12 feet from the house and 40 feet from the rear fence. The height of the tree is 50 feet with a total crown spread of 75 feet. The tree has good vigor despite the gall wasp infestation of the leaves. The form of the tree is poor to fair with codominant leaders at 20 feet. The codominant leaders are possibly the result of a past topping. The limbs of the tree appear to be well formed with good crotches; however the tops of the crotches are poorly attached with included bark.

The air knife trench was 34 feet long and averaged 18 inches deep. An abundance of medium sized roots (2 inches and under) were located in the exposed trench. Roots 2 inch size were noticed 16 feet from the trunk of the tree. The roots are quite healthy and are growing in a mat like fashion. No large roots over 2 inches were found in the trench.

Summary:

The coast live oak is growing at a rapid rate. The tree is approximately 60 years old (The house was built in 1950). The foliar crown is 75 feet wide and reaches from fence to fence. The foliar canopy of the tree extends over the house by 30 feet. Despite the tree's good vigor, the poor form is of concern. A past topping has caused the oak to struggle for apical dominance. The lower, poorly attached limbs are trying to become tops.

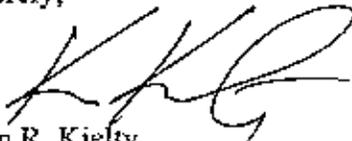
The rapid root growth exposed in the exploratory trench, demonstrates the tree's ability to find nutrients to sustain the rapid growth. The dripline of this tree extends well over the house and it would be common for roots to extend to the edge of the dripline or farther. The slab on grade type foundation does little to restrict root growth. Lifting and cracking of the hardscape and slab is evidence of this.

It is believed that roots from 2 different trees have plugged the pipes of this house, this oak and a camphor tree. The Camphor roots were identified by their unique odor. The exploratory trench has exposed a high density of roots on the house side of the tree. The damage to the slab and to the pipes is most likely due to the roots of both of these trees. It is common for roots of this size to seek water from house pipes.

Due to poor form, the size of the oak and the close proximity of the house the tree is a potential hazard. If limb or entire tree failure were to occur the likely target would be the house and damage could be significant. Removal of the oak is the only method that will eliminate all damages and hazards caused by the oak.

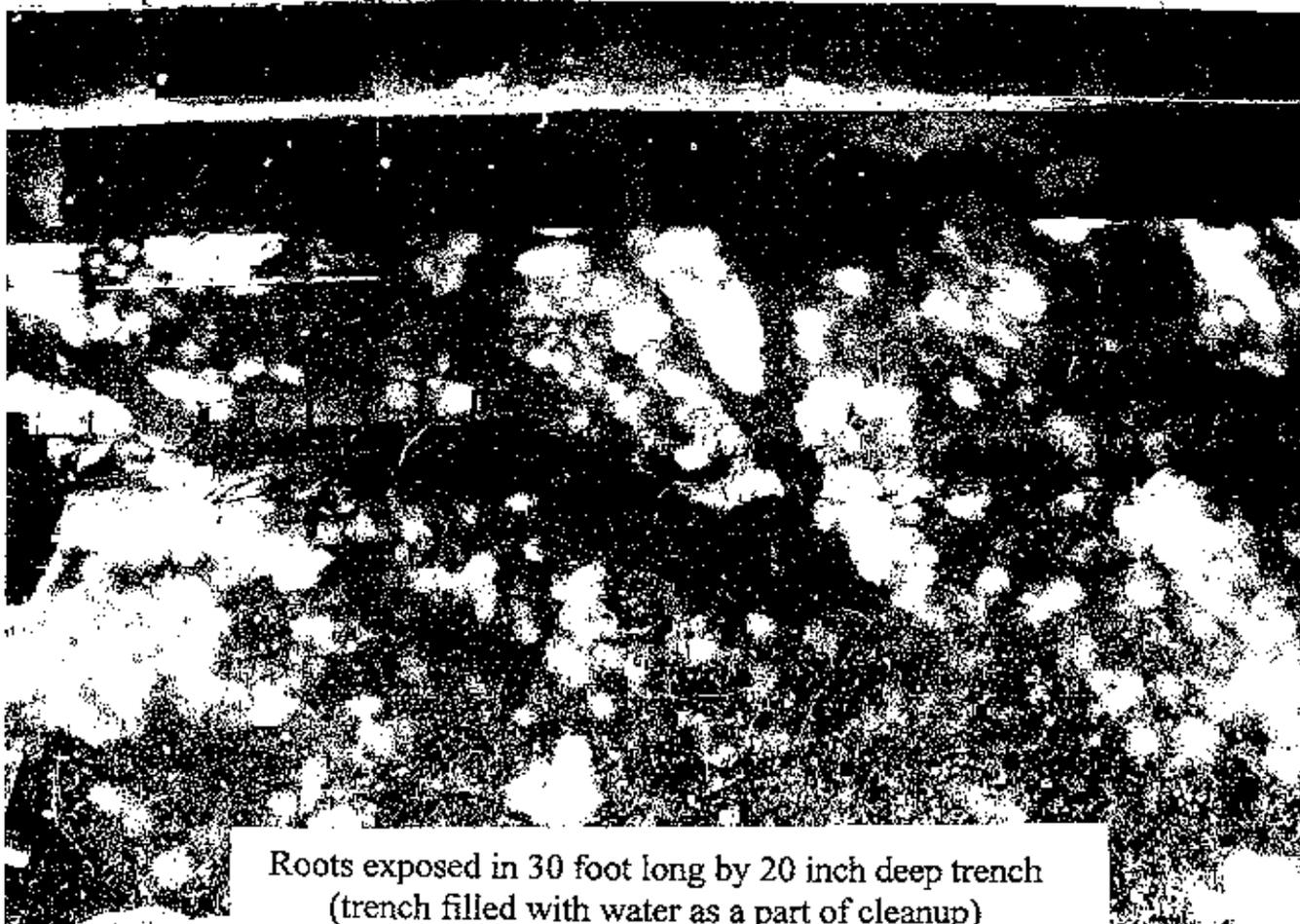
The information included in this report is believed to be true and based on sound arboricultural principles and practices.

Sincerely,



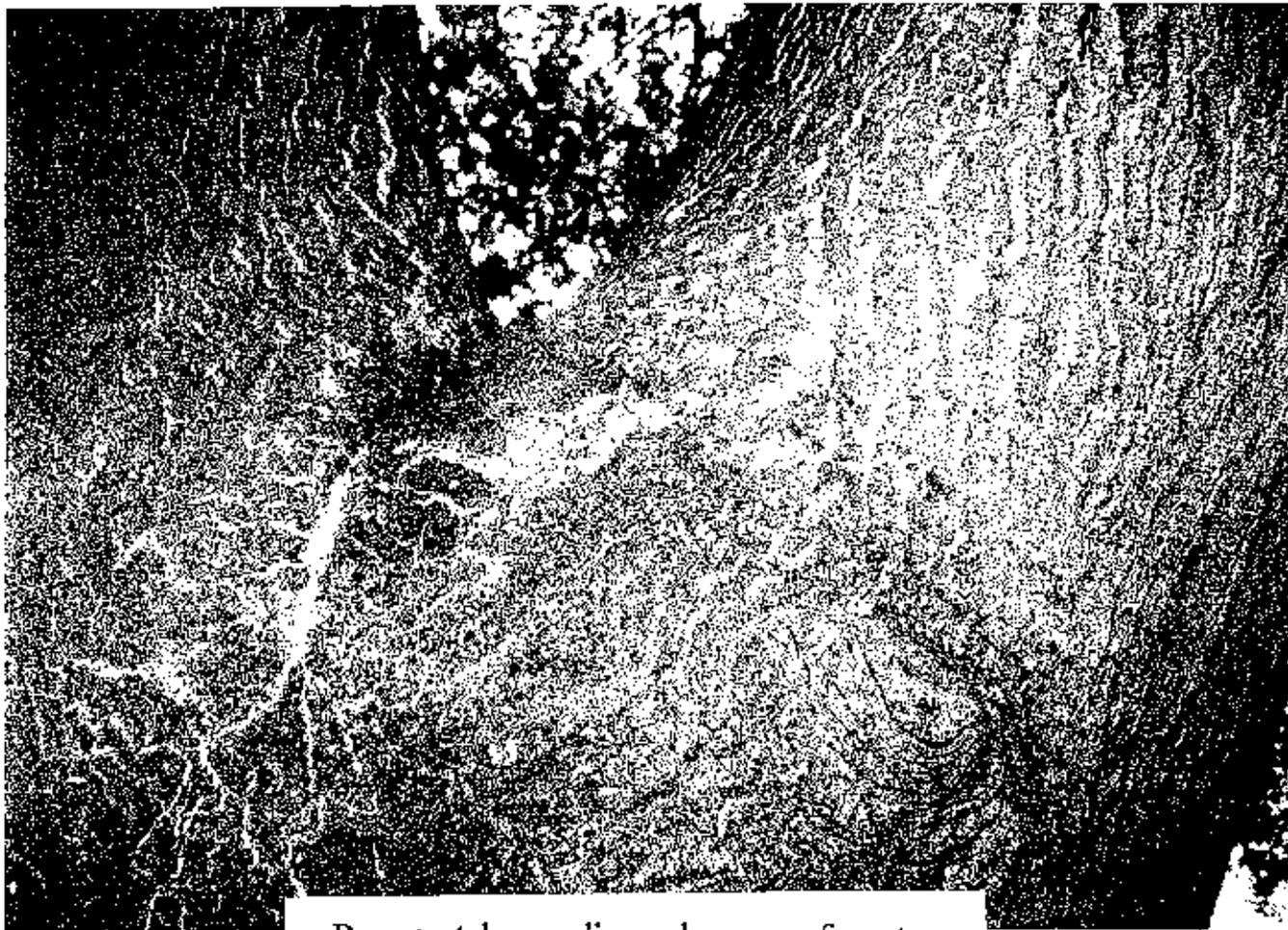
Kevin R. Kielty
Certified Arborist WE#0476A





Roots exposed in 30 foot long by 20 inch deep trench
(trench filled with water as a part of cleanup)





Poor crotches on live oak as seen from tree



Tree Management Experts

Consulting Arborists

3109 Sacramento Street
San Francisco, CA 94115

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Janet George
1384 La Bella Avenue
Sunnyvale, CA 94087

RE: Coast live oak at rear

Date: 10/16/08

ARBORIST REPORT

Assignment

Relative to one coast live oak (*Quercus agrifolia*) in the rear yard:

- Provide a discussion review of background information and planned root excavation as recommended by the City staff of Sunnyvale.
- Provide a site visit to evaluate the tree, the proximity and extent of existing foundation damage repairs and the feasibility of further investigation through excavation.
- Provide an Arborist Report of findings and to make recommendations.

Background

Ms George stated that she has had ongoing problems with root intrusion into her sewer line. Although the tree roots have been removed, the line cannot be repaired using pipe bursting and a slip-line due to routing, and must be excavated for replacement.

Significant repairs are needed to this house that include placement of a new foundation under the entire length of the rear wall. This will be an engineered footing and will certainly require significant excavation outside the envelope of the building.

Ms George applied for a tree removal permit with the City of Sunnyvale, and the permit application was denied. Prior to her appeal, I was told that the City of Sunnyvale requested Air-spade® excavation to 4 feet depth to expose roots for inspection, thereby allowing a determination as to whether the roots can be cut. Prior to my involvement, excavation by others using both Air-spade® and hand tool excavation techniques had already been completed to 12 to 18 inches depth.

Ms George reported that the City suggested that pending a favorable finding, root barrier installation would be possible and this would preserve both the house and the tree. I was asked to inspect the tree for purposes of completing another 2 ½ to 3 feet of excavation to meet the City request.

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Observations and Discussion

The coast live oak in the rear yard measures 36.0 inches diameter (DBH), is located at approximately the center of the house, and is 11 feet 2 inches from the rear façade. The lot is essentially level, and contains no other significant trees.

The tree appeared to be in reasonably good health with normal foliage. Branch structure was in fair condition, having had internal branches removed to create somewhat end-heavy (lion-tailed) limbs.

Sewer Line Impacts and Repairs

The sewer line impacts caused by tree roots have occurred far enough away from the tree that the loss of these roots can be tolerated without any significant impact to either tree health or tree safety.

Proposed Root Excavation

The City has proposed root excavation between the tree and the house to allow inspection of roots. This request cannot be accomplished safely. This procedure will both endanger the safety of the worker doing the excavation and will endanger the safety of the tree.

To excavate to 4 feet depth, shoring is required. To place shoring, root cutting will be necessary. This excavation and root cutting will occur to within 18 inches of the root crown. This is well within the shear zone for the trees root crown, and without shoring, the soil embankment under the tree is likely to collapse under the load of the tree. With collapse of the soil embankment, the tree itself is no longer safe.

This proposed root excavation is not possible without creating a hazardous condition and is not recommended.

Proposed Root Barrier Installation

City of Sunnyvale staff has suggested that a root barrier installation could preserve the tree and protect the building from further damage. Root barriers are best used with new tree installations, not for retrofits with mature trees. The excavation process for root barrier installation will cause significant and irreparable harm to both structural roots and roots important for tree health.

Excavation for Foundation Damage Repair Caused by Tree Roots

The significant impact that this tree will be experiencing has to do with excavation for foundation damage repair caused by tree roots. To make these repairs, a new footing must be installed along this wall, and all work must be done from outside the house. The wall will

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be braced up and soil excavated to the bottom of the footing depth, typically about 3 feet. The trench must be wide enough to accommodate the new footing, forming and bracing for the forms, shoring to support the excavated soil surface (or, an over-cut) and enough space for workers to work with the forms and tie the steel reinforcement. Based on my experience with similar projects, the minimum excavation impact will be at 4 feet outside of the building perimeter running a total distance of about 50 feet.

Tree roots provide three critical functions: 1) mechanical support, 2) water and nutrient absorption, and 3) storage of starch energy. Although a tree root structure is somewhat over-built, a tree can tolerate only a limited amount of root losses. The extent of excavation required will cause significant losses to water and nutrient absorption and to stored starches. Even more critically, mechanical support will be seriously compromised through the loss of roots that are within the critical root zone. The short-term harm is a significantly increased chance of uprooting failure and an increased likelihood of decline. The long-term harm is an increasing chance of uprooting failure over time due to root rots associated with widespread root injuries.

Conclusions and Recommendations

1. Sewer line repairs are possible without causing significant harm to the tree.
2. The proposed root excavation is not possible without causing a hazardous condition.
3. Root barrier installation is not possible without causing significant and irreparable harm to the tree and a significantly increased hazard potential.
4. Foundation repairs will require the excavation of a 4-foot wide trench that is 3-feet deep, causing significant loss of roots that provide mechanical support as well as those that provide for sustenance. The risks associated with mechanical support root losses are irreversible and will escalate over time.

I recommend that the tree be removed.

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Assumptions and Limiting Conditions

1. Any legal description provided to the consultant is assumed to be correct. Title and ownership of all property considered are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations.
3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible. The consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
4. Various diagrams, sketches and photographs in this report are intended as visual aids and are not to scale, unless specifically stated as such on the drawing. These communication tools in no way substitute for nor should be construed as surveys, architectural or engineering drawings.
5. Loss or alteration of any part of this report invalidates the entire report.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior written or verbal consent of the consultant.
7. This report is confidential and to be distributed only to the individual or entity to whom it is addressed. Any or all of the contents of this report may be conveyed to another party only with the express prior written or verbal consent of the consultant. Such limitations apply to the original report, a copy, facsimile, scanned image or digital version thereof.
8. This report represents the opinion of the consultant. In no way is the consultant's fee contingent upon a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
9. The consultant shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule, an agreement or a contract.
10. Information contained in this report reflects observations made only to those items described and only reflects the condition of those items at the time of the site visit. Furthermore, the inspection is limited to visual examination of items and elements at the site, unless expressly stated otherwise. There is no expressed or implied warranty or guarantee that problems or deficiencies of the plants or property inspected may not arise in the future.

Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees

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and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. An arborist cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate the trees.

Certification of Performance

I, Roy C. Leggitt, III, Certify:

- That we have inspected the trees and/or property evaluated in this report. We have stated findings accurately, insofar as the limitations of the Assignment and within the extent and context identified by this report;
- That we have no current or prospective interest in the vegetation or any real estate that is the subject of this report, and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions and conclusions stated herein are original and are based on current scientific procedures and facts and according to commonly accepted arboricultural practices;
- That no significant professional assistance was provided, except as indicated by the inclusion of another professional report within this report;
- That compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I am a member in good standing of the American Society of Consulting Arborists and a member and Certified Arborist with the International Society of Arboriculture.

I have attained professional training in all areas of knowledge asserted through this report by completion of a Bachelor of Science degree in a closely related field, by routinely attending pertinent professional conferences and by reading current research from professional journals, books and other media.

I have rendered professional services in a full time capacity in the field of horticulture and arboriculture for more than 18 years.

Signed: _____

Date: 10/16/08



Mayne Tree Expert Company, Inc.

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CERTIFIED FORESTER

STATE CONTRACTOR'S LICENSE NO. 276793

CERTIFIED ARBORISTS • PEST CONTROL • ADVISORS AND OPERATORS

RICHARD L. HUNTINGTON
PRESIDENT

535 BRAGATO ROAD, STE. A
SAN CARLOS, CA 94070-6228

JEROMEY INGALLS
CONSULTANT/ESTIMATOR

October 2, 2008

TELEPHONE: (650) 593-4400
FACSIMILE: (650) 593-4443
EMAIL: info@maynertree.com

Ms. Janet George
1384 La Bella Ave.
Sunnyvale, CA 94087

Dear Ms. George,

RE: COAST LIVE OAK

On September 26, 2008, I inspected the live oak, *Quercus agrifolia*, in back of your house. For this report, I was asked to document tree problems and potential tree problems.

Visually, from the street, the tree appears healthy, but from the back fence, the view is different. An upper westerly top exhibits significant dieback. Top dieback is generally associated with root problems, e.g. diseases, chemicals, etc.

I exposed the root flare and did not find any visible disease activity. I did, however, find a lack of roots on the westerly side, below the area of top dieback. There was actually a slight undermining of the trunk.

I observed canopy limbs and found areas of oozing. This is generally associated with a *Phytophthora sp.* infection. An upper 5-inch westerly limb and a lower spot on the house side about 15 feet high.

I then observed the trunk. The trunk surface is not very smooth, as if there was past damage that has been sealed over. There is also a very heavy infestation of ehrhorn scale. This pest is generally not a problem, but can reduce the vitality of a tree, making it more susceptible to other insects, e.g. tussock moth, California oak worm, sycamore borer (already starting), carpenter worms, etc.

Since there are multiple concerns, mitigations are difficult as multiple treatments are needed and may not work as well as we would like.

Please call with any questions. I think this report is accurate and based on sound arboricultural principles and practices.

Sincerely,

Richard L. Huntington
Certified Arborist WE #0119A
Certified Forester #1925



RLH:pmd

Saratoga Tree Service
13745 Skyline Blvd.
Los Gatos, CA 95033

9-23-2008

Janet George
1384 La Bella Ave.
Sunnyvale Calif. 94087

Re: Root inspection,

A site inspection was performed today at the above address to help determine the degree of root invasion to the structure.

The tree is a Coast Live Oak, (*Quercus agrifolia*) located in the back yard. The trunk of the tree is about 36 inches in diameter at 4" (D.B.H.). Much of the tree grows over the home. The trunk of the tree is located about 12 feet from the foundation.

Another Arborist company did the root excavation along the edge of the walkway. It is evident that there is a considerable amount of root structure growing towards the house and foundation. The house is a slab foundation and roots growing under the structure will cause cracking of the slab and rising of the cement floor. The home owner took me into her house and informed me of the extensive areas of cracking that were under the carpet. From the outside of the house, it was clear that there was some separating of the cement at the foundation that is being caused by this tree's roots. The home owner also indicated that the plumbing and sewer under the structure were made inoperable by the roots. She has reports that clearly show the root infestation within the homes system of water and waste removal. Unfortunately, the damage from the tree roots has made the home unlivable until replacement of both water pipes and sewer lines occurs.

This is a very active root system from this large tree that will likely continue to disrupt the homes plumbing and sewer lines. Because of the close proximity to the house, the root regeneration will likely cause damage to the replacement water and sewer system. It is unfortunate that the tree was planted so close to the structure.

If it is the intent for the homeowner to continue to live in this house, the root system of this tree will always be a problem. Removal might be the best option with replacement trees being located further away from the structure.

Respectfully submitted,

Blair Glenn
I.S.A. Certified Arborist #654



Special Building Inspections, LLC

SBIUSA.net

Post Office Box 1467, Los Altos, California 94023-1467 • T 650-949-3774 • F 650-941-3689

September 17, 2008

Ms. Janet George
1384 Labella Avenue
Sunnyvale, CA. 94088

REGARDING: LIMITED FOUNDATION INSPECTION
1384 Labella Avenue
Sunnyvale, CA.

Dear Ms. George,

In response to your request, we have prepared the following limited foundation inspection for your use. Our site reconnaissance was made and this condition assessment report was prepared by a trained and experienced licensed Professional Engineer and General Engineering Contractor.

The inspection, performed on September 17, 2008, was focused on foundation damage associated with the growth of the live oak in your rear yard. The professional opinions offered are based on visual observations of apparent conditions existing at the time of the inspection (latent and concealed defects and deficiencies are excluded). Document search and review, destructive testing, subsurface investigation, structural calculation, geologic study and seismic analysis as well as the preparation of plans and specifications for any recommended improvements or repairs are beyond the scope of services provided. An independent consulting Geotechnical Engineer and Geologist should be retained if a complete geotechnical investigation is desired.

PLEASE READ THIS REPORT CAREFULLY, A FULL UNDERSTANDING OF THE INFORMATION IT CONTAINS MAY BE CRITICAL TO THE CONTINUED USE OF PROPERTY AND THE SAFETY OF THE HOME!

The single story, wood frame home was constructed on a shallow concrete slab-on-grade foundation. The original structure and the rear addition to its original footprint were built on a nearly level lot that was developed at or very near to the original grade. The live oak in the rear yard appears to have been planted when the home was first built and the yard landscaped (both the home and the tree are about 60 years old).

My specific observations and recommendations follow:

Foundation: The structure is supported on a slab-on-grade foundation. Its age and performance suggest both the original structure and the addition were constructed with reinforced concrete slabs. My perimeter and interior inspection found the foundation to be properly built for the age of the home consistent with area practices for residential construction.

I found the perimeter footing in the area of the tree to be cracked in response to tree root growth (the movement has raised the adjacent slab approximately 1"). In my opinion, foundation repair is not now indicated. However, the tree, now 3' in diameter and only 10' from the home, will continue to grow and, over time, severely damage the foundation. The tree should be removed to assure the continued successful performance of the home's foundation.

Additional Considerations:

1. The tree roots are damaging the home's buried waste water pipes. The continued use of the home is dependent on tree removal to stop the ongoing damage and/or to mitigate the potential for future damage to repaired or replaced pipes. The tree should be removed.
2. The tree has grown from a sapling when the home was new to a 3' diameter monster located just 10' off the back of the home. It just doesn't fit the home or the rear yard. It should be removed.
3. The tree presents a real hazard to the structure and, more importantly, its occupants. A 60' tall, 3' diameter live oak located just 10' away from a single story wood frame home presents a serious risk. It should be removed.

During the life of the structure, there may develop unanticipated subsurface conditions that cannot be predicted from the limited visual inspection performed. The report is not a compliance inspection or certification for past or present governmental codes or regulations of any kind. Please recognize that we have not addressed the possible presence of or danger from any potentially harmful substances and environmental hazards including but not limited to radon gas, lead paint, asbestos, urea formaldehyde, toxic or flammable chemicals and water or air born hazards.

Specifically excluded is inspection of and report on wells, septic systems, safety equipment and the presence or absence of rodents, termites, fungus and other organisms. The observations noted and repair recommendations offered (if any) should be considered valid for four years, after which time a reinspection is prudent.

This report is not a complete geotechnical study or distress survey nor is it intended for use as a complete description of the property. It is intended to provide information regarding the impact of the rear yard oak on the home's foundation and to provide appropriate recommendation to allow continued use of the property. Our observations, conclusions and guideline recommendations have been made using the degree of care and skill originally exercised, under similar conditions, by reputable professional engineers practicing in this area. No other warranty, expressed or implied, is made.

ARBITRATION OF DISPUTES: Any controversy or claim for damages arising out of or relating to this condition assessment or any work performed in connection therewith including but not limited to negligence, errors or omission shall be settled in accordance with the construction industry arbitration rules of the American Arbitration Association or alternate dispute resolution form acceptable to all parties.

CONTRACTOR LICENSING INFORMATION: "STATE LAW REQUIRES ANYONE WHO CONTRACTS TO DO CONSTRUCTION WORK TO BE LICENSED BY THE CONTRACTORS STATE LICENSE BOARD IN THE LICENSE CATEGORY IN WHICH THE CONTRACTOR IS GOING TO BE WORKING IF THE TOTAL PRICE OF THE JOB IS \$300.00 OR MORE (INCLUDING LABOR AND MATERIALS). LICENSED CONTRACTORS ARE REGULATED BY LAWS DESIGNED TO PROTECT THE PUBLIC. IF YOU CONTRACT WITH SOMEONE WHO DOES NOT HAVE A LICENSE, THE CONTRACTORS STATE LICENSE BOARD MAY BE UNABLE TO ASSIST YOU WITH A COMPLAINT. YOUR ONLY REMEDY AGAINST AN UNLICENSED CONTRACTOR MAY BE IN CIVIL COURT, AND YOU MAY BE LIABLE FOR DAMAGES ARISING OUT OF ANY INJURIES TO THE CONTRACTOR OR HIS OR HER EMPLOYEES.

YOU MAY CONTACT THE CONTRACTORS STATE LICENSE BOARD TO FIND OUT IF THIS CONTRACTOR HAS A VALID LICENSE. THE BOARD HAS COMPLETE INFORMATION ON THE HISTORY OF LICENSED CONTRACTORS, INCLUDING ANY POSSIBLE SUSPENSIONS, REVOCATIONS, JUDGMENTS, AND CITATIONS. THE BOARD HAS OFFICES THROUGHOUT CALIFORNIA. PLEASE CHECK THE GOVERNMENT PAGES OF THE WHITE PAGES FOR THE OFFICE NEAREST OR CALL. FOR MORE INFORMATION.

Acceptance and use of this report binds the parties to the limitations and conditions included in it. Should SBILLC and/or its agents or employees be found liable for any loss or damages resulting from a failure to perform any of its obligations, including and not limited to negligence, breach of contract, or otherwise, then the liability of SBILLC and/or its agents or employees, shall be limited to a sue equal to 10 times the amount of the fee paid by the Customer for the inspection and this condition assessment report.

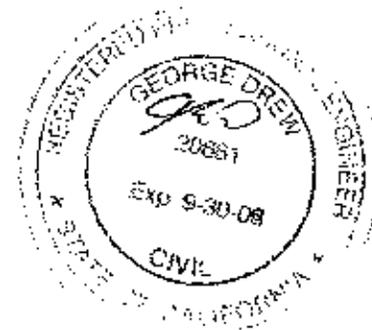
It has been a pleasure providing you with a professional foundation inspection and site drainage assessment and this report. Please do not hesitate to call if we may be of further assistance or if you have any questions or concerns.

Very truly yours,



George F. Drew, P.E., SBILLC

California Professional Engineer license #20681
Member American Society of Civil Engineers (D. #197328)
Member National Society of Professional Engineers
General Engineering Contractor license #A64788
Certified Inspection Engineer (BIECI)



Anderson Builder
1334 Selo Drive
Sunnyvale, California 94087
Tel 408-781-8884
Fax 408-730-2434

Re: Slab deformation measurements due to tree uplift

Dear Janet,

Thank you for the opportunity to work with you.

STUDY

Per your request Anderson Builder has measured the perimeter slab and roofline elevations. The data provided shows that there has been uplift in the tree areas due to tree and root growth and expansion.

In the front of the house there are two trees 4 and 5 feet away. There is evidence of nearly an inch rise where the two trees have impacted the levelness of the home.

In the back of the house there is an Oak tree 11 feet away. There is evidence of nearly an inch rise where the oak tree impacted the levelness of the home.

Please review the data on the attached sketch.

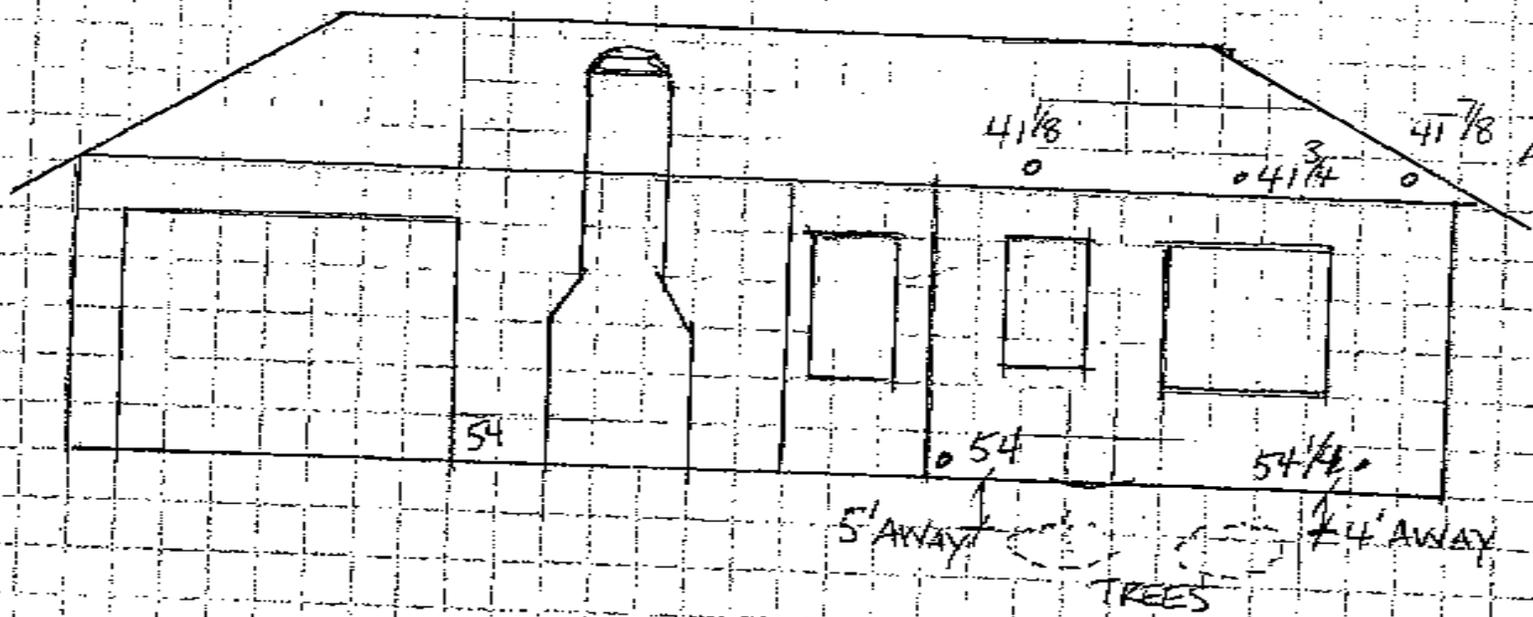
RECCOMENDATONS

In my professional opinion, the aforementioned trees have caused the structural damage to this home and further, I recommend the removal of these trees so that the trees cannot cause additional damage to the house.

Thank you, Anderson Builders

ATTACHMENT K
PAGE 2 of 2

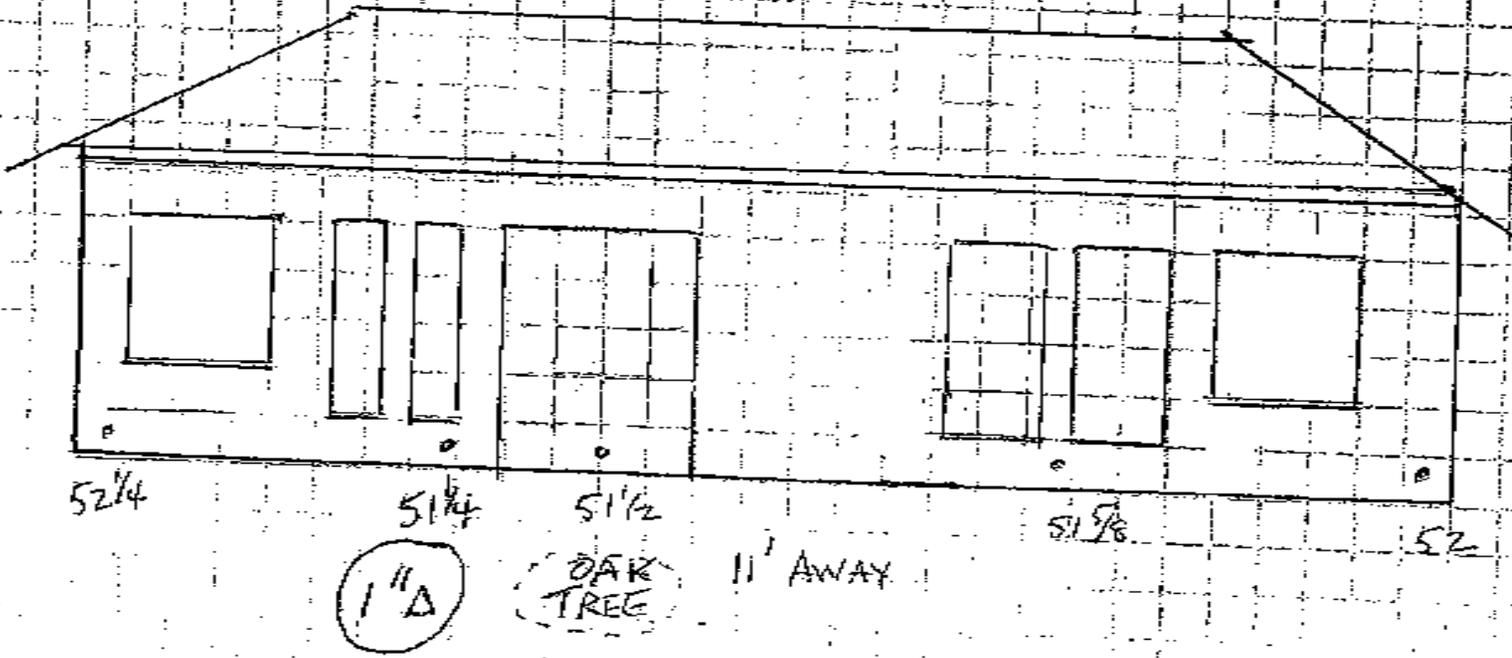
FRONT



FRONT

DEFORMATION
IN TREE
LOCALITY
 $\approx \Delta \frac{7}{8}$ "

BACK



BACK
DEFORMATION
IN TREE
LOCALITY
 $\approx \Delta \frac{1}{8}$ "

THOMAS PLUMBING INC

16305-A VINEYARD BLVD.
MORGAN HILL, CA 95037
Contractors Lic. #356040

Pg 1 of 2

(408) 778-4340
1-877-801-8011
FAX 408-778-6619
thomaspl@verizon.net

PROPOSAL**SEPTEMBER 22, 2008**

ATTN: Janet George (408)942-6649 (408)396-5727

CONTRACT TO: Janet George
1384 LaBella Ave.
Sunnyvale, CA 94087
Home (408)942-6649
Cell (408) 396-5727

Provide necessary labor and material to replace sewer system in house and remodel bathroom, to include the following:

- Saw cut and remove necessary concrete
- Haul away concrete
- Necessary digging
- Remove tile from kitchen floor and replace
- Remove carpet rear room adjacent to kitchen and replace
- Replace entire sewer system in house
- Reuse existing vents thru roof
- Patch concrete floors
- Install laundry sink in garage
- Run electrical to new washer/dryer location from existing plug in garage
- Necessary outside digging to re-route new sewer to front and tie back into existing sewer
- Replace bathtub with American Standard Princefon or equal
- Replace tub & shower valve with Moen pressure balancing valve or equal
- Replace toilet with American Standard cadet or equal
- Install new vanity & top
- Install bathroom fan and light over vanity
- Re-tile tub area
- Install linoleum floor
- Paint bathroom
- Install shower door
- City permit & inspection

PRICE QUOTED-\$39,474.00

Pg 2 of 2

Terms:

- \$5,000.00 Due on completion of concrete removal
- \$10,000.00 Due on completion of interior sewer installation
- 12,000.00 Due on completion of concrete patch and main sewer
- 10,000.00 Due on completion of painting, carpet, & tile
- Balance due on completion of this contract

-ANY UNFORSEEN PROBLEMS WILL BE CHARGED AT A TIME AND MATERIAL BASIS.

-ANY DEVIATIONS OR CHANGES TO CONTRACT MUST BE SUBMITTED IN WRITING WITH SIGNATURES OF APPROVAL. ANY CHANGES OR UNFORSEEN COMPLICATIONS MAY INCRUE ADDITIONAL COSTS.

PRICE GOOD FOR 30 DAYS ONLY

DAVID R. THOMAS

SEPTEMBER 22, 2008

Signature authorization

Date

Signature of acceptance

Date

PROPOSAL

A GOOD PLUMBER, INC.
 P.O. BOX 2251
 LIVERMORE, CA 94551-2251
 (925) 292-0861
 LICENSE #707298

DATE	ESTIMATE NO.
9/23/2008	1045

NAME/ADDRESS
JANET GEORGE 1384 LA BELLA SUNNYVALE, CA 94087

ITEM	DESCRIPTION	TOTAL
Bid Job	<p>WE HAVE COMPOSED THIS BID PER YOUR REQUEST. IT IS FOR THE FOLLOWING PLUMBING WORK:</p> <p>IN THE BATHROOM WE WOULD SAW CUT THE FLOOR IN THE ROOM ADJACENT TO IT IN ORDER TO RUN A NEW SEWER LINE OUT THE FRONT OF THE HOUSE.</p> <p>THIS BATHROOM CONSISTS OF ONE TOILET, ONE LAVY AND A TUB/SHOWER COMBO.</p> <p>AT THE FRONT OF THE HOUSE WE WOULD TAP INTO THE EXISTING SEWER APPROXIMATELY 20 FEET AWAY.</p> <p>WE WOULD THEN BRING THIS NEW SECTION OF SEWER LINE ACROSS TO A SECOND ENTRY POINT IN GARAGE. THIS SECOND SEWER LINE WILL ALSO BE 3" TO ALLOW FUTURE REMODELING PROJECTS. WE WOULD BRING THIS NEW LINE 3" AGAINST WALL, BUT ON THE GARAGE FLOOR TO FEED THE LAUNDRY AND KITCHEN SINKS, WE WOULD THEN MOVE THE EXISTING KITCHEN SINK TO THE GARAGE WALL.</p> <p>IN ORDER TO ACCOMPLISH THIS WORK WE WOULD HAVE TO MOVE THE CURRENT LAUNDRY SINK OVER TO ACCOMMODATE THE DRYER WHICH WOULD NOW BE LOCATED NEXT TO WASHER.</p> <p>CEMENT WOULD BE POURED IN THE ROOM INDICATED ABOVE - THE ONE ADJACENT TO THE BATHROOM - THE CARPET WILL THEN BE LAID BACK, THE SIBET ROCK REPAIRED AND THE TOILET RE-SET.</p> <p>IN THE KITCHEN WE WOULD INSTALL A NEW COUNTER TOP OVER CABINETS WITH FORMER SINK LOCATION. WE WILL PROVIDE THE NEW COUNTER, CABINET, SINK AND FAUCET FOR THIS NEW SINK LOCATION.</p> <p>**THIS BID ASSUMES THAT HOME OWNER PULLS PERMITS FOR THE WORK.</p> <p>THOUGH WE EXPECT THE TOTAL TO BE LESS, WE ARE ERRING ON THE CAUTIOUS SIDE AND GIVING YOU A NOT TO EXCEED BID AMOUNT OF:</p>	28,000.00
		\$28,000.00

THOMAS PLUMBING INC.
195C SAN PEDRO AVE SUITE 1
MORGAN HILL, CA 95037

(408) 778-4340
1-877-801-8011
thomasplumbingincorp@verizon.net

Mrs. George.

The continual problem with your sewer line is due to root intrusions into the main line that exit's the house. The problem can be solved by repairing/replacing the sewer line and removing the tree if you wish to prevent any further root intrusions into the line. The problem area in which we ran into the last time we were out to your property was measured and ended up somewhere in the street. This is when we called the city to come out investigate. If you have any further questions, please give me a call.



David Kern

Thomas Plumbing & Heating, Inc.
16305-A VINEYARD BLVD
Morgan Hill, Ca. 95037
(408) 778-4340
(408) 778-6619
Thomaspl@verizon.net

JULY 17, 2008

DEAR MRS GEORGE,

THIS IS A FOLLOW UP LETTER FOR YOUR SEWER LINE ISSUES. I UNDERSTAND FROM OUR CONVERSATION THAT THE CITY HAS GIVEN APPROVAL TO REMOVE ONE OF THE TREES IN YOUR FRONT YARD, THE ONE DAMAGING THE CITY SEWER MAIN, BUT THERE ARE TWO OTHER TREES ON YOUR PROPERTY THAT ARE ALSO DAMAGING AND A BIG PART OF YOUR PROBLEM. TO COMPLETELY RESOLVE YOUR ISSUE AND PREVENT ANY FURTHER ROOT INTRUSIONS, I RECOMMEND THAT THE OTHER TWO TREES BE REMOVED. IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE DO NOT HESITATE TO CONTACT ME.

DAVID KERN, CEO

THOMAS PLUMBING INC.

ALLERDING CONSTRUCTION

997 Schiele Ave

San Jose, CA 95126

Lic. # 501846

Attention: Janet George**Site:** 1384 La Bella, Sunnyvale, CA

Scope of Work: Labor, material and equipment to demo and dispose of 44'-0" x 16'-6" addition, including concrete, windows, doors and roof system. Close all open areas with plywood and repair roof system at remaining eave so as to make all areas waterproof and secure.

Price: \$13,500.00**Payment Schedule:** \$1,000.00 - start.

\$4,000.00 - wood and roof removed for you

Balance - on completion.

Exclusions: Paint, finish electrical and plumbing and carpentry only to secure property.

Not responsible for damage to existing tree or root system.

No import of dirt or fill.

Owner will allow, at his risk, a 5-yard truck on driveway.



FARMERS

Jayal Fernando, LUTCF
Insurance Agent
390 Spar Avenue #105
San Jose, CA 95117
Bus: 408-244-1316
Fax: 408-244-1144
License # 0717382
jayferfin@yahoo.com

Oct.15-2008

Janet George
1384 La Bella Ave.
Sunnyvale Calif. 94087

Re: Regarding Oak tree on your property and insurance coverage.

A site inspection was performed at the above location to help determine and address concerns regarding insurance coverage and potential liability created by large tree hazard in close proximity to the structure and potential root cutting to prevent additional future damages.

It is observed that the large oak tree has outgrown its containment area and the roots are causing damage and havoc to the foundation and structure, thus creating a potentially hazardous situation as also noted in the structural engineering report that was presented.

Property owner has a responsibility to inspect structure and tree and determine if the tree is a potential hazard and take action to eliminate the hazard, thus averting dangerous destruction and future damage. Property owner's breach and failure to remove a known hazard will be investigated during the claim process making them personally liable beyond the protections of the insurance policy. Property owner can also become liable for tree related damages if they had noticed the tree showing signs, red flags of sickness or weakness and took no action. Investigation will establish prior condition of a tree after an accident, damage or injuries occur.

Property owner who have control over the cause and repair of a defect and damage do have a duty to warn pedestrians and repair the defect and damage. If the repair is done by significant root cutting in the critical root zone, necessary to limit extend of damages to the foundation the large tree can become a candidate for future toppling. Root surgeries have known to expedite eventual decline and decay, compounding the hazard.

Insurance claim investigations often determine cause, faulty root cutting causing instability and destruction, infliction of distress, induced red flags, knowledge of red flags and actions such as compounding the hazard. It also determines steps a "reasonable person of ordinary prudence" would do to prevent injury. For example active negligence would be to sever and cut roots in the critical root zone that serves the root arteries. Passive negligence is failing to follow up on visual inspection and addressing the hazard. Incidents labeled as an "Act of God" upon investigation if determined to have prior root cutting and induced structural vulnerability, would be excluded under faulty repair & maintenance. Insurance claim investigation is done to seek what was known about the tree prior to the accident and whose responsibility it falls under.

The concept of notice is important to determining liability. If property owner was on notice that the tree was a hazard and they chose to ignore it and the tree topples, that clearly is an act of negligence. Negligence is not only just knowing, negligence is whether property owner knows or should have known. Property owner cannot turn a blind eye and then claim insurance coverage. Property owner will not be relieved of liability if his or her own negligence contributed to the damages.

The close proximity of the tree to the structure also poses a fire hazard. Fire experts says that homes most likely to survive a conflagration have "defensible space" generally defined as an area 30 to 100 feet around a home that is cleared of a large tree, hence removal of this tree based on its proximity to existing structures would be "good forestry practice".

Respectfully submitted,



Jayal Fernando
Farmers Insurance Agent.



Max Greenberg
 Phone: (650) 678-6140
 Fax: (408) 746-3890
 167 Commercial Street
 Sunnyvale, CA 94086

October 16, 2008

System Quotation

Solar System Owner

Janet George
 1384 La Bella Ave
 Sunnyvale, CA 94087

Solar System Size

2,960 Watts DC Solar Electric System
 2,477 Watts AC Solar Electric System
 239 Approx Space Required in Sq. Ft.

Complete Turn-Key System Cost to Include the Following Items:		\$21,450.00
Module		
PV-UD185MF5	Mitsubishi 185 Watt	16
Inverter		
IG 3000	Fronius IG 3000 240v	1
Racking	Roof Mount SolaRak	
Monitoring	Fronius Personal Display Card REC Solar Wireless Display	
Equipment	Misc Electrical Equipment Solar Permit	
Labor	Design and Engineering General Labor REC Sales Tax	
Warranty	10 Year Install Warranty	
Grand Total		\$21,450.00
Rebate*		\$3,667.00
Total To REC		\$17,783.00
Federal Tax Credit		\$5,334.90
Net System Cost		\$12,448.10

GENERAL DISCLAIMER: All quotations are valid for (30) days from the date of the quotation unless a reduction of rebate occurs within the 30 day period. Design, permitting, installation, utility interconnection and rebate paperwork as detailed in the "General Contract for Services" is included in quoted system cost. The total price paid to Contractor is listed as "Total to REC Solar." "Net System Cost" is realized after tax returns are filed and related tax credits are applied by the IRS.

TAX/FINANCIAL DISCLAIMER: The tax information on this page is intended for discussion purposes only and should not be construed as tax advice. All applicable federal tax credits are estimates. Actual tax credits will be based on customer's financial situation. Customers applying for the commercial tax credit should consult with a tax professional to determine eligibility. We recommend that you contact an accountant or tax attorney for any specific financial advice.

*Incentive amount is an estimate only and will be verified by REC Solar Engineer prior to system installation.



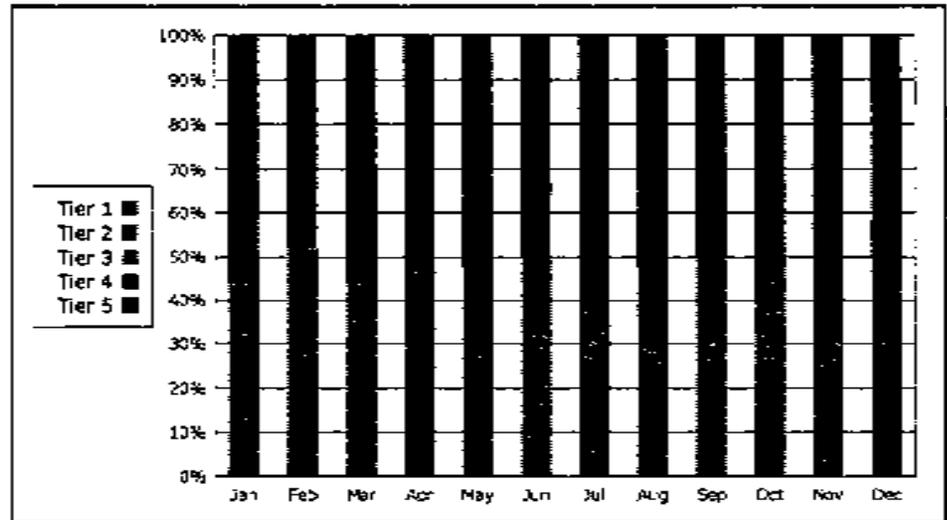
Electrical Consumption Analysis for Current Rate Structure

Site Location: Sunnyvale, CA

Utility Rate Structure:

PG&E - E-1 - Territory XB

	Summer - Total	Winter - Total
Baseline Usage	0.11550	0.11550
101%-130% of Baseline	0.13131	0.13131
131%-200% of Baseline	0.24725	0.24725
201%-300% of Baseline	0.35443	0.35443
Over 300% of Baseline	0.41059	0.41059



Baseline kWh per Day

Summer	12.1
Winter	12.6

	Current Usage (kWh)	Utility Charges Without Solar	Average Cost per kWh
January	700	\$112.61	\$0.16
February	700	\$118.46	\$0.17
March	700	\$112.61	\$0.16
April	700	\$114.56	\$0.16
May	700	\$115.19	\$0.16
June	700	\$117.06	\$0.17
July	700	\$115.19	\$0.16
August	700	\$115.19	\$0.16
September	700	\$117.06	\$0.17
October	700	\$115.19	\$0.16
November	700	\$114.56	\$0.16
December	700	\$112.61	\$0.16

Annual kWh Usage	8,400
Average Cost per kWh	\$0.16
Annual Utility Charges Without Solar	\$1,380
Five year Electricity Cost from Utility Without Solar*	\$7,761
Ten year Electricity Cost from Utility Without Solar*	\$18,193

*Annual Residential Rate Escalation 6.0%, Based on an Independent Energy Rate Trend Study

This information is intended for discussion purposes only and should not be construed as tax or financial advice. We recommend that you contact an accountant or tax attorney for any specific financial advice.

ATTACHMENT 2 of 6

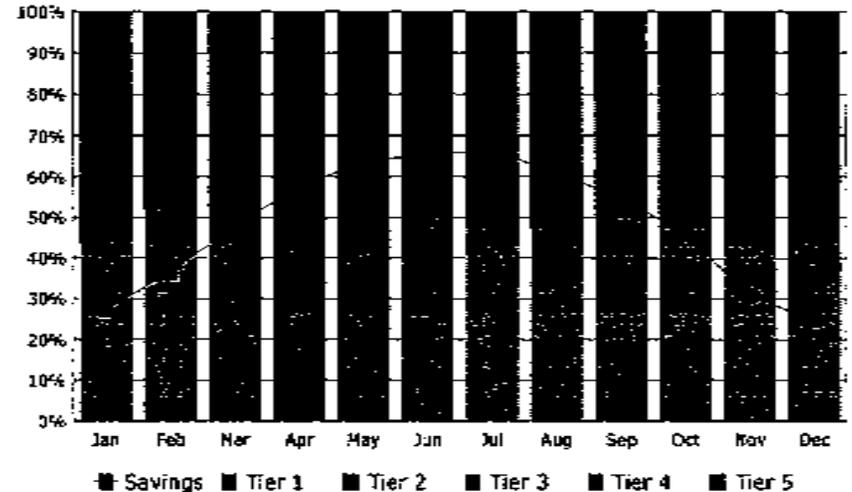


System Performance Analysis Using Net Energy Metering

Site Location: Sunnyvale
System Size: 2,960 Watts DC
Tilt Angle: 4 in 12 (19 Deg)
Mounting Azimuth: 78 - 100 (East)
Proposed Tariff: PG&E - E-1 - Territory XB

Total Energy Bill Offset
48.50%
Total kWh Offset
37.17%

	Summer - Total	Winter - Total
Baseline Usage	0.11550	0.11550
101%-130% of Baseline	0.13131	0.13131
131%-200% of Baseline	0.24725	0.24725
201%-300% of Baseline	0.35443	0.35443
Over 300% of Baseline	0.41059	0.41059



Baseline kWh per Day

Summer: 12.1
 Winter: 12.6

	Current Usage (kWh)	Solar Production (kWh)	Current Utility Charges	Estimated Utility Charges with Solar
January	700	124	\$112.61	\$81.95
February	700	166	\$118.46	\$75.47
March	700	240	\$112.61	\$59.81
April	700	317	\$114.56	\$48.76
May	700	378	\$115.19	\$41.77
June	700	397	\$117.06	\$40.59
July	700	403	\$115.19	\$39.88
August	700	353	\$115.19	\$44.66
September	700	285	\$117.06	\$53.19
October	700	215	\$115.19	\$62.34
November	700	142	\$114.56	\$79.46
December	700	112	\$112.61	\$84.92
Total	8400	3122	\$1,380.30	\$710.80

Annual Solar Production (kWh)	3,122
Conservative calculation using 25 yr. Solar chart data, panel, and inverter specifications	
Estimated 1st year Electric Bill Savings	\$670
Estimated by calculating your past electricity usage and the amount we will offset from your bill	
Cost per kWh of Solar Electricity	\$0.18
Calculated by dividing cost of system and expected power generation	
Credit Given by Utility for Electricity	\$0.21
Value of Actual kWh Produced by Solar Electric System	
Payback	12.9 Years
(Payback assuming 6.0% rate escalation in savings calculation)	

Page 3 of 6
 ATTACHMENT 1



Financial Analysis

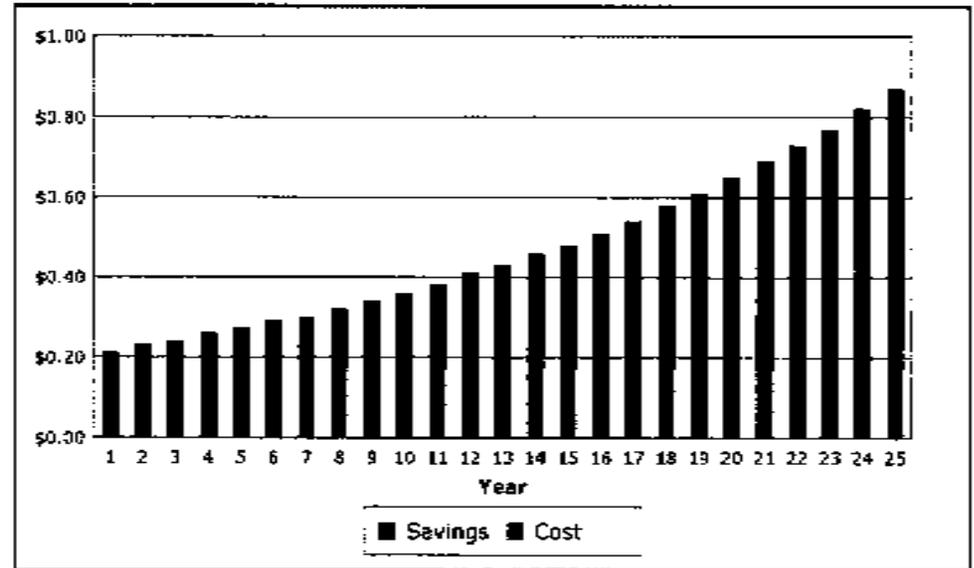
Cost of Power:

Annual Residential Rate Escalation: 6.0%

	Current	Year 10	Year 25
Average Utility Cost per kWh:	\$0.21	\$0.35	\$0.85
Fixed Price per kWh of Solar Power:	\$0.18	\$0.18	\$0.18
Solar Saving per kWh:	\$0.03	\$0.17	\$0.67

Financial Return:

	1st Year	Year 5	Year 10
True return based on electricity bill paid with After-Tax Dollars:	\$670	\$845	\$1131
Return on Investment post-tax:	5.38%	6.79%	9.09%
Equivalent Investment Yield with Pre-Tax Dollars:	\$954	\$1204	\$1612
Return on Investment pre-tax:	7.66%	9.68%	12.95%



Cost Summary:

Grand Total	\$21,450.00
Rebate*	3,667.00
Total To REC	\$17,783.00
Federal Tax Credit	5,334.90
Net System Cost	\$12,448.10

First Year Home Value Appreciation: \$13,390.00

*\$11 in energy savings = \$20 in resale value

Definitions:

Average Utility Cost per kWh:	Average cost of utility power offset by solar electricity
Fixed Price of Solar Power:	The net cost of the system divided by the lifetime production of the system. The production includes 0.5% per year loss of output due to aging.

Cost/Benefit Analysis

Over 25 Year Period

Utility Bill Savings
\$36,731.82



Investment
\$12,448.10



Solar Electric Power System

ENVIRONMENTAL REVIEW

Name: Janet George

Date: October 16, 2008

Systems Description: 2,960 DC Watt, Utility Interactive Photovoltaic System

This sheet quantifies some of the environmental benefits that your system will provide by replacing electricity made from the burning of fuels.

LIFETIME KWH PRODUCTION

line a

73,844

The amount of electricity your solar electric system will produce over its 25-year lifetime.

BARRELS OF OIL OFFSET BY YOUR SYSTEM

= a x 0.00203

149

The number of barrels of oil required to generate the same amount of electricity that your system will produce in its 25-year lifetime.

CAR MILES NOT DRIVEN

= a x 1.7755

130,577

Using electricity generated from fossil fuels and driving cars are the two personal activities that have the most significant environmental impact.

ACID RAIN EMISSIONS REDUCTION, lbs

= a x 0.0076

552

Generating electricity from fossil fuels also releases Sulfur Oxides and Nitrogen Oxides, primary causes of acid rain, into the air. Acid rain damages lakes, streams, trees and forest soils.

SMOG EMISSIONS REDUCTION, lbs

= a x 0.0036

265

Nitrogen Oxides are a key contributor to the formation of ground level ozone, a major component of smog. Ozone irritates the eyes, and aggravates respiratory problems. It is our most widespread and intractable urban air pollution problem.

GREENHOUSE GAS REDUCTION, lbs

= a x 1.42

204,433

Carbon dioxide, along with other 'greenhouse gases', causes global warming. This results in increased rainfall and violent storms, decreased snow and ice cover, and rising sea levels.

NUMBER OF MATURE TREES PLANTED

= a x 0.0034

250

Trees remove carbon dioxide from the atmosphere, and many scientists advocate tree planting as a way to offset carbon dioxide emissions into the atmosphere.

System Performance - The cost savings values presented were developed using the best available "real world" factors that influence system performance. However any particular installation performance cannot be guaranteed to match performance measures stated and may vary. Data sources: Emissions data: US Environmental Protection Agency E-GRID 2000; Electricity mix and energy content: US DOE Energy Information Administration; Car miles and tree data: US EPA, Green Mountain Power.

167 Commercial St
Sunnyvale CA 94086
650-833-9200
mgreenberg@recsolar.com



10/16/08

To Ms Janet George:

Based upon my calculations regarding a solar PV system to be located at 1384 La Bella Ave, Sunnyvale, CA 94087, placing the panels on the East facing roof will not yield an acceptable amount of electric production due to the current shading conditions caused by the large tree in the backyard.

Based on a 2.96kW system, removal of the tree would result in an estimated 37% electric usage offset (48% electric bill offset).

If the tree was not removed the result is estimated to be significantly reduced to 20% electric usage offset (31% electric bill offset.) So the presence of the tree is estimated to cause approximately a 45% reduction in electricity production when compared to removing the tree.

If the tree were not removed, we would not take this project on due to the minimal benefit solar would provide in that situation.

A handwritten signature in black ink that reads "Max Greenberg".

Max Greenberg
Solar Energy Consultant

To,

The City of Sunnyvale
California 94087

We are Janet's parents. We live in the Silicon Valley in San Jose, now traveling some, after retirement. We are writing to inform you that over the past 10 years, Janet has called us on multiple occasions (way too many times to count) regarding her plumbing problems. Often she has had no place to stay when here single bathroom fails and is blocked due to plumbing issues caused by her tree roots. She has had to find alternate accommodations often on weekends, weekdays, late at night when there are no plumbing services to fix the problem. As her family, we can honestly say her tree roots problems are causing her plumbing issues, which has caused a tremendous inconvenience to her family members.

None of the extended family even visits her because of the plumbing problems and when we visit we have to stay in hotels nearby, as her house is mostly dysfunctional due to those large trees in her front and back yard. She is often isolated from her family and cannot enjoy her family's presence in her house. Her primary shelter is being taken over by the tree roots and her property in prime Sunnyvale location is almost unusable. Most of the times the plumbing problems are unpredictable and happen suddenly without cause as the tree roots pervasively take over.

On one specific occasion among numerous others, when the tree roots got into the city sewer line and that was blocked. It took the city 3 weeks to fix the problem, after consulting with P&G to know where the gas lines were, so they do not disrupt it and needed to know where to dig to fix the problem. During that time Janet was in really bad shape, homeless and shuttling between work and hotels and family until the problem was finally fixed by the city. This finally happened after Janet sought legal help and advised the city. The plumbing companies came out to the site and charged her for coming out to the site, but could not fix the problem since the problem was in the city's main line.

Over the years there have been many occasions when her bathroom has flooded due to blockage in the toilet and bathtub and the flooding has been in the adjacent family room, guestroom and master bedroom. We believe she has already replaced her damaged carpets multiple times and borne the costs of the repairs, since her home owners insurance does not cover preexisting conditions like tree roots getting into the plumbing system. The flooding in her house due to sewer blockage has also posed a very significant health hazard to her, and we have advised her to address the root cause of the issues, which are the tree roots, and remove the trees and fix her plumbing permanently.

As her family we have witnessed all the episodes and it is unreal, hence after giving this much thought, on behalf of Janet, we are requesting that she be granted the permit to remove the trees and find a permanent fix to her plumbing and structural problems.

Thanks for your consideration.

Sincerely

Mr. and Mrs. George
Parents (Dad & Mom)

To,

The City of Sunnyvale
California 94087

My name is Roopa. I am Janet George's best friend. I live in Cupertino, in close proximity to Janet's house. I am writing to inform you that Janet's plumbing problems are really taking a toll on her. In the past I have offered to help her multiple times, offering my home and bathroom for her use and purposes at odd hours of the day when she cannot get help and needs help. I am very concerned about her situation. The tree roots are getting into her plumbing and temporary plumbing fixes are not solving for the root cause, every year the tree roots fight back fiercely. She has been displaced from her primary shelter and the problem continues until the trees are permanently removed and she fixes her plumbing, so there are no tree roots to cause the blockage.

On behalf of Janet I am requesting that you grant her the permit to remove the trees in her front and back yard.

Thanks for your consideration. Your help is much appreciated.
Sincerely
Roopa Raman
Best Friend

To,

The City of Sunnyvale
California 94087

My name is Earl. I am Janet George's neighbor. I live across the street from her. I am writing to inform you that over the past 10 years, Janet has told me about her plumbing problems and I have witnessed the plumbers in her house 4 times a year. This year the problems are much worse as the tree roots are taking over. In the past 3 months alone she has had to call the plumbers every two weeks, for temporary fixes. The more permanent fix would be to remove the trees and fix the plumbing. I have even witnessed the tree roots get into the city's sewers main line and it took the city more than 3 weeks to fix that problem. In the meantime Janet was rendered homeless and had no place to stay, shuttling between hotels, office and her family. On numerous occasions I have offered her to use my toilet and bathroom for emergencies and unpredictable plumbing issues and blockage, when the tree roots attach her pipes. Since the trees are on her property they are considered the home owners responsibility and not considered city trees or city responsibility, when the roots interfere with the plumbing.

On behalf of Janet I am requesting that you grant her the permit to remove the trees in her front and back yard.

Thanks for your consideration.

Sincerely

Earl

Phone:

Earl
736-8327

To,

The City of Sunnyvale
California 94087

My name is Mike. I am Janet George's next door neighbor. I have witnessed many plumbing problems that she has had over the years. On one occasion there was severe flooding in her bathroom in the middle of the night and my wife and I was helping her locate the main to shut the water off in the dark and vacuum the water from her bathroom, which damaged her carpets. The sewer flooding poses a serious health hazard to her. She had to replace her stained carpets and the plumbing problems continue. The neighbors have all witnessed the plumbers on her roof and in her house with increased frequency. Since the tree roots are causing the problems, temporary fixes are not addressing the root cause and the trees need to be removed, so there are no roots to attack the pipes at the seams.

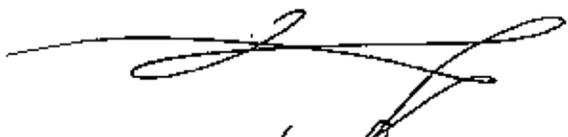
On behalf of Janet I am requesting that you grant her the permit to remove the trees in her front and back yard.

Thanks for your consideration. Your help is much appreciated.

Sincerely

Mike & Holly

Phone: 408.523.1378



Michael D. Trapp

1378 La Bella Ave

To,

The City of Sunnyvale
California 94087

My name is Ray and my wife is Joy. I am Janet George's neighbor. I live next door to her. I am writing to inform you that I support Janet George in the removal of the Trees in her yard. Over the years I have witnessed all the plumbing problems she has been experiencing with the Trees in her yard. I have also witnessed the plumbers in her house making repairs very frequently many times a month, weekends and during the week as well. I have seen them go up on the roof with the heavy equipment and try to fix the problem only for the recurrence of it with the growth of the tree roots. The more permanent fix would be to remove the trees and fix the plumbing.

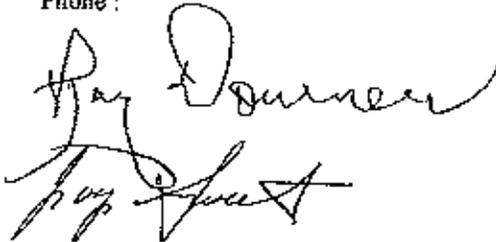
On behalf of Janet I am requesting that you grant her the permit to remove the trees in her front and back yard.

Thanks for your consideration.

Sincerely

Ray & Joy (next door neighbors)

Phone :

Handwritten signatures of Ray and Joy. The signature of Ray is written in a cursive style, and the signature of Joy is written in a similar cursive style below it.



UFEI

Urban Forest Ecosystems Institute

ATTACHMENT

3
3

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COAST LIVE OAK
Quercus agrifolia

General Notes

Susceptible to oak moth. Sudden Oak Death manifested as a canker. SelecTree lists no cultivars of *agrifolia*. A *Quercus agrifolia* in Julian is registered as a California Big Tree. It measures 58 feet high, with a trunk circumference of 338 inches and a crown spread of 75 feet for a total of 415 points.
 [List all Fagaceae | Quercus](#)

Family: [Fagaceae](#)

California Native: Yes

Habit: Evergreen

Sunset Zones: 5, 7 - 10, 12 and 14 - 24

Exposure: Full Sun to Partial Shade

Water Needs: Moist to Dry Soil

Soil Type: Clay, Loam or Sand

Height: 65 feet

Growth Rate: 24 Inches per Season

Shape: Rounded or Umbrella

Longevity: Greater than 150 years

Leaves: Elliptic and Hollylike Glossy Dark Green

Flowers: Inconspicuous

Fruit: Large (1.50 - 3.00 inches)

Bark: Dark Gray, Furrowed or Smooth

Pest & Disease: Resistant to Verticillium. Susceptible to Aphids, Beetle Borers, Beetle Grubs, Caterpillars, Coddling Moths, Insect Galls, Scales and White Fly, Sudden Oak Death, Crown Rot, Mistletoe, Oak Root Rot, Phytophthora, Powdery Mildew, Root Rot and Sooty Mold. See additional information...

- [More Information](#)



- [View Full Tree Record](#)
- [View Full Size Images](#)

ATTRIBUTE INFO

- » [Attributes Defined](#)
- » [Add or Edit Attributes](#)

YOU SEARCHED FOR:

{ } matching tree

*Based on last search.

Right Tree Right Place

[Climate](#)

[Tree Selection](#)

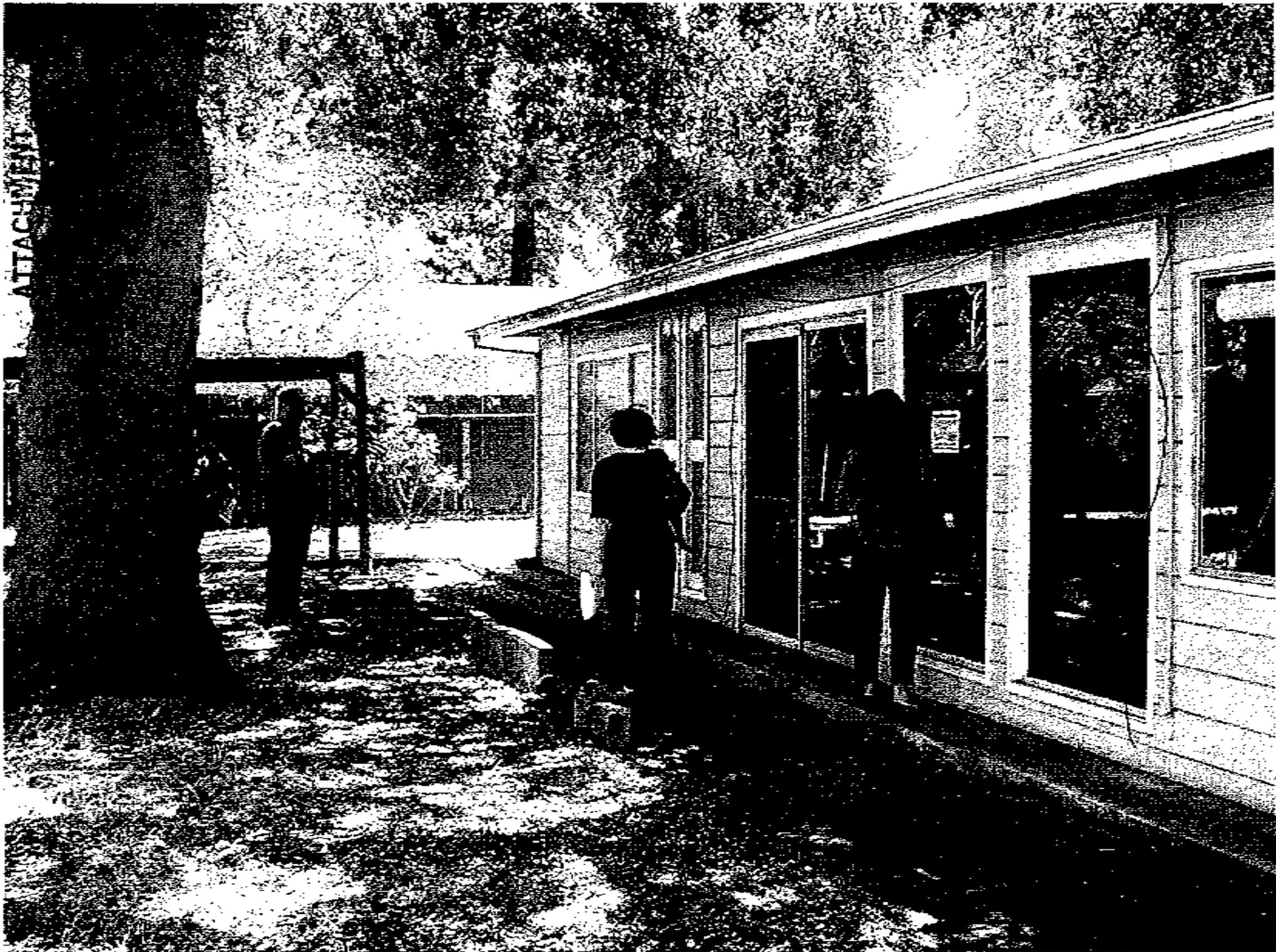
[Root](#)

[Bark](#)



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ATTACHMENT 152





1384 La Bella Ave.
Sunnyvale, CA
Sept 12th, 2008

To: Planning Commission; Larry Klein of the City of Sunnyvale:

Re: Oak Tree on my property at 1384 La Bella Ave, Sunnyvale.

Dear Planning Commission Official, Larry Klein:

I am appealing the decision of denial by the department of community development for the Oak tree on my property that is causing physical structural damage to the house with the aggressive root system also invading the entire plumbing in the house, currently rendering the house to be dangerous, non habitable and disrupting my ability to live in the house.

The continuous on-going aggressive growth of the Oak tree roots poses a problem due to its close proximity to the house and the city's decision has rendered the house useless.

Mayor Anthony (Tony) Spitaleri recommended that I request a meeting with you to discuss my personal situation and get your advice and feedback. Please let me know your schedule and availability in the next two weeks, so I can set-up a time to go over the situation.

Thank you. I am really looking forward to our meeting

Sincerely
Janet George (Home Owner)
Cell phone 408 396 5727.
Email george.janet@gmail.com

RECEIVED
SEP 16 2008
PLANNING DIVISION