

APPENDICES

**18061 SARATOGA-LOS GATOS ROAD
MONTE SERENO, CALIFORNIA**

APPENDIX A

HISTORICAL and ARCHITECTURAL EVALUATION

HISTORICAL and ARCHITECTURAL EVALUATION
Considering the property located at
18061 Los Gatos Saratoga Road
City of Monte Sereno
Santa Clara County, California



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Figure 1 Vicinity Map: Monte Sereno Area

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Source: Google Earth pro

Location Map 18061 Los Gatos Saratoga Road





Figure 2 Santa Clara County Assessor's Map APN 410-20-035
18061 Los Gatos Saratoga Road, City of Monte Sereno, Santa Clara County CA

1. 1. EXECUTIVE SUMMARY

The property addressed as 18061 Saratoga Los Gatos Road, in the City of Monte Sereno, Santa Clara County is proposed for redevelopment. The project owner was required to commission an evaluation of the history and architecture of the property and improvements to provide the City of Monte Sereno with information from which it can evaluate redevelopment plans according to CEQA Guidelines and historic preservation policies. The following report describes the research into the historic associations with the owners of the property and the description and evaluation of the architecture, construction methods and materials. These are considered as part of the process leading to the conclusion that the property is not a significant contributor to the history of Monte Sereno and is not eligible for listing in the California Register of Historic Resources due to extensive alterations and additions.

Research was limited due to the Health Department orders that closed the libraries, public records and traditional sources of information. A search of deeds provided property owners from 1882-2020. The remainder of the research was conducted in the library of Urban Programmers or on the internet. The internet was used to research United States Census records and voter rolls. Site visits and photographs were also used in preparing the report and evaluation.

The property had been subdivided as part of the original Rancho Rinconada de las Gatos. The Santa Clara County Assessor's records show the main house was constructed c. 1900 and contains 1,360 square feet in 2 stories. Visual inspection shows several additions and alterations that are described in the report showing the building increased over 1,000 square feet since it was last appraised.

The house is a vernacular two-story house that exhibits elements of many alterations and additions, principally those from the 1950s and when the building was covered with manufactured siding. Alterations included upper decks, used brick veneer on the front entry wall and the rebuilt chimney. Large additions have been added to the rear and south side and it appears the front façade was enlarged with a projecting rounded bay with tall windows that created the deck above. It appears the original building was a "L" form, likely in the Italianate style with little ornamentation. The building has lost integrity of the original rural orchard house.

The conclusion is that the property is not a significant historic resource based upon the architectural alterations and additions that have obscured the original form and materials.

1. 2. REPORT PREPARATION

The report was prepared by Urban Programmers and compiled by Bonnie Bamburg. Ms Bamburg has over 40 years experience in preparing historic surveys and evaluation reports for cities, counties, and the federal government. She has prepared numerous National Register Nominations for individual sites and historic districts. In addition, she has advised owners and architects on compliance with the Secretary of the Interior's Standards for Rehabilitating Historic Buildings and has prepared Certifications for historic properties in several states. Ms. Bamburg is a former instructor in Historic Preservation at SJSU, a lecturer in historic preservation and former San Jose Historical Landmark Commissioner (1974-1980). Ms. Bamburg is an advisor to Preservation Action Council San Jose and is a former board member of the Western Region of the Association for Preservation Technology and History San Jose. William Zavlaris, B.A, MUP, received his education in art and architectural history at the University of California Berkeley and received his master's degree in urban planning, City Design, from San Jose State University. Mr. Zavlaris has 35 years experience in evaluating architecture for local historical surveys and National Register Nominations. A. Douglas Bright, received his Masters in Historic Preservation from Savannah College of Art and Design in 2008. Urban Programmers associates with MBA Architects who review existing conditions. Marvin Bamburg, AIA has over 50 years of experience in historic preservation architecture for residential and commercial properties. Marvin Bamburg, AIA, has chaired the AIA/SCV Historic Preservation Committee for many years, and is an Advisory Board Member of Preservation Action Council-San Jose. He is a qualified Historic Architect listed with the NWIC.

Preparation of the report was limited in the research that could be undertaken by the Santa Clara County Health Officer's closure of libraries and public record repositories. The information contained in the report was derived from a combination of interviews conducted with people knowledgeable about certain aspects of the property or associations in history, city directories, historic maps, public records, and materials from the internet aided in the research.

2. INTRODUCTION

The following report provides a brief historical background of the hillside area of Santa Clara County to establish the historical context for evaluating the historical and/or architectural importance of the property located at 18061 Saratoga Los Gatos Road.

2.1. HISTORICAL CONTEXT

The settlement history for the area that became Monte Sereno, begins in the 1860's with the early settlers who engaged in lumber and agriculture. Lumber, particularly redwood was used to build the growing cities of San Francisco, Oakland and San Jose, and was shipped to other places through the ports of Alviso and Redwood City. After 1868, the railroad was also available for shipping and allowed the expanding acres of orchards and farms to ship fresh and then processed fruit. At the end of the nineteenth century, the hills surrounding Santa Clara Valley that had been stripped of native trees, were well established with orchards and vineyards. Orchards were planted to supply the market for fresh fruit and to supply the processed fruit industry. Processed fruit was the most important industry in the local economy from 1870 through the first third of the twentieth century and was established in all communities of the county. During this period, Santa Clara Valley supplied the world with prunes and other preserved fruit. In the area that became Monte Sereno, to the west of Los Gatos Blvd., The Los Gatos Canning Company, established in 1881, was purchased in 1907 by the Hunt brothers from Hayward and moved to the corner of Saratoga Avenue and Santa Cruz Road, not far from the future City of Monte Sereno. Another group that found the hillsides to be desirable were residents of San Francisco and the north peninsula who developed second homes seeking to escape from the San Francisco summer fog. In the last quarter of the nineteenth century, there was also an economic development program to attract new residents and businesses to the area. In 1887, the Board of Trade in San Jose published Volume 1 No. 1 Santa Clara County California¹, the publication- a quarterly- aimed at the east coast and mid-west extolled the mild climate and economic opportunities to be found in agriculture or other business in the county. In the years 1894 and 1895 the pictorial books Sunshine Fruit and Flowers² further extolled the opportunities in Santa Clara Valley, and were also destined for distant markets. It was in the last decade of the nineteenth century that the house at 18061 Saratoga Los Gatos Road was constructed on land owned by Cezrie La Fabre (La Favere). In this decade, many homes were constructed in the Los Gatos area. The styles were late Italianate, Queen Anne, and a variety of late Victorian and simple vernacular buildings. After Rancho de las Rinconada had been subdivided, a further subdivision along Saratoga Avenue (Los Gatos Saratoga Avenue) was recorded as the Auzerai Subdivision. In 1875, the land was owned by William Le Febre, an immigrant from Canada who became a naturalized citizen in San

¹ Santa Clara County, California 1887, reprinted by the San Jose Historical Museum Association in 1980.

² Sunshine Fruit and Flowers, San Jose Mercury 1894,1895, Reprinted by the San Jose Historical Museum Association .

Jose in 1871 and registered to vote.³ In 1882 the land was transferred to his wife Cezrie Le Febre where it remained in the family until 1916.⁴

By 1919 and the end of WWI more people had experienced the Bay Area as part of military or civilian movements, and they to spread the word of California's climate and opportunities. While the floor of the Valley attracted the business and industry, the foothills attracted fruit and grape growers, resorts and residents who wished a rural lifestyle.

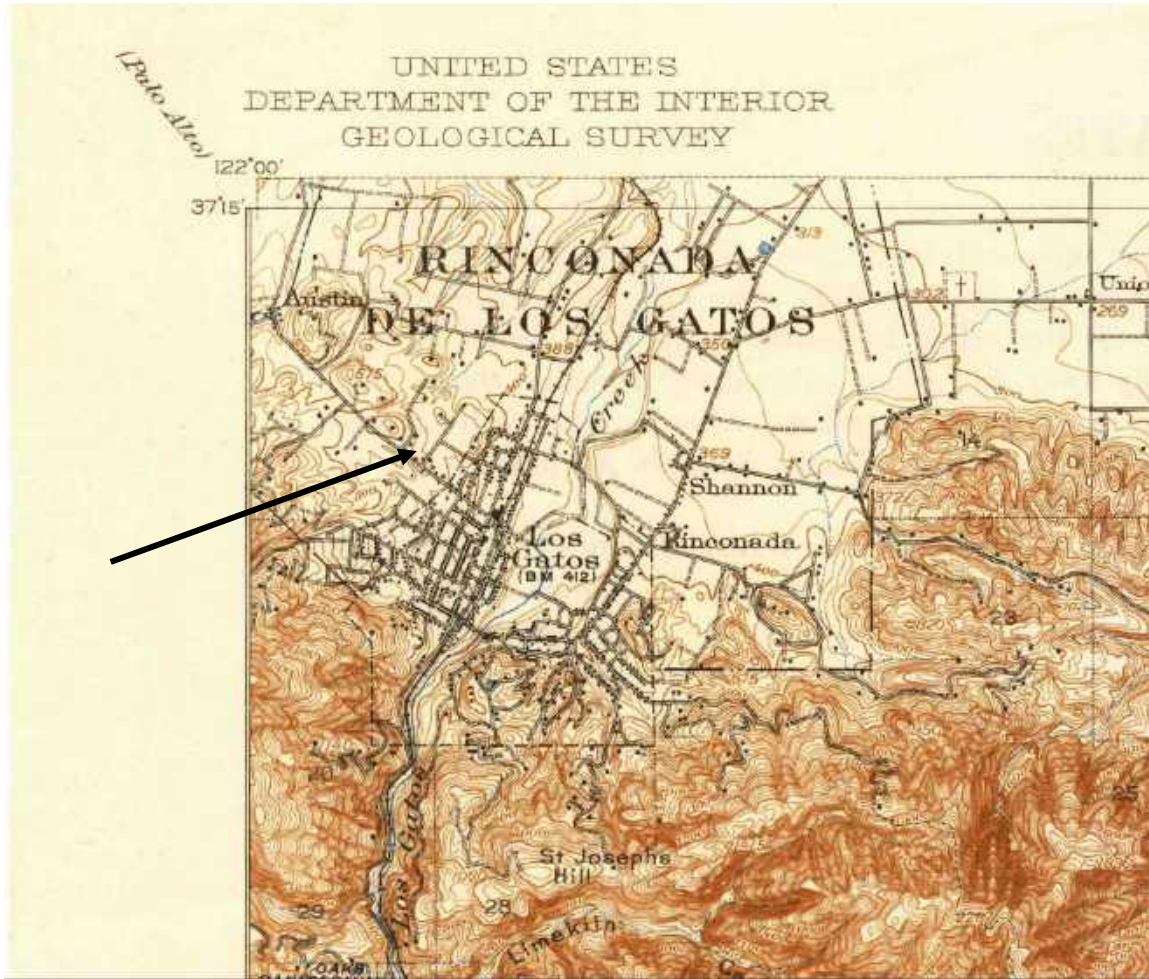


Figure 1919 California Los Gatos Quadrant USGS (reprinted 1942)

View: The arrow points to the location of 18061 Los Gatos Saratoga Road and shows the development of other homes nearby.

The homes created by the new residents were a broad spectrum including small cottage/cabins and the magnificent estates with mansion homes such as Montalvo, the country home of Senator James D.Phelan. By the late 1920's the trend had spread to those of

³ California State Library; Sacramento, California; *Great Registers, 1866-1898*, Collection Number: 4-24; CSL Roll Number: 124; FHL Roll Number: 977287

⁴ Deed: May8, 1916 Cezrie LeFebre to John Arnez

more modest means and small bungalows were grouped throughout the foothill communities of Los Gatos and Saratoga. Together with the part-time residents, permanent residents formed cultural societies and enjoyed expanding the options for entertainment by welcoming poets, artists, actors, and writers. Journals and newspapers carried the work of local residents such as John Steinbeck and promoted the artistic endeavors of county residents, attracting more cultural interest in the area. As the County matured, so did the expansion of social activities that supported various causes, among these were several that cared for “less fortunate” including refugee women, and orphaned children who had been forced to live as virtual slaves in the urban cities-particularly Oakland and San Francisco.⁵

Transportation played a significant role in the development of the Los Gatos/Monte Sereno area. Resorts and retreats that were served by horse carriages were operating in the canyons and hillsides from Saratoga to Los Gatos as early as 1870’s. By the late 1920s, the area was prosperous and experiencing a growth in population driven by the fruit and food processing industry, desirable climate and transportation that included more and more automobiles. The area had been served by a railroad since 1878 when the narrow gauge Southern Pacific Coast Railroad was completed between Alameda and Los Gatos⁶. This service was followed by the standard gauge rails in 1895 and regular commuter service to San Francisco that began in 1900, continued until 1959. The Interurban electric trolley system, operated by different companies over the years had a route after 1904, that served first San Jose to Saratoga and on to Los Gatos. By 1915, it was the Peninsular Interurban Rail Road from Palo Alto to Los Gatos with stops after Saratoga at Bonnie Bray, Farwell, Glen Una, Nippon Mura (La Hacienda) and Austin before reaching Los Gatos. This service provided additional encouragement to develop second or seasonal homes in the rolling hills. In the late teens and early 1920’s, roads that had been served by horse back or carriage were graded for automobiles, then becoming the main source for transportation, and the trolley system that extended throughout the county began to crumble and terminated all electric trolley service in 1938.

By the mid twentieth century, the Town of Los Gatos and the City of Saratoga (1956) were incorporated leaving the area that would become Monte Sereno in the unincorporated area of Santa Clara County. In 1951 and 1952, The large parcel that was owned by Shoemaker was subdivided and residential size parcels sold leaving the house on .57 acres. The 1950s was also a decade of incorporation for many of the mountain area communities that had increased in population after WWII and developed community cultures that were distinct from their neighbors. In the area of Monte Sereno, a group of families who had known each other during military service began the discussion of a community that would limit property taxes, services and population to retain a semi-rural plan. At that time property taxes in California were rising at alarming rates threatening to force retired families out of the state. Retired Admiral Thomas Inglis is credited with founding the City of Monte Sereno with the concept that an incorporated city could be only a residential community

⁵ Borsuk, A., Radiant Light: The Story of Eastfield / Ming Quong

⁶ Bruntz, C., Valley Press, 1983 pages 36-39

and contract for essential services without the capitol improvements expense of fire stations, police buildings or schools⁷. The City of Monte Sereno was incorporated May 14, 1957 as a residential community contracting for many services. Since that time, it has remained primarily a residential community that is a mix of large estate homes as well as many that are smaller. Subdivisions include those over one acre and suburban subdivisions less than 1/4 acre such as Rose Court. The residents are above average in their income and represent the leadership of many well-known corporations from Silicon Valley.

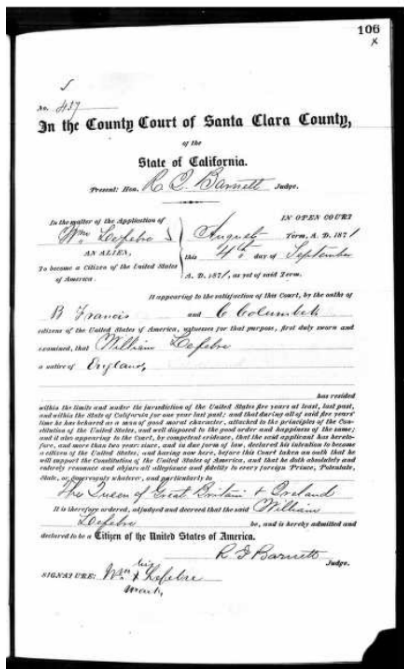
Architecture in the hills followed the same popular patterns as those of the Valley. The Victorian styles of the 1800's gave way to the Craftsman Style, initially made popular by the bungalow and ranch which became the most prolific styles embraced in California. In the finest of the high styles, architects Bernard Maybeck, Julia Morgan, Ernest Coxhead and Willis Polk were the leaders of what translated to more modest designs in country homes, seasonal and secondary residences filling the hills around the Bay. Following closely and intermixing with the horizontal plans of the Prairie Style, the designs the Bungalow styles were well suited to the California climate with low sloping roofs, open eaves and dominate porches supported by square columns. From 1900-1940, the use of wood siding and retaining the appearance of the natural materials was popular in the San Francisco Bay Area. The vernacular styles of a modest California Ranch style with a side facing gable (pitched roof-rectangular box) flat facade or intersecting gable and covered or recessed porch became ubiquitous. This was closely followed by the stucco covered bungalow and period revival houses. Post WWII, the designs were modified to the Mid-century ranch style and efficient models that could be quickly produced in suburban tracts to accommodate the expanding population. The California Ranch Style, a linear design incorporated picture windows, overhanging eaves, became the idiom for the 1950's and 60's, particularly in semi-rural areas. The style persisted until the 1980's and the return to period revival styles harkening to the imagined country homes of Europe.

18061 Los Gatos Saratoga Road:

The property in the area of 18061 Los Gatos Saratoga Road (formerly Saratoga Avenue) was first part of the land grant, Rinconada de Los Gatos (Corner of the Cats) and was granted in 1840, to Sebastian Peralta and Jose Hernandez by Mexican Governor Alvarado. The patent confirmed 6631.44 acres of the triangle between the cities of Campbell, Los Gatos and Saratoga. The subject property is part of the 94 acres belonging to William Le Febvre (Fevre), is shown in the Thomson and West Historical Atlas of Santa Clara County, 1876, with a house on the western edge of the property and an orchard close to Saratoga Avenue.⁸ William Le Febvre was born, c.1844 in England and immigrated through Canada to California.

⁷ Leslie H. Bamburg, Real Estate Appraiser, conversation with Admiral Inglis, 1964

⁸ Thompson & West, Historical Atlas of Santa Clara County California, 1876 Map 9



California State Court Naturalization Records, Santa Clara County.

California State Archives; Sacramento,
California; Film Number: 1455378; Film
Description: *San Jose County Acts of
Naturalization, vol. 2, 1869-1871; vol. 3, 1871-
1875; vol. 4, 1872-1876; vol. 4, 1876-1880*

In 1913, Cezre Le Febre, widow of William sold approximately 5 acres of land including the subject property to John and Friederike Arenz. Arenz was listed in the city directories as a farmer. The land was a portion of Lot 9 in the Auzerai Subdivision, Rancho Rinconada de Las Gatos. The parcel that became 18061 Los Gatos Saratoga Road is .57 acres, Assessor's parcel number 410-20-035. The address was RR 1 box 71 and later 83.⁹ It is not know why the subdivision was named Auzerai, John Auzerai was a neighbor, also a French family and may have helped Cezre after William passed away.



Figure Portion of Map
9, Thompson & West
Historical Atlas of Santa
Clara County, 1876

Arrow points to William
Le Febre 94 acre property

⁹ City Directories for Los Gatos, 1913-1938

John Arenz was born in Placerville in 1861 and lived in that area until moving to Los Gatos.

In 1946 the property was sold to California Pacific Title Insurance and the property was.¹⁰ In the same year the parcel was sold to Pierre Pourrony who immediately sold it to Nick Buttitta and his wife Concettia. On August 27, 1954, the property was sold by Fred A. and Emily Sloan to F. V. Shoemake and his wife Blanche. Frank V Shoemake was the pastor at the Pentecostal Church in San Jose. The city directory for 1956 lists Cora V Shipley Shoemake and William L Shoemake and Donna L. Shoemake as residents of the property (18061 Los Gatos Saratoga Road). It appears William Shoemaker was the brother of Rev. F. V. Shoemake, and was a building contractor. It is believed William Shoemake was the one who remodeled the house, added to the rear and changed the siding to a manufactured material. Just over a year later, 1956, the property was sold to Elizabeth N. Fowler, a single woman who does not appear to have lived on the property. Her residential address in the City Directories for 1956- is 28605 Wardell Road Saratoga. After she passed away and eight years later (1962) the property was sold by her brother Edward D Fowler to Cloyd and Doloris Casey.¹¹ The Casey's moved from 1165 Rose Avenue, just down the block. Six years later on August 30, 1962, the property was sold to Burton M. and Rosemary Pierce who lived at 23470 Wrights Station Road. Burton had retired from the U.S. Navy and Rosemary, who had a rural childhood in the Ozark hills and had worked in the secretarial pool at the Pentagon before moving to California. Rosemary Pierce went to work for the City of Monte Sereno in its early days of incorporation. During her many years of service to the City, she rose from a clerical position to become the City Manager. She was also a member of the Los Gatos Rotary Club where she became the first lady president.¹² Rosemary outlived her husband passing away December 29, 2019. In May of 2020 the property was sold by the trustee of the Pierce Living Trust to Houman M. Karchgani and Nazanin H. Maleki the current owners.

It does not appear the owners or occupants of the property had unusual or distinctive associations as part of the history of Santa Clara County, Los Gatos or Monte Sereno. The association with Rosemary Pierce was recent. Generally a period of 50 must pass for an association to and individual to be evaluated for historical significance, less than 50 years ago

¹⁰ Santa Clara Official Records Book 1331, page 409, March 23, 1946.

¹¹ Santa Clara Official Records Deed Book 5645, page 137 June 13, 1962

¹² Rosemary Phillips Pierce, Obituary, San Jose Mercury News, January 4, 2020

3.0 DESCRIPTION OF THE PROPERTY AND IMPROVEMENTS

3.1 GENERAL SETTING

The property 18061 Los Gatos Saratoga Road, in the City of Monte Sereno (APN 410-20-035), is approximately .57 acres in a rectangular configuration that is the third parcel west of Rose Avenue. The area is in the low foothills of the Santa Cruz Mountains and slopes toward to the north. The property is on a major collector street with single family homes in the immediate area, many of which have recently been redeveloped, remodeled and enlarged.

3.2 BUILDINGS AND LANDSCAPING

The setting is typical for a residential development on a heavily trafficked street with the house set back from the road. A long driveway on the east property line leads to the c. 1980s garage and carport below the main house. An open area extends from the street to the house with bushes and mature trees along the front and sides of the property. The area, previously lawn is packed earth. A walkway accesses the front entry and continues around the house to the rear and on to the garage.

The house is a vernacular version of late Victorian style that has had extensive alterations and additions that obscure the original design. The public record shows the two-story house is six-rooms, 3 bedrooms and 2 bathrooms in 1,360 square feet. The real estate listing in 2020 shows the expansion to 2,485 square feet with 4 bedrooms and 3 bathrooms occurred since the last appraisal. The wood frame building is an irregular form with a front facing gable over the original two-story section and intersecting gable roofs (pitched) over the single-story addition. The front façade exhibits a rounded bay with modern windows and a deck above with a contemporary style railing with a design that is carried to a second deck over the front porch. The rounded bay appears an alteration/addition. The entry porch wall is covered in used brick veneer with a contemporary panel front door (glass insets and carved panels). Stairs leading to the porch are covered with irregular stone veneer. Extending to the north is a single-story addition with a pitched roof and contemporary windows. The side facing the road has contemporary windows on both floors. The rear has also been remodeled and includes open stairs to the first floor level (over a full basement). There is an addition to the rear and on to the north single-story addition. Fenestration is all contemporary assemblies- no original windows remain. The entire building is covered in manufactured siding that somewhat copies a dropped horizontal siding. Destructive testing was not part of the inspection so it is not known if any of the original siding remains beneath the manufactured siding. Also it was not possible to determine if the rounded bay was an addition or a remodeled element of the original building.

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The ancillary building is a garage, carport and storage or shop building that appears to have been constructed in 1980s (permits were not obtained). The low sloping roof extends over the garage and carport. The building is covered with cut shingles.

Landscaping is an assortment of juniper bushes and mature trees. There is not a discernible formal plan that would have been the work of a master designer.

The condition of the buildings is good and have the appearance of regular maintenance.

In summary: The house is a much-altered version of a Late Victorian style that is impossible to recognize beneath the manufactured siding, used brick veneer, additions on all but the south façade, and assortment of contemporary windows and doors. The house does not represent a fine or artistic version of Vernacular design. The large addition and other changes have resulted in a loss of integrity.

3.3 PHOTOGRAPHS were taken in August of 2020 using digital format.



Photograph 1 18061 Los Gatos Saratoga Road, Monte Sereno CA

View: Front façade, entrance with used brick veneer, recessed porch, stairs of stone veneer and upper level decks with contemporary railings. The single story addition is to the right.



Photograph 2 18061 Los Gatos Saratoga Road, Monte Sereno CA
View: Front and north side façade showing the single -story addition over the full basement.



Photograph 3 18061
Los Gatos Saratoga
Road, Monte Sereno CA

View: South side façade (facing the road). The front addition and deck above are alterations. Used brick covers the chimney matching the front entry. This area may have started as a small open sided porch for the original house.



Photograph 4 18061 Los Gatos Saratoga Road, Monte Sereno CA
View: South (facing the road) and west (rear) facades. The contemporary window size and placement do not represent a historic style.



Photograph 5 18061 Los Gatos Saratoga Road, Monte Sereno CA
View: West side façade addition with overhanging eave on left contemporary porch and pitched rooflet attached to what appears to be the original house.



Photograph 6 18061 Los Gatos Saratoga Road, Monte Sereno CA
View: Garage and carport c. 1980s.

4.0 EVALUATION OF HISTORICAL AND ARCHITECTURAL SIGNIFICANCE

For purposes of this report the criteria used to evaluate the property is that of California Register of Historic Resources and the Section 12.01.050 of the Monte Sereno Municipal Code.

4.1 HISTORICAL CONTEXT RELEVANT TO 18061 Los Gatos Saratoga Road

The area along the hillsides and into the Santa Cruz Mountains in Santa Clara County was developed in the mid 1800's through the turn of the century in response to the natural resources that were harvested, lumber, fur, water and agriculture. This activity brought awareness of the attractiveness of the area and the lure of a resort stay or of a country home to those primarily from the San Francisco metropolitan area who spent the summer months surrounded by fog. Resorts and religious retreat houses were developed and word of the area's beauty and mild climate spread beyond the Bay Area attracting new residents from across the country.

Initial residential development occurred close to the roadways, followed by subdivision of the lands further off the roads into small residential estate lots that increased after the turn of the century. The subject parcel is the remainder of a much larger parcel that was divided several times creating smaller parcels that were attractive for "second" homes. This was coupled by the increase in fruit orchards and fruit processing that brought new industry to the area including the construction and sales of homes, marking a new economic era after the turn of the century. The period from 1880-1920 is the period when the division of land for second homes or agricultural estates defines this historical context of the low foothills. After WWII the increase in population and further subdivisions attracted more permanent residents to the area. As the communities of Los Gatos and Saratoga extended their borders, the residents of unincorporated Santa Clara County began to see their semi-rural, low cost neighborhoods vanishing. Wishing to retain the "lifestyle" of a semi-rural residential community with a minimum of suburban expenses, the residents of the unincorporated area between Los Gatos and Saratoga began the process of incorporation which was complete on May 14, 1957, incorporating the City of Monte Sereno. Since that time Monte Sereno has developed a more recent history that documents the origins of the City and the cultural heritage of the residents.

The property that became 18061 Los Gatos Saratoga Road was developed with a single-family house c. 1890. The property is compared within the historical context of early settlers 1870-1920 with the theme of residential architecture.

The association with the residential development in the 1890s was part of a broad pattern of agricultural land divisions that continued into the post WWII era. However, this house and

lot was only a minor part of the pattern of subdivisions and do not individually represent the pattern of early settlers or subdivisions in a significant way. After a visual survey of the Los Gatos-Saratoga Road area, the area in Monte Sereno does not have sufficient original architecture to be considered for a historic district.

Research did not uncover direct associations with significant persons or events that were important in the history of Monte Sereno or Santa Clara County.

Little is known about William Le Febvre or many of the subsequent owners of the land or house. Although research was limited by the enforced closure of public libraries and record repositories, it appears enough information was found to make the determination that none of the owners or occupants had a distinct or significant role in the history of Monte Sereno or the County.

The house has lost integrity and in the vernacular does not possess high artistic values or represent the work of a master architect or craftsman. The site exhibits characteristics of the Post WWII remodel and expansion of an earlier house that introduced contemporary materials and design.

4.2 EVALUATION - CALIFORNIA REGISTER OF HISTORIC RESOURCES

The criteria for listing property in the California Register of Historic Resources are consistent with those developed by the National Park Service for listing resources in the National Register of Historic Places, but have been modified for state use in order to include a range of historical resources which better reflect the history of California.

An historical resource must be significant at the local, state or national level under one or more of the following four criteria;

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.

The property at 18061 Los Gatos Saratoga Road is not associated with events that made a significant contribution to broad patterns of history or local cultural heritage

2. It is associated with the lives of persons important to local, California, or national history.

The property at 18061 Los Gatos Saratoga Road is not associated persons important in local, state or national history. None of the persons associated with the property after 1900 were found in the research to be important in history.

3. It embodies the distinctive characteristics of a type, period, region, or method of

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construction, or represents the work of a master or possesses high artistic values.

It appears the house was originally a Late Victorian style. During years of additions and alterations and a significant remodel with a large addition in the 1950s that removed original materials and design elements, replacing them with contemporary materials and design the house does not exhibit distinctive characteristics of the original period.

4. It has yielded, or is likely to yield, information important to the prehistory or history of the local area, California, or the nation.

During the agricultural period and the excavation and development for residential use, the native soils have been disturbed to construct a house, driveway, and garage. It is very unlikely that significant information important to prehistory or history would be found on this site.

The resource must retain enough of its historic character or appearance to be recognizable as a historic property, and to convey the reason for its significance. Using the same list of attributes as the National Register of Historic Places, the threshold for the California Register is that the resource must meet some of the attributes, generally considered to be three or more.

Integrity attributes are;

- location, the place where the buildings were originally constructed.
- Design, the combination of elements that create the original form, plan, space, structure and style of a property.
- Setting, the physical environment at the time the building was constructed.
- Materials the physical element that were combined during a particular period of time and in a particular pattern.
- Workmanship, the physical evidence of the crafts of a particular culture or people during any given period of history.
- Feeling, the expression of the aesthetic or historic sense of a particular period.
- Association the direct link between an important historic event or person and a historic property.¹³

18061 Los Gatos Road does not retain most of the attributes for integrity and is considered to have lost integrity. Only the attribute of location is met. The design has been significantly altered, the setting in an orchard has been lost, materials of the original building, siding, windows porch have been removed, with the loss of material is the loss of workmanship that created the building, and the feeling of a rural house c. 1900 has been lost amid all the alterations to the building and site, the attribute of association can only be met if there is a significant event or person associated with the property.

¹³ National Register Bulletin – How to Apply the National Register Criteria for Evaluation; page 44-47

4.3 EVALUATION- CITY OF MONTE SERENO HISTORIC PRESERVATION PROGRAM:

The city has a comprehensive historic preservation ordinance that systematically addresses the treatment of historic properties. The identification criteria follows that of the California Register of Historic Resources. The following is excerpted from Section 12.01 of the Monte Sereno Municipal Code

12.01.050 - Evaluation criteria for inclusion in historical inventory.

For the purposes of this Chapter, any feature may be recommended by the Commission or owner and included by the City Council in the historical inventory using the following criteria as a guide:

A .Architecture. To be considered an architecturally significant feature as a basis for inclusion in the historical inventory, the feature shall include any one or more of the following:

- 1.Be significant as an example of a particular architectural style, type, or convention.
- 2.Be significant as an example of a particular material used or method of construction.
- 3.Be constructed at least sixty (60) years ago.
- 4.Be designed or built by an architect or builder who has made a significant contribution to the community, state, or nation.
- 5.Have an architectural quality of composition, detailing, and ornament measured in part in originality, quality as urban architecture, craftsmanship and uniqueness.
- 6.Contributes to or has a setting and/or landscaping which contributes to the continuity or character of a street, neighborhood, or area in which it is situated.

B. History. To be considered a historically significant feature and a community heritage resource as a basis for inclusion in the historical inventory, the feature shall:

- 1.Be associated with the life or activities of a person, group, organization, association or institution that has made a significant contribution to the City, state or nation.
- 2.Be associated with an event that has made a significant contribution to the City, state, or nation.
- 3.Be associated with, and effectively illustrative of broad patterns of cultural,

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10/30/2020

social, political, economic, or industrial history of the development of the City.

(Ord. 153 § 1 (part), 2006)

Citing the description of the property provided under the evaluation for the California Register of Historic Resources, the same conclusion is true for the criteria established by the City of Monte Sereno. The evaluations of the historical and architectural qualities of the property allow the conclusion that the property at 18061 Los Gatos Saratoga Road, is not significant to the history and architectural heritage of Monte Sereno or Santa Clara County because it is not associated with events or people that have made a significant contribution to the City, state or nation and further because the building has been extensively altered and enlarged so that it does not exhibit architectural design or construction that is artistic, exceptional or the work of a master.

5.0 CEQA REVIEW

The proposed project contemplates redevelopment of the property, removing the existing buildings and constructing new residential buildings and landscaping. The potential for demolition of the existing improvements is a potential adverse change to the environment. *Section 15064.5(b)(1) and (2) of the California Environmental Quality Act (CEQA) states that demolition or the destruction, relocation or alteration activities that would impair the significance of a historic resource results in a "substantial adverse change."*

Redevelopment of the property and removal of buildings or other improvements that are not eligible for inclusion in the California Register of Historic Resources does not create an adverse change to the environment.

6.0 SOURCES CONSULTED:

6.1 REPOSITORIES USED:

City of Monte Sereno-Building Permit records
(libraries and public record repositories are closed by Order of the Santa Clara Health Officer)

6.2 SOURCES CONSULTED (Print)- Official Documents and Periodicals are listed in the foot notes.

Alexander, Ludmilla, Monte Sereno: "The Town that Dared", Los Gatos Weekly, May 12, 1982

Bruntz, George: History of Los Gatos, Gem of the Foothills, Western Tanager Press, Santa
[Urban Programmers](#)
10/30/2020

Cruz 1983

Coughey, John W., CALIFORNIA, Prentice Hall Inc. Englewood NY, 1953

Cromwell, Clarence, "Monte Sereno At 40", Los Gatos Weekly, May 14, 1997

McAlester, Virginia S., A Field Guide to American Houses, Alfred Knoff, NY 2018

Monte Sereno Municipal Code of Ordinances Heritage Preservation; Section 12.01

Polk, R.M. San Jose including Santa Clara County, Directories, published in San Francisco, 1900-1957

Rifkind, C. A, Field Guide to American Architecture, Times Mirror, New York 1980

Santa Clara County Board of Supervisors, Santa Clara County Heritage Resource Inventory; Santa Clara county Government Center San Jose 1999 (updated)

State of California, Office of Historic Preservation, Instructions for Nominating Historical Resources to the California Register of Historical Resources, 1997

State of California, California Register of Historical Resources (data listing)

The Board of Trade of San Jose; Santa Clara County California-Quarterly publication; September 1887; W. B. Bancroft & Co; San Francisco 1887 (reprinted San Jose Historical Museum Association)

Thomson & West, 1868 Historical Atlas of San Mateo County. California, Reprint, Smith & McKay Printing Company 1973

United States Bureau of the Census for years, 1880, 1900, 1910, 1920, 1930, 1940

United States Department of the Interior, National Register Bulletin – How to Apply the National Register Criteria for Evaluation, 1997

Urban Programmers, "Historic and Architectural Evaluation Report for the Property at 18234 Daves Avenue, Monte Sereno CA", 12/08 /2009

Urban Programmers, Historic and Architectural Evaluation of the Property at 18220 Bancroft Avenue, Monte Sereno CA, 9/5/2019

6.3 DEEDS

March 20, 1892 William Le Febre to Cezrie Le Febre

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May 8, 1913, Cezrie Le Febre to John Arenz,

March 12, 1946, Pacific Coast Title Company to Pierre Purerroy Recorded in Official Records Book 1331 page 409

March 12, 1946 Pierre Purerroy to Fred Sloan and Emily Sloan, Recorded in Official Records book 13331 page 409 et seq.

August 27, 1954 Fred Sloan and Emily Sloan to F.V Shoemake and Blanch Shoemake

December 8, 1956 F.V. Shoemake and Blanch Shoemake to Elizabeth Fowler

June 13 1962 E.B. Fowler to Colyd M. and Deloris Casey

August 30, 1968 Colyd M. and Deloris Casey to Burton and Rosemary Pierce

APPENDIX B

BIOLOGICAL RESOURCES ANALYSIS REPORT

BIOLOGICAL RESOURCES ANALYSIS REPORT

FOR THE

18061 SARATOGA LOS GATOS ROAD PROPERTY

CITY OF MONTE SERENO, SANTA CLARA COUNTY, CALIFORNIA



Prepared for:

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October 2020

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This report should be cited as: Olberding Environmental, Inc. October 2020. *Biological Resources Analysis Report for the 18061 Saratoga Los Gatos Road Property, City of Monte Sereno, Santa Clara County, California*. Prepared for Mr. Tony Jeans, San Jose, California.

SUMMARY

On October 20, 2020, Olberding Environmental, Inc. conducted a field reconnaissance survey of the 18061 Saratoga - Los Gatos Road Property (Property) for the purpose of identifying sensitive plant and wildlife species, sensitive habitats, and biological constraints potentially occurring on the Property. The Property surveyed is comprised of approximately 0.63 acres located within the City of Monte Sereno, Santa Clara County, California.

Results of this initial reconnaissance survey indicate that the Property does not appear to contain wetlands/waters that are considered potentially jurisdictional by the U.S. Army Corps of Engineers (Corps) because the site lacks evidence of all three parameters (wetland soils, hydrology, and vegetation) that are used to indicate wetlands.

A query of the California Natural Diversity Database (CNDDDB) showed that eight special-status plant species have been observed within a five-mile radius of the Property. However, none were identified as having a potential to occur based on the absence of suitable habitat on the Property for these plant species.

A total of nine special-status bird species were identified as having the potential to occur on or adjacent to the Property, of which only two (American peregrine falcon [*Falco peregrinus*]) and yellow rail (*Coturnicops noveboracensis*), are tracked by the CNDDDB. No high cliffs, towers, or skyscraper, on which American peregrine falcon can breed, is onsite. Nor is there open marshland, fields, or open spaces suitable for peregrine falcon foraging and it is presumed absent. Yellow rail require dense emergent marsh vegetation and wetlands, which are not present onsite; the yellow rail is presumed absent.

The following bird species have a moderate potential to occur in a foraging capacity only: red-shouldered hawk (*Buteo lineatus*), and sharp-shinned hawk (*Accipiter striatus*). The red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*) have a moderate potential to occur in a foraging and nesting capacity. If project construction-related activities such as tree and vegetation removal or grading take place during the nesting season (February through August), preconstruction surveys for nesting passerine birds and raptors are recommended.

No evidence of bat use was observed on the Property during the October 2020 survey; however, based on habitat suitability, it was determined that bats have a low to moderate potential to utilize the site in a foraging or roosting capacity. These bat species include: pallid bat (*Antrozous pallidus*) and hoary bat (*Lasiurus cinereus*), Yuma myotis (*Myotis yumanensis*), and long-eared myotis (*Myotis evotis*). This holds especially true for the large trees and man-made structures on the property. If project construction-related activities such as tree removal or building demolition take place, it is recommended that a bat habitat assessment should be conducted by a qualified bat biologist during seasonal periods of bat activity, from May through October, to determine suitability of the on-site habitat. If special-status bat species are discovered, construction activities may be timed to minimize impacts and additional mitigation may be required.

The CNDDDB has listed occurrences of five amphibians within a 5-mile radius of the Property. These include the California red-legged frog (*Rana draytonii*) (CRLF), foothill yellow-legged

frog (*Rana boylei*), California tiger salamander (*Ambystoma californiense*) (CTS), Santa Cruz black salamander (*Aneides niger*), and California giant salamander (*Dicamptodon ensatus*). Due to the historic nature of the occurrences and the lack of suitable breeding habitat for each and the surrounding residential development, it is unlikely that California red-legged frog, California tiger salamander, and California giant salamander could use the Property for dispersal, upland habitat, or breeding. Therefore, these species are presumed absent from the Property. Unlike these other species, Santa Cruz black salamander does not require creeks, streams, or wetlands for breeding, however, is semi-aquatic and closely tied to areas adjacent to streams and creeks. The nearest creek (Los Gatos Creek) is 0.7 miles south from the Property, so this species is considered not likely to occur.

The CNDDDB listed one species or reptile, the western pond turtle (*Emmys marmorata*) within a 5-mile radius of the Project. Due to the lack of appropriate aquatic habitat within or adjacent to the Property, the western pond turtle is considered unlikely to occur.

1.0 INTRODUCTION

Olberding Environmental, Inc. has conducted a biological resources analysis (biological constraints assessment) of the Property, located within the city limits of Monte Sereno, Santa Clara County, California. This biological resources analysis included a review of pertinent literature on relevant background information and habitat characteristics of the site. Our review included researching existing information in the California Natural Diversity Database (CNDDDB 2020) maintained by the CDFW and the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2020). Also included was a review of information related to species of plants and animals that could potentially utilize the described habitats identified on and immediately surrounding the Property. To assist in the assessment, a field reconnaissance investigation of the Property was conducted on October, 20 2020. This report documents the methods, results, and conclusions for the reconnaissance-level survey associated with the biological resources analysis for the Property.

2.0 LOCATION

The Property is surrounded by residential housing on its north, east and west boundaries, and by Saratoga Los Gatos Road (State Route 9) providing access along the southwestern edge of the property. Additional residences are located on the opposite side of the roadway. Attachment 1, Figure 1 depicts the regional location of the Property in Santa Clara County, while Attachment 1, Figure 2 illustrates the vicinity of the Property in relationship to the City of Monte Sereno. Attachment 1, Figure 3 identifies the location of the Property in the Los Gatos USGS 7.5-minute Quadrangle. An aerial photograph of the Property has been included as Attachment 1, Figure 4.

Access to the Property is provided from Interstate 880. From I-880 South, keep left to continue onto California 17 South. After 7 miles take the exit for State Route 9 towards Los Gatos/Saratoga. Follow State Route 9 for 0.7 miles. The Property is located on the right-hand side at 18061 Saratoga Los Gatos Road.

3.0 PROPERTY DESCRIPTION

The Property encompasses approximately 0.63 acres in a square shape bound by residential area on all boundaries with Saratoga Los Gatos Road along the south western boundary.

A majority of the Property supports ornamental woodland and urban/developed habitats surrounding and associated with a residence and other structures. Characteristic vegetation includes a mixture of planted trees and perennials. Trees include coast live oak (*Quercus agrifolia*), ornamental oaks (*Quercus* spp.), and giant sequoia (*Sequoiadendron giganteum*). Coast redwood (*Sequoia sempervirens*) dominates the surrounding properties. Planted shrubs include Chinese juniper (*Juniperus chinensis*), oleander (*Nerium oleander*), blue elderberry (*Sambucus mexicana*), breath of heaven (*Coleonema* sp.), roses (*Rosa* spp.), Cape honeysuckle (*Tecoma capensis*), and others. Perennial herbaceous plantings include Agapanthus (*Agapanthus africanus*), big periwinkle (*Vinca major*), and various smaller species. There is a small retaining wall with weeds and grasses growing on top of it. These include Italian thistle (*Carduus pycnocephalus*), ripgut brome (*Bromus diandrus*), and rattlesnake grass (*Briza maxima*). The topography of the Property consists of slightly sloping land that ranges from 480 to 461 feet above sea level. Portions of the property are concrete or compacted bare ground, which are evidently used by the residents for parking.

4.0 REGULATORY SETTING

4.1 Federal Regulatory Setting

4.1.1 Plants and Wildlife

The federal Endangered Species Act (ESA) of 1973 (16 USC 1531 et seq., as amended) prohibits federal agencies from authorizing, permitting, or funding any action that would result in biological jeopardy to a plant or animal species listed as Threatened or Endangered under the Act. Listed species are taxa for which proposed and final rules have been published in the Federal Register (U.S. Fish and Wildlife Service [USFWS] 2020). If a proposed project may jeopardize listed species, Section 7 of the ESA requires consideration of those species through formal consultations with the USFWS. Federal Proposed species (USFWS 2020) are species for which a proposed listing as Threatened or Endangered under ESA has been published in the Federal Register. If a proposed project may jeopardize proposed species, Section 7 of the ESA affords consideration of those species through informal conferences with USFWS. The USFWS defines federal Candidate species as “those taxa for which we have on file sufficient information on biological vulnerability and threats to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded by other higher priority listing actions” (USFWS 2020, USFWS 1999). Federal Candidate species are not afforded formal protection, although USFWS encourages other federal agencies to give consideration to Candidate species in environmental planning.

4.1.2 Wetlands/Waters

The federal government, acting through the U.S. Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA), has jurisdiction over all “waters of the United States” as authorized by §404 of the Clean Water Act (CWA) and §10 of the Rivers and Harbors Act of 1899 (33 CFR Parts 320-330). Properties that cause the discharge of dredged or fill material into waters of the United States require permitting by the Corps. Actions affecting small areas of jurisdictional waters of the United States may qualify for a Nationwide Permit (NWP), provided conditions of the permit are met, such as avoiding impacts to threatened or endangered species or to important cultural sites. Properties that affect larger areas or which do not meet the conditions of an NWP require an Individual Permit. The process for obtaining an Individual Permit requires a detailed alternatives analysis and development of a comprehensive mitigation/monitoring plan. Waters of the United States are classified as wetlands, navigable waters, or other waters. Wetlands are transitional habitats between upland terrestrial areas and deeper aquatic habitats such as rivers and lakes. Under federal regulation, wetlands are defined as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR Part 328.3[b]). Swamps, marshes, bogs, fens, and estuaries are all defined as wetlands, as are seasonally saturated or inundated areas such as vernal pools, alkali wetlands, seeps, and springs. In addition, portions of the riparian habitat along a river or stream may be a wetland where the riparian vegetation is at or below the ordinary high water mark and thus also meets the wetland hydrology and hydric soil criteria.

Navigable waters include all waters subject to the ebb and flow of the tides, including the open ocean, tidal bays, and tidal sloughs. Navigable waters also include some large, non-tidal rivers and lakes, which are important for transportation in commerce. The jurisdictional limit over navigable waters extends laterally to the entire water surface and bed of the waterbody landward to the limits of the mean high tide line. For non-tidal rivers or lakes, which have been designated (by the Corps) to be navigable waters, the limit of jurisdiction along the shoreline is defined by the ordinary high water mark. “Other waters” refer to waters of the United States other than wetlands or navigable waters. Other waters include streams and ponds, which are generally open water bodies and are not vegetated. Other waters can be perennial or intermittent water bodies and waterways. The Corps regulates other waters to the outward limit of the ordinary high water mark. Streams should exhibit a defined channel, bed and banks to be delineated as other waters.

The Corps does not generally consider “non-tidal drainage and irrigation ditches excavated on dry land” to be jurisdictional waters of the United States (and such ditches would therefore not be regulated by the Corps (33 CFR Parts 320-330, November 13, 1986). Other areas generally not considered jurisdictional waters include: 1) artificially irrigated areas that would revert to upland habitat if the irrigation ceased; 2) artificial lakes and ponds created by excavating and/or diking of dry land to collect and retain water, used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing; 3) waste treatment ponds; 4) ponds formed by construction activities including borrow pits until abandoned; and 5) ponds created for aesthetic reasons such as reflecting or ornamental ponds (33 CFR Part 328.3). However, the preamble also states that “the Corps reserves the right on a case-by-case basis to determine that a particular waterbody within these categories” can be regulated as jurisdictional water. The EPA

also has authority to determine jurisdictional waters of the U.S. on a case-by-case basis. Riparian habitat that is above the ordinary high water mark and does not meet the three-parameter criteria for a wetland would not be regulated as jurisdictional waters of the United States.

4.1.3 Migratory Bird Treaty Act

Raptors are migratory bird species protected by international treaty under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Sections 3503, 3503.5, and 3800 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that Property-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (generally February 1 – September 1, annually). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or the loss of habitat upon which the birds depend, is considered “taking” and is potentially punishable by fines and/or imprisonment. Such taking would also violate federal law protecting migratory birds (e.g., MBTA).

4.1.4 Federal Bald and Golden Eagle Protection Act

In addition to protection under the MBTA, both the bald eagle and the golden eagle are also protected by the Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668-668c). The Bald and Golden Eagle Protection Act, and amended several times since being enacted in 1940, prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald or golden eagles, including their parts, nests, or eggs (USFWS 2007). The Act provides criminal penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof.” The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb” (USFWS 2007).

For purposes of these guidelines, “disturb” means: “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (USFWS 2007).

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment (USFWS 2007).

4.1.5 Santa Clara Valley Agency Habitat Plan

A Habitat Conservation Plan (HCP) is required under the United States Endangered Species Act (ESA) as a part of an Incidental Take Permit under both ESA Section 10(a)(1)(B) and the California Endangered Species Act (CESA) Section 2081(b). An HCP describes mitigation, by habitat conservation, as a means for minimizing the impacts of endangered species habitat loss as a result of a project's activities. Various regions adhere to a specific HCP which provides a set required mitigation for Threatened and Endangered species occurring within a given area. The Santa Clara Valley Habitat Plan (SCVHP 2012) is created for the protection and recovery of natural resources while streamlining the permitting for infrastructure and planning purposes. Plan collectively evaluates natural-resource impacts and mitigation requirements for the efficiency of permitting and protecting sensitive natural resources. The Project falls just outside of the SCVHP (SCVHP 2012).

4.2 State Regulatory Setting

4.2.1 Plants and Wildlife

Property permitting and approval requires compliance with California Environmental Quality Act (CEQA), the 1984 California Endangered Species Act (CESA), and the 1977 Native Plant Protection Act (NPPA). The CESA and NPPA authorize the California Fish and Game Commission to designate Endangered, Threatened and Rare species and to regulate the taking of these species (§§2050-2098, Fish & Game Code). The California Code of Regulations (Title 14, §670.5) lists animal species considered Endangered or Threatened by the State.

The Natural Heritage Division of the California Department of Fish and Wildlife (CDFW) administers the state rare species program. The CDFW maintains lists of designated Endangered, Threatened, and Rare plant and animal species (CDFW 2020 and USFWS 2020). Listed species either were designated under the NPPA or designated by the Fish and Game Commission. In addition to recognizing three levels of endangerment, the CDFW can afford interim protection to candidate species while they are being reviewed by the Fish and Game Commission.

The CDFW also maintains a list of animal species of special concern (CDFW 2020), most of which are species whose breeding populations in California may face extirpation. Although these species have no legal status, the CDFW recommends considering them during analysis of proposed property impacts to protect declining populations and avoid the need to list them as endangered in the future.

Under provisions of §15380(d) of the CEQA Guidelines, the CEQA lead agency and CDFW, in making a determination of significance, must treat non-listed plant and animal species as equivalent to listed species if such species satisfy the minimum biological criteria for listing. In general, the CDFW considers plant species on List 1A (Plants Presumed Extinct in California), List 1B (Plants Rare, Threatened, or Endangered in California and elsewhere), or List 2 (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere) of the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Vascular Plants of California*

(Skinner and Pavlik 1994) as qualifying for legal protection under §15380(d). Species on CNPS Lists 3 or 4 may, but generally do not, qualify for protection under this provision.

Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species and CDFW Species of Special Concern, areas of high biological diversity, areas providing important wildlife habitat, and unusual or regionally restricted habitat types. Habitat types considered sensitive include those listed on the California Natural Diversity Data Base's (CNDDB) working list of "high priority" habitats (i.e., those habitats that are rare or endangered within the borders of California) (Holland 1986).

4.2.2 Wetlands/Waters

The Regional Water Quality Control Board (RWQCB) regulates activities in wetlands and other waters through §401 of the Clean Water Act. Section 401 requires a state water quality certification for properties subject to 404 regulations. Requirements of the certification include mitigation for loss of wetland habitat. In the San Francisco Bay region, the RWQCB may identify additional wetland mitigation beyond the mitigation required by the Corps. California Fish and Game Code §§1600-1607 require the CDFW be notified of any activity that could affect the bank or bed of any stream that has value to fish and wildlife. Upon notification, the CDFW has the discretion to execute a Streambed Alteration Agreement. The CDFW defines a stream as follows:

"... a body of water that flows at least periodically...through a bed or channel having banks and supporting fish and other aquatic life. This includes watercourses having a subsurface flow that supports or has supported riparian vegetation."

(Source: Streambed Alteration Program, California Department of Fish and Wildlife, 2016).

In practice, CDFW authority is extended to any "blue line" stream shown on a USGS topographic map, as well as unmapped channels with a definable bank and bed. Wetlands, as defined by the Corps, need not be present for CDFW to exert authority.

4.2.3 California Environmental Quality Act

According to Appendix G of the California Environmental Quality Act (CEQA 2020) Guidelines, a proposed project would have a significant impact on biological resources if it would:

- 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 regulations, or by the California Department of Fish and Wildlife 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, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

- c) Have a substantial adverse effect on 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?
- d) 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?
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

5.0 METHODS OF ANALYSIS FOR GENERAL BIOLOGICAL RESOURCES

A special-status plant and wildlife species database search and review was conducted using the CNDDDB and other sources. An additional search was conducted for special-status plants using CNPS *Inventory* on-line. Special-status species reports were accessed by searching the CNDDDB database for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta USGS 7.5-minute quadrangles (adjacent USGS 7.5-minute quadrangles) which surround the Property, and by examining those species that have been identified in the vicinity of the Property. These quadrangles will be henceforth noted as surrounding quads. The database report identified special-status species known to occur in the region or those that have the potential to occur in the vicinity of the Property. The CNDDDB report was used to focus special-status species analysis of the site prior to the reconnaissance surveys.

An Olberding Environmental biologist conducted a reconnaissance-level survey of the Property on October 20, 2020. The survey consisted of walking throughout the Property and evaluating the site and adjacent lands for potential biological resources. Existing conditions, observed plants and wildlife, adjacent land use, soils and potential biological resource constraints were recorded during the visit. Plant and wildlife species observed within and adjacent to the Property during the reconnaissance survey are included in Attachment 2, Table 1.

The objectives of the field survey were to determine the potential presence or absence of special-status species habitat listed in the CNDDDB database report and to identify any wetland areas that could be potentially regulated by the Corps, RWQCB, and/or CDFW (CNDDDB 2020). In addition, the Olberding Environmental biologist looked for other potential sensitive species or habitats which may not have been obvious from background database reports or research. Surveys conducted after the growing season or conducted outside of the specific flowering period for a special-status plant cannot conclusively determine the presence or absence of such plant species; therefore, site conditions and habitat type were used to determine potential for occurrence. When suitable habitat was observed to support a special-status plant or animal species it was noted in the discussion for that particular species. Regulatory agencies evaluate the

possibility of occurrence based on habitats observed on-site and the degree of connectivity with other special-status animal habitats in the vicinity of the Property. These factors are discussed in each special-status plant or animal section. Potential for occurrence of each special-status or protected plant and animal species was evaluated using the following criteria.

- **Present:** The species has been recorded by CNDDDB or other literature as occurring on the Property and/or was observed on the Property during the reconnaissance survey or protocol surveys.
- **May Occur:** The species has been recorded by CNDDDB or other literature as occurring within five miles of the Property, and/or was observed within five miles of the Property, and/or suitable habitat for the species is present on the Property or its immediate vicinity.
- **Not Likely to Occur:** The species has historically occurred on or within five miles of the Property, but has no current records. The species occurs within five miles of the Property but only marginally suitable habitat conditions are present. The Property is likely to be used only as incidental foraging habitat or as an occasional migratory corridor.
- **Presumed Absent:** The species will not occur on the Property due to the absence of suitable habitat conditions, and/or the lack of current occurrences. Alternatively, if directed or protocol-level surveys were done during the proper occurrence period and the species was not found, it is presumed absent.

Sources consulted for agency status information include USFWS (2020) for federally listed species and CDFW (2020) for State of California listed species. Based on information from the above sources, Olberding Environmental developed a target list of special-status plants and animals with the potential to occur within or in the vicinity of the Property (Attachment 2, Table 2).

5.1 Soils Evaluation

The soils present on a property may determine if habitat on the site is suitable for certain special-status plants and animals. The host plants of some special-status invertebrates may also require specific soil conditions. In the absence of suitable soil conditions, special-status plants or animals requiring those conditions would be presumed absent. Information regarding soil characteristics for the Property was obtained by viewing the Natural Resources Conservation Service (NRCS) Web Soil Survey report for the Property (NRCS 2020).

5.2 Plant Survey Methods

The purposes of the botanical surveys were (1) to characterize the habitat types (plant communities) of the study area; (2) to determine whether any suitable habitat for any special-status plant species occurs within the study area; and (3) to determine whether any sensitive habitat types (wetlands) occur within the study area. Site conditions and plant habitat surveys are important tools in determining the potential occurrence of plants not recorded during surveys (e.g., special-status plants) because presence cannot conclusively be determined if field surveys

are conducted after the growing season or conducted outside a specific flowering period.

5.2.1 *Review of Literature and Data Sources*

The biologist conducted focused surveys of literature and special-status species databases in order to identify special-status plant species and sensitive habitat types with potential to occur in the study area. Sources reviewed included the CNDDDB occurrence records (CNDDDB 2020) and CNPS *Inventory* (Skinner and Pavlik 1994) for the surrounding quads; and standard flora (Baldwin et al. 2012). From the above sources, a list of special-status plant species with potential to occur in the Property vicinity was developed (Attachment 2, Table 2).

5.2.2 *Field Surveys*

A biologist from Olberding Environmental conducted a reconnaissance-level survey to determine habitat types and the potential for special-status plants based on the observed habitat types. All vascular plant species that were identifiable at the time of the survey were recorded and identified using keys and descriptions in Baldwin et al. (2012).

The habitat types occurring on the Property were characterized according to pre-established categories. In classifying the habitat types on the site, the generalized plant community classification schemes using the California Wildlife Habitat Relationships (CWHR) System (CWHR 2020). The final classification and characterization of the habitat type of the Property was based on field observations. Plant species that occurred within 5 miles of the Property are shown in Attachment 1, Figure 6.

5.3 *Wildlife Survey Methods*

The purpose of the wildlife survey was to identify special-status wildlife species and/or potential special-status wildlife habitats within the study area.

5.3.1 *Review of Literature and Data Sources*

A focused review of literature and data sources was conducted in order to determine which special-status wildlife species had potential to occur in the vicinity of the Property. Current agency status information was obtained from USFWS (2020) for species listed as Threatened or Endangered, as well as Proposed and Candidate species for listing, under the federal ESA; and from CDFW (2020b, 2020c) for species listed as Threatened or Endangered by the state of California under the CESA, or listed as “species of special concern” by CDFW. From the above sources, a list of special-status wildlife species with potential to occur in the Property vicinity was developed (Attachment 2, Table 2).

5.3.2 *Field Surveys*

General Wildlife Survey – An Olberding Environmental biologist conducted a survey of species habitat within the entire study area, including visible portions of the adjacent properties. The

purpose of the habitat survey was to evaluate wildlife habitats and the potential for any protected species to occur on or adjacent to the Property.

Reconnaissance-Level Raptor Survey – A reconnaissance-level raptor survey was conducted on the Property. Observation points were established on the periphery of the site to view raptor activity over a fifteen- to thirty-minute time period. This survey was conducted with the use of binoculars and notes were taken for each species occurrence. Additionally, utility poles and perch sites in the vicinity of the Property were observed. All raptor activity within and adjacent to the Property was recorded during the reconnaissance-level observation period.

Reconnaissance-Level Burrowing Owl (*Athene cunicularia*) Survey – A reconnaissance-level burrowing owl (*Athene cunicularia*) survey was also conducted in the Property to identify potential burrow sites or burrowing owl use of on-site habitat. The general presence and density of suitable burrow sites (e.g., rodent burrows) was evaluated for the Property.

6.0 RESULTS FOR GENERAL BIOLOGICAL RESOURCES

The search and review of the CNDDDB database reports revealed the occurrence of special-status plant and wildlife species that occur in the habitats found within the Property boundaries (CNDDDB 2020). The CNDDDB database and background data were reviewed for the surrounding quads (Attachment 2, Table 2). Those plants and animals listed in Attachment 2, Table 2 were reviewed for their potential to occur on the Property based on general habitat types. All of the plant and several of the animal species identified by the CNDDDB require specific habitat microclimates that were not found to occur within the Property.

6.1 Soil Evaluation Results

The NRCS (2020) reports one soil type within the Property. A detailed map of the soil type can be found in Attachment 1, Figure 8. The soils mapped included the following types:

- **334: Urban Land- Montavista- Togasara complex, 9-15 percent slopes** – The composition of this soil type within the Project Area consists of 55 percent Urban Land, 25 percent Montavista and similar soils, 15 percent Togasara and similar soils, and 5 percent of minor components consisting of Pachic Argixerolls.

A1--0 to 2 inches, (0 to 5 cm); brown (10YR 4/3) broken face clay loam, dark brown (10YR 3/3) broken face moist; 33 percent clay; strong very fine granular and strong fine granular and moderate fine subangular blocky structure; slightly hard, very friable, moderately sticky, moderately plastic; many very fine roots; many very fine interstitial pores; 10 percent rounded very strongly cemented 2 to 75 millimeter mixed rock fragments; slightly acid, pH 6.6

A2--2 to 9 inches, (5 to 24 cm); brown (10YR 4/3) broken face clay loam, dark brown (10YR 3/3) broken face moist; 33 percent clay; strong medium subangular blocky and strong fine subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; common very fine roots; common very fine tubular and many very

fine interstitial pores; 30 percent clay films on all faces of peds; 5 percent rounded very strongly cemented 2 to 75 millimeter mixed rock fragments; slightly acid, pH 6.2

ABt--9 to 17 inches, (24 to 42 cm); brown (7.5YR 4/3) broken face clay loam, dark brown (7.5YR 3/3) broken face moist; 35 percent clay; moderate medium subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; common very fine roots; common very fine tubular pores; 60 percent clay films on all faces of peds; 5 percent rounded very strongly cemented 2 to 75 millimeter mixed rock fragments; slightly acid, pH 6.2

6.2 Plant Survey Results

6.2.1 Floristic Inventory and Habitat Characterization

The Property supports three habitat types consisting of urban/developed, ornamental woodland and ruderal grassland habitat. In classifying the habitat types on the Property, generalized plant community classification schemes were used (CWHR 2020). The final classification and characterization of the habitat type of the Property was based on field observations.

The habitat type and a description of the plant species present within the habitat types are provided below. Dominant plant species are also noted. A complete list of plant species observed on the Property can be found within Attachment 2, Table 1.

Urban/Developed

A two-story house is present at the southwest corner of the Property, and a large storage bodega is present along the western boundary of the Property. There is a shed in the northwestern corner of the Property. These structures are primarily surrounded by ornamental or landscaping plants, including oaks, giant sequoia, roses, and redwoods. Large areas of the property are concrete or compacted bare ground.

Landscaped

The majority of the Property has been landscaped. There is sparse ruderal vegetation popping up through the soil and around the edges of the Property. The majority of vegetation includes native and landscaped trees (oaks, redwoods, junipers, and others). Big periwinkle, junipers, agapanthus, Cape honeysuckle, and other species form groundcovers around the Property. Other plantings include geranium (*Pelargonium* sp.), oleander, South African white iris (*Dietes grandiflora*).

6.2.2 Special-Status Plant Species

Special-status plant species include species listed as Rare, Threatened, or Endangered by the USFWS (2020) or by the State of California (CDFW 2020c). Federal Proposed and Candidate species (USFWS, 1999) are also considered to be special-status species. Special-status species also include species listed on List 1A, List 1B, or List 2 of the CNPS Inventory (Skinner and

Pavlik, 1994; CNPS 2009). All species in the above categories fall under state regulatory authority under the provisions of CEQA, and may also fall under federal regulatory authority. Considered special-status species are species included on List 3 (Plants About Which We Need More Information—A Review List) or List 4 (Plants of Limited Distribution—A Watch List) of the CNPS *Inventory*. These species are considered to be of lower sensitivity and generally do not fall under specific state or federal regulatory authority. Specific mitigation considerations are not generally required for List 3 and List 4 species.

Attachment 2, Table 2 includes a list of special-status plants with the potential to occur within or in the immediate vicinity of the Property based on a review of the surrounding quads. The special-status plant species identified by the CNDDDB as potentially occurring on the Property are known to grow only from specific habitat types. The specific habitats or “micro-climate” necessary for many of the plant species to occur are not found within the boundaries of the Property. The habitats necessary for the CNDDDB reported plant species consist of serpentine chaparral, maritime chaparral, cismontane woodlands, riparian woodlands, meadows and seeps, marshes and swamps, coastal dunes, coastal scrub, coniferous forest, and alkaline valley and foothill grassland.

Occurrences of nine special-status plants were observed within a five-mile radius of the Property.

No special-status plants were found during the October 2020 survey. Although Acuate bush-mallow (*Malacothamnus arcuatus*) and robust spineflower (*Chorizanthe robusta* var. *robusta*) occur within a mile of the Property, neither were observed during the survey and developed and landscaped habitat within the Property is unsuitable for any of the special-status plant species. Therefore, special-status plants are presumed absent from the property.

6.3 Wildlife Survey Results

6.3.1 General Wildlife Species and Habitats

A complete list of wildlife species observed within the Property can be found in Attachment 2, Table 1. Wildlife species commonly occurring within habitat types present on the Property are discussed below:

Urban/Developed

Although none were observed, a variety of bat species including the pallid bat, hoary bat, Townsend’s big-eared bat, and others could utilize the existing structures for roosting habitat.

Landscaped

Though the Property has been developed, some native and planted trees are present onsite. These trees, as well as the leaf litter habitat beneath their canopies, could offer nesting and foraging opportunities for an assortment of wildlife species.

Small passerines, including yellow-rumped warbler (*Setophaga coronate*), California towhee

(*Pipilo crissalis*), white-crowned sparrow (*Zonotrichia leucophrys*), golden-crowned sparrow (*Zonotrichia atricapilla*), Anna's hummingbird (*Calypte anna*), and Bewick's wren (*Thryomanes bewickii*), chestnut-backed chickadee (*Poecile rufescens*), house finch (*Haemorhous mexicanus*), dark eyed junco (*Junco hyemalis*), lesser goldfinch (*Spinus psaltria*), and oak titmouse (*Baeolophus inornatus*), California scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), were observed onsite.

Small mammals that could forage on the seeds and plants found in annual grasslands include field mouse (*Peromyscus* sp.), Botta's pocket gopher (*Thomomys bottae*) and fox squirrel (*Sciurus niger*). Reptiles observed onsite included northern alligator lizard (*Elgaria coerulea*) and western fence lizard (*Sceloporus occidentalis*). One Amphibian was observed onsite, the California slender salamander (*Batrachoseps attenuatus*).

BIRDS

Red-shouldered Hawk (*Buteo lineatus*). State Protected.

The red-shouldered hawk is a medium-sized, slender *Buteo* with long legs and a long tail and is smaller than the red-tailed hawk. Upperparts are dark with pale spotting, and rusty-reddish feathers on the wing create the distinctive shoulder patch. The tail has several wide, dark bars; the intervening narrow stripes and the tip of the tail are white, and there is variation in the number of tail bars among adults and juveniles. The habitat that the red-shouldered hawk prefers varies from bottomland hardwoods and riparian areas to upland deciduous or mixed deciduous-conifer forest, and almost always includes some form of water, such as a swamp, marsh, river, or pond. In the west, the red-shouldered hawk sometimes occurs in coniferous forests, and has been expanding its range of occupied habitats to include various woodlands, including stands of eucalyptus trees amid urban sprawl. They typically place their nests in a broad-leaved tree (occasionally in a conifer), below the forest canopy but toward the tree top, usually in the crotch of the main trunk. Nest trees are often near a pond, stream, or swamp, and can be in suburban neighborhoods or parks. These hawks eat mostly small mammals, lizards, snakes, and amphibians. They also eat toads, snakes, and crayfish. They occasionally eat birds, sometimes from bird feeders; recorded prey includes sparrows, starlings, and doves.

CNDDDB does not track red-shouldered hawk, so does not list it as occurring within the vicinity of the Property. There are large native and ornamental trees throughout and adjacent to the Property which could provide suitable nesting opportunities for this species. There are also small mammals onsite that could provide foraging potential for the species. Given the information above, the red-shouldered hawk has a moderate potential to occur on the Property in a breeding capacity.

Red-Tailed Hawk (*Buteo jamaicensis*). State Protected.

The red-tailed hawk is a large *Buteo* that is distinct due to the red color of its tail feathers in contrast to the brown color of its body. Not all red-tailed hawks exhibit the distinct coloration on their tail and gradations may occur especially in young birds. Red-tailed hawks hunt rodents by soaring over grassland habitat. Nest trees for red-tailed hawks are usually tall trees with a well-

developed canopy that includes a strong branching structure on which to build a nest.

CNDDDB does not track this species, so does not list the red-tailed hawk as occurring within the vicinity of the Property. However, large ornamental and oak trees throughout the Property and the large conifers on the adjacent properties may provide suitable nesting opportunities for this species. The Property offers a potential for foraging opportunities, providing habitat for rodents. Given the information above and the ubiquitous nature of this species, the red-tailed hawk has a moderate potential to occur on the Property in a nesting and foraging capacity.

Sharp-Shinned Hawk (*Accipiter striatus*). State Protected.

The sharp-shinned hawk is a small raptor with short, rounded wings. This hawk has a long tail that is squared-off at tip with prominent corners. This raptor typically flies with several quick, snappy wingbeats and a short glide, but also soars. Its small, rounded head does not project far beyond the wings when soaring. The adult sharp-shinned hawk exhibits a red eye, black cap, and a blue-gray back and upperwings. The white breast, belly, and underwing coverts are marked by fine, thin, reddish bars. Sharp-shinned hawks nest in woodlands, coniferous forest, and oak woodland, and large landscaped trees.

CNDDDB did not list sharp-shinned hawk within a 5-mile radius of the Property and no sharp-shinned hawks were observed on the site during the reconnaissance surveys. However, a sharp-shinned hawk was observed by the surveyor two blocks north of the Property.

The Property's large trees and abundant prey offer a potential for foraging opportunities for the sharp-shinned hawk. Therefore, the sharp-shinned hawk has a moderate potential to occur in a nesting and foraging capacity.

Cooper's Hawk (*Accipiter cooperii*). State Protected.

The Cooper's hawk looks similar to the sharp-shinned hawk, although it is slightly larger in size and has a long, rounded tail. It also hunts in woodlands, riparian areas, and even densely vegetated urban areas. These raptors capture small birds, rodents, and reptiles. They often hunt along the edges of woodlands, shorelines, and riparian habitats where migrating passerines are found. Nesting habitat for these raptors consists of woodlands, coniferous forest, and dense oak woodland adjacent or close to open areas.

CNDDDB did not list the Cooper's hawk within a 5-mile radius of the Property, and no Cooper's hawks were observed during the survey. However, large ornamental and oak trees within the Property could provide moderately suitable nesting opportunities for Cooper's hawk. Small birds, reptiles, and rodents occur on the Property, and could provide a prey base for the Cooper's hawk. Given the information above, the Cooper's hawk has a moderate potential to occur in a nesting and foraging capacity.

MAMMALS

Special-status Bats

Bats (Order - *Chiroptera*) are the only mammals capable of “true” flight. They are nocturnal feeders and locate their prey which consists of small to medium sized insects by echolocation. Bats consume vast amounts of insects making them very effective pest control agents. They may eat as much as their body weight in insects per day. Maternity roosts comprised of only females, may be found in buildings or mine shafts with temperatures up to 40 degrees Celsius and a high percentage of humidity to ensure rapid growth of their young. Female bats give birth to only one or two young annually and roost in small or large numbers. Males may live singly or in small groups, but scientists are still unsure of the whereabouts of most males in summer.

Special-status bats with the potential to occur on the Property are listed below.

- Pallid bat (*Antrozous pallidus*)
- Hoary bat (*Lasiurus cinereus*)
- Townsend’s big-eared bat (*Corynorhinus townsendii*)
- Yuma myotis (*Myotis yumanensis*)
- Long-eared myotis (*Myotis evotis*)

The CNDDDB listed one occurrence (Occurrence # 96) of hoary bat, one occurrence (Occurrence # 100) of the pallid bat, and once occurrence (Occurrence # 600) of Townsend’s big-eared bat within a 5-mile radius of the Property. Additionally, CNDDDB demonstrates that both Yuma myotis and long-eared myotis occur within the 9-quadrant radius of the Project. Due to the elusive and wide-ranging nature of bats, it is assumed that these species could also be within the 5-mile radius of the Project.

There were several large trees and structures that may provide roosting habitat within the Property. The habitats provided on and near the Property provide an array of insects allowing for abundant foraging opportunities. Given the presence of suitable roosting habitat and foraging opportunities; these bat species have may occur on the Property in a foraging and roosting capacity.

AMPHIBIANS

California Red-Legged Frog (*Rana draytonii*). Federally Threatened, California Species of Special Concern.

CRLF was listed as a Federal threatened species on May 31, 1996 (61 FR 25813) and is considered threatened throughout its range. If a proposed Property may jeopardize listed species, Section 7 of the ESA requires consideration of those species through formal consultations with the USFWS. Federal Proposed species (USFWS 2006c) are species for which a proposed listing as Threatened or Endangered under the ESA has been published in the Federal Register. If a proposed Property may jeopardize proposed species, Section 7 of the ESA affords consideration of those species through informal conferences with USFWS. On April 13, 2006, USFWS designated critical habitat for the CRLF under the ESA. In total, approximately 450,288 acres

fell within the boundaries of critical habitat designation. A new ruling by the USFWS on March 17, 2010, revised the designation of critical habitat for CRLF (75 FR 12815 12959). In total, approximately 1,636,609 acres of critical habitat in 27 California counties fall within the boundaries of the final revised critical habitat designation. This rule became effective on April 16, 2010.

The CRLF is a large frog, measuring one and a half to five inches in length. They are reddish-brown to gray in color, with many poorly defined dark specks and blotches. Dorsolateral folds are present. The underside of the CRLF is washed with red on the lower abdomen and hind legs. The CRLF has a dark mask bordered by a light stripe on the jaw, smooth eardrums, and not fully webbed toes. The male has enlarged forearms and swollen thumbs. Its vocals consist of a series of weak throaty notes, rather harsh, and lasting two to three seconds. Breeding occurs from December to March with egg masses laid in permanent bodies of water.

The CRLF is found in lowlands, foothill woodland and grasslands, near marshes, lakes, ponds or other water sources. These amphibians require dense shrubby or emergent vegetation closely associated with deep still or slow-moving water. Generally, these frogs favor intermittent streams with water at least two and a half feet deep and where the shoreline has relatively intact emergent or shoreline vegetation. CRLF is known from streams with relatively low gradients and those waters where introduced fish and bullfrogs are absent. CRLF are known to take refuge upland in small mammal burrows during periods of high water flow. CRLF occurs west of the Sierra Nevada-Cascade and in the Coast Ranges along the entire length of the state. Historically, they occurred throughout the Central Valley and Sierra Nevada foothills south to northern Baja California. Now they are found from Sonoma and Butte Counties south to Riverside, but mainly in Monterey, San Luis Obispo, and Santa Barbara Counties.

The CNDDDB listed four occurrences of the CRLF within a 5-mile radius of the Property. The closest occurrence (Occurrence #211) is located approximately 4.75 miles west of the Property where a juvenile frog was captured in Saratoga Creek in 1997. The most recent occurrence (Occurrence #961) is located approximately 4.5 miles west of the Property where an adult and 3 larvae were observed in Calabazas Creek in 2007. The Property is completely surrounded by existing residential development with no breeding habitat present. The isolated nature of the site would preclude the existence of any population of CRLF. The site assessment concluded that CRLF would not be present based on the lack of breeding habitat both on and immediately surrounding the Property, lack of occurrences in the vicinity, dispersal barriers such as existing development and development of the Property. CRLF are presumed to be absent from the Property.

California Tiger Salamander (*Ambystoma californiense*). Federally Threatened, State Threatened.

CTS inhabit rolling grassland and oak savannah. Adults spend most of the year in subterranean retreats such as rodent burrows, but may be found on the surface during dispersal to and from breeding sites. The preferred breeding sites are vernal pools and other temporary ponds. However, CTS may use permanent manmade ponds as breeding habitat. CTS adults begin

migrating to ponds after the first heavy rains of fall and can be found in or around the breeding ponds during and after winter rainstorm events. In extremely dry years, CTS may not reproduce.

After mating, females lay several small clusters of eggs, which contain from one to over 100 eggs. The eggs are deposited on both emergent and submerged vegetation, as well as submerged detritus. A minimum of ten weeks is required to complete larval development through metamorphosis, at which time the larvae will normally weigh about ten grams. Larvae remaining in pools for a longer time period can grow to much larger sizes. Upon metamorphosis, juvenile CTS migrate in large masses at night from the drying breeding sites to refuge sites. Prior to this migration, the juveniles spend anywhere from a few hours to a few days near the pond margin. Adult CTS are largely opportunistic feeders, preying upon arthropod and annelid species that occur in burrow systems, as well as aquatic invertebrates found within seasonal pools. The larvae feed on aquatic invertebrates and insects, showing a distinct preference for larvae of the Pacific tree frog.

On August 4, 2004, the U.S. Fish and Wildlife Service (USFWS) announced the listing of the CTS as threatened throughout its range with the exception of the Sonoma and Santa Barbara County populations which are listed as endangered (USFWS 2006). On March 3, 2010, the California Fish and Game Commission designated CTS as threatened under the California Endangered Species Act. On August 23, 2005, the Service designated 199,109 acres of critical habitat in 19 counties for the central California population of the CTS. On August 2, 2005, they proposed 74,223 acres of critical habitat for CTS in Sonoma County, California. This habitat is located in the Santa Rosa Plain in central Sonoma and includes lands bordered on the west by Laguna de Santa Rosa, to the south by Skillman Road, northwest of Petaluma, to the east by foothills, and to the north by Windsor Creek. On December 14, 2005, in a final decision, USFWS designated and excluded 17,418 acres of critical habitat for CTS, so that no critical habitat is being designated for the Sonoma County population.

The CNDDDB has listed one occurrence of the California tiger salamander roughly 4 miles east of the Property. This occurrence is a historical record of a museum collection made in San Jose in 1895 and the site is now considered extirpated. The Property is completely surrounded by existing residential development with no breeding or aestivation habitat present. The isolated nature of the site would preclude the existence of any population of CTS. For these reasons CTS are presumed absent from the Property.

California Giant Salamander (*Dicamptodon ensatus*). State Protected.

The California Giant Salamander is found in the south and north Coast Ranges from southern Santa Cruz County north just beyond the Sonoma-Mendocino County border. The species inhabits moist forests within and near clear, cold, rocky streams or seepages. When above ground it is found under logs, bark, rocks, and other large objects, usually near water. The cool, humid, shady environment that this species commonly inhabits favors some diurnal activity. This species of salamander preys on a variety of items such as small snakes, lizards, shrews, small rodents and other salamanders.

Breeding occurs after the first rains when adults move to nearby pond or creek pool sites. Pools

near sprints at the head waters of creeks or beneath waterfalls are usually favored. Females lay from 70 to 185 eggs in concealed locations beneath stabilized rock and log jams. The eggs are attached by their short pedicles to such objects and are attended by the female (Stebbins and McGinnis 2012).

The CNDDDB has listed eight occurrences of the California giant salamander within a 5-mile radius of the Property. The most recent occurrence (Occurrence #101) was observed approximately 4.5 miles southeast within Hendry's Creek just upstream from Lexington Reservoir. Both larvae and adults were observed May 2015. The closest occurrence (Occurrence # 2) overlaps with the Property but was a historical occurrence observed in 1918. This area has been since developed are the species is presumed to be extirpated from the area.

The Property is completely surrounded by existing residential development with no breeding or aestivation habitat present. The isolated nature of the site would preclude the existence of any population of giant salamander. For these reasons the giant salamander is presumed absent from the Property.

Santa Cruz Black Salamander (*Aneides niger*). California Species of Special Concern.

The Santa Cruz black salamander occurs on the San Francisco peninsula in San Mateo, Santa Cruz and Santa Clara counties. The black salamander can be found in a variety of habitats. They include coastal grassland, open oak and conifer woodlands, redwood and Douglas fir forests, clearings near forest edges, banks of permanent streams, areas around springs, wet to damp rock rubble, caves and mine shafts. It is semi-aquatic (Amphibiaweb 2020). It is usually found outside areas of contiguous tree canopy. This species of salamander feeds on spiders, beetles, ants, termites, millipedes and flies.

The CNDDDB has listed 12 occurrences of the Santa Cruz black salamander within 5-miles of the Property. The most recent occurrence (Occurrence # 39) was observed approximately 4.5 miles southeast within Hendry's Creek just upstream from Lexington Reservoir. Three juveniles were observed May 2016. The closest occurrence (Occurrence # 6) overlaps with the Property but was a historical occurrence observed in 1976. This area has been since developed are the species is presumed to be extirpated from the area.

The Property is completely surrounded by existing residential development. It is 0.70 miles north of the nearest riparian area. The isolated nature of the site would likely preclude the existence of black salamander. However, there is some potential habitat within the dense oak leaf litter within the northern half the Property. Although not near a creek, year-round watering of landscaping could increase the habitat conditions. For these reasons the black salamander is not likely to occur within the Property.

REPTILES

CNDDDB lists only one reptile species within a 5-mile radius of the Project.

Western Pond Turtle (*Emys marmorata*). California Species of Special Concern.

The western pond turtle is a thoroughly aquatic turtle that may be found in marshes, ponds, streams and irrigation ditches where aquatic vegetation is present. The turtles, which range from nine to ten inches in size, require basking sites and suitable upland habitat for egg laying. Suitable breeding upland habitats may consist of sandy banks or grassy open fields. The western pond turtle has a dark brown to olive-colored carapace with hexagonal scales that lack prominent markings.

Nesting and incubation occur from April to September, with a peak time for mating and egg laying occurring from March to May. After a 73 to 80-day gestation or incubation period, 5 to 13 eggs will be laid from July to October. Eggs are produced either once or twice a year. Females may travel some distance from water for egg-laying, moving as much as 0.8 kilometers (0.5 mile) away from and up to 90 meters (300 feet) above the nearest source of water. Most nests are with 90 meters (300 feet) of water. The female usually leaves the water in the evening and may wander far before selecting a nest site, often in an open area of sand or hardpan that is facing southwards. The nest is flask-shaped with an opening of about five centimeters (two inches). Females spend considerable time covering up the nest with soil and adjacent low vegetation, making it difficult for a person to find unless it has been disturbed by a predator.

Activity slows from November to February. During the winter when water and air temperatures cool, usually from September to March, the turtles begin to hibernate. During hibernation, turtles either bury themselves in the mud at the bottom of ponds or will bury themselves on land in duff (top layer of decomposing vegetation and soil). Some turtles travel more than a half mile to overwinter on land, though many select the nearest wooded or shrubby area they can bury in. Turtles then emerge from hibernation in the spring to start the yearly cycle again.

The CNDDDB lists seven occurrences of western pond turtle within a 5-mile radius of the Property. However, there was no ponded water or aquatic vegetation present on site making it very unlikely this species would be found on the Property. Additionally, there are substantial barriers to movement considering the development surrounding the Property. This western pond turtle was not seen during the October 2020 survey and is not likely to occur.

7.0 CONCLUSIONS

7.1 Wetlands

Results of the biological resource analysis survey conducted by Olberding Environmental on October 20, 2020, did not identify any wetland/waters on the Property that may be considered jurisdictional by the Corps showing no positive indicators of wetland soils, hydrology, and vegetation. Based on the results of our reconnaissance survey, the site lacked all criteria used by the Corps to determine wetland status.

7.2 Special-status Plants

No special-status plant species were determined to have a potential to occur on the Property. This was based on the absence of suitable habitats, soil types, and nearby and recent CNDDDB occurrences.

7.3 Special-status Wildlife

Foraging or Nesting Raptor/Passerine Species – The following birds have a moderate potential to occur in a breeding and foraging capacity: red-shouldered hawk, red-tailed hawk, sharp-shinned hawk, and Cooper’s hawk. Peregrine falcon and yellow rail are presumed absent from the Property.

Special-status Mammal Species – Given the presence of suitable onsite habitat; pallid bat, hoary bat, and Townsend’s big-eared bat have a potential to occur on the Property in a foraging and roosting capacity. No immediate signs were present during the initial survey but the prominent structures and the large trees on-site could provide suitable roosting habitat.

Special-Status Amphibians – The Property does not provide suitable breeding habitat for CRLF, CTS, Santa Cruz black salamander or California giant salamander as there is no permanent or intermittent water source, and a lack of upland burrows utilized by CRLF and CTS. Additionally, it is very unlikely that these amphibian species would be able to disperse onto the Property due to surrounding residential development. All are presumed absent from the Property.

Special-Status Reptiles – There is no standing water or aquatic vegetation within the Property and therefore there is no suitable habitat for the western pond turtle. The Property has residential housing on all boundaries making it impossible for the turtle to disperse onto the Property. The western pond turtle is not likely to occur on the Property.

8.0 RECOMMENDATIONS

- **Pre-Construction Avian Survey** – If project construction-related activities would take place during the nesting season (February through August), preconstruction surveys for nesting passerine birds and raptors (birds of prey) within the Property and the large trees within the adjacent riparian area should be conducted by a competent biologist 14 days

prior to the commencement of the tree removal or site grading activities. If any bird listed under the Migratory Bird Treaty Act is found to be nesting within the project site or within the area of influence, an adequate protective buffer zone should be established by a qualified biologist to protect the nesting site. This buffer shall be a minimum of 75 feet from the project activities for passerine birds, and a minimum of 200 feet for raptors. The distance shall be determined by a competent biologist based on the site conditions (topography, if the nest is in a line of sight of the construction and the sensitivity of the birds nesting). The nest site(s) shall be monitored by a competent biologist periodically to see if the birds are stressed by the construction activities and if the protective buffer needs to be increased. Once the young have fledged and are flying well enough to avoid project construction zones (typically by August), the project can proceed without further regard to the nest site(s).

- **Pre-construction Bat Survey** – To avoid “take” of special-status bats, the following mitigation measures shall be implemented prior to the removal of any existing trees or structures on the project site:
 - a) A bat habitat assessment shall be conducted by a qualified bat biologist during seasonal periods of bat activity (mid-February through mid-October, Feb. 15 – Apr. 15, and Aug. 15 – October 30), to determine suitability of each existing structure as bat roost habitat.
 - b) Structures found to have no suitable openings can be considered clear for project activities as long as they are maintained so that new openings do not occur.
 - c) Structures found to provide suitable roosting habitat, but without evidence of use by bats, may be sealed until project activities occur, as recommended by the bat biologist. Structures with openings and exhibiting evidence of use by bats shall be scheduled for humane bat exclusion and eviction, conducted during appropriate seasons, and under supervision of a qualified bat biologist.
 - d) Bat exclusion and eviction shall only occur between February 15 and April 15, and from August 15 through October 30, in order to avoid take of non-volant (non-flying or inactive, either young, or seasonally torpid) individuals.

OR

A qualified wildlife biologist experienced in surveying for and identifying bat species should survey the portion of the mixed oak woodland and mixed riparian habitats if tree removal is proposed to determine if any special-status bats reside in the trees. Any special-status bats identified should be removed without harm. Bat houses sufficient to shelter the number of bats removed should be erected in open space areas that would not be disturbed by project development.

- **Erosion Control** – Grading and excavation activities could expose soil to increased rates of erosion during construction periods. During construction, runoff from the Property

could adversely affect aquatic life through storm water runoff systems that flow to nearby streams and creeks. Surface water runoff could remove particles of fill or excavated soil from the site, or could erode soil down-gradient, if the flow were not controlled. Deposition of eroded material in nearby water features could increase turbidity, thereby endangering aquatic life, and reducing wildlife habitat. Implementation of appropriate mitigation measures would ensure that impacts to aquatic organisms would be avoided or minimized. Mitigation measures may include best management practices (BMP's) such as hay bales, silt fencing, placement of straw mulch and hydro seeding of exposed soils after construction as identified in a Storm Water Pollution Prevention Plan (SWPPP) for the Property during development activities.

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ATTACHMENTS

ATTACHMENT 1 FIGURES

| | |
|------------------|--|
| Figure 1 | Regional Map |
| Figure 2 | Vicinity Map |
| Figure 3 | USGS Quadrangle Map for Los Gatos |
| Figure 4 | Aerial Photograph |
| Figure 5 | CNDDDB Map of Special Status Wildlife |
| Figure 6 | CNDDDB Map of Special Status Plants |
| Figure 7 | USFWS Designated Critical Habitat |
| Figure 8 | Soils Map |
| Figure 9 | Photo Location Map |
| Figure 10 | Habitat Map |

Figure 1
Regional Map

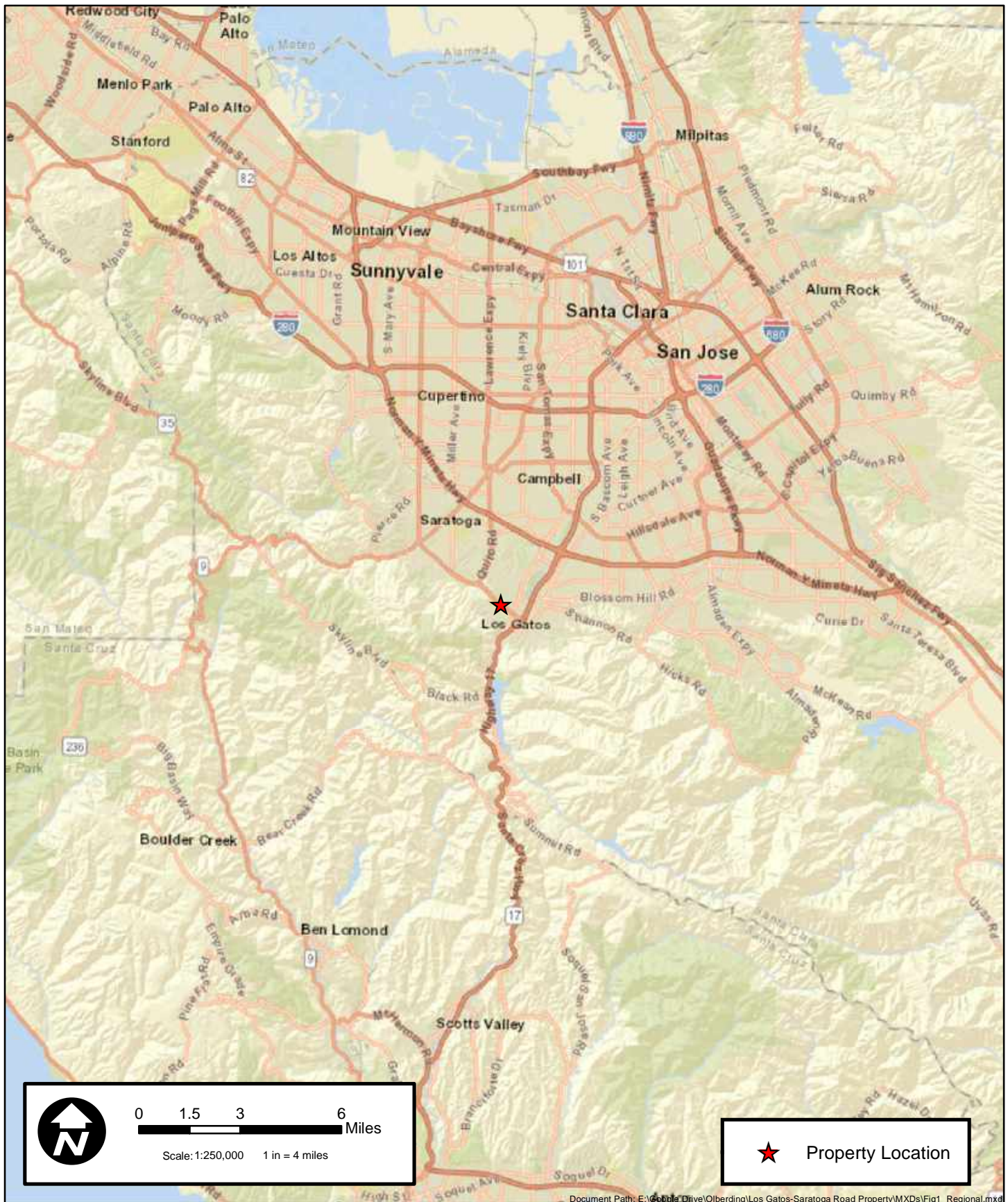


Figure 1: Regional Map
Los Gatos-Saratoga Road Property
Monte Sereno, CA



193 Blue Ravine Road, Ste. 160
 Folsom, California, 95630
 Phone: (916) 985-1188

Figure 2
Vicinity Map

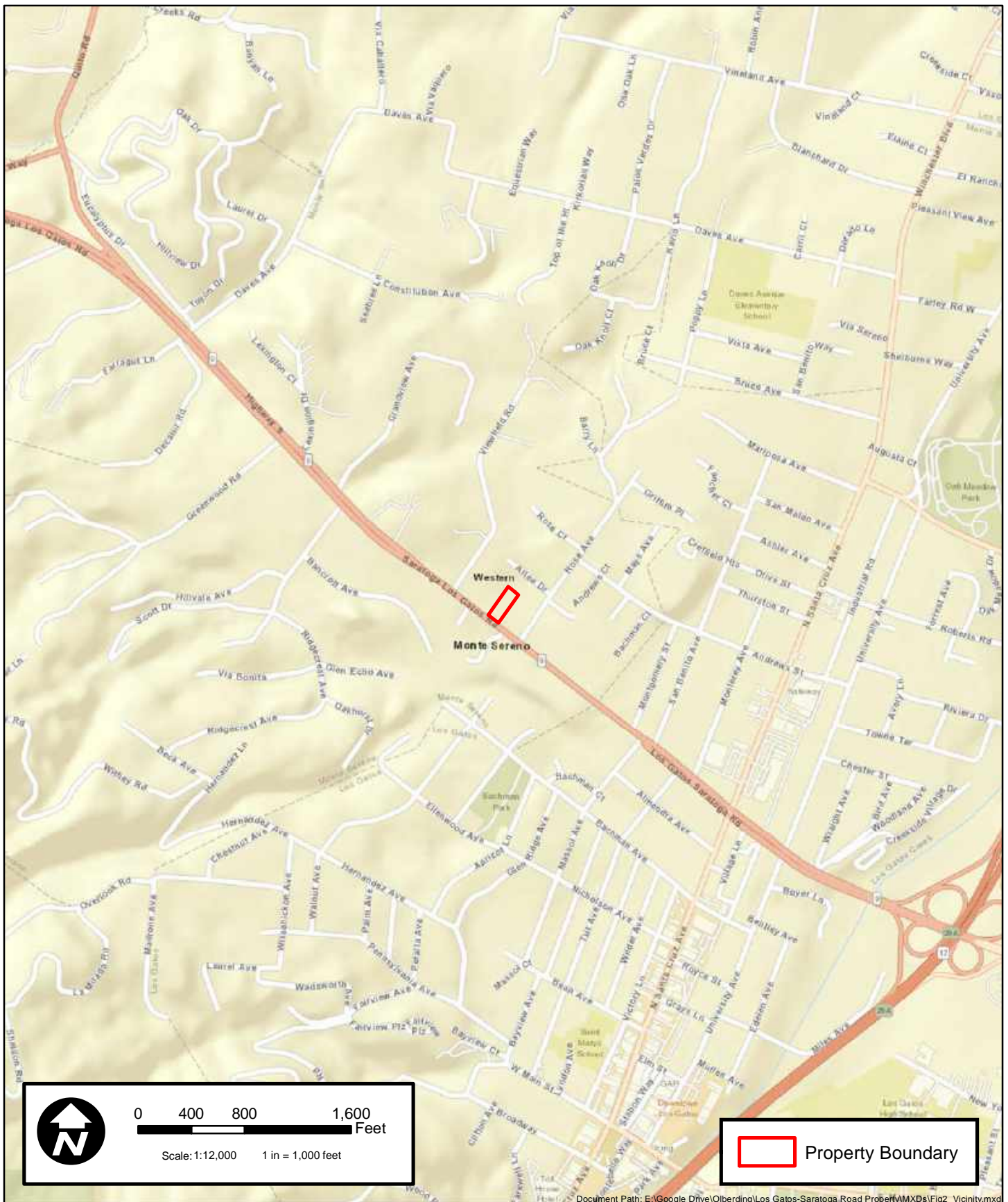
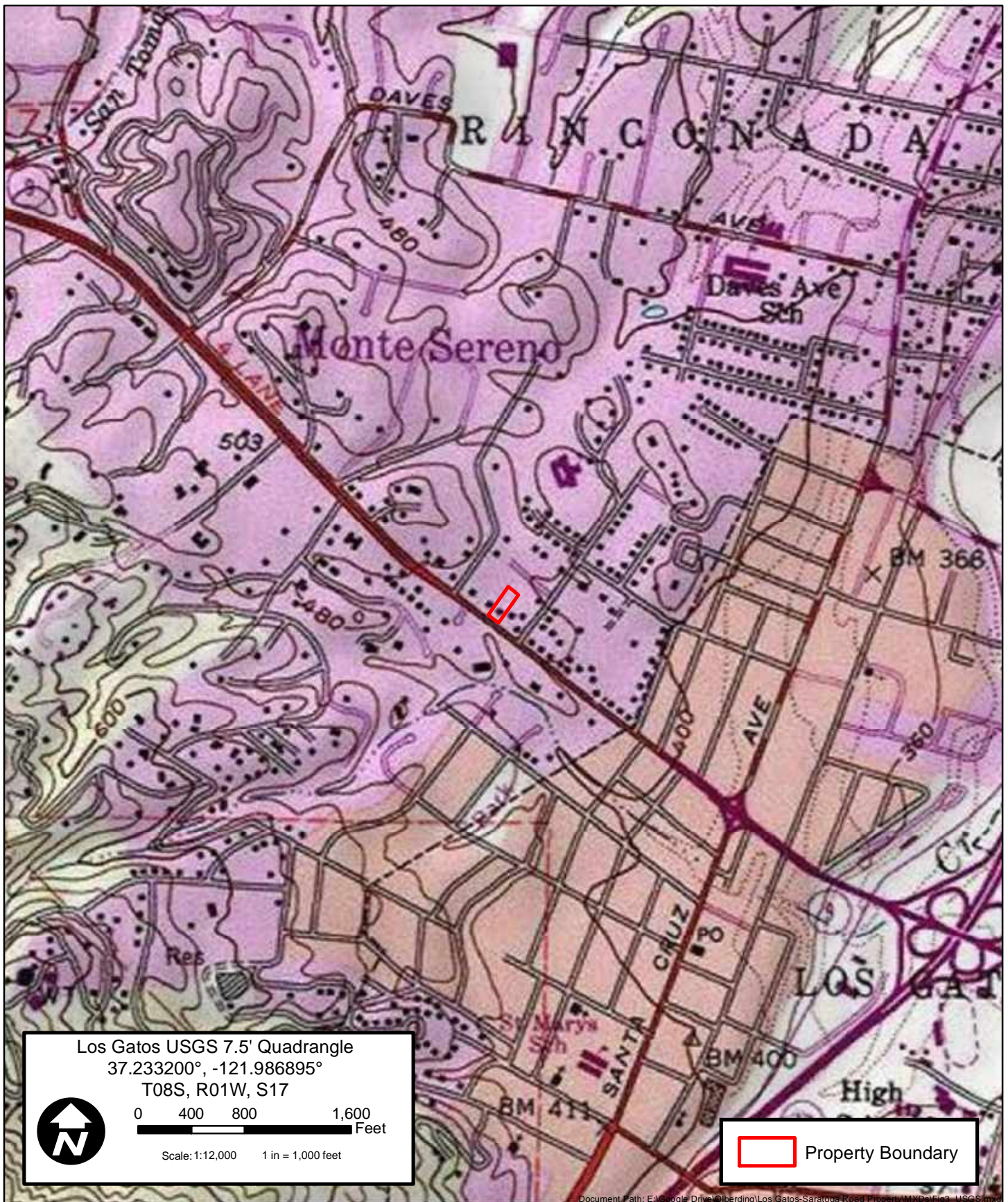


Figure 2: Vicinity Map
Los Gatos-Saratoga Road Property
Monte Sereno, CA



193 Blue Ravine Road, Ste. 160
 Folsom, California, 95630
 Phone: (916) 985-1188

Figure 3
USGS Quadrangle Map for Los Gatos



**Figure 3: USGS Quadrangle Map
 Los Gatos-Saratoga Road Property
 Monte Sereno, CA**



193 Blue Ravine Road, Ste. 160
 Folsom, California, 95630
 Phone: (916) 985-1188

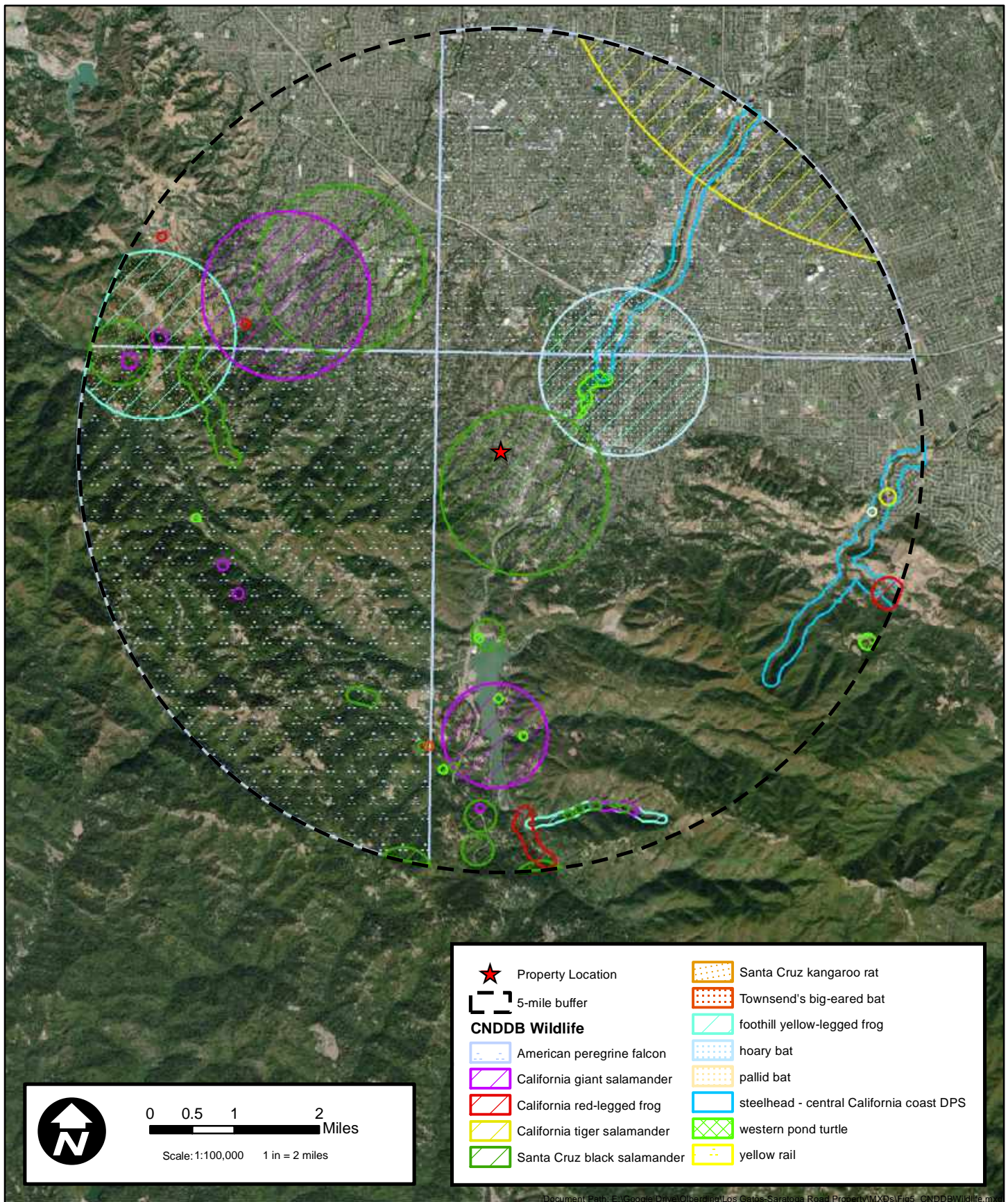
Figure 4
Aerial Map



193 Blue Ravine Road, Ste. 160
Folsom, California, 95630
Phone: (916) 985-1188

Figure 4: Aerial Map
Los Gatos-Saratoga Road Property
Monte Sereno, CA

Figure 5
CNDDDB Wildlife Occurrences



193 Blue Ravine Road, Ste. 160
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Phone: (916) 985-1188

Figure 5: CNDDDB Wildlife Occurrences within 5 miles Los Gatos-Saratoga Road Property Monte Sereno, CA

Revision Date: 11/2/2020

Figure 6
CNDDDB Plants Occurrences

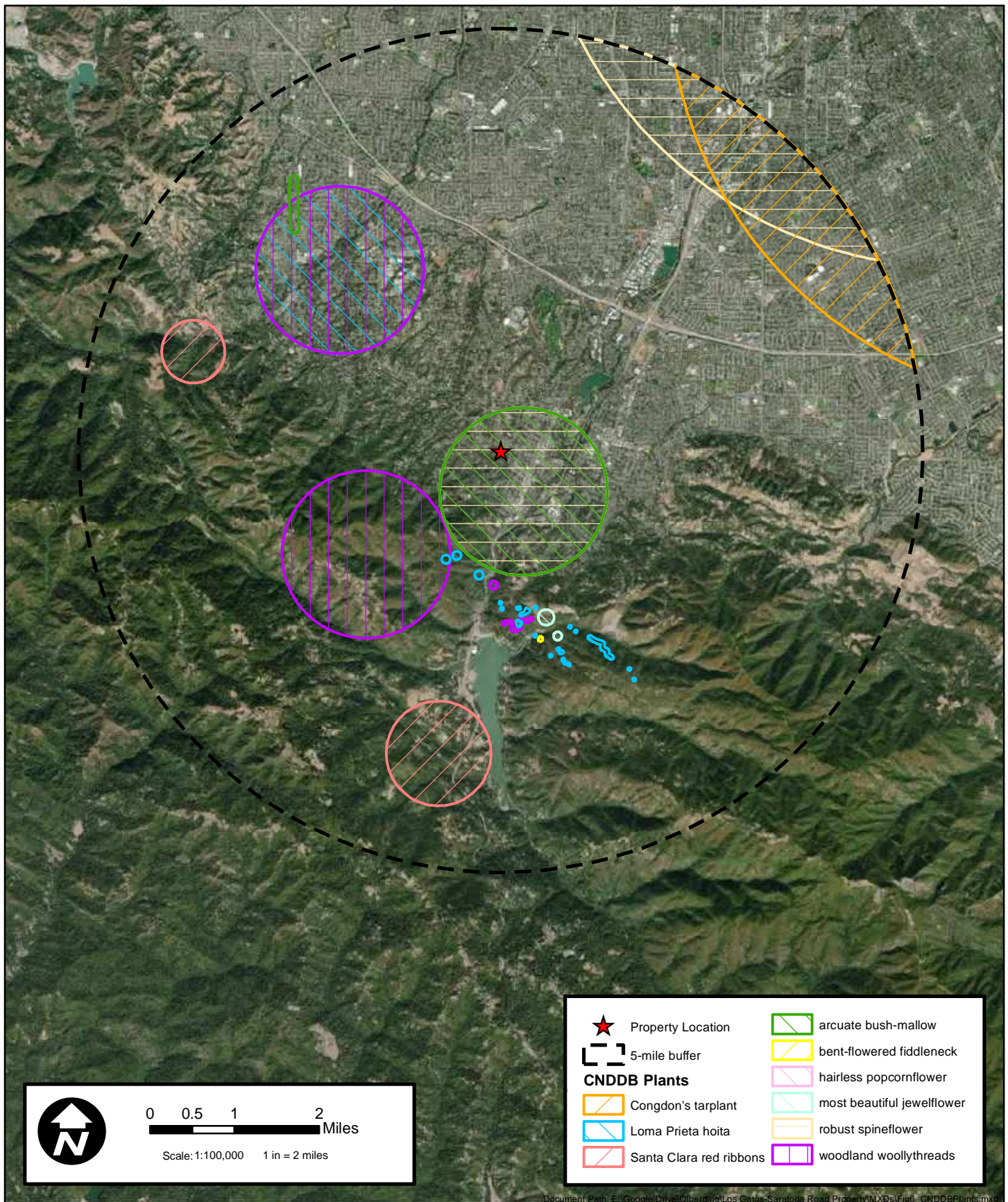


Figure 6: CNDDDB Plant Occurrences within 5 miles Los Gatos-Saratoga Road Property Monte Sereno, CA



193 Blue Ravine Road, Ste. 160
Folsom, California, 95630
Phone: (916) 985-1188

Figure 7
USFWS Designated Critical Habitat

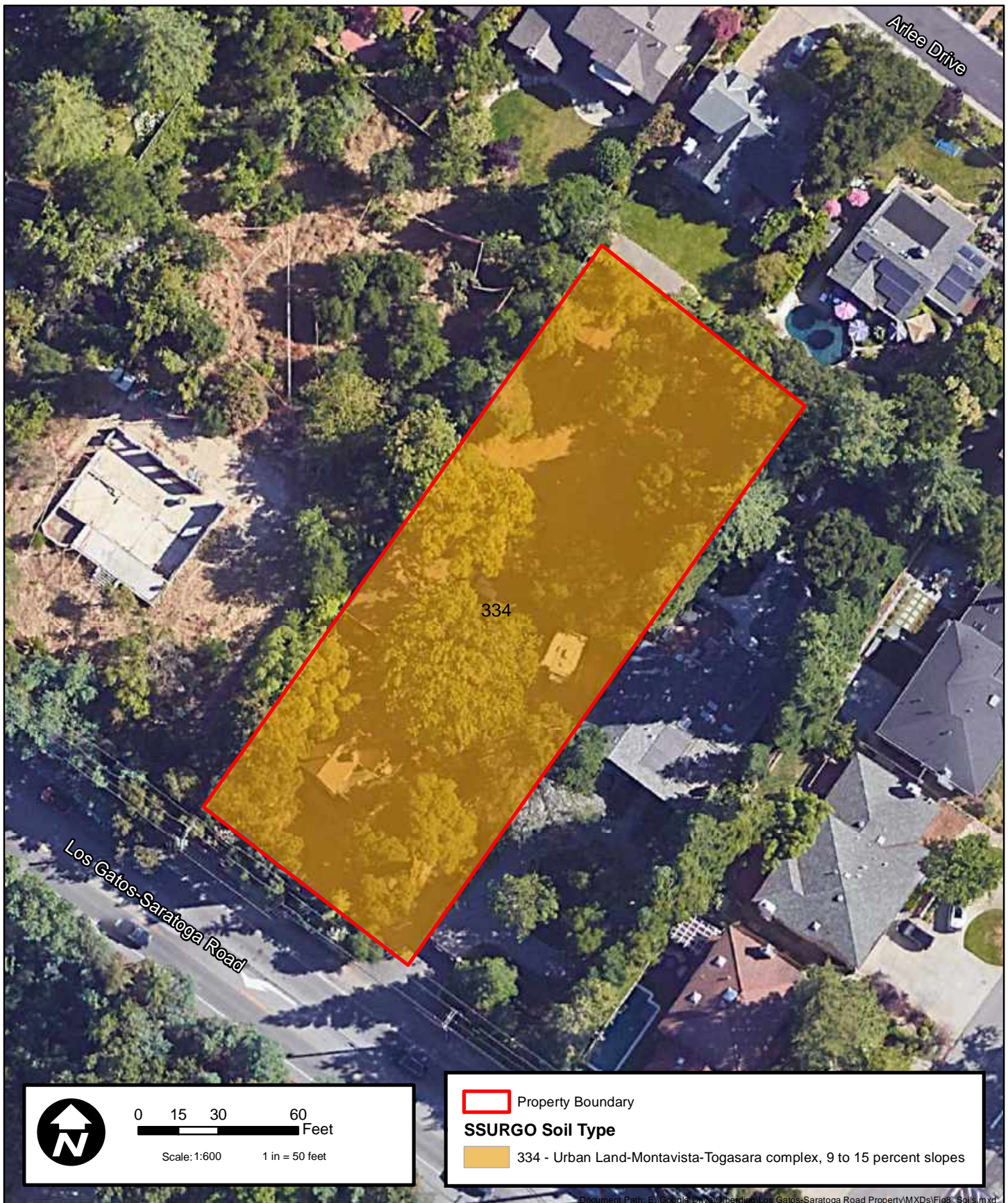


**Figure 7: USFWS Designated Critical Habitat Map
Los Gatos-Saratoga Road Property
Monte Sereno, CA**



193 Blue Ravine Road, Ste. 160
Folsom, California, 95630
Phone: (916) 985-1188

Figure 8
Soils Map



193 Blue Ravine Road, Ste. 160
Folsom, California, 95630
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Figure 8: Soils Map
Los Gatos-Saratoga Road Property
Monte Sereno, CA

Revision Date: 11/2/2020

Figure 9
Photo Location Map

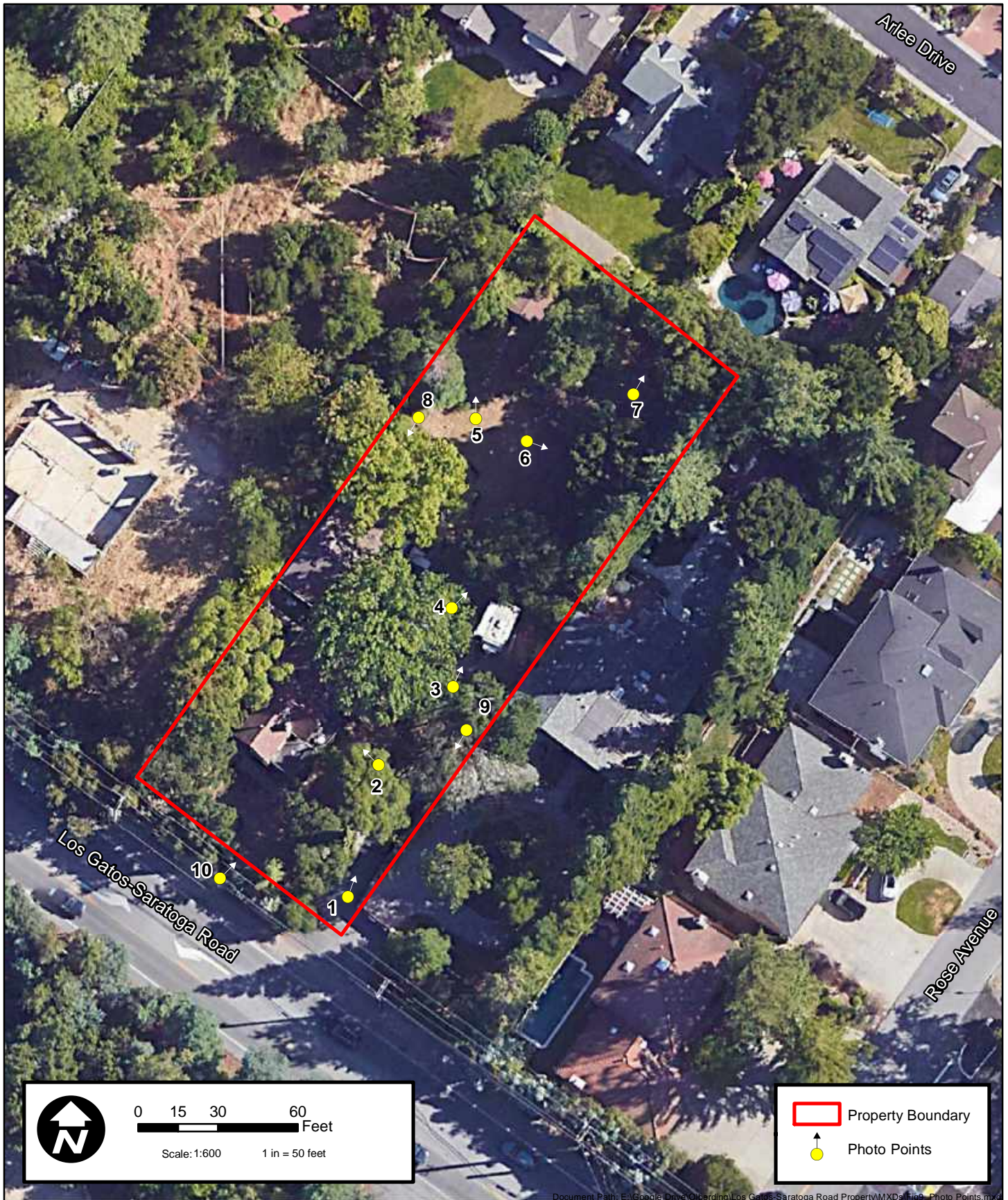


Figure 9: Photo Location Map
Los Gatos-Saratoga Road Property
Monte Sereno, CA



193 Blue Ravine Road, Ste. 160
 Folsom, California, 95630
 Phone: (916) 985-1188

Figure 10
Habitat Map



Figure 10: Habitat Map
Los Gatos-Saratoga Road Property
Monte Sereno, CA



193 Blue Ravine Road, Ste. 160
 Folsom, California, 95630
 Phone: (916) 985-1188

ATTACHMENT 2
TABLES

Table 1

Plant and Wildlife Species Observed

Within/Adjacent to the Survey Area

Table 1

Wildlife Species Observed Within/Adjacent to the Survey Area

| Scientific Name | Common Name |
|------------------------------------|----------------------|
| Plant Species Observed | |
| <i>Acacia sp.</i> | Acacia tree |
| <i>Agapanthus africanus</i> | Agapanthus |
| <i>Avena fatua</i> | Wild oat |
| <i>Baccharis pilularis</i> | Coyote brush |
| <i>Brassica nigra</i> | Black mustard |
| <i>Briza maxima</i> | Rattlesnake grass |
| <i>Bromus diandrus</i> | Rip-gut brome |
| <i>Bromus hordeaceus</i> | Soft chess |
| <i>Camellia sp.</i> | Camellia bush |
| <i>Cardamine hirsuta</i> | Bittercress |
| <i>Carduus pycnocephalus</i> | Italian thistle |
| <i>Coleonema sp.</i> | Breath of heaven |
| <i>Cupressus sempervirens</i> | Italian cypress |
| <i>Cynodon dactylon</i> | Bermuda grass |
| <i>Dittrichia graveolens</i> | Stinkwort |
| <i>Erodium botrys</i> | Red-stemmed filaree |
| <i>Festuca perennis</i> | Italian rye grass |
| <i>Geranium dissectum</i> | Cutleaf geranium |
| <i>Hedera helix</i> | English ivy |
| <i>Helminthotheca echioides</i> | Bristly ox-tongue |
| <i>Heteromeles arbutifolia</i> | Toyon |
| <i>Juniperus chinensis</i> | Chinese juniper |
| <i>Lactuca serriola</i> | Prickly lettuce |
| <i>Ligustrum japonicum</i> | Wax-leafed privet |
| <i>Nandina domestica</i> | Heavenly bamboo |
| <i>Narcissus papyraceus</i> | Paperwhite daffodil |
| <i>Nerium oleander</i> | Oleander |
| <i>Oxalis stricta</i> | Yellow woodsorrel |
| <i>Pelargonium hortorum</i> | Ornamental geranium |
| <i>Phyllostachys sp.</i> | Ornamental bamboo |
| <i>Quercus agrifolia</i> | Coast live oak |
| <i>Quercus alba</i> | White oak |
| <i>Rosa sp.</i> | Ornamental roses |
| <i>Rubus armeniacus</i> | Himalayan blackberry |
| <i>Rumex crispus</i> | Curly dock |
| <i>Sambucus mexicanus</i> | Blue elderberry |
| <i>Sequoia giganteum</i> | Giant sequoia |
| <i>Sequoiadendron sempervirens</i> | Coast redwood |
| <i>Tecoma capensis</i> | Cape honeysuckle |
| <i>Vicia sativa</i> | Common vetch |
| <i>Vinca minor</i> | Periwinkle |

| Table 1 | |
|--|-------------------------------|
| Wildlife Species Observed Within/Adjacent to the Survey Area | |
| Scientific Name | Common Name |
| <i>Zantedeschia aethiopica</i> | Calla lily |
| Animal Species Observed | |
| Birds | |
| <i>Aphelocoma californica</i> | Western scrub jay |
| <i>Baeolophus inornatus</i> | Oak titmouse |
| <i>Calypte anna</i> | Anna's hummingbird |
| <i>Corvus brachyrhynchos</i> | American crow |
| <i>Corvus corax</i> | Common raven |
| <i>Junco hyemalis</i> | Dark-eyed junco |
| <i>Melospiza crissalis</i> | California towhee |
| <i>Passer domesticus</i> | House sparrow |
| <i>Picoides nuttallii</i> | Nuttall's woodpecker |
| <i>Poecile rufescens</i> | Chestnut-backed chickadee |
| <i>Psaltiriparus minimus</i> | Bushtit |
| <i>Setophaga coronata</i> | Yellow-rumped warbler |
| <i>Spinus psaltria</i> | Lesser goldfinch |
| <i>Thryomanes bewickii</i> | Bewick's wren |
| <i>Turdus migratorius</i> | American robin |
| <i>Zenaidura macroura</i> | Mourning dove |
| Mammals | |
| <i>Sciurus niger</i> | Fox squirrel |
| <i>Thomomys bottae</i> | Botta's pocket gopher |
| <i>Peromyscus</i> sp. | Field mice |
| Reptiles | |
| <i>Elgaria coerulea</i> | Northern alligator lizard |
| <i>Sceloporus occidentalis</i> | Western fence lizard |
| Amphibians | |
| <i>Batrachoseps attenuatus</i> | California slender salamander |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS) ² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|--|--------------------------------------|---------------------------|---|------------------------------------|------------------|
| PLANTS | | | | | |
| Bent-flower Fiddleneck (<i>Amsinckia lunaris</i>) | -/-/1B | March-June | Coastal bluff scrub, cismontane woodland, and valley and foothill grassland | Low No suitable habitat present | Presumed absent |
| Slender Silver Moss (<i>Anomobryum julaceum</i>) | -/-/4.2 | N/A | Damp rock and soil on outcrops, usually on roadcuts. Broadleaf upland forest, lower montane coniferous forest, north coast coniferous forest. | Low No suitable habitat present | Presumed absent |
| Anderson's (Santa Cruz Mountains) Manzanita (<i>Arctostaphylos andersonii</i>) | -/-/1B | November – April | Broadleaved upland forest, chaparral, and openings and edges of north coast coniferous and redwood forests. | Low No suitable habitat present | Presumed absent |
| Bonny Doon manzanita (<i>Arctostaphylos silvicola</i>) | -/-/1B | January - March | Inland marine sand soils in closed-cone coniferous forest, chaparral, and lower montane coniferous forest. | Low No suitable habitat present | Presumed absent |
| Marsh Sandwort (<i>Arenaria paludicola</i>) | E/E/1B | May-August | Sandy, openings; within marshes and swamps | Low No suitable habitat present | Presumed absent |
| Big-Scale Balsamroot (<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>) | -/-/1B | March – June | Chaparral, cismontane woodland, and valley and foothills grasslands, sometimes in serpentinite outcrops. | Low No suitable habitat present | Presumed absent |
| Santa Cruz Mountains Pussypaws (<i>Calyptridium parryi</i> var. <i>hesseae</i>) | -/-/1B | May – July | Sandy or gravely openings in chaparral and cismontane woodlands. | Low No suitable habitat present | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|----------------------------------|--|---|-------------------------|
| Swamp Harebell (<i>Campanula californica</i>) | -/-/1B | June – October | Bogs, fens, and freshwater marshes in a variety of habitats, closed-cone coniferous forest, coastal prairie, meadows, and north coast coniferous forest; uncommon where it occurs. | Low No suitable habitat present | Presumed absent |
| Bristly sedge (<i>Carex comosa</i>) | -/-/2 | May – September | Coastal prairie, lake margins that form marshes or swamps, and valley and foothill grasslands. | Low No suitable habitat present | Presumed absent |
| Deceiving sedge (<i>Carex saliniformis</i>) | -/-/1B | May-June | Mesic areas within coastal prairie, coastal scrub, meadows and seeps, and coastal sandy marshes and swamps. | Low No suitable habitat present | Presumed absent |
| Coyote ceanothus (<i>Ceanothus ferrisiae</i>) | E/-/1B | January – May | Chaparral, coastal scrub, and valley and foothill grasslands in serpentine soils. | Low No suitable habitat present. Outside of range. | Presumed absent |
| Congdon's tarplant (<i>Centromadia parryi</i> ssp. <i>congdonii</i>) | -/-/1B | June – November | Valley and foothill grasslands in alkaline soils. | Low No suitable habitat present. Outside of range. | Presumed absent |
| Dwarf soaproot (<i>Chlorogalum pomeridianum</i> var. <i>minus</i>) | -/-/1B | May - August | Serpentine chaparral | Low No suitable habitat present. | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|--|--|----------------------------------|--|------------------------------------|-------------------------|
| Ben Lomond spineflower (<i>Chorizanthe pungens</i> var. <i>hartwegiana</i>) | E/-/1B | April – July | Lower montane coniferous forest; Zayante coarse sands in maritime ponderosa pine sandhills. | Low No suitable habitat present | Presumed absent |
| Monterey spineflower (<i>Chorizanthe pungens</i> var. <i>pungens</i>) | T/-/1B | April – June | Maritime chaparral, cismontane woodlands, coastal dunes, coastal scrub, and valley and foothill grasslands in sandy soils. | Low No suitable habitat present | Presumed absent |
| Robust Spineflower (<i>Chorizanthe robusta</i> var. <i>hartwegii</i>) | E/-/1B | April – July | Lower montane coniferous forest; Zayante coarse sands in maritime ponderosa pine sandhills. | Low No suitable habitat present | Presumed absent |
| Scotts Valley Spineflower (<i>Chorizanthe robusta</i> var. <i>robusta</i>) | E/-/1B | April – September | Openings in cismontane woodlands, coastal dunes, and in valley and foothill grasslands with sandy or gravelly soils. | Low No suitable habitat present | Presumed absent |
| Mt. Hamilton Fountain Thistle (<i>Cirsium fontinale</i> var. <i>campylon</i>) | -/-/1B | April – October | Serpentine seeps. Chaparral, cismontane woodland, valley and foothill grassland. | Low No suitable habitat present | Presumed absent |
| Santa Clara Red Ribbons (<i>Clarkia concinna</i> ssp. <i>automixa</i>) | -/-/4 | May – June | Cismontane woodland, chaparral, on slopes and near drainages. | Low No suitable habitat present | Presumed absent |
| San Francisco Collinsia (<i>Collinsia multicolor</i>) | -/-/1B | March – May | Sometimes serpentine. Closed-cone coniferous forest, coastal scrub. | Low No suitable habitat present | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|----------------------------------|--|------------------------------------|-------------------------|
| Tear-drop moss (<i>Dacryophyllum falcifolium</i>) | -/-/1B | - | Carbonate found in north coast coniferous forest | Low No suitable habitat present | Presumed absent |
| Santa Clara Valley Dudleya (<i>Dudleya abramsii</i> ssp. <i>Setchellii</i>) | E/-/1B | April – October | Serpentine, rocky environments. Cismontane woodland, valley and foothill grassland. | Low No suitable habitat present | Presumed absent |
| Western leatherwood (<i>Dirca occidentalis</i>) | -/-/1B | January – April | Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, and mesic riparian woodland. | Low No suitable habitat present | Presumed absent |
| Ben Lomond buckwheat (<i>Eriogonum nudum</i> var. <i>decurrens</i>) | -/-/1B | June – October | Chaparral, cismontane woodland, lower montane coniferous forest (maritime ponderosa pine sandhills), sandy. | Low No suitable habitat present | Presumed absent |
| Santa Cruz wallflower (<i>Erysimum teretifolium</i>) | E/E/1B | March – July | Inland marine sands, chaparral, lower montane coniferous forests. | Low No suitable habitat present | Presumed absent |
| Minute pocket moss (<i>Fissidens pauperculus</i>) | -/-/1B | - | Found in north coast coniferous forest (damp coastal soil) | Low No suitable habitat present | Presumed absent |
| Fragrant Fritillary (<i>Fritillaria liliacea</i>) | -/-/1B | February – April | Cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grasslands, often in serpentine soils. | Low No suitable habitat present | Presumed absent |
| Santa Cruz Cypress (<i>Hesperocyparis abramsiana</i> var. <i>abramsiana</i>) | -/-/1B | - | Sandstone or granitic soils in closed-cone coniferous forest, chaparral, and lower montane coniferous forest. | Low No suitable habitat present | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|-----------------------------------|---|---|-------------------------|
| Loma Prieta Hoita (<i>Hoita strobilina</i>) | -/-1B | May – October | Chaparral, cismontane woodland, riparian woodland, usually in mesic, serpentine soils. | Low No suitable habitat present | Presumed absent |
| Santa Cruz tarplant (<i>Holocarpha macrocarpa</i>) | T/E/1B | June – October | Coastal prairie, coastal scrub, and valley and foothill grasslands, often with clay, sandy soils; often with non-natives. | Low No suitable habitat present | Presumed absent |
| Kellogg's Horkelia (<i>Horkelia cuneata</i> ssp. <i>sericea</i>) | -/-1B | April – September | Closed-cone coniferous forests, chaparral, and in openings in coastal scrub, old dune, and coastal sandhill habitat with sandy or gravelly soils. | Low No suitable habitat present | Presumed absent |
| Point Reyes Horkelia (<i>Horkelia marinensis</i>) | -/-1B | May-September | Perennial herb found in sandy soils within coastal dunes, coastal prairie, coastal scrub habitats. | Low No suitable habitat present | Presumed absent |
| Contra Costa Goldfields (<i>Lasthenia conjugens</i>) | E/-/1B | March – June | Mesic soils. Cismontane woodland, alkaline playas, valley and foothill grassland, vernal pools. | Low No suitable habitat present. Outside of range. | Presumed absent |
| Smooth Lessingia (<i>Lessingia micradenia</i> var. <i>glabrata</i>) | -/-1B | (April – June) July – November | Serpentine, often on roadsides. Chaparral, cismontane woodland, valley and foothill grassland | Low No suitable habitat present | Presumed absent |
| Arcuate Bush-Mallow (<i>Malacothamnus arcuatus</i>) | -/-1B | April – September | Chaparral, cismontane woodland | Low No suitable habitat present | Not likely to occur |
| Hall's Bush-Mallow (<i>Malacothamnus hallii</i>) | -/-1B | May – September | Chaparral, coastal scrub | Low No suitable habitat present | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|--|--|---|--|------------------------------------|-------------------------|
| Marsh microseris (<i>Microseris paludosa</i>) | -/-/1B | April – June (July) Months in parentheses are uncommon | Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland. | Low No suitable habitat present | Presumed absent |
| Northern curly-leaved monardella (<i>Monardella sinuata</i> ssp. <i>nigrescens</i>) | -/-/1B | May – July | Sandy soils on chaparral, coastal dunes, coastal scrub, and lower montane coniferous forest. | Low No suitable habitat present | Presumed absent |
| Woodland Woollythreads (<i>Monolopia gracilens</i>) | -/-/1B | February – July | Found in serpentine, broadleafed upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), valley and foothill grassland. | Low No suitable habitat present | Presumed absent |
| Dudley's lousewort (<i>Pedicularis dudleyi</i>) | SOC/R/1B | April – June | Maritime chaparral, cismontane woodlands, north coast coniferous forest, and valley and foothill grasslands. | Low No suitable habitat present | Presumed absent |
| Santa Cruz Mountains Beardtongue (<i>Penstemon rattanii</i> var. <i>kleei</i>) | -/-/1B | May – June | Chaparral, lower montane coniferous forest, and north coast coniferous forest. | Low No suitable habitat present | Presumed absent |
| White-Rayed Pentachaeta (<i>Pentachaeta bellidiflora</i>) | E/E/1B | March – May | Valley and foothill grassland, open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock. | Low No suitable habitat present | Presumed absent |
| White-Flowered Rein Orchid (<i>Piperia candida</i>) | -/-/1B | May – September | North coast coniferous forest, lower montane coniferous forest, and broadleafed upland forest. Coast ranges from northern Santa Cruz County on serpentine. Forest duff, | Low No suitable habitat present | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|--|--|----------------------------------|---|------------------------------------|-------------------------|
| Hickman's Popcorn Flower (<i>Plagiobothrys chorisianus</i> var. <i>hickmanii</i>) | -/-/4.2 | April – June | Closed-cone coniferous forest, chaparral, coastal scrub, marshes and swamps, vernal pools | Low No suitable habitat present | Presumed absent |
| San Francisco Popcorn-Flower (<i>Plagiobothrys diffusus</i>) | -/E/1B | March – June | Valley and foothill grassland and coastal prairie. Historically from grassy slopes with marine influence. | Low No suitable habitat present | Presumed absent |
| Hairless Popcorn Flower (<i>Plagiobothrys glaber</i>) | -/-/1A | March – May | Meadows and seeps, marshes and swamps, coastal salt marshes and alkaline meadows. | Low No suitable habitat present | Presumed absent |
| Scotts Valley Polygonum (<i>Polygonum hickmanii</i>) | E/E/1B | May-August | Annual herb found in valley and foothill grassland (mudstone and sandstone) | Low No suitable habitat present | Presumed absent |
| Rock Sanicle (<i>Sanicula saxatilis</i>) | -/R/1B | April – May | Broadleafed upland forest, chaparral, valley and foothill grassland; bedrock outcrops and talus slopes in chaparral or oak woodland habitat. | Low No suitable habitat present | Presumed absent |
| Rayless or Chaparral Ragwort (<i>Senecio aphanactis</i>) | -/-/2 | January – April | Cismontane woodland, coastal scrub, drying alkaline flats, chaparral. | Low No suitable habitat present | Presumed absent |
| Santa Cruz Microseris (<i>Stebbinsoseris decipiens</i>) | -/-/1B | April – May | Broadleafed upland forest, closed-coned coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Open areas in loose or disturbed soil, usually | Low No suitable habitat present | Presumed absent |
| Metcalf Canyon Jewel-Flower (<i>Streptanthus albidus</i> ssp. <i>albidus</i>) | E/-/1B | April – June | Valley and foothill grassland in serpentine soils | Low No suitable habitat present | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|----------------------------------|--|------------------------------------|-------------------------|
| Most Beautiful Jewel-Flower (<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>) | -/-/1B | April – September | Serpentine soils. Chaparral, cismontane woodland, valley and foothill grassland | Low No suitable habitat present | Presumed absent |
| Santa Cruz Clover (<i>Trifolium buckwestiorum</i>) | -/-/1B | April – October | Broadleafed upland forest, cismontane woodlands, and margins of coastal prairies. | Low No suitable habitat present | Presumed absent |
| Saline Clover (<i>Trifolium hydrophilum</i>) | -/-/1B | April – June | Marshes and swamps, vernal pools, and valley and foothill grassland with mesic, alkaline soils | Low No suitable habitat present | Presumed absent |
| Pacific Grove Clover (<i>Trifolium polyodon</i>) | -/R/1B.1 | April - June | Wetlands, meadows, coastal prairie, closed-cone pine forests and wetland-riparian. | Low No suitable habitat present | Presumed absent |
| INVERTEBRATES | | | | | |
| Opler's Longhorn Moth (<i>Adela oplerella</i>) | SOC/-/- | Spring or Early Summer | In serpentine grasslands on host plant <i>Platystemon californicus</i> from Marin County and the Oakland area and on the inner coast ranges, south to Santa Clara County. One record from Santa Cruz County. | Low No suitable habitat present | Presumed absent |
| California floater (<i>Anodonta californiensis</i>) | -/SR 2/- | - | Muddy bottoms in freshwater lakes, reservoirs, rivers, and slow-moving streams. | Low No suitable habitat present | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|----------------------------------|---|------------------------------------|-------------------------|
| Obscure bumble bee (<i>Bombus caliginosus</i>) | -/SR 1/- | March to October | Feeds on plants of the pea, aster, heath, willow, rose, and Rhamnus families within the central valley. | Low No suitable habitat present | Presumed absent |
| Crotch's bumble bee (<i>Bombus crotchii</i>) | -/Candidate Endangered/- | April to August | Grasslands and scrubland in Mediterranean California, including the Pacific coast, central valley, and Sierra Nevada foothills; and the western Mojave. | Low No suitable habitat present | Presumed absent |
| Western bumble bee (<i>Bombus occidentalis</i>) | -/Candidate Endangered/- | Resident | Utilize meadows rich with flowers. Open-canopy habitats that allow for flower growth. Nest underground in rodent burrows. | Low No suitable habitat present | Presumed absent |
| A freshwater isopod (<i>Calasellus californicus</i>) | -/SR 2/- | Resident | Freshwater wells and springs in Lake, Napa, and Santa Clara Counties | Low No suitable habitat present | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|--|--|----------------------------------|---|------------------------------------|-------------------------|
| Ohlone tiger beetle (<i>Cicindela ohlone</i>) | Endangered/ - /- | Late winter and spring | Endemic to Santa Cruz County coastal prairies and grasslands on drained clay or sandy clay. | Low No suitable habitat present | Presumed absent |
| Smith's blue butterfly (<i>Euphilotes enoptes smithi</i>) | Endangered/ - /- | June to September | Dune vegetation supporting coast buckwheat (<i>Eriogonum latifolium</i>) or seaside buckwheat (<i>Eriogonum parivolum</i>) from the Santa Cruz sandhills south to Big Sur. | Low No suitable habitat present | Presumed absent |
| Bay checkerspot (<i>Euphydryas editha bayensis</i>) | T/-/- | Late February to early May | Native grasslands in serpentine outcrops in the San Francisco Bay area. Host plant is <i>Plantago erecta</i> . Also occurs on <i>Orthocarpus densiflorus</i> and <i>O. purpurascens</i> . | Low No suitable habitat present | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|----------------------------------|--|------------------------------------|-------------------------|
| Western ridged mussel (<i>Gonidea angulata</i>) | -/S1S2/- | Resident | Rivers and streams from Southern California into the Pacific Northwest. | Low No suitable habitat present | Presumed absent |
| Western pearlshell (<i>Margaritifera falcata</i>) | -/S1S2/- | Resident | Natural watersheds between Central California and British Columbia. | Low No suitable habitat present | Presumed absent |
| Hom's micro-blind harvestman (<i>Microcina homi</i>) | -/S1/- | - | Known only from serpentine grasslands in Santa Clara County. | Low No suitable habitat present | Presumed absent |
| Antioch specid moth (<i>Philanthus nasalis</i>) | -/S1/- | - | Known from the Antioch Dunes in Contra Costa County and the Zayante Sand Hills of Santa Cruz County. | Low No suitable habitat present | Presumed absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|--|--|----------------------------------|---|--------------------------------------|-------------------------|
| Mt. Hermon June beetle (<i>Polyphyllus barbata</i>) | E/-/- | May to August | Known from coniferous forest, scrub, and oak woodland in the Mount Hermon region in Santa Cruz County, California. | Low No suitable habitat present | Presumed absent |
| Zayante Band-Winged Grasshopper (<i>Trimerotropis infantilis</i>) | E/-/- | Resident | Isolated sandstone deposits in the Santa Cruz Mountains (the Zayante sand hills ecosystem). Mostly on sand parkland habitat, but also in areas with well-developed ground cover and in sparse chaparral with grass. | Low No suitable habitat present | Presumed absent |
| BIRDS | | | | | |
| Cooper's Hawk (<i>Accipiter cooperii</i>) | -/CP | February – August | Oak woodlands, coniferous forests, riparian corridors. Often hunts on edges between habitats. | Moderate Suitable habitat present | May occur |
| Sharp-Shinned Hawk (<i>Accipiter striatus</i>) | -/CP | February – August | Oak woodlands, coniferous forests, riparian corridors. Often hunts on edges between habitats. | Moderate Foraging capacity only | May occur |
| Tricolored Blackbird (<i>Agelaius tricolor</i>) | SOC/-/SSC | February – August | Nesting within seasonal wetland marshes, blackberry brambles or other protected substrates. Forages in annual grassland and wetland habitats. | Low No suitable habitat present | Presumed Absent |
| Golden Eagle (<i>Aquila chrysaetos</i>) | FP/CP/- | February – August | Nests in cliff-walled canyons and tall trees in open areas. (Nesting and wintering) Rolling foothills mountain areas, sage-juniper flats, and desert. | Low No suitable habitat present | Presumed Absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|----------------------------------|--|--------------------------------------|-------------------------|
| Great Egret (<i>Ardea alba</i>) ROOKERIES | -/-/- | February – August | Freshwater, brackish and marine wetlands. Form breeding colonies on lakes, ponds, marshes, estuaries or islands. Forage in marshes, swamps, streams rivers, ponds, tidal flats, canals and flooded fam fields. | Low No suitable habitat present | Presumed Absent |
| Great Blue Heron (<i>Ardea herodias</i>) ROOKERIES | -/-/- | February – August | Saltwater and freshwater habitats from open coasts, marshes, sloughs, riverbanks, and lakes to small ponds. Also forage in grasslands and agricultural fields. | Low No suitable habitat present | Presumed Absent |
| Burrowing Owl (<i>Athene cunicularia</i>) | SOC/-/SC | February – August | Dry open annual or perennial grassland, desert and scrubland. Uses abandoned mammal burrows for nesting. | Low No suitable habitat present | Presumed Absent |
| Red-tailed Hawk (<i>Buteo jamaicensis</i>) | -/CP/- | February – August | Various grassland habitats, urban land, oak woodlands with grassland for foraging. | Moderate Suitable habitat present | May occur |
| Red-shouldered Hawk (<i>Buteo lineatus</i>) | -/CP/- | February – August | Forages in variety of semi-developed habitats including orchards. Forages in woodlands and riparian areas. Nests in riparian habitat but also eucalyptus groves. | Moderate Foraging capacity only | May occur |
| Ferruginous Hawk (<i>Buteo regalis</i>) | -/CP/- | Late Fall – Winter | Open country such as semiarid grasslands with few trees, rocky outcrops, and open valleys. Also along streams or in agricultural areas during migration. | Low No suitable habitat present | Presumed Absent |
| Swainson's Hawk (<i>Buteo swainsonii</i>) | -/T/- | February – October | Nests in riparian areas and in oak savannah near foraging areas. Forages in alfalfa and grain fields with rodent populations. | Low No suitable habitat present | Presumed Absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|----------------------------------|---|------------------------------------|-------------------------|
| Yellow Rail (<i>Coturnicops noveboracensis</i>) | -/-/SSC | February - August | Salt or brackish marshes or wet meadows. Prefers habitats with tall, dense vegetation such as sedges or cattails. | Low No suitable habitat present | Presumed absent |
| Black Swift (<i>Cypseloides niger</i>) | -/-/SSC | February – August | Nesting occurs along the coastal belt of Santa Cruz and Monterey Counties; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above surf; forages widely. | Low No suitable habitat present | Presumed absent |
| Snowy Egret (<i>Egretta thula</i>) ROOKERIES | -/-/- | February - August | Found along the coast but breed in inland wetlands. Nest on thick vegetation in barrier islands, saltmarsh islands, swamps or marshes. | Low No suitable habitat present | Presumed absent |
| White-tailed Kite (<i>Elanus leucurus</i>) | SOC/CP/FP | February – August | Various grassland habitats, urban land, oak woodlands with grassland for foraging. | Low No suitable habitat present | Presumed Absent |
| American Peregrine Falcon (<i>Falco peregrinus anatum</i>) | -/-/FP | February - August | Nests near wetlands, lakes, rivers, or other water. On cliffs, banks, dunes, mounds, and human-made structures. | Low No suitable habitat present | Presumed Absent |
| American Kestrel (<i>Falco sparverius</i>) | -/CP/- | February – August | Various grassland habitats, urban land, oak woodlands with grassland for foraging. | Low No suitable habitat present | Presumed Absent |
| Black-Crowned Night Heron (<i>Nycticorax nycticorax</i>) ROOKERIES | -/-/- | February – August | Inhabits wetlands including saltmarshes, freshwater marshes, swamps, streams, rivers, lakes, canals and tidal mudflats. | Low No suitable habitat present | Presumed Absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|----------------------------------|---|--------------------------------------|-------------------------|
| Osprey (<i>Pandion haliaetus</i>) | -/-/WL | February – August | Seek large bodies of water. Inhabit coasts, inland lakes, freshwater marshes and saltmarshes. | Low No suitable habitat present | Presumed Absent |
| Purple Martin (<i>Progne subis</i>) | -/-/SSC | March – September | Inhabits woodlands, low elevation coniferous forest of Douglas fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures; nest often located in tall, isolated tree/snag. | Low No suitable habitat present | Presumed Absent |
| MAMMALS | | | | | |
| Pallid Bat (<i>Antrozous pallidus</i>) | -/SC/- | N/A | Forages in grasslands, shrublands, deserts, forests, and woodlands. Most common in open, dry habitats. Roosts in rock crevices, caves, tree hollows, and artificial structures. Roosts must protect bats from high temperatures; very sensitive to disturbance of roosting sites. | Moderate Suitable habitat present | May occur |
| Townsend's Big-Eared Bat (<i>Corynorhinus townsendii</i>) | -/SSC/- | Resident | Throughout California in a wide variety of habitats; roosts in the open, hanging from walls and ceilings. Needs sites free from human disturbance. Most common in mesic sites. | Moderate Suitable habitat present | May occur |
| Santa Cruz Kangaroo Rat (<i>Dipodomys venustus venustus</i>) | -/-/- | Resident | Silverleaf manzanita mixed chaparral in the Zayante sand hills ecosystem of the Santa Cruz mountains. Needs soft, well-drained sand. | Low No suitable habitat present | Presumed Absent |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|----------------------------------|--|--------------------------------------|-------------------------|
| Hoary Bat (<i>Lasiurus cinereus</i>) | -/-/- | Resident | Prefers open habitats or habitat mosaics with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees near water. Feeds mainly on moths. | Moderate Suitable habitat present | May occur |
| Long-Eared Myotis (<i>Myotis evotis</i>) | -/-/- | Resident | Semi-arid shrublands, prairie, subalpine forests. Roost in tree cavities, rock crevices, caves or abandoned buildings but prefer rock crevices. | Moderate Suitable habitat present | May occur |
| Yuma Myotis (<i>Myotis yumanensis</i>) | -/-/- | Resident | Roosts primarily in caves, rocks and crevices, but also found in artificial structures. Opportunistic hunters with a wide range of insect prey. Hunts for insects above the surface of slow-moving water or in vegetation close to the water's edge. | Moderate Suitable habitat present | May occur |
| San Francisco Dusky-Footed Woodrat (<i>Neotoma fuscipes annectens</i>) | -/-/SSC | Resident | Oak and willow woodland. Prefers moderate canopy and a brushy understory with suitable house and nesting building materials | Moderate Suitable habitat present | May occur |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|--|---|---|-------------------------|
| American badger (<i>Taxidea taxus</i>) | -/-/SSC | Resident | Shrub, forest, and herbaceous habitats with friable soils to dig burrows. Need open, uncultivated ground. Prey on fossorial mammals. | Low No suitable habitat present | Presumed Absent |
| AMPHIBIAN | | | | | |
| California Tiger Salamander (<i>Ambystoma californiense</i>) | T/T/- | Aquatic Surveys - Once each in March, April, and May with at least 10 days between surveys. Upland Surveys - 20 nights of surveying under proper conditions beginning October 15 and ending March 15. | Vernal pools, swales and depressions for breeding, needs underground refugia. | Low No suitable habitat present | Presumed Absent |
| Santa Cruz Black Salamander (<i>Aneides niger</i>) | -/-/SSC | Year-round resident | Occurs in mixed deciduous woodland, coniferous forests, coastal grasslands. Found under rocks near streams, in talus, under damp logs, and other objects. | Low Marginally suitable habitat present, no riparian areas | Not likely to occur |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS)² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--|----------------------------------|--|------------------------------------|-------------------------|
| California Giant Salamander (<i>Dicamptodon ensatus</i>) | -/-/SSC | Year-round resident | Occurs in wet coastal forests in or near clear, cold permanent and semi-permanent streams and seepages. One population has been found inhabiting flowing water in a network of caves. | Low No suitable habitat present | Presumed Absent |
| Foothill Yellow-Legged Frog (<i>Rana boylei</i>) | SOC/-/SC | Year-round resident | Partially-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need cobble for egg-laying. | Low No suitable habitat present | Presumed Absent |
| California Red-Legged Frog (<i>Rana draytonii</i>) | T/-/SC | May 1 – November 1 | Lowlands and foothills in or near permanent deep water with dense, shrubby or emergent riparian habitat. Requires 11-20 weeks of permanent water for breeding and larval development. Must have access to aestivation habitat. | Low No suitable habitat present | Presumed Absent |
| REPTILE | | | | | |
| Silvery Legless Lizard (<i>Anniella pulchra</i>) | -/-/SC | Summer and early fall. | Sandy or loose loamy soils under sparse vegetation; soil moisture is essential; they prefer soils with a high moisture content. | Low No suitable habitat present | Presumed Absent |
| Western Pond Turtle (<i>Emys marmorata</i>) | -/-/SC | March – October | Aquatic turtle needs permanent water in ponds, streams, irrigation ditches. Nests on sandy banks or grassy fields. | Low No suitable habitat present | Not likely to occur |

Table 2

Special-Status Species for the Los Gatos, San Jose West, San Jose East, Santa Teresa Hills, Castle Rock Ridge, Cupertino, Felton, Laurel and Loma Prieta 7.5 Minute Quadrangle Maps¹

| Common Name/Scientific Name | Status (Fed/State/CNPS) ² | Blooming or Survey Period | Habitats of Occurrence | Potential on Site | Status on Site** |
|---|--------------------------------------|---------------------------|---|------------------------------------|------------------|
| Coast Horned Lizard (<i>Phrynosoma blainvillii</i>) | -/SSC/- | Year-round resident | Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes; requires open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects. | Low No suitable habitat present | Presumed Absent |
| <p>1. Special-status plants and animals as reported by the California Natural Diversity Data Base, California Native Plant Society, and other background research October 2020</p> <p>2. Order of Codes for Plants - Fed/State/CNPS Order of Codes for Animals - Fed/State/CDFW Codes: SOC - Federal Species of Concern SC - California Species of Special Concern E - Federally/State Listed as an Endangered Species T - Federally/State Listed as a Threatened Species C - Species listed as a Candidate for Federal Threatened or Endangered Status R - Rare D - Delisted CP- California protected FP - State Fully Protected DFG: SC California Special Concern species 1B - California Native Plant Society considers the plant Rare, Threatened, or Endangered in California and elsewhere. 1A - CNPS Plants presumed extinct in California. 2 - CNPS Plants Rare, Threatened or Endangered in California, but more common elsewhere. 3 - CNPS Plants on a review list to find more information about a particular species. 4 - CNPS Plants of limited distribution - a watch list.</p> | | | | | |

ATTACHMENT 3
SITE PHOTOGRAPHS



Photo 1: Entrance to 18061 Los Gatos-Saratoga Road, looking northeast at the driveway to the Property.



Photo 2: Facing north, photo shows a portion of the existing house and structures with mixed ornamental woodland in the background.



Photo 3: Facing northeast, photo shows existing concrete driveway and vehicles and oaks in the background.



Photo 4: Facing east, photo shows landscaping, including likely native oaks.



Photo 5: Facing north, photo shows a shed and a group of trees in the northern corner of the Property.



Photo 6: Facing southeast, photo shows landscaped yard with neighboring homes.



Photo 7: Facing southeast, photo shows southeastern corner with dense oak duff.



Photo 8: Facing southwest, photo shows house, raised ornamental bed, and the fence perimeter of the Property.



Photo 9: Facing southwest from the center of the Property, with the house on the right.



Photo 10: Facing north, photo shows same house surrounded by ornamental trees.

APPENDIX C

TREE INVENTORY, ASSESSMENT, and PROTECTION REPORT

**Tree Inventory, Assessment,
and Protection Report**

**18061 Los Gatos Saratoga Road
Monte Sereno, CA 95030**

August 26, 2020

Prepared for:

T.H.I.S. Design

Prepared By:

Richard Gessner

ASCA - Registered Consulting Arborist® #496

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ISA - Tree Risk Assessor Qualified

CA Qualified Applicators License QL104230



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Summary

The plans indicate the property is proposed for subdivision, the existing house and features will be demolished, and a new driveway with two new residences are to be constructed. The inventory contains 33 trees comprised of 10 different species with coast live oak (*Quercus agrifolia*) and coast redwood (*Sequoia semperviens*) being the most abundant. Twelve trees originate on the adjacent site primarily along the east boundary and consist mostly of coast redwoods. Eighteen trees are in good condition, ten fair, and five are in poor shape. Eight trees have good suitability, seven fair, six poor, and twelve originate on other sites and their suitability is irrelevant. Ten trees will be highly impacted and caused to be removed. Two trees to be removed are poor specimens (#1853 and #1868), six will be removed to accommodate the driveway (#1842, #1843, #1845, and #1846) and two are in the footprint of proposed homes on parcel 1 (#1849 and #1850). For this assignment tree protection radii were established at various distances based on age, tolerance, and size. Supplemental irrigation along with protection fences will be required. The plans indicate tree replacements according to the municipal code to account for removals. The removals meet the findings as stated in Justification 10.15.070 - Permit; application; review. Only subsection (a) applies.

Introduction

Background

T.H.I.S Design asked me to assess the site, trees, and proposed footprint plan, and to provide a report with my findings and recommendations to help satisfy planning requirements.

Assignment

- Provide an arborist's report including an assessment of the trees within the project area and on the adjacent sites that could be affected. The assessment is to include the species, size (trunk diameter), condition (health, structure, and form).
- Provide tree protection specifications, guidelines, and expected impact ratings for trees that may be affected by the project.



Limits of the assignment

- The information in this report is limited to the condition of the trees during my inspection on August 21, 2020. No tree risk assessments were performed.
- Tree heights and canopy diameters are estimates.
- The plans reviewed for this assignment were as follows:

Table 1: Plans Reviewed Checklist

| Plan | Date | Sheet | Reviewed | Source |
|--|------|-------|----------|-----------------|
| Existing Site Topographic Map or A.L.T.A with tree locations | | | No | |
| Proposed Site Plan | | C1 | Yes | T.H.I.S. Design |
| Demolition Plan | | | No | |
| Construction Staging | | | No | |
| Grading and Drainage | | C1 | Yes | T.H.I.S. Design |
| Utility Plan and Hook-up locations | | | No | |
| Exterior Elevations | | | No | |
| Landscape Plan | | | No | |
| Irrigation Plan | | | No | |
| T-1 Tree Protection Plan | | | No | |

Purpose and use of the report

The report is intended to identify all the trees within the plan area that could be affected by a project. The report is to be used by the the property owners, owner's agents, and the City of Monte Sereno as a reference for existing tree conditions to help satisfy planning requirements.

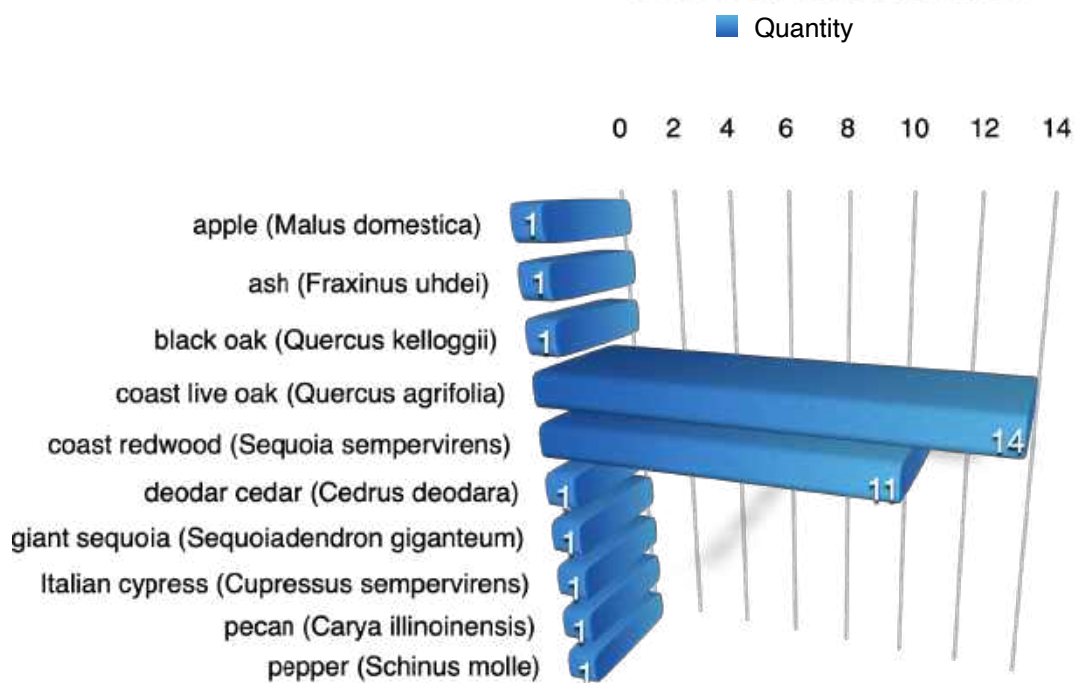


Observations

Tree Inventory

The inventory contains all the trees with trunk diameters greater than six inches in diameter (19 inches circumference). The inventory contains 33 trees comprised of 10 different species with coast live oak and coast redwood being the most abundant. Twelve trees originate on the adjacent site primarily along the east boundary and consist mostly of coast redwoods.

Chart 1: Species Distribution



City Ordinance

10.15.030 - Significant trees; definition.

Trees deemed significant for the purpose of this Chapter are those whose visual importance to the neighborhood is sufficient to justify special efforts to protect and preserve them and whose loss would be of irremediable adverse impact on the environment. Factors to be considered in determining the significance of trees are age, size, rarity and appearance. Notwithstanding the preceding, each of the following is declared to be a significant tree or trees:

- A. Oaks or redwood trees having a circumference greater than twenty (20) inches measured at a height of four (4) feet above ground level.
- B. Any tree having a circumference greater than twenty-five (25) inches measured at a height of four (4) feet above ground level.
- C. Any three (3) or more trees proposed to be removed from any parcel of property within a twelve (12) month period.

10.15.070 - Permit; application; review.

Each application shall be reviewed to determine the condition of the tree or trees with respect to disease, danger of falling, proximity to existing or proposed structures and interference with utility services. With respect to dead trees or unsuitable trees, each application shall be reviewed to validate the health of the tree and/or species. In addition, in the case of a significant tree the following shall be determined:

- A. The significant tree or trees need to be removed to allow reasonable economic enjoyment of the property or the significant tree or trees need to be removed due to disease, danger of falling or threat to owner or surrounding residents;
- B. If the topography of the land and the effect of the removal of the significant tree will have a significant effect on erosion, soil retention and diversion or increased flow of surface waters;
- C. The number of trees existing in the neighborhood on improved property and the effect the removal would have on the established standard of the area and the property values; and
- D. The number of trees the particular parcel can adequately support according to good forestry practices.

In reviewing applications, the City Manager or City Planner, and the Site and Architecture Commission shall give priority to those based on hazard or danger of disease and may refer any application to the City Engineer or other officer of the City for a report and recommendation. (Ord. NS-217 , § 1, 12-18-2018)



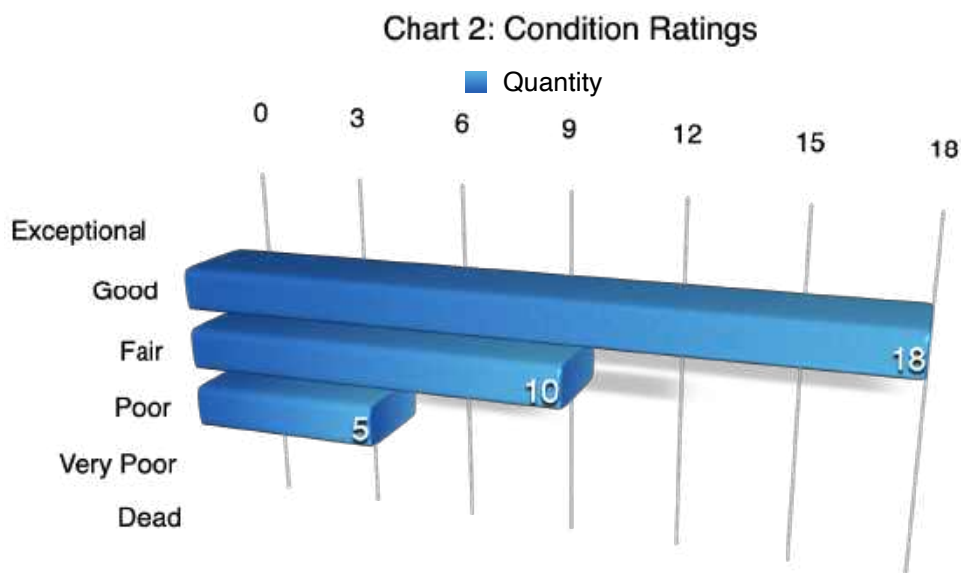
Discussion

Condition Rating

A tree's condition is a determination of its overall health, structure, and form (ISA, 2019). The assessment considered all three characteristics for a combined condition rating based on the definitions paraphrased below .

- 100% - Exceptional = Good health and structure with significant size, location or quality.
- 61-80% - Good = Normal vigor, well-developed structure, function and aesthetics not compromised with good longevity for the site.
- 41-60 % - Fair = Reduced vigor, damage, dieback, or pest problems, at least one significant structural problem or multiple moderate defects requiring treatment. Major asymmetry or deviation from the species normal habit, function and aesthetics compromised.
- 21-40% - Poor = Unhealthy and declining appearance with poor vigor, abnormal foliar color, size or density with potential irreversible decline. One serious structural defect or multiple significant defects that cannot be corrected and failure may occur at any time. Significant asymmetry and compromised aesthetics and intended use.
- 6-20% - Very Poor = Poor vigor and dying with little foliage in irreversible decline. Severe defects with the likelihood of failure being probable or imminent. Aesthetically poor with little or no function in the landscape.
- 0-5% - Dead/Unstable = Dead or imminently ready to fail.

Eighteen trees are in good condition, ten fair, and five are in poor shape (Chart 2). Many of the trees in “good” condition originate on the adjacent property.

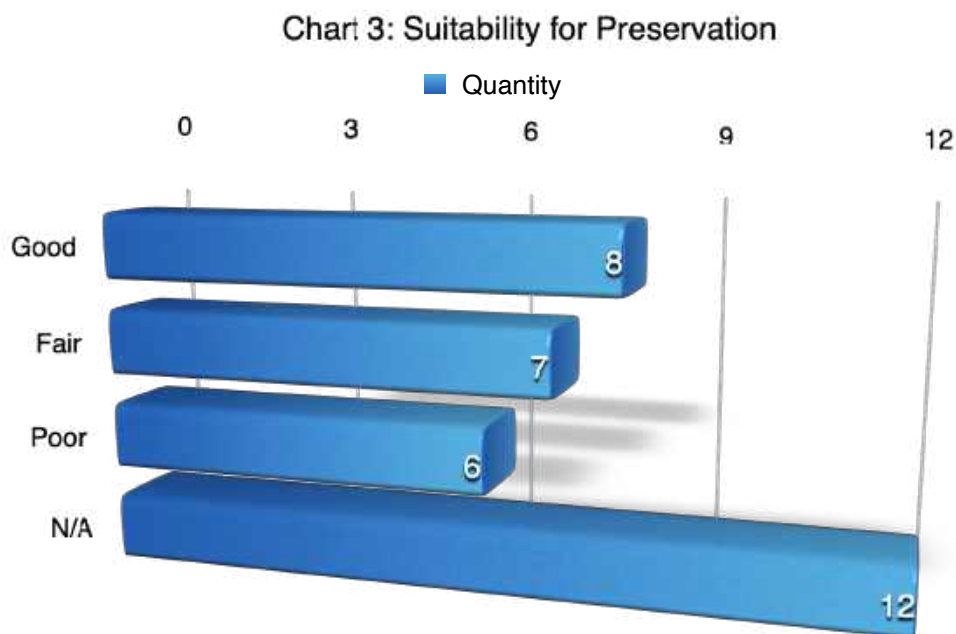


Suitability for Preservation

A tree's suitability for preservation is determined based on Functional and External Limitations¹ (ISA, 2019).

- Good = Trees with good health, structural stability and longevity after construction.
- Fair = Trees with fair health and/or structural defects that may be mitigated through treatment. These trees require more intense management and monitoring, before, during, and after construction, and may have shorter life expectancy after development.
- Poor = Trees are expected to decline during or after construction regardless of management. The species or individual may possess characteristics that are incompatible or undesirable in landscape settings or unsuited for the intended use of the site.

Eight trees have good suitability, seven fair, six poor, and twelve originate on other sites and their suitability is irrelevant. Trees with poor suitability are small, declining, or invasive volunteers while those fair are well adapted but have some structural issues such as codominant stems or multiple branches originating in the same location (Chart 3).



¹ Functional Limitations are based on factors associated with the tree's interaction to its planting site affecting plant condition, limiting plant development, or reducing the utility in the future and include genetics, placement, and site conditions for the individual tree (ISA, 2019). External Limitations are outside the property, out of control of the owner and also affect plant condition, limit plant development, or reduce the utility in the future (i.e power lines, municipal restrictions, drought adaptations, or species susceptibility to pests) (ISA, 2019).

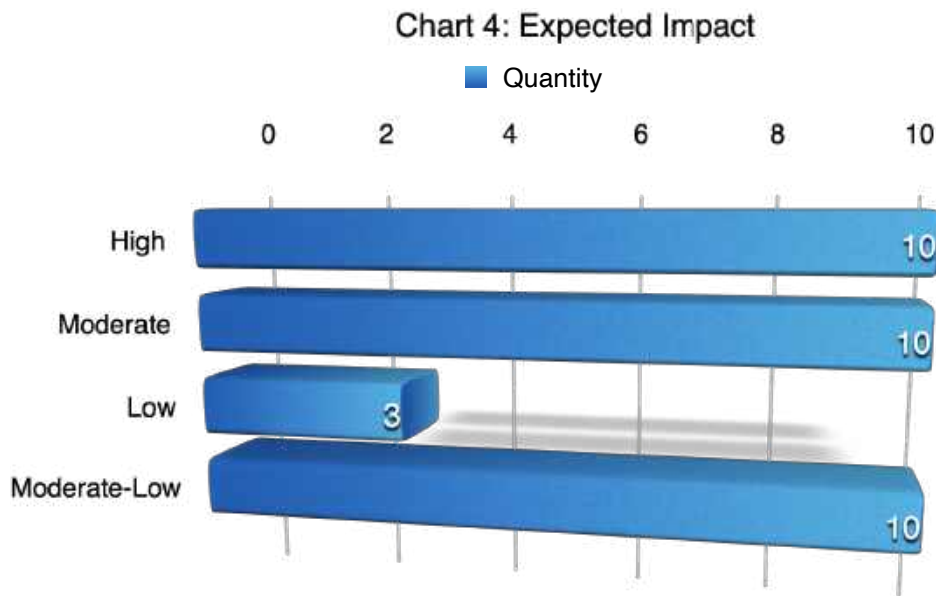


Expected Impact Level

Impact level defines how a tree may be affected by construction activity and proximity to the tree, and is described as low, moderate, or high. The following scale defines the impact rating:

- Low = The construction activity will have little influence on the tree.
- Moderate = The construction may cause future health or structural problems, and steps must be taken to protect the tree to reduce future problems.
- High = Tree structure and health will be compromised and removal is recommended, or other actions must be taken for the tree to remain. The tree is located in the building envelope.

Ten trees will be highly impacted and caused to be removed. Two trees are poor specimens (giant sequoia #1853 and apple #1868), six will be removed to accommodate the driveway (#1842, #1843, #1845, and #1846) and two are in the footprint of proposed homes on parcel 1 (#1849 and #1850) (Chart 4, Table 2).



The table below contains the trees to be removed and the cause (Table 2).

Table 2: Highly Impacted Trees and Cause

| Tree Species | I.D. # | Trunk Diameter (in.) | Condition | Suitability for Preservation | Expected Impact | Reason/Cause |
|---|--------|----------------------|-----------|------------------------------|-----------------|----------------------|
| coast live oak (<i>Quercus agrifolia</i>) | 1842 | 8 | Good | Fair | High/Remove | Subdivision Driveway |
| Italian cypress (<i>Cupressus sempervirens</i>) | 1843 | 11 | Good | Poor | High/Remove | Subdivision Driveway |
| coast live oak (<i>Quercus agrifolia</i>) | 1845 | 12, 8 | Fair | Fair | High/Remove | Subdivision Driveway |
| coast redwood (<i>Sequoia sempervirens</i>) | 1846 | 10 | Fair | Poor | High/Remove | Subdivision Driveway |
| coast redwood (<i>Sequoia sempervirens</i>) | 1849 | 40 | Fair | Fair | High/Remove | House Parcel 1 |
| ash (<i>Fraxinus uhdei</i>) | 1850 | 19.5 | Good | Fair | High/Remove | House Parcel 1 |
| black oak (<i>Quercus kelloggii</i>) | 1851 | 23 | Fair | Fair | High/Remove | Subdivision Driveway |
| pecan (<i>Carya illinoensis</i>) | 1852 | 17 | Fair | Fair | High/Remove | Subdivision Driveway |
| giant sequoia (<i>Sequoiadendron giganteum</i>) | 1853 | 28 | Poor | Poor | High/Remove | Poor specimen |
| apple (<i>Malus domestica</i>) | 1861 | 9 | Poor | Poor | High/Remove | Poor specimen |



Tree Protection

Tree protection focuses on avoiding damage to the roots, trunk, or scaffold branches from heavy equipment. The tree protection zone (TPZ) is the defined area in which certain activities are prohibited to minimize potential injury to the tree. The most current accepted method for determining the TPZ radius is to use a formula based on species tolerance, tree age/vigor/health, and trunk diameter (Matheny, N. and Clark, J. 1998) (Fite, K, and Smiley, E. T., 2016). Trees with multiple trunks were converted to one diameter based on the aggregate cross sectional area of the stems.

For this assignment tree protection radii were established at various distances based on age, tolerance, and size. The table below indicates the appropriate offsets from construction and the limits of tree protection.

Table 3: TPZ Radii Based on BMP

| Species | I.D. # | Trunk Diameter | Expected Impact | ~ Age | Offset Factor Based on BMP | TPZ Radii (ft.) |
|---|--------|----------------|-----------------|--------|----------------------------|-----------------|
| coast live oak (<i>Quercus agrifolia</i>) | 1847 | 14.5 | Low | Young | 6 | 7 |
| coast live oak (<i>Quercus agrifolia</i>) | 1848 | 16 | Low | Young | 6 | 8 |
| coast live oak (<i>Quercus agrifolia</i>) | 1874 | 17 | Low | Young | 6 | 9 |
| coast live oak (<i>Quercus agrifolia</i>) | 1844 | 16 | Moderate | Young | 6 | 8 |
| coast live oak (<i>Quercus agrifolia</i>) | 1854 | 12 | Moderate | Young | 6 | 6 |
| deodar cedar (<i>Cedrus deodara</i>) | 1855 | 10 | Moderate | Young | 6 | 5 |
| pepper (<i>Schinus molle</i>) | 1856 | 13 | Moderate | Young | 6 | 7 |
| coast live oak (<i>Quercus agrifolia</i>) | 1857 | 18 | Moderate | Young | 6 | 9 |
| coast live oak (<i>Quercus agrifolia</i>) | 1858 | 9 | Moderate | Young | 6 | 5 |
| coast redwood (<i>Sequoia sempervirens</i>) | 1859 | 24 | Moderate | Young | 6 | 12 |
| coast live oak (<i>Quercus agrifolia</i>) | 1860 | 20 | Moderate | Mature | 8 | 13 |



| Species | I.D. # | Trunk Diameter | Expected Impact | ~ Age | Offset Factor Based on BMP | TPZ Radii (ft.) |
|---|--------|----------------|-----------------|--------|----------------------------|-----------------|
| coast live oak (<i>Quercus agrifolia</i>) | 1862 | 23 | Moderate | Mature | 8 | 15 |
| coast live oak (<i>Quercus agrifolia</i>) | 1873 | 17 | Moderate | Young | 6 | 9 |
| coast redwood (<i>Sequoia sempervirens</i>) | 1863 | 9 | Moderate-Low | Young | 6 | 5 |
| coast redwood (<i>Sequoia sempervirens</i>) | 1864 | 16 | Moderate-Low | Young | 6 | 8 |
| coast redwood (<i>Sequoia sempervirens</i>) | 1865 | 14 | Moderate-Low | Young | 6 | 7 |
| coast redwood (<i>Sequoia sempervirens</i>) | 1866 | 32 | Moderate-Low | Mature | 8 | 21 |
| coast live oak (<i>Quercus agrifolia</i>) | 1867 | 10 | Moderate-Low | Young | 6 | 5 |
| coast redwood (<i>Sequoia sempervirens</i>) | 1868 | 14 | Moderate-Low | Young | 6 | 7 |
| coast redwood (<i>Sequoia sempervirens</i>) | 1869 | 14 | Moderate-Low | Young | 6 | 7 |
| coast redwood (<i>Sequoia sempervirens</i>) | 1870 | 14 | Moderate-Low | Young | 6 | 7 |
| coast redwood (<i>Sequoia sempervirens</i>) | 1871 | 4 | Moderate-Low | Young | 6 | 2 |
| coast live oak (<i>Quercus agrifolia</i>) | 1872 | 6 | Moderate-Low | Young | 6 | 3 |



Conclusion

The plans indicate the property is proposed for subdivision, the existing house and features will be demolished, and a new driveway and two new residences are to be constructed. The inventory contains 33 trees comprised of 10 different species with coast live oak and coast redwood being the most abundant. Twelve trees originate on the adjacent site primarily along the east boundary and consist mostly of coast redwoods. Eighteen trees are in good condition, ten fair, and five are in poor shape. Many of the trees in “good” condition originate on the adjacent property. Eight trees have good suitability, seven fair, six poor, and twelve originate on other sites and their suitability is irrelevant. Trees with poor suitability are small, declining, or invasive volunteers while those fair are well adapted but have some structural issues such as codominant stems or multiple branches originating in the same location. Ten trees will be highly impacted and caused to be removed. Two trees to be removed are poor specimens (giant sequoia #1853 and apple #1868), six will be removed to accommodate the driveway (#1842, #1843, #1845, and #1846) and two are in the footprint of proposed homes on parcel 1 (#1849 and #1850). For this assignment tree protection radii were established at various distances based on age, tolerance, and size. Supplemental irrigation along with protection fences will be required. The plans indicate tree replacements according to the municipal code to account for removals. The removals meet the findings as stated in Justification 10.15.070 - Permit; application; review. Only subsection (a) applies.



The table below indicated the four trees proposed for removal and the findings that could be met for the justification through the ordinance (Table 4).

Table 4: Removal Justification

| ID# | Tree Species | Trunk Diameter (in.) | Justification 10.15.070 - Permit; application; review. Only subsection (a) applies. |
|------|--|----------------------|--|
| 1842 | coast live oak (<i>Quercus agrifolia</i>) | 8 | Proximity to existing or proposed structures, allow reasonable economic enjoyment of the property. |
| 1843 | Italian cypress (<i>Cupressus sempervirens</i>) | 11 | Proximity to existing or proposed structures, allow reasonable economic enjoyment of the property. |
| 1845 | coast live oak (<i>Quercus agrifolia</i>) | 12, 8 | Proximity to existing or proposed structures, allow reasonable economic enjoyment of the property. |
| 1846 | coast redwood (<i>Sequoia sempervirens</i>) | 10 | Proximity to existing or proposed structures, allow reasonable economic enjoyment of the property. |
| 1849 | coast redwood (<i>Sequoia sempervirens</i>) | 40 | Proximity to existing or proposed structures, allow reasonable economic enjoyment of the property. |
| 1850 | ash (<i>Fraxinus uhdei</i>) | 19.5 | Proximity to existing or proposed structures, allow reasonable economic enjoyment of the property. |
| 1851 | black oak (<i>Quercus kelloggii</i>) | 23 | Proximity to existing or proposed structures, allow reasonable economic enjoyment of the property. |
| 1852 | pecan (<i>Carya illinoensis</i>) | 17 | Proximity to existing or proposed structures, allow reasonable economic enjoyment of the property. |
| 1853 | giant sequoia (<i>Sequoiadendron giganteum</i>) | 28 | Proximity to existing or proposed structures, allow reasonable economic enjoyment of the property. |
| 1861 | apple (<i>Malus domestica</i>) | 9 | Proximity to existing or proposed structures, allow reasonable economic enjoyment of the property. |



Recommendations

1. Place tree protection schemes and fence radii on all the plans.
2. See Table 3 on Page 9 and 10 of this report for fence radii.
3. Place irrigation under trees to be retained in the TPZ and irrigate with 10 gallons of water per trunk diameter where possible. Place soaker hoses inside the TPZ and wet the soil to six to ten inches in depth once a week. Do not allow water to run off the site. Monitor watering times or amounts to ensure adequate soil saturation. (A 5/8" soaker hose requires about 200 minutes to deliver one inch of water to a garden. This number is affected by the length of the hose and the overall rate of flow from the faucet. A good rule of thumb is to expect about ½ GPM as a standard faucet flow rate.). Infrequent deeper watering is preferred.
4. All tree maintenance and care shall be performed by a qualified arborist with a C-61/D-49 California Contractors License. Tree maintenance and care shall be specified in writing according to American National Standard for Tree Care Operations: *Tree, Shrub and Other Woody Plant Management: Standard Practices* parts 1 through 10 and adhere to ANSI Z133.1 safety standards and local regulations. All maintenance is to be performed according to ISA Best Management Practices.
5. Refer to Appendix D for general tree protection guidelines including recommendations for arborist assistance while working under trees, trenching, or excavation within a trees drip line or designated TPZ/CRZ.
6. Provide a copy of this report to all contractors and project managers, including the architect, civil engineer, and landscape designer or architect. It is the responsibility of the owner to ensure all parties are familiar with this document.
7. Arrange a pre-construction meeting with the project arborist or landscape architect to verify tree protection is in place, with the correct materials, and at the proper distances.



Bibliography

American National Standard for Tree Care Operations: Tree, Shrub and Other Woody Plant Management : Standard Practices (Management of Trees and Shrubs During Site Planning, Site Development, and Construction)(Part 5). Londonderry, NH: Secretariat, Tree Care Industry Association, 2012. Print.

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Matheny, Nelda P., Clark, James R. Trees and development: A technical guide to preservation of trees during land development. Bedminster, PA: International Society of Arboriculture 1998.

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Site Plan and Landscape Notes A1.0 July 28, 2020, T.H.I.S. Design and Development



Appendix B: Summary Table

Table 5: Inventory Summary

| Tree Species | I.D. # | Trunk Diameter (in.) | ~ Height (ft.) | ~ Canopy Diameter (ft.) | Condition | Suitability | Expected Impact |
|---|--------|----------------------|----------------|-------------------------|-----------|-------------|-----------------|
| coast live oak (<i>Quercus agrifolia</i>) | 1842 | 8 | 10 | 10 | Good | Fair | High |
| Italian cypress (<i>Cupressus sempervirens</i>) | 1843 | 11 | 45 | 6 | Good | Poor | High |
| coast live oak (<i>Quercus agrifolia</i>) | 1844 | 16 | 45 | 35 | Fair | Fair | Moderate |
| coast live oak (<i>Quercus agrifolia</i>) | 1845 | 12, 8 | 45 | 45 | Fair | Fair | High |
| coast redwood (<i>Sequoia sempervirens</i>) | 1846 | 10 | 25 | 10 | Fair | Poor | High |
| coast live oak (<i>Quercus agrifolia</i>) | 1847 | 14.5 | 35 | 35 | Good | Good | Low |
| coast live oak (<i>Quercus agrifolia</i>) | 1848 | 16 | 45 | 35 | Good | Good | Low |
| coast redwood (<i>Sequoia sempervirens</i>) | 1849 | 40 | 75 | 35 | Fair | Fair | High |
| ash (<i>Fraxinus uhdei</i>) | 1850 | 19.5 | 45 | 35 | Good | Fair | High |
| black oak (<i>Quercus kelloggii</i>) | 1851 | 23 | 45 | 45 | Fair | Fair | High |
| pecan (<i>Carya illinoensis</i>) | 1852 | 17 | 45 | 35 | Fair | Fair | High |
| giant sequoia (<i>Sequoiadendron giganteum</i>) | 1853 | 28 | 45 | 35 | Poor | Poor | High |
| coast live oak (<i>Quercus agrifolia</i>) | 1854 | 12 | 35 | 25 | Good | Good | Moderate |
| deodar cedar (<i>Cedrus deodara</i>) | 1855 | 10 | 25 | 25 | Fair | Poor | Moderate |
| pepper (<i>Schinus molle</i>) | 1856 | 13 | 25 | 25 | Poor | Poor | Moderate |



| Tree Species | I.D. # | Trunk Diameter (in.) | ~ Height (ft.) | ~ Canopy Diameter (ft.) | Condition | Suitability | Expected Impact |
|---|--------|----------------------|----------------|-------------------------|-----------|-------------|-----------------|
| coast live oak (<i>Quercus agrifolia</i>) | 1857 | 18 | 35 | 35 | Good | Good | Moderate |
| coast live oak (<i>Quercus agrifolia</i>) | 1858 | 9 | 25 | 25 | Good | Good | Moderate |
| coast redwood (<i>Sequoia sempervirens</i>) | 1859 | 24 | 85 | 35 | Fair | Good | Moderate |
| coast live oak (<i>Quercus agrifolia</i>) | 1860 | 20 | 45 | 45 | Good | Good | Moderate |
| apple (<i>Malus domestica</i>) | 1861 | 9 | 15 | 15 | Poor | Poor | High |
| coast live oak (<i>Quercus agrifolia</i>) | 1862 | 23 | 45 | 35 | Fair | Good | Moderate |
| coast redwood (<i>Sequoia sempervirens</i>) | 1863 | 9 | 75 | 30 | Good | N/A | Moderate -Low |
| coast redwood (<i>Sequoia sempervirens</i>) | 1864 | 16 | 75 | 30 | Good | N/A | Moderate -Low |
| coast redwood (<i>Sequoia sempervirens</i>) | 1865 | 14 | 75 | 30 | Good | N/A | Moderate -Low |
| coast redwood (<i>Sequoia sempervirens</i>) | 1866 | 32 | 95 | 35 | Good | N/A | Moderate -Low |
| coast live oak (<i>Quercus agrifolia</i>) | 1867 | 10 | 20 | 20 | Poor | N/A | Moderate -Low |
| coast redwood (<i>Sequoia sempervirens</i>) | 1868 | 14 | 75 | 30 | Good | N/A | Moderate -Low |
| coast redwood (<i>Sequoia sempervirens</i>) | 1869 | 14 | 75 | 30 | Good | N/A | Moderate -Low |
| coast redwood (<i>Sequoia sempervirens</i>) | 1870 | 14 | 75 | 30 | Good | N/A | Moderate -Low |
| coast redwood (<i>Sequoia sempervirens</i>) | 1871 | 4 | 20 | 10 | Fair | N/A | Moderate -Low |



| Tree Species | I.D. # | Trunk Diameter (in.) | ~ Height (ft.) | ~ Canopy Diameter (ft.) | Condition | Suitability | Expected Impact |
|--|--------|----------------------------|-------------------|-------------------------------|-----------|-------------|--------------------|
| coast live oak (<i>Quercus agrifolia</i>) | 1872 | 6 | 25 | 15 | Good | N/A | Moderate -Low |
| coast live oak (<i>Quercus agrifolia</i>) | 1873 | 17 | 35 | 35 | Good | Good | Moderate |
| coast live oak (<i>Quercus agrifolia</i>) | 1874 | 17 | 45 | 30 | Poor | N/A | Low |



Appendix C: Photographs

C1: Oak #1845



C2: Coast redwood #1849



C3: Ash tree #1850

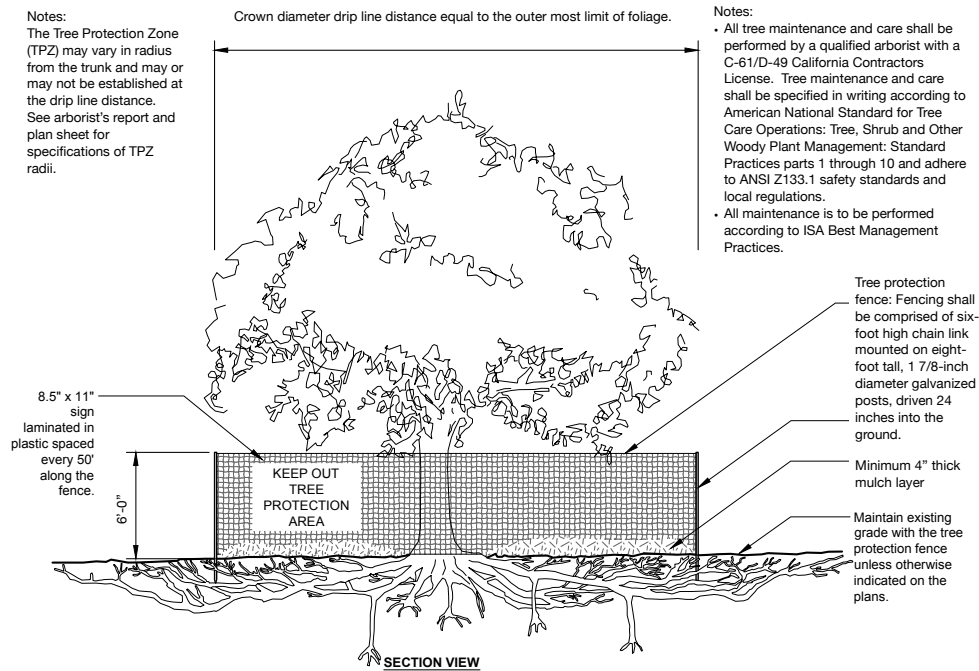


C4: Black oak #1851 and Pecan #1852



Appendix D: Tree Protection Guidelines

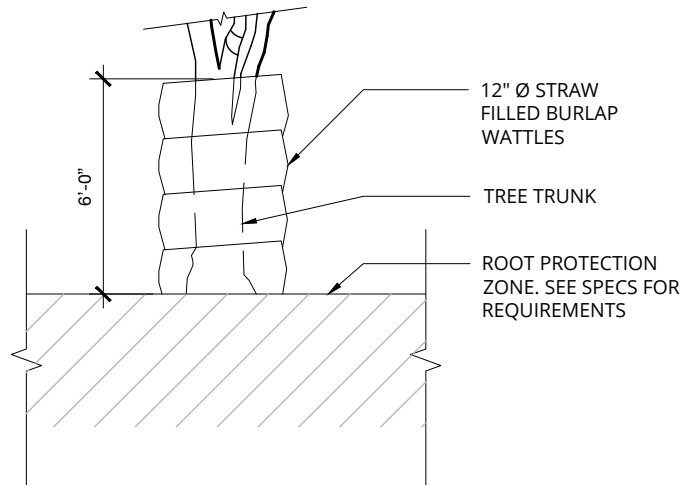
Tree Protection Plan Sheet Detail



S-X

TREE PROTECTION

URBAN TREE FOUNDATION © 2014
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Modified by Monarch Consulting
Arborists LLC, 2019



SECTION VIEW

S-Y

TRUNK PROTECTION WITH WATTLE



10.15.020 - Significant tree removal; when prohibited; exceptions.

It is unlawful for any person to remove, or cause to be removed, any tree which has been determined to be significant by the City from any parcel of property in the City without first complying with the requirements of this Chapter. The provisions of this Chapter shall not apply:

- A. In case of emergency when a tree is hazardous or dangerous to life or property and its removal has been approved by order of the City Manager or the Manager's designee.
- B. To any franchised public utility or representative of the City removing trees which interfere with the safe operation of the public service or public right-of-way for which they are responsible.
- C. To trees deemed no longer viable by the City Manager or the City Manager's designee.

10.15.040 - Significant tree; protection during, construction.

During any construction work being carried on in close proximity to any tree which has been determined to be significant under this Chapter, the owner of the real property on which the tree is located shall install and maintain a protective fence, all parts of which fence shall be not less than five (5) feet from the trunk of the tree. If, for any reason, the protective fencing cannot be constructed no less than five (5) feet from the tree trunk, the City Manager or Manager's designee, after viewing the tree may set the minimum distance from the trunk of the tree to be used in installing the fence.

Pre-Construction Meeting with the Project Arborist

Tree protection locations should be marked before any fencing contractor arrives.

Prior to beginning work, all contractors involved with the project should attend a pre construction meeting with the project arborist to review the tree protection guidelines. Access routes, storage areas, and work procedures will be discussed.

Tree Protection Zones and Fencing

Tree protection fencing should be established prior to the arrival of construction equipment or materials on site. Fencing should be comprised of six-foot high chain link fencing mounted on eight-foot tall, 1 7/8-inch diameter galvanized posts, driven 24 inches into the ground and spaced no more than 10 feet apart. Once established, the fencing must remain undisturbed and be maintained throughout the construction process until final inspection.

The fencing should be maintained throughout the site during the construction period and should be inspected periodically for damage and proper functions.



Fencing should be repaired, as necessary, to provide a physical barrier from construction activities.

A final inspection by the city arborist at the end of the project will be required prior to removing any tree protection fence and replacement tree shall be planted at this time.

Monitoring

Any trenching, construction or demolition that is expected to damage or encounter tree roots should be monitored by the project arborist or a qualified ISA Certified Arborist and should be documented.

The site should be evaluated by the project arborist or a qualified ISA Certified Arborist after construction is complete, and any necessary remedial work that needs to be performed should be noted.

Root Pruning

Both the ANSI Standard Part 8 and the ISA *Best Management Practices: Root Management* (2017) suggest “selective” root removal is preferred over “non-selective” removal. Selective root removal requires pre-excavation, typically by hand or with a pneumatic excavating equipment. Selective removal allows for the roots to be exposed prior to cutting at the appropriate locations. It is suggested roots greater than one inch in diameter should be pruned rather than left torn or crushed (Costello, L., Watson, G., Smiley, E. T.. 2017).

Roots greater than two inches in diameter shall not be cut. When roots over two inches in diameter are encountered and are authorized to be cut or removed, they should be pruned by hand with loppers, handsaw, reciprocating saw, or chain saw rather than left crushed or torn. Roots should be cut beyond sinker roots or outside root branch junctions and be supervised by the project arborist. When completed, exposed roots should be kept moist with burlap or backfilled within one hour.

Boring or Tunneling

Boring machines should be set up outside the drip line or established Tree Protection Zone. Boring may also be performed by digging a trench on both sides of the tree until roots one inch in diameter are encountered and then hand dug or excavated with an Air Spade® or similar air or water excavation tool. Bore holes should be adjacent to the trunk and never go directly under the main stem to avoid oblique (heart) roots. Bore holes should be a minimum of three feet deep.



Tree Pruning and Removal Operations

All tree pruning or removals should be performed by a qualified arborist with a C-61/D-49 California Contractors License. Treatment, including pruning, shall be specified in writing according to the most recent ANSI A-300A Standards and Limitations and performed according to ISA Best Management Practices while adhering to ANSI Z133.1 safety standards. Trees that need to be removed or pruned should be identified in the pre-construction walk through.

Tree Protection Signs

All sections of fencing should be clearly marked with signs stating that all areas within the fencing are Tree Protection Zones and that disturbance is prohibited. Text on the signs should be in both English and Spanish (Appendix E).

Prohibited Activities without Approval

The following are prohibited activities within the TPZ:

- Grade changes (e.g. soil cuts, fills);
- Trenches;
- Root cuts;
- Pedestrian and equipment traffic that could compact the soil or physically damage roots;
- Parking vehicles or equipment;
- Burning of brush and woody debris;
- Storing soil, construction materials, petroleum products, water, or building refuse; and,
- Disposing of wash water, fuel or other potentially damaging liquids.



Appendix E: Tree Protection Signs

E1: English

WARNING
Tree Protection Zone
This Fence Shall not be moved without
approval. Only authorized personnel
may enter this area!

Project Arborist



E2: Spanish

CUIDADO
Zona De Arbol Pretejido
Esta cerca no sera removida sin
aprobacion. Solo personal autorizado
entrara en esta area!

Project Arborist



Qualifications, Assumptions, and Limiting Conditions

Any legal description provided to the consultant is assumed to be correct. Any titles or ownership of properties are assumed to be good and marketable. All property is appraised or evaluated as though free and clear, under responsible ownership and competent management.

All property is presumed to be in conformance with applicable codes, ordinances, statutes, or other regulations.

Care has been taken to obtain information from reliable sources. However, the consultant cannot be responsible for the accuracy of information provided by others.

The consultant shall not be required to give testimony or attend meetings, hearings, conferences, mediations, arbitration, or trials by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.

This report and any appraisal value expressed herein represent the opinion of the consultant, and the consultant's fee is not contingent upon the reporting of a specified appraisal value, a stipulated result, or the occurrence of a subsequent event.

Sketches, drawings, and photographs in this report are intended for use as visual aids, are not necessarily to scale, and should not be construed as engineering or architectural reports or surveys. The reproduction of information generated by architects, engineers, or other consultants on any sketches, drawings, or photographs is only for coordination and ease of reference. Inclusion of said information with any drawings or other documents does not constitute a representation as to the sufficiency or accuracy of said information.

Unless otherwise expressed: a) this report covers only examined items and their condition at the time of inspection; and b) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that structural problems or deficiencies of plants or property may not arise in the future.



Certification of Performance

I Richard Gessner, Certify:

That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and Terms of Assignment;

That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;

That the analysis, opinions and conclusions stated herein are my own;

That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices;

That no one provided significant professional assistance to the consultant, except as indicated within the report.

That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any other subsequent events;

I further certify that I am a Registered Consulting Arborist® with the American Society of Consulting Arborists, and that I acknowledge, accept and adhere to the ASCA Standards of Professional Practice. I am an International Society of Arboriculture Board Certified Master Arborist®. I have been involved with the practice of Arboriculture and the care and study of trees since 1998.

Richard J. Gessner



ASCA Registered Consulting Arborist® #496
ISA Board Certified Master Arborist® WE-4341B
ISA Tree Risk Assessor Qualified
CA Qualified Applicators License QL 104230



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APPENDIX D

GEOTECHNICAL INVESTIGATION

GEOTECHNICAL INVESTIGATION
For
PROPOSED NEW RESIDENCE
18061 LOS GATOS - SARATOGA ROAD
MONTE SERENO, CALIFORNIA
for
MR. TONY JEANS

By

Pollak Engineering, Inc.

Project No. 1318
26 August 2020

POLLAK ENGINEERING, INC.

Project No. 1318
26 August 2020

Mr. Tony Jeans
T.H.I.S. Designs
PO Box 1518
Los Gatos, CA 95030

Subject: Proposed New Residence
18061 Los Gatos - Saratoga Road
Monte Sereno, California
GEOTECHNICAL INVESTIGATION

Dear Mr. Jeans:

In accordance with your authorization, *Pollak Engineering, Inc.* has conducted a geotechnical investigation of the subject property located at 18061 Los Gatos-Saratoga Road, Monte Sereno, California. The accompanying report presents our conclusions and recommendations based on our site reconnaissance and sub-surface exploration, performed on 18 August 2020.

Our findings indicate that the site is suitable for the proposed new residence from a geotechnical perspective, provided the recommendations contained in this report are carefully followed and are incorporated into the project plans and specifications. In addition, the applicable setbacks, easements, and requirements set by the City of Monte Sereno and any other governmental agencies should be followed.

Should you have any questions relating to the contents of this report or should you require additional information, please do not hesitate to contact our office at your convenience.

Very truly yours,
Pollak Engineering, Inc.



Robert Pollak, P.E.
Principal Engineer



Geotechnical
Engineering

Engineering
Geology

61 East Main Street, Suite D
Los Gatos, CA 95030

Phone: 408-499-5589

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GEOTECHNICAL INVESTIGATION

Purpose and Scope

This report presents the results of our Geotechnical Investigation for a proposed new residence to be located at 18061 Los Gatos-Saratoga Road in the City of Monte Sereno, California. The purpose of this investigation was to determine the site soil conditions and to establish geotechnical recommendations for the proposed new residence. The enclosed geotechnical recommendations are based on our evaluation and investigation, and on our geotechnical experience with similar projects in the area.

Our geotechnical investigation included:

- a. A field reconnaissance by the Project Engineer performed on 18 August 2020;
- b. Drilling of one exploratory boring
- c. Laboratory testing of selected soil samples;
- d. Engineering analysis of the field investigation; and
- e. Preparation of this written report.

Details of our field investigation are presented in the Appendices.

Site Description and Existing Conditions

The subject site is located in an established residential neighborhood and is approximately 0.57 acre in areal extent. The site is occupied by a single-family residence believed to have been constructed in 1894. The site ascends approximately 7 feet from Los Gatos-Saratoga Road with gradients on the order of 2:1 (h:v) to the exist building pad, then slopes gently downward to the rear of the property. The residence was not entered during our site investigation, however the exterior of the foundations appeared in good condition. It is our understanding that this site will be subdivided into two lots with a front lot and a flag lot in the back of the site, accessed by a new driveway constructed in the approximate location of the existing driveway.

This description of the site is based on observations made during our field investigation, on a topographic map by Westfall Engineers, dated August 2020, and on *Zillo*.

Proposed Construction

It is our understanding that the proposed construction will consist of demolition of the existing residence, and construction of a new residence equipped with a day-lighted basement-garage in the same approximate location. Actual building loads are not known; however, light loads typical of this type of residential construction are anticipated.

Subsurface Conditions

Based on our boring, the site near surface soil conditions were observed to consist of medium dense to very dense sand and gravel to the depth explored (refusal at 8 feet below the ground surface). Site surface soils have a low potential to expand upon increases in moisture content. No groundwater was encountered in our test boring. Ground water issues are not anticipated to affect the proposed construction.

Seismic Considerations

Because of its proximity to the San Andreas Fault system, the San Francisco Bay Area is considered to be one of the most seismically active regions in the United States. Since historic records have been kept in California, major earthquakes have been recorded on the San Andreas and Hayward Faults.

No faults are known to lie within the site; however, the site is located within the Monte-Vista-Shannon Fault Zone. The San Andreas Fault, located approximately 4½ kilometers southwest of the site is the most likely fault to affect the site with strong ground motions; however, the Monte Vista-Shannon Fault, the Hayward Fault and others may also affect the site.

Seismic Hazards

Seismic hazards can be divided into two broad classifications; 1). Primary hazards such as seismic shaking and damage produced directly from fault surface ruptures, and 2) Secondary hazards produced by seismic shaking June include landslides, lurching, floods, subsidence, liquefaction, and lateral spreading.

Primary Hazards

The project site is not within the boundaries of the Alquist-Priolo Special Studies Zone and no faults are known to lie within the site. The likelihood of a surface fault rupture occurring on this site is considered low, however, based on historical evidence, it is likely that at least one significant earthquake will produce strong ground motions at this site during the design life of the proposed improvements. Structural considerations for construction on this site should include the design parameters listed under CBC Seismic Design Criteria.

Secondary Hazards

Based on the observed soil material and the distance of the subject site from large bodies of water, the probability of secondary earthquake hazards from, liquefaction, lateral spreading, and flooding (from tsunamis, seiches, and dam failures) or slope failures is low (See Figure 5 in Appendix).

CBC Seismic Design Criteria

The subject site has been determined to lie approximately 4½ kilometers of the San Andreas Fault, a type A fault. Based on the ASCE-7-16 Motion Parameter Calculator software, in accordance with 2019 CBC requirements and the data presented in this report, the design criteria for the proposed new residence are as follows (see Figure 4).

| | | | |
|--------------------------------|-------|-----------------------------------|-------|
| Site Soil Class: | | C - Very Dense Soil and Soft Rock | |
| Results: | | | |
| S_S : | 2.691 | S_{DS} : | 1.794 |
| S_1 : | 1.008 | S_{D1} : | 0.874 |
| F_a : | 1 | T_L : | 12 |
| F_v : | 1.3 | PGA : | 1.01 |
| S_{MS} : | 2.691 | PGA _M : | 1.01 |
| S_{M1} : | 1.311 | F_{PGA} : | 1 |
| | | I_e : | 1 |
| Seismic Design Category | | E | |

Seismic Conclusions

The most significant seismic hazard is that of shaking. The structural designs for the proposed improvements should anticipate repeatable horizontal ground accelerations. Prudent structural designs should incorporate the current state of practice for seismic loads.

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

1. From a geotechnical perspective, the site is suitable for the proposed new residence provided the recommendations presented in this report are incorporated into the project plans and specifications. In addition, the applicable setbacks, easements, and any other requirements set by the City of Monte Sereno and any other governmental agencies should be followed.

General

2. The most prominent geotechnical factor affecting the proposed new residence is the probability of a major seismic event occurring during the design life of the new structure. Site drainage design and maintenance will be important to the long-term performance of the new construction. Recommendations for site drainage are provided below.

3. The new day-lighted basement garage and associated retaining walls may be satisfactorily supported on a structural mat foundation. Provided it is entirely founded on competent native material, any part of the new residence not supported on the basement retaining walls may be supported on conventional spread footings. This may require localized deepening of the footing excavations.

4. *Pollak Engineering, Inc.* must observe and approve all plans, foundation operations, any earth placement, and all drainage construction.

Site Preparation

5. It is anticipated that the site preparation will consist of demolishing the existing residence and garage and any trees designated by the owners for demolition.

Grading

6. Grading is anticipated to primarily consist of excavation operations to construct the basement and new driveway, achieving site surface gradients that will prevent ponding of water adjacent to the foundations and back filling any possible root-ball excavations.

7. All grading plans for the new construction must be reviewed by the Project Engineer prior to contract bidding or submittal to governmental agencies so that plans are reconciled with site conditions and sufficient time is allowed for suitable mitigative measures to be incorporated into the final grading specifications.

8. *Pollak Engineering, Inc.* should be notified at least two working days prior to site clearing, grading, and/or foundation operations on the property. This will give the Project Engineer ample time to discuss the problems that may be encountered in the field and coordinate the work with the contractor.

9. Grading activities during the rainy season will be hampered by excessive moisture. Grading activities may be performed during the rainy season, however, achieving proper compaction may be difficult due to excessive moisture; and delays may occur. In addition, measures to control potential erosion must be provided. Grading performed during the dry months will minimize the occurrence of the above problems.

10. Field observation and testing during the grading operations must be provided by representatives of **Pollak Engineering, Inc.**, to enable them to form an opinion regarding the adequacy of the site preparation, and the extent to which the earthwork construction and the degree of compaction comply with the specification requirements. Any work related to the grading operations performed without the full knowledge and under the direct observation of the Soil Engineer will render the recommendations of this report invalid. The degree of observation and frequency of testing services will depend on the construction methods and schedule, and the item of work. All fill soils are to be placed in accordance with recommendations included below.

Engineered Fill

11. Fill soil must be placed at a minimum relative compaction of 90% as determined by Laboratory Test Procedure ASTM D1557-98. Soil placed in landscaping areas may be compacted to a minimum relative compaction of 85%. Additionally, the upper 6 inches of any soil sub-grade to receive pavement, any aggregate base, and any fill placed within the footprint of the residence or within 3 feet of the footprint of the residence, must be compacted to a minimum relative compaction of 95% as determined by Laboratory Test Procedure ASTM D1557-98.

Foundations

12. The proposed partial basement including associated retaining walls may be supported on a structural mat foundation system. Those parts of the new residence not supported on the basement retaining walls may be supported on conventional spread footings. This may require localized deepening of the footing excavations. Footing excavations must be observed and approved by Pollak Engineering, Inc. prior to the placement of reinforcing steel or concrete.

13. Provided the site is prepared as previously recommended it may be anticipated that a structural mat with conventional spread footings will experience less than 1" total settlement, with differential settlements of less than 1" over a distance of 25 feet.

14. All foundation plans for the new construction must be reviewed by the Project Engineer prior to contract bidding or submittal to governmental agencies so that plans are reconciled with site conditions and sufficient time is allowed for suitable mitigative measures to be incorporated into the final grading specifications

Structural Mat

15. The structural mat should be a minimum of 12 inches in thickness and may be designed based on a modulus of sub-grade reaction of 250 p.c.i. At basement depths, design bearing pressures should not exceed 2200 psf.

Conventional Spread Footings

16. All footing excavations should extend not less than 18 inches below the lowest adjacent grade (trenching depth). At these depths, the recommended design bearing pressure for continuous footings should not exceed 1800 psf. due to dead plus live loads. Isolated footings should not exceed 2100 psf. due to dead plus live loads. These values may be increased by one third due to temporary loads which include wind or seismic. Reinforcement will be as required by the structural engineer and in accordance with structural requirements.

17. To accommodate lateral building loads, the passive resistance of the foundation soil can be utilized. The passive soil pressures can be assumed to act against the front face of the footing below a depth of 6 inches below the adjacent ground surface. It is recommended that a passive pressure equivalent to that of a fluid weighing 350 pcf. be used with an allowable friction coefficient of 0.3 at the base of the spread footings

Retaining Walls

18. All project retaining walls must be founded entirely on competent native material. The driveway retaining walls may be supported on conventional spread footings provided they are entirely founded on competent native material underlying any topsoil. Design parameters presented above for conventional spread footings may be used for the driveway retaining wall footings.

19. Retaining walls supporting horizontal backfill including the basement retaining walls should be designed to resist lateral pressures equivalent to those exerted by a medium having an equivalent fluid weight of 45 pcf. For backfill with gradients up to 2:1 (h:v), 65 pcf may be used. Pressures exerted during compaction of backfill and all pressures due to any surcharge loads must be considered in the design of the walls.

20. In additions to lateral soil pressures, retaining walls incorporated into the residence should be designed to resist seismic forces. Lateral seismic forces on retaining walls incorporated into the residence may be calculated based on the simplified Mononbe-Okabe relationship proposed by Seed and Whitman (1970).

$$\Delta P_{AE} \sim (\frac{1}{3}) K_h \gamma H^2$$

where ΔP_{AE} is the dynamic component, K_h is the horizontal ground acceleration divided by/gravitational acceleration (horizontal ground acceleration = 0.76: Figure 6, Appendix); γ is the soil density (125 pcf); and H is the height of the wall. A triangular stress distribution should be assumed for the seismic loading with the vertex at the base of the wall and the resultant $0.6H$ from the base of the wall.

Retaining Wall Sub-Drains

21. The above criteria are based on fully drained conditions. It is imperative that all walls be fully drained. In order to achieve fully drained conditions, a drainage filter blanket must be placed behind the wall. The blanket should be a minimum of 12 inches thick and should extend the full height of the wall to within 18 inches of the surface. If the excavated area behind the wall exceeds 12 inches, the entire excavated space behind the 12-inch blanket should consist of compacted engineered fill or blanket material. The drainage blanket material should consist of 1/2" or 3/4" crushed rock and drain pipe fully encapsulated in geo-textile filter fabric. A 4-inch perforated drainpipe should be installed in the bottom of the drainage blanket with the perforations facing downward and should be underlain by 2 inches of crushed rock material. An 18-inch cap of native soil should be placed over the blanket. For areas where the drainage blanket will be capped with concrete, the crushed rock may be brought to sub-grade elevation, and the concrete cast directly onto the crushed rock. To reduce the possibility of moisture intrusions, the basement retaining wall sub-drain should extend a minimum of 8 inches below the bottom of the structural slab.

22. Piping with adequate gradient shall be provided to discharge water that collects behind the walls to an adequately controlled approved location away from the structure foundation.

Concrete Slab-on-Grade

23. Slab on grade construction is anticipated for the mat foundation and for exterior flatwork. The following recommendations are made to reduce the potential cracking of the concrete slabs:

- a) A minimum of 4 inches of clean crushed rock material should be placed over the finished sub-grade, between the sub-grade and the slab. A minimum of 6 inches of crushed rock is recommended for the basement mat slab. The purpose of the gravel is to provide a capillary break and a cushion between the sub-grade soil and the slab. The use of aggregate base material will not provide a capillary break. Aggregate base material is not recommended.
- b) A low permeance vapor retarder should be used to protect floor slabs that will be covered with moisture-sensitive floor coverings, adhesives, and coatings. Floor covering manufacturer's published literature should be consulted.
- c) The vapor retarder should be 15ml or thicker, or two 10ml.
- d) The vapor retarder should be placed on top of the crushed rock and directly beneath the slab for moisture-sensitive floor covering and coating applications.
- e) To reduce the potential of the vapor barrier from taking on surface water the concrete may be poured directly on the vapor barrier; however, in doing so, the design engineer should consider potential curling stresses within the slab.
- f) To reduce moisture effects on interior flooring, concrete should have a w/c not greater than 0.45. Additionally, a fly ash or similar admixture is recommended to help reduce soluble alkali content in the slab thus reducing the potential of adverse effects of high ph on flooring adhesives.
- g) The garage slab at the door opening should be constructed with a thickened edge a minimum of 16 inches in thickness.
- h) Any structural slabs including concrete thickness and reinforcing steel are to be designed by the project Structural Engineer.

Vertical Excavations

24. Vertical excavations may be made for constructing the basement retaining walls and utility trenches provided:

- a. **Pollak Engineering, Inc.** is present to observe the cut or trench walls and evaluate its stability.
- b. The maximum height (vertical) of an unsupported cut does not exceed 5 feet. At a height of 5 feet, the excavation must be laid back or supported. The degree that the cut is laid back will be determined by the Project Engineer during construction.
- c. The cut is open for the least amount of time possible in order to construct the wall and emplace the backfill.

As an alternative, temporary shoring may be provided during construction.

Utility Trenches

25. With respect to state-of-the-art construction or local requirements, utility lines are generally bedded with granular materials. These materials can convey surface or subsurface water beneath the structures. It is, therefore, recommended that all utility trenches which possess the potential to transport water be sealed with grout where the trench enters/exits the building perimeter. This impervious seal should extend a minimum of 2 feet away from the building perimeter and must be observed and approved by the Project Engineer.

26. Utility trenches must be backfilled with native or approved import material and compacted to relative compaction of 90% in accordance with Laboratory Test Procedure ASTM D1557-98. Backfilling and compaction of these trenches must meet the requirements set forth by the City of Monte Sereno Building and Engineering Services Department.

Site Drainage

27. Liberal drainage gradients must be provided to remove all storm and irrigation water from the vicinity of the foundations, and to prevent storm and/or irrigation water from collecting against the perimeter foundations or from seeping beneath the structure. Should surface water collect against the foundations, or be allowed to seep under the structure, foundation movement resulting in structural damage may occur. All finished grades including flatwork should be sloped at a minimum 2% gradient downward and away from exterior foundations for a distance of 3 feet.

28. Roof gutters equipped with downspouts are recommended. The downspouts should discharge into closed pipe conduits to carry rain water away from the foundation and slopes to a location approved by the project Design Engineer.

29. All piping for any drainage system including closed pipe conduits for roof gutter downspout discharge, should be constructed of PVC and should be of SDR 35 or schedule 40PVC. Flexible conduit or neoprene piping should not be used. Piping with less than 12 inches of coverage should be constructed of schedule 40 PVC.

30. Minimum pipe diameter for all drainage pipes to be 4 inches.

31. All pipe connections are to be cemented with an approved PVC cement.

32. Trench bottoms and all piping to be laid with a minimum gradient of 1½%. It is recommended that the piping be bedded and shaded with sand.

33. Downspouts to connect to closed pipe conduits with rectangular to round connectors.

34. The downspout to discharge pipe connection must allow easy access for cleaning. It is recommended that the connectors not be cemented in order that they may be removed for inspection and cleaning.

35. All sections of the drainage conduits should be accessible for cleaning. Cleanouts are recommended at turns. "Blind" t-wyes are not recommended.

GUIDELINES FOR REQUIRED SERVICES

The following list of services are the services required and must be provided by ***Pollak Engineering, Inc.***, during the project development. These services are presented in check list format as a convenience to those entrusted with their implementation.

The items listed are included in the body of the report in detail. This list is intended only as an outline of the required services and does not replace specific recommendations and, therefore, must be used with reference to the total report. The degree of observation and frequency of testing services would depend on the construction methods and schedule, and the item of work.

The importance of careful adherence to the report recommendations cannot be overemphasized. It should be noted, however, that this report is issued with the understanding that each step of the project development will be performed under the direct observation of ***Pollak Engineering, Inc.***

The use of this report by others presumes that they have verified all information and assume full responsibility for the total project.

| Item Description | Required | Not Required | Not Anticipated |
|--|----------|--------------|-----------------|
| 1. Provide foundation design parameters | X | | |
| 2. Review grading plans and specifications | X | | |
| 3. Review foundation plans and specifications | X | | |
| 4. Observe and provide recommendations regarding demolition | X | | |
| 5. Observe and provide recommendations regarding site stripping | | | X |
| 6. Observe and provide recommendations on moisture conditioning, removal, and/or compaction of unsuitable existing soils | | | X |
| 7. Observe and provide recommendations on the installation of sub-drain facilities (if necessary) | X | | |
| 8. Observe and provide testing services on fill areas and/or imported fill materials | X | | |
| 9. Review as-graded conditions and provide additional foundation recommendations, if necessary | X | | |
| 10. Observe and provide compaction tests on sanitary sewers, storm drain, water lines and PG&E trenches | X | | |
| 11. Observe foundation excavations and provide supplemental recommendations, if necessary, prior to placing concrete | X | | |
| 12. Observe and provide moisture conditioning recommendations for foundation areas prior to placing concrete | | | X |
| 13. Provide design parameters for retaining walls | X | | |
| 14. Provide geologic observations and recommendations for keyway excavations and cut slopes during grading | | X | |
| 15. Excavate and recompact all geologic trenches and/or test pits | | X | |
| 16. Observe installation of sub-drain behind retaining walls | X | | |

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. It should be noted that it is the responsibility of the owner or his representative to notify ***Pollak Engineering, Inc.***, in writing, a minimum of two working days before any clearing, grading, or foundation excavations can commence at the site.
2. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the referenced reports and from a reconnaissance of the site. Should any variations or undesirable conditions be encountered during the development of the site, ***Pollak Engineering, Inc.***, will provide supplemental recommendations as dictated by the field conditions.
3. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are brought to the attention of the Architect and Engineer for the project and incorporated into the plans and that the necessary steps are taken to see that the Contractor and Subcontractors carry out such recommendations in the field.
4. At the present date, the findings of this report are valid for the property investigated. With the passage of time, significant changes in the conditions of a property can occur due to natural processes or works of man on this or adjacent properties. In addition, legislation or the broadening of knowledge may result in changes in applicable standards. Changes outside of our control may render this report invalid, wholly or partially. Therefore, this report should not be considered valid after a period of two (2) years without our review, nor should it be used, or is it applicable, for any properties other than those investigated.
5. Notwithstanding, all the foregoing applicable codes must be adhered to at all times.

APPENDIX A

Field Investigation

Location Map

Site Map

Log of Test Boring

Seismic Design Maps Summary Report

Seismic Hazards Zones Map

Seismic Acceleration

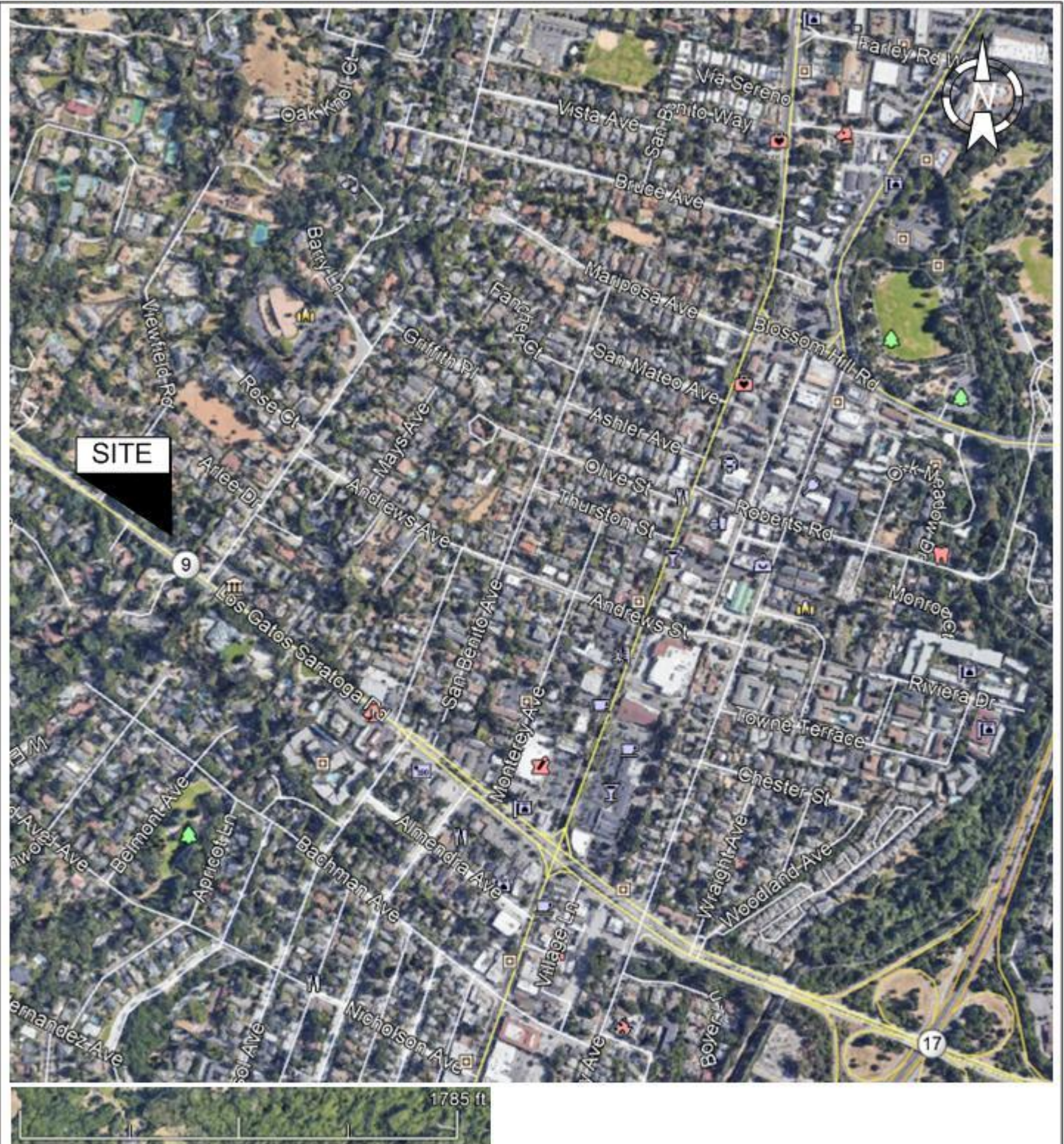
FIELD INVESTIGATION

Our field investigation was performed on 18 August 2020 and included the drilling of 1 exploratory boring at the approximate location shown on Figure 2, “Aerial Photograph”.

The boring was drilled to a depth of 8 feet below the existing ground surface using a “Minuteman” portable drill rig and with continuous sampling. As the drilling proceeded, undisturbed core samples were obtained with a 2” diameter penetration sampler equipped to accept liners. Samplers were driven into the in-situ soils under the impact of a 140 pound hammer and a drop of 30 inches. The number of blow-counts required to advance the sampler 12 inches into the soil were recorded. Field blow-counts were adjusted to the standard penetration resistance (N-Value). Visual classifications were made from auger cuttings and the samples in the field.

The samples were sealed and returned to our laboratory for testing. Classifications made in the field were verified in the laboratory after further examination and testing.

The stratification of the soils, descriptions, and location of undisturbed soil samples are shown on the “Log of Test Boring” contained within this appendix.



BASE: Google Earth

Project No. 1318

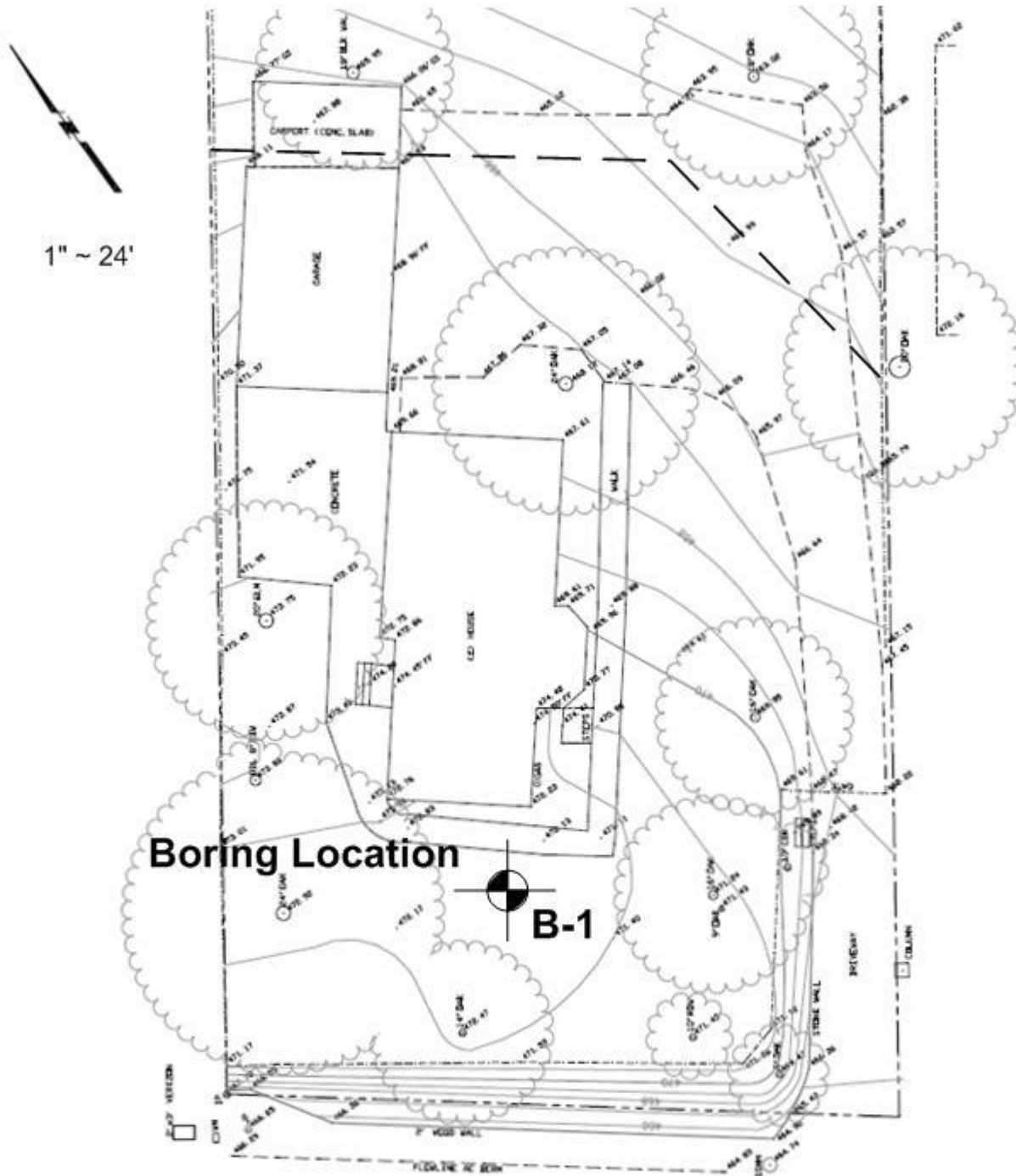
August 2020

Location Map

18061 Los Gatos-Saratoga Road
Monte Sereno, California

Figure No. 1

Pollak Engineering, Inc.



SARATOGA - LOS GATOS ROAD

BASE: By Westfall Engineers, Inc.

Project No. 1318

August 2020


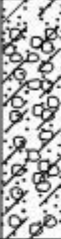
Site Map

Pollak Engineering, Inc.

18061 Los Gatos-Saratoga Road
Monte Sereno, California

Figure No. 2

LOGGED BY RJP DATE DRILLED 17 August 2020 BORING DIAMETER 3½" BORING NO. B-1

| Depth, ft. | Sample No. and Type | Symbol | SOIL DESCRIPTION | Unified Soil Classification | Blows/foot 350 ft-lbs | Qu - tsf Penetrometer | Dry Density p.c.f. | Moisture % dry wt. | MISC. LAB RESULTS |
|------------|---------------------|---|--|-----------------------------|--------------------------|--------------------------|-----------------------|-----------------------|-------------------------|
| | |  | Medium orange silty sandy CLAY; stiff, damp, minor gravel | CL | | | 94.2 | 18.5 | LL = 31 PI = 10 |
| | |  | Medium orange brown clayey SAND & GRAVEL; m. dense to v. dense, damp | SC / GC | 29 46 | | 96.8 | 16.8 | |
| 5 | | | | | 77 100/11" | | 101.4 | 15.7 | |
| | | | Refusal @ 6½ ft No G.W. Encountered | | | | | | |
| 10 | | | | | | | | | |
| 15 | | | | | | | | | |
| 20 | | | | | | | | | |
| 25 | | | | | | | | | |
| 30 | | | | | | | | | |

Pollak Engineering, Inc.

Project No. 1318

Figure No. 3

ASCE 7 Hazards Report

Address:

18061 Saratoga Los Gatos Rd
Los Gatos, California
95030

Standard:

ASCE/SEI 7-10

Risk Category:

II

Soil Class:

C - Very Dense
Soil and Soft Rock

Elevation:

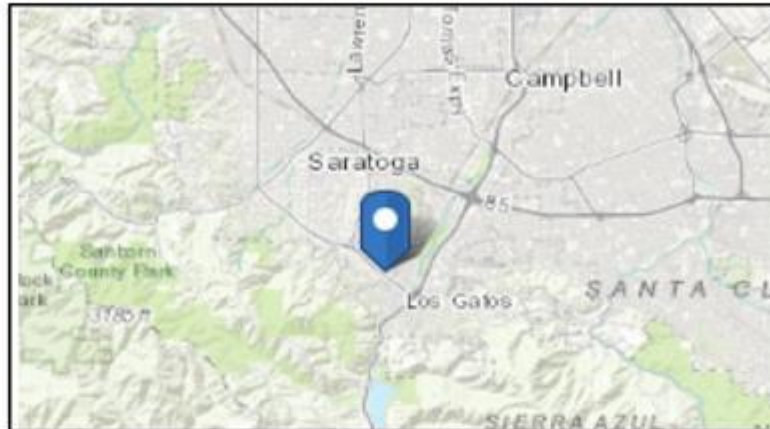
470.96 ft (NAVD 88)

Latitude:

37.233229

Longitude:

-121.986864



Site Soil Class:

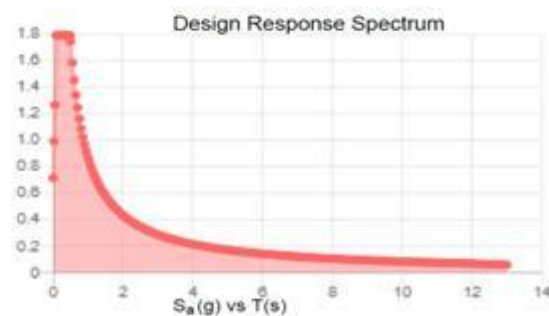
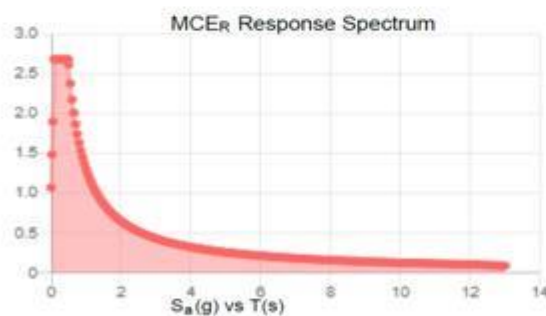
C - Very Dense Soil and Soft Rock

Results:

| | | | |
|------------|-------|-------------|-------|
| S_s : | 2.691 | S_{DS} : | 1.794 |
| S_1 : | 1.008 | S_{D1} : | 0.874 |
| F_a : | 1 | T_L : | 12 |
| F_v : | 1.3 | PGA : | 1.01 |
| S_{MS} : | 2.691 | PGA_M : | 1.01 |
| S_{M1} : | 1.311 | F_{PGA} : | 1 |
| | | I_a : | 1 |

Seismic Design Category

E



Data Accessed:

Date Source:

Mon Aug 24 2020

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Project No. 1318

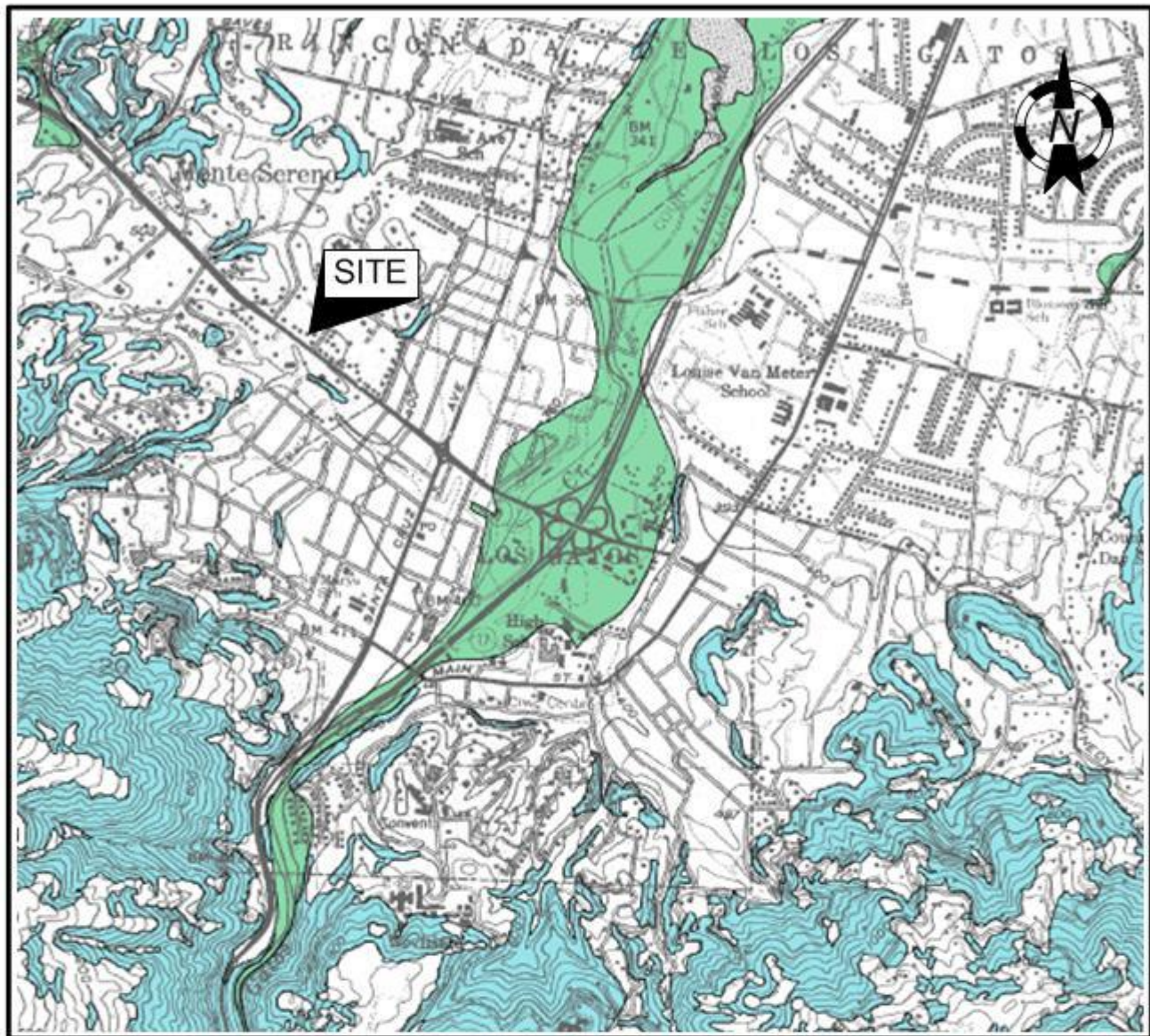
August 2020

Seismic Design Output

18061 Los Gatos-Saratoga Road
Monte Sereno, California

Figure No. 4

Pollak Engineering, Inc.



MAP EXPLANATION

Zones of Required Investigation:

- Liquefaction**
 Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.
- Earthquake-Induced Landslides**
 Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

BASE: State of California *Seismic Hazards Zones*; Los Gatos Quadrangle - 2002

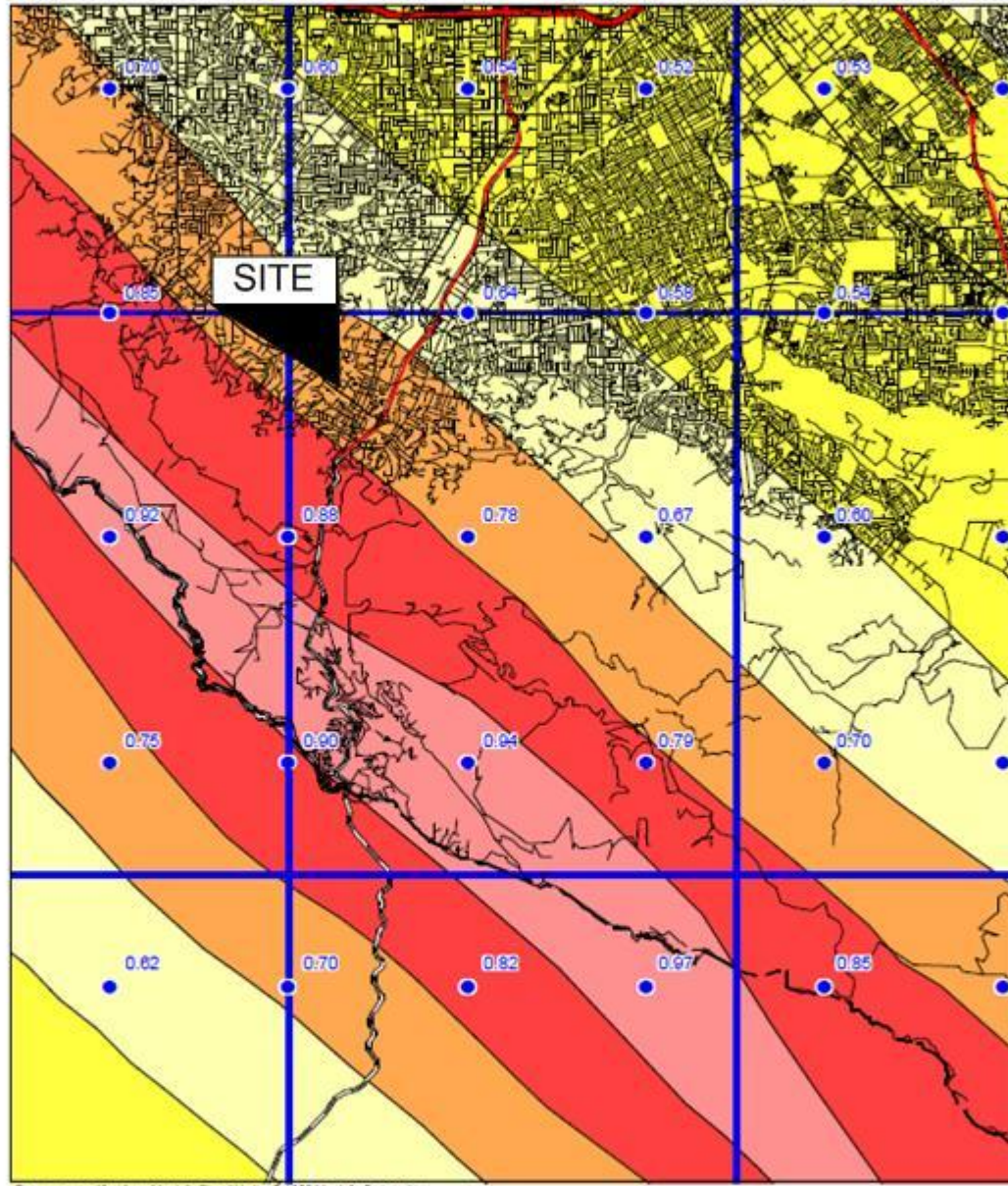
| | | | |
|--|-------------|---|--------------|
| Project No. 1318 | August 2020 | <u>Seismic Hazards Zones</u> | Figure No. 5 |
| <i>Pollak Engineering, Inc.</i> | | 18061 Los Gatos-Saratoga Road Monte Sereno, California | |

LOS GATOS 7.5 MINUTE QUADRANGLE AND PORTIONS OF ADJACENT QUADRANGLES

10% EXCEEDANCE IN 50 YEARS PEAK GROUND ACCELERATION (g)

1998

SOFT ROCK CONDITIONS



0 1.5 3
Miles

Department of Conservation
Division of Mines and Geology

Figure 3.2



From *Seismic Hazards Zone Report for the Los Gatos 7.5 Minute
Quadrangle, Santa Clara County, California: 2002*

Project No. 1318

August 2020

Seismic Acceleration

Pollak Engineering, Inc.

18061 Los Gatos-Saratoga Road
Monte Sereno, California

Figure No. 6

APPENDIX B

Laboratory Investigation

Summary of Laboratory Test Results

LABORATORY INVESTIGATION

The laboratory testing program was directed towards providing sufficient information for the determination of the engineering characteristics of the site soils so that the recommendations outlined in this report could be formulated.

Moisture content and dry density tests (ASTM D2937-83) were performed on representative relatively undisturbed soil samples in order to determine the consistency of the soil and the moisture variation throughout the explored soil profile as well as estimate the compressibility of the underlying soils.

The strength parameters of the foundation soils were determined from blow counts taken during our field investigation.

A summary of all laboratory test results is presented on TABLE 1 of this appendix and on the respective "Log of Boring", Appendix A.

TABLE 1**Summary of Laboratory Test Results**

| Sample No. | Depth (ft.) | Dry Density (pcf.) | Moisture Content (% Dry Wt.) | Atterberg Limits | |
|------------|-------------|--------------------|------------------------------|------------------|------------------|
| | | | | Liquid Limit (%) | Plasticity Index |
| B1-1 | 2 | 99.4 | 12.2 | | |
| B1-2 | 4 | 101.3 | 13.6 | | |
| B1-3 | 6 | 102.1 | 18.2 | | |
| B1-4 | 7 | 103.9 | 15.6 | | |

POLLAK ENGINEERING, INC.

Project No. 1318
26 August 2020

Mr. Tony Jeans
T.H.I.S. Designs
PO Box 1518
Los Gatos, CA 95030

Subject: Proposed New Sub-Division
18061 Los Gatos - Saratoga Road
Monte Sereno, California
GEOTECHNICAL FEASIBILITY

References: 1) Geotechnical Investigation
By Pollak Engineering, Inc.
Dated 26 August 2020
2) Proposed Subdivision; Sheet C1
By T.H.I.S. Designs
Revision Dated 1 September 2020

Dear Mr. Jeans:

In accordance with your authorization, **Pollak Engineering, Inc.** has conducted a geotechnical investigation of the subject property located at 18061 Los Gatos-Saratoga Road, Monte Sereno, California and has reviewed the referenced subdivision plan. Based on the results of our investigation and review, it is our opinion that the subject sub-division is feasible from a geotechnical perspective; however, any applicable setbacks, easements, and requirements set by the City of Monte Sereno and any other governmental agencies should be followed.

Should you have any questions relating to the contents of this letter or should you require additional information, please do not hesitate to contact our office at your convenience.

Very truly yours,
Pollak Engineering, Inc.



Robert Pollak, P.E.
Principal Engineer



Geotechnical
Engineering

Engineering
Geology

61 East Main Street, Suite D
Los Gatos, CA 95030

Phone: 408-499-5589

GEOTECHNICAL INVESTIGATION
For
PROPOSED NEW RESIDENCE
18055 LOS GATOS - SARATOGA ROAD
MONTE SERENO, CALIFORNIA
for
MR. TONY JEANS

By

Pollak Engineering, Inc.

Project No. 1319
26 August 2020

POLLAK ENGINEERING, INC.

Project No. 1319
26 August 2020

Mr. Tony Jeans
T.H.I.S. Designs
PO Box 1518
Los Gatos, CA 95030

Subject: Proposed New Residence
18055 Los Gatos - Saratoga Road
Monte Sereno, California
GEOTECHNICAL INVESTIGATION

Dear Mr. Jeans:

In accordance with your authorization, *Pollak Engineering, Inc.* has conducted a geotechnical investigation of the subject property located at 18055 Los Gatos-Saratoga Road, Monte Sereno, California. The accompanying report presents our conclusions and recommendations based on our site reconnaissance and sub-surface exploration, performed on 18 August 2020.

Our findings indicate that the site is suitable for the proposed improvements from a geotechnical perspective, provided the recommendations contained in this report are carefully followed and are incorporated into the project plans and specifications. In addition, the applicable setbacks, easements, and requirements set by the City of Monte Sereno and any other governmental agencies should be followed.

Should you have any questions relating to the contents of this report or should you require additional information, please do not hesitate to contact our office at your convenience.

Very truly yours,
Pollak Engineering, Inc.



Robert Pollak, P.E.
Principal Engineer



Geotechnical
Engineering

Engineering
Geology

61 East Main Street, Suite D
Los Gatos, CA 95030

Phone: 408-499-5589

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GEOTECHNICAL INVESTIGATION

Purpose and Scope

This report presents the results of our Geotechnical Investigation for a proposed new residence to be located at 18055 Los Gatos-Saratoga Road in the City of Monte Sereno, California. The purpose of this investigation was to determine the site soil conditions and to establish geotechnical recommendations for the proposed improvements. The enclosed geotechnical recommendations are based on our evaluation and investigation, and on our geotechnical experience with similar projects in the area.

Our geotechnical investigation included:

- a. A field reconnaissance by the Project Engineer performed on 18 August 2020;
- b. Drilling of one exploratory boring
- c. Laboratory testing of selected soil samples;
- d. Engineering analysis of the field investigation; and
- e. Preparation of this written report.

Details of our field investigation are presented in the Appendices.

Site Description and Existing Conditions

The subject site is a flag-lot at the rear of a new, two-lot sub-division located in an established residential neighborhood. The site is occupied by grasses and scattered trees and slopes gently downward to the rear of the property. The site will be accessed by a new driveway.

This description of the site is based on observations made during our field investigation and on a topographic map by Westfall Engineers, dated August 2020.

Proposed Construction

It is our understanding that the proposed construction will consist of a new single-family residence and garage and will include a day-lighted basement lower level.

Actual building loads are not known; however, light loads typical of this type of residential construction are anticipated.

Subsurface Conditions

Based on our boring, the site near surface soil conditions were observed to consist of approximately 1½ feet of sandy clay overlying medium dense to very dense sand and gravel to the depth explored (refusal at 6½ feet below the ground surface). Site surface soils have a low to medium potential to expand upon increases in moisture content. No groundwater was encountered in our test boring; ground water issues are not anticipated to affect the proposed construction.

Seismic Considerations

Because of its proximity to the San Andreas Fault system, the San Francisco Bay Area is considered to be one of the most seismically active regions in the United States. Since historic records have been kept in California, major earthquakes have been recorded on the San Andreas and Hayward Faults.

No faults are known to lie within the site, however, the site is located within the Monte-Vista-Shannon Fault Zone. The San Andreas Fault, located approximately 4½ kilometers southwest of the site is the most likely fault to affect the site with strong ground motions; however the Monte Vista-Shannon Fault, the Hayward Fault and others may also affect the site.

Seismic Hazards

Seismic hazards can be divided into two broad classifications; 1). Primary hazards such as seismic shaking and damage produced directly from fault surface ruptures, and 2) Secondary hazards produced by seismic shaking June include landslides, lurching, floods, subsidence, liquefaction, and lateral spreading.

Primary Hazards

The project site is not within the boundaries of the Alquist-Priolo Special Studies Zone and no faults are known to lie within the site. The likelihood of a surface fault rupture occurring on this site is considered low, however, based on historical evidence, it is likely that at least one significant earthquake will produce strong ground motions at this site during the design life of the proposed improvements. Structural considerations for construction on this site should include the design parameters listed under CBC Seismic Design Criteria.

Secondary Hazards

Based on the observed soil material and the distance of the subject site from large bodies of water, the probability of secondary earthquake hazards from, liquefaction, lateral spreading, and flooding (from tsunamis, seiches, and dam failures) or slope failures is low (See Figure 5 in Appendix).

CBC Seismic Design Criteria

The subject site has been determined to lie approximately 4½ kilometers of the San Andreas Fault, a type A fault. Based on the ASCE-7-16 Motion Parameter Calculator software, in accordance with 2019 CBC requirements and the data presented in this report, the design criteria for the proposed new residence are as follows (see Figure 4).

| | | | |
|--------------------------------|-----------------------------------|--------------------|-------|
| Site Soil Class: | C - Very Dense Soil and Soft Rock | | |
| Results: | | | |
| S_S : | 2.691 | S_{DS} : | 1.794 |
| S_1 : | 1.008 | S_{D1} : | 0.874 |
| F_a : | 1 | T_L : | 12 |
| F_v : | 1.3 | PGA : | 1.01 |
| S_{MS} : | 2.691 | PGA _M : | 1.01 |
| S_{M1} : | 1.311 | F_{PGA} : | 1 |
| | | I_e : | 1 |
| Seismic Design Category | E | | |

Seismic Conclusions

The most significant seismic hazard is that of shaking. The structural designs for the proposed improvements should anticipate repeatable horizontal ground accelerations. Prudent structural designs should incorporate the current state of practice for seismic loads.

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

1. From a geotechnical perspective, the site is suitable for the proposed new residence provided the recommendations presented in this report are incorporated into the project plans and specifications. In addition, the applicable setbacks, easements, and any other requirements set by the City of Monte Sereno and any other governmental agencies should be followed.

General

2. The most prominent geotechnical factor affecting the proposed new residence is the probability of a major seismic event occurring during the design life of the structure. Site drainage design and maintenance will be important to the long-term performance of the new construction. Recommendations for site drainage are provided below.

3. The new residence including the basement retaining walls may be satisfactorily supported on a structural mat foundation. Provided it is entirely founded on competent native material, any part of the new residence not supported on the basement retaining walls including the garage may be supported on conventional spread footings. This may require localized deepening of the footing excavations. Design recommendations for a structural mat foundation and conventional spread footings are provided below. Recommendations for other foundation types will be provided upon request.

4. It is our understanding that the proposed new residence construction will include retaining walls and a day-lighted basement lower level.

5. *Pollak Engineering, Inc.* must observe and approve all plans, foundation operations, any earth placement, and all drainage construction.

Site Preparation

6. It is anticipated that the site preparation will consist of removal of any trees as designated by the owners.

Grading

7. Grading is anticipated to primarily consist of excavation operations to construct the basement, minor cut and fill grading to construct the driveway turnaround and garage pad, backfilling of any tree root balls, and achieving site surface gradients that will prevent ponding of water adjacent to the foundations.

8. All grading plans for the new construction must be reviewed by the Project Engineer prior to contract bidding or submittal to governmental agencies so that plans are reconciled with site conditions and sufficient time is allowed for suitable mitigative measures to be incorporated into the final grading specifications.

9. *Pollak Engineering, Inc.* should be notified at least two working days prior to site clearing, grading, and/or foundation operations on the property. This will give the Project Engineer ample time to discuss the problems that may be encountered in the field and coordinate the work with the contractor.

10. Grading activities during the rainy season will be hampered by excessive moisture. Grading activities may be performed during the rainy season, however, achieving proper compaction may be difficult due to excessive moisture; and delays may occur. In addition, measures to control potential erosion must be provided. Grading performed during the dry months will minimize the occurrence of the above problems.

11. Field observation and testing during the grading operations must be provided by representatives of **Pollak Engineering, Inc.**, to enable them to form an opinion regarding the adequacy of the site preparation, and the extent to which the earthwork construction and the degree of compaction comply with the specification requirements. Any work related to the grading operations performed without the full knowledge and under the direct observation of the Soil Engineer will render the recommendations of this report invalid. The degree of observation and frequency of testing services will depend on the construction methods and schedule, and the item of work. All fill soils are to be placed in accordance with recommendations included below.

Engineered Fill

12. Fill must be placed at a minimum relative compaction of 90% as determined by Laboratory Test Procedure ASTM D1557-98. Soil placed in landscaping areas may be compacted to a minimum relative compaction of 85%. Additionally, the upper 6 inches of any soil sub-grade to receive pavement, any aggregate base, and any fill placed within the footprint of the garage or residence or within 3 feet of the footprint of the garage or residence, must be compacted to a minimum relative compaction of 95% as determined by Laboratory Test Procedure ASTM D1557-98.

13. To reduce differential settlement in those areas to receive pavement and that include a cut/fill daylight line, it is recommended that the cut portion be over-excavated to the depth of the fill, and replaced with the fill as a uniform thickness of compacted fill soil. This will include the garage pad and the driveway turn-around.

Foundations

14. All foundation elements must be founded on competent native material; for areas where the footings span root-ball excavations conventional spread footings may be supported on back-fill compacted to a minimum relative compaction of 95%. The proposed partial basement including associated retaining walls may be supported on a structural mat foundation system.

15. Provided the site is prepared as previously recommended it may be anticipated that a structural mat with conventional spread footings will experience less than 1" total settlement, with differential settlements of less than 1" over a distance of 25 feet.

16. All foundation plans for the new construction must be reviewed by the Project Engineer prior to contract bidding or submittal to governmental agencies so that plans are reconciled with site conditions and sufficient time is allowed for suitable mitigative measures to be incorporated into the final grading specifications

Structural Mat

17. The structural mat should be a minimum of 12 inches in thickness and may be designed based on a modulus of sub-grade reaction of 250 p.c.i. Design bearing pressures should not exceed 2200 psf.

Conventional Spread Footings

18. All footing excavations should extend not less than 18 inches below the lowest adjacent grade (trenching depth). At these depths, the recommended design bearing pressure for continuous footings should not exceed 1800 psf. due to dead plus live loads. Isolated footings should not exceed 2100 psf. due to dead plus live loads. These values may be increased by one third due to temporary loads which include wind or seismic. Reinforcement will be as required by the structural engineer and in accordance with structural requirements.

19. To accommodate lateral building loads, the passive resistance of the foundation soil can be utilized. The passive soil pressures can be assumed to act against the front face of the footing below a depth of 6 inches below the adjacent ground surface. It is recommended that a passive pressure equivalent to that of a fluid weighing 350 pcf. be used with an allowable friction coefficient of 0.3 at the base of the spread footings

Retaining Walls

20. All project retaining walls must be founded entirely on competent native material. Landscape retaining walls may be supported on conventional spread footings provided they are entirely founded on competent native material underlying any topsoil. Design parameters presented above for conventional spread footings may be used for landscape retaining wall footings.

21. Retaining walls supporting horizontal backfill including landscape retaining walls and the basement retaining walls should be designed to resist lateral soil pressures equivalent to those exerted by a medium having an equivalent fluid weight of 45 pcf. For landscape retaining wall backfill with gradients up to 2:1 (h:v), 65 pcf may be used. Pressures exerted during compaction of backfill and all pressures due to any surcharge loads must be considered in the design of the walls.

22. In addition to lateral soil pressures, retaining walls incorporated into the residence should be designed to resist seismic forces. Lateral seismic forces on retaining walls incorporated into the residence may be calculated based on the simplified Mononbe-Okabe relationship proposed by Seed and Whitman (1970).

$$\Delta P_{AE} \sim (\frac{1}{3}) K_h \gamma H^2$$

where ΔP_{AE} is the dynamic component, K_h is the horizontal ground acceleration divided by/gravitational acceleration (horizontal ground acceleration = 0.76: Figure 6, Appendix); γ is the soil density (125 pcf); and H is the height of the wall. A triangular stress distribution should be assumed for the seismic loading with the vertex at the base of the wall and the resultant $0.6H$ from the base of the wall.

Retaining Wall Sub-Drains

23. The above criteria are based on fully drained conditions. It is imperative that all walls be fully drained. In order to achieve fully drained conditions, a drainage filter blanket must be placed behind the wall. The blanket should be a minimum of 12 inches thick and should extend the full height of the wall to within 18 inches of the surface. If the excavated area behind the wall exceeds 12 inches, the entire excavated space behind the 12-inch blanket should consist of compacted engineered fill or blanket material. The drainage blanket material should consist of ½" or ¾" crushed rock and drain pipe fully encapsulated in geo-textile filter fabric. A 4-inch perforated drainpipe should be installed in the bottom of the drainage blanket with the perforations facing downward and should be underlain by 2 inches of crushed rock material. An 18-inch cap of native soil should be placed over the blanket. For areas where the drainage blanket will be capped with concrete, the crushed rock may be brought to sub-grade elevation, and the concrete cast directly onto the crushed rock. To reduce the possibility of moisture intrusions, the basement retaining wall sub-drain should extend a minimum of 8 inches below the bottom of the structural slab.

24. Piping with adequate gradient shall be provided to discharge water that collects behind the walls to an adequately controlled approved location away from the structure foundation.

Concrete Slab-on-Grade

25. Slab on grade construction is anticipated for the mat foundation and for exterior flatwork. The following recommendations are made to reduce the potential cracking of the concrete slabs:

- a) A minimum of 4 inches of clean crushed rock material should be placed over the finished sub-grade, between the sub-grade and the slab. A minimum of 6 inches of crushed rock is recommended for the basement mat slab. The purpose of the gravel is to provide a capillary break and a cushion between the sub-grade soil and the slab. The use of aggregate base material will not provide a capillary break. Aggregate base material is not recommended.
- b) A low permeance vapor retarder should be used to protect floor slabs that will be covered with moisture-sensitive floor coverings, adhesives, and coatings. Floor covering manufacturer's published literature should be consulted.
- c) The vapor retarder should be 15ml or thicker, or two 10ml.
- d) The vapor retarder should be placed on top of the crushed rock and directly beneath the slab for moisture-sensitive floor covering and coating applications.
- e) To reduce the potential of the vapor barrier from taking on surface water the concrete may be poured directly on the vapor barrier; however, in doing so, the design engineer should consider potential curling stresses within the slab.
- f) To reduce moisture effects on interior flooring, concrete should have a w/c not greater than 0.45. Additionally, a fly ash or similar admixture is recommended to help reduce soluble alkali content in the slab thus reducing the potential of adverse effects of high ph on flooring adhesives.
- g) The garage slab at the door opening should be constructed with a thickened edge a minimum of 16 inches in thickness.
- h) Any structural slabs including concrete thickness and reinforcing steel are to be designed by the project Structural Engineer.

Vertical Excavations

26. Vertical excavations may be made for constructing the basement retaining walls and utility trenches provided:

- a. ***Pollak Engineering, Inc.*** is present to observe the cut or trench walls and evaluate its stability.
- b. The maximum height (vertical) of an unsupported cut does not exceed 5 feet. At a height of 5 feet, the excavation must be laid back or supported. The degree that the cut is laid back will be determined by the Project Engineer during construction.
- c. The cut is open for the least amount of time possible in order to construct the wall and emplace the backfill.

As an alternative, temporary shoring may be provided during construction.

Utility Trenches

27. With respect to state-of-the-art construction or local requirements, utility lines are generally bedded with granular materials. These materials can convey surface or subsurface water beneath the structures. It is, therefore, recommended that all utility trenches which possess the potential to transport water be sealed with grout where the trench enters/exits the building perimeter. This impervious seal should extend a minimum of 2 feet away from the building perimeter and must be observed and approved by the Project Engineer.

28. Utility trenches must be backfilled with native or approved import material and compacted to relative compaction of 90% in accordance with Laboratory Test Procedure ASTM D1557-98. Backfilling and compaction of these trenches must meet the requirements set forth by the City of Monte Sereno Building and Engineering Services Department.

Site Drainage

29. Liberal drainage gradients must be provided to remove all storm and irrigation water from the vicinity of the foundations, and to prevent storm and/or irrigation water from collecting against the perimeter foundations or from seeping beneath the structure. Should surface water collect against the foundations, or be allowed to seep under the structure, foundation movement resulting in structural damage may occur. All finished grades including flatwork should be sloped at a minimum 2% gradient downward and away from exterior foundations for a distance of 3 feet.

30. Roof gutters equipped with downspouts are recommended. The downspouts should discharge into closed pipe conduits to carry rain water away from the foundation and slopes to a location approved by the project Design Engineer.

31. All piping for any drainage system including closed pipe conduits for roof gutter downspout discharge, should be constructed of PVC and should be of SDR 35 or schedule 40PVC. Flexible conduit or neoprene piping should not be used. Piping with less than 12 inches of coverage should be constructed of schedule 40 PVC.

- 32. Minimum pipe diameter for all drainage pipes to be 4 inches.
- 33. All pipe connections are to be cemented with an approved PVC cement.
- 34. Trench bottoms and all piping to be laid with a minimum gradient of 1½%. It is recommended that the piping be bedded and shaded with sand.
- 35. Downspouts to connect to closed pipe conduits with rectangular to round connectors.
- 36. The downspout to discharge pipe connection must allow easy access for cleaning. It is recommended that the connectors not be cemented in order that they June be removed for inspection and cleaning.
- 37. All sections of the drainage conduits should be accessible for cleaning. Cleanouts are recommended at turns. "Blind" t-wyes are not recommended.

GUIDELINES FOR REQUIRED SERVICES

The following list of services are the services required and must be provided by ***Pollak Engineering, Inc.***, during the project development. These services are presented in check list format as a convenience to those entrusted with their implementation.

The items listed are included in the body of the report in detail. This list is intended only as an outline of the required services and does not replace specific recommendations and, therefore, must be used with reference to the total report. The degree of observation and frequency of testing services would depend on the construction methods and schedule, and the item of work.

The importance of careful adherence to the report recommendations cannot be overemphasized. It should be noted, however, that this report is issued with the understanding that each step of the project development will be performed under the direct observation of ***Pollak Engineering, Inc.***

The use of this report by others presumes that they have verified all information and assume full responsibility for the total project.

| Item Description | Required | Not Required | Not Anticipated |
|--|----------|-----------------|--------------------|
| 1. Provide foundation design parameters | X | | |
| 2. Review grading plans and specifications | X | | |
| 3. Review foundation plans and specifications | X | | |
| 4. Observe and provide recommendations regarding demolition | X | | |
| 5. Observe and provide recommendations regarding site stripping | | | X |
| 6. Observe and provide recommendations on moisture conditioning, removal, and/or compaction of unsuitable existing soils | | | X |
| 7. Observe and provide recommendations on the installation of sub-drain facilities (if necessary) | X | | |
| 8. Observe and provide testing services on fill areas and/or imported fill materials | X | | |
| 9. Review as-graded conditions and provide additional foundation recommendations, if necessary | X | | |
| 10. Observe and provide compaction tests on sanitary sewers, storm drain, water lines and PG&E trenches | X | | |
| 11. Observe foundation excavations and provide supplemental recommendations, if necessary, prior to placing concrete | X | | |
| 12. Observe and provide moisture conditioning recommendations for foundation areas prior to placing concrete | | | X |
| 13. Provide design parameters for retaining walls | X | | |
| 14. Provide geologic observations and recommendations for keyway excavations and cut slopes during grading | | X | |
| 15. Excavate and recompact all geologic trenches and/or test pits | | X | |
| 16. Observe installation of sub-drain behind retaining walls | X | | |

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. It should be noted that it is the responsibility of the owner or his representative to notify ***Pollak Engineering, Inc.***, in writing, a minimum of two working days before any clearing, grading, or foundation excavations can commence at the site.
2. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the referenced reports and from a reconnaissance of the site. Should any variations or undesirable conditions be encountered during the development of the site, ***Pollak Engineering, Inc.***, will provide supplemental recommendations as dictated by the field conditions.
3. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are brought to the attention of the Architect and Engineer for the project and incorporated into the plans and that the necessary steps are taken to see that the Contractor and Subcontractors carry out such recommendations in the field.
4. At the present date, the findings of this report are valid for the property investigated. With the passage of time, significant changes in the conditions of a property can occur due to natural processes or works of man on this or adjacent properties. In addition, legislation or the broadening of knowledge may result in changes in applicable standards. Changes outside of our control may render this report invalid, wholly or partially. Therefore, this report should not be considered valid after a period of two (2) years without our review, nor should it be used, or is it applicable, for any properties other than those investigated.
5. Notwithstanding, all the foregoing applicable codes must be adhered to at all times.

APPENDIX A

Field Investigation

Location Map

Site Map

Log of Test Boring

Seismic Design Maps Summary Report

Seismic Hazards Zones Map

Seismic Acceleration

FIELD INVESTIGATION

Our field investigation was performed on 18 August 2020 and included the drilling of 1 exploratory boring at the approximate location shown on Figure 2, “Site Map”.

The boring was drilled to a depth of 6½ feet below the existing ground surface using a “Minuteman” portable drill rig and with continuous sampling. As the drilling proceeded, undisturbed core samples were obtained with a 2” diameter penetration sampler equipped to accept liners. Samplers were driven into the in-situ soils under the impact of a 140 pound hammer and a drop of 30 inches. The number of blow-counts required to advance the sampler 12 inches into the soil were recorded. Field blow-counts were adjusted to the standard penetration resistance (N-Value). Visual classifications were made from auger cuttings and the samples in the field.

The samples were sealed and returned to our laboratory for testing. Classifications made in the field were verified in the laboratory after further examination and testing.

The stratification of the soils, descriptions, and location of undisturbed soil samples are shown on the “Log of Test Boring” contained within this appendix.



BASE: Google Earth

Project No. 1319

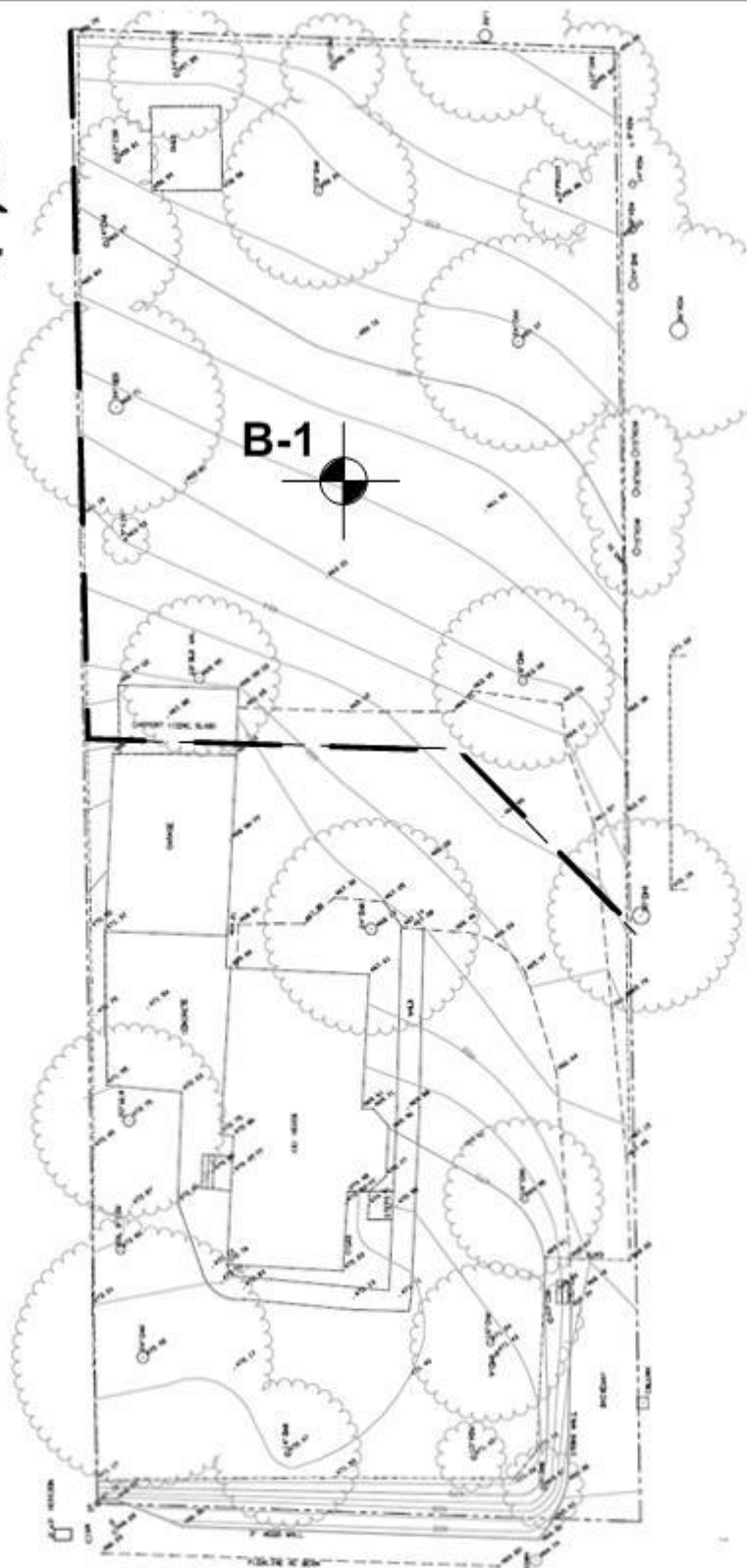
August 2020

Location Map

18055 Los Gatos-Saratoga Road
Monte Sereno, California

Figure No. 1

Pollak Engineering, Inc.



SARATOGA - LOS GATOS ROAD

BASE: By Westfall Engineers, Inc.

| | | | |
|---------------------------------|-------------|---|--------------|
| Project No. 1319 | August 2020 | <u>Site Map</u> | Figure No. 2 |
| Pollak Engineering, Inc. | | 18055 Los Gatos-Saratoga Road Monte Sereno, California | |

LOGGED BY RJP DATE DRILLED 17 August 2020 BORING DIAMETER 3½" BORING NO. B-1

| Depth, ft. | Sample No. and Type | Symbol | SOIL DESCRIPTION | Unified Soil Classification | Blows/foot 350 ft-lbs | Qu - tsf Penetrometer | Dry Density p.c.f. | Moisture % dry wt. | MISC. LAB RESULTS |
|------------|---------------------|--------|---|-----------------------------|---------------------------|--------------------------|-----------------------|-----------------------|-------------------------|
| | | | Medium orange sandy silty CLAY; m. dense, sl. damp | SM | | | | | |
| | | | Medium orange brown SAND & GRAVEL; m. dense to v. dense, sl. damp | SW / GW | 25 55 75 100/11" | | 00 00 00 | 00 00 00 | |
| 5 | | | | | | | | | |
| | | | Refusal @ 6½ ft No G.W. Encountered | | | | | | |
| 10 | | | | | | | | | |
| | | | | | | | | | |
| 15 | | | | | | | | | |
| | | | | | | | | | |
| 20 | | | | | | | | | |
| | | | | | | | | | |
| 25 | | | | | | | | | |
| | | | | | | | | | |
| 30 | | | | | | | | | |
| | | | | | | | | | |

Pollak Engineering, Inc.

Project No. 1319

Figure No. 3

ASCE 7 Hazards Report

Address:

18061 Saratoga Los Gatos Rd
Los Gatos, California
95030

Standard:

ASCE/SEI 7-10

Risk Category:

II

Soil Class:

C - Very Dense
Soil and Soft Rock

Elevation:

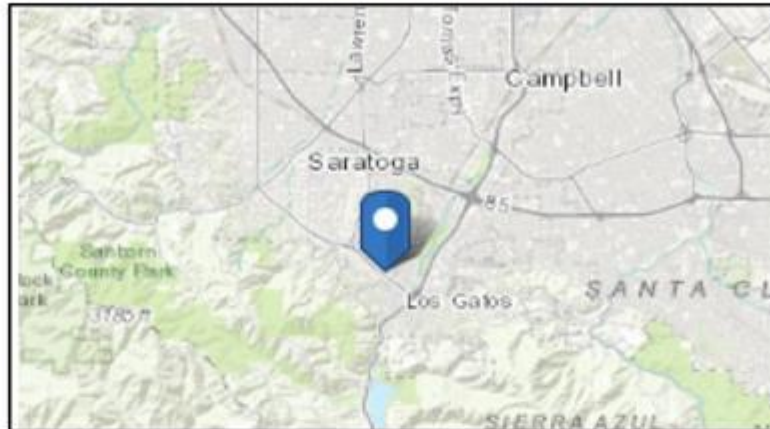
470.96 ft (NAVD 88)

Latitude:

37.233229

Longitude:

-121.986864



Site Soil Class:

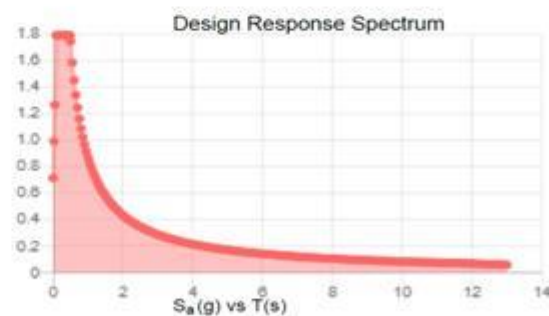
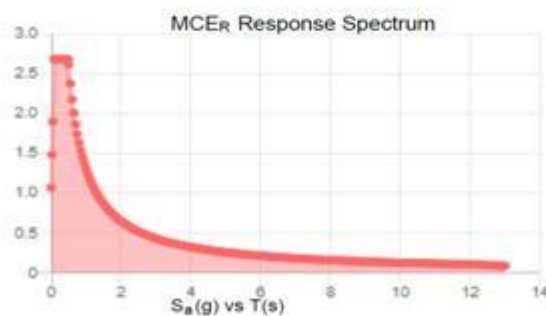
C - Very Dense Soil and Soft Rock

Results:

| | | | |
|------------|-------|-------------|-------|
| S_s : | 2.691 | S_{DS} : | 1.794 |
| S_1 : | 1.008 | S_{D1} : | 0.874 |
| F_a : | 1 | T_L : | 12 |
| F_v : | 1.3 | PGA : | 1.01 |
| S_{MS} : | 2.691 | PGA_M : | 1.01 |
| S_{M1} : | 1.311 | F_{PGA} : | 1 |
| | | I_a : | 1 |

Seismic Design Category

E



Data Accessed:

Date Source:

Mon Aug 24 2020

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Project No. 1319

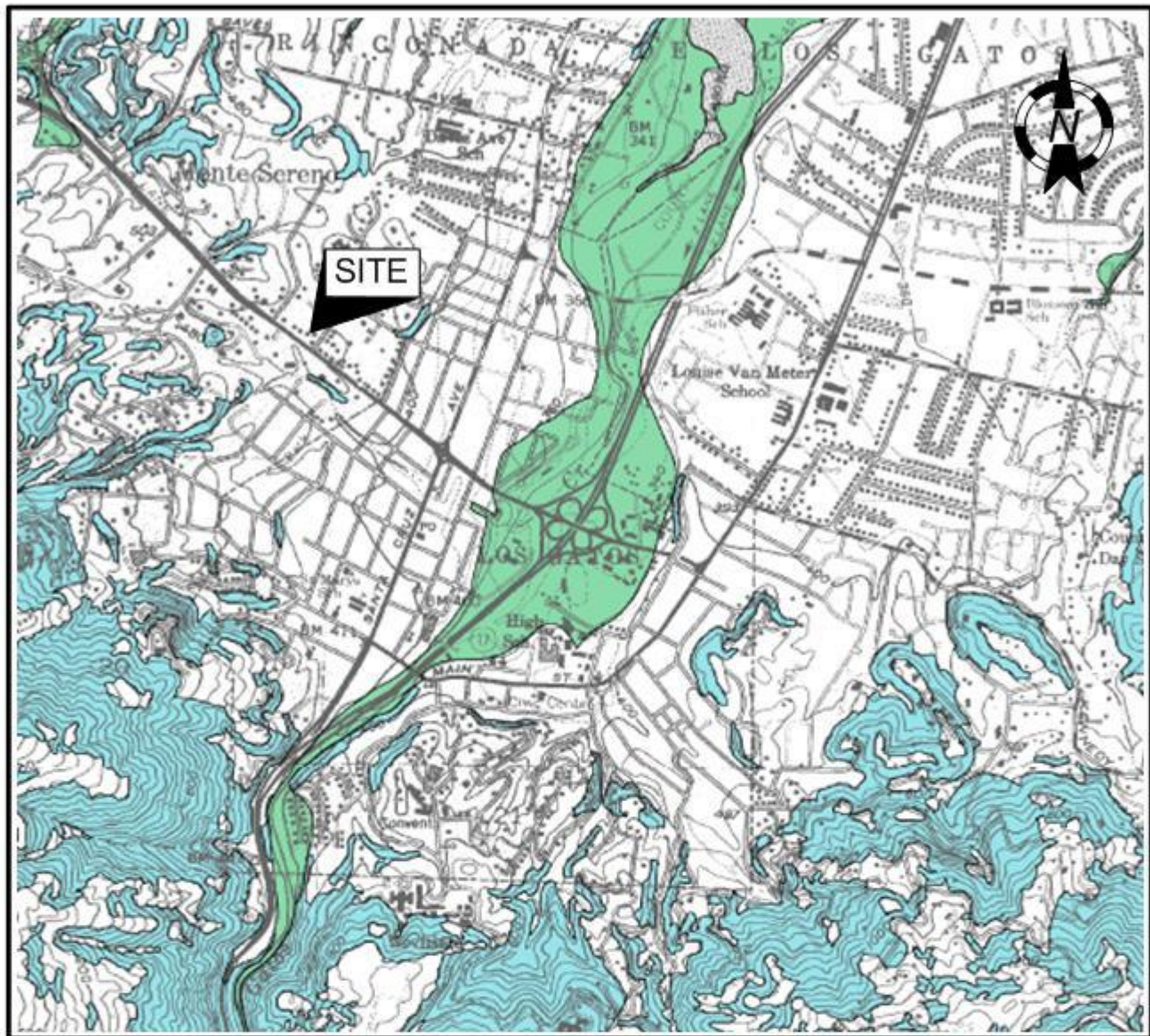
August 2020

Seismic Design Output

18055 Los Gatos-Saratoga Road
Monte Sereno, California

Figure No. 4

Pollak Engineering, Inc.



MAP EXPLANATION

Zones of Required Investigation:

- Liquefaction**
 Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.
- Earthquake-Induced Landslides**
 Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

BASE: State of California *Seismic Hazards Zones*; Los Gatos Quadrangle - 2002

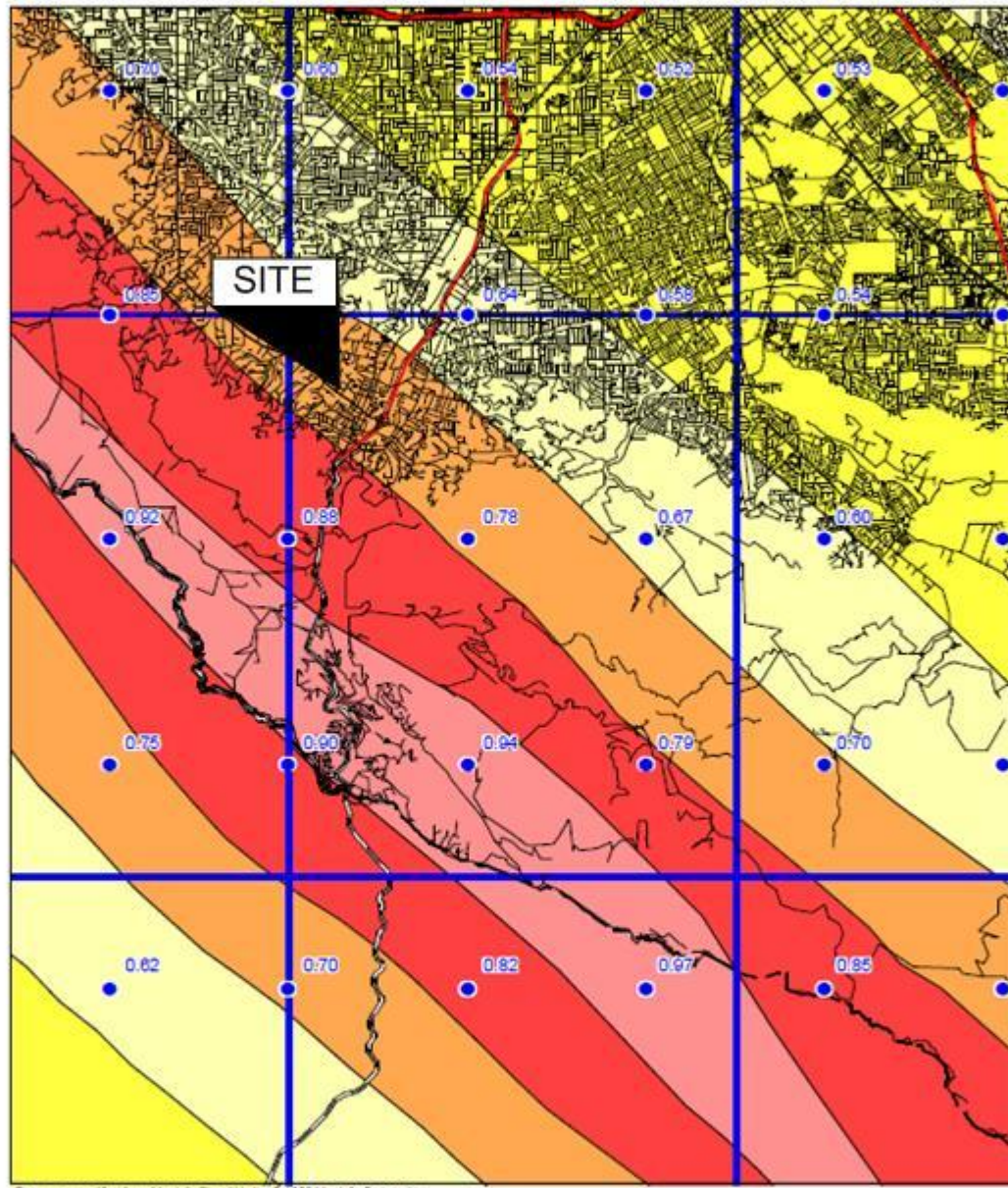
| | | | |
|--|-------------|---|--------------|
| Project No. 1319 | August 2020 | <u>Seismic Hazards Zones</u> | Figure No. 5 |
| <i>Pollak Engineering, Inc.</i> | | 18055 Los Gatos-Saratoga Road Monte Sereno, California | |

LOS GATOS 7.5 MINUTE QUADRANGLE AND PORTIONS OF ADJACENT QUADRANGLES

10% EXCEEDANCE IN 50 YEARS PEAK GROUND ACCELERATION (g)

1998

SOFT ROCK CONDITIONS



0 1.5 3
Miles

Department of Conservation
Division of Mines and Geology

Figure 3.2



From *Seismic Hazards Zone Report for the Los Gatos 7.5 Minute Quadrangle, Santa Clara County, California: 2002*

Project No. 1319

August 2020

Seismic Acceleration

Pollak Engineering, Inc.

18055 Los Gatos-Saratoga Road
Monte Sereno, California

Figure No. 6

APPENDIX B

Laboratory Investigation

Summary of Laboratory Test Results

LABORATORY INVESTIGATION

The laboratory testing program was directed towards providing sufficient information for the determination of the engineering characteristics of the site soils so that the recommendations outlined in this report could be formulated.

Moisture content and dry density tests (ASTM D2937-83) were performed on representative relatively undisturbed soil samples in order to determine the consistency of the soil and the moisture variation throughout the explored soil profile as well as estimate the compressibility of the underlying soils.

The strength parameters of the foundation soils were determined from blow counts taken during our field investigation.

A summary of all laboratory test results is presented on TABLE 1 of this appendix and on the respective "Log of Boring", Appendix A.

TABLE 1**Summary of Laboratory Test Results**

| Sample No. | Depth (ft.) | Dry Density (pcf.) | Moisture Content (% Dry Wt.) | Atterberg Limits | |
|------------|-------------|--------------------|------------------------------|------------------|------------------|
| | | | | Liquid Limit (%) | Plasticity Index |
| B1-1 | 1 | 94.2 | 18.5 | 31 | 10 |
| B1-2 | 3½ | 96.8 | 16.8 | | |
| B1-3 | 5½ | 101.4 | 15.7 | | |

APPENDIX E

NOISE ASSESSMENT STUDY



EDWARD L. PACK ASSOCIATES. INC.

1975 HAMILTON AVENUE
SUITE 26
SAN JOSE, CA 95125

Acoustical Consultants

TEL: 408-371-1195
FAX: 408-371-1196
www.packassociates.com

October 16, 2020
Project No. 52-047

Mr. Tony Jeans
T.H.I.S. Design
P.O. Box 1518
Los Gatos, CA 95031

Subject: Noise Assessment Study for the Planned 2-Lot Single-Family Subdivision,
18061 Saratoga - Los Gatos Road, Monte Sereno

Dear Mr. Jeans:

This report presents the results of a noise assessment study for the planned 2-Lot single-family subdivision at 18061 Saratoga - Los Gatos Road in Monte Sereno, as shown on the Site Plan, Ref. (a). The noise exposures at the site were evaluated against criteria recommended by the Town of Monte Sereno, Ref. (b). The analysis of the on-site sound level measurements indicates that the existing noise environment at the site is due primarily to vehicular traffic sources on Saratoga - Los Gatos Road (State Route 9). The results of the study indicate that the noise exposures at the exterior living areas of the project will be within the limits of the criteria. The interior noise exposures will be within the limits of the criteria as well. Noise reduction measures will not be required.

Section I of this report contains a summary of our findings. Subsequent sections contain the site, traffic and project descriptions, analyses and evaluations. Attached hereto are Appendices A, B and C, which include the list of references, descriptions of the applicable standards, definitions of the terminology, descriptions of the acoustical instrumentation used for the field survey, general building shell controls and the on-site noise measurement data and calculation tables.

Note: Due to the COVID-19 situation, traffic volumes and patterns are abnormal. Thus, traffic noise data acquired less than three years ago for the subdivision immediately adjacent to the west used for this study, Ref. (c). The traffic volumes for Saratoga - Los Gatos Road do not change dramatically year to year. Thus, the previous traffic data are considered to be valid for existing (non-COVID-19) and future conditions.

I. Summary of Findings

The standards of the City of Monte Sereno General Plan Health and Safety Element, Ref. (d), utilize the Day-Night Level (DNL) noise descriptor. The Health and Safety Element of the General Plan references a noise exposure land use compatibility chart on Figure HS-5. However, Figure HS-5 is a noise contour map. The Health and Safety Element does not contain quantifiable standards for any type of land use. A conversation with the City of Monte Sereno Planning Department, Ref. (b), revealed that 60 dB DNL is the normally acceptable exterior limit for residential land-use. Exterior noise exposures at or below 60 dB DNL do not require analysis or noise mitigation measures.

For the purposes of this study, 60 dB DNL is used herein as the exterior noise exposure design goal for the exterior living areas of the project. An interior noise exposure limit of 45 dB DNL is also being applied to this project.

The noise exposures shown below include the noise attenuation provided by a 6 ft. high noise control barrier along the front and side of the home on Lot 1 closest to Saratoga - Los Gatos Road.

A. Exterior Noise Levels

- The existing exterior noise exposures at the most impacted planned private front yard of the home on Lot 1 (34 ft. to 77 ft. from the centerline of Saratoga - Los Gatos Road range from 56 to 58 dB DNL near the building setback to 60 dB DNL just behind the barrier. Under future traffic conditions, the noise exposures are expected to remain at 56-60 dB DNL. Thus, the noise exposures will be within the 60 dB DNL City of Monte Sereno exterior noise criterion.

- The existing exterior noise exposure at the most impacted planned rear yard of the home on Lot 1, 111 ft. from the centerline of Saratoga - Los Gatos Road, will be up to 60 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 60 dB DNL. Thus, the noise exposures will be within the 60 dB DNL City of Monte Sereno exterior noise criterion.
- The unshielded (bare site) existing and future 60 dB DNL noise contour line is 183 ft. from the centerline of Saratoga - Los Gatos Road or 159 ft. from the south property line.
- The existing exterior noise exposures at the most impacted planned building setback of the home on Lot 1 and at the ground floor elevation of the front yard (54 ft. from the centerline of Saratoga - Los Gatos Road) are up to 57 dB DNL. Under future traffic conditions, the noise exposures are expected to remain at 57 dB DNL.
- The existing exterior noise exposures at the most impacted planned building setback of the home on Lot 1 and at the upper floor elevation (54 ft. from the centerline of Saratoga - Los Gatos Road) are up to 60 dB DNL. Under future traffic conditions, the noise exposures are expected to remain at 60 dB DNL.
- With the exception of the access driveway, the entire Lot 2 is outside of the 60 dB DNL noise contour. Thus, the exterior living areas associated with Lot 2 are within the limits of the City of Monte Sereno noise criterion.

As shown above, the exterior noise exposures at the front and rear exterior living areas will be within the 60 dB DNL limit of the City of Monte Sereno noise criterion.

Noise reduction measures will not be required for the exterior living areas.

B. Interior Noise Exposures

- The interior noise exposures in the most impacted living spaces of Lot 1 will be up to 35 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 35 dB DNL. Thus, the noise exposures will be within the limits of the interior noise exposure design criterion recommended for this project.
- The interior noise exposures in the most impacted living spaces of Lot 2 will be lower than 45 dB DNL under existing and future traffic conditions as the exterior noise exposures are below 70 dB DNL. Thus, the noise exposures will be within the limits of the interior noise exposure design criterion recommended for this project.

The interior noise exposures will be in compliance with the 45 dB DNL criterion recommended for this project. Noise mitigation for the interior living spaces will not be required.

II. Site, Traffic and Project Descriptions

The planned development site is located at 18061 Saratoga - Los Gatos Road in Monte Sereno. The site is on the north side of the road and initially slopes up away from the road then down to the north. The site currently contains a single-family home. Surrounding land uses include single-family homes adjacent to the west, north and east and across Saratoga - Los Gatos Road to the south.

The on-site noise environment is controlled primarily by vehicular traffic sources on Saratoga - Los Gatos Road, which carries an Average Daily Traffic (ADT) volume of 17,500 vehicles, as reported by CalTrans, Ref. (e).

The proposed project includes the subdivision of the site into two single-family lots and the construction of two single-family homes. A 6 ft. high noise control barrier is planned to extend from the southerly façade of the home on Lot 1 to the south, then continue along the top of slope in front of Lot 1 to the westerly property line and continue along the westerly property line to the north to terminate at 164 ft. from the centerline of Saratoga - Los Gatos Road. The Site Plan is shown on Figure 1 on page 6.

FIGURE 2 – Site Plan

III. Analysis of the Noise Levels

A. Existing Noise Levels

To determine the existing noise environment at the site, continuous recordings of the sound levels were made on February 1-2, 2018 at a location 46 ft. from the centerline of Saratoga - Los Gatos Road for the noise study prepared for the project immediately adjacent to the subject site to the north at 18081 Saratoga - Los Gatos Road. The on-site measurement locations are shown on Figure 3 on page 10. The sound levels were recorded and processed using a Larson-Davis Model 812 Precision Integrating Sound Level Meter. The meter yields, by direct readout, a series of descriptors of the sound levels versus time, as described in Appendix B, and the results are shown in the data table in Appendix C. The measured descriptors include the L_1 , L_{10} , L_{50} , and L_{90} , i.e., those levels exceeded for 1%, 10%, 50%, and 90% of the time. Also measured were the maximum (L_{\max}) and minimum (L_{\min}) levels and the continuous equivalent-energy levels (L_{eq}), which are used to calculate the DNL. The measurements were made for a continuous 24-hour period and included representative hours of the daytime and nighttime periods of the DNL index.

As shown in the Appendix C data table, the L_{eq} 's at the measurement location, 46 ft. from the centerline of Saratoga - Los Gatos Road, ranged from 63.1 to 69.0 dBA during the daytime and from 53.6 to 65.4 dBA at night. The raw measurement data printouts are also provided in Appendix C.

Vehicular traffic noise dissipates at the rate of 3 to 6 dB for each doubling of distance from the source and contains a wide spectrum of frequency components (from 100 to 10,000 Hz), which are associated with engine, tire, drive-train, exhaust and other sources. These frequency components are centered primarily in the 250 and 500 Hz octave bands, and were used in determining the noise control measures recommended for this project.



FIGURE 3 – Noise Measurement Location

B. Future Noise Levels

Future traffic volume data for Saratoga - Los Gatos Road were not available from CalTrans. Therefore, a review of historical data from CalTrans was performed. The 1996 Average Daily Traffic (ADT) volume for Saratoga - Los Gatos Road was 20,100 vehicles, Ref. (f). The 2016 (existing) traffic volume was 17,500 vehicles ADT. Thus, the traffic volumes have decreased slightly over the past 20 years. However, with the future construction of the Hacienda site, the future traffic volume is likely to increase slightly. The future traffic volume could increase up to 20,500 vehicles ADT before an increase in the daily noise exposure occurs. Therefore, we are estimating that the future traffic noise levels will remain similar to current levels.

IV. Evaluations of the Noise Exposures

A. Exterior Noise Exposures

To evaluate the on-site noise exposures against the exterior noise criterion of the Town of Monte Sereno, DNL for the survey location was calculated by decibel averaging of the L_{eq} 's as they apply to the daily time periods of the DNL index. The DNL is a 24-hour noise descriptor that uses the measured L_{eq} values to calculate a 24-hour time-weighted average noise exposure. A nighttime weighting factor of 10 dB was added to the measured noise levels to account for the increased human sensitivity to noise during these hours. Adjustments were made to the measured noise levels to account for various setback distances of receptor locations from the measurement locations using methods established by the Highway Research Board, Ref. (g). The formula used to calculate the DNL is described in Appendix B.

The noise exposure at the measurement location, 46 ft. from the centerline of Saratoga - Los Gatos Road, was calculated to be 69 dB DNL. Under future traffic conditions, the noise exposure is expected to remain at 69 dB DNL.

At the setback of the private front yard, 34 ft. from the centerline of the road, the noise exposure was calculated to be 71 dB DNL. The planned 6 ft. high noise control barrier will provide at least 11 decibels of traffic noise reduction. Thus, the noise exposure at the most impacted area of the private front yard behind the barrier will be up to 60 dB DNL under existing and future traffic conditions. Thus, the noise exposures will be within the City of Monte Sereno 60 dB DNL noise criterion.

The rear yard (Artificial Turf) area of Lot 1 is also behind the noise barrier and is adequately shielded from traffic noise. The noise exposures were calculated to be up to 60 dB DNL near the westerly property line under existing and future traffic conditions. Thus, the noise exposures will be within the City of Monte Sereno 60 dB DNL noise criterion.

The exterior noise exposure at the most planned building setback of the home on Lot 1, 54 ft. from the centerline of the road, was calculated to be 60 dB DNL. Under future traffic conditions, the noise exposure is estimated to remain at 60 dB DNL.

The exterior noise exposures at Lot 2 are below 60 dB DNL as this lot is outside of the existing and future 60 dB DNL noise contour. Thus, the noise exposures will be within the 60 dB DNL criterion of the City of Monte Sereno.

B. Interior Noise Exposures

To evaluate the interior noise exposures in project living spaces against the 45 dB DNL limit recommended for this project, a 25 dB reduction was applied to the exterior noise exposure at the building setback to represent the attenuation provided by the building shell under a closed window condition. The closed window condition assumes that windows are standard dual-pane thermal insulating windows that are kept closed all of the time for noise control. The windows may be kept closed as the Mechanical Code requires full time supplementary ventilation for single-family housing.

The interior noise exposure in the most impacted living spaces of Lot 1 was calculated to be 35 dB DNL. Under future traffic conditions, the noise exposure is estimated to remain at 35 dB DNL. Thus, the interior noise exposures will be within the 45 dB DNL limit of the recommended interior noise design criterion.

The interior noise exposure in the most impacted living spaces of Lot 2 will be below 45 dB DNL as the exterior noise exposures will be below 70 dB DNL. Thus, the interior noise exposures will be within the 45 dB DNL limit of the recommended interior noise design criterion.

As shown above evaluations the interior noise exposures will be within the limit of the 45 dB DNL criterion recommended for this project. Mitigation measures for the interior living spaces will not be required.

This report presents the results of a noise assessment study for the planned 2-lot single-family subdivision at 18061 Saratoga - Los Gatos Road in Monte Sereno. The study findings for present conditions are based on field measurements and other data and are correct to the best of our knowledge. Future noise level predictions were based on information provided by CalTrans. Significant changes in the future traffic volumes, speed limits, motor vehicle technology, noise regulations, or other changes beyond our control may produce long range noise results different from our estimates.

If you have any questions or would like an elaboration on this report, please call me

Sincerely,

EDWARD L. PACK ASSOC., INC.

A handwritten signature in blue ink, reading "Jeffrey K. Pack", is written over a horizontal line.

Jeffrey K. Pack
President

Attachments: Appendices A, B, and C

APPENDIX A

References:

- (a) Site Plan, Proposed Subdivision, by T.H.I.S. Design and Development, October 14, 2020
- (b) Information on the City of Monte Sereno Noise Standards Provided by Ms. Erin Ventura, City of Monte Sereno Planning Department by Telephone to Edward L. Pack Associates, Inc., December 5, 2012
- (c) “Noise Assessment Study for the Planned Single-Family Development, 18081 Saratoga - Los Gatos Road, Monte Sereno”, by Edward L. Pack Associates, Inc., Project No. 50-003-1, August 15, 2018
- (d) The City of Monte Sereno General Plan 2009, Health and Safety Element, Chapter 9, “Noise”, January 2009
- (e) State of California Department of Transportation, Division of Traffic Operation <http://www.dot.ca.gov/trafficops/census/volumes2016/Route7-10.html>.
- (f) 1996 Traffic Volumes on the California State Highway System, State of California Department of Transportation, Division of Traffic Operations, June 1997
- (g) Highway Research Board, “Highway Noise-A Design Guide for Highway Engineers”, Report 117, 1971

APPENDIX B

Noise Standards, Terminology, Instrumentation and Building Shell Controls

1. Noise Standards

A. City of Monte Sereno General Plan Health and Safety Element Policies

Goal HS-6: Reduce noise level within neighborhoods resulting from vehicular traffic and construction activity.

Policy HS-6.1 Reduce noise level in residential areas shall restricting truck traffic to designated routes and monitoring speed of local traffic.

Policy HS-6.2 Encourage the use of the latest noise control technology to minimize noise in residential neighborhoods.

Policy HS-6.3: Continue to enforce local and State noise regulations to minimize noise impacts associated with construction and public and private activities.

Policy HS-6.4 Encourage new development in noise impacted areas to provide effective noise insulation measures.

Policy HS-6.5 Cooperate with Santa Clara County, State and federal agencies, private businesses and individuals to control and maintain an acceptable noise environment in Monte Sereno.

Policy HS-6.6 Provide input on regional decisions which will affect noise levels in Monte Sereno.

**City of Monte Sereno General Plan Health and
Safety Element Policies (cont'd)**

Policy HS-6.7 Minimize potential transportation-related noise through street circulation design, coordination of routing and other traffic control measures, and consider the use of noise-absorbing “quiet” pavements when resurfacing roadways.

Action HS-6.1 Require construction techniques for noise buffering, barriers or setbacks in development subject to high noise levels, to reduce noise to a level with the noise/land use compatibility standards.

2. Terminology

A. Statistical Noise Levels

Due to the fluctuating character of urban traffic noise, statistical procedures are needed to provide an adequate description of the environment. A series of statistical descriptors have been developed which represent the noise levels exceeded a given percentage of the time. These descriptors are obtained by direct readout of the sound measuring instruments. Some of the statistical levels used to describe community noise are defined as follows:

- L_1 - A noise level exceeded for 1% of the time.
- L_{10} - A noise level exceeded for 10% of the time, considered to be an "intrusive" level.
- L_{50} - The noise level exceeded 50% of the time representing an "average" sound level.
- L_{90} - The noise level exceeded 90 % of the time, designated as a "background" noise level.
- L_{eq} - The continuous equivalent-energy level is that level of a steady noise having the same sound energy as a given time-varying noise. The L_{eq} represents the decibel level of the time-averaged value of sound energy or sound pressure squared and is the descriptor used to calculate the DNL and CNEL.

B. Day-Night Level (DNL)

Noise levels utilized in the standards are described in terms of the Day-Night Level (DNL). The DNL rating is determined by the cumulative noise exposures occurring over a 24-hour day in terms of A-Weighted sound energy. The 24-hour day is divided into two subperiods for the DNL index, i.e., the daytime period from 7:00 a.m. to 10:00 p.m., and the nighttime period from 10:00 p.m. to 7:00 a.m. A 10 dB weighting factor is applied (added) to the noise levels occurring during the nighttime period to account for the greater sensitivity of people to noise during these hours. The DNL is calculated from the measured L_{eq} in accordance with the following mathematical formula:

$$DNL = \left[\left[(10 \log_{10}(10^{\Sigma L_{eq}(7-10)})) \times 15 \right] + \left[((10 \log_{10}(10^{\Sigma L_{eq}(10-7)})) + 10) \times 9 \right] \right] / 24$$

C. A-Weighted Sound Level

The decibel measure of the sound level utilizing the "A" weighted network of a sound level meter is referred to as "dBA". The "A" weighting is the accepted standard weighting system used when noise is measured and recorded for the purpose of determining total noise levels and conducting statistical analyses of the environment so that the output correlates well with the response of the human ear.

3. Instrumentation

The on-site field measurement data were acquired by the use of one of the instruments specified below, which provides a direct readout of the L exceedance statistical levels including the equivalent-energy level (L_{eq}). Input to the instrument was provided by a microphone extended to a height of 5 ft. above the ground on using a tripod or mast. The "A" weighting network and the "Fast" response setting of the instruments were used in conformance with the applicable standards. The instruments conform to American National Standards Institute (ANSI) standard S1.4 for Type I instruments, and all instrumentation was acoustically calibrated before and after field tests to assure accuracy.

Instruments used for field surveys:

Larson-Davis Model 812 Integrating Sound Level Meter

Larson-Davis 2900 Real Time Analyzer

Bruel & Kjaer Model 2231 Precision Sound Level Meter

Larson Davis 831 Precision Integrating Sound Level Meter

4. Building Shell Controls

The following additional precautionary measures are required to assure the greatest potential for exterior-to-interior noise attenuation by the recommended mitigation measures. These measures apply at those units where closed windows are required:

- Unshielded entry doors having a direct or side orientation toward the primary noise source must be 1-5/8" or 1-3/4" thick, insulated metal or solid-core wood construction with effective weather seals around the full perimeter.
- If any penetrations in the building shell are required for vents, piping, conduit, etc., sound leakage around these penetrations can be controlled by sealing all cracks and clearance spaces with a non-hardening caulking compound.
- Ventilation openings shall not compromise the acoustical integrity of the building shell.

APPENDIX C

On-Site Noise Measurement Data and Calculation Tables

DNL CALCULATIONS

CLIENT: SINGHKAHN
FILE: 50-003
PROJECT: 3-LOT SUBDIVISION
DATE: 2/1-2/2018
SOURCE: HIGHWAY 9

| LOCATION 1 Highway 9 | | | |
|------------------------|------------------|------------------------|---------------|
| Dist. To Source 46 ft. | | | |
| TIME | Leq | 10 [^] Leq/10 | |
| 7:00 AM | 69.0 | 7943282.3 | |
| 8:00 AM | 68.9 | 7762471.2 | |
| 9:00 AM | 68.5 | 7079457.8 | |
| 10:00 AM | 67.3 | 5370318.0 | |
| 11:00 AM | 67.2 | 5248074.6 | |
| 12:00 PM | 67.3 | 5370318.0 | |
| 1:00 PM | 67.1 | 5128613.8 | |
| 2:00 PM | 67.4 | 5495408.7 | |
| 3:00 PM | 67.1 | 5128613.8 | |
| 4:00 PM | 65.0 | 3162277.7 | |
| 5:00 PM | 65.6 | 3630780.5 | |
| 6:00 PM | 66.1 | 4073802.8 | |
| 7:00 PM | 65.8 | 3801894.0 | |
| 8:00 PM | 64.2 | 2630268.0 | |
| 9:00 PM | 63.1 | 2041737.9 | SUM= 73867319 |
| 10:00 PM | 61.1 | 1288249.6 | Ld= 78.7 |
| 11:00 PM | 57.6 | 575439.9 | |
| 12:00 AM | 54.4 | 275422.9 | |
| 1:00 AM | 63.5 | 2238721.1 | |
| 2:00 AM | 62.1 | 1621810.1 | |
| 3:00 AM | 56.1 | 407380.3 | |
| 4:00 AM | 53.6 | 229086.8 | |
| 5:00 AM | 59.6 | 912010.8 | |
| 6:00 AM | 65.4 | 3467368.5 | SUM= 11015490 |
| | | | Ln= 70.4 |
| | Daytime Level= | 78.7 | |
| | Nighttime Level= | 80.4 | |
| | DNL= | 69 | |
| | 24-Hour Leq= | 65.5 | |

AJIT SINGH
FILE: 50-003.DTA
DATE: 2/1-2/2018
PROJECT: 3-LOT SUBDIVISION, MONTE SERENO

LOCATION: 46 ft. from Highway 9 C_L

INTV 1 01Feb2018 11:00:00 Duration 1:00:00
Leq 67.2 SEL 100.9 Min 45.9 Max 83.3 Peak 100.5 UWPk 102.2dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 74.5 L10 70.4 L50 65.9 L90 55.1dBA

INTV 2 01Feb2018 12:00:00 Duration 1:00:00
Leq 67.3 SEL 102.9 Min 41.4 Max 86.0 Peak 96.8 UWPk 101.8dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 73.8 L10 70.6 L50 66.2 L90 54.5dBA

INTV 3 01Feb2018 13:00:00 Duration 1:00:00
Leq 67.1 SEL 102.6 Min 40.3 Max 83.6 Peak 96.5 UWPk 103.8dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 74.4 L10 70.4 L50 65.7 L90 53.3dBA

INTV 4 01Feb2018 14:00:00 Duration 1:00:00
Leq 67.4 SEL 103.0 Min 43.5 Max 84.3 Peak 95.8 UWPk 102.9dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 74.3 L10 70.5 L50 66.4 L90 57.2dBA

INTV 5 01Feb2018 15:00:00 Duration 1:00:00
Leq 67.1 SEL 102.7 Min 46.1 Max 83.0 Peak 93.6 UWPk 99.2dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 73.7 L10 70.2 L50 66.1 L90 58.6dBA

INTV 6 01Feb2018 16:00:00 Duration 1:00:00
Leq 65.0 SEL 100.5 Min 47.5 Max 78.9 Peak 90.5 UWPk 99.7dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 71.9 L10 68.7 L50 62.8 L90 57.3dBA

INTV 7 01Feb2018 17:00:00 Duration 1:00:00
Leq 65.6 SEL 101.2 Min 49.7 Max 91.5 Peak 104.4 UWPk 108.7dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 72.4 L10 68.5 L50 62.4 L90 56.5dBA

INTV 8 01Feb2018 18:00:00 Duration 1:00:00
Leq 66.1 SEL 101.7 Min 46.9 Max 79.9 Peak 98.9 UWPk 103.8dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 72.5 L10 69.4 L50 65.1 L90 57.9dBA

INTV 9 01Feb2018 19:00:00 Duration 1:00:00
Leq 65.8 SEL 101.4 Min 46.2 Max 79.0 Peak 90.5 UWPk 96.9dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 72.7 L10 69.6 L50 64.4 L90 52.8dBA

INTV 10 01Feb2018 20:00:00 Duration 1:00:00
Leq 64.2 SEL 99.8 Min 43.0 Max 77.2 Peak 89.9 UWPk 99.7dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 71.9 L10 68.9 L50 59.2 L90 49.2dBA

INTV 11 01Feb2018 21:00:00 Duration 1:00:00
Leq 63.1 SEL 98.7 Min 41.1 Max 76.6 Peak 88.6 UWPk 93.7dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 71.9 L10 68.1 L50 56.0 L90 47.1dBA

INTV 12 01Feb2018 22:00:00 Duration 1:00:00
Leq 61.1 SEL 96.7 Min 37.3 Max 76.6 Peak 88.9 UWPk 100.6dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 71.5 L10 66.7 L50 50.6 L90 42.4dBA

INTV 13 01Feb2018 23:00:00 Duration 1:00:00
Leq 57.6 SEL 93.2 Min 34.9 Max 81.3 Peak 93.3 UWPk 98.1dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 70.0 L10 60.1 L50 43.9 L90 37.8dBA

INTV 14 02Feb2018 00:00:00 Duration 1:00:00
Leq 54.4 SEL 90.0 Min 30.8 Max 74.4 Peak 85.9 UWPk 93.7dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 68.8 L10 52.7 L50 39.3 L90 34.4dBA

INTV 15 02Feb2018 01:00:00 Duration 1:00:00
Leq 53.5 SEL 89.0 Min 29.9 Max 85.0 Peak 97.5 UWPk 105.5dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 66.6 L10 45.3 L50 34.4 L90 32.1dBA

INTV 16 02Feb2018 02:00:00 Duration 1:00:00
Leq 52.1 SEL 87.6 Min 30.5 Max 78.1 Peak 91.5 UWPk 95.4dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 66.8 L10 45.4 L50 34.0 L90 32.0dBA

INTV 17 02Feb2018 03:00:00 Duration 1:00:00
Leq 56.1 SEL 91.7 Min 30.5 Max 88.5 Peak 99.3 UWPk 103.5dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 65.4 L10 44.0 L50 34.9 L90 32.4dBA

INTV 18 02Feb2018 04:00:00 Duration 1:00:00
Leq 53.6 SEL 89.1 Min 32.6 Max 80.5 Peak 95.0 UWPk 100.6dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 67.6 L10 46.8 L50 36.8 L90 34.5dBA

INTV 19 02Feb2018 05:00:00 Duration 1:00:00
Leq 59.6 SEL 95.2 Min 37.0 Max 85.6 Peak 99.4 UWPk 105.7dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 71.4 L10 62.5 L50 45.8 L90 39.3dBA

INTV 20 02Feb2018 06:00:00 Duration 1:00:00
Leq 65.4 SEL 101.0 Min 37.9 Max 82.0 Peak 94.4 UWPk 103.2dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 74.4 L10 70.0 L50 58.1 L90 46.2dBA

INTV 21 02Feb2018 07:00:00 Duration 1:00:00
Leq 69.0 SEL 104.6 Min 48.2 Max 86.1 Peak 99.4 UWPk 103.2dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 76.1 L10 71.8 L50 68.1 L90 59.5dBA

INTV 22 02Feb2018 08:00:00 Duration 1:00:00
Leq 68.9 SEL 104.4 Min 48.6 Max 88.5 Peak 97.6 UWPk 102.5dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 75.1 L10 71.5 L50 67.9 L90 60.5dBA

INTV 23 02Feb2018 09:00:00 Duration 1:00:00
Leq 68.5 SEL 104.1 Min 45.3 Max 93.6 Peak 107.0 UWPk 108.0dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 75.5 L10 71.3 L50 67.0 L90 55.7dBA

INTV 24 02Feb2018 10:00:00 Duration 1:00:00
Leq 67.3 SEL 102.9 Min 42.1 Max 85.0 Peak 96.5 UWPk 105.3dB
Excd's: RMS 0 Peak 0 UWPk 0 Ovlds 0
L 1 74.5 L10 70.6 L50 65.9 L90 53.7dB

APPENDIX F

TRIP GENERATION and ACCESS REPORT



HEXAGON TRANSPORTATION CONSULTANTS, INC.

October 16, 2020

Mr. Tony Jeans
THIS Design
P.O. Box 1518
Los Gatos, CA 95031

**Re: Trip Generation and Access Report for the Proposed Development at
18061 Saratoga-Los Gatos Road in Monte Sereno, California**

Dear Mr. Jeans:

Hexagon Transportation Consultants, Inc. has completed a trip generation and site access analysis for the proposed residential development at 18061 Saratoga-Los Gatos Road in Monte Sereno, California. The project would demolish the existing single-family home on the site and construct two single family homes (see Figure 1).

Trip Generation

The proposed project of two single-family houses would add additional vehicles to the transportation network. Trip generation rates for single family homes are determined based on the *Institute of Transportation Engineers Trip Generation Manual, 10th Edition, 2017*. As shown in Table 1, the project would be expected to generate a total of 19 daily vehicle trips on a weekday. During the AM Peak Hour, the project is estimated to generate a total of one outbound vehicle trip. During the PM Peak Hour, the project would similarly generate a total of two vehicle trips (one inbound and one outbound).

Table 1
Trip Generation

| Land Use | Size | | Daily Rate | Daily Trips | AM Peak Hour | | | | PM Peak Hour | | | |
|---|------|------|------------|-------------|--------------|----|-----|-------|--------------|----|-----|-------|
| | | | | | Pk-Hr Rate | In | Out | Total | Pk-Hr Rate | In | Out | Total |
| <u>Proposed Uses</u> | | | | | | | | | | | | |
| Single-Family Home ¹ | 2 | d.u. | 9.44 | 19 | 0.74 | 0 | 1 | 1 | 0.99 | 1 | 1 | 2 |
| <u>Existing Land Use</u> | | | | | | | | | | | | |
| Single Family Home ¹ | 1 | d.u. | 9.44 | 9 | 0.74 | 0 | 1 | 1 | 0.99 | 1 | 0 | 1 |
| Net New Trips: | | | | 10 | | 0 | 0 | 0 | | 0 | 1 | 1 |
| <u>Notes:</u> d.u. - dwelling units ¹ Single-Family Detached Housing (Land Use 210), <i>ITE Trip Generation Manual, 10th Edition (2017)</i> , average rates for General Urban/Suburban settings are used. | | | | | | | | | | | | |



Trips associated with the existing home on the project site can be subtracted from the project trip estimates. Based on the ITE trip generation rates, and credit for former use on the project site, it is estimated that the proposed project would generate an additional 10 daily trips, with 1 outbound trip occurring during the PM peak hour.

The trip generation of the proposed project would be very small. In comparison, daily traffic volume on this segment of Saratoga-Los Gatos Road (also known as California Route 9) is 13,400¹. The project would, therefore, cause traffic volumes on Saratoga-Los Gatos Road to increase by 0.07%, which would be an imperceptible increase in traffic.

Due to the minimal trip generation associated with the project, the project would result in no impacts to traffic circulation.

Existing Roadway and Land Use Characteristics

Saratoga-Los Gatos Road is also known as State Route 9. This roadway does not carry any public transit routes, but it does experience moderate traffic volume as noted previously.

At the project site, the roadway is 50 feet wide, and includes:

- One 12-foot travel lane in each direction;
- A 12-foot two-way left-turn lane for driveway access;
- A 5-foot Class II bicycle lane in each direction; and
- One 4-foot sidewalk along the north side of the road.

The posted speed limit along Saratoga-Los Gatos Road is 35 miles per hour. The project site is along a straight section of the roadway. For 800 feet west of the project site, and 2,800 feet east of the site, the roadway alignment has no horizontal curves. Also, while the roadway has a 3% uphill slope traveling from east to west along this straight segment, there are no vertical curves. This results in a tangent roadway segment over ½ mile in length, providing good visibility.

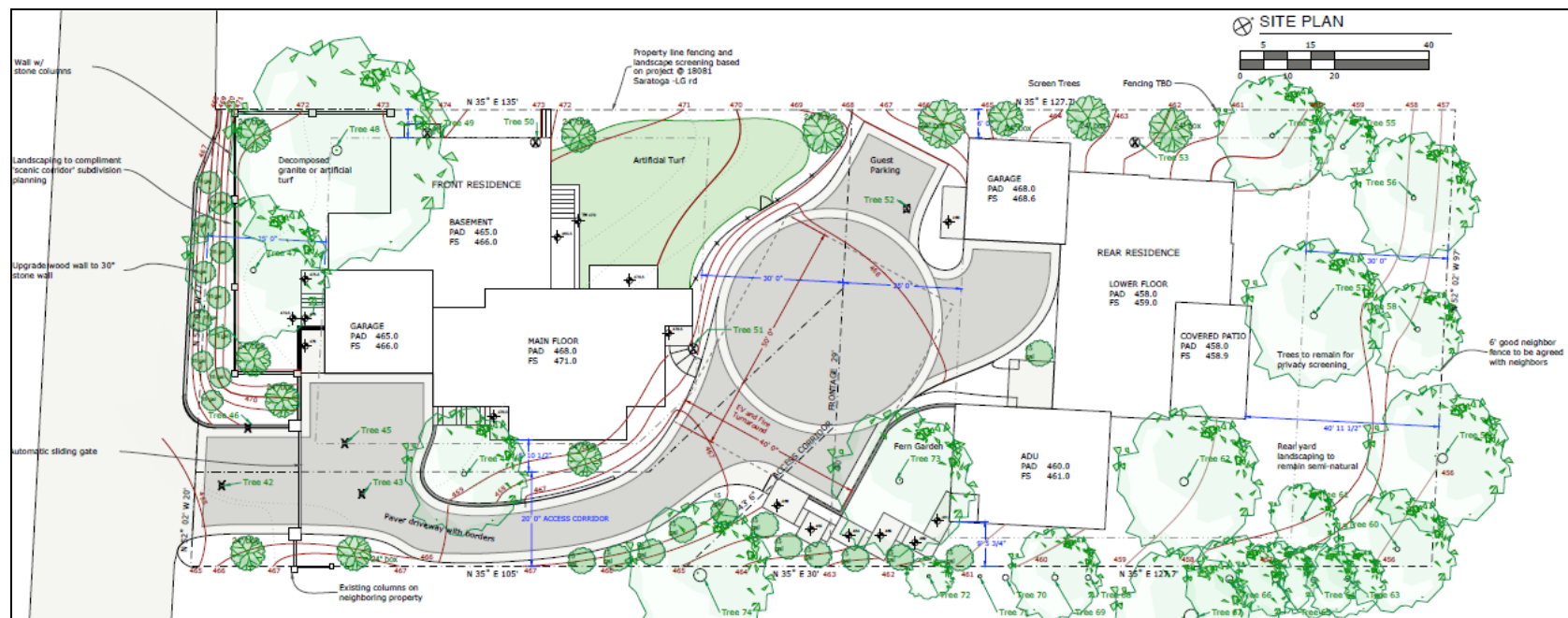
Land uses in the project vicinity are exclusively single family detached homes. While weekday vehicle volume was observed to be moderately high, pedestrian and bicycle volumes were observed to be low, although it should be noted that Saratoga-Los Gatos Road is a popular recreational cycling route on weekends.

Project Site Access

The existing project site has a 12-foot wide driveway connecting to Saratoga-Los Gatos Road. As part of the proposed project, this driveway would be widened to 22 feet.

¹ Caltrans District 4 Route 9 Traffic Volumes.
<https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-7-10>

Figure 1
Proposed Project Site Plan and Existing Driveway





The 22-foot wide driveway would provide sufficient space for two-way traffic. This widening would improve visibility between egressing vehicles and pedestrians on west side. There is a driveway immediately adjacent to the project driveway to serve the home next door. Since the driveway would have low volume, no conflicts are expected to occur.

At the intersection of the driveway with Saratoga-Los Gatos Road, sight distance was evaluated. Based on the posted speed limit of 35 miles per hour, the design speed of Saratoga-Los Gatos Road is conservatively assumed to be 40 miles per hour. At this speed, the required stopping sight distance is 360 feet². This means that vehicles exiting the project driveway should be able to see approaching vehicles 360 upstream in either direction, and vice versa, to ensure that sufficient visibility is afforded between vehicles.

According to the site plan, the landscape plan shows street trees would be added along the project frontage on the Saratoga-Los Gatos Road. Any landscaping and signage should be located in such a way as to ensure an unobstructed view for drivers entering and exiting the site. Hexagon recommends that the plants be trimmed and maintained at a height of 36 inches or less so that drivers can see approaching vehicle traffic along the Saratoga-Los Gatos Road. Note that street trees have a high canopy and would not obstruct the view of drivers exiting the project driveways.

² California Highway Design Manual, Table 201.1



As shown in Figure 2, the visibility from the driveway to the west, toward Saratoga, is adequate. Over 500 feet of upstream visibility is afforded. Beyond 500 feet, visibility is obstructed by vegetation, but pruning of vegetation would lengthen the sight distance.

Figure 2
Visibility from Driveway Looking Toward Saratoga





As shown in Figure 3, visibility from the driveway to the east, toward Los Gatos, is adequate. Over 400 feet of upstream visibility is provided, despite the presence of a wood utility pole.

Figure 3
Visibility from Driveway Looking Toward Los Gatos



Once egressing vehicles cross the property line and begin to enter the public right of way, adequate sight distance becomes available due to the presence of both the four foot wide sidewalk and the adjacent five foot wide westbound bike lane. These facilities enable drivers to see oncoming vehicles in both the eastbound and westbound directions without encroaching onto the path of travel of oncoming vehicles.

The presence of the two-way left-turn lane also benefits site access. Inbound vehicles turning left into the site from eastbound Saratoga-Los Gatos Road utilize the lane so that they do not obstruct eastbound vehicles while waiting for a safe gap in westbound traffic. Conversely, outbound vehicles can utilize the lane to exit the site in two stages, by first waiting for a gap in westbound vehicles for a safe crossing, then entering the center lane and waiting for a gap in eastbound vehicles, before merging into eastbound traffic.



Conclusion

Overall, the 18061 Saratoga-Los Gatos Road residential project would result in no traffic impacts related to congestion, safety or access.

The project would generate a negligible increase in traffic volume. The project's 19 vehicle trips per day, when compared against existing traffic volumes on Saratoga-Los Gatos Road, would increase traffic by only 0.07%, which would not be perceptible. Due to the very low trip generation of the project, no traffic impacts would be generated by the project.

Regarding site access, due to the presence of adjacent property driveway (eastside), both a sidewalk and bike lane along the north side of Saratoga-Los Gatos Road, vehicles egressing from the site would experience adequate visibility of approaching vehicles. Also, the existing two-way left-turn lane would facilitate both ingress and egress movements accessing the site. The combination of these design elements and the low traffic volumes generated by the project, is conducive to driveway movements. Therefore, the proposed project would result in no traffic or safety impacts to vehicles, pedestrians or cyclists.

Hexagon recommends that the plants be trimmed and maintained at a height of 36 inches or less so that drivers can see approaching vehicle traffic along the Saratoga-Los Gatos Road. Note that street trees have a high canopy and would not obstruct the view of drivers exiting the project driveways.

We appreciate the opportunity to submit this transportation assessment. If you have any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gary K. Black', with a long horizontal flourish extending to the right.

Gary K. Black
President

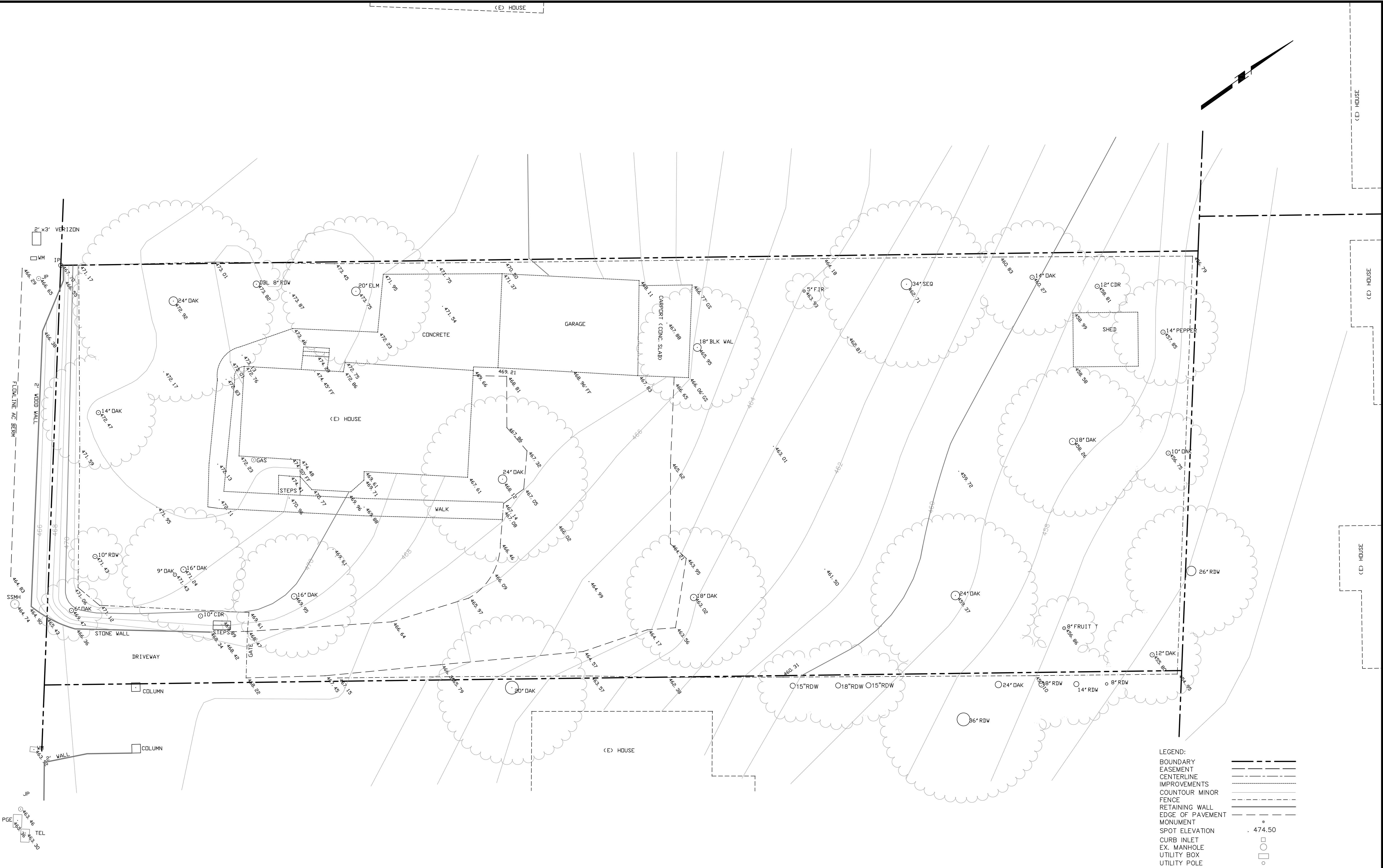
A handwritten signature in blue ink, appearing to read 'S. Sivaraj', with a horizontal flourish extending to the right.

Selvi Sivaraj
Engineer II

APPENDIX G

PROJECT PLANS

SARATOGA - LOS GATOS ROAD



| NO. | BY | DATE | REVISION | BY | DATE |
|-----|----|------|----------|----|------|
| | | | | | |
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|----------------------|
| DATE: AUGUST 2020 |
| SCALE: HOR. 1" = 10' |
| VERT. |
| DESIGNED: |
| DRAWN: |
| PROJ. ENGR: |



WESTFALL ENGINEERS, INC.

14593 BIG BASIN WAY, SARATOGA, CA 95070 (408) 867-0244

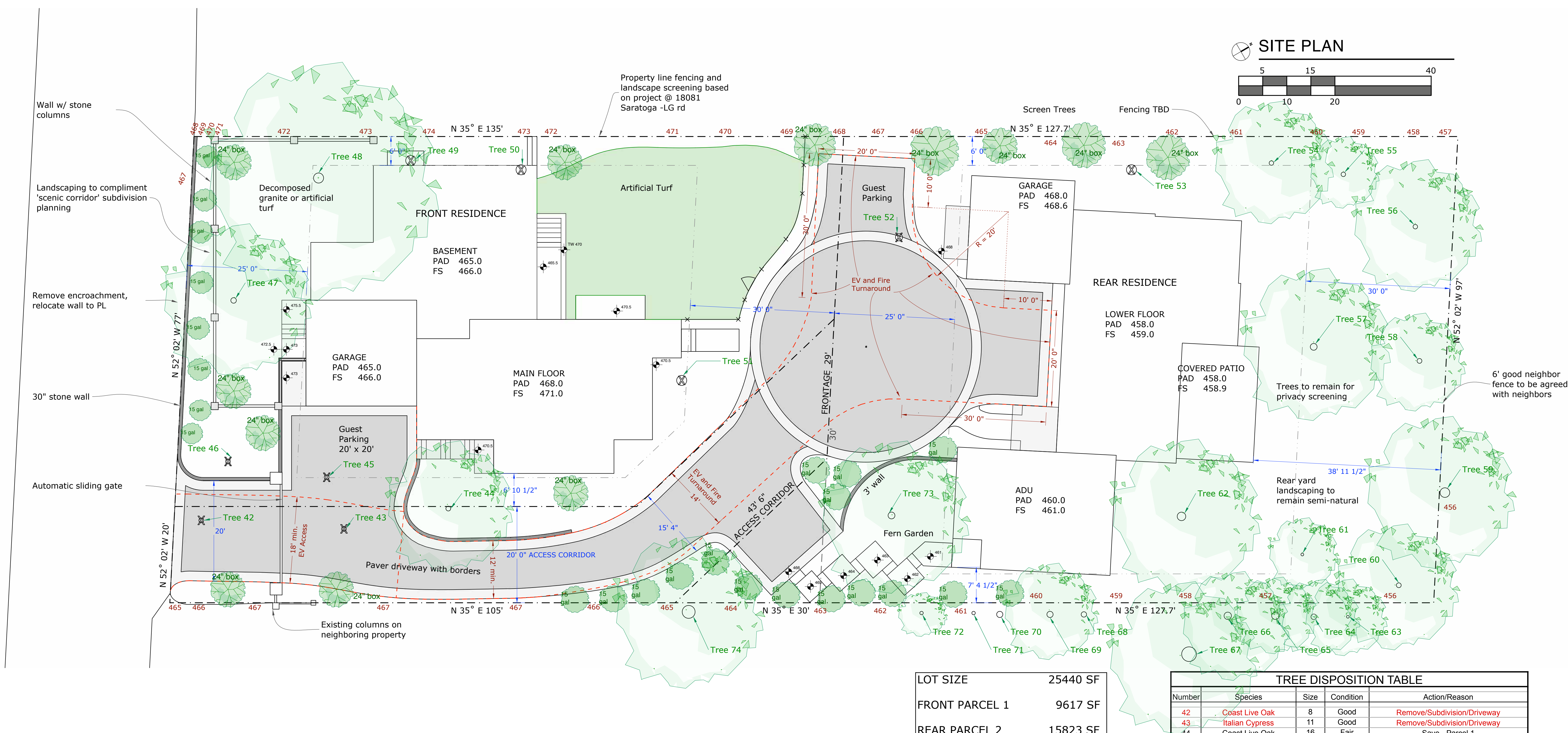
TOPOGRAPHIC MAP

18061 SARATOGA - LOS GATOS ROAD, MONTE SERENO, CA

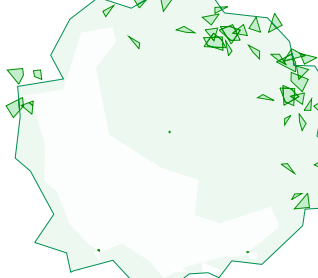
JOB NO.
2020-034

SHEET 1

OF 1



Californica Varietals for screen shrubs



Existing Tree to remain

24" Box Tree (TBD) 12 total

15 gal. screen shrubs 12 total

1 - 5 gal. shrubs/plants many

| | |
|-----------------|----------|
| LOT SIZE | 25440 SF |
| FRONT PARCEL 1 | 9617 SF |
| REAR PARCEL 2 | 15823 SF |
| ACCESS CORRIDOR | 3010 SF |
| NET PARCEL 2 | 12813 SF |

| TREE DISPOSITION TABLE | | | | |
|------------------------|----------------------|--|-----------|-----------------------------|
| Number | Species | Size | Condition | Action/Reason |
| 42 | Coast Live Oak | 8 | Good | Remove/Subdivision/Driveway |
| 43 | Italian Cypress | 11 | Good | Remove/Subdivision/Driveway |
| 44 | Coast Live Oak | 16 | Fair | Save - Parcel 1 |
| 45 | Coast Live Oak | 12, 8 | Fair | Remove/Subdivision/Driveway |
| 46 | Coast Redwood | 10 | Fair | Remove/Subdivision/Driveway |
| 47 | Coast Live Oak | 14.5 | Good | Save - Parcel 1 |
| 48 | Coast Live Oak | 16 | Good | Save - Parcel 1 |
| 49 | Coast Redwood | 40 | Fair | Remove/House 1 |
| 50 | Ash | 19.5 | Good | Remove/House 1 |
| 51 | Black Oak | 23 | Fair | Remove/Subdivision/Driveway |
| 52 | Pecan | 17 | Fair | Remove/Subdivision/Driveway |
| 53 | Giant Sequoia | 28 | Poor | Remove/Species/House 2 |
| 54 | Coast Live Oak | 12 | Good | Save - Parcel 2 |
| 55 | Deodor Cedar | 10 | Fair | Save - Parcel 2 |
| 56 | Pepper | 13 | Poor | Save - Parcel 2 |
| 57 | Coast Live Oak | 18 | Good | Save - Parcel 2 |
| 58 | Coast Live Oak | 9 | Good | Save - Parcel 2 |
| 59 | Coast Redwood [Nbr] | 24 | Fair | Protect Neighbor Tree |
| 60 | Coast Live Oak | 20 | Good | Save - Parcel 2 |
| 61 | Apple | 9 | Poor | Save - Parcel 2 |
| 62 | Coast Live Oak | 23 | Fair | Save - Parcel 2 |
| 63 | Coast Redwood [Nbr] | 9 | Good | Protect Neighbor Tree |
| 64 | Coast Redwood [Nbr] | 16 | Good | Protect Neighbor Tree |
| 65 | Coast Redwood [Nbr] | 14 | Good | Protect Neighbor Tree |
| 66 | Coast Live Oak [Nbr] | 10 | Poor | Protect Neighbor Tree |
| 67 | Coast Redwood [Nbr] | 32 | Good | Protect Neighbor Tree |
| 68 | Coast Redwood [Nbr] | 14 | Good | Protect Neighbor Tree |
| 69 | Coast Redwood [Nbr] | 14 | Good | Protect Neighbor Tree |
| 70 | Coast Redwood [Nbr] | 14 | Good | Protect Neighbor Tree |
| 71 | Coast Redwood [Nbr] | 4 | Fair | Protect Neighbor Tree |
| 72 | Coast Live Oak [Nbr] | 6 | Good | Protect Neighbor Tree |
| 73 | Coast Live Oak | 17 | Good | Save - Parcel 2 |
| 74 | Coast Live Oak | 17 | Poor | Save - Parcel 2 |
| TREE REMOVAL REQUEST: | | | | |
| Now | SUBDIVISION: | 6 OF 22 TREES - Replace with 6 x 24" Box Approved Trees. | | |
| Now | SUBDIVISION: | Landscape/Hardscape Streetscape for Scenic Corridor. | | |
| Later | FRONT HOUSE: | 2 OF 5 TREES - Replace with 3 x 24" Box Approved Trees. | | |
| Later | FRONT HOUSE: | 1 OF 10 TREES - Replace with 6 x 24" Box & 12 x 15 Gal. | | |



As planted



As planted



As planted



After 5 years



After 5 years



After 5 years



After 10 years



After 10 years



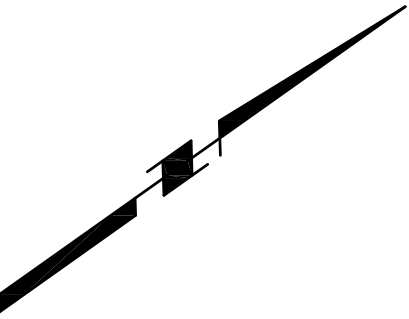
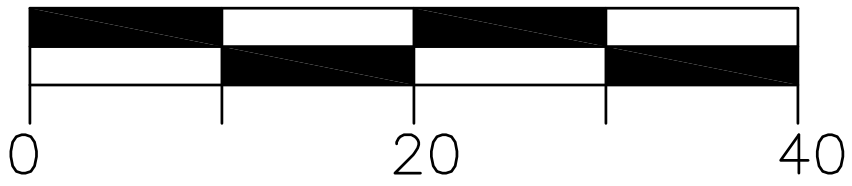
After 10 years

EARTHWORK QUANTITIES

| DESCRIPTION | CUT (C.Y.) | FILL(C.Y.) |
|--------------|------------|------------|
| Parcel 1 | 475 | 0 |
| Parcel 2 | 106 | 195 |
| Private Dwy. | 125 | 150 |
| Total | 706 | 345 |
| Export | 361 | |

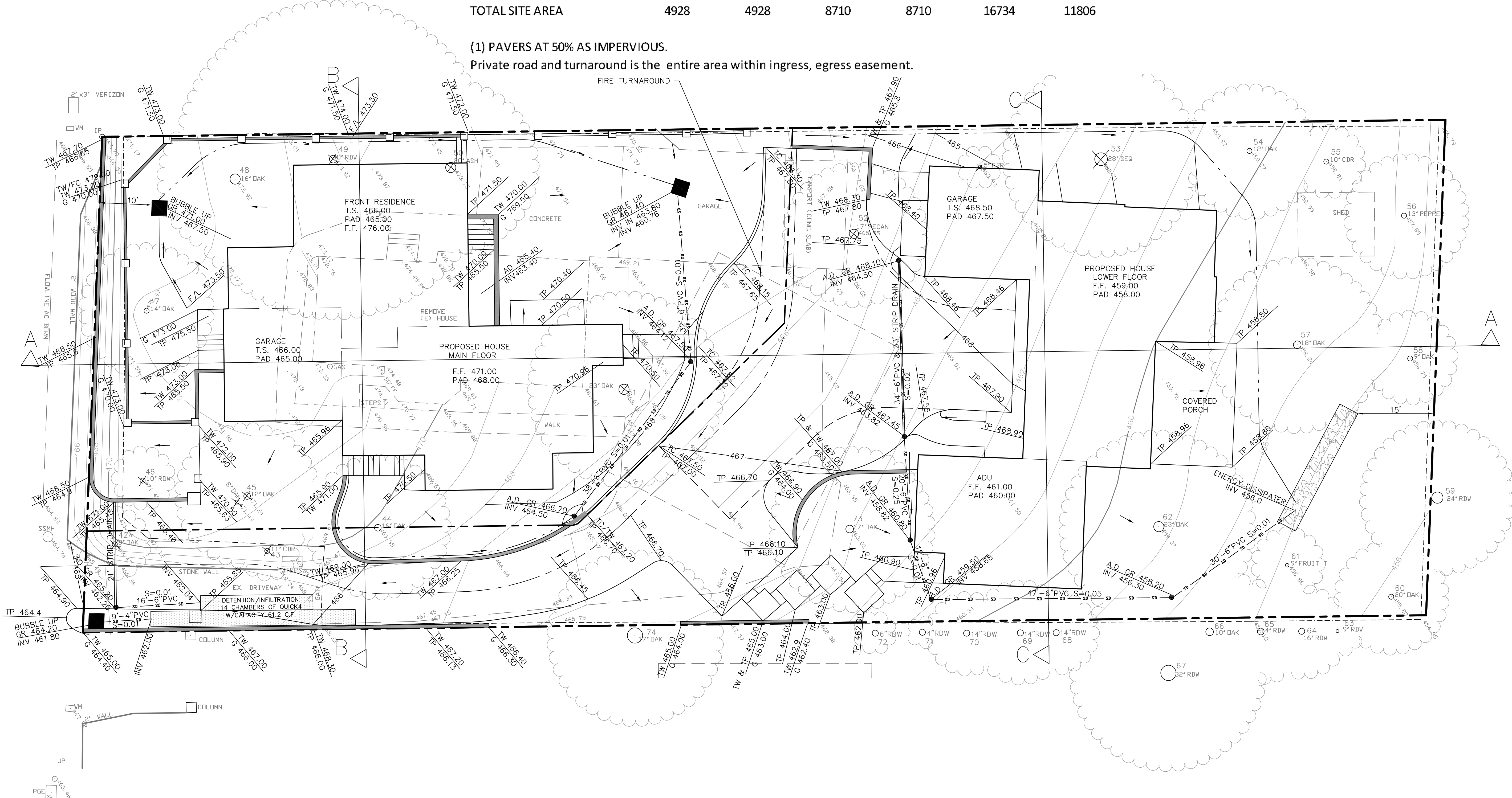
SURFACES

| DESCRIPTION | SUBDI VISION | | PARCEL 1 | | PARCEL 2 | | TOTAL |
|---------------------------|--------------|---------|----------|----------|----------|----------|--------|
| | PRIVATE | ROAD | EXISTING | PROPOSED | EXISTING | PROPOSED | |
| BUILDINGS, COVERED PATIOS | 117 | 0 | 1890 | 2986 | 184 | 2718 | 5704 |
| DRIVEWAY (pavers) | 2912 | 4203(1) | 111 | 207(1) | 460 | 481(1) | 2495.5 |
| PATIOS, WALKS | 0 | 0 | 1285 | 374 | 0 | 484 | 858 |
| TOTAL IMPERVIOUS SURFACES | 3029 | 0 | 3286 | 3360 | 644 | 3202 | 9057.5 |
| LANDSCAPE | 1899 | 725 | 5424 | 5350 | 16090 | 8604 | |
| TOTAL PERVIOUS SURFACES | 1899 | 725 | 5424 | 5143 | 16090 | 8123 | |
| TOTAL SITE AREA | 4928 | 4928 | 8710 | 8710 | 16734 | 11806 | |



(1) PAVERS AT 50% AS IMPERVIOUS.
Private road and turnaround is the entire area within ingress, egress easement.

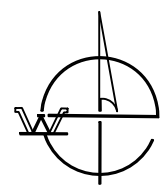
SARATOGA - LOS GATOS ROAD



| NO. | BY | DATE | REVISION | BY | DATE |
|-----|----|------|----------|----|------|
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| DATE: November 2020 |
| SCALE: HOR. 1" = 10' |
| VERT. |
| DESIGNED: |
| DRAWN: |
| PROJ. ENGR: |

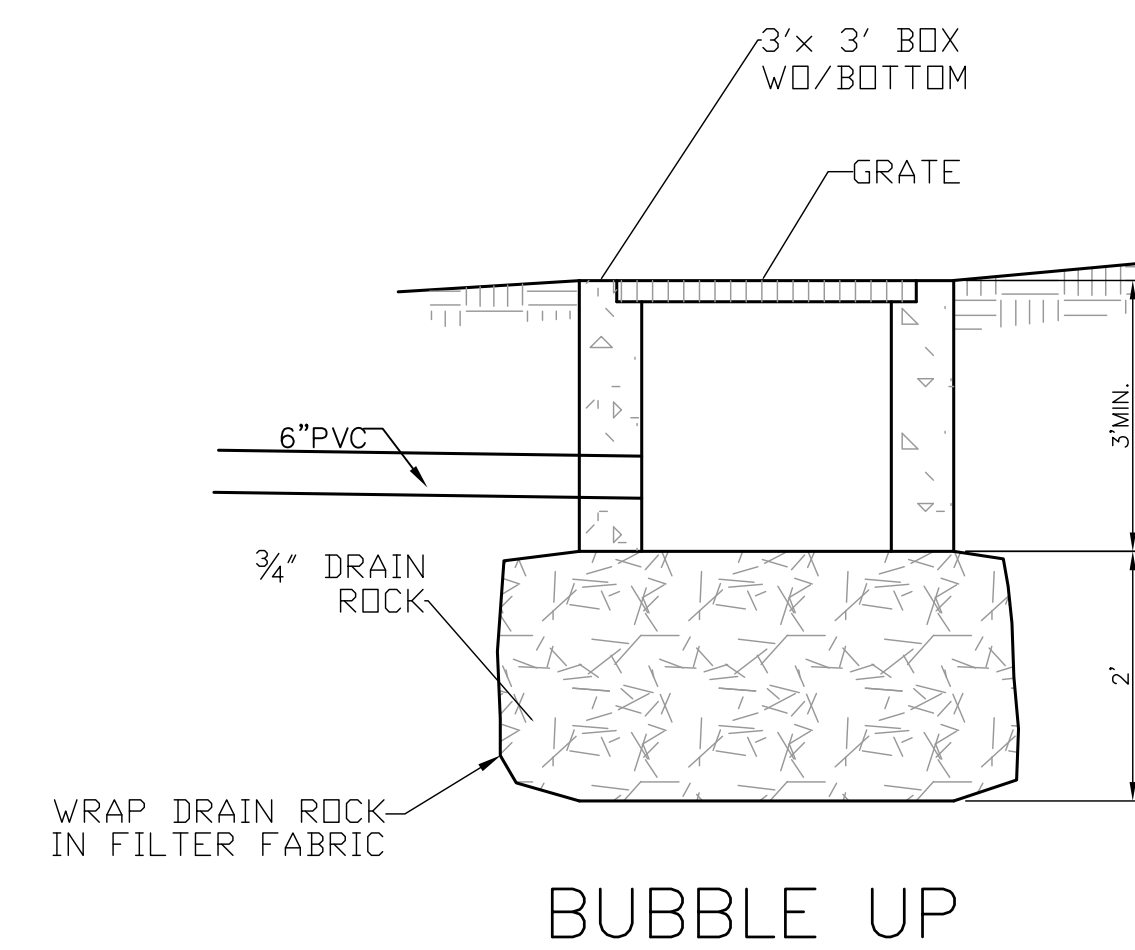
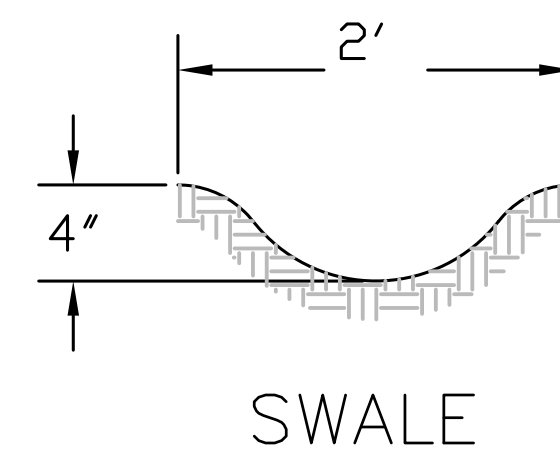
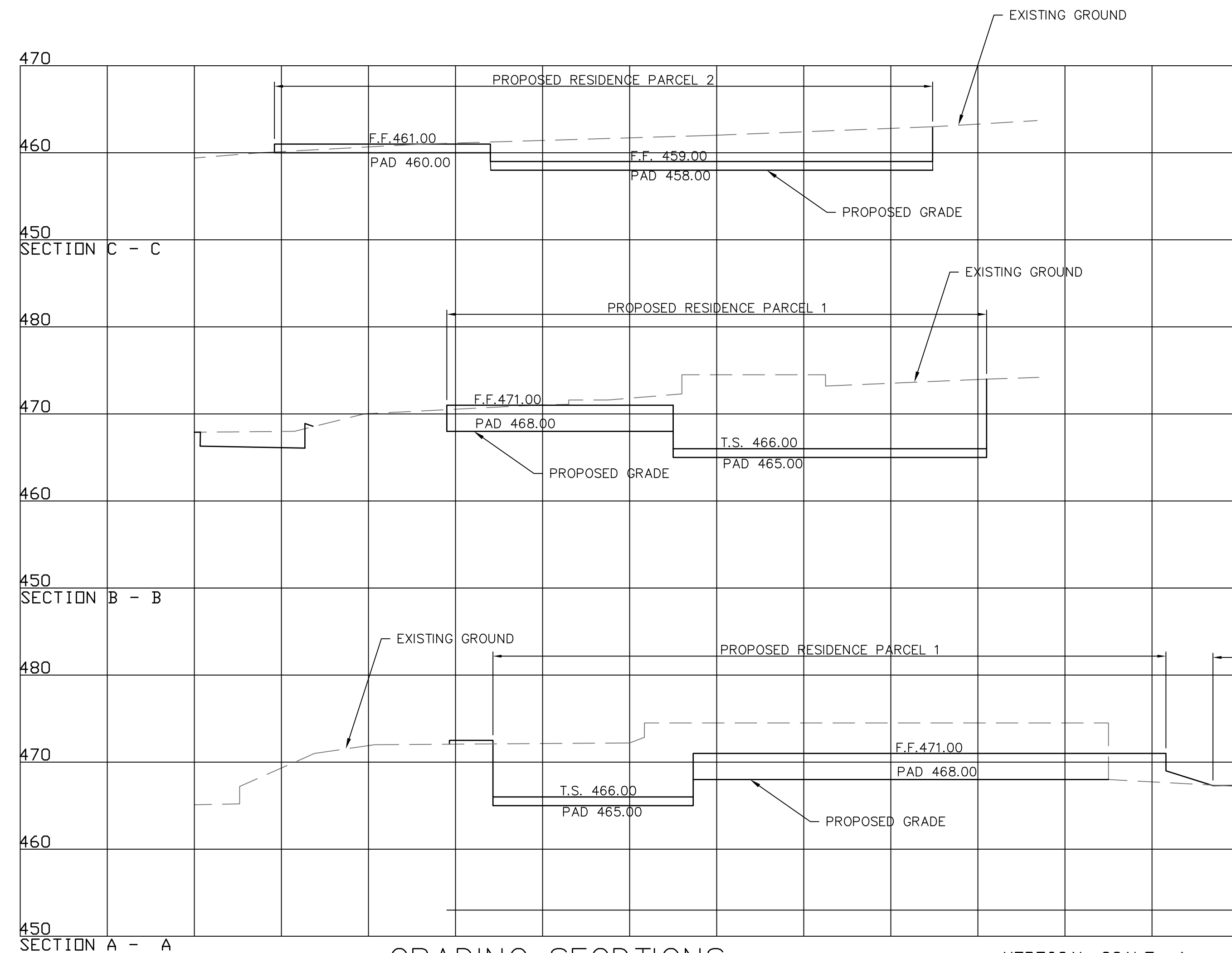
BY: Karel Cymbal, RCE 34534
DATE:



WESTFALL ENGINEERS, INC.
14583 BIG BASIN WAY, SARATOGA, CA 95070 (408) 867-0244

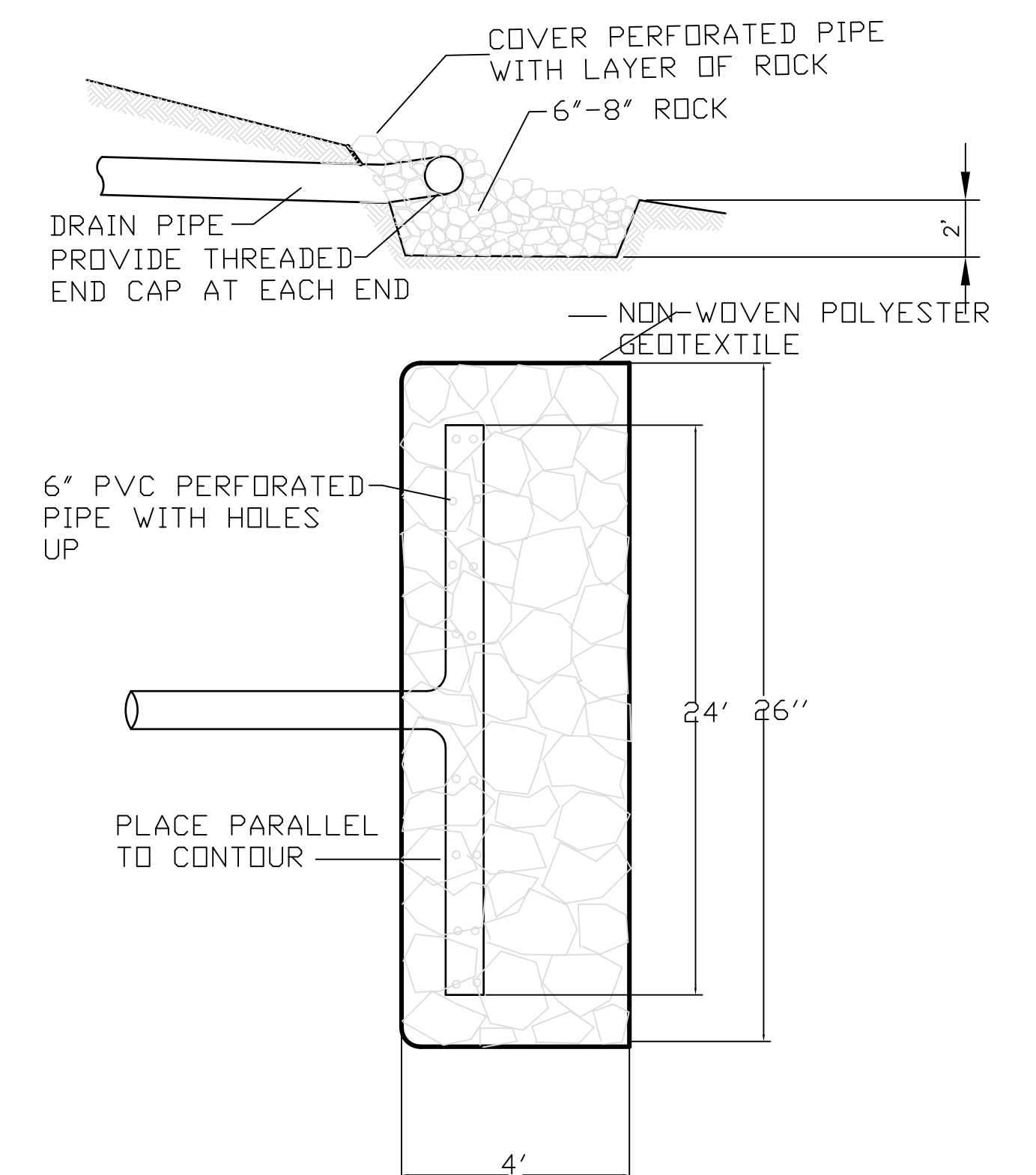
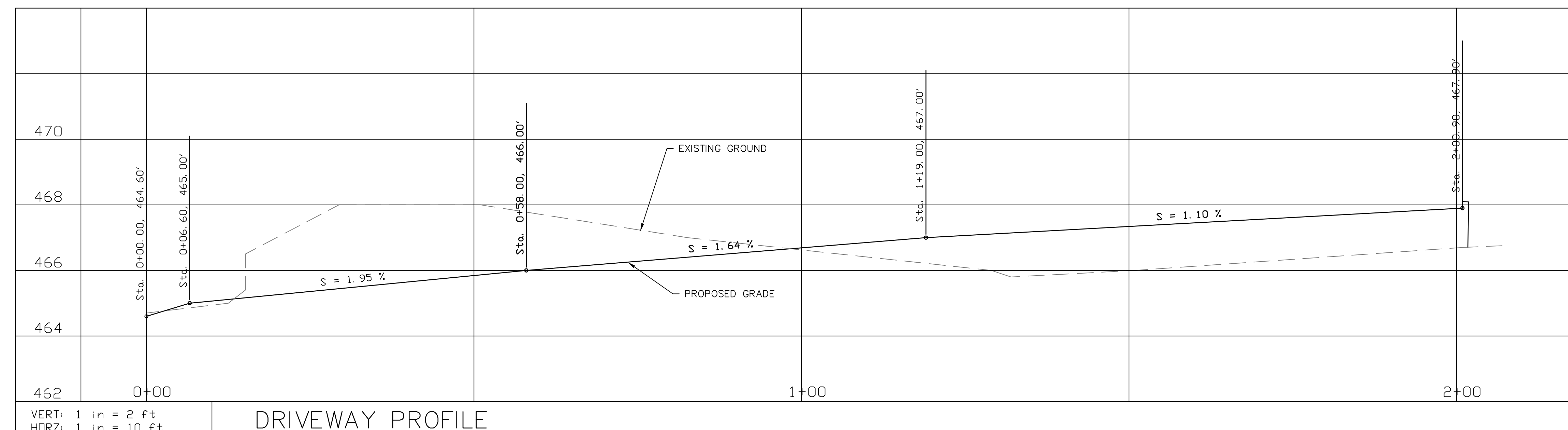
PRELIMINARY GRADING AND DRAINAGE PLAN
LANDS OF KARCHGANI AND MALEKI
18061 SARATOGA - LOS GATOS ROAD, MONTE SERENO, CA

JOB NO.
2020-034
SHEET 2
OF 4



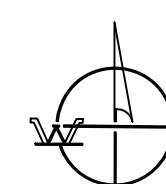
GRADING SECCTIONS

VERTICAL SCALE: 1 inch = 10 feet
HORIZONTAL SCALE: 1 inch = 10 feet



| NO. | BY | DATE | REVISION | BY | DATE | DATE: NOVEMBER 2020 |
|-----|----|------|----------|----|------|----------------------|
| | | | | | | SCALE: HOR. 1" = 10' |
| | | | | | | VERT. 1" = 10' |
| | | | | | | DESIGNED: |
| | | | | | | DRAWN: |
| | | | | | | PROJ. ENGR: |

BY: Karel Cynbal, RCE 34564
DATE:



WESTFALL ENGINEERS, INC.
14583 BIG BASIN WAY, SARATOGA, CA 95070 (408) 867-0244

GRADING SECTIONS, DRIVEWAY PROFILE AND DETAILS
LANDS OF KARCHGANI AND MALEKI
18061 SARATOGA - LOS GATOS ROAD, MONTE SERENO, CA

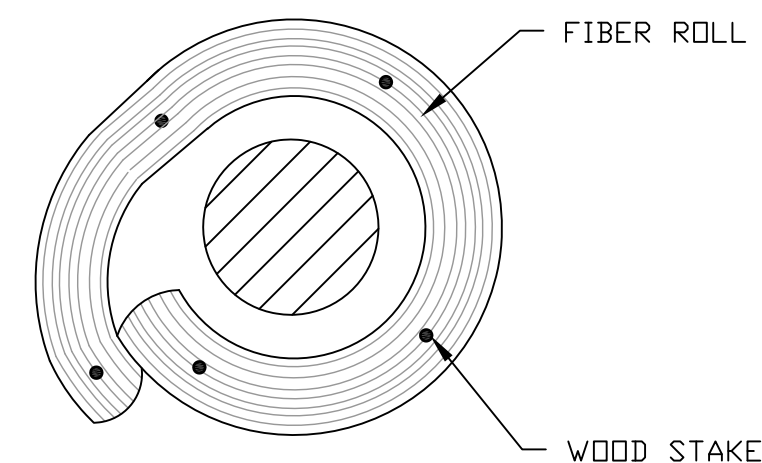
JOB NO.
2020-034
SHEET 3
OF 4

LETTER FROM A LICENSED CIVIL ENGINEER OR SURVEYOR SHALL BE PROVIDED TO THE BUILDING DEPARTMENT AT THE TIME OF THE FOUNDATION INSPECTION THAT THE PAD HEIGHTS AND SETBACKS ARE IN COMPLIANCE WITH THE APPROVED PLANS AND THE CITY OF MONTE SERENO ZONING CODE.

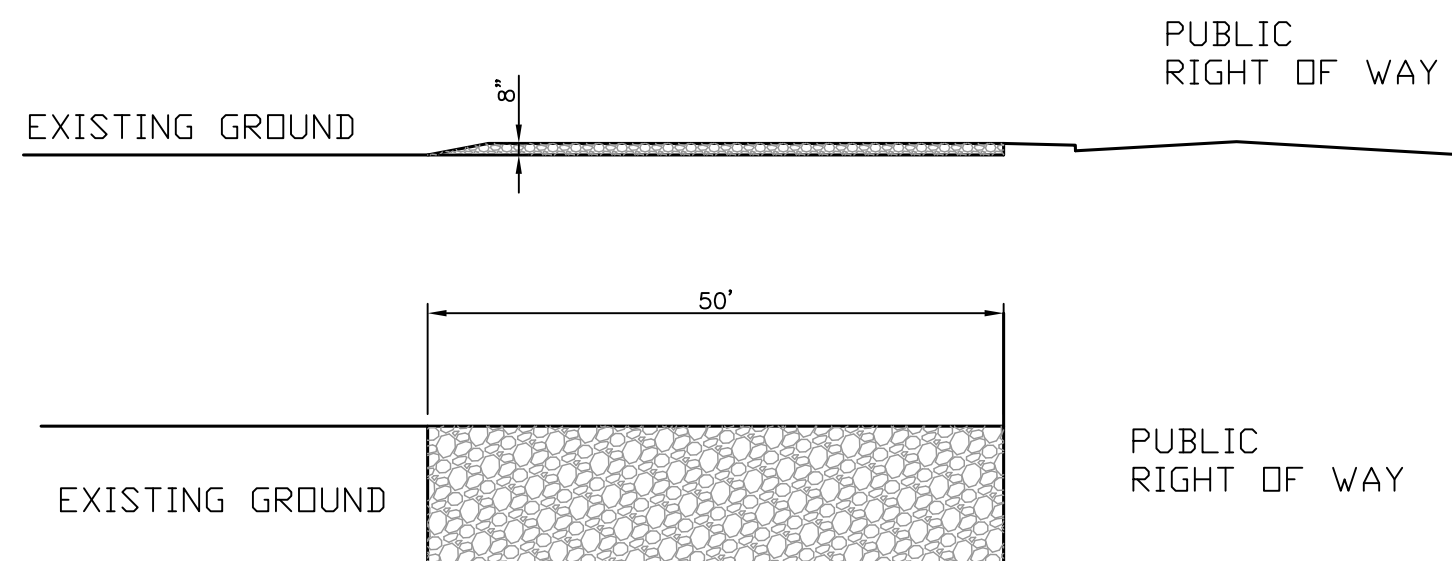
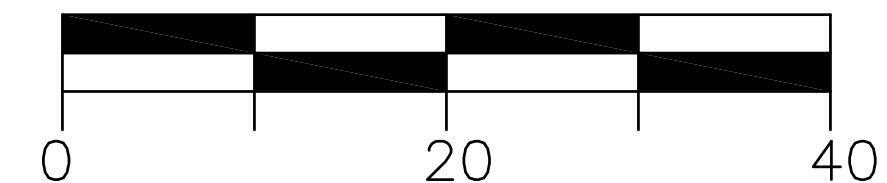
STRUCTURAL OBSERVATION LETTER THE STRUCTURAL ENGINEER OF RECORD MUST BE OBTAINED AT THE TIME OF ROUGH FRAME INSPECTION TO CERTIFY THAT THE BUILDING IS BUILT ACCORDING TO THEIR DESIGN.

The material for construction of the pad shall be 2 to 3 inch rock. The width of pad shall not be less than the full width of access road. The entrance shall be maintained in a condition that will prevent tracking or flowing of the sediment onto public rights of way. When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public rights of way. All sediment shall be prevented from entering storm drain, by use of sand bags, gravel or sediment barriers.

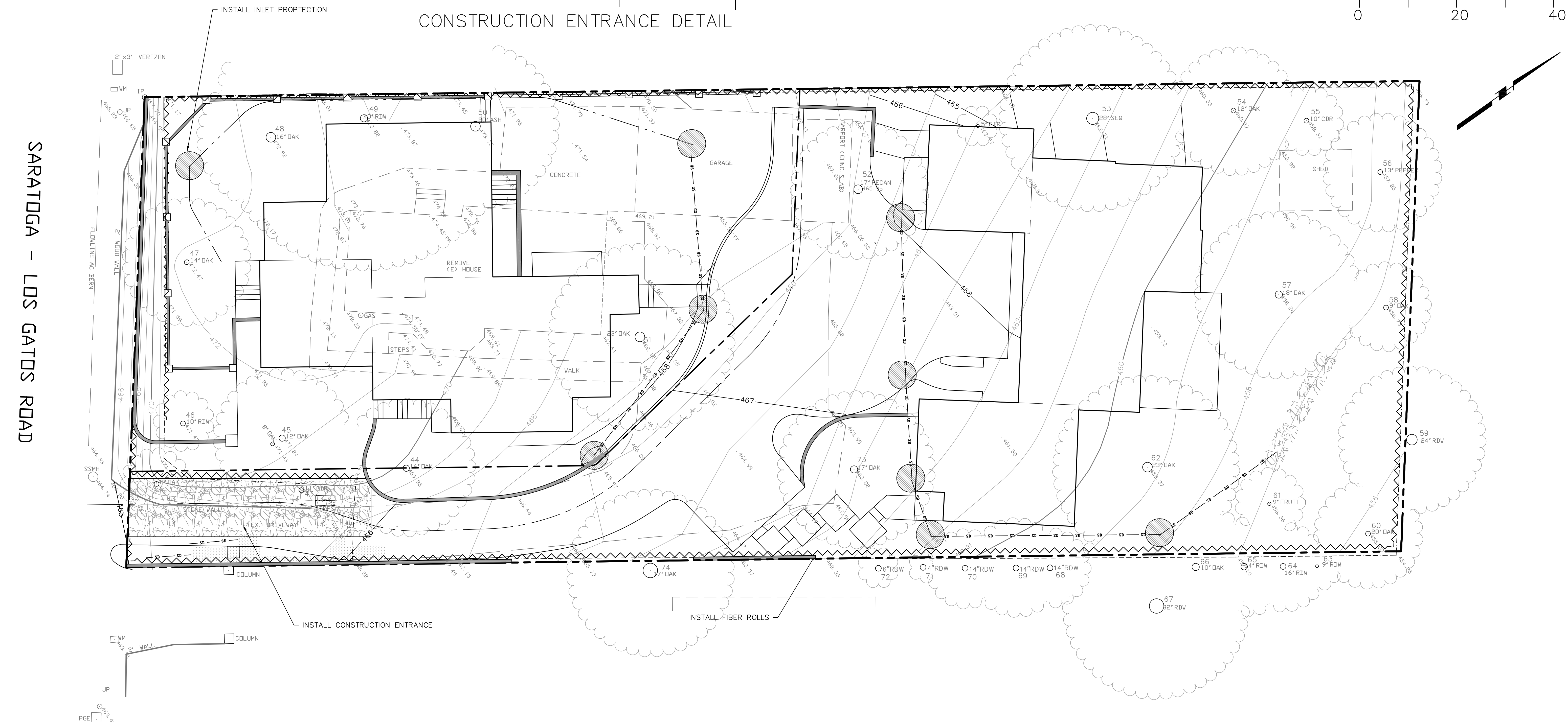
A cross-sectional diagram showing a fiber roll (a circle with diagonal hatching) resting on a wood stake (a trapezoidal shape with diagonal hatching). A vertical line passes through the center of the fiber roll. A horizontal line indicates the top surface of the wood stake. A dimension line on the left shows a vertical distance of 1' MIN. from the top surface of the stake to the bottom of the fiber roll. Labels include 'FIBER ROLL' pointing to the top of the circle and 'WOOD STAKE' pointing to the side of the trapezoid. Below the stake, the dimensions '3/4"x3/4" 4' O.C. MAX.' are specified.



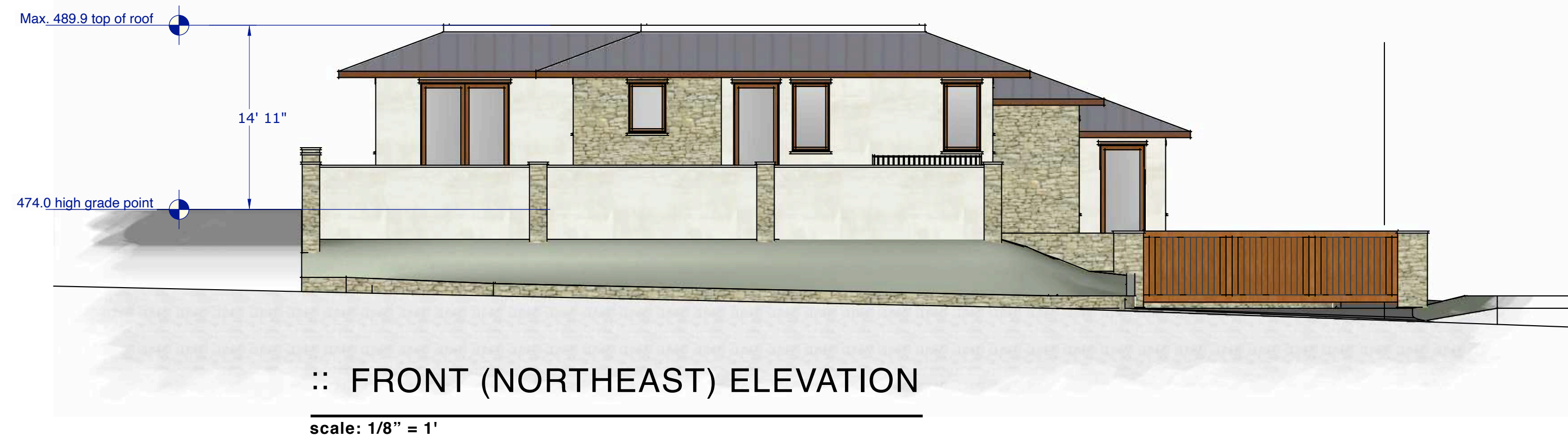
INLET PROTECTION



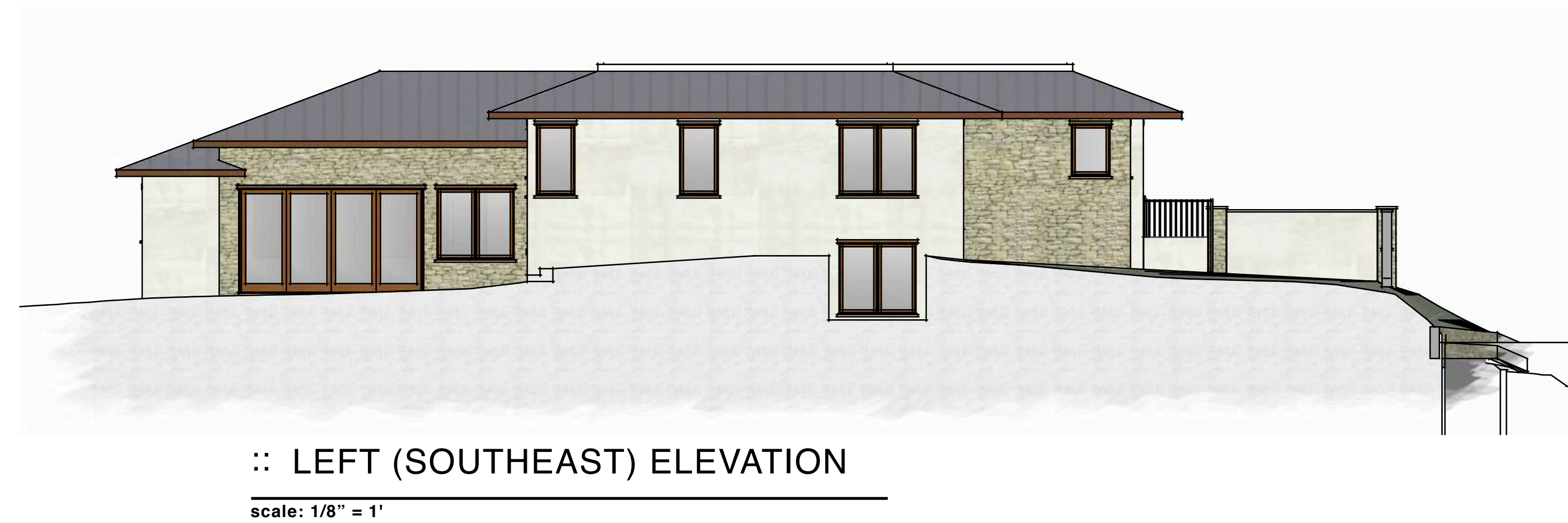
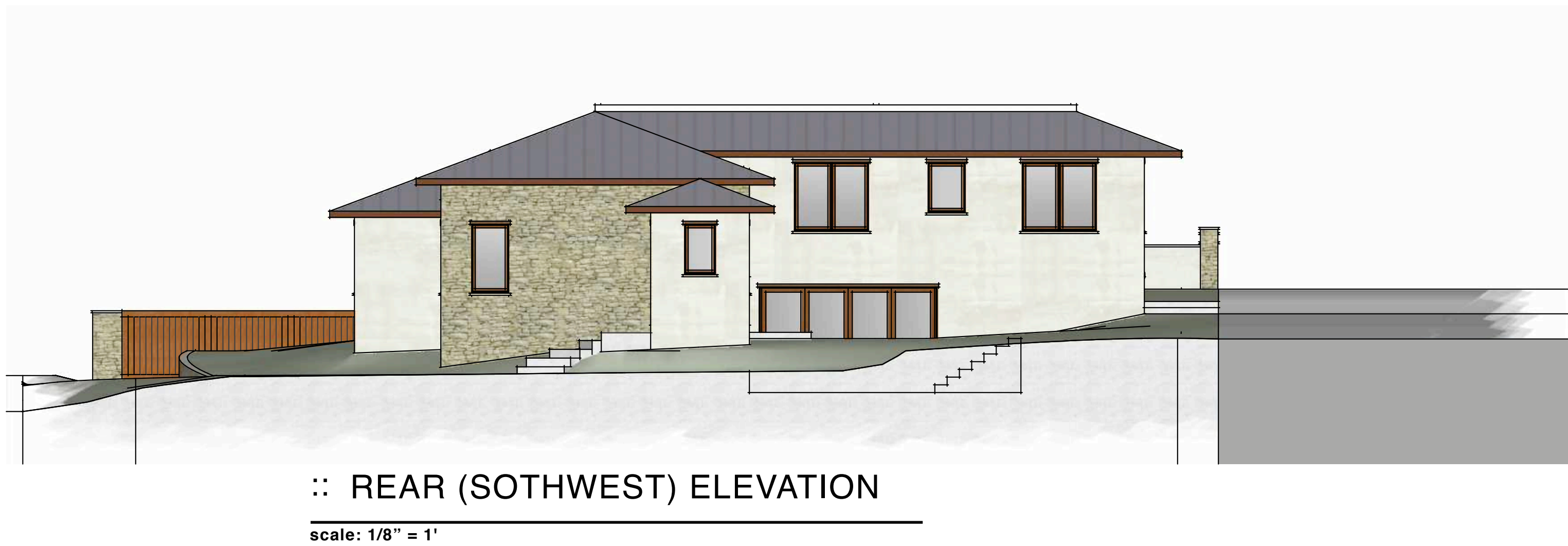
CONSTRUCTION ENTRANCE DETAIL

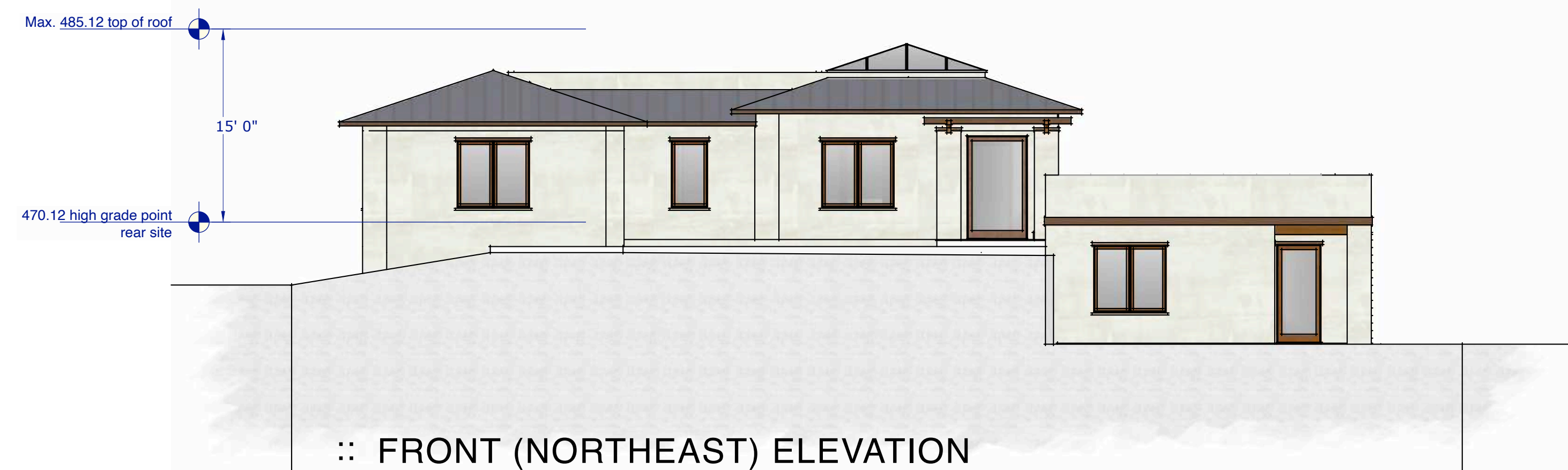


| | | | | | | | | | | | | |
|-----|----|------|----------|----|------|--------------------------------------|---|---|--|---------------------|--|---------|
| NO. | BY | DATE | REVISION | BY | DATE | DATE: NOVEMBER 2020 |  | WESTFALL ENGINEERS, INC. 14583 BIG BASIN WAY, SARATOGA, CA 95070 (408)867-0244 | EROSION CONTROL PLAN LANDS OF KARCHGANI AND MALEKI 18061 SARATOGA - LOS GATOS ROAD, MONTE SERENO, CA | JOB NO. 2020-034 | | |
| | | | | | | SCALE: HOR. 1" = 10' VERT. | | | | | | SHEET 4 |
| | | | | | | DESIGNED: | | | | | | |
| | | | | | | DRAWN: | | | | | | |
| | | | | | | PROJ. ENGR: | | | | | | |
| | | | | | | BY: Karel Cymbal, RCE 34534 DATE: | | | | OF 4 | | |



Preliminary Conceptual Designs:
details to be finalized for a site and architecture submission





∴ FRONT (NORTHEAST) ELEVATION

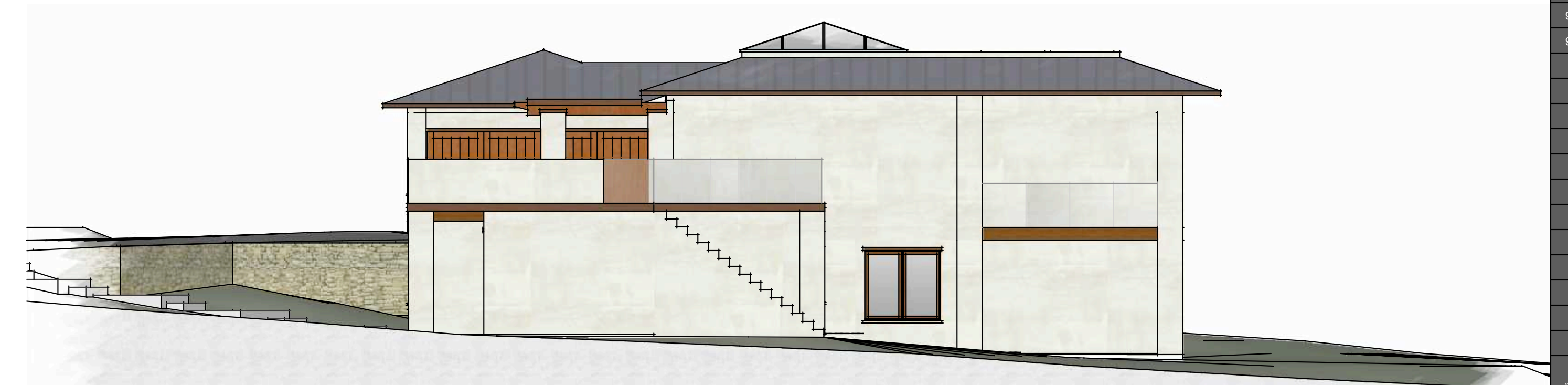
scale: 1/8" = 1'

Preliminary Conceptual Designs:
details to be finalized for a site and architecture submission



∴ REAR (SOTHWEST) ELEVATION

scale: 1/8" = 1'



:: RIGHT (NORTHWEST) ELEVATION

scale: 1/8" = 1'



:: LEFT (SOUTHEAST) ELEVATION

scale: 1/8" = 1'

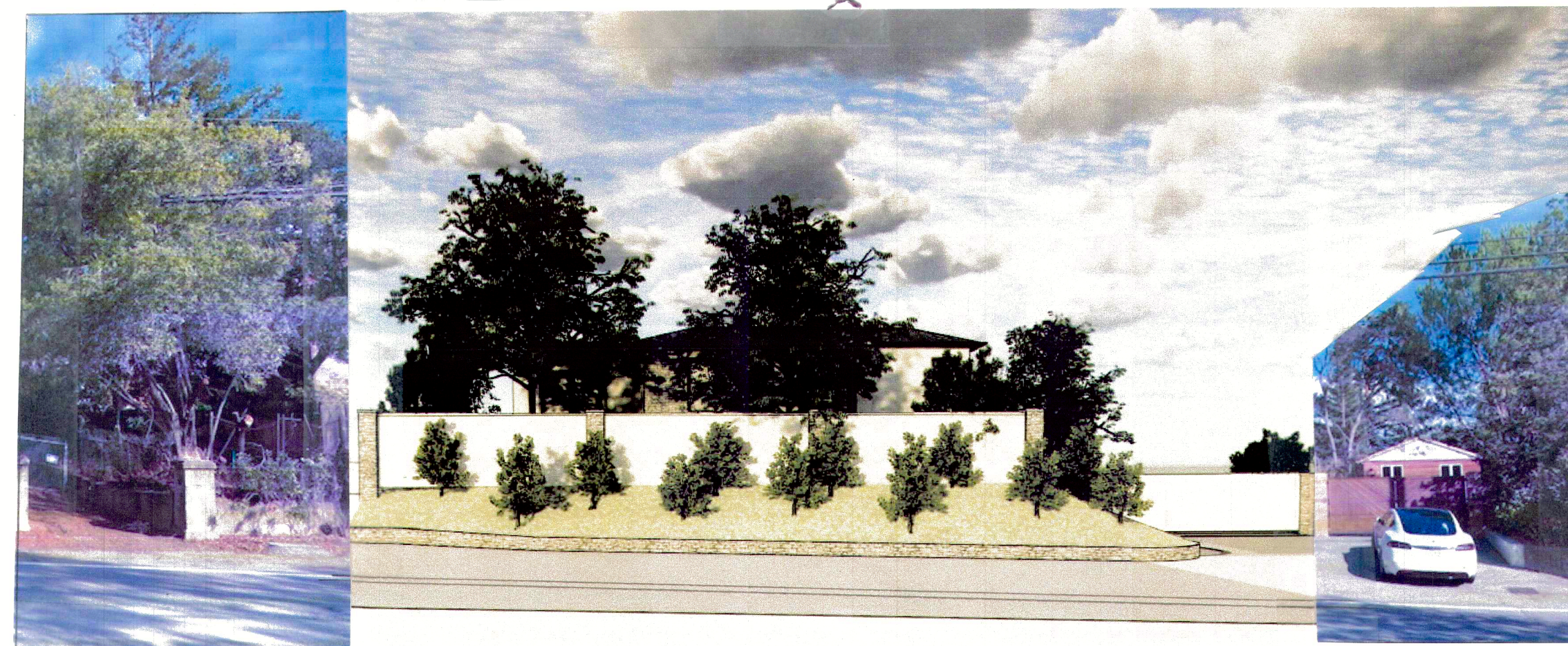


Neighborhood Context

< 18061 Saratoga - Los Gatos Road >



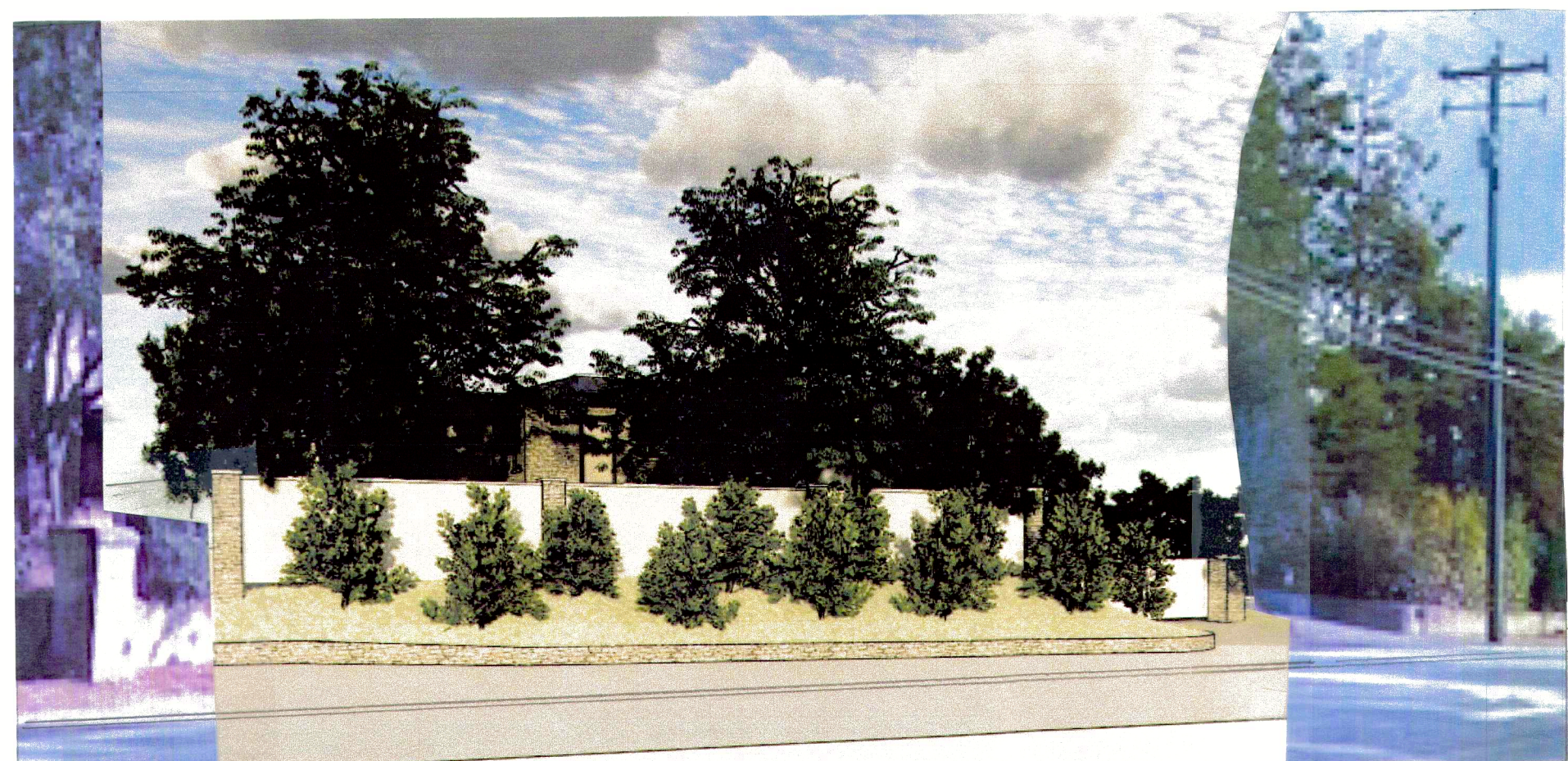
As planted



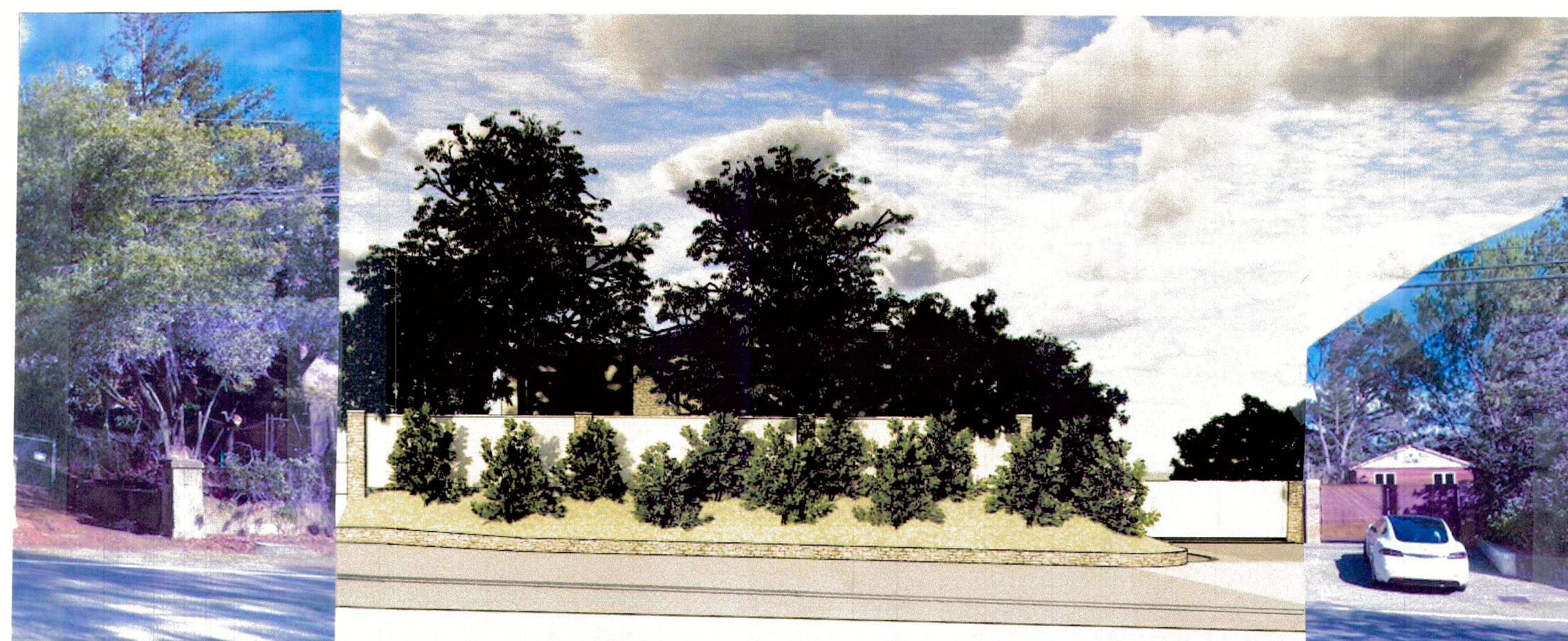
As planted



As planted



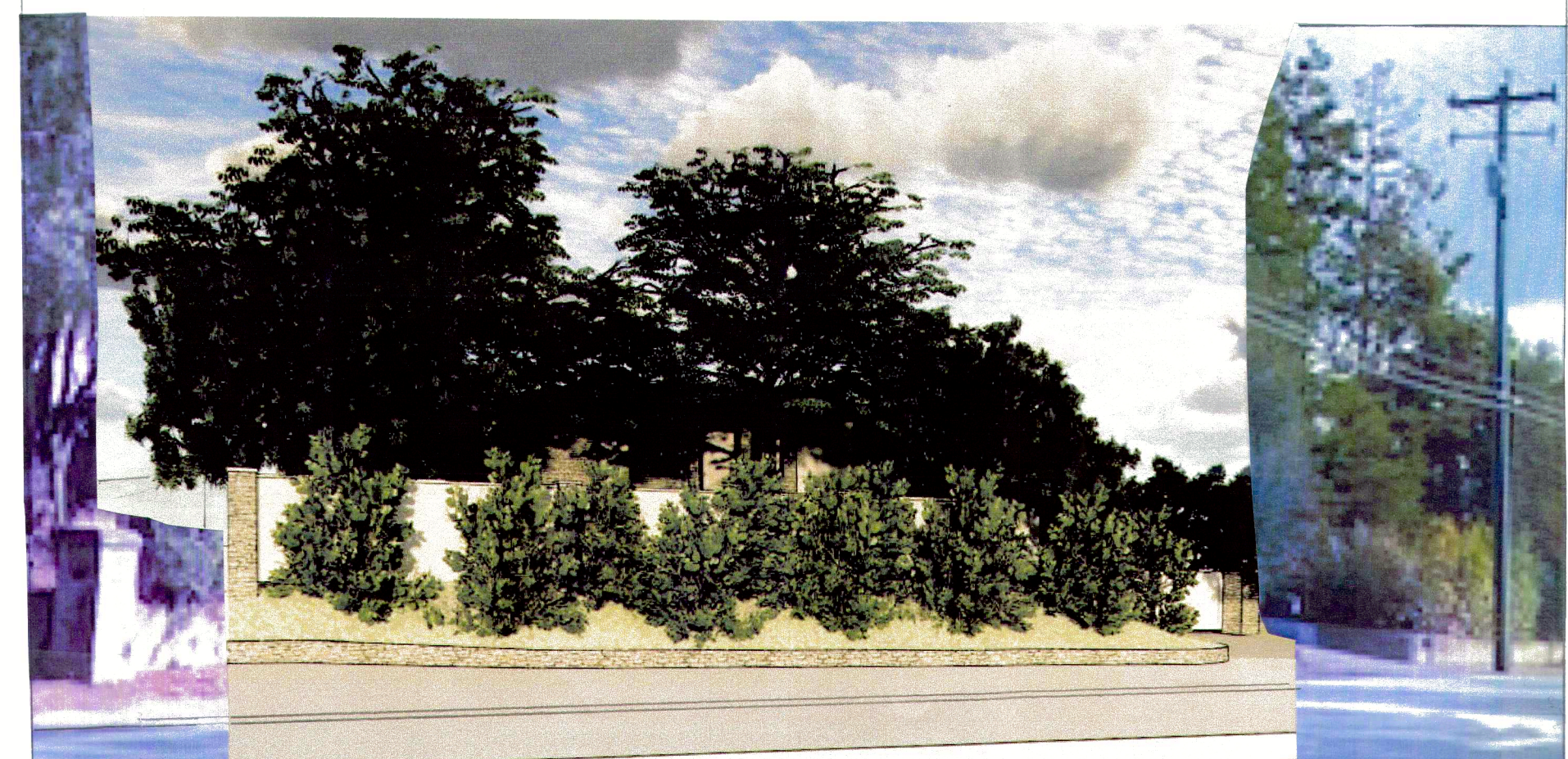
After 5 years



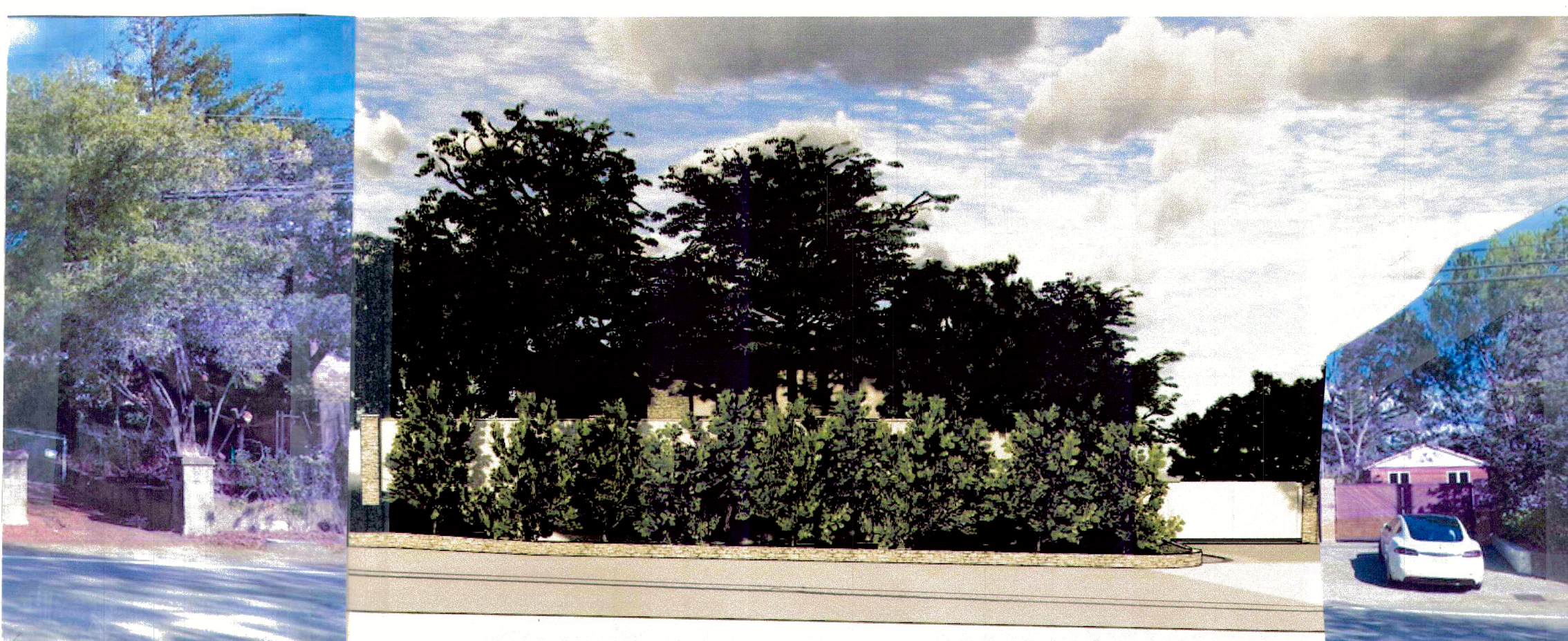
After 5 years



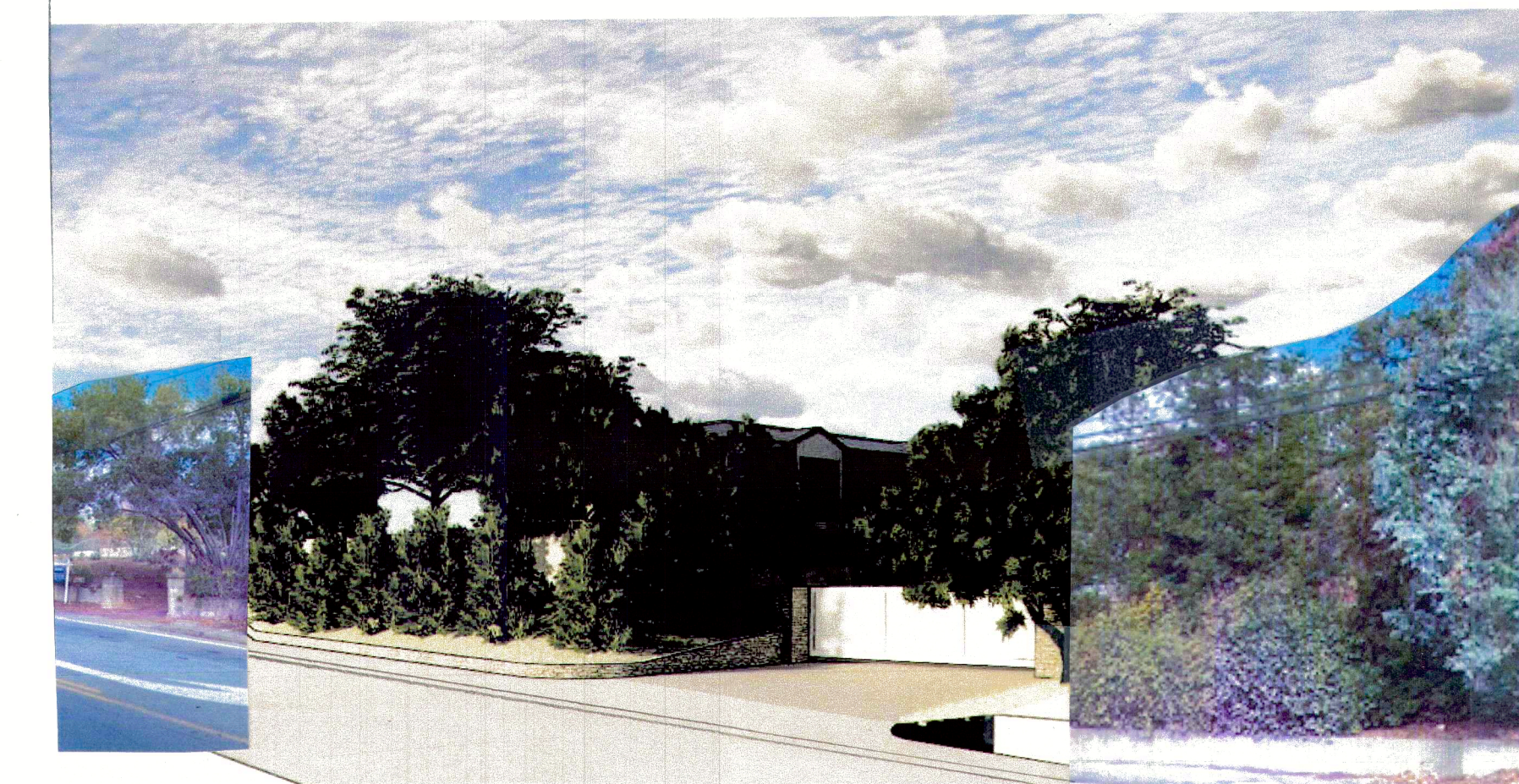
After 5 years



After 10 years



After 10 years



After 10 years