PLANNING AND TRANSPORTATION DIVISION

STAFF REPORT

TO: PLANNING & TRANSPORTATION COMMISSION

FROM: Lata Vasudevan, AICP Planner **DEPARTMENT:** Planning & Community Environment

AGENDA DATE: November 28, 2007

SUBJECT: **4249 and 4251 El Camino Real [07PLN-00140]**: Application by SummerHill Homes for a Tentative Map to subdivide the Elks Lodge site into two lots. The proposed 2.82-acre lot would be the site of a new Elks Lodge and the other 3.97-acre lot would be developed as a multi-family residential project by SummerHill Homes. Zone District: Multiple-Family Residential (RM-15 and RM-30). Environmental Assessment: a Mitigated Negative Declaration has been adopted for the development of the Elks Lodge site.

RECOMMENDATION:

Staff requests that the Planning and Transportation Commission (Commission) provide a recommendation of approval to the City Council regarding the proposed Tentative Map to subdivide the Elks Lodge site into two lots, based upon the findings and conditions contained within the Record of Land Use Action (Attachment A).

SUMMARY OF LAND USE ACTION:

Background information related to the project's details and history has been included in the attached draft Record of Land Use Action. The Tentative Map drawings are in general conformance with the requirements set forth in Chapter 18 (Zoning) and Chapter 21 (Subdivisions) of the Palo Alto Municipal Code (PAMC). Various code requirements and special conditions pertaining to the demolition of the existing Elks Lodge have also been incorporated into the draft conditions of approval for this application. The only action required of the Planning and Transportation Commission is a recommendation to the City Council regarding the Tentative Map.

Scope of Commission Review

The scope of the Commission's review for the purposes of this Tentative Map application is limited to the "design" and "improvement" of the proposed subdivision. In this context, the terms "design" and "improvement" are defined in the Subdivision Map Act as follows:

"Design" means: (1) street alignments, grades and widths; (2) drainage and sanitary facilities and utilities, including alignments and grades thereof; (3) location and size of all required easements and rights-of-way; (4) fire roads and firebreaks; (5) lot size and configuration; (6) traffic access; (7) grading; (8) land to be dedicated for park or recreational purposes; and (9) other specific physical requirements in the plan and configuration of the entire subdivision that are necessary to ensure consistency with, or implementation of, the general plan or any applicable specific plan as required pursuant to Section 66473.5.

(Government Code, section 66418)

(a) "Improvement" refers to any street work and utilities to be installed, or agreed to be installed, by the subdivider on the land to be used for public or private streets, highways, ways, and easements, as are necessary for the general use of the lot owners in the subdivision and local neighborhood traffic and drainage needs as a condition precedent to the approval and acceptance of the final map thereof.

(b) "Improvement" also refers to any other specific improvements or types of improvements, the installation of which, either by the subdivider, by public agencies, by private utilities, by any other entity approved by the local agency, or by a combination thereof, is necessary to ensure consistency with, or implementation of, the general plan or any applicable specific plan.

(Government Code, section 66419)

The design and improvement of the subdivision should be distinguished from the design of the proposed structures to be located within the subdivision, which will be reviewed pursuant to the City's Architectural Review process (or in the case of the SummerHill Homes development, the Architectural Review Board has already made a formal recommendation of approval as described below).

The Tentative Map plan set includes information on the existing parcels and onsite conditions. These plans contain all information and notations required to be shown on a Tentative Map (per PAMC Sections 21.12), and conform to the design requirements concerning the creation of lots, streets, and similar features (PAMC 21.20).

SUMMARY OF KEY ISSUES:

The application requested by SummerHill Homes on behalf of property owner, Benevolent and Protective Order of Elks (BPOE), is a two-lot subdivision of the approximately 7-acre Elks Lodge site to enable the construction of a new Elks Lodge on Lot 1 and the development of a 45 unit, multi-family residential community by SummerHill Homes on Lot 2. Although the applicant's request is for only a two-lot subdivision, PAMC 21.04.030 requires a Tentative Map for certain minor subdivisions involving less than five lots or units where the total acreage involved exceeds five acres or for any subdivision where an individual lot created exceeds two acres.

The proposed two lot subdivision would create one 2.82 acre parcel to be retained by BPOE for the future Elks Lodge and a second 3.97 acre parcel to be purchased by SummerHill Homes for its proposed multi-family development. Approximately .34 acres of the Elks Lodge site would be dedicated to the City as a public right of way to establish Deodar Street. A preliminary Architectural Review application for the new Elks Lodge was reviewed by the Architectural Review Board on August 2, 2007. A formal application for Architectural Review of the new Elks Lodge has not yet been submitted. The proposed 45 unit, multi-family SummerHill Homes development on Lot 2 was granted Architectural Review approval on October 30, 2007. A Tentative Map for the SummerHill Homes development will be presented for Commission recommendation and City Council approval after the approval of the subject two-lot subdivision.

During the Architectural Review process of the proposed SummerHill Homes development, there was considerable discussion among the public and the Architectural Review Board regarding pedestrian and bicycle access to Wilkie Way and El Camino Real from the proposed SummerHill Homes Development. The proposed five-lot development by Juniper Homes is situated along Wilkie Way, adjacent to the subject two-lot subdivision. The applicant for the Juniper Homes development was receptive to providing a pedestrian and bicycle access along the existing emergency vehicle access route to allow access to Wilkie Way. However, residents of the nearby neighborhood were opposed to such access and, accordingly, the Juniper Homes Final Map approval was granted by the City Council without this type of easement. This decision eliminated the most viable option for connectivity to Wilkie Way from the adjacent, proposed SummerHill Homes development. Nevertheless, the SummerHill Homes development will include a public access easement within its development that would facilitate pedestrian and bicycle connectivity to El Camino Real and/or Wilkie Way should easement opportunities arise in the future on the adjacent Dinah's property. The proposed public access easement within the SummerHill Homes development will be discussed further in the review of the Tentative Map for the SummerHill Homes development and is not within the purview of the subject two-lot subdivision.

Because of the terms of the purchase agreement between BPOE and SummerHill Homes, the existing Elks Lodge will not be demolished until after the final map for the two-lot subdivision is recorded. In effect, the proposed lot line subdividing the Elks Lodge site into two lots would slice through the existing Elks Lodge structure. City Staff has discussed the logistics of the demolition with the applicant and an agreement was reached that a bond or letter of credit would be provided by the applicant to the City to guarantee the demolition of the Elks Lodge prior to final map recordation. The actual demolition of the Elks Lodge and accessory structures would occur immediately after final map recordation. Conditions pertaining to the demolition of the Elks Lodge are included in the attached draft Record of Land Use action. With the incorporation of conditions relating to the demolition of the Elks Lodge, Staff and City departments have determined that the two-lot Tentative Map application is in compliance with zoning, subdivision, and other codes and ordinances.

TIMELINE:

Action	Date
Application Received:	May 3, 2007
Mitigated Negative Declaration Adopted:	October 25, 2007

Tentative Map Application Deemed Complete:	November 8, 2007
P&TC Meeting on Tentative Map:	November 28, 2007
Scheduled Action by Council on Tentative Map:	December 10, 2007

ENVIRONMENTAL REVIEW:

The California Environmental Quality Act (CEQA) lists a land division of property in an urbanized area into four or fewer parcels as exempt from CEQA if the subdivision is in conformance with all zoning regulations. As such, the proposed two lot subdivision would generally be exempt from the requirements of CEQA. However, CEQA requires that a Lead Agency examine the potential environmental impacts of the 'whole of an action' which has the potential to physically change the environment, directly or ultimately, and not just the act of merely subdividing a parcel into two lots. In this case, the two lot subdivision would ultimately facilitate the construction of two developments – a new fraternal lodge and a 45 unit multi-family development – which are not exempt from CEQA requirements.

Prior to Architectural Review approval of the proposed SummerHill Homes multi-family development, Staff prepared an Initial Study and Draft Mitigated Negative Declaration which discussed the potential impacts of the two lot subdivision, the SummerHill Homes development and the new Elks Lodge development. The documents were made available for a 20 day public review period between August 31, 2007 and September 19, 2007. No public comments were received during this review period. The Environmental Assessment found that the impacts produced by the project, including the development of the single-family homes and the new Elks Lodge, would have less than significant impacts on the environment with the incorporation of mitigation measures. These impacts are described in the assessment contained in Attachment B. Since State law requires the adoption of an Initial Study and Mitigated Negative Declaration prior to taking action on a discretionary project, these environmental documents were adopted on October 25, 2007 by the Director of Planning and Community Environment, prior to Architectural Review of the proposed SummerHill Homes project.

ATTACHMENTS:

A. Draft Record of Land Use Action
B. Initial Study and Mitigated Negative Declaration
C. Tentative Map Plan Set (Commission Members Only)

COURTESY COPIES:

Elaine Breeze, SummerHill Homes
Jim Baer
Denis Losé, Palo Alto Elks Lodge
Penny Ellson
Carlin Otto
Becky Epstein
Jean Olmsted

Prepared by: Lata Vasudevan, AICP, Planner

Reviewed by: Amy French, AICP, Manager of Current Planning

Department/Division Head Approval: Curtis Williams

Curtis Williams, AICP
Assistant Director

ATTACHMENT A

APPROVAL NO. 2007-__
RECORD OF THE COUNCIL OF THE CITY OF PALO ALTO
LAND USE ACTION FOR 4249 AND 4251 EL CAMINO REAL:
TENTATIVE MAP 07PLN-00140
(SUMMERHILL HOMES, APPLICANT)

At its meeting on December 10, 2007, the City Council of the City of Palo Alto approved the Tentative Map to subdivide a parcel (approx. 6.79 acres) into two lots, which would be developed into residential multi-family homes on one lot and a new fraternal lodge on the other lot, making the following findings, determination and declarations:

SECTION 1. Background. The City Council of the City of Palo Alto ("City Council") finds, determines, and declares as follows:

A. Proposed by SummerHill Homes on behalf of the Benevolent and Protective Order of Elks (BPOE), this project involves the subdivision of the Elk's Lodge site (approx. 6.79 acres total) into two lots. Lot 1, to be retained by BPOE, would be 122,872 square feet and would be developed with a new Elks Lodge and Lot 2, to be sold to SummerHill Homes, would be 172,891 square feet and developed with 45 multi-family dwelling units. In addition, .34 acres of the Elks Lodge site would be dedicated to the City as a public right of way to create Deodar Street.

B. The Tentative Map plan set includes information on the existing parcels, onsite conditions, and the layout of the proposed new lots. These drawings are in compliance with the applicable provisions of the City's Subdivision Ordinance. These plans contain all information and notations required to be shown on a Tentative Map (per PAMC Sections 21.12), as well as the design requirements concerning the creation of lots, streets, walkways, and similar features (PAMC 21.20).

C. Because of financial reasons and the purchase agreement between BPOE and SummerHill Homes, the buyer and developer of Lot 2, the existing Elks Lodge will not be demolished until after the final map for the two lot subdivision is recorded. In effect, the proposed lot line subdividing the Elks Lodge site into two lots would slice through the existing Elks Lodge structure. City Staff has discussed the logistics of the demolition with the applicant and an agreement was reached that a bond or letter of credit would be provided by the applicant to the City to guarantee the demolition of the Elks Lodge prior to final map recordation. The actual demolition of the Elks Lodge and accessory structures would occur immediately after final map recordation. Conditions pertaining to the demolition of the Elks

Lodge are included in the attached draft Record of Land Use action. With the incorporation of conditions relating to the demolition of the Elks Lodge, Staff and City departments have determined that the two-lot Tentative Map application is in compliance with zoning, subdivision, and other codes and ordinances.

SECTION 2. Environmental Review. The California Environmental Quality Act (CEQA) lists a land division of property in an urbanized area into four or fewer parcels as exempt from CEQA if the subdivision is in conformance with all zoning regulations. As such, the proposed two lot subdivision would generally be exempt from the requirements of CEQA. However, CEQA requires that a Lead Agency examine the potential environmental impacts of the 'whole of an action' which has the potential to physically change the environment, directly or ultimately, and not just the act of merely subdividing a parcel into two lots. In this case, the two lot subdivision would ultimately facilitate the construction of two developments - a new fraternal lodge and a 45 unit multi-family development - which are not exempt from CEQA requirements.

Prior to Architectural Review approval of the proposed SummerHill Homes multi-family development, Staff prepared an Initial Study and Draft Mitigated Negative Declaration which discussed the potential impacts of the two lot subdivision, the SummerHill Homes development and the new Elks Lodge development. The documents were made available for a 20 day public review period between August 31, 2007 and September 19, 2007. No public comments were received during this review period. The Environmental Assessment found that the impacts produced by the project, including the development of the single-family homes and the new Elks Lodge, would have less than significant impacts on the environment with the incorporation of mitigation measures. Since state law requires the adoption of an Initial Study and Mitigated Negative Declaration prior taking action on a discretionary project, these environmental documents were adopted on October 25, 2007 by the Director of Planning and Community Environment, prior to Architectural Review of the proposed SummerHill Homes development.

SECTION 3. Tentative Map Findings.

A legislative body of a city shall deny approval of a Preliminary Parcel Map, if it makes any of the following findings (California Government Code Section 66474):

1. *That the proposed map is not consistent with applicable general and specific plans as specified in Section 65451:*

This finding can not be made in the affirmative. The site does not lie within a specific plan area and is consistent

with the provisions of the Comprehensive Plan. The land use designation in the area of the subdivision is Multiple Family Residential and the zoning designations are RM-15 and RM-30. The proposed development of multi-family dwelling units on Lot 2 is consistent with the land use and zoning designations of the site. The reconstruction of a new Elks Lodge on Lot 1 is allowed as a grandfathered use on the site pursuant to City of Palo Alto Ordinance No. 3892.

2. *That the design or improvement of the proposed subdivision is not consistent with applicable general and specific plans:*

This finding can not be made in the affirmative. The map is consistent with the following Comprehensive Plan policies: (1) Policy L-1 - Limiting future urban development to currently developed lands within the urban service area; (2) Policy L-6: Where possible, avoid abrupt changes in scale and density between residential and non-residential areas and between residential areas of different densities; (3) Policy L-12 - Preserve the character of residential neighborhoods by encouraging new or remodeled structures to be compatible with the neighborhood and adjacent structures; (4) Policy L-35 - Establish the South El Camino Real area as a well-designed, compact, vital, Multi-neighborhood Center with diverse uses, a mix of one-, two-, and three-story buildings, and a network of pedestrian-oriented streets and ways. The new Elks Lodge would be situated at the El Camino Real frontage such that there is desirable definition of the streetscape compared to the existing site where a large parking lot exists. The new Elks Lodge would act as a buffer to the proposed multi-family homes by SummerHill Homes.

3. *That the site is not physically suitable for the type of development:*

This finding can not be made in the affirmative. The site can accommodate the proposed subdivision. The lots conform to the width, depth, and area requirements of the RM-30 and RM-15 districts. The design of the multi-family units by SummerHill Homes and the new Elks Lodge require Architectural Review approval. The proposed multi-family development by SummerHill Homes was granted Architectural Review approval on October 30, 2007 after a recommendation of approval from the Architectural Review Board on October 18, 2007. The Preliminary Architectural Review of the new Elks Lodge was reviewed by the Architectural Review Board on August 2, 2007. A formal application for the Elks Lodge has not yet been submitted.

4. *That the site is not physically suitable for the proposed density of development:*

The subdivision would be consistent with the site development regulations of the RM-30 and RM-15 districts and would not affect the location of the existing property lines at he perimeter of the site.

5. *That the design of the subdivision or the proposed improvements is likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat:*

The subdivision would not cause environmental damage or injure fish, wildlife, or their habitat, as the site is currently developed with accessory uses and facilities of the permitted fraternal organization on the site. However, the applicant is required to implement mitigation measures to reduce impacts to tree-nesting raptors and trees during demolition and construction on Lots 1 and 2 as specified in the Mitigated Negative Declaration and as reflected in the conditions of Section 6 of this Record.

6. *That the design of the subdivision or type of improvements is likely to cause serious public health problems:*

This finding can not be made in the affirmative. The subdivision of the existing parcel into two lots will not cause serious public health problems.

7. *That the design of the subdivision or the type of improvements will conflict with easements, acquired by the public at large, for access through or use of, property within the proposed subdivision. In this connection, the governing body may approve a map if it finds that alternate easements, for access or for use, will be provided, and that these will be substantially equivalent to ones previously acquired by the public. This subsection shall apply only to easements of record or to easements established by judgment of a court of competent jurisdiction and no authority is hereby granted to a legislative body to determine that the public at large has acquired easements for access through or use of property within the proposed subdivision.*

The subdivision of the existing parcel will not conflict with easements of any type, in that the subdivision is compatible with the emergency vehicle access easement along the northern property line and any utility easements that would be required to serve the proposed developments on Lots 1 and 2.

SECTION 4. Approval of Tentative Map. Tentative Map approval is granted by the City Council under Palo Alto Municipal Code ("PAMC") Sections 21.13 and 21.20 and the California Government Code Section 66474, subject to the conditions of approval in Section 6 of this Record.

SECTION 5. Final Map Approval. The Final Map submitted for review and approval by the City Council of the City of Palo Alto shall be in substantial conformance with the Tentative Map prepared by Brian Kangas Foulk titled "Tentative Map Elks Subdivision", consisting of five pages, dated November 9, 2007, except as modified to incorporate the conditions of approval in Section 6.

A copy of this Tentative Map is on file in the Department of Planning and Community Environment, Current Planning Division.

Within two years of the approval date of the Tentative Map, the subdivider shall cause the subdivision or any part thereof to be surveyed, and a Final Map, as specified in Chapter 21.08, to be prepared in conformance with the Tentative Map as conditionally approved, and in compliance with the provisions of the Subdivision Map Act and PAMC Section 21.16 and submitted to the City Engineer (PAMC Section 21.16.010[a]).

SECTION 6. Conditions of Approval.

Department of Planning and Community Environment

Planning Division

1. A Final Map, in conformance with the approved Tentative Map, all requirements of the Subdivision Ordinance (PAMC Section 21.16), and to the satisfaction of the City Engineer, shall be filed with the Planning Division and the Public Works Engineering Division within two years of the Tentative Map approval date (PAMC 21.13.020[c]).

2. To the extent practical, construction activities should be performed or vegetation removed from September through February to avoid the general nesting period of birds. If demolition, construction or vegetation removal can not be performed during this period, pre-demolition and construction surveys should be performed by a qualified biologist no sooner than 14 days prior to demolition and construction activities to locate any active nests prior to the start of demolition/construction and prior to removal of any tree. If active nests are observed, buffer zones will be established around active nesting trees, with a size acceptable to the California Department of Fish and Game. Construction activities shall avoid buffered zones and no tree will be removed until the young have fledged or the nest is otherwise abandoned.

3. To the maximum extent possible, the project shall comply with all Design Guidelines 6.1 and 6.2 Protection Measures of 'A Tree Protection Plan for the Elks Residential Development' by David L. Babby, RCA, June 20, 2007 and all guidelines stated in Section 4.2 and Section 7.0 Tree Protection Guidelines of 'A Tree Protection Plan for the New Elks Lodge,' by David L. Babby, August 24, 2007.

4. Applicant shall file a tree removal permit for the trees planned for removal.

Public Works Department

Prior to Final Map Recordation:

5. The Elks Lodge shall be abandoned.
6. All utilities servicing the Elks Lodge must be disconnected in accordance with the City of Palo Alto Utilities Department guidelines.
7. The Elks Lodge shall be "red-tagged" by the Building Division.
8. The Elks organization shall provide Public Works Engineering (PWE) a copy of an executed contract with a licensed demolition contractor providing for the demolition of the existing Elks Lodge.
9. The Elks organization shall provide the City of Palo Alto with a bond or letter of credit to guarantee the demolition of the Elks Lodge. The amount of the bond or letter of credit shall be determined by PWE and based upon the review of the estimate of demolition as provided by the contractor.
10. A Construction and Demolition (C&D) plan and permit for the demolition of the existing structure shall be submitted and approved and shall accompany the contract and bond for that demolition.

SECTION 7. Term of Approval.

Tentative Map. All conditions of approval of the Tentative Map shall be fulfilled prior to approval of a Final Map (PAMC Section 21.16.010[c]).

Unless a Final Map is filed, and all conditions of approval are fulfilled within a two-year period from the date of Tentative Map approval, or such extension as may be granted, the Tentative Map shall expire and all proceedings shall terminate. Thereafter, no Final Map shall be filed without first processing a Tentative Map (PAMC Section 21.16.010[d]).

PASSED:

AYES:

NOES:

ABSENT:

ABSTENTIONS:

ATTEST:

_____
City Clerk

APPROVED:

_____
Director of Planning and
Community Environment

APPROVED AS TO FORM:

_____
Senior Asst. City Attorney

PLANS AND DRAWINGS REFERENCED:

Those plans prepared by Brian Kangas Foulk titled, "Tentative Map Elks Subdivision", consisting of five pages, dated November 9, 2007.

ATTACHMENT B

City of Palo Alto
Department of Planning and Community Environment
California Environmental Quality Act
MITIGATED NEGATIVE DECLARATION

I. DESCRIPTION OF PROJECT

Date: October 25, 2007

Application Nos.: 07PLN-00000-00168 and 07PLN-00000-00140

Address of Project: 4249 and 4251 El Camino Real

Assessor's Parcel Number: 148-01-004 and 008

Applicant/Owner: SummerHill Homes
Elaine Breeze
777 California Avenue
Palo Alto, CA 94304

Benevolent and Protective Order of Elks (BPOE)
Jim Baer
171 University Avenue
Palo Alto, CA 94301

Project Description and Location:
The 7.13 acre (gross) project site is located in the southern section of the City of Palo Alto, in the northern part of Santa Clara County, west of U.S. Highway 101 and east of State Route 82 (El Camino Real). The site is located southwest of Wilkie Way and southeast of the intersection of West Charleston Road and El Camino Real as shown on Figure 1, *Vicinity Map.* The topography of the site is relatively flat, with a site elevation that ranges between 50 and 56 feet above mean sea level sloping to the northeast.

The proposed project includes the demolition of the existing Elks Lodge and accessory facilities, the subdivision of the 7.13 acre property into two parcels, the development of one of the parcels with a proposed multi family development called Palo Alto Elks Residential by SummerHill homes on 3.97 acres, the development of the other 2.82 acre parcel with the new Elks Lodge facility. A portion of the existing Elks Lodge site that is .34 acres in size would be dedicated to the City for public street purposes to create Deodar Street.

II. DETERMINATION

In accordance with the City of Palo Alto's procedures for compliance with the California Environmental Quality Act (CEQA), the City has conducted an Initial Study to determine whether the proposed project located at 4249 and 4251 El Camino Real could have a significant effect on the environment. On the basis of that study, the City makes the following determination:

_____ **The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION is hereby adopted.**

__X__ **Although the project, as proposed, could have a significant effect on the environment, there will not be a significant effect on the environment in this case because mitigation measures for traffic impacts have been added to the project and, therefore, a MITIGATED NEGATIVE DECLARATION is hereby adopted.**

The attached initial study incorporates all relevant information regarding the potential environmental effects of the project and confirms the determination that an EIR is not required for the project.

In addition, the following mitigation measures have been incorporated into the project:

Mitigation Measure BIO-1: The project will be required to implement the following mitigation measure to reduce impacts to tree-nesting raptors.

> To the extent practicable, construction activities should be performed or vegetation removed from September through February to avoid the general nesting period of birds. If demolition, construction or vegetation removal can not be performed during this period, pre-demolition and construction surveys should be performed by a qualified biologist no sooner than 14 days prior to demolition and construction activities to locate any active nests prior to the start of demolition/construction and prior to removal of any tree. If active nests are observed, buffer zones will be established around active nesting trees, with a size acceptable to the California Department of Fish and Game. Construction activities shall avoid buffered zones and no tree will be removed until the young have fledged or the nest is otherwise abandoned. This measure will be included in the conditions for project approval.

Mitigation Measure BIO-2: The project will be required to implement the following mitigation measure to reduce impacts to trees on the property and on neighboring sites.

> For the Palo Alto Elks Residential portion of the project:
> To the extent possible, the project shall comply with all Design Guidelines 6.1 and 6.2 Protection Measures of 'A Tree Protection Plan for the Elks Residential Development,' by David L. Babby, RCA, June 20, 2007. Compliance with the tree protection measures would result in the project having a less than significant impact on the retained protected trees.

For the Elks Lodge Development:
The project shall comply with all guidelines stated in Section 4.2 and Section 7.0 Tree Protection Guidelines of 'A Tree Protection Plan for the New Elks Lodge,' by David L. Babby, August 24, 2007.

Mitigation Measure TRAN-1: The El Camino Real / Deodar Street intersection shall be monitored to ensure that adequate gaps are provided. The intersection could be modified to prohibit left-turns out and/or traffic signal installation could be considered if the available gaps do not accommodate the turning movement volumes.

Mitigation Measure TRAN-2: To bring on-site circulation to acceptable standards, the following items shall be implemented in the project:

a. Stop signs along the north-south circulation aisle at the underground garage ramp for the Elks Club parking lot.
b. Crosswalk at the throat of the garage access, near the Elks Club drop-off area.
c. "Exit Only" or "Do Not Enter" signs at the intersection of the drop-off area and garage driveway.

Project Planner — **Date** 10/25/07

Director of Planning and Community Environment Or Designee — **Date** 10/25/07

INTRODUCTION AND PURPOSE:

As the Lead Agency under CEQA, the City of Palo Alto has prepared this Initial Study to evaluate the environmental impacts that might reasonably be anticipated to result from the redevelopment of the Elks Lodge site that currently consists of 7.13 acres (gross). The project proposes to demolish the existing Elks Lodge and accessory structures, subdivide the property into two parcels, construct 45 multi-family residential units on one parcel, and construct a new Elks Lodge facility on the other parcel. Impacts of the demolition and the cumulative traffic impacts of the Palo Alto Elks Residential project and the future new Elks Lodge are discussed in this report. A formal application for Architectural Review has been submitted for the Palo Alto Elks Residential portion of the project. However, only a preliminary application has been submitted for the Elks Lodge. General potential environmental impacts of the new Elks Lodge are included in this report based on information provided in the preliminary application. A project specific environmental assessment may be prepared after a formal application for the Elks Lodge is submitted.

This Initial Study of environmental impacts conforms to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations 15000 et. Seq.), and regulations and policies of the City of Palo Alto.

1. PROJECT TITLE

Palo Alto Elks Residential and Elks Lodge Development
4249 and 4251 El Camino Real
Palo Alto, California

2. LEAD AGENCY NAME AND ADDRESS

City of Palo Alto
Department of Planning and Community Environment
250 Hamilton Ave.
Palo Alto, CA 94303

3. CONTACT PERSON AND PHONE NUMBER

Lata Vasudevan, AICP, Planner
City of Palo Alto
650-329-2165

4. PROJECT SPONSOR'S NAME AND ADDRESS

SummerHill Homes

Elaine Breeze
777 California Avenue
Palo Alto, CA 94304

Benevolent and Protective Order of Elks (BPOE)
Jim Baer
171 University Avenue
Palo Alto, CA 94301

5. APPLICATION NUMBER(S)

07PLN-00000-00168 and 07PLN-00000-00140

6. PROJECT LOCATION

4249 and 4251 El Camino Real, Palo Alto
Parcel Numbers: 148-01-004 and 008

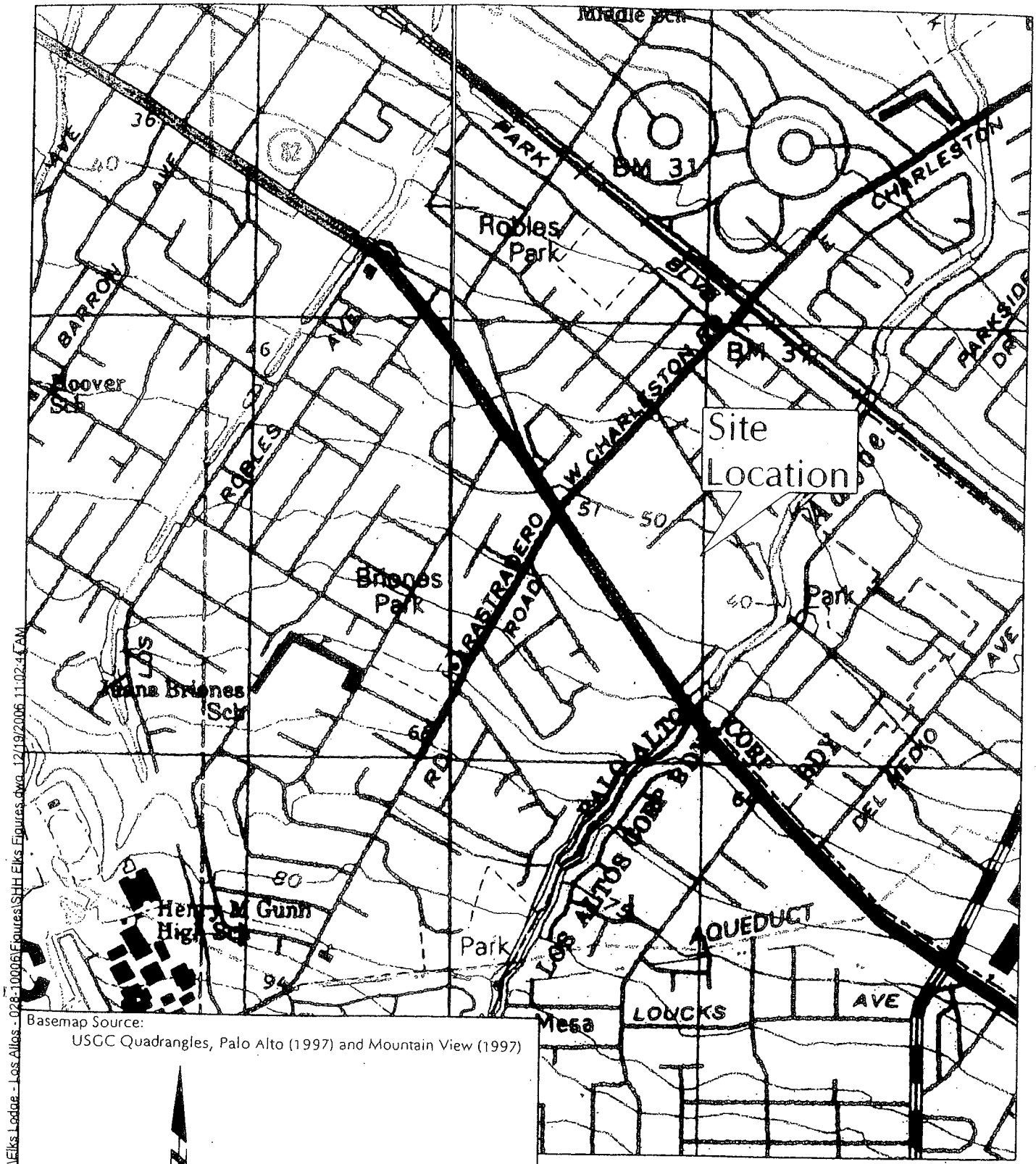
The 7.13 acre (gross) project site is located in the southern section of the City of Palo Alto, in the northern part of Santa Clara County, west of U.S. Highway 101 and east of State Route 82 (El Camino Real). The site is located southwest of Wilkie Way and southeast of the intersection of West Charleston Road and El Camino Real as shown on Figure 1, *Vicinity Map*. The topography of the site is relatively flat, with a site elevation that ranges between 50 and 56 feet above mean sea level sloping to the northeast.

7. GENERAL PLAN DESIGNATION:

The project site is in an area that has a Multiple Family Residential land use designation as stated in the Palo Alto 1998 – 2010 Comprehensive Plan. This land use designation allows multi-family dwelling units with net densities that range from 8 to 40 units. The targeted minimum number of homes for the project site, as noted in the Housing Site Inventory of the Housing Element, is 97 dwelling units. This target also includes the area that was originally part of the Elks Lodge site, but has since been purchased by Juniper Homes for its development of five single family homes.

8. ZONING

The project site has a split zoning designation of RM-30 and RM-15 zoning designations. The new Elks Lodge would be located entirely within the RM-30 zoning designation. However, the split zoning would be applicable to the location of the Palo Alto Elks Residential project in that 92,445 square feet of the site area would be in the RM-30 zone and 80,168 square feet of the site area would be in the RM-15 zone. The RM-15 zoning district allows a maximum density of 15 dwelling units per acre, and the RM-30 zone allows a maximum density of 30 dwelling units per acre. The project is a permitted use in both the RM-15 and RM-30 zoning districts, with a proposed density of 11.4 dwelling units per acre. Because of the unusual split zoning of this site, a blended zoning approach is used for the Elks Residential development.



Site Vicinity Map

4249 El Camino Real, Palo Alto, California

LFR

Figure 1

The RM-30 portion of the project site was the subject of a rezoning that occurred in 1989. The RM-15 portion of the project site was not amended in 1989. However, the portion of the project site that is now in the RM-30 zone was originally zoned CS (Service Commercial) and was rezoned to the current designation in 1989. The ordinance rezoning this portion of the project site essentially specifies that the Elks Lodge is a grandfathered use. Therefore, the new Elks Lodge, which is a continuation of the existing grandfathered use, would not be subject to a Conditional Use Permit.

9. PROJECT DESCRIPTION

Background

Various improvements and building additions have occurred throughout the years at the project site which is presently owned by the Benevolent and Protective Order of Elks (BPOE). The existing main Elks Lodge building is approximately 65,000 square feet with a basement fitness center/pool level. Outside facilities include, but are not limited to, an enclosed picnic area and outdoor Olympic-sized pool area. In 1996, the Elks Lodge leased a portion of the parking lot to a cell tower company for construction of a monopole, which has received Architectural Review approval from the City. In 1997, the Elks leased the northeast portion of the site to a private school/child development center. The school address is 4251 El Camino Real and modular buildings were used to create the school buildings. The school vacated the site in April of 2007.

SummerHill Homes is acquiring 3.97 acres of land from BPOE. The proposed Palo Alto Elks Residential project is part of a larger plan for the entire Elks Lodge site that has been under study by BPOE for over ten years. The entire Elks Lodge site is proposed to be redeveloped into three projects:

- Fronting Wilkie Way will be a development consisting of five parcels by Juniper Homes, each with a single-family detached home. Environmental review and City approval of the five–lot subdivision has already occurred, and three of the five homes have received Architectural Review approval.
- Fronting El Camino Real will be an approximately 2.82 acre site that would be retained by BPOE and developed as a new fraternal lodge. An application for Preliminary Architectural Review was submitted and was reviewed by the ARB on August 2, 2007. Based on review of the preliminary plans, the new Elks Lodge will be a two-story building with a maximum height of 40 feet, over a one-level underground parking garage.
- The central parcel, between the Juniper Homes development and the future Elks Lodge site, consists of 3.97 acres. SummerHill Homes proposes to develop this site with 45 detached multi-family townhouse units and a park, called the Palo Alto Elks Residential development. The existing Elks Lodge Building, a cellular antenna pole, a pool, two snack bar structures, several modular buildings, restroom and maintenance structures and an RV dump station are presently situated on this central portion of the Elks Lodge site. The proposed SummerHill Homes project includes the demolition of these structures as well as a cell tower structure in the front parking lot area. It is anticipated that the existing wireless facility (by Cingular) would be relocated on the Elks Lodge portion of the project site. However, plans for its relocation have not yet been finalized

The proposed project includes the demolition of the existing Elks Lodge and accessory facilities, the subdivision of the 7.13 acre property into two parcels, the development of one of the parcels with a proposed multi family development called Palo Alto Elks Residential by SummerHill homes on 3.97 acres, the development of the other 2.82 acre parcel with the new Elks Lodge facility. A portion of the existing Elks Lodge site that is .34 acres in size would be dedicated to the City for public street purposes to create Deodar Street.

Proposed Multi-family Development by SummerHill Homes (Palo Alto Elks Residential)

The project consists of 45 multi-family units, two and three-story detached townhomes with private streets and a publicly accessible park, as well as pedestrian-oriented landscaped common and private open space areas. The detached townhomes would range from approximately 1768 to 2365 square feet (excluding garage square footage), with three or four bedrooms and two-car attached garages. The project density would be approximately 11.4 units per acre. Primary ingress and egress is provided from Deodar Street at two locations. An emergency vehicle access is also situated along the northeastern portion of the project with access to Wilkie Way across Lot 1 of the Juniper Homes Project.

Seven different floor plans are proposed for the project with 21 different facade designs. Exterior materials will include stucco, lap siding, board and batten, high profile composition shingle roofing, wood-clad windows. Other elements include metal canopies, metal and wood railings, and metal accent roofing. All proposed units will include a 2-car, attached, side-by-side garage with extra storage space for a bicycle, trash and recycling areas.

Fifteen guest parking spaces are provided in four locations on the project site. Seven of these spaces are proposed near the park. The park would be located adjacent to the Juniper Homes site and would be accessible from Deodar Street and from a path that would be located on an internal street within the project that is adjacent to the guest parking spaces. In terms of pedestrian/bicycle circulation to improve street and neighborhood connectivity other than via Deodar Street, the applicant is considering an easement access near the proposed carwash area to the Dinah's property should this property be redeveloped.

15% BMR Contribution

The project is required to comply with the City's Below Market Rate (BMR) Program H-36 of the Housing Element of the Comprehensive Plan. The project has a 15% BMR requirement, which for the 45-units proposed equals seven BMR units (45 times 15% equals 6.75 units, which must be rounded up to 7 full units). The standard policy is that BMR units reflect the range of unit types, sizes and models of the market units being constructed. BMR units must also be located throughout the project. There would be 4 three-bedroom units and 3 four bedroom units of various floor plans. Five of the BMR units must be sold at lower moderate income prices and the remaining two BMRs will be sold at the higher moderate income prices.

Parkland Dedication

The project is the first development subject to Palo Alto's Parkland Dedication Ordinance effective in August 2006 and specified in PAMC Chapter 21.50. PAMC 21.50 requires .0050

acres of land for each multiple family dwelling unit. For the proposed 45 detached townhomes, .23 acres or 9,968 square feet of park area would be required. SummerHill Homes proposes to dedicate approximately .48 acres of parkland. This exceeds the parkland dedication requirement and brings the proposed park closer to a 'mini-park' (.5-acre) category, which is the smallest of the city park categories. The park is anticipated to be used by the residents of the adjacent DR Horton residential project as well as this project. It is proposed that the park would be dedicated as parkland, improved with landscaping and play equipment at the expense of the project applicant, and maintained by the project's homeowners association.

Sustainable Planning and Green Building

Sustainable community planning and green building features have been incorporated into the proposed project. A New Home Greenpoints Checklist is included in the project file.

Site Utilities and Stormwater Quality

Storm water and water will be served from Wilkie Way via a public utility easement. Water and fire prevention service will be connected to the main in Deodar Street and loop through the project. A new sanitary sewer main to be constructed in Deodar Street will connect the project to the existing main in El Camino Real.

The project will comply with all C-3 requirements. It is anticipated that the proposed project will *reduce* the amount of impervious surface on the site by more than 50%. Stormwater will be treated using a combination of both biological and mechanical means.

Additional Project Components

Design Enhancement Exceptions are requested for the following aspects of the project:

a. A DEE is proposed for a four-foot setback encroachment of Unit 1 along Deodar Street. The required front setback is 20 feet.
b. A second DEE is proposed for the side setback of Units 18 and 19 where the proposed setback is 16 feet only at a small extent of the facades. The required side setback is 20 feet because the side lot line for these two units is adjacent to R-1 zoned properties.
c. A third DEE is proposed for the minor daylight plane encroachment for Units 15-19, perimeter units within the RM-15 zone. The current zoning requirement for daylight planes in the RM-15 zone is five feet up at the property line and angled over the parcel at 45 degrees.

Proposed new Elks Lodge

As indicated above, only a preliminary application for Architectural Review has been submitted so far and was reviewed by the Architectural Review Board on August 2, 2007. The new Elks Lodge would be situated on a proposed 2.8 acre corner lot abutting El Camino Real and Deodar Street, which is proposed for dedication to the City as a public right-of-way. Pursuant to PAMC 18.04.030(91)(A), the front lot line for the new Elks Lodge parcel would be along Deodar Street since it is shorter in length than the property line along El Camino Real. This orientation is also

consistent with the Palo Alto Elks Residential portion of the project site in that the front lot line for that development would also be along Deodar Street.

The approximate total floor area of the proposed two-story lodge would be 63,250 square feet. The basement parking level does not count towards the allowable floor area limit, and would be 77,400 square feet in size with 221 parking spaces. The proposed on-site landscape features include several outdoor eating/gathering areas, three pools and a small tot lot. There would be 10 grade-level parking spaces near the front entrance to the Elks Lodge complex adjacent to Deodar Street. The new Elks Lodge would provide a more up-to-date community recreational facility for members compared to its existing facility that was originally built in 1941, and was significantly remodeled and expanded in the mid-fifties and again in 1967.

Trees

The new Elks Lodge site would be situated in an area that is currently a paved parking area for the existing Lodge. Therefore, most of the trees that would be impacted as a result of construction of the new Elks Lodge are trees at the periphery of the project site. An Arborist Report prepared for the Elks Lodge development identifies 15 street trees in the project vicinity and four protected trees that are either on the property or are overhanging onto the project site. In all, there would be 14 trees that would be removed to accommodate the proposed new Elks Lodge. Of these trees, only two trees are City-regulated street trees along El Camino Real. According to the Arborist Report, these street trees are small and can easily be replaced. Based on review of the preliminary plans for the Elks Lodge development, the applicant proposes to plant additional street trees. The Arborist has identified mitigations to minimize impacts to the preserved trees.

Parking

According to the traffic report submitted for this project, a detailed parking analysis for the Elks Lodge development is forthcoming once the details of the design have been finalized in a formal application for Architectural Review. The Elks Lodge development will be required to comply with all parking requirements of the Palo Alto Municipal Code.

10. SURROUNDING LAND USES AND SETTING

The project site is bordered to the north and northeast by existing and newly-constructed, unoccupied residential structures; to the south and southeast by an apartment complex, Dinah's Garden Hotel, Dinah's Pool Side Grill and Trader Vic's Restaurant; to the southwest by El Camino Real, and to the west and northwest by vacant land under construction with new residential tracts. In general, the vicinity of the project site consists of residential and commercial properties.

11. OTHER PUBLIC AGENCIES

- County of Santa Clara, Office of the County Clerk-Recorder

12. PROJECT APPROVALS

The proposed project would require the following planning approvals from the City of Palo Alto:

- Architectural Review with Design Enhancement Exceptions for the Palo Alto Elks Residential development and the new Elks Lodge.
- Tentative and Final Map approvals for a two lot subdivision: one parcel would be for the new Elks Lodge site and the other parcel would be for the Palo Alto Elks Residential project.
- Tentative Map and Final Map approvals for the 45-unit townhouse subdivision.

13. DATE PREPARED: August 28, 2007

14. PUBLIC REVIEW PERIOD: August 31, 2007 through September 19, 2007

DISCUSSION OF IMPACTS

The following Environmental Checklist was used to identify environmental impacts, which could occur if the proposed project is implemented. The left-hand column in the checklist lists the source(s) for the answer to each question. The sources cited are identified at the end of the checklist. Discussions of the basis for each answer and a discussion of mitigation measures that are proposed to reduce potential significant impacts are included.

A. AESTHETICS

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially degrade the existing visual character or quality of the site and its surroundings?	1,2,6,13			X	
b) Have a substantial adverse effect on a public view or view corridor?	1, 2-Map L4				X
c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	1, 2-Map L4				X
d) Violate existing Comprehensive Plan policies regarding visual resources?	2				X
e) Create a new source of substantial light or glare which would					

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
adversely affect day or nighttime views in the area?	1,2,6			X	
f) Substantially shadow public open space (other than public streets and adjacent sidewalks) between 9:00 a.m. and 3:00 p.m. from September 21 to March 21?	6			X	

DISCUSSION:

a) The proposed homes would be consistent with the character of the surrounding areas that is developed with multi-family and single-family housing. The project would actually be more consistent with the surrounding uses than the current uses (which includes a fraternal lodge and school/childcare facilities) as configured on the site. The new Elks Lodge has been designed to be situated closer to El Camino Real. The siting of the proposed Lodge is consistent with the City's *South El Camino Real Design Guidelines*. This document mentions that if the Elks Lodge site is redeveloped, new buildings shall be placed along El Camino Real to create a more continuous building frontage, and that parking shall be placed behind buildings or underground. Therefore, the project would actually improve the visual character of the area.

b-d) The City of Palo Alto Comprehensive Plan identifies six throughfares that have particularly high scenic value: Sand Hill Road, University Avenue, Embarcadero Rd., Page Mill Rd./Oregon Expressway, Arastradero Rd. and Foothill Expressway-Juniperro Serra Blvd. The project site can not be seen from any of these six identified thoroughfares. Due to the flat topography of the project site and surrounding area, views of the project site are limited to the existing vicinity. No other scenic resources or vistas are identified in the city.

The California Department of Transportation administers the state's Scenic Highways Program. Interstate 280 (I-280) is the only Designated California Scenic Highway that is closest to the project site. I-280 is approximately two miles from the project site and can not be viewed from the project site. Therefore the project would have no impact on scenic resources.

e) A lighting study was provided by the applicant for the Palo Alto Elks Residential project and is included in the project plans. Pursuant to PAMC 18.23.030, where a light source is measured from outside the property boundaries, such lighting shall not exceed .5 foot-candle as measured at the abutting residential property line. The project is consistent with this requirement in all places except near unit #18 adjacent to the Wilkie Way Homes. The project will be conditioned such that a bollard is placed in this area such that the foot-candle reading is consistent with the Municipal Code. This is not considered a mitigation measure as this is a specific Municipal Code requirement.

A lighting analysis has not been submitted for the Elks Lodge, but this analysis will be required for the formal application submittal. Compliance with PAMC 18.23.030 (which specifies lighting requirements

to minimize impacts on abutting or nearby residential sites and from adjacent roadways) would be required for this project.

For the reasons described above, the proposed project would not have a substantial adverse effect on a scenic vista or views from a designated scenic highway, would not substantially degrade the existing visual character or the quality of the project site and its surroundings, and would not create a new source of substantial light and glare because the project would be required to comply with City Code requirements.

g) There are no public open spaces in the vicinity of the project site other than the future proposed park. The shading impacts will be less than significant based on review of the shading study included in the project plans for the Palo Alto Elks Residential portion of the project.

Mitigation Measures: None

Significance after Mitigation: N/A

B. AGRICULTURAL RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	1,2				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	1,2-MapL9, 9				X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	1				X

DISCUSSION:

a-c) The site is not located in a "Prime Farmland", "Unique Farmland", or "Farmland of Statewide Importance" area, as shown on the maps prepared for the Farmland Mapping and Monitoring Program of the California Resources Agency. The site is not zoned for agricultural use, and is not regulated by the Williamson Act.

Mitigation Measures: None

Significance after Mitigation: None

C. AIR QUALITY

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct with implementation of the applicable air quality plan (1982 Bay Area Air Quality Plan & 2000 Clean Air Plan)?	1,2,8				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation indicated by the following:	1,2,8			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	1,5,8			X	
d) Expose sensitive receptors to substantial levels of toxic air contaminants?	1,2,5,8			X	
e) Create objectionable odors affecting a substantial number of people?	1, 5			X	

DISCUSSION:

a-c) The project site is within the San Francisco Bay Area Air Basin. The Bay Area Air Quality Management District (BAAQMD) is the regional governmental agency that monitors and regulates air pollution within the air basin. Air quality and the amount of a given pollutant in the atmosphere are

determined by the amount of pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determination of transport and dilution are wind, atmospheric stability, terrain and for photochemical pollutants, sun light.

Three pollutants are known to exceed the state and federal standards in the project area: ozone, particulates (PM10), and carbon monoxide. Both ozone and PM10 are considered regional pollutants because their concentrations are not determined by the proximity to individual sources, but show a relative uniformity over a region. Carbon monoxide is considered a local pollutant because elevated concentrations are usually only found near the source (e.g. congested intersections.

Long-Term Air Quality Impacts

BAAQMD has established thresholds for what could be considered a significant impact on existing air quality. A project that generates more than 80 pounds per day of reactive organic gases (ROG) would have a significant impact on regional air quality, according to BAAQMD CEQA guidelines. BAAQMD generally does not consider that a project generating less than 2,000 vehicle trips per day is likely to exceed their adopted thresholds of significance, and does not recommend preparation of a detailed air quality analysis.

The Transportation Impact analysis completed for the proposed project includes data related to traffic generated by the new Elks Lodge and the Palo Alto Elks Residential project. This analysis has determined that no new net trips would be generated as a result of the two projects. For this reason, the proposed project would not result in significant long term air quality impacts and a detailed air quality analysis was not prepared for this project.

Short-term Air Quality Impacts

Project construction has the potential to result in short-term air quality impacts resulting from dust generating activities, the use of solvents, paints and other construction materials that tend to volatize into the atmosphere. Construction-related air quality impacts result from dust generating activities and exhaust emissions from construction equipment. Due to the negligible amount and the short duration of these impacts, all are considered to be less than significant, except for the dust generating construction activities.

Construction activities, such as excavation and grading operations and wind blowing over exposed earth, generate fugitive particulate matter that will affect local and regional air quality. The effects of these dust generating activities will be increased dustfall and locally elevated levels of PM10 downwind of construction activity. Construction dust has the potential for creating a nuisance at nearby properties.

Standard Measures:

The project proposes to implement the following standard measures during all phases of construction to prevent visible dust emissions from leaving the site:

- Water all active construction areas at least twice daily and more often during windy periods to prevent visible dust from leaving the site; active areas adjacent to windy periods, active areas

adjacent to existing land uses shall be kept damp at all times, or shall be treated with non-toxic stabilizers or dust palliatives.

- Cover all trucks hauling soil, sand and other loose materials or require all trucks to maintain at least two (2) feet of freeboard.
- Pave, apply water at least three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (or more often if necessary) to prevent visible dust from leaving the site (preferably with water sweepers) all paved access roads, parking areas, and staging areas at construction sites. Water sweepers shall vacuum excess water to avoid runoff-related impacts to water quality.
- Sweep streets daily, or more often if necessary (preferably with water sweepers) if visible soil material is carried onto adjacent public streets.
- Install wheel washers for all existing trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
- Install wind breaks or plant tree/ vegetative wind breaks at windward side of construction areas. Suspend excavation and grading activities when wind gusts exceed 25 mph.

Therefore, with implementation of the standard measures listed above, the project would not result in a significant air quality impact.

d) Construction activities could expose sensitive receptors to substantial pollutant concentrations. However, with implementation of a dust abatement program described above, this impact would be reduced to less than significant level.

e) As a general matter, the types of land use development that pose potential odor problems include wastewater treatment plants, refineries, landfills, composting facilities and transfer stations. Therefore, the project would not create objectionable odors that would affect a substantial number of people. Also, there are no existing odor sources in the vicinity of the project site that the occupants of the proposed residences would be subjected to.

a-e) Mitigation Measures: None, with the implementation of Standard Measures.

a-e) Significance after Mitigation: N/A

D. BIOLOGICAL RESOURCES

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or	1,2-Map N-1		X		

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?					
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, including federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	1,2-Map N-1				X
c) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	1,2-Map N-1		X		
d) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or as defined by the City of Palo Alto's Tree Preservation Ordinance (Municipal Code Section 8.10)?	1,6,7,11		X		
e) Conflict with any applicable Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	1,2			X	

DISCUSSION:

a-c) The project site is located in an urban area that is developed with a fraternal lodge, a school and other accessory structures. The existing site is highly disturbed and has minimal capacity to support sensitive biological resources, with the exception of a chance for raptors to nest in the wooded area of

the project site where the public park is proposed. The project site is not near any natural resource areas as identified in the Natural Environment Element of the City Comprehensive Plan.

An EIR written for the DR Horton Development has identified these ten types of birds in the area: American Crow, Scrub Jay, lesser goldfinch, yellow-rumped warbler, Anna's hummingbird, bushtit, chestnut-backed chickadee, northern mockingbird, mourning dove and Cooper's hawk. None of the species observed in the project area are listed as special status species and there are no sensitive species in the area. However, as the EIR noted, a Coopers hawk was seen flying over the project site and heading north to a tall tree to the north of the site. The Coopers Hawk is categorized as a state sensitive status species.

Breeding birds are protected under the California Fish and Game Code 3503 and raptors are protected under Section 3503.5. Potential impacts to breeding or nesting birds occurring as a result of demolition and project construction would be minimized to less than significant level with the implementation of the mitigation measure specified below.

Mitigation Measure BIO-1: The project will be required to implement the following mitigation measure to reduce impacts to tree-nesting raptors.

> To the extent practicable, construction activities should be performed or vegetation removed from September through February to avoid the general nesting period of birds. If demolition, construction or vegetation removal can not be performed during this period, pre-demolition and construction surveys should be performed by a qualified biologist no sooner than 14 days prior to demolition and construction activities to locate any active nests prior to the start of demolition/construction and prior to removal of any tree. If active nests are observed, buffer zones will be established around active nesting trees, with a size acceptable to the California Department of Fish and Game. Construction activities shall avoid buffered zones and no tree will be removed until the young have fledged or the nest is otherwise abandoned. This measure will be included in the conditions for project approval.

d) The City of Palo Alto has established Tree Preservation and Management Regulations, included as PAMC Chapter 18.10, to provide 'standards for removal, maintenance, and planting of trees." PAMC section 8.10.020(j) defines a protected tree as:

a. Any tree of the species *Quercus agrifolia* (Coast Live Oak) or *Quercus lobata* (Valley Oak) which is eleven and one-half inches in diameter (thirty-six inches in circumference) or more when measured four and one-half feet (fifty-four inches) above natural grade;
b. Any Redwood tree (species *Sequoia sempervirens*) that is eighteen inches in diameter (fifty-seven inches in circumference) or more when measured four and one-half feet (fifty-four inches) above natural grade.
c. A heritage tree designated by the city council in accordance with the provisions of this chapter.

A tree survey identified 68 trees of fifteen various species on the Palo Alto Elks Residential portion of the project site; 28 trees are defined as protected according to the City of Palo Alto. Of these 28 trees, 4 trees are protected redwood trees that are proposed for removal. These 4 trees are generally near the second entrance to the project from Deodar Street. A Tree Removal Permit must be obtained from the

City prior to removal of the protected trees. The granting of this Tree Removal Permit is supportable given the design constraints of the project and the number of remaining protected trees. The applicant also proposes to plant many trees throughout the project site which the City Arborist has determined to be sufficient in mitigating the loss of the trees to be removed.

The proposed project has the potential to cause decline to 13 trees as identified in Section 4.2 of the Tree Protection Plan prepared by David L. Babby RCA. The tree survey identifies mitigation measures that shall be incorporated in the plans to reduce the potential impact on retained protected trees to a less than significant level. Most all of the protected trees are in the proposed park area where new homes, utility and other park improvements are proposed. These mitigation measures specified below will be incorporated as conditions of project approval and will mitigate impacts to existing trees on the property to less than significant impacts.

The new Elks Lodge site would be situated in an area that is currently a paved parking area for the existing Lodge. Therefore, most of the trees that would be impacted as a result of construction of the new Elks Lodge are ones on the periphery of the project site. An Arborist Report prepared for the Elks Lodge development identifies 15 street trees in the project vicinity and four protected trees that are either on the property or are overhanging onto the project site. In all, there would be 14 trees that would be removed to accommodate the proposed new Elks Lodge. Of these trees, only two trees are City-regulated street trees along El Camino Real. According to the Arborist Report, these street trees are small and can easily be replaced.

Four trees that are on the neighboring property to the south would most potentially be significantly impacted. Two of these trees are Coast Redwoods that are considered 'protected trees' in the City of Palo Alto. The Arborist Report prepared for the Elks Lodge development identifies several measures to mitigate impacts and achieve reasonable tree survival and stability of these trees. These measures as well as the design guidelines contained in the Arborist Report are included below as mitigation measures.

Mitigation Measure BIO-2:

For the Palo Alto Elks Residential portion of the project:
To the extent possible, the project shall comply with all Design Guidelines 6.1 and 6.2 Protection Measures of 'A Tree Protection Plan for the Elks Residential Development,' by David Babby, June 20, 2007. Compliance with the tree protection measures would result in the project having a less than significant impact on the retained protected trees.

For the Elks Lodge Development:
The project shall comply with all guidelines stated in Section 4.2 and Section 7.0 Tree Protection Guidelines of 'A Tree Protection Plan for the New Elks Lodge,' by David Babby, August 24, 2007.

Significance after Mitigation: With implementation of the above mitigation with respect to trees and nesting birds, the impacts of the proposed project would be less than significant.

E. CULTURAL RESOURCES

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly destroy a local cultural resource that is recognized by City Council resolution?					X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	1,2-Map L-8				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	1,2-MapL8				X
d) Disturb any human remains, including those interred outside of formal cemeteries?	1,2-Map L-8			X	
e) Adversely affect a historic resource listed or eligible for listing on the National and/or California Register, or listed on the City's Historic Inventory?	1,2-Map L-7				X
f) Eliminate important examples of major periods of California history or prehistory?	1				X

DISCUSSION:

a) There are no City Council recognized cultural resources or in the project site.

b – d) and f) The project site is located in an area designated by the Comprehensive Plan as a moderately sensitive area for archaeological resources. The following standard measures will be applied to the project to reduce impacts to archaeological resources.

Standard Measures:

- Should evidence of prehistoric cultural resources be discovered during demolition and construction, work within 50 feet of the find shall be stopped to allow adequate time for evaluation and mitigation by a qualified professional archaeologist. The material shall be evaluated and if significant, a mitigation program including collection and analysis of the materials at a recognized storage facility shall be developed and implemented under the direction of the City's Director of Planning and Community Environment.

- As required by County Ordinance, in the event of the discovery of human remains during demolition/construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendents of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to state law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

e) The existing structures on the project site are not listed in any City, State or National Historic lists.

Mitigation Measures: None required if standard measures are followed.

Significance after Mitigation: N/A

F. GEOLOGY, SOILS AND SEISMICITY

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	See below			X	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	5,9,12			X	
ii) Strong seismic ground shaking?	2-Map N-10			X	
iii) Seismic-related ground failure, including liquefaction?	2-Map N-5			X	
iv) Landslides?	2-				X

	MapN5				
b) Result in substantial soil erosion or the loss of topsoil?	1,12			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	2-Map N-5, 5			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	2-Map N-5, 4, 5			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	5, 12				X
f) Expose people or property to major geologic hazards that cannot be mitigated through the use of standard engineering design and seismic safety techniques?	5, 12			X	

DISCUSSION:

a-f):

Topography, Soil and Groundwater

The topography of the site is relatively flat. Site elevations range from 50 to 56 feet above mean sea level sloping to the northeast. Subsurface soils at the project site include layers of silty sand and sandy silt in the uppermost 14.5 to 20 feet bgs (below ground surface), with layers of clayey and sandy silt, clayey, silty and gravelly sand, silty clay and sand to depths of 23 to 28 feet bgs. Native soils in the vicinity typically consist of clay loam with a soil component name of Botella.

The project site lies in the Santa Clara Valley Groundwater Basin within the Santa Clara Sub-basin (California Department of Water Resources website). Groundwater bearing formations in the vicinity of the project site consist of Quarternary alluvium. Groundwater was encountered during a subsurface investigation at the depth of 20 to 27 feet bgs. The estimated direction of shallow groundwater flow in the site vicinity is northeast. The project site is located in an area with a historic ground subsidence of 2 feet.

Seismicity

Palo Alto is located in a very geologically active part of the world. The San Andreas Fault passes through the community. The fault is capable of producing a quake with a magnitude 8.4 earthquake. The project site is situated in an area characterized by strong ground shaking. However, the site is not located in an Alquist-Priolo Special Study zone.

Liquefaction

Liquefaction is a seismic hazard in which soils are temporary transformed into a liquid state during the stress of an earthquake. Soils most susceptible to liquefaction are clean, loose, saturated and uniformly graded, fine grained sands. The main constituent of on-site soil is clay. The project site is not located within a liquefaction hazard zone.

Lateral Spreading

Lateral spreading is the horizontal displacement of soil during a seismic event towards an open face such as a body of water, channel or excavation. There are no open faces near the project site. For this reason, the probability of lateral spreading occurring on the project site during a seismic event is considered to be low.

Due to its location within a seismically active region, the proposed would likely be subject to at least one moderate to major earthquake. The project would be designed and constructed in conformance with the Uniform Building Code Guidelines for Seismic Zone 4 to avoid minimize potential damage from seismic shaking on the site. Conformance with standard Uniform Building Code Guidelines would minimize potential impacts seismic shaking on the site.

a-f) Mitigation Measures: None

Significance after Mitigation: None

G. HAZARDS AND HAZARDOUS MATERIALS

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routing transport, use, or disposal of hazardous materials?	5			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	5			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	2,5				X
d) Construct a school on a property that is subject to hazards from hazardous materials contamination, emissions or accidental release?	1				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	5				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	1				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people	1				X

residing or working the project area?					
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	1,2-MapN7				X
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	2-MapN7				X
j) Create a significant hazard to the public or the environment from existing hazardous materials contamination by exposing future occupants or users of the site to contamination in excess of soil and ground water cleanup goals developed for the site?	5			X	

DISCUSSION:

a – d) Based upon historical research conducted by LFR in its Phase 1 Environmental Analysis of the project site, the site was used as farmland prior to being developed with the current structures. Various improvements and building additions have occurred throughout the years at the Site. In 1996, the Elks Lodge leased a portion of the parking lot to a cell tower company for construction of a monopole. In 1997, the Elks leased the northeast portion of the site to a private school. The school address is 4251 El Camino Real and modular buildings were used to create the school buildings.

The main Elks Lodge facility includes an indoor swimming pool, a pistol range, a ballroom, a lodge, a large gym, bar and lounge, a billiard room and miscellaneous offices and restrooms. LFR observed small quantities of chemicals used in the pools and maintenance of the building. No evidence of staining or discoloration was observed during LFR's visit. An RV dump station is connected to the sanitary sewer line, which is located at the entrance to the existing picnic area.

The site is not listed on any regulatory agency databases and there are no environmental liens against the property. There are no public schools and no known private schools within a quarter mile of the project site.

Potential ACM were observed throughout the interior of the main building. Based on the age of the structures, lead-based paint was likely used on the interior and exterior painted surfaces. LFR recommends preparation of a complete demolition survey to assess for ACM's and LBP prior to demolition and disposal.

Off-site findings:
The property located northwest of the site was formerly Hyatt Ricky's. This facility was listed as a LUST facility, however, the facility received closure from the lead agency in 2004. Based upon the current regulatory status and presumed downgradient position with respect to groundwater flow, this facility is unlikely to present an environmental concern for the site. As standard procedure, LFR recommends complete removal of the residual material from the former pistol range area, including any spent bullets. LFR also recommends that all small quantities of chemicals be removed and disposed of in accordance with applicable laws prior to demolition of facility.

The project will be required to follow the standard measures listed below to reduce impacts related to ACMs and lead based paint:

Standard Measures:

1. In conformance with State and Local laws, visual inspection/pre-demolition survey, and possible sampling will be constructed prior to the demolition of the building to determine the presence of asbestos-containing materials and/or lead-based paint.
2. All Potentially friable asbestos-containing materials shall be removed in accordance with National Emission Standards for Hazardous Air pollutants (NESHAP) guidelines prior to building demolition or renovation that may disturb materials.
3. All demolition activities will be undertaken in accordance with Cal/OSHA standards contained in Title 8 of the California Code of Regulations (CCR), Section 1529, to protect workers from exposure to asbestos. Materials containing more than one percent asbestos are also subject to BAAQMD regulations.
4. During demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Construction Standard, Title 8, California Code of Regulations 1532.1, including employees training, employee air monitoring and dust control. Any debris or soil containing lead-based paint or coatings will be disposed at landfills that meet acceptance criteria for the waste being disposed.

g) The project is not in the vicinity of a private air strip.
h) The project is approximately 200 feet from El Camino Real which is an evacuation route identified in the City's Comprehensive Plan. The proposed project would not interfere with this evacuation route.

Mitigation Measures: None required if standard measures are followed.

Significance after Mitigation: N/A

H. HYDROLOGY AND WATER QUALITY

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	1,2,12			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	2-MapN2			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	1,12			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	1,12			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	1, 12			X	
f) Otherwise substantially degrade water quality?	1, 12			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or					X

	Flood Insurance Rate Map or other flood hazard delineation map?	1				
h)	Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	2-MapN6				X
i)	Expose people or structures to a significant risk of loss, injury or death involve flooding, including flooding as a result of the failure of a levee or dam or being located within a 100-year flood hazard area?	2-MapN6 N8				X
j)	Inundation by seiche, tsunami, or mudflow?	2-MapN6 N8				X
k)	Result in stream bank instability?	1				X

DISCUSSION:

a – f) The applicants have submitted a conceptual site grading and drainage plan for both the Palo Alto Elks Residential Project in its formal application and the new Elks Lodge in its preliminary application. In order to address potential storm water quality impacts, the plans identify the Best Management Practices (BMP's) to be incorporated into the Storm Water Pollution Prevention Plan (SWPPP) that will be required for the project. The SWPPP is required to include permanent BMP's to be incorporated into the project to protect storm water quality. The elements of the PWE-approved conceptual grading and drainage plan shall be incorporated into the building permit plans.

Prior to submittal for a building permit, the following items will be required of the applicants. These are standard conditions to be incorporated in the conditions of approval for both the Palo Alto Elks Residential Project and the new Elks Lodge.

Standard Measures:

1. A Grading and Excavation Permit issued by the City of Palo Alto (CPA) Building Inspection Division is required for the proposed project.
2. The applicant may be required to provide storm water detention on-site to lessen the project's impact on city storm drains. The applicant's engineer shall provide storm drain flow and detention calculations, including pre-project and post-project conditions. The calculations must be signed and stamped by a registered civil engineer
3. The applicant shall submit a final grading and drainage plan to Public Works Engineering. This plan shall show spot elevations or contours of the site and demonstrate the proper conveyance of storm water to the nearest adequate municipal storm drainage system. Existing drainage patterns, including accommodation of runoff from adjacent properties, shall be maintained.
4. The proposed development will result in a change in the impervious area of the property. The applicant shall provide calculations showing the adjusted impervious area with the building permit application. A Storm Drainage Fee adjustment on the applicant's monthly City utility bill will take place in the month following the final approval of the construction by the Building Inspection Division. The impervious area calculation sheets and instructions are available from

Public Works Engineering.

5. A construction logistics plan shall be provided, addressing at minimum parking, truck routes and staging, materials storage, and the provision of pedestrian and vehicular traffic adjacent to the construction site. All truck routes shall conform with the City of Palo Alto's Trucks and Truck Route Ordinance, Chapter 10.48, and the route map which outlines truck routes available throughout the City of Palo Alto. A handout describing these and other requirements for a construction logistics plan is available from Public Works Engineering.
6. A detailed site-specific soil report prepared by a licensed soils or geo-technical engineer must be submitted which includes information on water table and basement construction issues. This report shall identify the current groundwater level, if encountered, and by using this and other available information, as well as professional experience, the engineer shall estimate the highest projected ground-water level likely to be encountered in the future. If the proposed basement is reasonably above the projected highest water level, then the basement can be constructed in a conventional manner with a subsurface perimeter drainage system to relieve hydrostatic pressure. If not, measures must be undertaken to render the basement waterproof and able to withstand all projected hydrostatic and soil pressures. No pumping of ground water is allowed. In general, however, Public Works Engineering recommends that structures be constructed in such a way that they do not penetrate existing or projected ground water levels.
7. This proposed development will disturb more than one acre of land. The applicant must apply for coverage under the State Water Resources Control Board's (SWRCB) NPDES general permit for storm water discharge associated with construction activity. A Notice of Intent (NOI) must be filed for this project with the SWRCB in order to obtain coverage under the permit. The General Permit requires the applicant to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). The applicant is required to submit two copies of the NOI and the draft SWPPP to the Public Works Department for review and approval prior to issuance of the building permit. The SWPPP should include both permanent, post-development project design features and temporary measures employed during construction to control storm water pollution. Specific Best Management Practices (BMP's) which apply to the work should be incorporated into the design.
8. The applicant is required to paint the "No Dumping/Flows to Barron Creek" logo in blue color on a white background, adjacent to all storm drain inlets. Stencils of the logo are available from the Public Works Environmental Compliance Division, which may be contacted at (650) 329-2598. A deposit may be required to secure the return of the stencil. Include the instruction to paint the logos on the construction grading and drainage plan. Include maintenance of these logos in the Hazardous Materials Management Plan, if such a plan is part of this project.

DURING CONSTRUCTION the applicant will be required to comply with the following measures:

9. The contractor must contact the CPA Public Works Inspector at (650) 496-6929 prior to any work performed in the public right-of-way.
10. No storage of construction materials is permitted in the street or on the sidewalk without prior approval of Public Works Engineering.
11. The developer shall require its contractor to incorporate best management practices (BMP's) for stormwater pollution prevention in all construction operations, in conformance with the Storm Water Pollution Prevention Plan prepared for the project. It is unlawful to discharge any

construction debris (soil, asphalt, sawcut slurry, paint, chemicals, etc.) or other waste materials into gutters or storm drains. (PAMC Chapter 16.09).

g-k) Based on the FEMA flood insurance maps for the City of Palo Alto, the project site is not located within a 100-year flood plain. For this reason, the project would have no impact on 100 year flows and would not expose people to flood hazards associated with the 100-year flood. The site is not subject to seiche or tsunami or flooding as the result of dam or levee failure.

a-k) Mitigation Measures: None required with implementation of standard measures.

Significance after Mitigation: N/A

I. LAND USE AND PLANNING

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	1,2				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	1,2			X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	1,2				X
d) Substantially adversely change the type or intensity of existing or planned land use in the area?	1.2			X	
e) Be incompatible with adjacent land uses or with the general character of the surrounding area, including density and building height?	1,2			X	
f) Conflict with established residential, recreational, educational, religious, or scientific uses of an area?	1			X	
g) Convert prime farmland, unique farmland, or farmland of statewide importance (farmland) to non-agricultural use?	2				X

DISCUSSION:

a-g) The project site is located in an urban area developed with commercial and residential uses. Existing development on the 3.9 acre project site includes an approximately 65,000 square foot Elks Lodge Building with a basement fitness center/pool level, an approximately 15,000 square foot school/childcare center in separate modular buildings and an enclosed picnic area and outdoor Olympic sized pool area.

The project site is bordered to the north and northeast by existing and newly-constructed unoccupied residential structures; to the south and southeast by an apartment complex, Dinah's Garden Hotel, Dinah's Pool Side Grill and Trader Vic's Restaurant; to the southwest by El Camino Real and followed by Sky Ranch Motel and to the west and northwest by vacant land under construction with new residential tract. In general, the vicinity of the project site consists of residential and commercial properties. The proposed multi-family development is consistent with the Comprehensive Plan land use designation of Multiple Family Residential. The project complies with all zoning regulations with the exception of requested Design Enhancement Exceptions (DEE) with respect to: A DEE is proposed for a four-foot setback encroachment of Unit 1 along Deodar Street. The required front setback is 20 feet. A second DEE is proposed for the side setback of Units 18 and 19 where the proposed setback is 16 feet only at a small extent of the facades. The required side setback is 20 feet because the side lot line for these two units is adjacent to R-1 zoned properties. A third DEE is proposed for the minor daylight plane encroachment for Units 15-19, perimeter units within the RM-15 zone. The current zoning requirement for daylight planes in the RM-15 zone is five feet up at the property line and angled over the parcel at 45 degrees. The requested DEEs are minor in scope and would not have any significant impacts on privacy or access to light on adjacent properties.

With respect to the new Elks Lodge, the RM-30 portion of the project site was the subject of a rezoning that occurred in 1989. The RM-15 portion of the project site was not amended in 1989. However, the portion of the project site that is now in the RM-30 zone was originally zoned CS (Service Commercial) and was rezoned to the current designation in 1989. The ordinance rezoning this portion of the project site essentially specifies that the Elks Lodge is a grandfathered use. Therefore, the new Elks Lodge, which is a continuation of the existing grandfathered use, would not be subject to a Conditional Use Permit.

This project site (8.08 acres including the Juniper Homes Development) is listed in the Housing Sites Inventory of the Comprehensive Plan as one of 16 potential housing sites most suitable for residential purposes. The targeted number of homes for this project site, as noted in the Housing Site Inventory of the Housing Element, is a minimum of 97 dwelling units. A total of 50 residential units are proposed in the Palo Alto Elks Residential development and the Juniper Homes development. This means that there would be a loss of 47 potential housing units. However, this loss has been balanced by other housing development projects that have been approved on sites listed in the Inventory and at other locations not on this list.

A Design Enhancement Exception has also been requested as reviewed in the preliminary application for the new Elks Lodge. The maximum height allowed for structures in the RM-30 zone is 35 feet. The proposed Elks Lodge has a maximum height of 40 feet. However, this maximum height is only at certain

portions of the building elevation and is therefore very minor in scope. Additional DEEs may or may not be requested during the formal review stage. Such additional DEEs, if requested for the new Elks Lodge, would be evaluated in a separate environmental assessment during the formal application review stage for the Elks Lodge.

The project site is not located in an area that is protected by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state conservation plan.

The proposed project does not include any features that would physically divide an established community. Examples of projects that have the potential to physically divide an established community include new major roadways or railroad lines.

Mitigation Measures: None

Significance after Mitigation: None

J. MINERAL RESOURCES

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	1,2				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	1,2				X

DISCUSSION:

The project will not impact known mineral or locally important mineral resources.

Mitigation Measures: None

Significance after Mitigation: None

K. NOISE

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	1,2,10			X	
b) Exposure of persons to or generation of excessive ground borne vibrations or ground borne noise levels?	1,2			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	1,2,10			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	1,2,10			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, would the project expose people residing or working in the project area to excessive noise levels?	1				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	1				X

DISCUSSION:

a-f) The Natural Environment Element of the City's Comprehensive Plan identifies noise and land use compatibility standards for various land uses. The City's goal is to: (1) Locate new land uses and development projects in areas with compatible noise levels, (2) Minimize the noise created by new development and its impact on existing land uses, and (3) minimize disturbances within the City due to excessive noise. Furthermore, new multi-family housing in California is subject to the environmental noise limits in Appendix Chapter 1208A.8.4 of the California Building Code. The noise limit is a maximum interior noise level of 45 dBA DNL (which stands for Day-Night Level and is a 24-hour average of noise levels, with a 10dB penalty applied to noise occurring between 10:00 p.m. and 7:00 a.m.). Where exterior noise levels exceed 60 dBA DNL, a report must be submitted describing the noise

control measures that have been incorporated into the design of the project to met the 45 dBA DNL limit.

The local noise environment results primarily from vehicular traffic on El Camino Real and West Charleston Road. Local traffic on Wilkie Way also contributes to measured noise levels away from West Charleston Road. In addition, the sound of train horns from the CalTrain corridor which is approximately one-half mile away are intermittently audible. Based on the Hyatt Ricky's Hotel and Residential Project Draft EIR, the estimated noise exposure at the El Camino Real street frontage (60 feet from the centerline of the road) is 67 to 69 dBA DNL. Based on this EIR, the noise levels along Wilkie Way (measured at 25 feet from the centerline of Wilkie Way was 61 dBA DNL. Given that the proposed SummerHill Homes development would be located approximately 300 feet from El Camino Real and approximately 200 feet from Wilkie Way, it is anticipated the average noise levels would be below the 60 dBA DNL range. The proposed project includes a public outdoor park area. The shielding provided by the proposed residential homes on Wilkie Way would reduce outdoor noise levels in the common outdoor use area.

The future development of the Elks Lodge and its noise impacts on this project development will be evaluated in a separate environmental assessment. Nonetheless, compliance with the City's Noise Ordinance would be required for the new Elks Lodge development.

As described in the Transportation section of this report, the project would not result in any net new trips on the roadways. Typically, traffic volumes on a roadway must double to result in a substantial noise increase. Roadway volumes in the project area would not double as a result of the proposed project. Therefore, traffic generated by the proposed project would not result in a significant noise impact.

Typically, small residential project do not generate significant noise impacts when standard construction noise control measures are enforced at the project site and when the duration of the noise generating demolition and construction period. The demolition of the existing Elks Lodge and accessory structures is estimated to last approximately one and one-half months. It has not been specified at this time when the construction of the new Elks Lodge would commence. The construction of the proposed townhomes is anticipated to last a total of 18 months. Construction noises associated with projects of this type are disturbances necessary for the construction or repair of buildings and structures in urban areas. Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction materials is necessary to avoid significant noise impacts. City development standards would reduce potential negative impacts of the project to less than significant.

The project site is not in the vicinity of a private air strip.

Standard Measure:

As a standard measure, prior to issuance of building permits, the project developer for the Palo Alto Elks Residential development shall retain a qualified acoustical consultant to check the building plans for all units to ensure that interior noise levels can be sufficiently attenuated to 45 DNL to the satisfaction of the City Building Official. All aspects of the project are required to be in compliance with the City's Noise Ordinance.

Mitigation Measures: None required with implementation of standard measures.

Significance after Mitigation: N/A

L. POPULATION AND HOUSING

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	1,2,8			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	1				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	1				X

DISCUSSION: According to the Comprehensive Plan, in 1996, the population in Palo Alto's sphere of influence was 58,000 people. The population is projected to increase to 62,880 by 2010. The proposed residential portion of the project would add 45 units to the housing stock and would cumulatively contribute to increased population in the area. The average household size in Palo Alto is 2.24 persons, which would mean the project, with 45 dwelling units, could generate an average of 101 more people.

The project's cumulative impacts for the purposes of CEQA are also considered less than significant, as the population impact from the project alone is not considerable. City development standards, development fees and standard conditions of project approval reduce potential negative impacts of the project to less than significant.

Mitigation Measures: None

Significance after Mitigation: N/A

M. PUBLIC SERVICES

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
Fire protection?	12			X	
Police protection?	12			X	
Schools?	1			X	
Parks?	1,2			X	
Other public facilities?	1,2			X	

DISCUSSION:

Fire: The project would not increase the urban area protected by the City's Fire Department or require new facilities. Development allowed in the proposed project would be constructed in conformance with current fire and building codes. The project design would also be reviewed by the City's Fire Department.

Police Service: The project would not increase the urban area protected by the City's Police forces or require new police facilities. The project design would be reviewed by the City of Palo Alto Police department to ensure that it incorporates appropriate safety measures to minimize criminal activity. The City's police department has reviewed and approved the proposed public park design and lighting.

Schools: The project site is located within the boundary of the Palo Alto Unified School District (PAUSD). Students from the project development would attend Juana Briones Elementary School, Terman Middle School and Gunn High School.

Using the PAUSD student generation rates: 5 students would be generated from the proposed 7 below market rate units (7 units at a ratio of .70 children per unit), and approximately 35 students from the remaining 38 detached townhouse residences (at a rate of .90 students per unit), for a project total of approximately 40 additional students. Current enrollment in PAUSD is already beyond capacity. PAUSD has already been informed by City Staff of the proposed Palo Alto Elks Residential development and the adjacent Juniper Homes development of five single family homes, and will include the new student figures in its district-wide enrollment forecasts. The California appellate court has determined that overcrowding is not considered a significant effect under CEQA [*Goleta Union School District v. The Regents of the University of California*, 35 Cal. App. 4th 1121 (1995)]. Rather, the increase in students from a project is only significant if such a school would create any environmental impacts. School impact fees are applicable to the Palo Alto Elks Residential portion of the project.

Parks and Public Facilities: The City of Palo Alto's Parkland Dedication Ordinance (PAMC Chapter 21.50) requires residential developers to dedicate public park land or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. The acreage of parkland/ fee required is based on a formula specified in PAMC Chapter 21.50. The project developer has chosen to dedicate parkland for public use. According to the formula contained in PAMC chapter 21.50, the applicant is required to dedicate approximately .23 acres. The proposed project more than satisfies this requirement by providing approximately .48 acres.

Standard Measure: The project will be required to comply with PAMC Chapter 21.50

Libraries: The incremental increase in demand upon library services that would result from the proposed project will not trigger the need to construct a new library and would not result in a significant impact to library facilities.

Mitigation Measures: Implementation of the standard measure would result in less than significant impacts.

Significance after Mitigation: N/A

N. RECREATION

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	1,3,6,12			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	1,3,6,12			X	

DISCUSSION: There would not be a significant change in the demand of existing recreational services as a result of the proposed project. The Elks Residential portion of the project proposes a new park that would be dedicated for public use to serve the nearby residents. Its proposed size at .48 acres is similar to a mini-park as defined in the City Code, which is .5 acres in size. The new Elks Lodge would have primarily recreational uses. However, the existing Elks Lodge and the new Elks Lodge have similar square footages and types of recreational uses such that it is expected that there would not be adverse impacts on the environment.

Mitigation Measures: None

Significance after Mitigation: None

O. TRANSPORTATION AND TRAFFIC

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial	8				

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				X	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	8			X	
c) Result in change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	8			X	
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	8			X	
e) Result in inadequate emergency access?	8				X
f) Result in inadequate parking capacity?	8			X	
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., pedestrian, transit & bicycle facilities)?	8			X	
h) Cause a local (City of Palo Alto) intersection to deteriorate below Level of Service (LOS) D and cause an increase in the average stopped delay for the critical movements by four seconds or more and the critical volume/capacity ratio (V/C) value to increase by 0.01 or more?	8			X	
i) Cause a local intersection already operating at LOS E or F to deteriorate in the average stopped delay for the critical movements by four seconds or more?	8			X	
j) Cause a regional intersection to					

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
deteriorate from an LOS E or better to LOS F or cause critical movement delay at such an intersection already operating at LOS F to increase by four seconds or more and the critical V/C value to increase by 0.01 or more?	8			X	
k) Cause a freeway segment to operate at LOS F or contribute traffic in excess of 1% of segment capacity to a freeway segment already operating at LOS F?	8			X	
l) Cause any change in traffic that would increase the Traffic Infusion on Residential Environment (TIRE) index by 0.1 or more?	8			X	
m) Cause queuing impacts based on a comparative analysis between the design queue length and the available queue storage capacity? Queuing impacts include, but are not limited to, spillback queues at project access locations; queues at turn lanes at intersections that block through traffic; queues at lane drops; queues at one intersection that extend back to impact other intersections, and spillback queues on ramps.	8		X		
n) Impede the development or function of planned pedestrian or bicycle facilities?	8			X	
o) Impede the operation of a transit system as a result of congestion?	8			X	
p) Create an operational safety hazard?	8			X	

DISCUSSION:

a-p) The existing Elks Lodge facility, including the fitness and recreation center and the 230 student school facility (which is no longer at the site as of April 2007) was estimated to generate 2,323 daily trips, 220 AM peak-hour trips, and 310 PM peak hour trips. Traffic impacts of both the future Elks Lodge and the Palo Alto Elks Residential project were evaluated in the Fehr and Peers traffic analysis.

The proposed project, including the reconstructed Elks Lodge with recreation and fitness facilities for Elks members, and the construction of 45 primarily detached residential units, is estimated to generate 349 fewer daily trips, 126 fewer AM peak-hour trips, and 85 fewer PM peak hour trips. The trip reduction is due to the removal of the 230 student school/child development facility that will not be part of the project. The project proposes a southbound left turn pocket on El Camino Real to access Deodar Street. The applicant for the Palo Alto Elks Residential portion of the project will be seeking the necessary permits from the California Department of Transportation for the proposed modification to El Camino Real.

Intersection Level of Service Analysis

Intersection operations were evaluated at eight study intersections with level of service calculations during the weekday morning (AM) and evening (PM) peak periods for Existing, Background, Project, Cumulative (2015) No Project conditions and Cumulative (2015) Plus Project conditions. All intersections are projected to operate at improved levels of service under the project scenarios compared with the Existing, Background, or Cumulative Conditions for both the AM and PM peak-hours. Thus, no significant impacts were identified.

Project Roadway Analysis

Based on the proposed trip assignment on the project driveways, a southbound left turn pocket of 175 feet is recommended to accommodate inbound vehicles. No significant queues are projected on Deodar Street. However, the Fehr and Peers traffic analysis recommends that this intersection be monitored as described below in Mitigation Measure TRAN-1. The on-site circulation is considered acceptable with the addition of three items at the future Elks Lodge site, as noted in the Fehr and Peers traffic analysis. These requirements have been included as mitigation measures under Mitigation Measure TRAN-2.

Mitigation Measure TRAN-1:

The El Camino Deodar Street intersection shall be monitored to ensure that adequate gaps are provided. The intersection could be modified to prohibit left-turns out and/or traffic signal installation could be considered if the available gaps do not accommodate the turning movement volumes.

Mitigation Measure TRAN-2:

To bring on-site circulation to acceptable standards, the following items shall be implemented in the project:

a. Stop signs along the north-south circulation aisle at the underground garage ramp for the Elks Lodge parking lot.
b. Crosswalk at the throat of the garage access, near the Elks Club drop-off area.
c. "Exit Only" or "Do Not Enter" signs at the intersection of the drop-off area and garage driveway.

Bicycle and Pedestrian Analysis

The project is expected to have a less than significant impact to the pedestrian, bicycle, and transit facilities since adequate pedestrian facilities are provided. The proposed project does not conflict with existing or planned bicycle and pedestrian facilities, and existing transit service is provided within one-

quarter mile of the project site. The Elks Lodge facility will be required to provide the necessary bicycle parking facilities specified in the City Code.

Parking Analysis

On site parking for the Elks Residential portion of the project meets the parking requirements specified in PAMC Chapter 18.83. Parking estimates for the Elks Lodge are on-going and will be evaluated in a more specific environmental assessment for the new Elks Lodge. However, the Elks Lodge facility will be required to provide all required parking spaces on-site based on the uses of the lodge.

Mitigation: None required.

Significance after Mitigation: N/A

P. UTILITIES AND SERVICE SYSTEMS

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	1,2,12			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	1,2,12			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	1,2,12			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	1,2,12			X	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate				X	

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
capacity to serve the project's projected demand in addition to the provider's existing commitments?	12				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	1			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?	1			X	
h) Result in a substantial physical deterioration of a public facility due to increased use as a result of the project?	12			X	

DISCUSSION:

a-h) The proposed project would not significantly increase the demand on existing utilities and service systems, or use resources in a wasteful manner. As standard conditions of approval, the applicants for both developments in the project will be required to submit calculations by a registered civil engineer to show that on-site and off-site water, sewer and fire systems are capable of serving the needs of the development and adjacent properties during peak flow demands. Trash and recycling facilities are proposed in the project to accommodate the expected waste and recycling streams that would be generated by the expected uses within the building.

Mitigation Measures: None

Significance after Mitigation: N/A

Q. MANDATORY FINDINGS OF SIGNIFICANCE

Issues and Supporting Information Resources Would the project:	Sources	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	1,2,7		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	1,2,10			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	1,4			X	

DISCUSSION:

a) Based on the analysis conducted in this Initial Study, the project does not have the potential to substantially reduce the habitat of a fish or cause a fish or wildlife population to drop below self-sustaining levels, or reduce the number or restrict the range of a rare or endangered plant or animal. However, the project does have the potential to impact nesting birds and trees on the site as a result of demolition and construction activities. With the implementation of the mitigation measures included in

the project and described in the specific sections of this report, the proposed project would result in less than significant environmental impacts.

b) With the implementation of mitigation and standard measures identified in this environmental document, the proposed project would have no cumulatively considerable impacts. The project has been analyzed with respect to demolition and traffic impacts of the proposed project which includes the Palo Alto Elks Residential development and has taken into consideration potential impacts of the new Elks Lodge for which a formal application has not yet been submitted. Any specific potential impacts with respect to parking, lighting and noise impacts created by the new Elks Lodge would be analyzed further based on review of the formal application for the Lodge, which has not yet been submitted.

c) The potential effects of the proposed project on human beings have been analyzed in this document. The proposed project will not cause substantial adverse effects on human beings, either directly or indirectly, upon implementation of standard measures identified in this report and as will be incorporated in the project conditions of approval.

SOURCE REFERENCES

1. Project Planner's knowledge of the site and the proposed project.
2. Palo Alto Comprehensive Plan, 1998-2010.
3. Palo Alto Municipal Code, Title 18 – Zoning Ordinance.
4. Required compliance with the Uniform Building Code (UBC) Standards for Seismic Safety and Windload.
5. *LFR Phase I Environmental Site Assessment Report and Limited Phase II Investigation, Palo Alto Elks Lodge,* December 21, 2006.
6. Project Plans for Palo Alto Elks Residential (Architectural Review Application 07PLN-00168 - plans submitted August 7, 2007), 2-lot Tentative Map (Application 07PLN-00140 – plans submitted July 26, 2007) and for the Elks Lodge (Preliminary Architectural Review Application 07PLN-00176 – plans submitted July 24, 2007).
7. *A Tree Protection Plan for the Elks Residential Development,* David L. Babby, RCA, June 20, 2007 and *A Tree Protection Plan for the New Elks Lodge,* David L. Babby, RCA, August 24, 2007.
8. *Final Transportation Impact Analysis,* Fehr & Peers, August 2007.
9. Alquist-Priolo Earthquake Fault Zoning Map.
10. *Draft Environmental Impact Report for the Hyatt Rickey's Hotel and Residential Project*, prepared by the City of Palo Alto and Wagstaff and Associates, March 2002.
11. *Palo Alto Tree Technical Manual*, Municipal Code Chapter 8.10.030, June 2001.
12. Departmental communication/memos from Fire, Utilities, Public Works, Police, Planning Arborist, Real Estate, Community Services that address environmental issues.
13. *South El Camino Real Design Guidelines*, June 2002, prepared by Van Meter Williams Pollack and Kendall Planning Design.

ATTACHMENTS

1. *A Tree Protection Plan for the Elks Residential Development,* David l. Babby, RCA, June 20, 2007 *and A Tree Protection Plan for the New Elks Lodge,* David L. Babby, RCA, August 24, 2007.
2. *Final Transportation Impact Analysis,* Fehr & Peers, August 2007.

PREPARED BY

Lata Vasudevan, AICP, Planner

MANAGER REVIEW

Amy French, AICP, Current Planning Manager

DETERMINATION

On the basis of this initial evaluation:

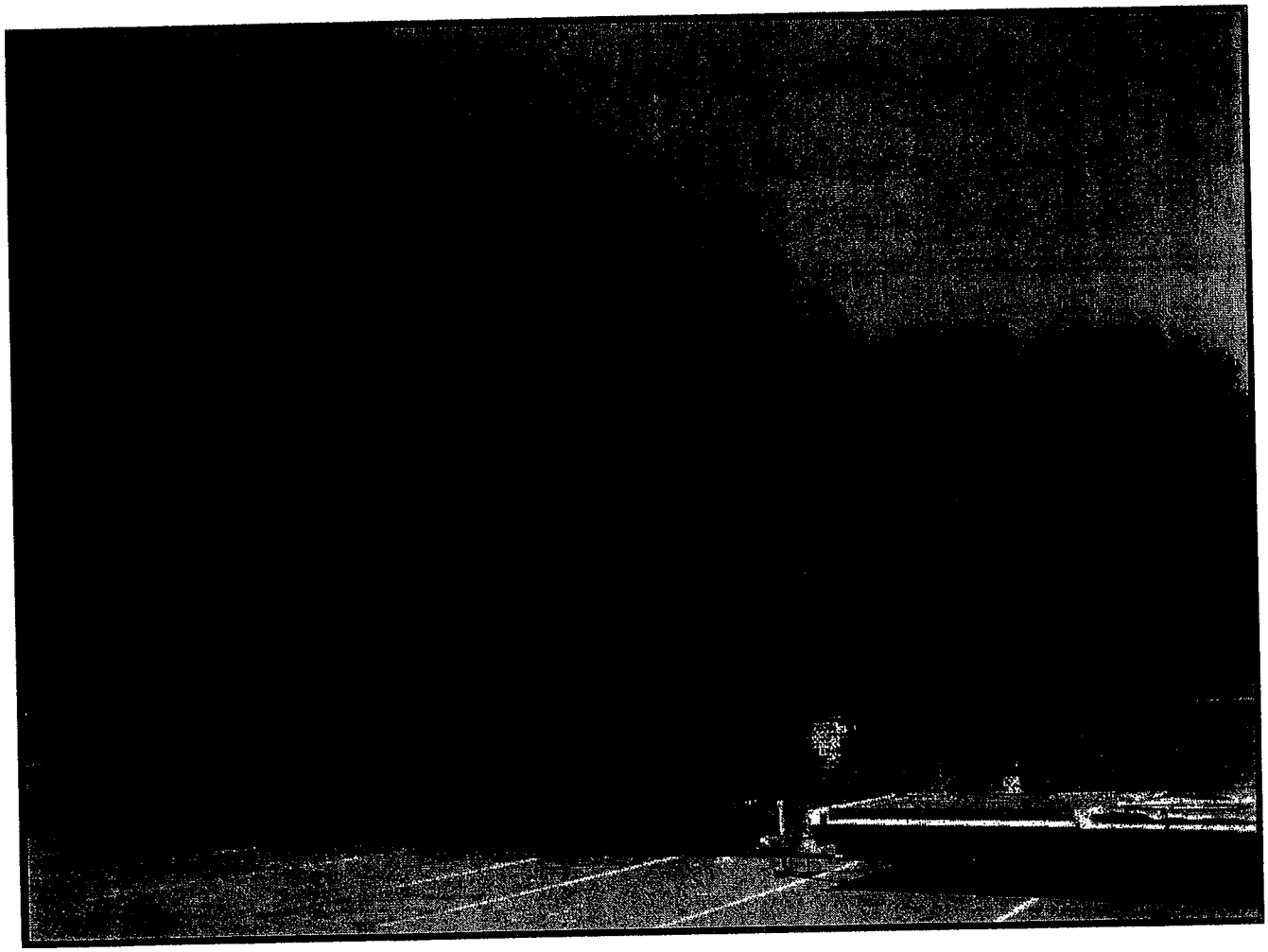
I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Project Planner — Date: Oct. 25, 2007

Director of Planning and Community Environment — Date: Oct. 25, 2007

ARBOR RESOURCES
Professional Arboricultural Consulting & Tree Care

A TREE PROTECTION PLAN FOR THE ELKS RESIDENTIAL DEVELOPMENT PALO ALTO, CALIFORNIA



Prepared for:

SummerHill Homes
777 California Street
Palo Alto, CA 94303
650-857-0122

Prepared by:

David L. Babby, RCA
Registered Consulting Arborist #399
Certified Arborist #WE-4001A

June 20, 2007

P.O. Box 25295, San Mateo, California 94402 • Email: arborresources@comcast.net
Phone: 650.654.3351 • Fax: 650.240.0777 • Licensed Contractor #796763

TABLE OF CONTENTS

EXHIBITS

Title Page: Photograph shows the tree landscape along the southwest section of the property. It was taken facing north from the existing Elks Lodge parking lot at the front entrance of the existing picnic area.

1.0 INTRODUCTION

1.1 Project Overview

SummerHill Homes is planning to construct 45 multiple family residences on 3.963 acres at the Elks Lodge site in Palo Alto, California. The project site is situated between a five-lot subdivision to the east and the future site for a new Elks Lodge to the west. Site development involves demolishing the existing Elks building, a swimming pool, picnic area, accessory buildings, and hardscape.

1.2 Scope of Work

I have been retained by SummerHill Homes to prepare a "tree protection plan," and in doing so, have executed the following tasks for conformance with the City of Palo Alto's Municipal Code:[1]

- Identify all trees that have trunk diameters larger than four inches in diameter (measured at 12 inches above grade) and are located either on-site, on neighboring properties (provided their canopies overhang the site), or along the new public right-of-way of Deodar Street (i.e. "street trees") within 30 feet of the project site.
- Measure their trunk diameter at approximately 54 inches above grade or as appropriate to obtain the most representative sample of trunk size.
- Assign monetary values to each tree (i.e. appraise the trees' values).
- Estimate tree height and canopy spread.
- Ascertain the trees' health and structural integrity.
- Determine the trees' suitability for preservation (e.g. high, moderate or low).
- Identify trees defined by the City of Palo Alto as "protected trees" and "street trees" (information regarding these classifications can be viewed on pages xiii and xiv of the City's *Tree Technical Manual*[2]).
- Obtain photographs of the trees (these can be viewed in Exhibit C).
- Distinguish between trees to be retained and removed.

[1] Note that most information regarding the trees' sizes and conditions are either extracted or modified from the previous report I prepared for Elks Lodge; the report is dated 9/14/05 and titled "An Inventory and Evaluation of Trees at the Elks Lodge Property."
[2] The *Tree Technical Manual* can be viewed at *http://www.city.palo-alto.ca.us/trees/technical-manual.html*.

- Review the following plans: Sheets C4.0 thru C8.0 (dated 5/31/07) by BKF Engineers, and Sheets L1.0 thru L5.3 (dated 5/30/07) by Van Dorn ABED Landscape Architects, Inc.
- Prepare a written report containing the aforementioned information, as well as provide recommendations to help avoid or mitigate anticipated impacts to trees that will be retained, to include site inspections required by the City of Palo Alto.

For identification purposes, metal tags with engraved numbers corresponding to the trees' numbers were attached to the trees' trunks.

1.3 Purpose and Use of Report

This report has been prepared to comply with the City of Palo Alto Municipal Code, Chapter 8.10.030. Its purpose is to [1] inform SummerHill Homes, the project design team, the City of Palo Alto, and other decision-makers of the type, size and condition of trees within and immediately adjacent to the area proposed for development, and [2] present recommendations for minimizing damage to trees being retained.

To my understanding, this report will be used in the planning process of project development, including for and incorporation into architecture, civil and landscape drawings, as well as integration into applicable environmental assessment documents.

2.0 TREE COUNT AND COMPOSITION

There are 77 trees of fifteen various species inventoried for this report. They are sequentially numbered as 23, 28-42, 44-47, 49-56, 96-107, 109, 110, 110a, 111-138, 176, 179, 180, 186, 187 and 189, and the following table identifies their name, numbers and percentage:

NAME	TREE NUMBER(S)	COUNT	PERCENT OF TOTAL
American Sweetgum	103, 104	2	3%
Camphor Tree	39, 100	2	3%

NAME	TREE NUMBER(S)	COUNT	PERCENT OF TOTAL
Chinese Elm	40-42, 44-46	6	8%
Coast Live Oak	96, 98, 102, 179, 180, 187, 189	7	9%
Coast Redwood	111-118, 122-138	25	32%
Deodar Cedar	121	1	1%
Evergreen Pear	47	1	1%
Fern Pine	49-56	8	10%
Hollywood Juniper	28-38, 119, 120	13	17%
Italian Stone Pine	106, 107	2	3%
Maidenhair Tree	109, 110	2	3%
Red Oak	99, 101	2	3%
Siberian Elm	110a	1	1%
Tree-of-Heaven	23, 105, 176, 186	4	5%
Trident Maple	97	1	1%
	Total	**77**	**100%**

Specific information regarding each tree is presented within the Tree Inventory Table in Exhibit A. The tree and locations can be viewed on an attached copy of Sheet C4.0 in Exhibit B (Tree Disposition Plan).

Three small trees (**#43, 48 and 108**) have been removed from the site since I performed my initial inventory in September 2005; as a result, they are not included in this report. They include [1] **#43**, a 5.5-inch diameter Chinese elm; [2] **#48**, a four-inch diameter evergreen pear; and [3] **#108**, a 9-inch diameter sweetgum in extremely poor condition.

Trees #23, 56 and 96 overhang the site from neighboring properties. **Tree #56** is a small five-inch diameter fern pine situated on the Juniper Homes development site; I am unsure of its future disposition but presume it is being removed. **Trees #23 and 96** are anticipated to be adequately protected, provided recommendations presented in this report are followed.

Twenty-eight of the inventoried trees are defined as "**protected trees**" pursuant to Section 8.10 of the City's Municipal Code; they include **trees #96, 98, 102, 111-118, 122-136, 187 and 189**.

Six of the trees are located within the median islands along Deodar Street and are regarded as "**street trees**" per Section 8.04.020 of the Municipal Code; they include **#176, 179, 180, 186, 187 and 189**. Note that trees #186, 187 and 189 are not shown on the plans, but their locations can be viewed on page C-7 of Exhibit C. Also, note that all trees along Deodar Street that are between tree #189 and the northeast property corner have already been removed.

Tree #99, a 28-inch diameter red oak, is recognized by the City as a unique specimen due to its size and good condition. The tree is approximately 50 feet tall and has a canopy that spreads approximately 65 feet across.

3.0 SUITABILITY FOR TREE PRESERVATION

Each tree has been assigned a "high," "moderate" or "low" suitability for preservation rating as a method for cumulatively measuring and considering their physiological health, structural integrity, location, size and species. A description of these ratings with the assigned tree numbers are presented below; note that the "high" category comprises **30 trees** (or 39-percent), the "moderate" category also **28 trees** (or 36-percent), and the "low" category **19 trees** (or 25-percent).

High: Applies to trees **#39, 40, 42, 44, 46, 47, 96, 98-100, 102, 106, 114-118, 122-124, 126, 127, 129-132, 134, 135, 187 and 189**. These trees appear in overall good health, have seemingly stable structures, and show a high potential of providing long-term contribution to the site. They are considered the most suitable for retention.

Moderate: Applies to trees **#23, 28, 31-38, 50, 54-56, 97, 109-112, 119-121, 125, 133, 136, 137, 176 and 186**. These trees contribute to the site but not at seemingly significant levels. They are usually worthy of protection, however, not at the expense of major design revisions. Typically, their longevity and contribution is less than those of high suitability and more frequent care is needed during their remaining life span.

Low: Applies to trees **#29, 30, 41, 45, 49, 51-53, 101, 103-105, 107, 110a, 113, 128, 138 (dead), 179 and 180**. These trees are predisposed to irreparable health problems and/or structural defects that are expected to worsen regardless of measures employed. In many instances, they are in decline and/or have poor structural integrity.

4.0 PROJECT REVIEW

4.1 Tree Removals

Of the **68 trees** located on the subject site, **38** are indicated on the Tree Disposition Plan (Sheet C4.0) to be removed to accommodate future development. The following table identifies their assigned number, species, trunk diameter, suitability for preservation rating, and "protected tree" status:

TREE NO.	TREE NAME (Common)	Trunk Diameter (in.)	Suitability for Preservation	"Protected Tree"
28	Hollywood Juniper	6.5	Moderate	
29	Hollywood Juniper	4.5	Moderate	

TREE NO.	TREE NAME (Common)	Trunk Diameter (in.)	Suitability for Preservation	"Protected Tree"
30	Hollywood Juniper	5	Moderate	
31	Hollywood Juniper	4.5	Moderate	
32	Hollywood Juniper	6	Moderate	
33	Hollywood Juniper	12.5	Moderate	
34	Hollywood Juniper	10.5	Moderate	
35	Hollywood Juniper	9	Moderate	
36	Hollywood Juniper	9	Moderate	
37	Hollywood Juniper	9, 6.5	Moderate	
38	Hollywood Juniper	11, 8	Moderate	
39	Camphor Tree	20	High	
40	Chinese Elm	6	High	
41	Chinese Elm	4.5	Low	
45	Chinese Elm	4	Low	
47	Evergreen Pear	5	High	
49	Fern Pine	4.5, 4	Low	
50	Fern Pine	5.5	Moderate	
51	Fern Pine	4.5, 4, 2.5	Low	
52	Fern Pine	4.5, 4.5, 2	Low	
53	Fern Pine	4.5, 3	Low	
54	Fern Pine	6	Moderate	
55	Fern Pine	5.5	Moderate	
101	Red Oak	15	Low	
103	American Sweetgum	9	Low	

TREE NO.	TREE NAME (Common)	Trunk Diameter (in.)	Suitability for Preservation	"Protected Tree"
104	American Sweetgum	11.5	Low	
105	Tree of Heaven	8, 7	Low	
106	Italian Stone Pine	8	High	
107	Italian Stone Pine	18	Low	
109	Maidenhair Tree	17	Moderate	
110	Maidenhair Tree	10	Moderate	
110a	Siberian Elm	28.5	Low	
118	Coast Redwood	19.5	High	X
119	Hollywood Juniper	5.5	Moderate	
120	Hollywood Juniper	11, 10, 8, 8, 7, 7	Moderate	
123	Coast Redwood	28	High	X
124	Coast Redwood	27.5	High	X
125	Coast Redwood	21	Moderate	X

In addition to these trees, I recommend **trees #101 and 138** are also removed. **Tree #101** is a 15-inch diameter red oak in extremely poor condition, and **tree #138** is a dead, 17-inch diameter redwood. Photographs of these trees can be viewed on page C-4 of Exhibit C.

4.2 Trees Potentially at Significant Risk

The following trees are indicated (on Sheet C4.0) for retention, though are potentially at the greatest risk of being subjected to instability and premature decline: **#99, 100, 112-117, 121, 122, 126, 134 and 135**. However, provided recommendations presented within this report can be implemented, the impacts can likely be reduced to less-than-significant.

Trees #99 and 100 would be affected during construction of the backyard patios. I recommend this be mitigated by the patios being comprised of decks constructed with discontinuous footings, in which no soil cuts or fill occur except vertically for the posts.

Trees #117, a coast redwood with a trunk diameter of 18 inches, will sustain root loss of more than 50-percent of root zone, including large roots that help serve as anchorage. A sidewalk is proposed within inches of the trunk, and the curb/gutter for the new street will require soil cuts within only a few feet from the trunk's base. To lessen this impact, I recommend the sidewalk is established to the opposite side of the street (near building 21), and the street/curb/gutter is shifted as far away from the trunk as possible, which to my understanding is one-foot.

Tree #126, a 30-inch diameter coast redwood, will also be impacted during construction of the street, a situation that would result in soil cuts within only a few feet from the trunk's base. I am advised that the street can shifted three feet further away from the tree's trunk, an action I recommend be employed to achieve a more tolerable level of impacts.

Trees #121 and 122 would sustain significant root loss during excavation required for the foundation of building 42. To mitigate this potential damage, I recommend utilizing a pier and *above-grade* beam foundation in which the beams are placed entirely on top of existing soil grade and no excavation occurs between the piers. I am also advised that that building 42 can be shifted three feet further from these trees' trunks, an action I recommend occurs.

Trees #112 thru 115 would sustain significant root loss for constructing the foundations and backyard patios of buildings 19 and 20. As mitigation, I recommend pier and *above-grade* beam foundations are also employed, and the patios be comprised of decks with discontinuous footings (as previously discussed for trees #99 and 100).

Trees #134 and 135 would be affected by installation of the proposed storm drain beneath their canopies. To mitigate the potential damage, the section of line within 15 feet from their trunks should be directionally bored by at least 3.5 feet below grade.

Note that most of the ground beneath the canopies of "protected trees" to be retained is covered by relatively thick slabs of concrete pavement. The project design should consider this as it may assist with the opportunity to construct features, as specified within this report, to be built on top of existing soil grade (i.e. the grade directly beneath the existing concrete slabs).

5.0 TREE APPRAISAL VALUES

The appraised value for each tree is presented within the last column of the table in Exhibit A. They are calculated using the *Trunk Formula Method* and in accordance with the *Guide for Plant Appraisal, 9th Edition*, published by the International Society of Arboriculture (ISA), 2000, and used in conjunction with the *Species Classification and Group Assignment*, published by the Western Chapter of the ISA, 2004.

The combined appraised value of trees located on the subject site and planned for retention (per Sheet C4.0) is **$208,480**.

6.0 TREE PROTECTION GUIDELINES

Recommendations presented within this section are intended to serve as guidelines for achieving viable mitigation and the protection of trees planned for retention. They should be carefully followed and incorporated into the project plans. Please note that any or all recommendations are subject to revision upon reviewing additional or revised plans. Additionally, I should be consulted in the event any of the recommendations cannot be followed or implemented in their entirety.

6.1 Design Guidelines

1. For design purposes, the Tree Protection Zone (TPZ) shall be regarded as the *minimal* area within a radial distance from a trunk of seven times its diameter (e.g. a 14-foot TPZ for 24-inch diameter tree). The TPZ is where all grading (soil cuts, fill and finish-grading), trenching[3] and soil scraping should be avoided. In areas where this is not feasible, alternative measures are specified to mitigate the damage. In the event the recommended measures cannot be implemented, the impacts should be reviewed by the project arborist[4] to determine whether an alternative TPZ can potentially support a tree's longevity and stability.

2. The illustration of tree protection fencing on the plans, which will reflect the construction phase, should be no further than five feet from the proposed buildings (excluding the walkways and rear patios), two feet from the proposed streets, and enclose the TPZ (or beyond) in all other directions.

3. On lots #19, 20 and 42, the sections of homes within a TPZ should be built using a pier and *above-grade* beam foundations with the beams established entirely on top of existing soil grade with no excavation except vertically for the piers. Additionally, trenching for drainage and utilities within the TPZ must be avoided; if necessary, the utilities should be attached to the home's structure.

4. All walkways, concrete step pads, natural stone pavers in park, and backyard decks (in lieu of the proposed patios) within a TPZ must be established entirely on top of existing soil grade (including base materials, edging and forms); for the backyard decks, discontinuous footings with no excavation between the posts should be used. Vertical cuts should be avoided; if essential, they should not exceed four inches below existing soil grade. Additionally, direct compaction of the existing soil surface (i.e. subgrade) must be avoided; the subbase materials can be compacted but should not

[3] This includes, but is not limited to, irrigation, lighting, drainage, and underground utilities and services.
[4] The "project arborist" refers to me or another individual that is certified by the ISA and/or is a member of the American Society of Consulting Arborists (ASCA).

exceed an 85-percent density. Soil fill can be used to sharply bevel the top of a walk to existing grade.

5. The future staging area and route(s) of access should be shown on the Site Plan and avoided on unpaved areas beneath the trees' canopies.

6. The landscape details should be updated to consider items specified in this report.

7. The walkway proposed along trees #128 and 131 should be revised so they are established between the trunks of trees #127 and 128, and #130 and 131, respectively.

8. The landscape drawings should reflect the retention of trees #97 and 100 (as shown on Sheet C4.0).

9. Pursuant to City Ordinance, a copy of this report shall be incorporated into the final set of project plans; titled Sheets T-1, T-2, etc. (Tree Protection Instructions); and referenced on all site-related plans (e.g. site, grading and drainage, and landscaping).

10. As a rule of thumb, the permanent and temporary drainage design, including downspouts, should not require water being discharged beneath the trees' canopies. Additionally, the drainage design should not require trenching within a TPZ.

11. The section of storm drain within the TPZ of trees #134 and 135 must be directionally-bored by at least 3.5 feet below existing soil grade. In doing so, the ground above the tunnel(s) must remain undisturbed and the access pits established as far from the trunks as possible. Additionally, the pit locations (if within the TPZ or designated-fenced areas) shall be reviewed with the project arborist prior to being dug.

12. All utilities and services should be routed outside from a TPZ. In the event this is not feasible, directional boring must be considered and conform to the above recommendation.

13. The proposed landscape design should conform to the following additional guidelines:
    a. Turf should be avoided within a TPZ. As an alternative, I suggest a four-inch layer of coarse wood chips (decorative or from a tree company) is used.
    b. Plant material installed within TPZ must be drought-tolerant, limited in amount, and planted at least five from the trees' trunks.
    c. Irrigation can, overtime, adversely impact the subject oaks and should be avoided. Irrigation for new plant material should be low-volume, applied irregularly (such as only once or twice per week) and temporary (such as no more than three years).
    d. In the event trenches for irrigation and/or lighting are required beneath a canopy, they shall be installed in a radial direction to the trees' trunks. If irrigation trenches cannot be routed as such, the work may need to be performed using a pneumatic air device, such as an Air-Spade®, to avoid unnecessary root damage.
    e. Stones and new fencing should not be placed against the trunks of existing or new trees (I suggest a minimum two-foot setback). Additionally, mulch should not be placed against the trunks, and plastic ground cover should also be avoided beneath canopies.
    f. Tilling beneath canopies should be avoided, including for weed control.
    g. Bender board or other edging material proposed beneath the canopies should be established on top of existing soil grade (such as by using vertical stakes).

14. Per City standards, an engineered structural soil mix[5] should be considered as an alternative to base course material where sidewalks or concrete walkways are constructed in proximity to where new trees, such as street trees, will be installed. By doing so, a more compatible, long-term growing environment can be established for trees while minimizing risk of future damage to adjacent hardscape.

6.2 Protection Measures before and during Development

15. Prior to site demolition and clearing, an on-site, pre-construction meeting should be held between the project arborist and contractor. The intent is to review trees being removed, procedures for digging beneath or near TPZs, protection fencing locations,

[5] Additional information can be viewed at *www.amereq.com/pages/14/index.htm.*

limits of grading, staging areas, routes of access, cleanout pits, mulching, supplemental watering, demolition work, and any other required protection measures. All approved tree removals should be marked with paint (such as by an "X") prior to the meeting.

16. Tree protective fencing shall be installed where described in Section 6.1 of this report and established prior to any demolition, grading or surface scraping; the intent is to restrict access into TPZ of unpaved areas. It shall be comprised of six-foot high chain link mounted on eight-foot tall, two-inch diameter steel posts that are driven 24 inches into the ground and spaced no more than 10 feet apart. The fencing must be maintained throughout development and at no time shall it be opened or relocated without direct authorization from the arborist.

17. Fencing must be established in two phases, one for demolition and the other construction. For demolition, I recommend chain link fence panels supported by concrete blocks or metal stands are erected around the trunks of trees where ground beneath their canopies is currently covered by pavement, and/or trunk wrap protection[6] is established around the trunks.

18. Unless otherwise approved, all construction activities must be conducted outside the designated-fenced areas (even after fencing is removed), and beyond the unpaved sections of trees inventoried and not inventoried for this report, to include, but not limited to, the following: demolition, grading, stripping of topsoil, trenching, equipment cleaning, stockpiling/dumping of materials, and equipment/vehicle operation and parking.

19. Signs of 8-½ by 11 inches (minimum) must be prominently displayed on each fence side facing construction activities. Per the *Tree Technical Manual*, the signs must read as follows: "WARNING – TREE PROTECTION ZONE - This fence shall not be removed, moved or relocated. Violators are subject to a penalty according to PAMC

[6] Trunk wrap protection consists of two inches (or about 10 layers) of orange plastic fencing wrapped around the trunks to the first branch, bound by two-inch thick wooden boards wrapped around the outside and tied together.

Section 8.10.110.9." The signs should be established concurrently with the installation of fencing; see Exhibit D for a template.

20. Narrow scaffolding, such as no greater than four or five feet wide, should be used to retain the minimum fenced areas.

21. Prior to the City issuing a demolition permit, the project arborist is required to prepare a letter verifying that tree fencing is appropriately established.

22. The project arborist must regularly inspect the project site as outlined on page 2-14 of the *Tree Technical Manual* (Section 2.30 Inspection Schedule). Inspections shall occur once per month (minimum) and continue through final inspection. A written summary of pertinent observations and recommendations shall coincide with each inspection and a copy emailed to the City's Planning Arborist. Pertinent measures to promote the longevity and vigor of retained trees beyond the development period should also be provided at the end of the project.

23. The removal of hardscape must be carefully performed to avoid excavating soil and damaging roots during the process. The project arborist should monitor this work and must not involve the use of heavy equipment or tractors operating or traveling on unpaved soil beneath canopies. To prevent root desiccation, I recommend a four-inch layer of coarse wood chips (see next recommendation) is spread on the newly exposed soil and remain continually moistened for a two-week period.

24. Prior to construction, a four-inch layer of coarse wood chips (¼- to ¾-inch in size) must be spread on unpaved soil beneath the trees' entire canopies, including inside and outside the designated-fenced areas (but not piled against the trunks); this is not necessary within 24 inches from the footings of new buildings. The depth shall be maintained throughout development and the wood chips can be obtained from tree service companies and/or by contacting *www.reuserinc.com*.

25. The project arborist shall monitor development activities authorized within a TPZ. Unless otherwise approved by the arborist, all work within a TPZ shall be manually performed (e.g. shovels and wheelbarrows) without using heavy equipment or tractors. For trenching, roots exposed with diameters of two inches and greater should remain intact and not be damaged (if necessary, tunneled beneath).

26. Excavation for foundations or other approved amenities beneath a tree's canopy shall be manually performed (i.e. through hand-digging). Roots with diameters of two inches and greater should be treated according to the project arborist.

27. Where digging for sections of foundations, street, curb/gutter within a TPZ, the work shall not require any overcut beyond 18 (preferred) to 24 inches, to include any trenching, soil cuts, fill or scraping.

28. All existing, unused lines or pipes beneath the canopies of retained trees should be abandoned and cut off at existing soil grade.

29. The locations of any posts or piers (e.g. wood fences, porches and foundations) within a TPZ shall be first reviewed by the project arborist prior to digging. A post-hole digger should be used for digging the first 2.5 to 3 feet below grade; a manually-operated, mechanical auger (or one attached to heavy equipment if approved by the arborist) can be used to drill the remaining depth. In the event a root of two inches and greater in diameter is encountered during the process, the hole may need to be resituated.

30. Recommendations that are presented within Section 6.1 of this report and pertain to site development should also be followed.

31. Throughout construction during the months of May thru October (or as deemed by the project arborist), supplemental water shall be supplied to the retained trees. The methodology, frequency and amounts shall be prescribed by the project arborist.

32. The pruning and removal of trees shall be performed per ISA standards and by a licensed tree service company that has an ISA Certified Arborist in a supervisory role. All pruning work shall be performed under direction of the project arborist.

33. I recommend the retained trees are pruned prior to construction as a means to minimize risk and achieve necessary clearance from large equipment and buildings. I recommend the work is limited to removing deadwood one-inch and greater, clearing encroachments, and reducing heavy limb weight (thinning the trees should be avoided).

34. Any stump being removed within a TPZ shall occur using a stump grinder rather than being pulled up with an excavator or backhoe. This work can be performed by the tree service company performing the removals.

35. Great care must be taken by equipment operators to position their equipment to avoid the trunks and branches of trees. Where a conflict exists, the project arborist should be advised to provide a feasible solution.

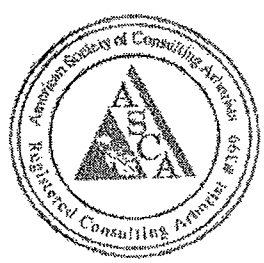
36. The disposal of harmful products (such as chemicals, oil and gasoline) is prohibited beneath canopies or anywhere on site that allows drainage beneath or near canopies. Herbicides should not be used beneath the trees' canopies; where used on site, they should be labeled for safe use near trees.

7.0 ASSUMPTIONS AND LIMITING CONDITIONS

- All information presented herein covers only those items that were examined and reflects the condition of those items at the time of my observations during January and February 2007.
- My observations were performed visually without probing, coring, dissecting or excavating. I cannot, in any way, assume responsibility for any defects that could only have been discovered by performing the mentioned services in the specific area(s) where a defect was located.
- The assignment pertains solely to trees listed in Exhibit A. I hold no opinion towards other trees on or surrounding the project area.
- I cannot provide a guarantee or warranty, expressed or implied, that deficiencies or problems of any trees or property in question may not arise in the future.
- No assurance can be offered that if all my recommendations and precautionary measures (verbal or in writing) are accepted and followed, that the desired results may be achieved.
- All information presented on the plans reviewed is assumed to be correct. I cannot guarantee or be responsible for the accuracy of information provided by others.
- I assume no responsibility for the means and methods used by any person or company implementing the recommendations provided in this report.
- The information provided herein represents my opinion. Accordingly, my fee is in no way contingent upon the reporting of a specified finding, conclusion, or value.
- This report is proprietary to me and may not be copied or reproduced in whole or part without prior written consent. It has been prepared for the sole and exclusive use of the parties to who submitted for the purpose of contracting services provided by David L. Babby.
- The map presented in this report (Exhibit B) is solely intended to show approximate tree locations and numbers and shall not be interpreted as an engineered or architectural drawing.
- If any part of this report or copy thereof be lost or altered, the entire evaluation shall be invalid.

Prepared By: _____
David Babby, RCA

Date: June 20, 2007



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- The information provided herein represents my opinion. Accordingly, my fee is in no way contingent upon the reporting of a specified finding, conclusion, or value.
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Prepared By: _____
David Babby, RCA

Date: June 20, 2007

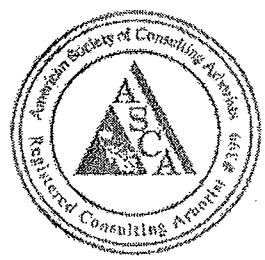

EXHIBIT A:

TREE INVENTORY TABLE

TREE INVENTORY TABLE

TREE NO.	TREE NAME	Trunk Diameter (in.) - per Guide for Plant Appraisal	Height (ft.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition (Good/Fair/Poor/Dead)	Suitability for Preservation (High/Moderate/Low)	"Protected Tree"	"Street Tree"	Located on Adjacent Property	Appraised Value
23	Tree-of-Heaven (*Ailanthus altissima*)	21	45	50	75%	75%	Good	Moderate			X	$490
28	Hollywood Juniper (*Juniperus c.* 'Torulosa')	6.5	15	20	75%	75%	Good	Moderate				$310
29	Hollywood Juniper (*Juniperus c.* 'Torulosa')	4.5	10	10	25%	75%	Poor	Low				$100
30	Hollywood Juniper (*Juniperus c.* 'Torulosa')	5	20	10	25%	75%	Poor	Low				$120
31	Hollywood Juniper (*Juniperus c.* 'Torulosa')	4.5	15	15	50%	75%	Fair	Moderate				$120
32	Hollywood Juniper (*Juniperus c.* 'Torulosa')	6	30	15	100%	50%	Good	Moderate				$270
33	Hollywood Juniper (*Juniperus c.* 'Torulosa')	12.5	35	20	100%	75%	Good	Moderate				$1,220
34	Hollywood Juniper (*Juniperus c.* 'Torulosa')	10.5	35	15	100%	75%	Good	Moderate				$870
35	Hollywood Juniper (*Juniperus c.* 'Torulosa')	9	30	10	100%	50%	Good	Moderate				$570
36	Hollywood Juniper (*Juniperus c.* 'Torulosa')	9	30	20	100%	75%	Good	Moderate				$650
37	Hollywood Juniper (*Juniperus c.* 'Torulosa')	9, 6.5	30	20	100%	75%	Good	Moderate				$1,040
38	Hollywood Juniper (*Juniperus c.* 'Torulosa')	11, 8	25	25	100%	75%	Good	Moderate				$1,420
39	Camphor Tree (*Cinnamomum camphora*)	20	30	50	100%	50%	Good	High				$7,000
40	Chinese Elm (*Ulmus parvifolia*)	6	25	35	100%	75%	Good	High				$770
41	Chinese Elm (*Ulmus parvifolia*)	4.5	20	20	100%	25%	Fair	Low				$280
42	Chinese Elm (*Ulmus parvifolia*)	5	25	20	100%	50%	Good	High				$490

TREE INVENTORY TABLE

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44	Chinese Elm (*Ulmus parvifolia*)	6	25	25	100%	100%	Good	High				$900
45	Chinese Elm (*Ulmus parvifolia*)	4	20	20	100%	25%	Fair	Low				$260
46	Chinese Elm (*Ulmus parvifolia*)	3.5	20	20	100%	50%	Good	High				$260
47	Evergreen Pear (*Pyrus kawakamii*)	5	20	20	75%	75%	Good	High				$340
49	Fern Pine (*Podocarpus gracilior*)	4.5, 4	25	15	100%	25%	Fair	Low				$410
50	Fern Pine (*Podocarpus gracilior*)	5.5	15	15	100%	50%	Good	Moderate				$440
51	Fern Pine (*Podocarpus gracilior*)	4.5, 4, 2.5	30	20	100%	25%	Fair	Low				$410
52	Fern Pine (*Podocarpus gracilior*)	4.5, 4.5, 2	15	15	100%	25%	Fair	Low				$480
53	Fern Pine (*Podocarpus gracilior*)	4.5, 3	15	10	100%	25%	Fair	Low				$350
54	Fern Pine (*Podocarpus gracilior*)	6	25	15	100%	50%	Good	Moderate				$510
55	Fern Pine (*Podocarpus gracilior*)	5.5	25	20	100%	50%	Good	Moderate				$440
56	Fern Pine (*Podocarpus gracilior*)	5	15	15	100%	75%	Good	Moderate			X	$12,300
96	Coast Live Oak (*Quercus agrifolia*)	23	45	50	100%	100%	Good	High	X		X	$12,300
97	Trident Maple (*Acer buergerianum*)	8.5	20	25	75%	25%	Fair	Moderate				$770
98	Coast Live Oak (*Quercus agrifolia*)	21	35	60	100%	75%	Good	High	X			$8,700
99	Red Oak (*Quercus rubra*)	28	50	65	100%	75%	Good	High				$17,900

TREE INVENTORY TABLE

TREE NO.	TREE NAME	Trunk Diameter (in.) - per Guide for Plant Appraisal	Height (ft.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition (Good/Fair/Poor/Dead)	Suitability for Preservation (High/Moderate/Low)	"Protected Tree"	"Street Tree"	Located on Adjacent Property	Appraised Value
100	Camphor Tree (*Cinnamomum camphora*)	17	40	45	75%	75%	Good	High				$5,100
101	Red Oak (*Quercus rubra*)	15	30	30	50%	0%	Poor	Low				$0
102	Coast Live Oak (*Quercus agrifolia*)	26.5	50	65	100%	75%	Good	High	X			$13,800
103	American Sweetgum (*Liquidambar styraciflua*)	9	30	20	50%	50%	Fair	Low				$660
104	American Sweetgum (*Liquidambar styraciflua*)	11.5	15	10	50%	0%	Poor	Low				$0
105	Tree of Heaven (*Ailanthus altissima*)	8, 7	35	20	100%	25%	Fair	Low				$200
106	Italian Stone Pine (*Pinus pinea*)	8	15	15	100%	50%	Good	High				$580
107	Italian Stone Pine (*Pinus pinea*)	18	25	30	100%	25%	Fair	Low				$2,180
109	Maidenhair Tree (*Ginkgo biloba*)	17	40	40	50%	75%	Fair	Moderate				$2,910
110	Maidenhair Tree (*Ginkgo biloba*)	10	30	20	100%	50%	Good	Moderate				$1,280
110a	Siberian Elm (*Ulmus pumila*)	28.5	50	40	50%	25%	Poor	Low				$430
111	Coast Redwood (*Sequoia sempervirens*)	27.5	35	40	75%	25%	Fair	Moderate	X			$4,190
112	Coast Redwood (*Sequoia sempervirens*)	26	70	50	50%	100%	Fair	Moderate	X			$5,600
113	Coast Redwood (*Sequoia sempervirens*)	23.5	35	45	50%	25%	Poor	Low	X			$1,760
114	Coast Redwood (*Sequoia sempervirens*)	32	80	45	100%	50%	Good	High	X			$9,600

TREE INVENTORY TABLE

TREE NO	TREE NAME	Trunk Diameter (in.) - per Guide for Plant Appraisal	Height (ft.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition (Good/Fair/Poor/Dead)	Suitability for Preservation (High/Moderate/Low)	"Protected Tree"	"Street Tree"	Located on Adjacent Property	Appraised Value
115	Coast Redwood (*Sequoia sempervirens*)	25	80	35	100%	75%	Good	High	X			$6,800
116	Coast Redwood (*Sequoia sempervirens*)	32	75	50	100%	100%	Good	High	X			$12,800
117	Coast Redwood (*Sequoia sempervirens*)	18	100	30	100%	75%	Good	High	X			$3,550
118	Coast Redwood (*Sequoia sempervirens*)	19.5	50	25	75%	75%	Good	High	X			$2,670
119	Hollywood Juniper (*Juniperus c.* 'Torulosa')	5.5	15	100	100%	100%	Good	Moderate				$410
120	Hollywood Juniper (*Juniperus c.* 'Torulosa')	11, 10, 8, 8, 7, 7	25	25	100%	75%	Good	Moderate				$3,920
121	Deodar Cedar (*Cedrus deodara*)	26	65	60	75%	50%	Fair	Moderate				$5,600
122	Coast Redwood (*Sequoia sempervirens*)	35.5	50	50	75%	50%	Fair	High	X			$7,800
123	Coast Redwood (*Sequoia sempervirens*)	28	80	40	75%	75%	Good	High	X			$6,500
124	Coast Redwood (*Sequoia sempervirens*)	27.5	80	40	75%	75%	Good	High	X			$6,300
125	Coast Redwood (*Sequoia sempervirens*)	21	20	20	100%	25%	Fair	Moderate	X			$2,590
126	Coast Redwood (*Sequoia sempervirens*)	30	50	30	100%	50%	Good	High	X			$7,500
127	Coast Redwood (*Sequoia sempervirens*)	31	80	40	75%	75%	Good	High	X			$7,800
128	Coast Redwood (*Sequoia sempervirens*)	20.5	80	40	75%	25%	Fair	Low	X			$2,060
129	Coast Redwood (*Sequoia sempervirens*)	25.5	80	50	100%	75%	Good	High	X			$6,100
130	Coast Redwood (*Sequoia sempervirens*)	23	75	30	100%	50%	Good	High	X			$4,410

TREE INVENTORY TABLE

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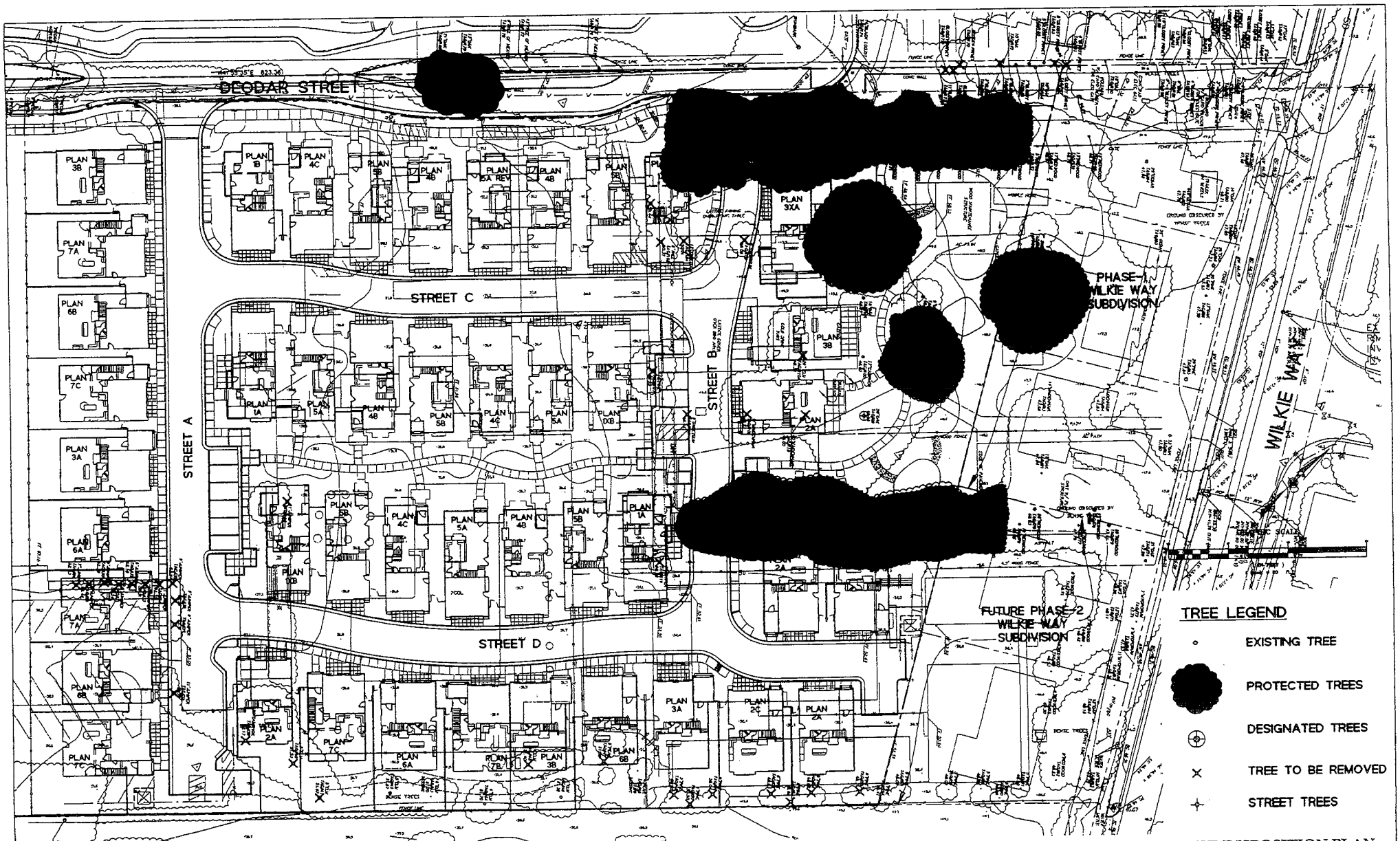
131	Coast Redwood (*Sequoia sempervirens*)	31	85	35	75%	75%	Good	High	X			$7,800
132	Coast Redwood (*Sequoia sempervirens*)	25	75	50	75%	75%	Good	High	X			$5,200
133	Coast Redwood (*Sequoia sempervirens*)	20	45	35	100%	50%	Good	Moderate	X			$3,350
134	Coast Redwood (*Sequoia sempervirens*)	30	75	40	75%	75%	Good	High	X			$7,500
135	Coast Redwood (*Sequoia sempervirens*)	24	65	40	100%	75%	Good	High	X			$5,400
136	Coast Redwood (*Sequoia sempervirens*)	23	60	40	50%	75%	Fair	Moderate	X			$3,310
137	Coast Redwood (*Sequoia sempervirens*)	5	25	10	50%	50%	Fair	Moderate				$110
138	Coast Redwood (*Sequoia sempervirens*)	17	30	30	0%	0%	Dead	Low				$0
176	Tree-of-Heaven (*Ailanthus altissima*)	18, 18, 12, 12,	55	65	75%	25%	Fair	Moderate		X	X	$790
179	Coast Live Oak (*Quercus agrifolia*)	12.5	5	30	25%	50%	Poor	Low		X	X	$880
180	Coast Live Oak (*Quercus agrifolia*)	21	35	40	25%	50%	Poor	Low		X	X	$2,420
186	Tree-of-Heaven (*Ailanthus altissima*)	20	50	60	75%	50%	Fair	Moderate		X	X	$380
187	Coast Live Oak (*Quercus agrifolia*)	16	45	30	75%	50%	Fair	High	X	X	X	$2,760
189	Coast Live Oak (*Quercus agrifolia*)	20.5, 17.5,	45	60	75%	50%	Fair	High	X	X	X	$10,000

EXHIBIT B:

SITE MAP



SUMMERHILL HOMES
COMMUNITIES OF DISTINCTION

Elks Residential - ARB Submittal

Civil Engineering BKF

May 31, 2007

No.	Revisions

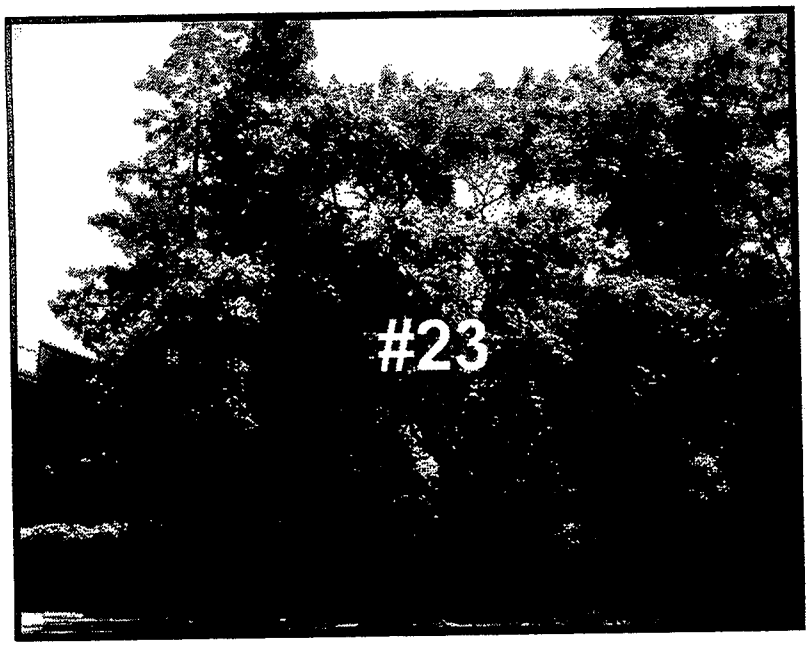
TREE DISPOSITION PLAN

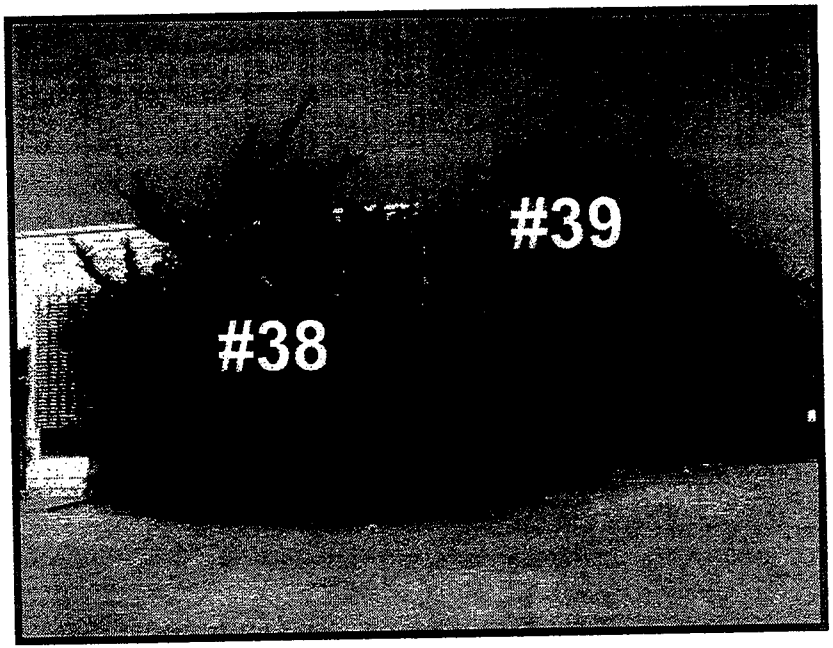
C4.0

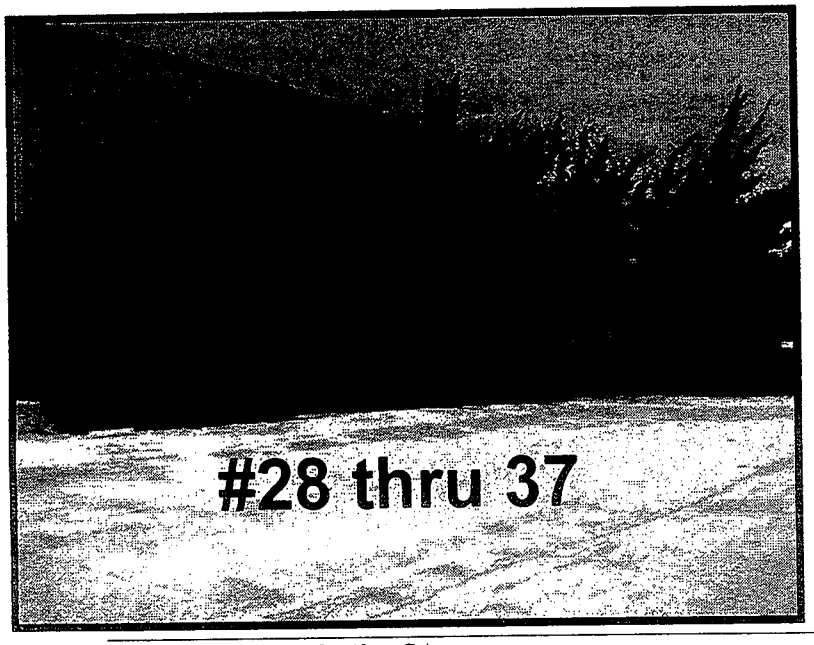
EXHIBIT C:

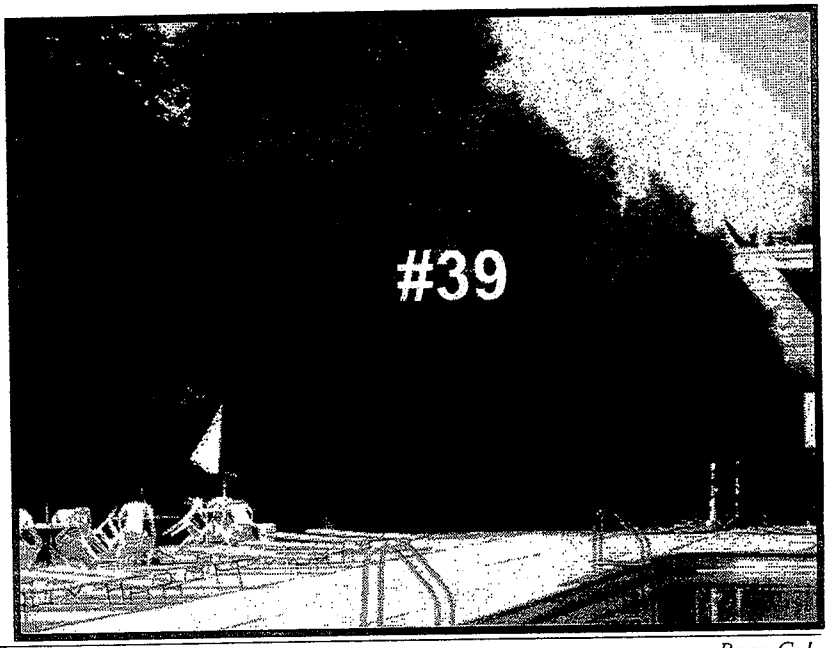
PHOTOGRAPHS

Photo Index

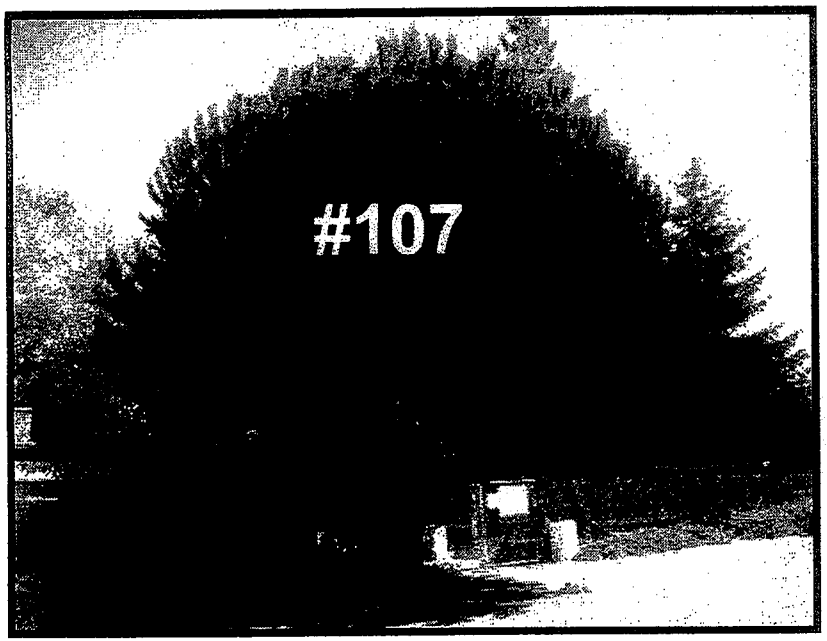








Elks Residential, Palo Alto, CA
SummerHill Homes, Property Owner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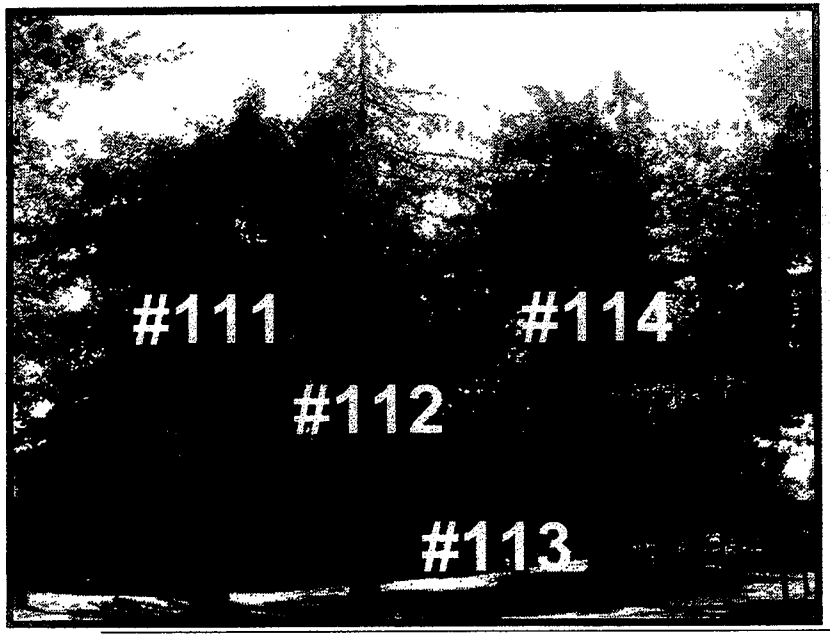
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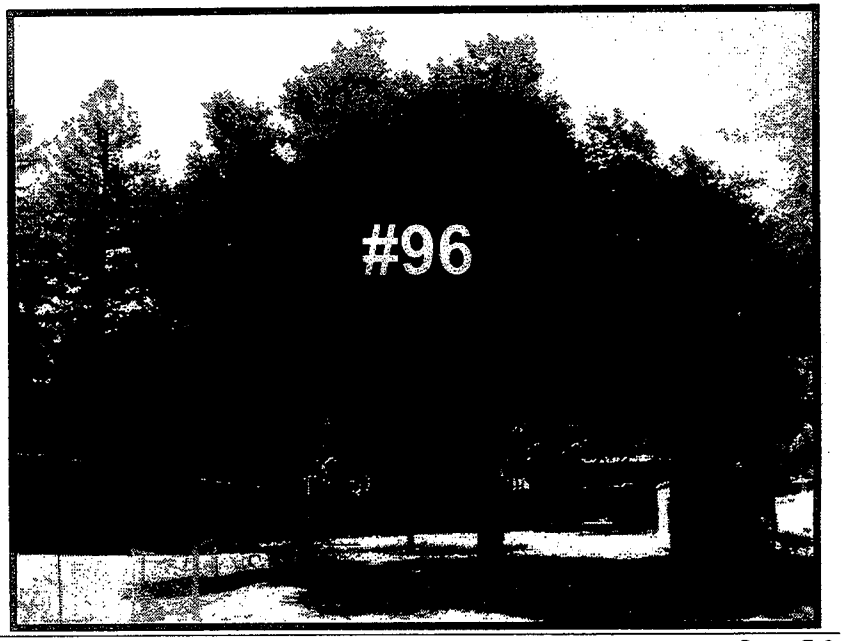
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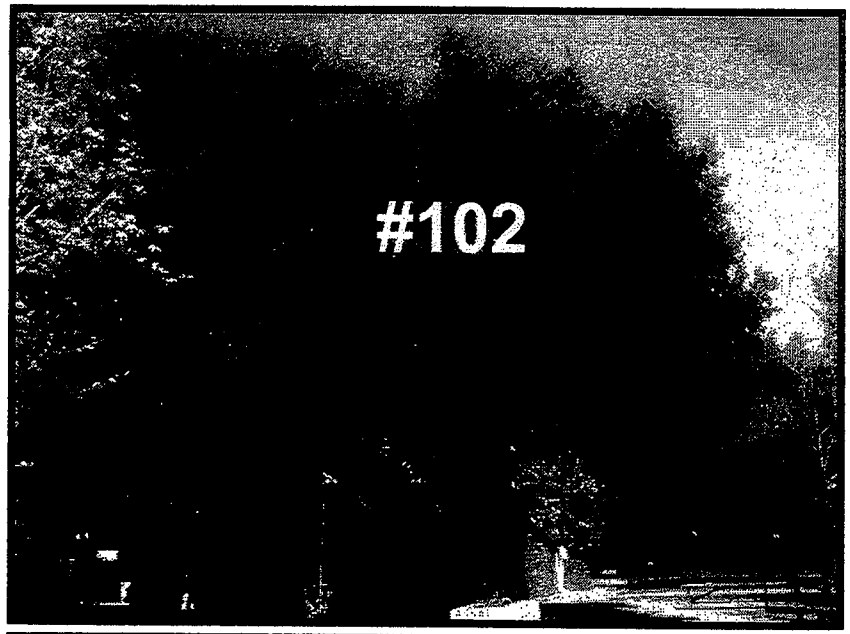
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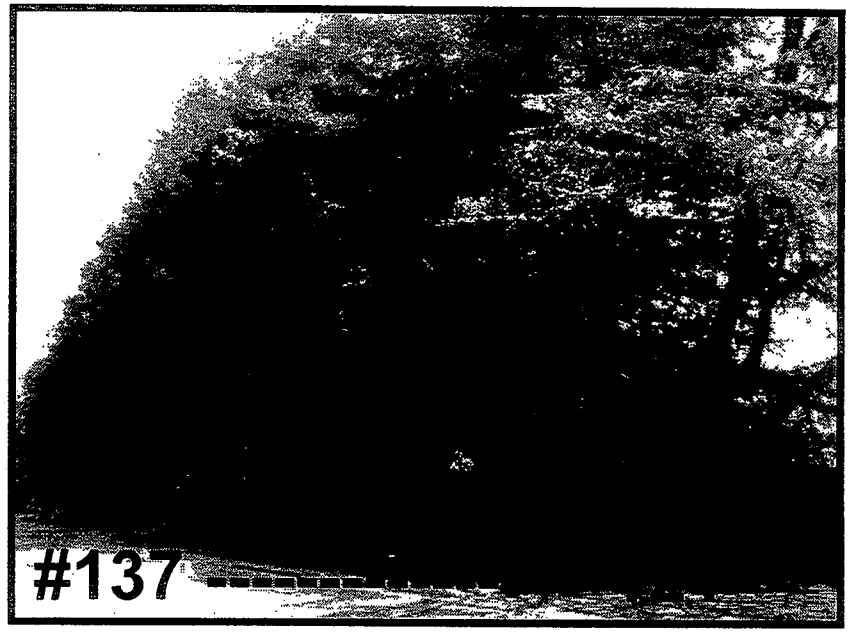
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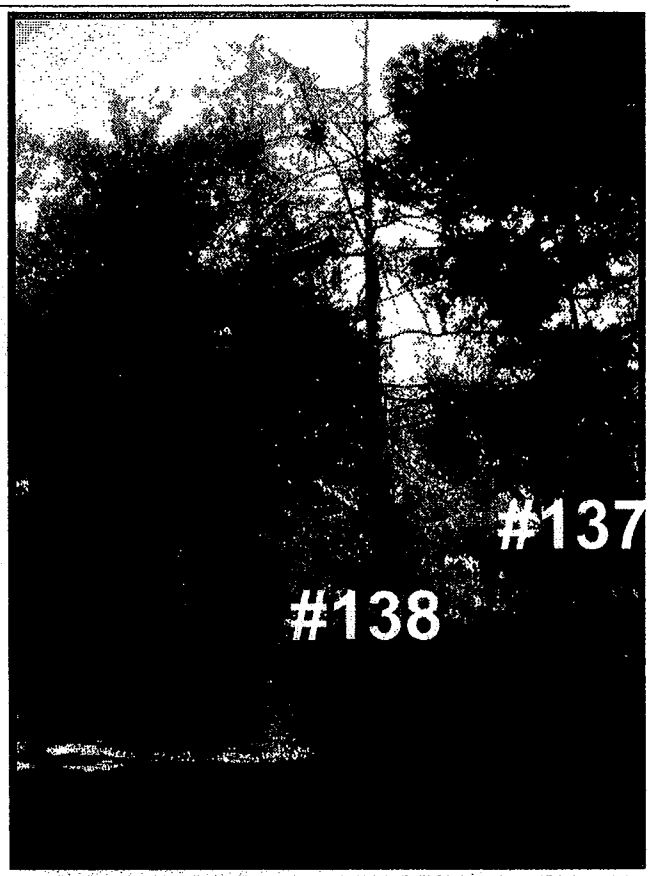
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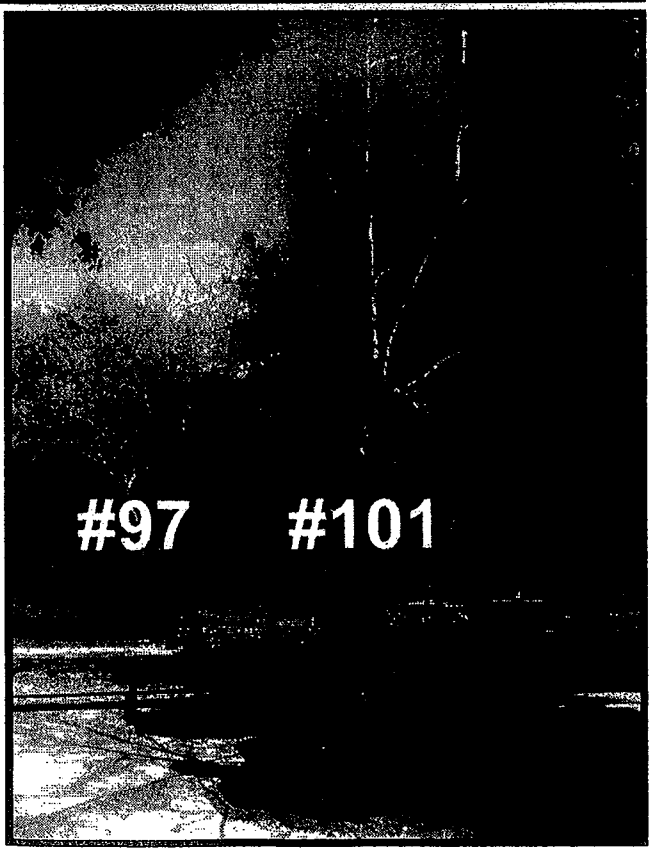
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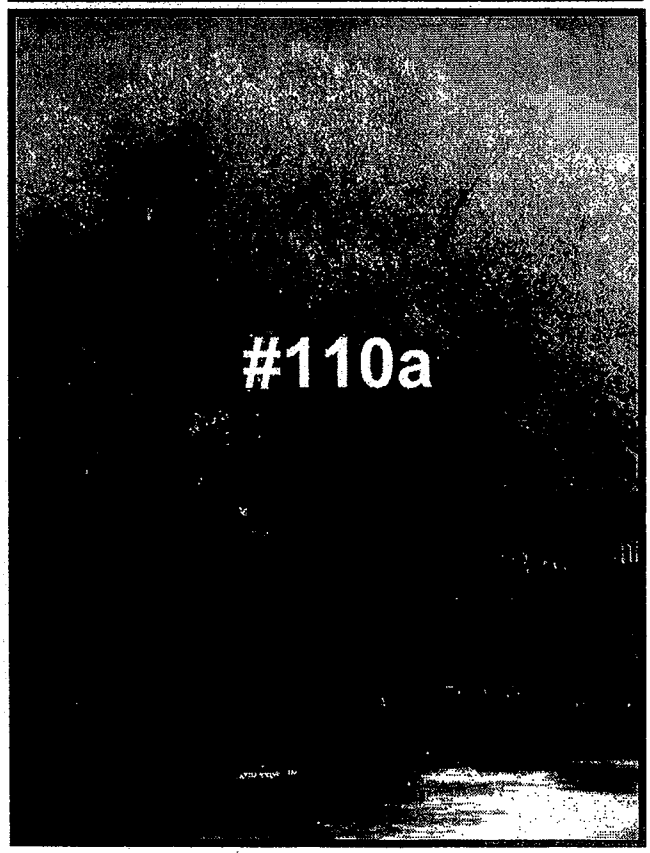
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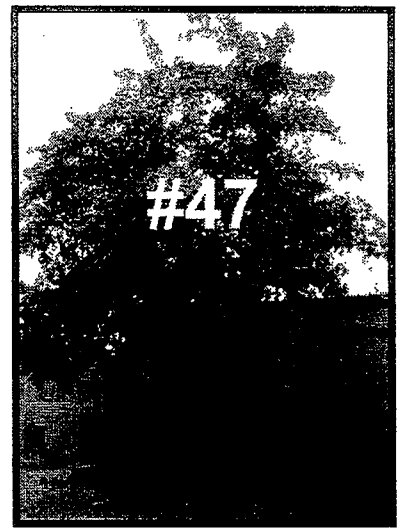
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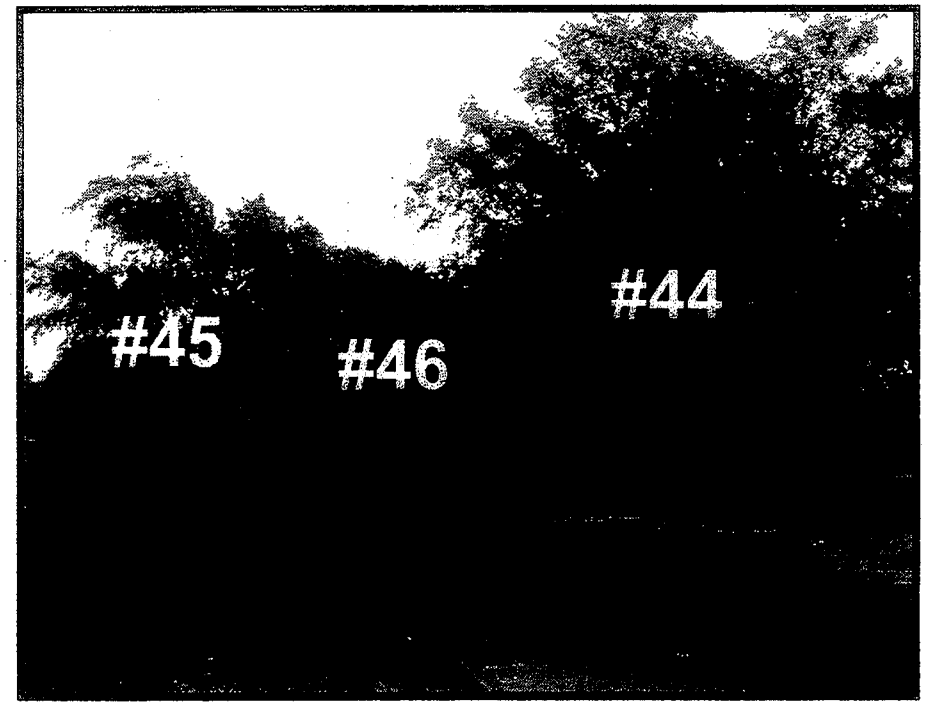
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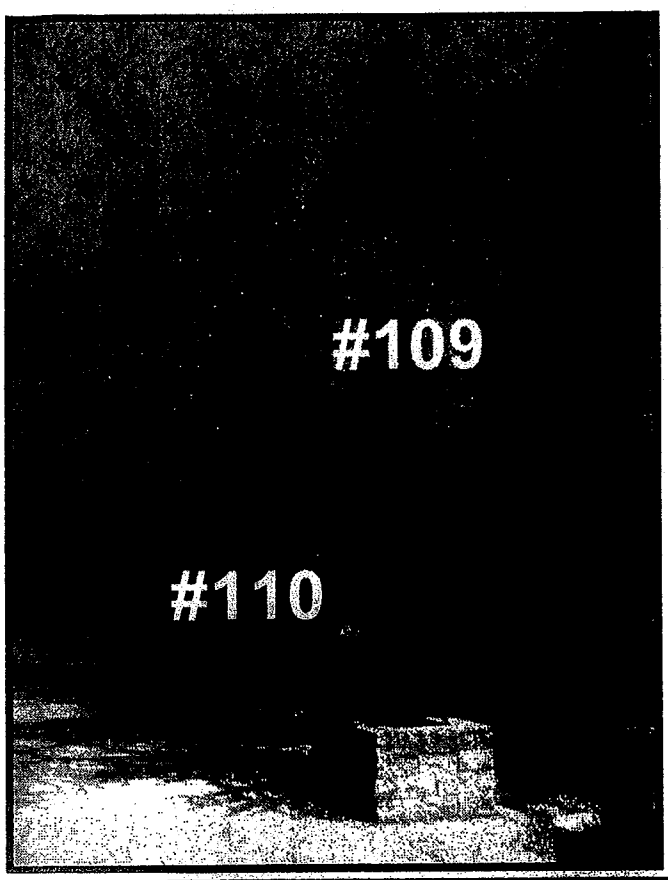
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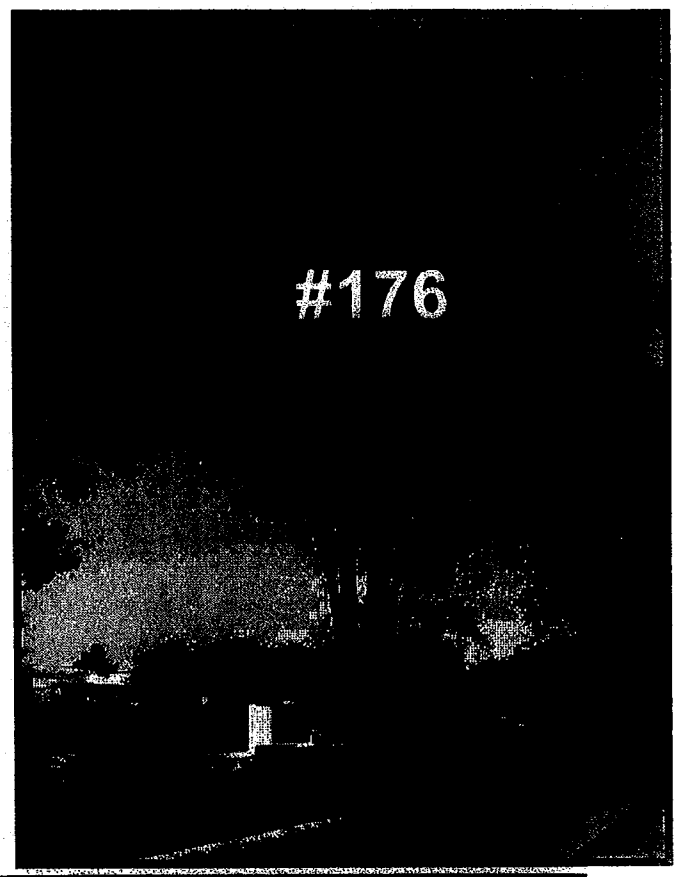
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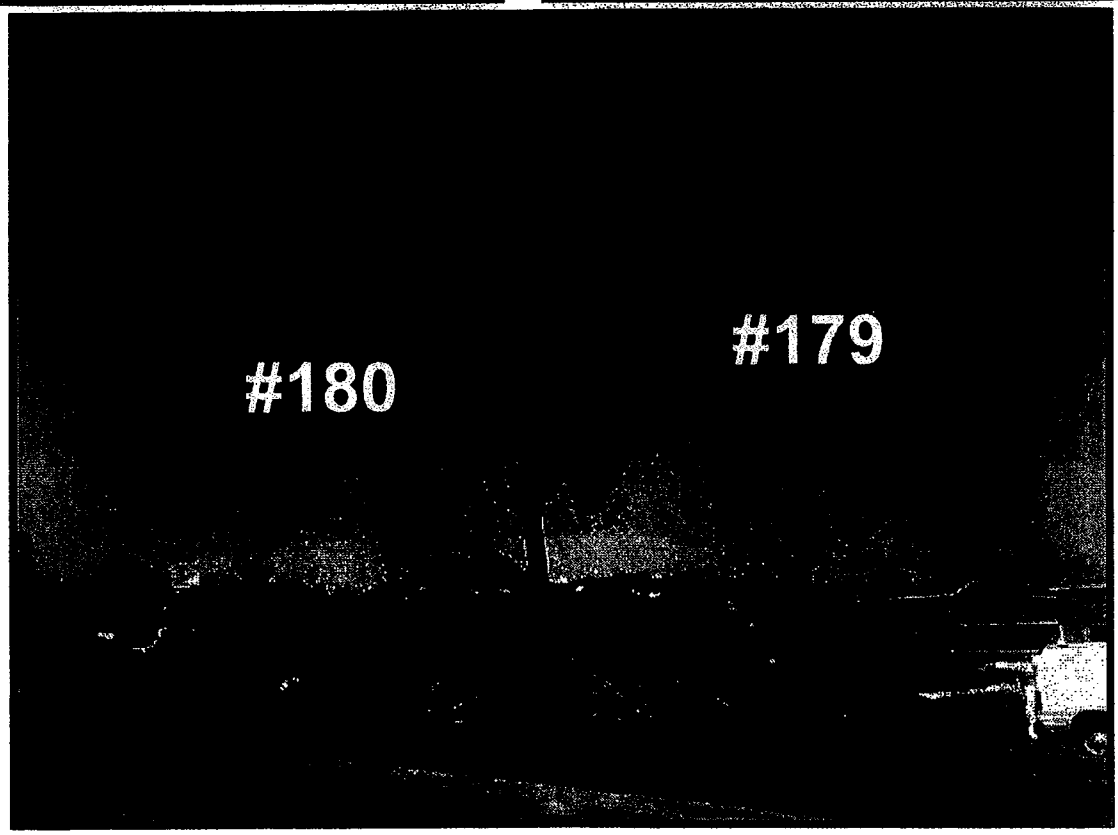
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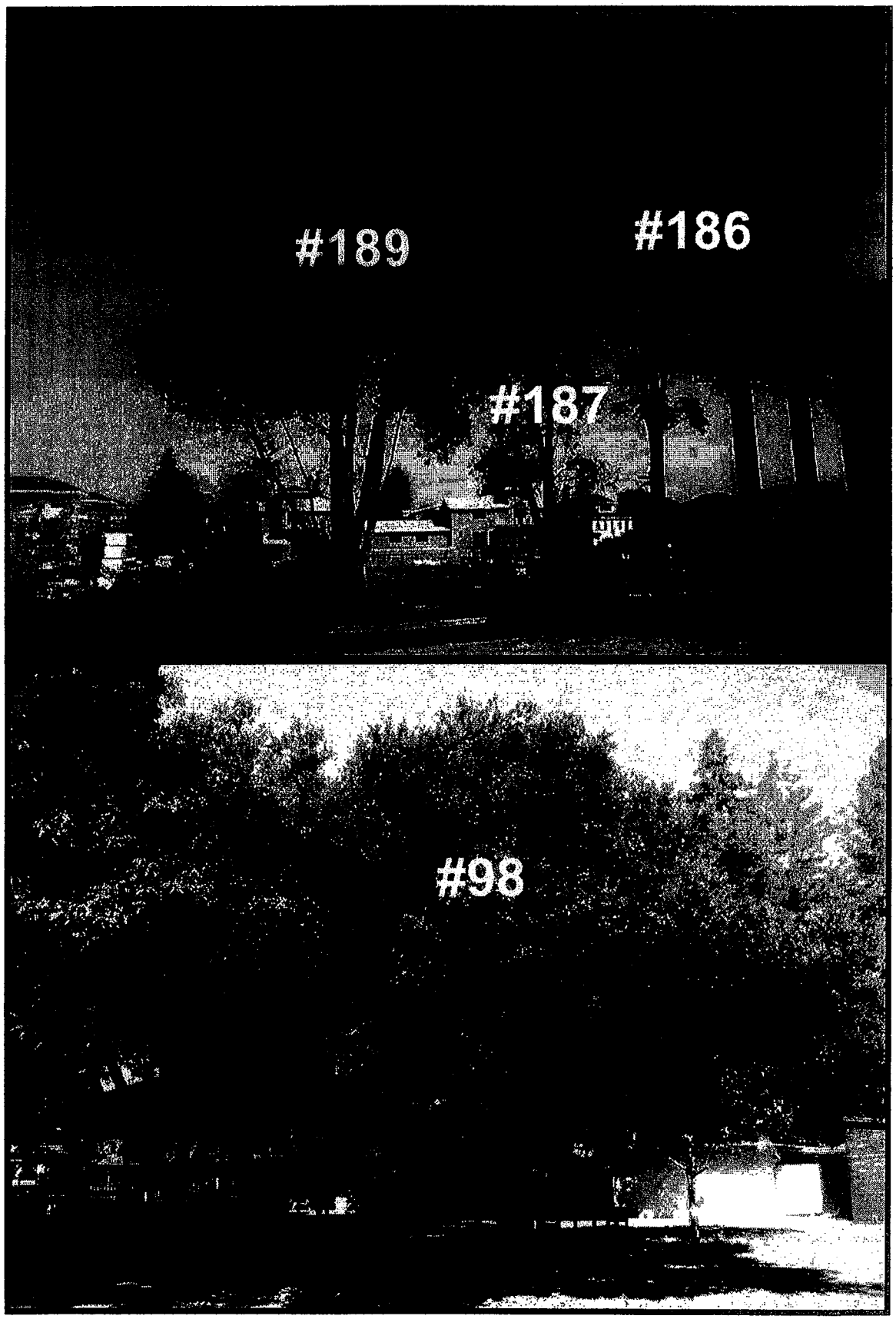
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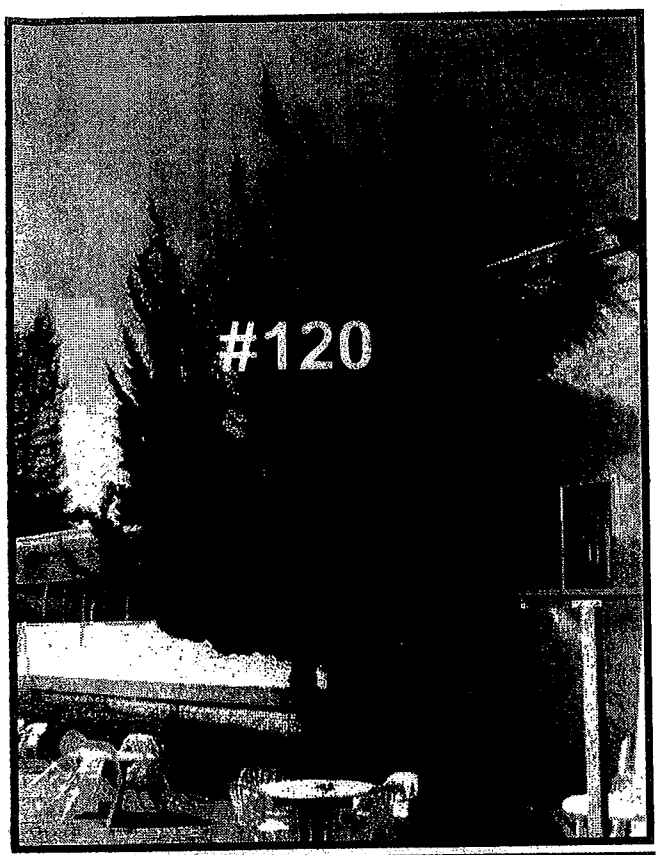
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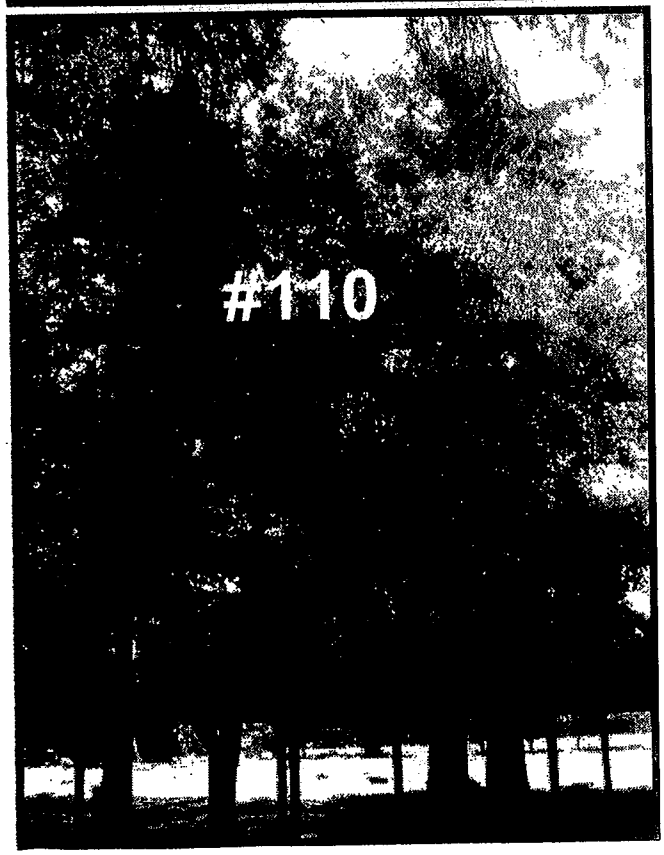
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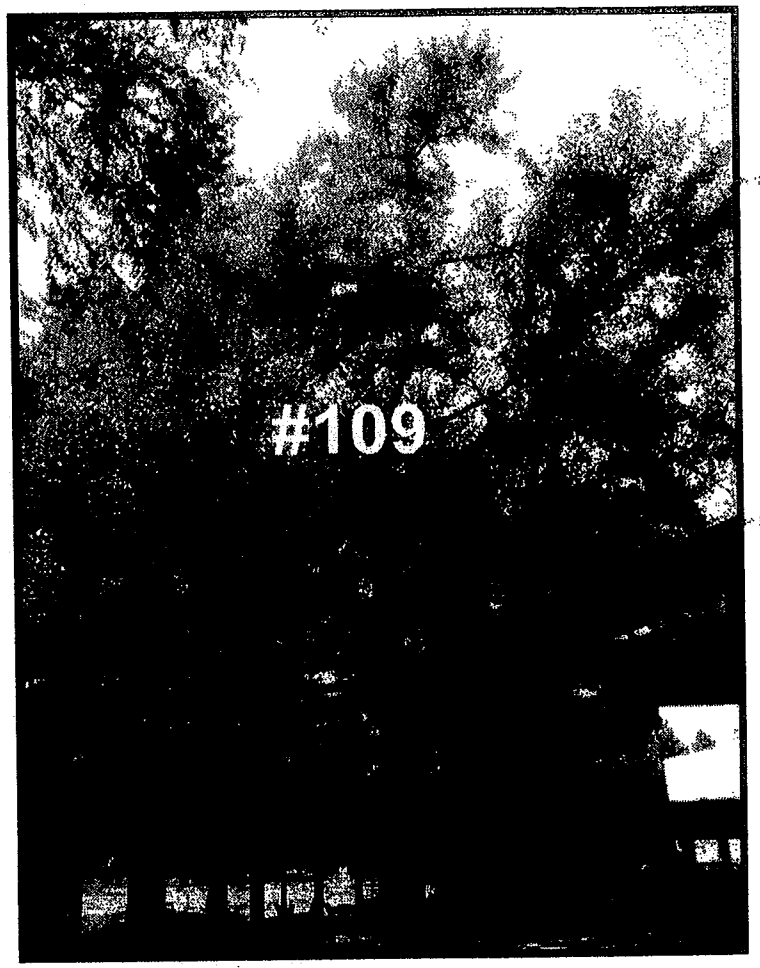
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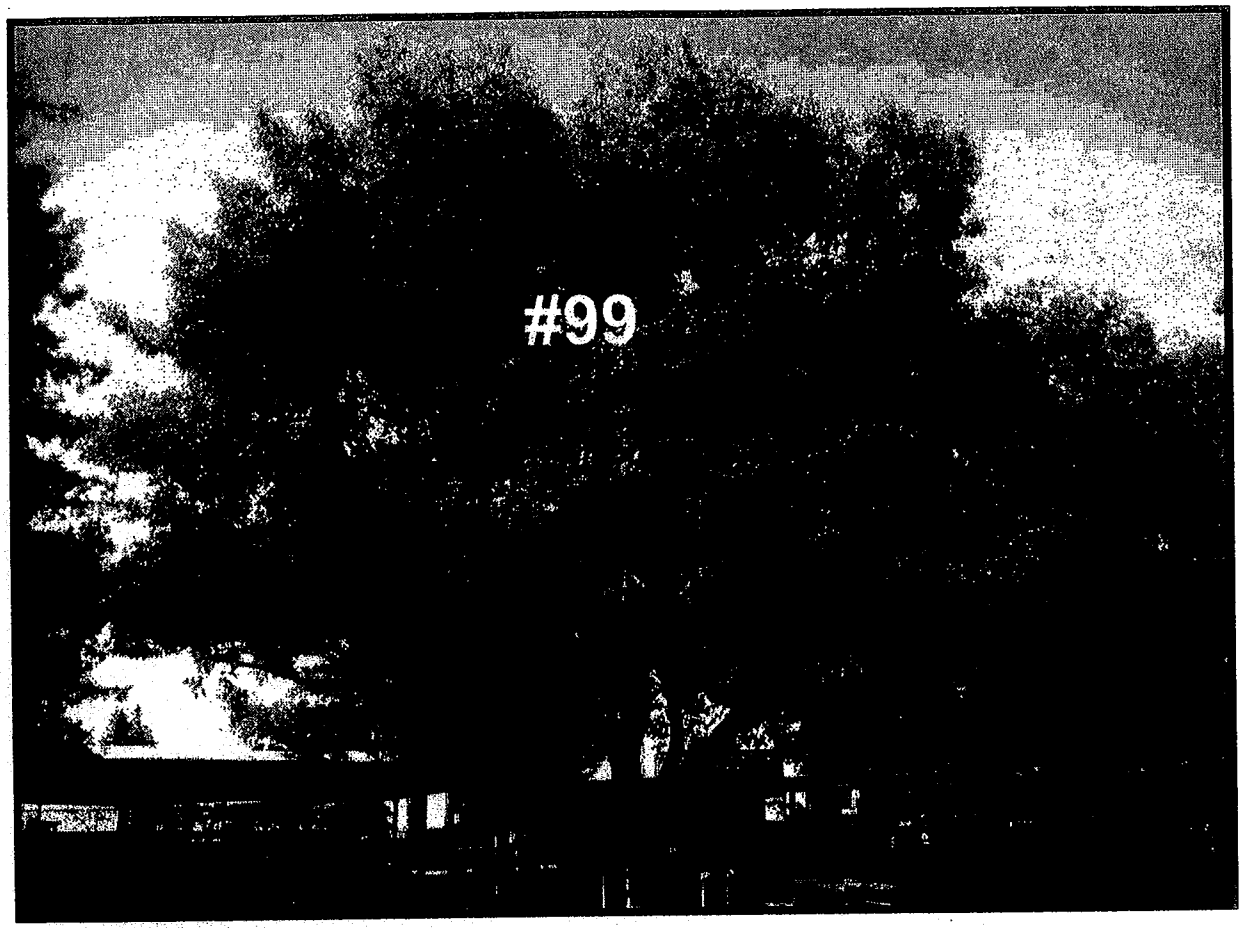
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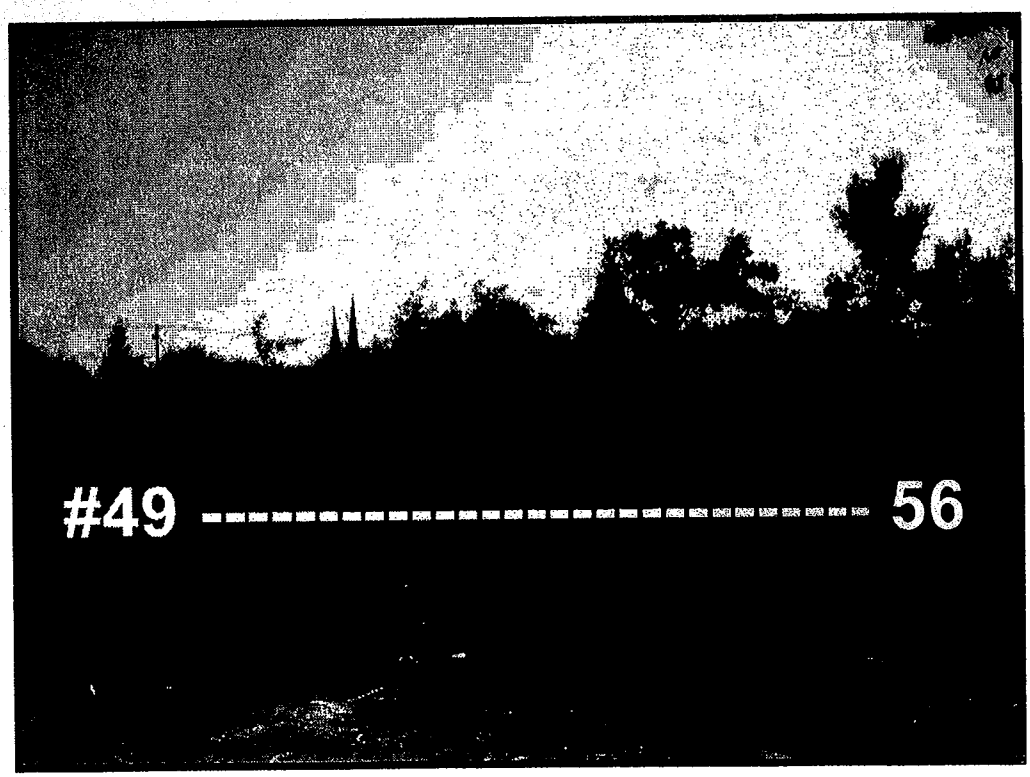
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EXHIBIT D:

FENCING SIGN TEMPLATE

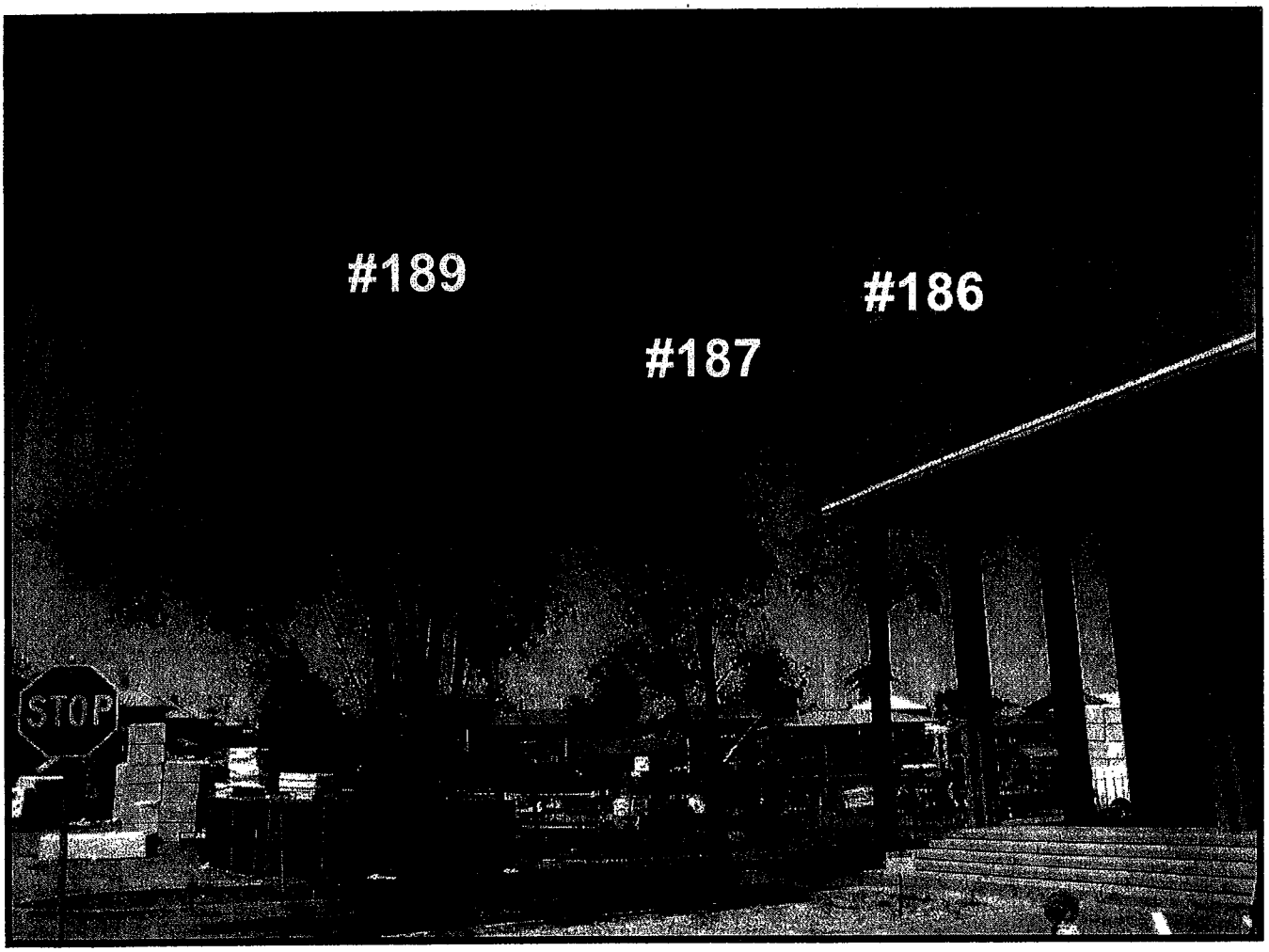
*** WARNING ***

TREE PROTECTION ZONE

This fence shall not be removed, moved or relocated. Violators are subject to a penalty according to PAMC Section 8.10.110.9.

ARBOR RESOURCES
Professional Arboricultural Consulting & Tree Care

A TREE PROTECTION PLAN FOR THE NEW ELKS LODGE 4249 EL CAMINO REAL PALO ALTO, CALIFORNIA



Prepared for:

Premier Properties Management
172 University Avenue
Palo Alto, CA 94301

Prepared by:

David L. Babby, RCA
Registered Consulting Arborist #399
Certified Arborist #WE-4001A

August 24, 2007

P.O. Box 25295, San Mateo, California 94402 • Email: arborresources@comcast.net
Phone: 650.654.3351 • Fax: 650.240.0777 • Licensed Contractor #796763

TABLE OF CONTENTS

EXHIBITS

Title Page: This northwest-facing photograph identifies trees #186, 187 and 189. They are regarded as "street trees" and situated within a median along the new Deodar Street.

1.0 INTRODUCTION

1.1 Project Overview

The Benevolent and Protective Order of the Elks (BPOE) is planning to construct a new Elks Lodge facility and recreational amenities at 4249 El Camino Real, Palo Alto, California. The project site comprises the entire existing parking lot between El Camino Real and the existing building. A new public street exists along the north side of the property, El Camino Real to the west, private property to the south, and the future SummerHill Homes multiple-family homes development to the east.

1.2 Scope of Work

On behalf of the BPOE, I have been retained by Premier Properties Management to prepare a "tree protection plan" for the proposed development and to achieve conformance with the City's Municipal Code.[1] In doing so, I have executed the following tasks:

- Identify all trees that have trunk diameters larger than four inches in diameter (measured at 12 inches above grade) and are located either on-site, on neighboring properties (provided their canopies overhang the site), or along the public right-of-way (i.e. "street trees" along Deodar Street or El Camino Real) within 30 feet of the project site.
- Measure their trunk diameter at approximately 54 inches above grade or as appropriate to obtain the most representative sample of trunk size.
- Assign monetary values to each tree (i.e. appraise the trees' values).
- Estimate tree height and canopy spread.
- Ascertain the trees' health and structural integrity.
- Determine the trees' suitability for preservation (e.g. high, moderate or low).
- Identify trees defined by the City of Palo Alto as "protected trees" and "street trees" (information regarding these classifications can be viewed on pages xiii and xiv of the City's *Tree Technical Manual*[2]).

[1] Note that most information regarding the trees' sizes and conditions are either extracted or modified from a 9/14/05 report I prepared for Elks Lodge; the report is titled "An Inventory and Evaluation of Trees at the Elks Lodge Property."

[2] The *Tree Technical Manual* can be viewed at the following website address: *www.cityofpaloalto.org/civica/filebank/blobdload.asp?BlobID=6436.*

- Obtain photographs of the trees (these can be viewed in Exhibit C).
- Distinguish between trees to be retained and removed.
- Review the following plans and evaluate the tree-related impacts: [1] a Preliminary Landscape Plan, dated 8/2/07, by Van Dorn ABED; [2] a Topographic Survey by BKF, dated 10/11/05; and [3] an untitled plan showing the site survey overlaid by the landscape plan.
- Assign numbers to each inventoried tree and plot these numbers on the map presented in Exhibit B (a copy of the site survey overlaid by the landscape plan).
- Attach metal tags with corresponding numbers to the trunks of trees located on the site (this was performed for all trees but #27a and 27b). Tags used are round aluminum with engraved numbers.
- Prepare a written report containing the aforementioned information, as well as provide recommendations to help avoid or mitigate anticipated impacts to trees that will be retained, to include site inspections required by the City of Palo Alto.

1.3 Purpose and Use of Report

This report has been prepared to comply with the City of Palo Alto Municipal Code, Chapter 8.10.030. Its purpose is to [1] inform Elks Lodge, Premier Properties Management, the project design team, the City of Palo Alto, and other decision-makers of the type, size and condition of trees within and immediately adjacent to the area proposed for development, and [2] present recommendations for minimizing damage to trees being retained.

To my understanding, this report will be used in the planning process of project development, including for and incorporation into architecture, civil and landscape drawings, as well as integration into applicable environmental assessment documents.

2.0 TREE COUNT AND COMPOSITION

There are **34 trees** of nine various species inventoried for this report. They are sequentially numbered as 1, 2, 4-27, 27a, 27b, 186, 187, 189, 194, 196 and 197, and the following table identifies their name, numbers and percentage:

NAME	TREE NUMBER(S)	COUNT	PERCENT OF TOTAL
Chinese Hackberry	1, 5, 7, 9, 11, 13	6	18%
Coast Live Oak	187, 189	2	6%
Coast Redwood	17, 21	2	6%
Hollywood Juniper	24-27	4	12%
London Plane	2, 4, 6, 8, 12, 14-16	8	24%
Pecan	196	1	3%
Spruce	197	1	3%
Swamp Myrtle	10	1	3%
Tree-of-Heaven	18-20, 22, 23, 27a, 27b, 186, 194	9	26%
	Total	**34**	**100%**

Specific information regarding each tree is presented within the Tree Inventory Table in Exhibit A. The trees and their locations can be viewed on the map in Exhibit B.

All other trees not identified in this report but shown on the Topographic Survey (and in my 2005 report) have been removed, to include those on-site, on the neighboring properties (if their canopies overhung the site), and along the public right-of-way within 30 feet from the site.

Two trees, **#27a and 27b**, have grown since my inventory in 2005 and are now large enough (i.e. trunk diameters greater than four inches in diameter) to qualify them as needing to be inventoried per City requirements. Their approximate locations are shown on the map in Exhibit B but should not be construed as being surveyed. Note that tree #27a grows against the base of tree #27's trunk and vertically through its canopy (essentially exists as one tree with #27).

Seven of the inventoried trees, **#17 thru 23**, overhang the site from the **neighboring** southern property. They have been included per the City's requirements, as well as for the reason that their canopies and roots are exposed to potential impacts during development.

3.0 REGULATED TREES

The City of Palo Alto **regulates** specific types of trees on public and private property for the purpose of avoiding their removal or disfigurement without first being reviewed and permitted by the City's Planning or Public Works Departments. For this project, these **regulated trees** are classified as "**protected trees**" (PAMC 8.10) and "street trees" (PAMC 8.04.020).

The following **15 trees** are "**street trees**" located within the public right-of-way: **#2, 4, 6, 8, 10, 12, 14-16, 186, 187, 189, 194, 196 and 197**. The nine trees assigned single or double digit numbers are located along El Camino Real, whereas the trees assigned triple digit numbers are located within the median islands along Deodar Street.

The following **four** trees are defined as "**protected trees**" pursuant to Section 8.10 of the City's Municipal Code: **#17, 21, 187 and 189**. Trees #17 and 21 are coast redwoods, whereas #187 and 189 are coast live oaks.

4.0 SUITABILITY FOR TREE PRESERVATION

Each tree has been assigned a "high," "moderate" or "low" suitability for preservation rating as a method for cumulatively measuring and considering their physiological health, structural integrity, location, size and species. A description of these ratings with the assigned tree numbers are presented below; note that the "high" category comprises **16 trees** (or 47-percent), the "moderate" category **12 trees** (or 35-percent), and the "low" category **6 trees** (or 18-percent).

High: These trees have the potential to provide long-term contribution to the site, appear in good health, contain seemingly stable structures, and/or are classified as a "regulated tree."

- This rating applies to the following trees: **#2, 4, 6, 8, 10-12, 14-17, 21, 22, 187, 189 & 196**.

Moderate: These trees contribute to the site but not at seemingly significant levels. Typically, their longevity and contribution is less than those of high suitability and more frequent care is needed during their remaining life span.

- This rating applies to the following trees: **#7, 13, 18, 23-27, 27a, 27b, 186 & 194**.

Low: These trees are predisposed to irreparable health problems and/or structural defects that are expected to worsen regardless of measures employed. In many instances, they are in a poor, declining or dead condition.

- This rating applies to the following trees: **#1, 5, 9, 19, 20 & 197**.

5.0 PROJECT REVIEW

4.1 Tree Removals

The following **14 trees** will be removed to accommodate the proposed design: **#1, 5, 7, 9-11, 13, 15, 24-27, 27a and 27b**. Of these, **#10 and 15** are located within the public right-of-way, whereas all others are located on the project site. The following table identifies their assigned number, species, trunk diameter, and suitability for preservation rating:

Tree No.	Tree Name (Common)	Trunk Diameter (in.)	Suitability for Preservation
1	Chinese Hackberry	5	Low
5	Chinese Hackberry	3	Low
7	Chinese Hackberry	3.5	Moderate
9	Chinese Hackberry	4.5	Low
10	Swamp Myrtle	5	High
11	Chinese Hackberry	7	High
13	Chinese Hackberry	6	Moderate
15	London Plane	7	High
24	Hollywood Juniper	9, 5.5, 4.5	Moderate
25	Hollywood Juniper	8.5	Moderate
26	Hollywood Juniper	9	Moderate
27	Hollywood Juniper	8, 7, 5, 4, 3, 3	Moderate
27a	Tree-of-Heaven	5, 2.5	Moderate
27b	Tree-of-Heaven	4.5	Moderate

As illustrated in the previous table, none of the trees are seemingly of significant size or status. The only two trees considered "regulated" by the City, namely #10 and 15, are small and can be easily replaced.

4.2 Trees at Potential Significant Risk

Trees #17 thru 22 are situated on the neighboring southern property and overhang the subject site. Through implementation of the proposed design, these trees would sustain root loss at varying degrees, the most potentially significantly impacted would be trees #17, 18, 19 and 22. As a means to mitigate the impacts and achieve a reasonable of tree survival and stability, the following guidelines should be incorporated into the project design (note that soil surface is intended to be interpreted as the area directly beneath the existing parking lot):

1. All trenching, soil cuts, and compaction of the existing soil surface must be setback from the trunks at *minimum* distances equal to five times their trunk diameters (for multiple trunks, the measurement shall be obtained from the largest trunk). Note that trenching is meant to include irrigation, storm drains, drainage swales, utilities/services, and plumbing lines for the pools.
2. Any overcut or trenching required for construction of the underground garage and swimming pools shall not exceed 24 inches beyond their walls. To achieve this, vertical shoring will be necessary for the underground parking garage and proposed swimming pools (e.g. soil nailing and shotcrete construction).
3. Soil fill must not be placed beyond the existing parking lot.
4. Any walkways or decks proposed within the setback shall be placed on top of existing soil grade (including base materials, edging and forms). Additionally, compaction of the soil subgrade must be avoided; the subbase materials can be compacted but should not exceed an 85-percent density. Fill can be placed to bevel the top of the walkway to existing soil grade, but should be restricted to 24 inches from the trees' trunks. Tensar® BX Geogrid (*www.tensarcorp.com*) could be used to help achieve the no-dig and restricted subgrade compaction requirements.
5. The planting and irrigation design should consider the trees' existing canopies and trunk locations.

6. Any walls proposed within the setbacks shall have not footing or, if one is necessary, be built with a pier and above-grade beam design, in which the beams between the piers literally span above grade with no trenching, soil cuts, or compaction (i.e. a no-dig design except vertically for the piers).
7. As several of the trees' trunks span across or abut the property line, the location of the future site fence should be considered. I recommend the fence is established at least two to three feet from the trunks, including their base, to allow for an existing tree to grow and avoid damage in the foreseeable near future.

6.0 TREE APPRAISAL VALUES

The appraised value for each tree is presented within the last column of the table in Exhibit A. They are calculated using the *Trunk Formula Method* and in accordance with the *Guide for Plant Appraisal, 9th Edition*, published by the ISA (International Society of Arboriculture), 2000, and used in conjunction with the *Species Classification and Group Assignment*, published by the Western Chapter of the ISA, 2004.

The combined appraised value of inventoried trees planned for retention is **$46,980**. The combined appraised value of inventoried trees anticipated for removal is **$5,170**.

7.0 TREE PROTECTION GUIDELINES

Recommendations presented within this section are intended to serve as guidelines for achieving viable mitigation and the protection of trees planned for retention. They should be carefully followed and incorporated into the project plans. Please note that any or all recommendations are subject to revision upon reviewing additional or revised plans. Additionally, I should be consulted in the event any of the recommendations cannot be followed or implemented in their entirety.

7.1 Design Guidelines

1. The Tree Protection Zone (TPZ) should be regarded as a minimum distance from a tree's trunk of five times its trunk diameter (for multiple trunks, the measurement shall be obtained from the largest trunk). This is where all grading (soil cuts, fill and finish-grading), trenching[3] and soil scraping should be avoided. In areas where this is not feasible, the impacts should be reviewed by the project arborist[4] for determining whether an alternative TPZ can potentially support a tree's longevity and stability.

2. Recommendations specified in Section 6.0 of this report shall be carefully followed and incorporated into the project design.

3. All site-related plans (e.g. site, grading and drainage, and landscape) should show the following information regarding each tree inventoried for this report: trunk locations, diameters (depicted by a to-scale circle), as well as assigned tree numbers and accurate canopy dimensions (the canopy dimensions for clusters of trees can be grouped together). I also recommend the civil drawings show the ground elevation of the trunks. For trees anticipated to be removed, an "X" should be shown through their trunks.

4. The future staging area and route(s) of access should be shown on the final site plan and avoided on unpaved areas beneath the trees' canopies.

5. Pursuant to City Ordinance, a copy of this report shall be incorporated into the final set of project plans; titled Sheets T-1, T-2, etc. (Tree Protection Instructions); and referenced on all site-related plans (e.g. site, grading and drainage, and landscaping). Also, refer to the following website for additional forms required by the City: *www.city.palo-alto.ca.us/depts/pln/planning_forms.asp*.

[3] This includes, but is not limited to, irrigation, lighting, drainage, and underground utilities and services.
[4] The "project arborist" refers to me or another individual that is certified by the ISA and/or is a member of the American Society of Consulting Arborists (ASCA).

6. The permanent and temporary drainage design, including downspouts, shall not require water being discharged towards a tree's trunk. Additionally, the drainage design shall not require trenching within a TPZ, except where within 24 inches from the underground parking garage and swimming pool walls.

7. All existing, unused lines or pipes beneath the canopies of retained trees shall be abandoned and cut off at existing soil grade (rather than being dug up and causing subsequent root damage).

8. All utilities and services should be routed outside from a TPZ. In the event this is not feasible, directional boring and/or the use of a pneumatic air device (such as an Air-Spade®) must be considered. For boring, the ground above the tunnel(s) must remain undisturbed and the access pits established as far from the trunks as possible. Additionally, the pit locations (if within the TPZ or designated-fenced areas) shall be reviewed with the project arborist prior to being dug.

9. Upon availability, the following plans must be reviewed for tree-related impacts: site, elevations, grading and drainage, underground utilities, and landscaping (layout, planting and irrigation).

10. The proposed landscape design should conform to the following additional guidelines:
    a. Plant material installed within a TPZ should be limited in amount and planted at least three to five feet from a tree's trunk.
    b. Irrigation spray should not strike within three of a tree's trunk.
    c. In the event trenches for irrigation and/or lighting are required beneath a canopy, they should be installed in a radial direction to the trees' trunks. If irrigation trenches cannot be routed as such, the work may need to be performed using a pneumatic air device (such as an Air-Spade®) to avoid unnecessary root damage.

d. Stones and new fencing should not be established against the trees' trunks (I suggest a minimum two-foot setback). Additionally, mulch should not be placed against the trunks.
e. Tilling beneath canopies should be avoided, including for weed control.
f. Bender board or other edging material proposed beneath the canopies should be established on top of existing soil grade (such as by using vertical stakes).

11. Per City standards, an engineered structural soil mix[5] should be considered as an alternative to base course material where sidewalks or concrete walkways are constructed in proximity to where new trees, such as street trees, will be installed. By doing so, a more compatible, long-term growing environment can be established for trees while minimizing the risk of future damage to adjacent hardscape.

7.2 Protection Measures before and during Development

12. Prior to site demolition and clearing, an on-site, pre-construction meeting shall be held between the project arborist and contractor. The intent is to review trees being removed, procedures for digging beneath or near TPZs, trunk wrap protection, tree protection fencing locations, limits of grading, staging areas, routes of access, cleanout pits, mulching, supplemental watering, demolition work, and any other required protection measures.

13. Prior to demolition, orange plastic fencing shall be wrapped around the lower trunks to the first branch of the retained street trees, and bound by two-inch thick wooden boards tied together on the outside. Prior to the City issuing a demolition permit, the project arborist must prepare a letter verifying this item has been implemented.

14. Upon the existing asphalt being removed beneath the canopies of trees #17 thru 22 (after demolition and before construction or underground utility/service installation), tree protection fencing shall be installed at or within 36 inches from the trees' TPZ.

[5] Additional information can be viewed at *www.amereq.com/pages/14/index.htm.*

The fencing should consist of six-foot high chain link mounted on eight-foot tall, two-inch diameter steel posts that are driven 24 inches into the ground and spaced no more than 10 feet apart. The fencing must be maintained throughout development and at no time shall it be opened or relocated without direct authorization from the arborist.

15. Tree protection warning signs must be prominently displayed on each fence side facing construction activities, and be of a minimum 8-½ by 11 inches in size. See Exhibit D for a template (dated 7/21/07) derived from the City's following website address: *www.city.palo-alto.ca.us/civica/filebank/blobdload.asp?BlobID=2716.*

16. Unless otherwise approved, all construction activities must be conducted beyond unpaved areas within the TPZ, including for trees inventoried and not inventoried for this report.

17. The project arborist must regularly inspect the project site as outlined on page 2-14 of the *Tree Technical Manual* (Section 2.30 Inspection Schedule). Inspections shall occur once per month (minimum) and continue through final inspection. A written summary of pertinent observations and recommendations shall coincide with each inspection, and a copy emailed to the City's Planning Arborist. Pertinent measures to promote the longevity and vigor of retained trees beyond the development period shall also be provided near project completion.

18. The removal of hardscape must be carefully performed to avoid excavating soil and damaging roots during the process. The project arborist should monitor this work, which must not involve the use of heavy equipment or tractors operating or traveling on unpaved soil within a TPZ. To prevent root desiccation, I recommend a five-inch layer of coarse wood chips (see following recommendation) is spread on the newly exposed soil and remain continually moistened for a two-week period (or until any new hardscape is installed). Note that base material found beneath the existing

asphalt surface should remain intact and only removed at the discretion of the arborist (in some instances, significant roots may be exploiting the base material).

19. Prior to construction, a five-inch layer of coarse wood chips (¼- to ¾-inch in size) must be spread on unpaved soil within a TPZ (but not piled against the trunks). These wood chips can be obtained from tree service companies and/or by contacting *www.reuserinc.com.*

20. The project arborist shall monitor development activities authorized within a TPZ. Any digging or trenching within a TPZ shall be manually performed (i.e. through hand-digging) without the use of heavy equipment or tractors. For trenching, roots exposed with diameters of two inches and greater should remain intact and not be damaged (if necessary, tunneled beneath).

21. Prior to excavation for the underground parking garage and swimming pools, I recommend a one-foot wide, three-foot deep trench is manually dug within 12 to 18 inches from where the walls of these features will be constructed. Any roots encountered during the process should be cleanly severed against the soil cut and in a manner that provides a clean, straight cut; the purpose for doing so it to minimize the unnecessary ripping, splitting and tearing of roots towards the nearest tree trunk.

22. The locations of any posts or piers (e.g. wood fences and/or porches) within a TPZ shall be first reviewed by the project arborist prior to digging. A post-hole digger should be used for digging the first 2.5 to 3 feet below grade; a manually-operated, mechanical auger can be used to drill the remaining depth. In the event a root of two inches and greater in diameter is encountered during the process, the hole may need to be resituated.

23. Recommendations that are presented within Section 7.1 of this report and pertain to site development should also be followed.

24. Throughout construction during the months of May thru October (or as deemed necessary), supplemental water shall be supplied to the retained trees. The methodology, frequency and amounts shall be prescribed by the project arborist.

25. The pruning of trees shall be performed per ISA standards and by a California state-licensed tree service company that has an ISA Certified Arborist in a supervisory role. All pruning work shall be performed under direction of the project arborist.

26. I recommend the retained trees are pruned prior to demolition as a means to minimize risk and achieve necessary clearance from large equipment and buildings. I recommend the work is limited to removing deadwood one-inch and greater, clearing encroachments, and reducing heavy limb weight (thinning the trees should be avoided).

27. Great care must be taken by equipment operators to position their equipment to avoid the trunks and branches of trees. Where a conflict exists, the project arborist should be advised to provide a feasible solution.

28. The disposal of harmful products (such as chemicals, oil and gasoline) is prohibited beneath canopies or anywhere on site that allows drainage beneath or near canopies. Herbicides should not be used beneath the trees' canopies; where used on site, they should be labeled for safe use near trees.

8.0 ASSUMPTIONS AND LIMITING CONDITIONS

- All information presented herein covers only those items that were examined and reflects the condition of those items at the time of my observations during January and February 2007.
- My observations were performed visually without probing, coring, dissecting or excavating. I cannot, in any way, assume responsibility for any defects that could only have been discovered by performing the mentioned services in the specific area(s) where a defect was located.
- The assignment pertains solely to trees listed in Exhibit A. I hold no opinion towards other trees on or surrounding the project area.
- I cannot provide a guarantee or warranty, expressed or implied, that deficiencies or problems of any trees or property in question may not arise in the future.
- No assurance can be offered that if all my recommendations and precautionary measures (verbal or in writing) are accepted and followed, that the desired results may be achieved.
- All information presented on the plans reviewed is assumed to be correct. I cannot guarantee or be responsible for the accuracy of information provided by others.
- I assume no responsibility for the means and methods used by any person or company implementing the recommendations provided in this report.
- The information provided herein represents my opinion. Accordingly, my fee is in no way contingent upon the reporting of a specified finding, conclusion, or value.
- This report is proprietary to me and may not be copied or reproduced in whole or part without prior written consent. It has been prepared for the sole and exclusive use of the parties to who submitted for the purpose of contracting services provided by David L. Babby.
- The map presented in this report (Exhibit B) is solely intended to show approximate tree locations and numbers and shall not be interpreted as an engineered or architectural drawing.
- If any part of this report or copy thereof be lost or altered, the entire evaluation shall be invalid.

Prepared By: _____
David Babby, RCA

Date: August 24, 2007

EXHIBIT A:

TREE INVENTORY TABLE

TREE INVENTORY TABLE

TREE NO	TREE NAME	Trunk Diameter (in.) - per Guide for Plant Appraisal	Height (ft.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition	Suitability for Preservation (High/Moderate/Low)	"Protected Tree"	"Street Tree"	Located on Adjacent Property	Appraised Value
1	Chinese Hackberry (*Celtis sinensis*)	5	20	20	25%	50%	Poor	Low				$100
	Comments: Tree is severely drought-stressed, as evidenced by its significantly sparse and seemingly dying canopy.											
2	London Plane Tree (*Platanus aeriflia*)	3	15	15	75%	50%	Fair	High		X		$80
	Comments: Has atypical form.											
4	London Plane Tree (*Platanus aeriflia*)	7	30	20	50%	75%	Fair	High		X		$320
	Comments:											
5	Chinese Hackberry (*Celtis sinensis*)	3	20	10	50%	50%	Fair	Low				$70
	Comments: Has an asymmetrical canopy. Trunk is covered in a dense layer of ivy.											
6	London Plane Tree (*Platanus aeriflia*)	6.5	25	20	50%	75%	Fair	High		X		$280
	Comments:											
7	Chinese Hackberry (*Celtis sinensis*)	3.5	15	5	75%	75%	Good	Moderate				$150
	Comments:											
8	London Plane Tree (*Platanus aeriflia*)	6	25	20	75%	50%	Fair	High		X		$240
	Comments:											
9	Chinese Hackberry (*Celtis sinensis*)	4.5	20	15	25%	50%	Poor	Low				$90
	Comments: Trunk is also covered in dense layer of ivy. Tree has a abnormally sparse canopy due to being drought-stressed.											
10	Swamp Myrtle (*Tistania laurina*)	5	10	10	100%	75%	Good	High		X		$770
	Comments:											
11	Chinese Hackberry (*Celtis sinensis*)	7	30	20	75%	75%	Good	High				$460
	Comments:											
12	London Plane Tree (*Platanus aeriflia*)	7	25	20	50%	75%	Fair	High		X		$320
	Comments:											

TREE INVENTORY TABLE

TREE NO	TREE NAME	Trunk Diameter (in.), per Guide for Plant Appraisal	Height (ft.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition	Suitability for Preservation (High/Moderate/Low)	"Protected Tree"	"Street Tree"	Located on Adjacent Property	Appraised Value
13	Chinese Hackberry (*Celtis sinensis*)	6	20	25	50%	75%	Fair	Moderate				$240
	Comments:											
14	London Plane Tree (*Platanus aeriflia*)	6.5	25	20	50%	75%	Fair	High		X		$280
	Comments:											
15	London Plane Tree (*Platanus aeriflia*)	7	30	25	50%	75%	Fair	High		X		$320
	Comments:											
16	London Plane Tree (*Platanus aeriflia*)	4	20	10	100%	50%	Fair	High		X		$150
	Comments: The lower 10 of trunk has a lean, the remaining 10 feet grows upright.											
17	Coast Redwood (*Sequoia sempervirens*)	46	90	45	75%	100%	Good	High	X		X	$19,100
	Comments:											
18	Tree-of-Heaven (*Ailanthus altissima*)	22	55	45	100%	50%	Good	Moderate			X	$580
	Comments: Canopy is asymmetrical as it grows outward, towards parking lot, from beneath tree #17's canopy.											
19	Tree-of-Heaven (*Ailanthus altissima*)	24	55	45	100%	25%	Fair	Low			X	$450
	Comments: Has a two-foot tall, one-foot wide cavity on parking lot (northwest) side.											
20	Tree-of-Heaven (*Ailanthus altissima*)	9	55	25	75%	25%	Fair	Low			X	$60
	Comments: It is tall and narrow, and has poor trunk taper.											
21	Coast Redwood (*Sequoia sempervirens*)	25, 25, 13	70	40	50%	50%	Fair	High	X		X	$7,200
	Comments: Its canopy is sparse, likely due to a lack of sufficient water.											
22	Tree-of-Heaven (*Ailanthus altissima*)	15, 15	40	35	100%	25%	Fair	High			X	$530
	Comments:											
23	Tree-of-Heaven (*Ailanthus altissima*)	21	45	50	75%	75%	Good	Moderate			X	$490
	Comments:											

TREE INVENTORY TABLE

TREE NO.	TREE NAME	Trunk Diameter (in.) - per Guide for Plant Appraisal	Height (ft.)	Canopy Spread (ft.)	Health Condition (100%=Best, 0%=Worst)	Structural Integrity (100%=Best, 0%=Worst)	Overall Condition	Suitability for Preservation (High/Moderate/Low)	"Protected Tree"	"Street Tree"	Located on Adjacent Property	Appraised Value
24	Hollywood Juniper (*Juniperus c 'Torulosa'*)	9, 5.5, 4.5	20	20	100%	75%	Good	Moderate				$950
	Comments:											
25	Hollywood Juniper (*Juniperus c 'Torulosa'*)	8.5	15	15	100%	75%	Good	Moderate				$580
	Comments:											
26	Hollywood Juniper (*Juniperus c 'Torulosa'*)	9	15	15	100%	75%	Good	Moderate				$650
	Comments:											
27	Hollywood Juniper (*Juniperus c 'Torulosa'*)	8, 7, 5, 4, 3, 3	15	15	100%	50%	Good	Moderate				$730
	Comments:											
27a	Tree-of-Heaven (*Ailanthus altissima*)	5, 2.5	25	15	100%	50%	Good	Moderate				$30
	Comments: Grows at base of tree #27 and through its trunks.											
27b	Tree-of-Heaven (*Ailanthus altissima*)	5	20	15	100%	50%	Good	Moderate				$30
	Comments:											
16	Tree-of-Heaven (*Ailanthus altissima*)	20	50	60	50%	75%	Fair	Moderate		X		$380
	Comments: Has a sparse canopy.											
18	Coast Live Oak (*Quercus agrifolia*)	16	45	30	50%	50%	Fair	High	X	X		$2,760
	Comments: Has a sparse canopy.											
18	Coast Live Oak (*Quercus agrifolia*)	20.5, 17.5, 16.5	45	60	75%	50%	Fair	High	X	X		$10,000
	Comments: Its canopy is somewhat sparse.											
19	Tree-of-Heaven (*Ailanthus altissima*)	20, 18	50	35	50%	50%	Fair	Moderate		X		$580
	Comments:											
16	Pecan (*Carya illinoensis*)	16	45	60	75%	75%	Good	High		X		$3,090
	Comments: Deadwood is at top.											
19	Spruce (*Picea sp.*)	5	10	10	50%	25%	Poor	Low		X		$90
	Comments: Has tip dieback and a misshapen canopy that is suppressed by the more valuable tree #196.											

EXHIBIT B:

SITE MAP

ELKS LODGE

4249 EL CAMINO REAL, PALO ALTO