COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: September 24, 2014

TO: Planning Commission

FROM: Planning Staff

SUBJECT: STAFF REPORT ADDENDUM: Consideration of a Coastal Development Permit and Design Review, pursuant to Sections 6328.4 and 6565.3 of the San Mateo County Zoning Regulations, respectively, to construct a new 2,550 sq. ft., 2-story, single-family residence, plus an attached 400 sq. ft. 2-car garage, on an existing 6,993 sq. ft. undeveloped, legal non-conforming parcel, on San Ramon Avenue, in the unincorporated Moss Beach area of San Mateo County. No trees are proposed for removal. This project is appealable to the California Coastal Commission.

County File Number: PLN 2014-00007 (Abdulqader)

RECOMMENDATION

That the Planning Commission approve the Coastal Development Permit and Design Review, County File Number PLN 2014-00007, based on and subject to the required findings and conditions of approval listed in the attached staff report of August 27, 2014 (Attachment A), with revised Condition No. 17 and new Condition No. 40.

DISCUSSION

On August 27, 2014, the Planning Commission (Commission) considered the project to construct a new single-family residence. The Commission continued the item to a future date, based on the requirement to provide information for further evaluation of project compliance with the requirements of the Geological Hazard (GH) District for geotechnical investigation. Also, the Commission received testimony and materials from Lennie Roberts, who stated that no geological study was submitted (Attachment D). Staff clarified that a report had been submitted (which was not included in the staff report), and was reviewed and conditionally approved by Geotechnical Section staff (County Geologist) (Attachment B). The report, which contains sufficient data for planning review, did not involve any on-site trenching. Subsequently, a letter from the applicant's neighbor, Stacy Sabol, was submitted to staff (Attachment F) that, in summary, raised the issue of requiring fault trenching for the subject site, consistent with previous residential projects approved in the neighborhood.

The County Geologist since has determined that despite the established pattern of on-site fault trenching for previous approved projects in the neighborhood, the submitted geotechnical report, updated geotechnical data of the vicinity, and the absence of faults

on the adjacent property provide sufficient evidence to not require fault trenching on the subject site. Specifically, the adjacent property immediately north of the project site, prior to its merger with a parcel located immediately east, with the current address of 140 Precita Avenue, provided a geological report that included a fault trench study. Based on this study, no active fault was found on-site, consistent with the project geotechnical consultant's determination (Attachment G), and County Geologist analysis that the trend for fault traces follows a N35° to 40°W orientation, roughly parallel to the San Andreas Fault (Attachment C).

The project is exempt from the conditions imposed by the Alquist-Priolo Act of 1972, pursuant to Division 2, Article 7.5, Chapter 2621 of the California Public resources Code[1]. While the Alquist-Priolo map of the Montara Mountain quadrangle shows the nearest fault location relative to the subject site as a line at the bottom of the scarp east of the site (approximately 280 feet away), the County Geologist has determined that accumulated data from surface mapping, better studies of aerial photographs and sub-surface excavations has produced more accurate locations of existing faults and landslides. Consequently, mapping of earlier faults and other features have since been corrected to indicate their absence from this area.

Therefore, staff has determined that the presence of any faults on the project site is highly unlikely. In the unanticipated event that the soils investigation and report required at the building permit stage reveals the presence of a hazard that necessitates a change in the siting of the house, or a significant redesign, those changes would need to be reviewed and approved by the Planning Commission.

STAFF'S ADDITIONAL ANALYSIS REGARDING PROJECT COMPLIANCE WITH THE LOCAL COASTAL PROGRAM AND THE GEOLOGIC HAZARDS (GH) DISTRICT STANDARDS

1. Hazards Component

a. Policy 9.3 (*Regulation of Geologic Hazard Areas*) requires the application of the Resource Management (RM) Zoning Ordinance, Section 6326.3 (Seismic Fault/Fracture Area Criteria) to sites located in a designated geologic hazard area. Single-family residential structures are allowed in

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[1] This project is exempt from the conditions imposed by the Alquist-Priolo (A-P) Act of 1972 as stated in Division. 2, Article 7.5, Chapter 2621 of the California Public Resources Code:

(a) As used in this chapter, "project" means either of the following:
  (1) Any subdivision of land which is subject to the Subdivision Map Act (Division 2 (commencing with Section 66410) of Title 7 of the Government Code), and which contemplates the eventual construction of structures for human occupancy.
  (2) Structures for human occupancy, with the exception of either of the following:
    (A) Single-family wood-frame or steel-frame dwellings to be built on parcels of land for which geologic reports have been approved pursuant to Paragraph (1).
    (B) A single-family wood-frame or steel-frame dwelling not exceeding two stories when that dwelling is not part of a development of four or more dwellings.

Although exempt from the A-P Guidelines, this project must conform to the standards set by San Mateo County, which are based on many years of accumulated data.

this area subject to the submittal of a detailed geologic site investigation prepared by a geologist registered in the State of California, and adequate engineering design, indicating that the site is suitable for development. The policy prohibits location of structures across the trace of an active fault.

The geotechnical report provided to staff, prepared by the applicant's geotechnical consultant, indicates that the site is suitable for development contingent upon the implementation of the report's geotechnical recommendations. The recommendations include, but are not limited to, installing a mat foundation underlain by at least 12 inches of non-expansive granular fill, including a slab-on-grade for the garage. The site has been determined to be outside of landslide areas. Also, the possibility of fault rupture is highly unlikely based on the absence of any fault trace traversing the site.

b. Policy 9.10 (*Geotechnical Investigation of Building Sites*) requires the County Geologist or an independent certified consulting engineering geologist to review building permits in hazard areas for evaluation of potential geotechnical problems and to review and approve all required investigations for adequacy.

The County Geologist completed a preliminary review of this report and found it adequate for planning permit approval. As required by Policy 9.10, further review will be required at the building permit stage. Accordingly, revised Condition No. 17 states: Prior to the issuance of a building permit, the applicant shall submit any additional information determined to be necessary by the County Geologist to ensure the structural stability of the residence. In the event this information reveals a hazard that necessitates a change in the siting of the house, or a significant redesign, the applicant must submit an application to amend this permit, for review and approval by the Planning Commission.

2. Conformance with Geological Hazards (GH) District Standards

As discussed above, the applicant submitted a geotechnical report indicating that the site is suitable for development contingent upon the implementation of the report's geotechnical recommendations, based on the site's Geological Hazard Zone 3 location. Zone 3 is the most stable part of the Seal Cove Area; risk to development in this area is considered low to moderate.

Pursuant to Section 6295.4 of the San Mateo County Zoning Regulations, building permits shall not be approved unless the County Geologist has evaluated the project to show compliance with applicable district regulations. The project has received preliminary review by the County Geologist, who has authorized the project to move forward, pending submittal of more information at the building permit stage, if required, and as stipulated in Condition No. 17.

In accordance with GH District Regulations, planning staff requests to add Condition No. 40 which states that: Pursuant to Section 6294.4(2) of the

San Mateo County Zoning Ordinance, the applicant shall record the following deed restriction with the San Mateo County Recorder's Office stated as follows, prior to the issuance of the building permit …"This property is located in Zone 3 of the Seal Cove Geologic Hazards District established by Section 6296 of the San Mateo County Ordinance Code, Zoning Annex. Maps of this district are on file with the San Mateo County Planning and Building Department."

ATTACHMENTS

A. Staff Report, dated August 27, 2014
B. Geotechnical Report
C. Correspondence from County Geotechnical Consultant
D. Letter from Lennie Roberts, dated August 27, 2014
E. Follow-up Letter from Lennie Roberts, dated September 7, 2014
F. Letter from Stacy Sabol, dated September 8, 2014
G. Items submitted by Majdi Abdulqader at the Planning Commission Hearing, September 10, 2014

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: August 27, 2014

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of a Coastal Development Permit and Design Review to construct a new 2,550 sq. ft., 2-story, single-family residence, plus an attached 400 sq. ft. 2-car garage, on an existing 6,993 sq. ft. undeveloped, legal non-conforming parcel, on San Ramon Avenue, in the unincorporated Moss Beach area of San Mateo County. No trees are proposed for removal. This project is appealable to the California Coastal Commission.

County File Number: PLN 2014-00007 (Abdulqader)

PROPOSAL

The applicant, Madji Abdulqader, requests approval to construct a new 2,550 sq. ft., 2-story, single-family residence, plus an attached 400 sq. ft. 2-car garage, on an existing 6,993 sq. ft. undeveloped, legal non-conforming parcel. The 2-story home includes a 2-car garage, a family room, dining room, kitchen, pantry, laundry rooms and a half bathroom on the first floor, while the second floor accommodates a master bedroom and bath and four additional bedrooms and two bathrooms. The proposed development is located at the corner of Bernal Avenue and San Ramon Avenue. Access to the proposed single-family residence will be from Bernal Avenue. The project site is located in the California Coastal Commission's appeals jurisdiction.

RECOMMENDATION

That the Planning Commission approve the Coastal Development Permit and Design Review, County File Number PLN 2014-00007, based on and subject to the required findings and conditions of approval listed in Attachment A.

SUMMARY

The project site is a vacant lot located at the corner of Bernal Avenue and San Ramon Avenue in the unincorporated Moss Beach area of San Mateo County, within a general area of developed parcels with single-family homes of various architectural styles. The subject site is fairly flat in topography with predominant vegetation consisting of shrubs

and grass. Del Mar Avenue is westward, Bernal Avenue is southward, San Ramon Avenue is eastward and developed parcels to the north bound this parcel.

The project conforms with applicable policies of the County's General Plan and the San Mateo County Local Coastal Program (LCP). Regarding the General Plan, the project complies with applicable policies, specifically those relating to water and wastewater supply. The project would connect to the Montara Water and Sanitary District (MWSD) for water and wastewater supply, where MWSD has indicated that there is adequate capacity to accommodate the project. Regarding the LCP, the project complies with policies requiring infill development and compliance with design review standards and findings. The property is within the existing Riviera Ocean Villa Tract Subdivision (recorded in 1908) in the urban area of Moss Beach, where public facilities, services and utilities are available.

The Coastside Design Review Committee (CDRC) considered the project at the March 31, 2014 and April 10, 2014 meetings and, on April 10, 2014, the CDRC determined that the project, as redesigned, complies with applicable Design Review Standards to warrant a recommendation for project approval. The well-articulated design of the single-family residence and the corresponding break-up of the roof mass helps to mitigate the appearance of mass and bulk and minimizes impacts to existing views from neighbors' properties.

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: August 27, 2014

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of a Coastal Development Permit and Design Review, pursuant to Sections 6328.4 and 6565.3 of the San Mateo County Zoning Regulations, respectively, to construct a new 2,550 sq. ft., 2-story, single-family residence, plus an attached 400 sq. ft. 2-car garage, on an existing 6,993 sq. ft. undeveloped, legal non-conforming parcel, on San Ramon Avenue, in the unincorporated Moss Beach area of San Mateo County. No trees are proposed for removal. This project is appealable to the California Coastal Commission.

County File Number: PLN 2014-00007 (Abdulqader)

PROPOSAL

The applicant, Madji Abdulqader, requests approval to construct a new 2,550 sq. ft., 2-story, single-family residence, plus an attached 400 sq. ft. 2-car garage, on an existing 6,993 sq. ft. undeveloped, legal non-conforming parcel. The 2-story home includes a 2-car garage, a family room, dining room, kitchen, pantry, laundry rooms and a half bathroom on the first floor, while the second floor accommodates a master bedroom and bath and four additional bedrooms and two bathrooms. The proposed development is located at the corner of Bernal Avenue and San Ramon Avenue. Access to the proposed single-family residence will be from Bernal Avenue. The project site is located in the California Coastal Commission's appeals jurisdiction.

RECOMMENDATION

That the Planning Commission approve the Coastal Development Permit and Design Review, County File Number PLN 2014-00007, based on and subject to the required findings and conditions of approval listed in Attachment A.

BACKGROUND

Report Prepared By: Dennis P. Aguirre, Project Planner, Telephone 650/363-1867

Owner/Applicant: Madji Abdulqader

Location: San Ramon Avenue, Moss Beach

APN: 037-285-190

Parcel Size: 6,993 sq. ft.

Parcel Legality: Certificate of Compliance Type B (PLN 2011-00315), as recorded on June 5, 2012.

Existing Zoning: R-1/S-105/DR/GH/CD (Single-Family Residential District/S-105 Combining District with 20,000 sq. ft. minimum parcel size/Design Review/Geological Hazard District/Coastal Development)

General Plan Designation: Low Density Residential (0.3 to 2.0 dwelling units/acre)

Sphere-of-Influence: City of Half Moon Bay

Existing Land Use: Undeveloped Parcel

Water and Sewer Services: Montara Water and Sanitary District

Flood Zone: Zone X, Areas of Minimal Flooding

Environmental Evaluation: Categorically exempt pursuant to Section 15303, Class 3 of the California Environmental Quality Act (CEQA), related to new construction of small structures, including single-family residences in a residential zone.

Setting: The project site is a vacant lot located at the corner of Bernal Avenue and San Ramon Avenue in the unincorporated Moss Beach area of San Mateo County, adjacent to single-family homes of various architectural styles located to the west and south. The subject site is fairly flat in topography with predominant vegetation consisting of shrubs and grass. Del Mar Avenue is westward, Bernal Avenue is southward, and San Ramon Avenue is eastward.

Chronology:

Date		Action
June 5, 2012	-	Certificate of Compliance Type B and associated Coastal Development Permit approved on May 24, 2012 (PLN 2011-00315). Certificate of Compliance Type B recorded on June 5, 2012.
January 9, 2014	-	Application submitted.

March 31, 2014 - Coastside Design Review Committee (CDRC) continues review of proposal, recommending redesign of the residence to bring the design into conformance with applicable design standards and to address neighbor view concerns.

April 10, 2014 - CDRC recommends approval of the revised design, as presented in this report.

August 27, 2014 - Planning Commission public hearing.

DISCUSSION

A. KEY ISSUES

1. Conformance with the County General Plan

Upon review of the applicable provisions of the General Plan, staff has determined that the project complies with all General Plan Policies, including the following:

Visual Quality Policy 4.14(a) requires development to promote and enhance good design, site relationships, and other aesthetic considerations. The architectural elements and exterior materials and colors proposed for the new structure are complementary with the neighborhood design context. The appearance of mass and bulk has been reduced by enhancements to façade and roof articulation. The height of the structure is 26 feet, which is below the maximum allowed of 28 feet. The project has received a recommendation for approval from the Coastside Design Review Committee based on the Committee's findings that the project conforms to the design standards that implement this policy as discussed in Section 3.b below.

Urban Design Concept Policy 4.35 (*Urban Area Design Concept*) calls for new development to maintain and, where possible, improve upon the appearance and visual character of development in urban areas, and ensures that new development in urban areas is designed and constructed to contribute to the orderly and harmonious development of the locality. The project is compatible with the various architectural styles of Moss Beach and the neighborhood, as exemplified by the proposed use of stucco, composition roof shingles, and earth-tone colors as the project's color scheme of choice.

Urban Land Use Policy 8.38 (*Height, Bulk and Setbacks*) regulates the height, bulk and setback requirements in zoning districts in order to: (1) ensure that the size and scale of development are compatible with the parcel size, (2) provide sufficient light and air in and around the structures, (3) ensure that development of permitted densities is feasible, and

(4) ensure public health and safety. The proposed 2-story structure meets the zoning district height standards and is compatible in design, scale and size with other residences located in the vicinity. The appearance of mass and bulk of the new residence is reduced by articulation of all exterior façades and the minimization of roof mass, despite being within the upper limits allowable for lot coverage and floor area. The design of the new structure is complementary to the existing neighborhood context, as supported by the Coastside Design Review Committee's recommendation of approval (see Section 3.b).

Water Supply Policy 10.1 (*Coordinate Planning*) requires the County to coordinate water supply planning with land use and wastewater management planning to assure that the supply and quality of water is commensurate with the level of development planned in the area. The Montara Water and Sanitary District (MWSD) has confirmed that a water service connection is available for this site.

Wastewater Policies 11.1 and 11.2 (*Adequate Wastewater Management and Coordinate Planning*) require the County to plan for the provision of adequate wastewater management facilities to serve development in order to protect public health and water quality and to coordinate wastewater management planning with land use and water supply planning to assure that the capacity of sewerage facilities is commensurate with the level of development planned for an area. MWSD has provided staff with a project review comment letter indicating adequate capacity to serve the project, subject to conditions, including requiring the applicant to obtain Domestic Water/Fire Protection Connection and Sewer Permits and to submit fire flow calculations from a Certified Fire Protection Contractor.

2. Conformance with the Local Coastal Program

A Coastal Development Permit is required pursuant to Section 6328.4 of the County Zoning Regulations for development in the Coastal Development (CD) District. The parcel is not located in a scenic corridor, nor does the property adjoin an area of sensitive habitat. Staff has determined that the project is in compliance with applicable Local Coastal Program (LCP) Policies, elaborated as follows:

a. Locating and Planning New Development Component

Policy 1.18 (*Location of New Development*) directs new development to existing urban areas in order to discourage urban sprawl and maximize the efficiency of public facilities, services and utilities. Also, the policy requires new development to be concentrated in urban areas by requiring the "infilling" of existing residential subdivisions. Policy 1.19 (*Definition of Infill*) defines infill as the development of

vacant land in urban areas that is subdivided and zoned for development at densities greater than one dwelling unit per 5 acres, and/or served by sewer and water. The project complies with these policies since the subject property is within the existing Riviera Ocean Villa Tract Subdivision (recorded in 1908) in the urban area of Moss Beach, where public facilities, services and utilities are available.

Policy 1.23 *(Timing of New Housing Development in the Midcoast)* limits the maximum number of new dwelling units built in the urban Midcoast to 40 units per calendar year so that roads, public services and facilities and community infrastructure are not overburdened resulting from new residential development. Staff estimates that the current building permits to be issued for the calendar year will not exceed this limit, based on projections and current applications for building permits received thus far. As a point of clarification, the date of building permit issuance is not equivalent to the date of building permit application.

Policy 1.36 *(Half Moon Bay Airport Influence Area Requirements – Map 1.5)* locates the project site in the Half Moon Bay Airport Influence Area. Although it is in this area, the proposed development is outside of Airport Safety Zones based on the 1996 San Mateo County Comprehensive Airport Land Use Plan. Regarding noise, the site is within the 55-60 Community Noise Equivalent Level (CNEL) noise contour where single-family residential uses are allowed.

b. Sensitive Habitats Component

Policy 7.3 (*Protection of Sensitive Habitats*) prohibits any land use or development which would have significant adverse impact on sensitive habitat areas and requires development in areas adjacent to sensitive habitats to be sited and designed to prevent impacts that could significantly degrade the sensitive habitats. The site consists of low-lying vegetation and does not contain sensitive habitat. Wetlands, existing approximately 400 feet east of the property on the east side of Esmeralda Avenue (paper street), are separated from the site by intervening development (e.g., homes and trails). No trees are proposed for removal. As the site is flat, project grading is minimal.

c. Visual Resources Component

Visual Resources Policy 8.12(a) (*General Regulations*) applies the Design Review Zoning District to urbanized areas of the Coastal Zone, which includes Moss Beach. The project is, therefore, subject to Section 6565.20 of the Zoning Regulations. As discussed in Section 3.b of this report, the Coastside Design Review Committee (CDRC)

considered this project at the regularly scheduled CDRC meeting on April 10, 2014, and determined that the project is in compliance with applicable Design Review Standards, and recommended approval. See further discussion in Section 3.b.

Visual Resources Policy 8.13 (*Special Design Guidelines for Coastal Communities*) establishes design guidelines for Montara, Moss Beach, El Granada, and Miramar. The proposed home complies with these guidelines as follows:

(1) On-site grading is not extensive and only limited to standard construction activity.

(2) The proposed materials for the home, such as stucco and composition roof shingles, have a natural appearance.

(3) The proposed home design uses hip and gable roofs, including non-reflective, composite roof shingles as the primary roof material.

(4) The minimal roof mass and the enhanced façade articulation bring the proposed structure to scale with the rest of the homes in the neighborhood.

3. Conformance with the Zoning Regulations

a. Conformance with S-105 District Development Standards

The proposal complies with the property's R-1/S-105/DR/GH/CD Zoning designation, as indicated in the following table:

	S-105 Development Standards	**Proposed**
Minimum Site Area	20,000 sq. ft.	6,993 sq. ft. (existing)*
Maximum Floor Area	3,356 sq. ft. (48% maximum)	2,950 sq. ft. (42%)
Maximum Building Site Coverage	1,748 sq. ft. (25% maximum)	1,715 sq. ft. (24.73%)
Minimum Front Setback	20 ft.	20 ft.
Minimum Rear Setback	20 ft.	20 ft.
Minimum Right Side Setback	10 ft.	10'1"
Minimum Left Side Setback	10 ft.	19'4"

	S-105 Development Standards	Proposed
Maximum Building Height	28 ft.	26 ft.
Minimum Parking Spaces	2	2
Daylight Plane/Façade Articulation	20 ft./45 degrees on setback lines of two opposite façades OR finding by CDRC	Complies with both
*Development of a non-conforming parcel may occur without the issuance of a use permit if the development conforms to current zoning and building code regulations, pursuant to Section 6133.3(a) of the San Mateo County Zoning Regulations.		

b. Conformance with Design Review District Standards

The Coastside Design Review Committee (CDRC) considered the project (see Attachment C) at regularly scheduled CDRC meetings on March 31, 2014 and April 10, 2014. On March 31, 2014, the CDRC continued its review of the proposal, recommending redesign of the residence to bring the design into conformance with applicable design standards and to address neighbor view concerns. After redesign of the project, on April 10, 2014, the CDRC adopted the findings to recommend project approval, pursuant to the Design Review Standards for One-Family Residential Development in the Midcoast, Section 6565.20 of the San Mateo County Zoning Regulations, specifically elaborated as follows (see Attachment D):

(1) Strategically placed windows ensure the protection of the adjacent neighbors' privacy. Views from neighboring houses are adequately maintained as a result of the reduction in the structure's roof mass from the original proposal (Section 6565.20(C)2a and b).

(2) The entire structure exhibits several articulated areas that include broken up wall planes and protruding architectural features such as second floor balconies (Section 6565.20(D)1d and e).

(3) The proposed architectural style incorporates design elements such as hip and gable roofs, a central entry area along the south elevation and strategically placed fenestrations framed with trims. These elements complement and enhance the predominant style of the neighborhood homes (Section 6565.20(D)2a).

(4) The properly scaled entryway serves as a complementary feature that contributes to the overall design character of the

south elevation façade, further enhanced by the reduction in size of the entry area windows (Section 6565.20(D)2c).

(5) The revised roof form exemplified by the combination of hips and gables further enhances the design of the new home, while at the same time serving both as a mitigating factor relative to mass and bulk and a unifying element for neighborhood roof form compatibility (Section 6565.20(D)3).

(6) The proposed materials such as stucco and composition roof shingles, including earth-tone colors as the project's color scheme of choice, make the project compatible with various architectural styles of the neighborhood (Section 6565.20(D)4a and b).

(7) The landscaping plan, as proposed and conditioned, adequately maintains the visual integrity of the home that requires a more comprehensive plan, to include a layout that mimics/complements the natural surroundings, by incorporating drought tolerant, native and non-invasive species and removing ice plants on-site, in order to prevent adverse impacts to the site and surrounding areas (Section 6565.20(F)1).

(8) The proposed downward-directed lighting fixtures for all entry doors integrate well with the overall design of the home as exemplified by the model of choice such as: The Great Outdoors GO 8281 Wall Sconce (Section 6565.20(F)4).

c. Conformance with Geological Hazards (GH) District Standards

The site is located in the Geological Hazard Area Zone 3. Section 6296.2 *(Description of Hazardous Zones in Seal Cove Area)* allows development in Zone 3 if suitable mitigation measures including, but not limited to, siting of homes away from active faults, structural and foundation design and adequate surface drainage plans are applied as recommended by any required geotechnical investigation. A soils report has been submitted and reviewed by the Geotechnical Section of the Planning and Building Department. The requirements applicable to Zone 3 have been added as Condition No. 17.

B. ENVIRONMENTAL REVIEW

This project is exempt from environmental review pursuant to the California Environmental Quality Act (CEQA), Section 15303, Class 3, related to new construction of small structures, including single-family residences in a residential zone.

C. REVIEW BY THE MIDCOAST COMMUNITY COUNCIL

Staff referred the project to the Midcoast Community Council on February 18, 2014. Staff did not receive any comments.

D. REVIEW BY THE CALIFORNIA COASTAL COMMISSION

Staff referred the project to the California Coastal Commission on February 18, 2014. Staff did not receive any comments.

E. OTHER REVIEWING AGENCIES

Building Inspection Section
Geotechnical Section
Department of Public Works
Coastside Fire Protection District
Montara Water and Sanitary District

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Vicinity Map
C. Project Plans
D. CDRC Decision Letter, dated July 7, 2014
E. Site Photos

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Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2014-00007 Hearing Date: August 27, 2014

Prepared By: Dennis P. Aguirre
Project Planner

For Adoption By: Planning Commission

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. That the proposed project is categorically exempt pursuant to Section 15303, Class 3, of the California Environmental Quality Act (CEQA), related to new construction of small structures, including single-family residences in a residential zone.

Regarding the Coastal Development Permit, Find:

2. That the project, as described in the application and accompanying materials required by the Zoning Regulations, Section 6328.4, and as conditioned in accordance with Section 6328.14, conforms with the applicable policies and required findings of the San Mateo County Local Coastal Program (LCP). Specifically, the project complies with policies requiring infill development and compliance with design review standards and findings.

3. That the number of building permits for the construction of single-family residences issued in the calendar year does not exceed the limitations of LCP Policies 1.23 and 1.24.

Regarding the Design Review, Find:

4. That, with the conditions of approval recommended by the Coastside Design Review Committee at its meeting of April 10, 2014, the project is in compliance with the Design Review Standards for the Coastside. The project, as designed and conditioned, complements the predominant style of the neighborhood homes. The project adequately protects neighbors' privacy and views; is well articulated; uses colors and materials that appear natural; incorporates drought tolerant, native and non-invasive plant species; and uses downward-directed exterior lighting fixtures.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The project shall be constructed in compliance with the plans approved by the Planning Commission on August 27, 2014. Any changes or revisions to the approved plans shall be submitted to the Design Review Officer for review and approval prior to implementation. Minor adjustments to the project may be approved by the Design Review Officer if they are consistent with the intent of and are in substantial conformance with this approval. Alternatively, the Design Review Officer may refer consideration of the revisions to the Coastside Design Review Committee, with applicable fees to be paid.

2. The Coastal Development Permit and Design Review approvals shall be valid for five (5) years from the date of final approval in which time a building permit shall be issued and a completed inspection (to the satisfaction of the Building Inspector) shall have occurred within 180 days of its issuance. An extension of these approvals will be considered upon written request and payment of the applicable fees sixty (60) days prior to the permits' expiration.

3. The applicant shall include the permit approval letter on the top pages of the building plans to ensure that the recommended conditions of approval are included with the on-site plans.

4. The applicant shall submit the following item and/or indicate the following on plans submitted for a building permit, as stipulated by the Coastside Design Review Committee, subject to the review and approval of Planning and Building Department staff:

   Comprehensive landscaping plan that shows a less static appearance so as to mimic/complement the natural surroundings that incorporates drought tolerant, native and non-invasive species, calling out the removal of existing ice plants on-site.

5. The applicant shall provide "finished floor elevation verification" to certify that the structure is actually constructed at the height shown on the submitted plans. The applicant shall have a licensed land surveyor or engineer establish a baseline elevation datum point in the vicinity of the construction site.

   a. The applicant shall maintain the datum point so that it will not be disturbed by the proposed construction activities until final approval of the building permit.

   b. This datum point and its elevation shall be shown on the submitted site plan. This datum point shall be used during construction to verify the elevation of

the finished floors relative to the existing natural or to the grade of the site (finished grade).

c. Prior to Planning approval of the building permit application, the applicant shall also have the licensed land surveyor or engineer indicate on the construction plans: (1) the natural grade elevations at the significant corners (at least four) of the footprint of the proposed structure on the submitted site plan, and (2) the elevations of proposed finished grades.

d. In addition, (1) the natural grade elevations at the significant corners of the proposed structure, (2) the finished floor elevations, (3) the topmost elevation of the roof and (4) garage slab elevation must be shown on the plan, elevations, and cross-section (if one is provided).

e. Once the building is under construction, prior to the below floor framing inspection or the pouring of the concrete slab (as the case may be) for the lowest floor(s), the applicant shall provide to the Building Inspection Section a letter from the licensed land surveyor or engineer certifying that the lowest floor height--as constructed--is equal to the elevation specified for that floor in the approved plans. Similarly, certifications on the garage slab and the topmost elevation of the roof are required.

f. If the actual floor height, garage slab, or roof height--as constructed--is different than the elevation specified in the plans, then the applicant shall cease all construction and no additional inspections shall be approved until a revised set of plans is submitted to and subsequently approved by both the Building Official and Community Development Director.

6. During project construction, the applicant shall, pursuant to Chapter 4.100 of the San Mateo County Ordinance Code, minimize the transport and discharge of stormwater runoff from the construction site into storm drain systems and water bodies by:

a. Using filtration materials on storm drain covers to remove sediment from dewatering effluent.

b. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30.

c. Removing spoils promptly and avoiding stockpiling of fill materials, when rain is forecast. If rain threatens, stockpiled soils and other materials shall be covered with a tarp or other waterproof material.

d. Storing, handling and disposing of construction materials and wastes so as to avoid their entry to the storm drain system or water body.

e. Avoiding cleaning, fueling or maintaining vehicles on-site, except in an area designated to contain and treat runoff.

f. Limiting and timing application of pesticides and fertilizers to avoid polluting runoff.

7. The applicant shall include an erosion and sediment control plan on the plans submitted for the building permit. This plan shall identify the type and location of erosion control devices to be installed upon the commencement of construction in order to maintain the stability of the site and prevent erosion and sedimentation off-site.

8. All new power and telephone utility lines from the street or nearest existing utility pole to the main dwelling and/or any other structure on the property shall be placed underground.

9. The applicant shall apply for a building permit and shall adhere to all requirements from the Building Inspection Section, the Department of Public Works and the Coastside Fire Protection District.

10. No site disturbance shall occur, including any grading, until a building permit has been issued. The grading permit and building permit shall be issued at the same time.

11. To reduce the impact of construction activities on neighboring properties, comply with the following:

    a. All debris shall be contained on-site; a dumpster or trash bin shall be provided on-site during construction to prevent debris from blowing onto adjacent properties. The applicant shall monitor the site to ensure that trash is picked up and appropriately disposed of daily.

    b. The applicant shall remove all construction equipment from the site upon completion of the use and/or need of each piece of equipment which shall include but not be limited to tractors, back hoes, cement mixers, etc.

    c. The applicant shall ensure that no construction-related vehicles shall impede through traffic along the rights-of-way on Bernal Avenue and San Ramon Avenue. All construction vehicles shall be parked on-site outside the public right-of-way or in locations which do not impede safe access on Bernal Avenue and San Ramon Avenue. There shall be no storage of construction vehicles in the public right-of-way.

12. Noise levels produced by the proposed construction activity shall not exceed the 80-dBA level at any one moment. Construction activities shall be limited to the hours from 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00

p.m. on Saturday. Construction operations shall be prohibited on Sunday and any national holiday.

13. The exterior color samples submitted to the Coastside Design Review Committee are approved. Color verification shall occur in the field after the applicant has applied the approved materials and colors but before a final inspection has been scheduled.

14. This project is subject to Provision C.3.i (individual single-family home projects that create and/or replace 2,500 sq. ft. or more of impervious surface, and other projects that create and/or replace at least 2,500 sq. ft. of impervious surface but are not C.3 Regulated Projects) and shall implement at least one of the six site design measures listed below:

    a. Direct roof runoff into cisterns or rain barrels and use rainwater for irrigation or other non-potable use.

    b. Direct roof runoff onto vegetated areas.

    c. Direct runoff from sidewalks, walkways, and/or patios onto vegetated areas.

    d. Direct runoff from driveways and/or uncovered parking lots onto vegetated areas.

    e. Construct sidewalks, walkways, and/or patios with permeable surfaces.

    f. Construct bike lanes, driveways, and/or uncovered parking lots with permeable surfaces.

15. Upon staff's review and approval of the revised landscaping plan, installation of the approved landscaping is required prior to final inspection of the building permit.

16. The site is in the Fitzgerald Marine Reserve Area of Special Biological Significance (ASBS) Watershed. Weekly erosion and sediment control inspections during the rainy season are required by the Special Protections.

17. Prior to the issuance of a building permit, the applicant shall submit any additional information determined to be necessary by the County Geologist to ensure the structural stability of the residence. In the event this information reveals a hazard that necessitates a change in the siting of the house, or a significant redesign, the applicant must submit an application to amend this permit, for review and approval by the Planning Commission.

Building Inspection Section

18. The applicant shall apply for a building permit.

Department of Public Works

19. Prior to the issuance of a building permit, the applicant shall have prepared, by a registered civil engineer, a drainage analysis of the proposed project and submit it to the Department of Public Works for review and approval. The drainage analysis shall consist of a written narrative and a plan. The flow of the stormwater onto, over, and off the property shall be detailed on the plan and shall include adjacent lands as appropriate to clearly depict the pattern of flow. The analysis shall detail the measures necessary to certify adequate drainage. Post-development flows and velocities shall not exceed those that existed in the pre-developed state. Recommended measures shall be designed and included in the improvement plans and submitted to the Department of Public Works for review and approval.

20. Prior to the issuance of the building permit or planning permit (if applicable), the applicant shall submit a driveway "Plan and Profile," to the Department of Public Works, showing the driveway access to the parcel (garage slab) complying with County Standards for driveway slopes (not to exceed 20%) and to County Standards for driveways (at the property line) being the same elevation as the center of the access roadway. When appropriate, as determined by the Department of Public Works, this plan and profile shall be prepared from elevations and alignment shown on the roadway improvement plans. The driveway plan shall also include and show specific provisions and details for both the existing and the proposed drainage patterns and drainage facilities.

21. All landscaping shall be properly maintained and shall be designed with efficient irrigation practices to reduce runoff, promote surface filtration and minimize the use of fertilizers, herbicides and pesticides which can contribute to runoff pollution. Where subsurface conditions allow, the roof downspout systems from all structures shall be designed to drain into a designated, effective infiltration area or structure (refer to Best Management Practices (BMPs) Handbook for infiltration system designs and requirements). Prior to completion of the building permit, all storm drains on-site shall be labeled "No Dumping - Drains to Bay."

22. The applicant shall demonstrate, to the satisfaction of the Department of Public Works and the Coastside Fire Protection District, that the existing road access from the nearest "publicly" maintained roadway to the building site meets or exceeds the County's minimum standards for an "Interim Access Roadway," including provisions for existing and proposed drainage and drainage facilities. The applicant must also demonstrate that appropriate turnouts and a turnaround, meeting the Fire Marshal requirements, exist or can be provided, if applicable. The applicant must coordinate with the Department of Public Works prior to

issuance of a building permit regarding the location of the driveway with the location of the new green street project, if required.

23. Prior to the issuance of the building permit, the applicant will be required to provide payment of "roadway mitigation fees" based on the square footage (assessable space) of the proposed building per Ordinance No. 3277.

24. No proposed construction work within the County right-of-way shall begin until County requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued. The applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.

Montara Water and Sanitary District

25. Prior to the issuance of a building permit, the applicant shall obtain Domestic Water/Fire Protection Connection and Sewer Permits, including the submittal of adequate fire flow calculations from a Certified Fire Protection Contractor.

Coastside Fire Protection District

26. Smoke detectors which are hardwired: As per the California Building Code, State Fire Marshal Regulations, and Coastside Fire District Ordinance No. 2013-03, the applicant is required to install State Fire Marshal approved and listed smoke detectors which are hardwired, interconnected, and have battery backup. These detectors are required to be placed in each new and recondition sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. In existing sleeping rooms, areas may have battery powered smoke alarms. A minimum of one detector shall be placed on each floor. Smoke detectors shall be tested and approved prior to the building final.

27. Add note to plans: Smoke alarms/detectors are to be hardwired, interconnected, or with battery backup. Smoke alarms are to be installed per manufacturer's instruction and NFPA 72.

28. Add note: Escape or rescue windows shall have a minimum net clear openable area of 5.7 sq. ft. Five (5) sq. ft. allowed at grade. The minimum net clear openable height dimension shall be 24 inches. The net clear openable width dimension shall be 20 inches. Finished sill height shall be not more than 44 inches above the finished floor.

29. Identify rescue windows in each bedroom and verify that they meet all requirements. Add this to plans.

30. Chimney present: The installation of an approved spark arrester is required on all chimneys. Spark arresters shall be made of 12-gage woven or welded wire screening having openings not exceeding 1/2 inch.

31. Vegetation management: As per the Coastside Fire District Ordinance No. 2013-03, the 2013 California Fire Code (CFC) and Public Resources Code 4291, a fuelbreak of defensible space is required around the perimeter of all structures to a distance of not less than 30 feet and may be required to a distance of 100 feet or to the property line. In SRA (State Responsible Area), the fuelbreak is 100 feet or to the property line.

32. Trees located within the defensible space shall be pruned to remove dead and dying portions, and limbed up 6 to 10 feet above the ground. New trees planted in the defensible space shall be located no closer than 10 feet to adjacent trees when fully grown or at maturity.

33. Remove that portion of any existing tree, which extends within 10 feet of the outlet of a chimney or stovepipe or is within 5 feet of any structure.

34. Add the following note to the plans: Trees located within the defensible space shall be pruned to remove dead and dying portions, and limbed up 6 feet above the ground. New trees planted in the defensible space shall be located no closer than 10 feet to adjacent trees when fully grown or at maturity.

35. Add the following note to the plans: Remove that portion of any existing trees, which extends within 10 feet of the outlet of a chimney or stovepipe or is within 5 feet of any structure. Remove that portion of any existing trees, which extends within 10 feet of the outlet of a chimney or stovepipe or is within 5 feet of any structure. Maintain any tree adjacent to or overhanging a building free of dead or dying wood.

36. A Knox padlock or key switch will be required if there is limited access to property (CFC 506.1). For application or further assistance, please contact Coastside Fire Protection District.

37. Fire Access Roads: The applicant must have a maintained all-weather surface road for ingress and egress of fire apparatus. The San Mateo County Department of Public Works, the Coastside Fire District Ordinance No. 2007-01, and the California Fire Code shall set road standards. As per the 2007 CFC, dead-end roads exceeding 150 feet shall be provided with a turnaround in accordance with Half Moon Bay Fire District specifications. As per the 2007 CFC, Section Appendix D, road width shall not be less than 20 feet. Fire access roads shall be installed and made serviceable prior to combustibles being placed on the project site and maintained during construction. Approved signs and painted curbs or lines shall be provided and maintained to identify fire access roads and state the prohibition of their obstruction. If the road width does not allow parking on the

street (20-foot road) and on-street parking is desired, an additional improved area shall be developed for that use.

38. Show location of fire hydrant on a site plan. A fire hydrant is required within 250 feet of the building and flow a minimum of 1,000 gpm at 20 psi. This information is to be verified by the water purveyor in a letter initiated by the applicant and sent to San Mateo County Fire/Cal-Fire or Coastside Fire District. If there is not a hydrant within 250 feet with the required flow, one will have to be installed at the applicant's expense.

39. All fire conditions and requirements must be incorporated into your building plans prior to building permit issuance. It is your responsibility to notify your contractor, architect and engineer of these requirements.

40. Pursuant to Section 6294.4(2) of the San Mateo County Zoning Ordinance, the applicant shall record the following deed restriction with the San Mateo County Recorder's Office stated as follows, prior to the issuance of the building permit:

    "This property is located in Zone 3 of the Seal Cove Geologic Hazards District established by Section 6296 of the San Mateo County Ordinance Code, Zoning Annex. Maps of this district are on file with the San Mateo County Planning and Building Department."

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Sigma Prime Geosciences, Inc.
Effective Solutions

GEOTECHNICAL STUDY

ABDULQADAR PROPERTY
SAN RAMON AVENUE AND BERNAL AVENUE
MOSS BEACH, CALIFORNIA
APN 037-285-190

PREPARED FOR:
MAJDI ABDULQADAR
1904 PAPRIKA DRIVE
BRENTWOOD, CA 94514

PREPARED BY:
SIGMA PRIME GEOSCIENCES, INC.
111 VASSAR STREET
HALF MOON BAY, CALIFORNIA 94019

JANUARY 2013

Sigma Prime Geosciences, Inc.
Effective Solutions

February 14, 2014

Majdi Abdulqader
1904 Paprika Dr.
Brentwood, Ca. 94514

Re: Geotechnical Report for Proposed Construction at Corner of San Ramon and Bernal, Moss Beach, APN 037-285-190.

Dear Mr. Abdulqader:

As per your request, we have performed a geotechnical study for the proposed construction at the corner of San Ramon Avenue and Bernal Avenue in Moss Beach, California. The accompanying report summarizes the results of our field study, laboratory testing, and engineering analyses, and presents geotechnical recommendations for the planned improvements.

Thank you for the opportunity to work with you on this project. If you have any questions concerning our study, please call.

Yours,

Sigma Prime Geosciences, Inc.

Charles M. Kissick, P.E.

111 Vassar Street, Half Moon Bay, CA 94019 (650) 728-3590 fax 728-3593

GEOTECHNICAL STUDY
SAN RAMON AVENUE AND BERNAL AVENUE
MOSS BEACH, CALIFORNIA
APN 037-285-190

PREPARED FOR:
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February 14, 2014

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1. INTRODUCTION

We are pleased to present this geotechnical study report for the proposed construction located at the corner of San Ramon Avenue and Bernal Avenue in Moss Beach, California, at the location shown in the vicinity map in Figure 1. The purpose of this investigation was to evaluate the subsurface conditions at the site, and to provide geotechnical design recommendations for the proposed construction.

1.1 PROJECT DESCRIPTION

We understand that you plan to construct a two-story home. Structural loads are expected to be relatively light as is typical for this type of construction.

1.2 SCOPE OF WORK

In order to complete this project we have performed the following tasks:

- Reviewed published information on the geologic and seismic conditions in the site vicinity;
- Subsurface study, including 2 soil borings in the site vicinity for the house foundation design;
- Laboratory testing of selected soil samples, to establish their engineering properties, and for soil classification purposes;
- Engineering analysis and evaluation of the subsurface data to develop geotechnical design criteria; and
- Preparation of this report presenting our recommendations for the proposed improvements.

2. FINDINGS

2.1 GENERAL

The site reconnaissance and subsurface study were performed on January 14, 2014. The subsurface study consisted of drilling 2 soil borings to a depth of 9.0 feet and 9.5 feet below ground surface. The approximate locations of the borings, numbered B-1 and B-2, are shown in Figure 2. The boring logs and results of the laboratory tests on soil samples are attached in Appendix A.

2.2 SITE CONDITIONS

At the time of our study, the lot was an undeveloped vacant lot. There is a house to the west, and a garage to the north. The lot is very flat and covered with coyote brush and grass.

2.3 REGIONAL AND LOCAL GEOLOGY

Based on Brabb et. al. (1998), the site vicinity is primarily underlain by Pleistocene-age marine terrace deposits. These deposits are described as poorly consolidated sand and gravel.

2.4 SITE SUBSURFACE CONDITIONS

Based on the soil borings, the subsurface conditions consist of 6 to 7 feet of very stiff clay and sandy clay, overlying dense silty sand. The upper clays have low plasticity.

2.5 GROUNDWATER

No groundwater was encountered at the time of soil sampling. Groundwater levels are not expected to have an impact on the construction.

2.6 FAULTS AND SEISMICITY

The site is in an area of high seismicity, with active faults associated with the San Andreas fault system. The closest active fault to the site is the San Gregorio-Seal Cove fault, located about 400 feet to the east. The site is mapped on the west boundary of the Special Studies Zone for this fault. The location of the fault is well known in the area, and is marked by a pronounced break in slope. A fault trench study was performed along the fault, about a half mile to the south, with the fault being located in a narrow zone just above the base of the scarp. There

are no indications that the fault is closer than about 350 to 400 feet from the property.

Other faults most likely to produce significant seismic ground motions include the San Andreas, Hayward, Rodgers Creek, and Calaveras faults. Selected historical earthquakes in the area with an estimated magnitude greater than 6-1/4, are presented in Table 1 below.

TABLE 1
HISTORICAL EARTHQUAKES

Date	Magnitude	Fault	Locale
June 10, 1836	6.5[1]	San Andreas	San Juan Bautista
June 1838	7.0[2]	San Andreas	Peninsula
October 8, 1865	6.3[2]	San Andreas	Santa Cruz Mountains
October 21, 1868	7.0[2]	Hayward	Berkeley Hills, San Leandro
April 18, 1906	7.9[3]	San Andreas	Golden Gate
July 1, 1911	6.6[4]	Calaveras	Diablo Range, East of San Jose
October 17, 1989	7.1[5]	San Andreas	Loma Prieta, Santa Cruz Mountains

(1) Borchardt & Toppozada (1996)
(2) Toppozada et al (1981)
(3) Petersen (1996)
(4) Toppozada (1984)
(5) USGS (1989)

2.7 2010 CBC EARTHQUAKE DESIGN PARAMETERS

Based on the 2010 California Building Code (CBC) and our site evaluation, we recommend using Site Class Definition D (stiff soil) for the site. The other pertinent CBC seismic parameters are given in Table 2 below.

Table 2
CBC SEISMIC DESIGN PARAMETERS

S_S	S_1	F_a	F_v	S_{MS}	S_{M1}	S_{DS}	S_{D1}
2.139	1.042	1.0	1.5	2.139	1.563	1.426	1.042

Because the S_1 value is greater than 0.75, Seismic Design Category E is recommended, per CBC Section 1613.5.6. The values in the table above were obtained from a USGS software program which provides the values based on the latitude and longitude of the site, and the Site Class Definition. The latitude and longitude were 37.5151 and –122.5091, respectively, and were accurately obtained from Google Earth™. These same values can be obtained directly from maps in the CBC, however the scale of the map makes it impractical to achieve satisfactory accuracy. The map in the CBC was derived from the same work that led to the USGS software. The remaining parameters were also obtained by the same USGS program.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 GENERAL

It is our opinion that, from a geotechnical viewpoint, the site is suitable for the proposed construction, provided the recommendations presented in this report are followed during design and construction. Detailed recommendations are presented in the following sections of this report.

Because subsurface conditions may vary from those encountered at the location of our borings, and to observe that our recommendations are properly implemented, we recommend that we be retained to 1) Review the project plans for conformance with our report recommendations and 2) Observe and test the earthwork and foundation installation phases of construction.

3.2 GEOLOGIC HAZARDS

We reviewed the potential for geologic hazards to impact the site, considering the geologic setting, and the soils encountered during our investigation. The results of our review are presented below:

- Fault Rupture - The site is located on the western boundary of the Special Studies Zone for the San Gregorio fault (California Division of Mines and Geology, 1974). As discussed in Section 2.6 above, the active strand of the San Gregorio fault is well known due to past research efforts, and is about 35 to 400 feet to the east. Therefore, the potential for fault rupture to occur at the site is considered low, in our opinion.

- Ground Shaking - The site is located in an active seismic area. Moderate to large earthquakes are probable along several active faults in the greater Bay Area over a 30 to 50 year design life. Strong ground shaking should therefore be expected several times during the design life of the structure, as is typical for sites throughout the Bay Area. The improvements should be designed and constructed in accordance with current earthquake resistance standards.

- Differential Compaction - Differential compaction occurs during moderate and large earthquakes when soft or loose, natural or fill soils are densified and settle, often unevenly across a site. Due to the stiff and dense nature of the underlying soils, the likelihood of significant damage to the structure from differential compaction is very low.

- Liquefaction - Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands, and uniformly graded sands. Loose silty sands were not encountered at the site. Therefore, in our opinion, the likelihood of liquefaction occurring at the site is very low.

3.3 EARTHWORK

3.3.1 Clearing & Subgrade Preparation

All deleterious materials, including topsoil, roots, vegetation, designated utility lines, etc., should be cleared from building and driveway areas. The actual stripping depth required will depend on site usage prior to construction, and should be established by the Contractor during construction. Topsoil may be stockpiled separately for later use in landscaping areas.

3.3.2 Compaction

Scarified surface soils that will support foundations or slabs should be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 95 percent of the maximum dry density, as determined by ASTM D1557-78. All trench backfill should also be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 90 percent of the maximum dry density. The upper 3 feet of trench backfill below foundations or paved areas should be compacted to 95 percent of the maximum dry density.

3.3.3 Surface Drainage

The finish grades should be designed to drain surface water away from foundations and slab areas, to suitable discharge points. Slopes of at least 2 percent within 10 feet of the structures are recommended, as per the CBC. Ponding of water should not be allowed adjacent to the structure.

3.4 FOUNDATIONS

We recommend a mat slab foundation. The mat slab should be underlain by at least 12-inches of non-expansive granular fill. Where floor wetness would be

detrimental, a vapor barrier, such as 10 mil visqueen, should be placed over the gravel. The vapor barrier should be covered with a 2-inch sand buffer to protect it during construction. The sand should be lightly moistened just prior to placing the concrete. The 2 inches of sand should be considered as additional to the 12-inches of granular fill recommended above. The slabs should be structurally tied to the perimeter footings, either as a continuous pour or separate pours with dowels connecting the two, or an equivalent method.

The perimeter of the slab should be thickened with footings at least 15 inches wide and extending at least 6 inches below the cut for the interior slabs. Load bearing interior walls should also be founded on thicker slab sections of the same dimensions. The excavation for the footings may slope up to the interior slabs at a slope of 1:1. An allowable bearing capacity of 2500 psf may be used in design.

3.4.1 Lateral Loads

Resistance to lateral loads may be provided by passive pressure acting against the sides of the footings, below a depth of 1 foot. We recommend that an equivalent fluid pressure of 350 pcf be used in design. A skin friction value of 0.3 may be used.

3.4.2 Garage Slab-on-Grade

The garage slab-on-grade should be constructed as a free-standing slab, structurally isolated from surrounding grade beams or footings. We recommend that the slab-on-grade be underlain by at least 6 inches of non-expansive fill. The fill should consist of ½- to ¾-inch clean crushed rock. Where floor wetness would be detrimental, a vapor barrier, such as 10-mil visqueen, should be placed over the fill. The vapor barrier should be covered with a 2-inch sand buffer to protect it during construction. The sand should be lightly moistened just prior to placing the concrete. The 2 inches of sand should be considered as additional to the 6-inches of fill recommended above.

3.5 CONSTRUCTION OBSERVATION AND TESTING

The earthwork and foundation phases of construction should be observed and tested by us to 1) Establish that subsurface conditions are compatible with those used in the analysis and design; 2) Observe compliance with the design concepts, specifications and recommendations; and 3) Allow design changes in the event that subsurface conditions differ from those anticipated. The recommendations in this report are based on a limited number of borings. The nature and extent of variation across the site may not become evident until construction. If variations are then exposed, it will be necessary to reevaluate our recommendations.

4. LIMITATIONS

This report has been prepared for the exclusive use of the property owner for specific application in developing geotechnical design criteria for the currently planned construction at the corner of San Ramon Avenue and Bernal Avenue in Moss Beach, California (APN 037-285-190). We make no warranty, expressed or implied, except that our services were performed in accordance with geotechnical engineering principles generally accepted at this time and location. The report was prepared to provide engineering opinions and recommendations only. In the event that there are any changes in the nature, design or location of the project, or if any future improvements are planned, the conclusions and recommendations contained in this report should not be considered valid unless 1) The project changes are reviewed by us, and 2) The conclusions and recommendations presented in this report are modified or verified in writing.

The analyses, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our study; the currently planned improvements; review of previous reports relevant to the site conditions; and laboratory results. In addition, it should be recognized that certain limitations are inherent in the evaluation of subsurface conditions, and that certain conditions may not be detected during a study of this type. Changes in the information or data gained from any of these sources could result in changes in our conclusions or recommendations. If such changes do occur, we should be advised so that we can review our report in light of those changes.

5. REFERENCES

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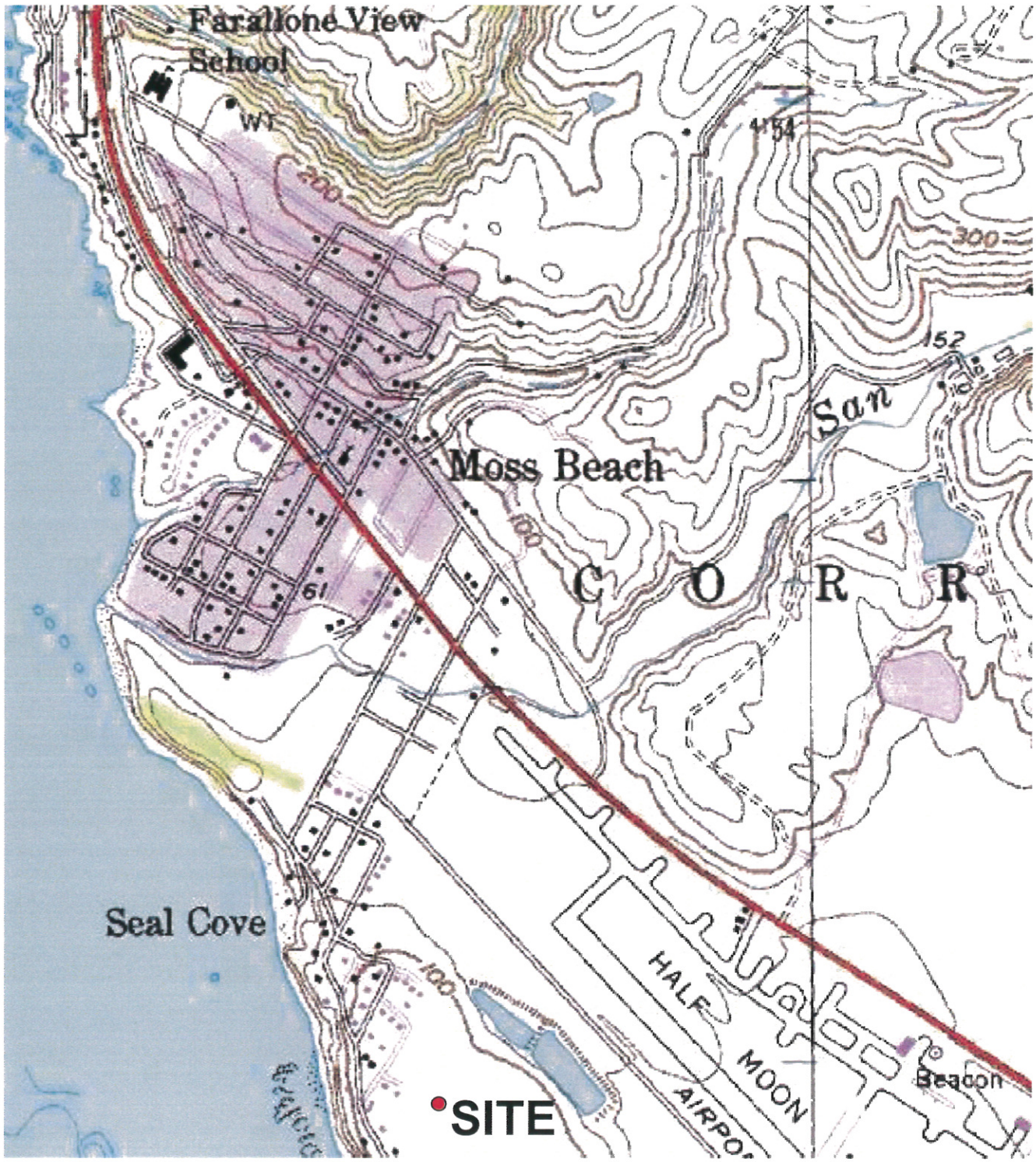


N

0 1000

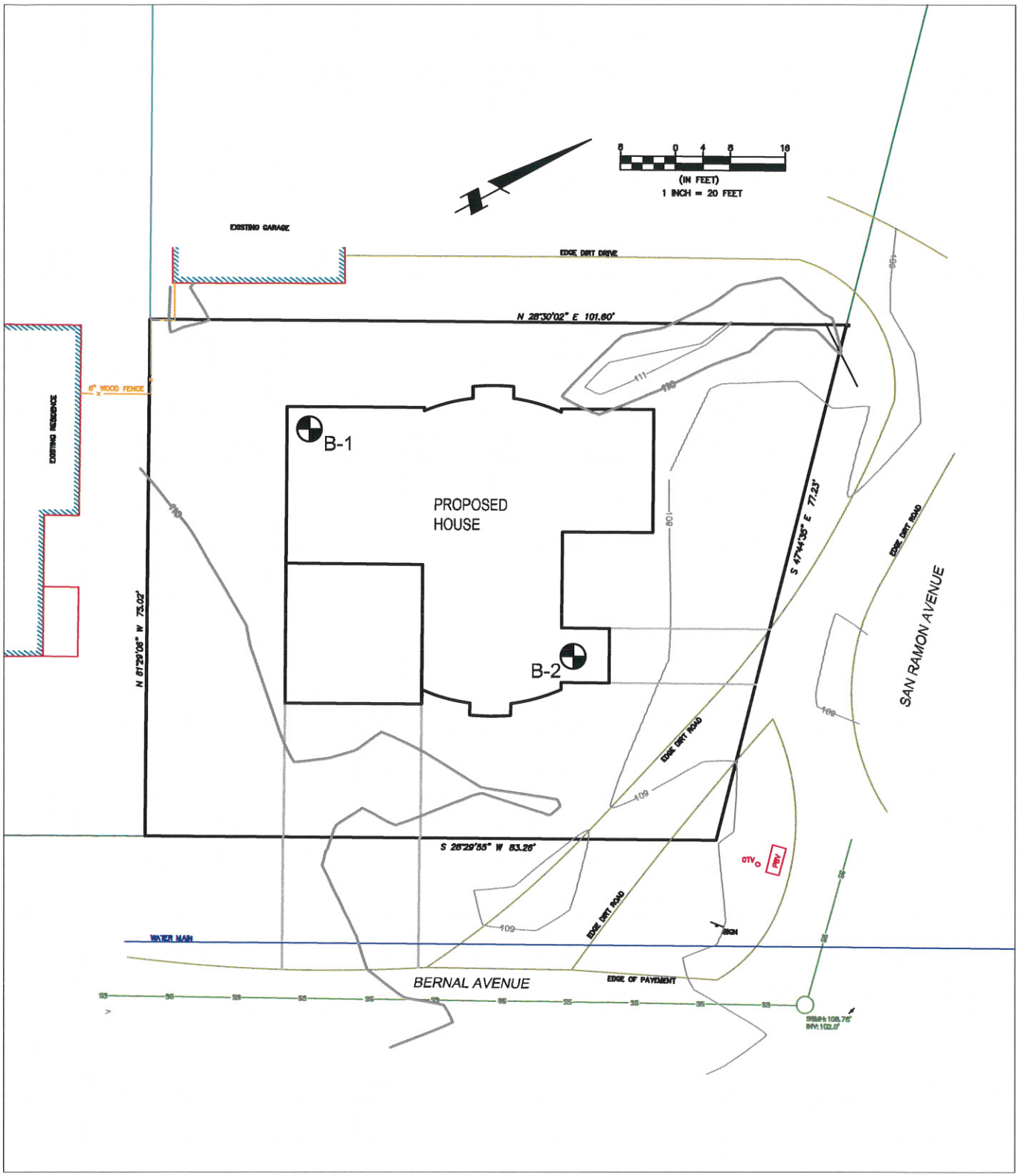
Scale - feet

Sigma Prime Geosciences, Inc.

Figure	1
Date:	2/12/14
Job No.:	13-153

Location Map

Asghar Property, San Ramon St., Moss Beach



1"=20'

EXPLANATION

B-1 - Soil Boring Location

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Figure	2
Date:	2/13/14
Job No.:	13-153

Site Map

Asghar Property, San Ramon St., Moss Beach

APPENDIX A

SUBSURFACE STUDY

The soils encountered during drilling were logged by our representative, and samples were obtained at depths appropriate to the study. The samples were taken to the laboratory where they were carefully observed and classified in accordance with the Unified Soil Classification System. The logs of our borings, as well as a summary of the soil classification system, are attached.

Several tests were performed in the field during drilling. A modified version of the standard penetration resistance was determined by dropping a 140-pound hammer through a 30-inch free fall, and recording the blows required to drive the 2-inch (outside diameter) sampler 24 inches. (The non-modified standard penetration test drives the sampler 18 inches instead of 24 inches; our method gives only slightly differing data.) The modified standard penetration resistance is the number of blows required to drive the sampler the last 12 inches, and is recorded on the boring logs at the appropriate depth. The results of these field tests are also presented on the boring logs.

The boring logs and related information depict our interpretation of subsurface conditions only at the specific location and time indicated. Subsurface conditions and groundwater levels at other locations may differ from conditions at the locations where sampling was conducted. The passage of time may also result in changes in the subsurface conditions.

Project Name	Project Number
Asghar	13-153

Location: Northwest corner of lot

Sigma Prime Geosciences, Inc.

Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum
Continuous	4.5“	9.5’	9.5’			

Boring No. B-1

Drilling Company: Access Soil Drilling

Logged By: CMK

Page 1 of 1

Type of Drill Rig:

Type of Sampler(s): Mod Cal, 2½“ , SPT

Hammer Weight and Fall: 140 lb, 30“

Date(s) 1/14/14

Depth (feet)	Description	Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
0	0 - 3’: Clay: dark brown; very stiff; slightly moist.		CL	6 10 12 18	1	MC	Lab. Sample #1: Moisture%=9.5% Dry Density=107.4 pcf LL=29, PL=16, PI=13
				14 28 35 40	2	2.5“	
	3 - 7’: Sandy Clay: yellowish brown; very stiff; moist.						
5			CL	9 9 6 9	3	SPT	
				12 14 16 17	4	SPT	
	7’ - 9.5’ : Silty Sand: yellowish brown; dense; moist; fine sand.		SM	20 16 16	5	SPT	
10	Bottom of Hole at 9.5’ No groundwater						
15							
20							

Project Name	Project Number
Asghar	13-153

Location
Southeast corner of lot

Sigma Prime Geosciences, Inc.

Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum
Continuous	4.5"	9'	9'			

Drilling Company	Logged By	Type of Drill Rig	Type of Sampler(s)	Hammer Weight and Fall
Access Soil Drilling	CMK		Mod Cal, 2½" , SPT	140 lb, 30"

Boring No.	B-2
Page	1 of 1
Date(s)	1/14/14

Depth (feet)	Description	Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
0	0 - 3': Clay: dark brown; very stiff; slightly moist.		CL	7 17 17 21	1	MC	Lab, Sample #1: Moisture%=10.0% Dry Density=96.1 pcf LL=30, PL=19, PI=11
	3 - 6': Sandy Clay: yellowish brown; very stiff; moist.			22 25 29 37	2	2.5"	
5	Stiff.		CL	16 8 4 6	3	SPT	
	6' - 9' : Silty Sand: oilve-brown; dense; moist; fine sand.		SM	7 12 17 20	4	SPT	
	8.5': Sand becomes coarse.			21 56	5	SPT	
10	Bottom of Hole at 9.0' No groundwater						
15							
20							

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-85)

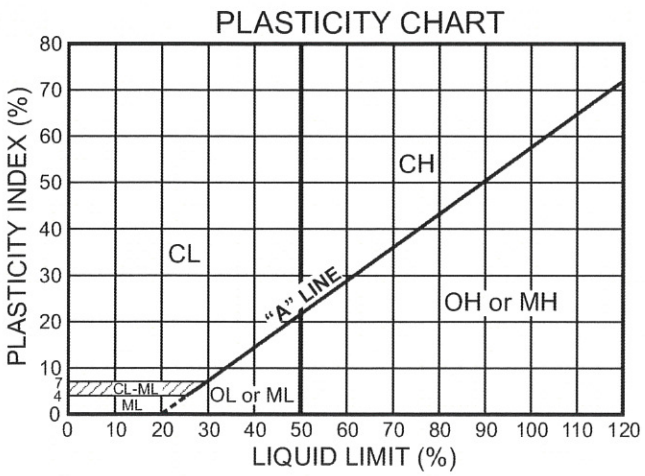
MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND	
COARSE-GRAINED SOILS > 50% RETAINED ON NO. 4 SIEVE	GRAVELS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	Cu > 4 AND 1 < Cc < 3	GW	WELL-GRADED GRAVEL	
			Cu < 4 AND/OR 1 > Cc > 3	GP	POORLY-GRADED GRAVEL	
		GRAVELS WITH FINES > 12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL	
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL	
	SANDS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN SANDS < 5% FINES	Cu > 6 AND 1 < Cc < 3	SW	WELL-GRADED SAND	
			Cu < 6 AND/OR 1 > Cc > 3	SP	POORLY-GRADED SAND	
		SANDS WITH FINES > 12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND	
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND	
FINE-GRAINED SOILS > 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT < 50	INORGANIC	PI > 7 AND PLOTS > "A" LINE	CL	LOW-PLASTICITY CLAY	
			PI > 4 AND PLOTS < "A" LINE	ML	LOW-PLASTICITY SILT	
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT	
	SILTS AND CLAYS LIQUID LIMIT > 50	INORGANIC	PI PLOTS > "A" LINE	CH	HIGH-PLASTICITY CLAY	
			PI PLOTS < "A" LINE	MH	HIGH-PLASTICITY SILT	
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OH	ORGANIC CLAY OR SILT	
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK COLOR, ORGANIC ODOR		PT	PEAT	

NOTE: $Cu=D_{60}/D_{10}$

$Cc=(D_{30})^2/(D_{10}+D_{60})$

BLOW COUNT

THE NUMBER OF BLOWS OF THE HAMMER REQUIRED TO DRIVE THE SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE. THE NOTATION 50/4 INDICATES 4 INCHES OF PENETRATION ACHIEVED IN 50 BLOWS.



SAMPLE TYPES

B	BULK SAMPLE
ST	PUSHED SHELBY TUBE
SPT	STANDARD PENETRATION
MC	MODIFIED CALIFORNIA
P	PITCHER SAMPLE
C	ROCK CORE

ADDITIONAL TESTS

CA - CHEMICAL ANALYSIS
CN - CONSOLIDATION
CP - COMPACTION
DS - DIRECT SHEAR
PM - PERMEABILITY
PP - POCKET PENETROMETER
Cor. - CORROSIVITY
SA - GRAIN SIZE ANALYSIS
(20%) - (PERCENT PASSING #200 SIEVE
SW - SWELL TEST
TC - CYCLIC TRIAXIAL
TU - CONSOLIDATED UNDRAINED TRIAXIAL
TV - TORVANE SHEAR
UC - UNCONFINED COMPRESSION
WA - WASH ANALYSIS
▽ - WATER LEVEL AT TIME OF DRILLING AND DATE MEASURED
▼ - LATER WATER LEVEL AND DATE MEASURED

LEGEND TO SOIL DESCRIPTIONS

Sigma Prime Geosciences, Inc.

FIGURE A-1

APPENDIX B

LABORATORY TESTS

Samples from the subsurface study were selected for tests to establish some of the physical and engineering properties of the soils. The tests performed are briefly described below.

The natural moisture content and dry density were determined in accordance with ASTM D 2216 on selected samples recovered from the borings. This test determines the moisture content and density, representative of field conditions, at the time the samples were collected. The results are presented on the boring logs, at the appropriate sample depth.

The plasticity of selected clayey soil samples was determined on two soil samples in accordance with ASTM D 422. These results are presented on the boring logs, at the appropriate sample depth.

Dennis Aguirre - RE: bernal site

From: "Demouthe, Jean" <JDemouthe@calacademy.org>
To: Dennis Aguirre <daguirre@smcgov.org>, Steve Monowitz <SMonowitz@smcgov.org>
Date: 9/16/2014 4:03 PM
Subject: RE: bernal site
CC: 'Jay Mazzetta' <jmazzetta@smcgov.org>

Dear Dennis & Steve,

The following comments relate to the letter from Stacy Sabol's letter dated 8 September 2014:

- All of the traces of the Seal Cove fault trend roughly N 35° to 40° W, which is roughly parallel to the main trace of its parent fault, the San Andreas. There is no geologic mechanism for faults to form in this area that do not follow this general trend.

- The property immediately north of the Bernal/San Ramon site was trenched in 1989 and no evidence of active faulting was found.

- The 1982 version of the A-P map of the Montara Mountain quadrangle does not show a fault on this property. In the vicinity of this site, the fault is shown as a line at the bottom of the scarp east of the site, adjacent to the two long pond/depressions on the airport property.

- This project is exempt from the conditions imposed by the Alquist-Priolo Act of 1972 as stated in Div. 2, article 7.5, chapter 2621 of the California Public Resources Code:

2621.6.
(a) As used in this chapter, "project" means either of the following:
(1) Any subdivision of land which is subject to the Subdivision Map Act (Division 2 (commencing with Section 66410) of Title 7 of the Government Code), and which contemplates the eventual construction of structures for human occupancy.
(2) Structures for human occupancy, with the exception of either of the following:
(A) Single-family wood-frame or steel-frame dwellings to be built on parcels of land for which geologic reports have been approved pursuant to paragraph (1).
(B) A single-family wood-frame or steel-frame dwelling not exceeding two stories when that dwelling is not part of a development of four or more dwellings.

- Although exempt from the A-P guidelines, this project must conform to the standards set by San Mateo County, which are based on many years of accumulated data.

- A significant amount of work has been done over the years since many of the published maps were made. Evidence accumulated in Moss Beach from surface mapping, study of better aerial photographs, and subsurface excavations has allowed for the creation of much more accurate locations of existing faults and landslides. And it also allows for the disproval of some of the earlier mapped faults and other features.

- The fault traces shown by some authors to pass through this neighborhood are largely based on the study of aerial photographs.

- Just because trenches have been excavated on many properties in an area, it does not automatically follow that all sites in that area must be trenched.

The only other thing I can think of that might help is for me to finish the Seal Cove fault map I have already started. This will take at least half a day, and would have to be billed to this applicant for my time.

I plan to attend the Planning Commission meeting on the 24th.

Jean DeMouthe
Acting County Geologist

Dennis Aguirre - bernal site

From: Jean Demouthe
To: Dennis Aguirre; Steve Monowitz
Date: 9/3/2014 4:58 PM
Subject: bernal site
Attachments: bernal @ san ramon.pdf

Dear Dennis & Steve,

I've started to make a detailed map of the Seal Cove fault and where it has been documented. Or not.

but there is no way I can finish that in one day.

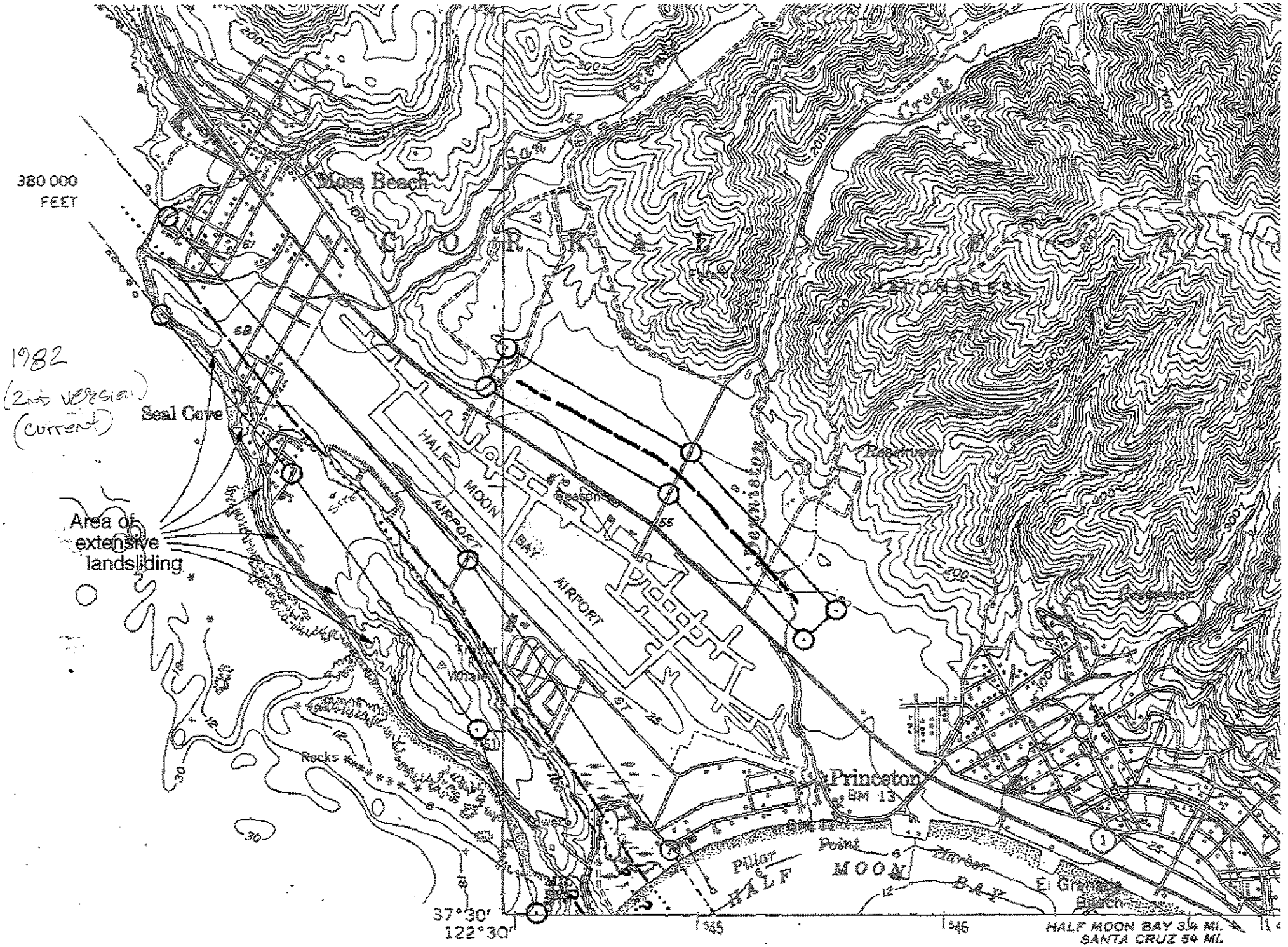
so attached is a 2-page pdf that includes the most current of the A-P Special Studies Zones maps, which shows the nearest trace of the Seal Cove fault to be about 280 feet NE of this site, on the slope above the airport. The site is within the zone along the fault, but since more detailed information exists now (this map is dated 1982), we will go with the local studies. besides, single-family residences are exempt from the A-P studies zones anyway. Generally, we (the County) are more conservative than the State anyway.

the other page is a map from a 1989 report on the adjacent property. they dug two long trenches the cover the proposed building location on this site. No active faults were found.

I hope this will be enough to get you through the hearing.

email me any questions you have before next Wednesday, which is when I leave for a meeting in Denver.

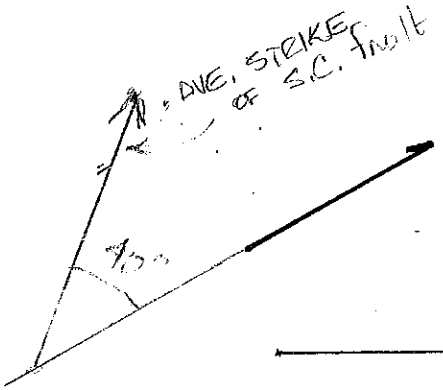
Jean



TOPOGRAPHIC BASE BY U.S. GEOLOGICAL SURVEY 1956
PHOTOREVISED 1980

1987 Show Dam & Area

APN 037-225-120/130



SSMH Rim = 99.90

PRECITA AVE (50' Wide)

Trench T—1

N 28°30'00"E 94.85

3

4

5

N 61°30'00"W 50.00

S 47°28'00"E 77.22

L4

L3

S 28°30'00"W 101.63

Trench T—2

BLOCK 21
6 M 20

PLN2014-000057

SAN RAMON AVE (50' Wide)

Existing Dirt Road

NEAREST TREE ≅ 280'

Low Pt

Edge of Traveled Way

SSMH Rim = 100.30

Rock Road

BERNAL AVENUE (50' Wide)

Edge Traveled Way

Low Pt

M.J.King	Figure
Site Plan	6

COMMITTEE FOR
GREEN FOOTHILLS

August 27, 2014

Chairman Fred Hansson and
Members of the Planning Commission
455 County Center, 2nd Floor
Redwood City, CA 94062

Re: Item 5 on the August 27 Agenda: Coastal Development Permit for Single Family Residence on San Ramon Avenue, Moss Beach (PLN 2014-00007)

Dear Chair Hansson and Commissioners,

I am writing on behalf of Committee for Green Foothills regarding the above-referenced project. The proposed residence is located in Seal Cove, an area of high geological hazard. LCP Policy 9.1 defines hazardous areas as fault zones as well as lands subject to other hazards.

The Geotechnical Hazards Map of the Seal Cove Area was prepared by William Cotton and Associates, geotechnical consultants to San Mateo County in August 1980. The subject property is located in Zone 3, which includes all areas of Seal Cove that are outside of the areas affected by active or potential landslides. The major geologic hazard in this zone is the threat of surface faulting along the master fault trace and several branching fault traces of the active Seal Cove Fault. These faults are capable of producing damaging surface faulting, strong ground shaking and ground failure. There is a mapped fault trace that crosses through the north western quadrant of the subject parcel.

The Seal Cove Geologic Hazards Map states that in Zone 3, risks can be reduced to acceptable levels by careful siting of homes away from active faults, using careful structural and foundation design, and adequate surface drainage plans. However, according to the Cotton Seal Cove Map, it is possible that some residential parcels will be judged unbuildable due to high seismic hazards. The Map notes further state that development should be allowed in this zone on parcels found to be free of hazardous conditions by the required geotechnical investigations.

The Staff Report on page 8 references Section 6296.2 of the Zoning Regulations that states development in Zone 3 is allowed if suitable mitigation measures including, but not limited to, siting of homes away from active faults.... as recommended by required geotechnical investigation.

Condition 17 of the Staff Recommendation requires that prior to any development there shall be an engineering geologic investigation and a soils and foundation engineering investigation unless evidence is available to show that such investigations are not required. This is putting the cart before the horse.

In order for the County to issue a Coastal Development Permit, your Commission must find that the risks are reduced to acceptable levels, particularly with respect to the fault trace that crosses the property. Only with geological investigation, including trenching across the fault, can the proper

COMMITTEE FOR GREEN FOOTHILLS
3921 E. Bayshore Road
Palo Alto, CA 94303
650.968.7243 PHONE
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www.GreenFoothills.org

mitigation measures be applied. In most cases, the appropriate course is to avoid building habitable space across the fault trace. This may well require a redesign of the proposed house.

The Planning Commission should require the geologic investigation now. Otherwise you cannot make the necessary Findings that the proposed location of the residence complies with the required geological investigations. If you allow deferral of this determination to the building permit stage, the design and location of the house may well have to be significantly changed. Basing the approval of the CDP on all necessary information will also ensure that the project complies with the Geologic Hazards policies of the LCP.

Thank you for consideration of our comments.

Sincerely,

Lennie Roberts

Lennie Roberts

COMMITTEE FOR
GREEN FOOTHILLS

Planning Commission Meeting
PLN 2014-00007
Case
E
Attachment

September 7, 2014

Steve Monowitz, Acting Community Development Director
San Mateo County Planning and Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063

Re: PLN 2014-00007, APN 037-285-190, corner of Bernal Avenue and San Ramon Avenue, Moss Beach

Dear Steve,

As follow-up to my letter to the August 27, 2014 Planning Commission meeting, please accept these additional comments about the need for a Geological Investigation prior to issuance of the Coastal Development Permit for the above-referenced project.

William Cotton and Associates, consultants to San Mateo County, prepared a Technical Report titled: Geologic Analysis of the Seal Cove Area, dated August 1980. This Report accompanied the Seal Cove Geotechnical Hazards Map that I referenced in my August 27 letter.

Mr. Cotton's Technical Report concludes (in relevant part): "…the main trace and the branching traces of the Seal Cove Fault are considered to be active. The branching faults located in the relatively undeveloped area south of San Lucas Avenue are only approximately located. Indeed there may be additional fault strands that are as yet unrecognized in this region. Should a major earthquake take place along the Seal Cove fault the anticipated seismic hazards would be severe ground shaking, surface faulting along the master trace and branching fault traces and ground failure (landsliding, sloughing, settlement, etc.) The risk associated with these hazards can be dramatically reduced by carefully siting homes away from active fault traces or potential zones of ground failure and by careful structural and foundation design."

Mr. Cotton's Conclusions for Zone 3 state (in relevant part) "…risks can be reduced to acceptable levels by careful siting of homes away from active faults, using careful structural and foundation design and adequate surface drainage plans. However, it is possible that some residential parcels will be judged unbuildable due to high seismic hazards."

Mr. Cotton's Conclusions are clear regarding the need for geotechnical investigations:

"Required Geologic Investigation – Engineering geologic investigation by a certified engineering geologist and a soil and foundation engineering investigation by a registered civil engineer, or a combined equivalent of the above.

- Scope of engineering geologic investigation should address the seismic hazards related to the master and branching traces of the Seal Cove Fault. Particular emphasis of the engineering geologic investigation should be placed on the evaluation of possible surface faulting. Investigative techniques within this area

will require the use of subsurface trenching and possibly geophysical traverses unless clear evidence is established to show that no active fault crosses the parcel in question.

- The soil and foundation engineering investigation should address, but not necessarily be confined to, the following items: site preparation and grading, surface drilling, and design parameters for residential foundations."

"All of the geotechnical investigations should reference this report and the geologic data presented in the Leighton and Associates report of 1971 and the Seismic and Safety Elements of the General Plan of 1976. The geotechnical reports describing the results of these investigations should be reviewed by the County Geologist following the procedure that is currently in practice. The recommendations expressed in the soil and foundation engineering reports and/or the engineering geologic reports should become conditions of any development application."

As a result of Mr. Cotton's Report, the County prepared a Geologic Hazards Overlay Zone for the Seal Cove Area to regulate development in Seal Cove. The County also rezoned the Seal Cove area to require a minimum of 20,000 square-foot parcel size, and consolidated undeveloped contiguous lots held in common ownership to a minimum of 20,000 square feet in order to enable new residential development to avoid the geologic hazards in Seal Cove. This parcel is substantially smaller than the required 20,000 square feet. When was this parcel created as a separately owned parcel from adjacent parcels?

It is clear from the Geotechnical Hazards Map and text of Mr. Cotton's Report that this parcel requires geotechnical studies, based on subsurface trenching and analysis by a qualified geotechnical engineer, and these studies must confirmed by the County Geologist or an independent consulting certified engineering geologist, per policy 9.10 of the LCP. It is important that the County Geologist or consulting engineering geologist actually view the open trench(s) to conform the location of any fault traces.

In order for the County to make the necessary Findings that the project complies with the plans, policies, requirements and standards of the Local Coastal Program, CGF believes the necessary geotechnical investigations must be done prior to issuance of the Coastal Development Permit. This requirement serves the interests of the Applicant, affected neighbors, and the County. Please require the geotechnical investigation prior to issuance of the CDP, for this project as well as others that are located on or near any of the mapped Seal Cove fault traces.

Sincerely,

Lennie Roberts

Lennie Roberts, San Mateo County Legislative Advocate

Cc: San Mateo County Planning Commission
Nancy Cave, North Central District Manager, California Coastal Commission
Dennis Aguirre, Project Planner

September 8, 2014

Mr. Steve Monowitz
Acting Community Development Director
County of San Mateo
Planning & Building Department
County Office Building
455 County Center
Redwood City, CA 94063

Re: File No. PLN 2014-00007, Parcel No. 037-285-190,
Bernal Ave. & San Ramon Ave., Moss Beach

Dear Mr. Monowitz,

I am writing as a follow up to the August 27th Planning Commission hearing during which the need for a proper geotechnical study for the above-referenced proposed residential development was discussed. As discussed by myself and Ms. Lennie Roberts of the Committee for Green Foothills during that hearing, numerous fault traces are known to exist in the Seal Cove neighborhood, and trenching to evaluate the location of those fault traces has been the standard of care required by the County for residential development in Seal Cove. This trenching has not been completed for the proposed residential development for the above-referenced parcel.

A January 2013 *Geotechnical Study*, prepared by Sigma Prime Geosciences for the applicant, was given to me and Ms. Roberts after the August 27th hearing. While the study references the presence of the San Gregorio-Seal Cove fault about 350 to 400 feet from the property, it makes no mention of the presence of fault traces at or near the property itself. The study includes the completion of 2 soil borings within the footprint of the proposed house footprint, which is proper procedure for evaluation of soil strata for foundation design, but inadequate for the evaluation of fault traces which require trenching to allow for visual observation of fault features. The study makes no mention of the County's own map entitled *Geologic Hazards Map for the Seal Cove Study Area* prepared by William Cotton and Associates and dated August 5, 1980, which clearly indicates the presence of fault-related features on the applicant's property, as pointed out by Ms. Roberts during the August 27th hearing.

I am a Principal Engineer employed by a 3000 person firm specializing in environmental and geotechnical studies. I consulted with a colleague who is California-licensed Geotechnical Engineer with over 30 years of professional experience in the Bay Area. He reviewed the *State of California Special Studies Zone Montara Mountain Revised Official Map*, dated January 1st 1982, prepared by the California Geological Survey. This map indicates that the applicant's property is located within a special studies zone for the San Gregorio fault. He also reviewed the *Geotechnical Hazards Map for the Seal Cove Study Area* referenced above. This map indicates two fault traces crossing the subject site. Based on this information, my colleague concluded that it is prudent to conduct further fault investigation for the subject lot to determine its buildability. He indicated that the study should be performed under the direction of a California-licensed engineering geologist and include a literature review, an aerial photo review, a site

reconnaissance, and a fault trenching study to identify the presence of fault trace(s) on the property. If fault traces are present, a setback zone from the fault traces should be established to preclude building on or near the fault trace(s).

These recommendations are consistent with the standard of care for other residential developments in the Seal Cove neighborhood, including those required for the construction of my own home at 121 Bernal Avenue which is directly adjacent to the applicant's property. At the time my home was constructed in 1985, the home's footprint was altered on its northwest side to avoid a mapped fault trace in that part of the property. Similarly, my neighbor at 90 Bernal Avenue was required to respect a 15-foot setback from a fault trace that was recommended by the *Geotechnical Investigation for Proposed New Addition at the Yolken Property, 90 Bernal Ave., Moss Beach, California*, prepared by GeoForesics, Inc. in March 2001. That study included a thorough evaluation of fault traces in the area, including a review of eight other geotechnical studies within the immediate neighborhood, all of which included trenching. The result of these studies is the confirmation of numerous fault traces in the immediate area. It is noted that the current applicant's property was not investigated. I have attached a map from that study that references the County files in which these geotechnical studies are contained. (I have copes of all of these trench logs if it is difficult to find them in the County files.) I have also included a copy of the County's approval of the development at 90 Bernal Avenue which requires that the 15-foot setback recommendation from the fault trace be respected as a condition of the approval, as well as a copy of the text of the geotechnical report cited above.

As you and I discussed in our August 12, 2014 meeting, the applicant's property is within the S-105 District Zoning which requires a minimum building site lot size of 20,000 square feet. This minimum lot size zoning restriction was put in place as a way to ensure adequate area for flexibility in locating a proposed home to avoid building atop of fault traces known to exist in Seal Cove. However, the applicant's lot is nonconforming at less than 7,000 square feet, and therefore may not allow for adequate flexibility to locate a home away from the fault traces.

For all of the reasons cited above, I request that the applicant be required to adequately investigate the fault traces that may exist within his property by the means specified in the third paragraph of this letter. Further, as part of the geologic investigation, the trench or trenches should be across the mapped fault trace on the property and at other significant locations such as at the property boundaries, and the open trench and data should be evaluated in the field by the County Geologist or other independent expert that is acceptable to the County to provide third party assurance.

Sincerely,

Stacy Sabol

Resident at 121 Bernal Ave., Moss Beach

Attachments:

- County's February7, 2002 Conditions of Approval for the Propose Addition at 90 Bernal Ave. and associated *Geotechnical Investigation for Proposed New Addition at the Yolken Property, 90 Bernal Ave., Moss Beach, California*, prepared by GeoForesics, Inc. in March 2001 (text only)
- Figure 6, Location o Geologic Studies, from *Geotechnical Investigation for Proposed New Addition at the Yolken Property, 90 Bernal Ave., Moss Beach, California*, prepared by GeoForesics, Inc. in March 2001

Cc: San Mateo County Planning Commission

Nancy Cave, North Central District Manager, California Coastal Commission

Dennis Aguirre, Project Planner

San Mateo County Zoning Hearing Officer

Marcia Raines, Director of Environmental Services
George Bergman, Zoning Hearing Officer
Judy Kenney, Zoning Hearing Secretary

Notice of Public Hearing

DEAR MR & MRS YOUKEN, HOPE YOU GOT THIS IN THE MAIL, COPY OF THE MEETING AGENDA.

February 7, 2002
10:00 a.m.
Room 101, First Floor
455 County Center, Redwood City

RECEIVED JAN 25 2002

All interested parties who wish to speak will have the opportunity at the hearing. To do so:

- Please fill out a slip giving your name and address.
- Hand this slip to the Zoning Hearing Officer Secretary.
- After recognition from the Zoning Hearing Officer, please walk to the lectern and state your name and address.

The Zoning Hearing Officer agenda is divided into two parts: The consent agenda and the regular agenda. If the Zoning Hearing Officer or a member of the public wishes specifically to hear an item on the consent agenda, the Zoning Hearing Officer will refer that item to the regular agenda for hearing. **If a member of the public wishes that an item on the consent agenda be referred to the regular agenda, please submit a speaker's slip to the Zoning Hearing Secretary before the meeting begins. Otherwise, consent agenda items will be considered as a group.**

All decisions of the Zoning Hearing Officer may be appealed within 10 (working) days to the Planning Commission for a fee of $191. Appeal forms are available at the Planning Division office, address shown below.

Pursuant to State law, if you challenge, in court, a planning permit application, you may be limited to raising only those issues raised at the public hearing described in this notice, or in written correspondence delivered at, or prior to, the public hearing.

For further information on any agenda item listed below, please contact the Project Planner at the indicated telephone number following each item. Letters to the Project Planners should be addressed: County of San Mateo, Planning & Building Division, 455 County Center, 2nd Floor. Mail Drop PLN122, Redwood City, CA 94063.

- To receive the agenda, send an e-mail to **join-zho-agenda@listserver.co.sanmateo.ca.us** or contact Judy Kenney at (650) 363-1862.
- To view the agenda, please visit our website at **www.co.sanmateo.ca.us/planning**

Agenda continues on next page

COUNTY OF SAN MATEO
ENVIRONMENTAL SERVICES AGENCY
PLANNING AND BUILDING DIVISION

DATE: February 7, 2002

TO: Zoning Hearing Officer

FROM: Planning Staff

SUBJECT: Consideration of a Coastal Development Permit and Coastside Design Review pursuant to Sections 6328.4 and 6565.7, respectively, of the San Mateo County Zoning Regulations to construct a 782 square foot addition to an existing residence and 115 square foot addition to the existing deck located at 90 Bernal Street in the unincorporated Moss Beach area of San Mateo County. The project is appealable to the California Coastal Commission.

County File Number: PLN 2001-00345 (Yolken)

PROPOSAL

The applicant is proposing to construct a 782 square foot addition to the existing residence consisting of a new bedroom, bathroom, family room and office as well as construct a 115 square foot addition to the existing exterior deck. The Coastal Development Permit is required because the project site is within the Coastal Zone and has not been determined by the California Coastal Commission to be exempt from Coastal Permit requirements for single-family residential development.

RECOMMENDATION

Approve the Coastal Development Permit and Coastside Design Review, County File Number PLN 2001-00345, by making the required findings and adopting the recommended conditions of approval listed in Attachment A.

BACKGROUND

Report Prepared By: Sara Bortolussi, Project Planner, Telephone 650/363-1839

Applicant: Turner Home Services (Rafael Gomez)

Owner: Michael Yolken

Location: 90 Bernal Street, Moss Beach

APN: 037-282-070

Parcel Size: 8,759 square feet

Parcel Legality: The parcel was created as part of the Riviera Ocean Villa Tract. The current two-lot parcel was merged with the Local Coastal Program lot mergers in 1983.

Applicable Zoning: R-1/S-10/DR/CD/GH (Single-Family Residential/20,000 sq. ft. minimum parcel size/Design Review/Coastal Development/Geologic Hazards)

Current Zoning: R-1/S-105/DR/CD/GH (Single-Family Residential/20,000 sq. ft. minimum parcel size/Design Review/Coastal Development/Geologic Hazards)

General Plan Designation: Low Density Residential (0.3 - 2.3 dwelling units/acre)

Existing Land Use: Residential

Flood Zone: Flood Zone C (Area of Minimal Flooding)

Environmental Evaluation: The project is Categorically Exempt from the California Environmental Quality Act pursuant to Section 15301, Class 1 related to additions to existing structures provided the addition will not result in an increase of more than 50% of the floor area of the structure before the addition.

Setting: The project site is located within the Seal Cove area of unincorporated Moss Beach, approximately 700 feet from the Pacific Ocean and bordered by Bernal Avenue on the north. The site is relatively flat with a majority of the parcel covered with grasses. The existing residence, built in 1984, is located in the southwestern portion of the parcel while the remainder of the parcel is currently undeveloped. The surrounding parcels are developed with other one- and two-story single-family residences.

Chronology:

Date		Action
May 21,2001	-	Application submitted which included a proposal for a 782 square foot addition to the existing residence.
June 5, 2001	-	Outstanding information submitted to continue processing project.
July 12, 2001	-	Per County Geotechnical Section, the applicant submit a revised site plan showing the location of the trenches used in analyzing the geotechnical impacts of the proposed development.
July 18, 2001	-	Mid-Coast Community Council reviewed project at their subcommittee meeting.

August 8, 2001 - Planning staff receives comments from Mid-Coast Community Council, which state that the proposed addition was well designed, and in keeping with the character of the structure.

November 14, 2001 - Received revised plans from the applicant, which add an addition to the existing exterior deck.

February 7, 2002 - Zoning Hearing Officer public hearing.

DISCUSSION

A. KEY ISSUES

1. Conformance with the General Plan

Staff has determined that the project complies with all applicable General Plan policies, with specific discussion of the following:

Chapter 4 - Visual Quality. The applicant's proposal complies with Policy 4.35 (*Urban Area Design Concept*). The proposed house addition and the addition to the exterior deck will maintain the appearance and visual character of the existing single-family structure. The additions have been designed to compliment the existing structure with the proposed sloped roof and exterior materials. The proposed project's design and scale are similar to other 2-story houses located in the vicinity. The proposed addition will match the material and colors of the existing house. Finally, the project will be required to be constructed according to an approved building permit, which assures it would not be a public health or safety hazard.

Chapter 8 - Urban Land Use. The project complies with Policy 8.38 (*Regulation of Development in Urban Areas - Height, Bulk and Setbacks*), which states that the height, bulk and setback requirements should be regulated in order to ensure that the size and scale of the development are compatible with the parcel size. The proposed addition to the existing residence and the proposed addition to the exterior deck are proposed to conform to the required setbacks of the zoning district.

2. Conformance with the Zoning Regulations

This project was submitted on May 21, 2001. In January 2000, an Interim Ordinance was passed by the County Board of Supervisors, which altered the previous regulations for the R-1/S-10 Zoning District, and imposed a new maximum height requirement and added a Floor Area requirement.

a. Development Standards. The following table summarizes the project's conformance with the R-1/S-10 Interim Ordinance zoning regulations, Sections 6161 and 6300:

Development Standard	Zoning Requirement	Existing/Proposed
Parcel Size	20,000 sq. ft.	8,759 sq. ft.
Minimum Lot Width	50 ft.	100 ft.
Front Yard Setback	20 ft.	20 ft. (existing and proposed)
Rear Yard Setback	20 ft.	32 feet (existing) 23 ft., 2 in. (proposed)
Right Side Yard Setback	10 ft.	41 ft. (existing and proposed)
Left Side Yard Setback	10 ft.	10 ft. (existing and proposed)
Maximum Building Height (measured from average finished grade to average roof peak)	28 ft.	23 ft.
Maximum Floor Area	50% + 400 sq. ft. for garage (4,779 sq. ft.)	36.3% (3,185 sq. ft.(incl. Garage))
Maximum Coverage	25% (2,189 sq. ft.)	18.7% or 1,636.49 sq. ft. (existing) 21.8% or 1,914.6 sq. ft. (proposed)

The proposed project is located on a non-conforming parcel of 8,759-sq. ft. where 20,000-sq. ft. is required. Section 6133.3.a.2 discusses development of improved non-conforming parcels. This section states that development of an improved non-conforming parcel may occur without the issuance of a use permit, provided the proposed development conforms to the zoning and building codes currently in effect. The second story addition and addition to the existing exterior deck will be in conformance with the zoning regulations, thus a Use Permit is not required.

b. Conformance with Recently Adopted S-105 Combining District Regulations

The proposed project is not subject to the recently adopted (September 2001) Regulations. However, staff has included this subsection for reference only. Staff has determined that the proposed project does comply with all applicable regulations of the newly adopted S-105 combining district.

Development Standard	Zoning Requirement	Existing/Proposed
Parcel Size	20,000 sq. ft.	8,759 sq. ft.
Minimum Lot Width	75 ft.	100 ft.
Front Yard Setback	20 ft.	20 ft. (existing and proposed)
Rear Yard Setback	20 ft.	32 feet (existing) 23 ft., 1 in. (proposed)
Right Side Yard Setback	10 ft.	41 ft. (existing and proposed)
Left Side Yard Setback	10 ft.	10 ft. (existing and proposed)
Maximum Building Height (measured as vertical distance from any point on the natural grade to the topmost point of the building immediately above)	28 ft.	24 ft., 9 in.
Maximum Floor Area	.48 (parcel size) or 4,204 sq. ft. (includes square footage of garage)	36.3% (3,185 sq. ft.(incl. Garage))
Maximum Coverage	25% (2,189 sq. ft.)	18.7% or 1,636.49 sq. ft. (existing) 21.8% or 1,914.6 sq. ft. (proposed)
Daylight Plane or Façade Articulation	20-foot vertical plane with a 45 degree angle as measured on two opposite sides of the structure or articulate all sides of the structure	Complies with the daylight plane as measured from the side setback lines and as measured from the front and rear setback lines. Has potential to comply with the Façade Articulation option, but this option is subjective and would be at the discretion of the Design Review Committee

c. Conformance with Geologic Hazards Zone Regulations

The proposed project is located within a Geologic Hazards (GH) overlay zone in an area known as Seal Cove. The subject parcel is located within Zone 3, which is known as the most stable part of the Seal Cove area. Risk to development in this zone is considered to be low to moderate. As part of the review of any project proposed within the GH overlay zone, the applicant must submit a Geotechnical investigation, prepared by a certified engineering geologist, which analyzes the site and concludes whether or not the lot is suitable for the proposed development.

The applicant submitted the Geotechnical investigation, conducted by Geoforensics, which concluded there is a fault splay which passes through the back corner of the lot, but recommends with certain mitigation measures, construction techniques and materials, that the proposed development can be

safely constructed. The County Geotechnical Section has reviewed the submitted report and found the report accurate. The Geotechnical Section recommends conditional approval of the project and requests the applicant to submit all relevant Geotechnical information at the building permit stage.

Section 6295.4 (*Action on Building Permits*), requires the following to be done prior to issuance of a building permit:

(1) It has been evaluated by the County geologist and has met the criteria set forth in the district regulations. The County Geologist shall approve, approve with conditions, or disapprove any building permit in the "GH" District.

The County Geologist has reviewed the submitted report and has recommended conditional approval of the project. Further review of the project will take place when the applicant applies for a building permit.

(2) The applicant has recorded the following restriction which binds the applicant and any successors in interest on the parcel deed:

"This property is located in Zone 3 of the Seal Cove Geologic Hazards District established by Section 6296 of the San Mateo County Ordinance Code, Zoning Annex. Maps of this district are on file with the County Geologist and the Planning Division, Department of Environmental Management, San Mateo County."

As a condition of approval, the applicant will need to record the statement above on the parcel as a deed restriction and submit a recorded copy to the Planning Division prior to issuance of a building permit.

d. Conformance with the Design Review Standards

The proposed project is located within a Design Review District. The proposed project conforms to the applicable design review standards as stated in Section 6565.7 of the Zoning Regulations.

(1) Proposed structures are designed and situated so as to retain and blend with the natural vegetation and landforms of the site and to insure adequate space for light and air to itself and adjacent properties.

The proposed addition to the existing residence will be located at the rear of the existing structure behind an existing second story. The design maintains the character of the residence and blends in with the surrounding area. There will still be adequate light and air provided to both the subject parcel and adjacent parcels.

(2) *Where grading is necessary for the construction of structures and paved areas, it blends with adjacent landforms through then use of contour grading rather than harsh cutting or terracing of the site and does not create problems of drainage or erosion on its site or adjacent property.*

No real grading will occur during the construction of the second story addition thus no harsh cutting to terracing will occur. The extension to the existing deck will blend with the existing landforms of the site.

(3) *Streams or other natural drainage systems are not altered so as to affect their character and thereby causing problems of drainage, erosion or flooding.*

No streams or other natural drainage channels will be affected by the proposed addition.

(4) *Structures are located outside flood zones, drainage channels and other areas subject to inundation.*

The subject parcel is located within a Flood Zone C, an area of minimal flooding.

(5) *Trees and other vegetation land cover are removed only where necessary for the construction of structures or paved areas in order to reduce erosion and impacts on natural drainage channels, and maintain surface runoff at acceptable levels.*

No trees will be removed to allow the construction of the second story and addition to the exterior deck.

(6) *A smooth transition is maintained between development and adjacent open areas through the use of natural landscaping and plant materials, which are native or appropriate to the area.*

The subject parcel is surrounded by other parcels developed with single-family residences. There are no designated adjacent open areas.

(7) *Views are protected by the height and location of structures and through the selective pruning or removal of trees and vegetative matter at the end of view corridors.*

The existing residence is 23 feet in height. The addition to the second story has been designed to integrate into the existing residential structure and not significantly impact views.

(8) *Construction on ridgelines blends with the existing silhouette by maintaining natural vegetative masses and landforms and does not extend above the height of the forest or tree canopy.*

The proposed project does not involve development on a ridgeline.

(9) *Structures are setback from the edge of bluffs and cliffs to protect views from scenic areas below.*

The proposed project is not proposed on the edge of a bluff or cliff.

(10) *Public views to and along the shoreline from public roads and other public lands are protected.*

Public views will be protected because the proposed project does not affect any views to and along the shoreline from any public road or public land.

(11) *Varying architectural styles are made compatible through the use of similar materials and colors, which blend with the natural setting and surrounding neighborhoods.*

The existing residence employs a siding painted a gray blue color. The additions will have the same exterior material and color as the existing residence.

(12) *The design of the structure is appropriate to the use of the property and is in harmony with the shape, size and scale of adjacent buildings in the community.*

The other residences in the area are a mix of one-story and two-story with a majority of the homes being two-story. The one-story homes are located west of the subject property. Although the subject parcel is substandard for the zoning district, the proposed structure is well below the allowable Floor Area permitted on a parcel this size. In addition, the other residences that surround the subject residence are similar in size and scale.

(13) *Overhead utility lines are placed underground where appropriate to reduce the visual impact in open and scenic areas.*

Any additional utility lines installed as a part of the addition will be placed underground as per a condition of approval.

(14) *The number, location, size, design, lighting, materials, and use of colors in signs are compatible with the architectural style of the structure they identify and harmonize with their surroundings.*

There are no signs proposed for this project.

(15) Paved areas are integrated into the site, relate to their structure, and are landscaped to reduce visual impact from residential areas and from roadways.

No new paved areas are proposed as a part of the proposed development.

3. Conformance with the Local Coastal Program

The proposed project is in conformance with the Local Coastal Program (LCP). Staff has completed an LCP checklist and the following LCP components are relevant to this project:

a. Visual Resources. Staff has determined that the project's overall design and scale, as conditioned, complies with the following policies:

Policy 8.13.a.(4) *Special Design Guidelines for Coastal Communities*. This policy requires that structures fit with the topography of the site, do not require extensive tree cutting, grading or filling on the site, and minimize visual impacts through the protection of natural vegetation and the use of natural exterior surface colors and materials. The proposed addition will not require the removal of any vegetation nor will it require extensive cutting, filling or grading of the site. The applicant has proposed to use the same colors and materials (redwood horizontal lap siding stained natural), for the additions and staff has recommended a condition to ensure that the same materials and colors are used for the building's exterior in conformance with the Design Guidelines, as discussed in Section 2.d of this report.

The Design Guidelines also call for the use of pitched rather than flat roofs and the design of the structures which are in scale with the character of their setting and blend with the overall view of the urbanscape. The proposed additions will incorporate a sloped roof to compliment the existing structure thus it complies with the County standard. The overall design sufficiently blends with the scale and character of the neighborhood.

Policy 8.15 *(Coastal Views for Structural and Community Features)*. This policy requires the protection of coastal views, and the prohibition of development, which substantially blocks views to or along the shoreline from coastal roads, roadside rests, vista points, recreation areas, and beaches. No substantial views would be blocked as a result of the proposed project from coastal roads or roadside rest areas near the subject property.

Policy 8.19 *(Colors and Materials)*. The proposed additions will have the same horizontal siding painted blue gray to match the existing residence.

Staff is recommending a condition that will require review and approval of materials and colors that will match the existing residence and blend, rather than contrast, with the surrounding physical conditions of the site.

In addition, staff is recommending conditions of approval that will require the applicant to submit color samples of the materials, trim and roof material for review and approval prior to building permit issuance. Staff believes that the design of the proposed additions are appropriate to the use of the property and is in harmony with the shape, size and scale of surrounding buildings in the community.

Policy 8.20 *(Scale)*. Staff believes the proposed additions to the existing residence are similar in proportion and detailing to the existing residences in the area and has been designed to be in relationship to the size of the lot.

b. Hazards. Staff has determined that the proposed project conforms to the following Hazards policies of the Local Coastal Program:

Policy 9.3.c *(Regulation of Geologic Hazard Areas)*. Staff believes the project is consistent with this policy as it requires a geologic report prepared by a certified engineering geologist consistent with "Guidelines for Geologic/Seismic Reports" to be submitted for review. The applicant has submitted such report, which has been reviewed by the County's Geotechnical Section.

Policy 9.10 *(Geologic Investigation of Building Sites)*. Staff believes that the project is consistent with this policy, as the applicant has submitted a Geotechnical investigation performed by a certified engineering geologist, which analyzes the potential hazards on the subject parcel. This report was reviewed by the County Geotechnical Section and found adequate. Prior to issuance of a building permit, the applicant must submit a copy of that report to the building department for further review by the County's Geotechnical Section.

B. ALTERNATIVES

If the Zoning Hearing Officer, based on evidence presented or testimony heard at the public hearing, chooses to deny the proposed request, staff is recommending a two-week continuance to prepare findings for denial.

C. ENVIRONMENTAL REVIEW

The project is Categorically Exempt from the California Environmental Quality Act pursuant to Section 15301, Class 1 related to additions to existing structures provided the addition will not result in an increase of more than 50 percent of the floor area of the structure before the addition. The proposed addition is approximately 782 square feet, which is approximately a 24.5% addition to the floor area and thus qualifies for the exemption.

D. REVIEWING AGENCIES

Reviewing Agency	Approve?	Conditions?
Public Works Department	Yes	Yes
Building Inspection Section	Yes	Yes
Half Moon Bay Fire	Yes	Yes
Coastal Commission	No Comments	None
Mid-Coast Community Council	Yes	None
Montara Sanitary District	Yes	Yes
Citizens Utilities	No Comments	None
Geotechnical Section	Yes	Yes

E. REVIEW BY THE MID-COAST COMMUNITY COUNCIL

The Mid-Coast Community Council reviewed this item on July 18, 2001. The Council found no substantive issue with the proposal and felt it was a well-designed addition that was in character with the existing residential structure and surrounding neighborhood.

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Location Map
C. Site Plan
D. Floor Plans
E. Elevations
F. Geotechnical Report Conclusions

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Attachment A

County of San Mateo
Environmental Services Agency
Planning and Building Division

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2001-00345 Hearing Date: February 7, 2002

Prepared By: Sara Bortolussi For Adoption By: Zoning Hearing Officer

RECOMMENDED FINDINGS

Regarding the Coastal Development Permit, Find:

1. That the project, as described in the application and accompanying materials required by Section 6328.7 and as conditioned in accordance with Section 6328.14, conforms with the plans, policies, requirements and standards of the San Mateo County Local Coastal Program.

2. That the project conforms to specific findings required by policies of the San Mateo County Local Coastal Program.

Regarding the Design Review, Find:

3. That the project complies with provisions of Chapter 28.1 (Coastal Zone) of the San Mateo County Zoning Regulations.

Regarding the Environmental Review, Find:

4. That the project is Categorically Exempt from the California Environmental Quality Act pursuant to Section 15301, Class 1 related to additions to existing structures provided the addition will not result in an increase of more than 50 percent of the floor area of the structure before the addition.

RECOMMENDED CONDITIONS OF APPROVAL

Planning Division

1. This approval applies only to the proposal, documents and plans described in this report and submitted to and approved by the Zoning Hearing Officer on February 7, 2002. Minor

revisions or modifications to the project may be approved by the Planning Director if they are consistent with the intent of and in substantial conformance with this approval.

2. The Coastal Development Permit is valid for 1 year, until February 7, 2003. Any request to extend the length of this permit must be received in writing no later than 30 days prior to expiration of the permit, January 2003. The applicant shall apply for and be issued a building permit by February 7, 2003 and develop in accordance with the approved plans as well as install all structures to current building codes.

3. The applicant is required to monitor the noise level at the site so that the proposed construction activity will not exceed 80-dBA level at any one moment. All construction activity is limited to the construction hours of the County including 7:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 5:00 p.m. on Saturday and construction is prohibited on Sunday or any national holiday.

4. Prior to the issuance of a building permit, the applicant shall submit to the Planning Division for review and approval, a Stormwater Management Plan, which shows how transport and discharge of pollutants from the project site will be minimized. The plan shall emphasize the use of impervious materials and minimizes water runoff from the site. The goal is to prevent sediment and other pollutants from entering local drainage systems and water bodies, and protect all exposed earth surfaces from erosive forces. Said plan shall adhere to the San Mateo County Wide Storm Water Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:

    a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 15 and April 15.

    b. Removing spoils promptly, and avoiding stockpiling of fill materials when rain is forecast. If rain threatens, stockpiled soils and other materials shall be covered with a tarp or other waterproof material.

    c. Storing, handling, and disposing of construction materials and wastes to avoid their entry to a local storm drain system or water body.

    d. Avoiding cleaning, fueling or maintaining vehicles on-site, except in an area designated to contain and treat runoff.

5. The approved Stormwater Management Plan shall be implemented prior to the issuance of a building permit. The permanent stormwater controls shall be in place throughout the grading, construction and life of the project.

6. Height verification shall be required at various stages during construction and confirmed in writing at each stage by the project engineer. The site plan submitted for a building permit shall show:

    a. The baseline elevation datum point as established by a licensed land surveyor or engineer. This datum point must be located so that it will not be disturbed by

construction activities. This datum point shall be used during construction activity to verify the elevation of the finished floors relative to the site's existing natural grade.

b. The natural grade elevations at a minimum of four significant corners of the structures footprint.

c. The elevations of the proposed finished grades, where applicable.

d. The ridgeline elevation of the highest point on the roof.

7. All new utility lines to the proposed project shall be installed underground, unless waived by the Planning Administrator.

8. The applicant shall provide an erosion and sediment control plan which minimizes erosion and sediment flow due to construction of the additions. This mitigation shall be in place for the life of the project.

9. The applicant shall submit color and material samples for the exterior walls and roof for both the addition and the deck extension. All additions shall employ the same exterior materials and colors as the existing residence.

10. A Building Inspector will confirm the approved colors in the field prior to a final on the building permit.

11. The applicant shall submit a copy of the required Geotechnical report at the time of application for a building permit and adhere to the recommendations in the report regarding structural design, proper siting, workmanship and materials.

12. The applicant shall record the following on the parcel as a deed restriction and submit a recorded copy to the Planning Department prior to issuance of a Building Permit.

"This property is located in Zone 3 of the Seal Cove Geologic Hazards District established by Section 6296 of the San Mateo County Ordinance Code, Zoning Annex. Maps of this district are on file with the County Geologist and the Planning Division, Department of Environmental Management, San Mateo County."

Building Inspection Section

13. A boundary survey will be required to be submitted at the time of application for a building permit.

14. A site drainage plan is required at the time of application for a building permit.

GEOTECHNICAL INVESTIGATION
FOR PROPOSED NEW ADDITION

at the

Yolken Property

90 Bernal Avenue

Moss Beach, California

Report Prepared for:

Mr. and Mrs. Yolken

Report Prepared by:

GeoForensics, Inc.

March 2001

GEOFORENSICS INC. Consulting Soil Engineering

561 Pilgrim Dr., Suite D, Foster City, California 94404 Phone: (650) 349-3369 Fax: (650) 571-1878

File: 201015
March 21, 2001

Mr. and Mrs. Yolken
90 Bernal Avenue
Moss Beach, CA 94038

Subject: **Yolken Property**
90 Bernal Avenue
Moss Beach, California
GEOTECHNICAL INVESTIGATION
FOR PROPOSED ADDITION

Dear Mr. and Mrs. Yolken:

In accordance with your authorization, we have performed a subsurface investigation into the geotechnical conditions present at the location of the proposed improvements. We have also reviewed geologic reports for adjacent properties to address the location and bearing of the fault which passes through your lot. This report summarizes the conditions we measured and observed, and presents our opinions and recommendations for the design and construction of the proposed new addition.

Site Description

The subject site is a relatively flat-lying, rectangularly-shaped parcel located on the southeastern side of Bernal Avenue at its intersection with Del Mar Avenue (at the approximate location shown on Figure 1). The property is bounded by other developed single family residential lots to the southwest, by the street to the northwest, by the vacant extension of Del Mar Avenue to the northeast, and by undeveloped lands to the southeast.

The site is currently occupied by a two-story, wood-framed residence situated near the front central portion of the lot. There is an attached garage at the northern corner of the house. The exterior house walls are surfaced with wood siding. The wooden house floors are supported above crawlspace areas, while the garage has a concrete slab-on-grade floor. A concrete driveway leads from the street to the garage.

The ground surface in the site vicinity has an overall slope down towards the northwest (as shown on Figure 2). At the site, the ground slopes very slightly down to the west. During the original development of the property, it appears that little or no grading work was required to create the existing level building pad.

The grounds around the residence have been landscaped with lawn areas at the front and rear of the house. A wooden patio is located behind the house.

File: 201015
March 21, 2001

Proposed Construction

We understand that the current development for the site proposes the construction of an addition onto the back left (Eastern) corner of your existing residence. The addition is to be of conventional, wood-framed construction. New foundation loads are expected to be typical for this type of structure (i.e. light).

Grading work is expected to be limited to crawlspace and foundation excavations.

No significant retaining walls are anticipated for this scope of work.

INVESTIGATION

Scope and Purpose

The purpose of our investigation was to determine the nature of the subsurface soil conditions so that we could provide geotechnical recommendations for the construction of the proposed residence addition. In order to achieve this purpose, we have performed the following scope of work:

1 - visited the property to observe the geotechnical setting of the area to be developed;
2 - conducted a floor level survey of the existing residence;
3 - reviewed relevant published geotechnical maps;
4 - reviewed published geologic reports on the faulting in the site vicinity;
5 - drilled a boring near the location of the proposed addition;
6 - performed laboratory testing on collected soil samples;
7 - assessed the collected information and prepared this report.

The findings of these work items are discussed in the following sections of this report.

Site Observations

We visited the site on March 3, 2001 to observe the geotechnically relevant site conditions. During our visit, we noted the following conditions:

A - The existing house appears to be supported by a perimeter concrete footing with isolated interior wooden posts and concrete pedestals. The foundation system was generally in good condition where exposed around the exterior, but we were unable to enter under the house for further evaluation of the foundation's condition.

B - The soils exposed in the crawlspace as viewed from the vents appeared to consist of clayey soils. Based upon the presence of small shrinkage cracks, the soils were judged to have a moderate expansion potential.

C - At the time of our inspection the crawlspace appeared to be damp, however, we were unable to locate the crawl space entry to verify our view through the foundation vents.

D - The interior house walls appeared to be covered with sheetrock. The walls were generally in good condition. Some cracking of the wall coverings was noted in the upper story of the house, while the downstairs area was relatively void of cracking.

E - The exterior house walls were covered with wood siding which will not easily demonstrate signs of distress.

F - We consider the drainage around the house to be poor. The ground surface near the house, and over much of the lot, is flat without good slopes away from the house to adequately carry water away from the house. A low point on the right side appears to allow water to pond up to 6 inches deep by the foundations, and nearby there was evidence of ponded water on top of the pavers. Additionally, the roof downspouts discharge collected water onto the ground surface near the house foundations. All of the water which is discharged, collected, or trapped by the house foundations may seep into the crawlspace.

Floor Level Survey

We used a hydrometer (water level) to determine the relative elevations of various points across the existing house floors. The readings were adjusted to eliminate the differences between floor covering types. The highest adjusted reading was arbitrarily assigned the datum elevation of 0.0 inches, and the remaining elevations were scaled to that datum. On a floor plan of the residence, contour lines (lines of equal elevation) were drawn at ½ inch increments below the datum to create a contour map of the house floors (see Figure 5).

The contours on the floor plan show that the house is relatively level, with a slight low areas located in the interior of the house, with the perimeter slightly higher in elevation. The maximum elevation difference we measured was just under 1.0 inches. For comparison, there are three level tolerances of which we are aware, including:

A - the most restrictive tolerance permits only ¾ inches of elevation difference across an entire residence, and only ½ inches across a single room.

B - another tolerance permits up to 1½ inches across a house before the house is considered to be out-of-level. If the house varies by 1½ to 2½ inches, the house is considered to be moderately out-of-level, and if there is more than 2½ inches of elevation difference, then the house is considered to be severely out-of-level. These tolerances have been based upon our experience with many homeowner's perceptions of their own residences which we have measured. The term "severe" is meant to indicate that evidence of elevation difference is readily apparent to most of the homeowners, and does not necessarily indicate a structural danger exists.

C - in addition to an overall tolerance for a residence, we also use a localized tolerance. The most common elevation difference permits a slope ratio of up to 1:240 (1 inch in 20 feet). Anything over that ratio is considered out-of-level. We have found that most people can not discern slopes until a gradient of approximately 1 percent has been reached. Therefore, a second tolerance of 1:120 (1 inch in 10 feet) has been chosen as the boundary between moderate and severe localized slopes. Again, this tolerance is based upon homeowner perceptions of slope (a cosmetic issue), and does not necessarily reflect the structural condition of the house.

The existing house floors generally meet these tolerances, and we would consider the house floors to be relatively level.

Map Review

We reviewed the *Geotechnical Hazards Synthesis Map for San Mateo County*, by Leighton and Associates (1976) and the *Geologic Map of the Montara Mountain and San Mateo 7½' Quadrangles, San Mateo County, California (USGS Map I-2390)*, by Earl H. Pampeyan (1994). The relevant portion of the Pampeyan map has been reproduced in Figure 3.

The County and USGS maps indicate that the site is underlain by Marine Terrace Deposits (USGS map symbol "Qmt"). The County describes these materials as consisting of "weakly consolidated, slightly weathered sand and gravel deposits". Our subsurface exploration (see below) encountered similar materials to those just described.

The active Seal Cove fault is mapped less than 1000 feet to the northwest of the site, along the base of the base of the northeast facing slope forming the flank of the "Seal Cove bluff". The Seal Cove Fault is part of the San Gregorio-Hozgri fault zone which exists primarily offshore, but comes onshore for a short distance at the northern end of Half Moon Bay. Other Secondary fault traces are shown on the map along the top of this ridge top bluff to either side of the subject property.

Review of Original Soils and Geologic Report

The original soils report for the development of the subject property was issued by PSC Associates on November 29, 1979. The subject site was identified as Lot 1 of the subject 5 lot subdivision. Exploration work on the subject property consisted of the excavation of two fault trenches along the front and rear of the lot. While no faulting was identified in the trench along the street, a fault was identified as clipping the rear corner of the subject property near the back, eastern corner of the lot. This "probable" fault was described as consisting of a 4 to 6 inch wide soil filled crack. No vertical offset was apparent across this crack, nor was there any evidence of shearing of the rock units, fault gouge, or accumulation of water soluble salts in or around the "fault". However, PSC concluded that the crack was probably a near-surface reflection of a bedrock fault below, and recommended a 15 foot set-back from this feature.

Based upon their study, PSC recommended that the house be constructed with a pier and grade beam foundation system. The piers were to have a minimum diameter of 12 inches and minimum depth of 8 feet.

Review of Other Adjacent Property Geologic Reports

We have visited the County of San Mateo Building Department to review geologic reports published for the development of this, and adjacent properties in order to identify the continuity and location of faulting in vicinity of the subject site.

On Figure 6, we have identified the properties where fault trenching has been performed. The numbers on the lots correspond to the appendices at the end of the report where we have reproduced the site plans and trench logs for each of those studies.

On Figure 7, we have plotted each of the trenches excavated for those projects, and the location of all faults identified by the consultants. As can be seen from the trenching summary on Figure 7, the fault which was identified by PSC as crossing through the back corner of your property runs in a nearly straight line to pass through properties to the northeast of DelMar Avenue.

Subsurface Exploration

On , 2001 we drilled one boring at the site at the locations shown on Figure 4. The boring was drilled using a Minute Man portable drilling rig equipped with 3.25 inch diameter, helical flight augers. The log of the soils encountered during drilling record our observations of the cuttings traveling up the augers and of relatively undisturbed samples collected from the base of the advancing hole. The final boring log is based upon the field log with occasional modifications made upon further laboratory examinations of the recovered samples and laboratory test results. The final log is attached in Appendix A.

The relatively undisturbed samples were obtained by driving a 3.0 inch (outer diameter) Modified California Sampler into the base of the advancing hole by repeated blows from a 70 pound hammer lifted 30 inches. On the log, the number of blows required to drive the sampler the final 12 inches of the 18 inch drive, have been recorded as the Blow Counts. These blows have not been adjusted to reflect equivalent blows of any other type of sampler or hammer.

Subsurface Conditions

The boring penetrated interbedded layers of clayey sand and sandy clay (terrace deposits) from the ground surface to a depth of about 12 feet. At a depth of 12 feet, the boring encountered a coarse sand which we interpreted to be a decomposed granite. These sands were red to orange brown, and in a medium dense state.

Please refer to Appendix A for a more detailed description of the soils encountered in the boring.

No free groundwater was encountered during the drilling of the hole. However, during periods of heavy rain or late in the winter, groundwater seepage may exist within the zone penetrated by the boring, possibly as perched water in one of the sandier layers of soil.

Laboratory Testing

The relatively undisturbed samples collected during the drilling process were returned to the laboratory for testing of engineering properties. In the lab, selected soil samples were tested for moisture content, density, strength, and expansion potential. The results of the laboratory tests are attached to this report in Appendix B.

The expansion testing showed that the near-surface materials are highly expansive. From a saturated to an air-dried condition, the tested materials changed volume 0.53 % for every 1% change in moisture content. Total volume change from a saturated to an oven-dried condition was 9.4 percent.

Strength testing was conducted on the soil sample from a depth of 5 feet below grade. The testing showed that this material has moderate to high strength parameters (cohesion = 930 psf, friction angle = 24 degrees).

CONCLUSIONS AND RECOMMENDATIONS

General

Based upon our investigation, we believe that the proposed improvements can be safely constructed. Geotechnical development of the site is controlled by the presence of moderately expansive soils. The site development is also constrained by the presence of a fault splay which passes through the back corner of the lot.

Expansive soils derive their name from their propensity to change volume in response to changes in moisture content. When they become wet, they swell. When they dry out, they shrink. The pressures these soils can exert as they expand are very high, sufficiently high to move most conventional residential foundations. At this property, a swell pressure of about ** psf was measured. The foundation movement induced by the soil shifting can cause wall coverings to crack, doors and windows to stick, and floors to slope. Seasonal movements of expansive soils has caused such distress to countless houses in the Bay Area.

To combat seasonal expansive soil movements, it is necessary to utilize a foundation system which derives its support from the deeper, more stable soils. Typically, a drilled, cast-in-place pier foundation system is used to reach the more stable materials. Therefore, we have recommended that such foundation system be utilized at this site.

Landsliding - The subject site and the surrounding area are generally level. Therefore, the hazard due to seismically-induced landsliding is, in our opinion, very low for the site.

Ground Subsidence - Ground subsidence may occur when poorly consolidated soils densify as a result of earthquake shaking. Since the proposed building site is underlain at shallow depths by resistant materials, the hazard due to ground subsidence is, in our opinion, considered to be low.

Lateral Spreading - Lateral spreading may occur when a weak layer of material, such as a sensitive silt or clay, loses its shear strength as a result of earthquake shaking. Overlying blocks of competent material may be translated laterally towards a free face. Such conditions were not encountered on the proposed building site, therefore, the hazard due to lateral spreading is, in our opinion, considered very low.

Site Preparation and Grading

All debris resulting from the demolition of existing improvements should be removed from the site and may not be used as fill. Any existing underground utility lines to be abandoned, should be removed from within the proposed building envelope and their ends capped outside of the building envelope.

Any vegetation and organically contaminated soils should be cleared from the building area. All holes resulting from removal of tree stumps and roots, or other buried objects, should be over-excavated into firm materials and then backfilled and compacted with native materials.

Fills may use organic-free soils available at the site or import materials. Import soils should be free of construction debris or other deleterious materials and be non-expansive. *A minimum of 3 days prior to the placement of any fill, our office should be supplied with a 30 pound sample (approximately a full 5 gallon bucket) of any soil or baserock to be used as fill (including native and import materials) for testing and approval.*

All areas to receive fills should be stripped of organics and loose or soft near-surface soils. Fills should be placed on level benches in lifts no greater than 6 inches thick (loose) and be compacted to at least 90 percent of their Maximum Dry Density (MDD), as determined by ASTM D-1557. If native expansive soils are used for fill at the site, then the soils should be placed at 3 to 5% over Optimum Moisture Content and be compacted to **between** 85 to 90 percent of their MDD. In pavement (concrete or asphalt) areas to receive vehicular traffic, all baserock materials should be compacted to at least 95 percent of their MDD. Also, the upper 6 inches of soil subgrade beneath any pavements should be compacted to at least 90 percent of its MDD.

Temporary, dry-weather, vertical excavations should remain stable for short periods of time to heights of 5 feet. Deeper cuts may experience raveling and sloughing. If this occurs, the cuts will need to be trimmed back per our recommendations made in the field. All excavations should be shored in accordance with OSHA standards.

Permanent cut and/or fill slopes should be no steeper than 2:1 (H:V). However, even at this gradient, minor sloughing of slopes may still occur in the future. Positive drainage improvements (e.g. drainage swales, catch basins, etc.) should be provided to prevent water from flowing over the tops of cut and/or fill slopes.

Foundations

Due to the presence of moderately expansive site soils, and the existing pier foundations used to support the existing residence, the new addition foundations will need to penetrate into the deeper, more stable soils. We recommend a pier and grade beam foundation system continue to be used. ***All pier and grade beam foundation elements should be located beyond the 15 foot set-back as prescribed by PSC. However, it is acceptable to have wood framed sections of the house cantilever over the foundations within that set-back zone, as any potential fault offset will not be of sufficient magnitude to impact the framing and therefore cannot cause distress.***

Piers should penetrate a minimum of 10 feet below lowest adjacent grade, and 5 feet into competent native materials, whichever is deeper. It should be assumed that up to 5 feet of overburden will exist at the site, so nominal pier depths will be on the order of 10 feet below lowest adjacent grade.

Piers should have a minimum diameter of 12 inches and be nominally reinforced with a minimum of two #5 bars vertically. If pier depths are to extend over 15 feet deep, then minimum 16 inch diameter piers should be used. Piers should be spaced no closer than 4 diameters, center to center.

Actual pier depth, diameter, reinforcement, and spacing should be determined by the structural engineer based upon the following design criteria:

A friction value of 500 psf may be assumed to act on that portion of the pier below a depth of 5 feet. Lateral support may be assumed to be developed along the length of the pier below 5 feet, using a passive pressure of 350 pcf Equivalent Fluid Weight (EFW). Passive resistance may be assumed to act over 1.5 projected pier diameters. Above 5 feet, no frictional or lateral support may be assumed. These design values may be increased ⅓ for transient loads (i.e. seismic and wind).

Even though piers are designed to derive their vertical resistance through skin friction, the bases of the piers holes should be clean and firm prior to setting steel and pouring concrete. If more than 6 inches of slough exists in the base of the pier holes after drilling, then the slough should be removed. If less than 6 inches of slough exists, the slough may be tamped to a stiff condition. Piers should not remain open for more than a few days prior to casting concrete. In the event of rain, shallow groundwater, or caving conditions it may be necessary to pour piers immediately.

All perimeter piers, and piers under load-bearing walls, should be connected by concrete grade beams. Perimeter grade beams should penetrate a minimum of 6 inches below crawlspace grade. Interior grade beams do not need to penetrate below grade. All other isolated floor supports must also be pier supported to resist expansive soil uplift, however, they do not need to be connected by grade beams.

In order to reduce any expansive soil uplift forces on the base of the grade beams, the beams should have either a uniform 3 inch void between their base and the soil, or should be constructed with a knife edge and triangular shaped void in a rectangular trench. The void can be created by the use of prefabricated cardboard void material (e.g. K-void, Sure-void, Carton-void), half a sonotube faced concave down, or other methods devised by the contractor and approved by our offices. *The use of Styrofoam is not acceptable for creating the void.*

As an alternative to the construction of a void beneath the grade beam, the foundation system may be designed to resist a uniform uplift force of 1500 psf, assumed to be acting against the base of the grade beam. This uplift force may be resisted by the dead load of the building, and by an uplift friction of 400 psf, assumed to be acting on the portion of the piers below 5 feet. In addition to possible increased pier embedment to resist uplift, the steel reinforcing in the piers and the grade beams should be designed to resist the tensile forces generated by the uplift.

All improvements connected directly to any pier supported structure, also need to be supported by piers. This includes, but is not limited to: porches, decks, entry stoops and columns, etc. If the designer does not wish to pier support these items, then care must be taken to structurally isolate them (with expansion joints, etc.) from the pier supported structure.

If the above recommendations are followed, total foundation settlements should be less than 1 inch, while differential settlements should be less than ½ inches.

Retaining Walls

No retaining walls are proposed for the project. Should plans change to include the use of retaining walls, then our office should be contacted for further recommendations.

Slabs-on-Grade

The addition floors should not consist of concrete slabs-on-grade. This is due to the expansive nature of the site soils which would cause deformations in a conventional slab-on-grade. However, any sidewalks or patios may consist of conventional concrete slabs-on-grade. Though, it should be expected that some seasonal shifting of such slabs will occur. We have provided guidelines to help reduce post-construction movements, however, it is nearly impossible to economically eliminate such shifting.

To help reduce cracking, we recommend slabs be a minimum of 4 inches thick and be nominally reinforced with #4 bars at 18 inches on center, each way. Slabs which are thinner or more lightly reinforced may experience undesirable cosmetic cracking. However, actual reinforcement and thickness should be determined by the structural engineer based upon anticipated usage and loading.

In large slabs (e.g. patios), score joints should be placed at a maximum of 10 feet on center. In sidewalks, score joints should be placed at a maximum of 5 feet on center. All slabs should be separated from adjacent improvements (e.g. footings, porches, columns, etc.) with expansion joints.

It would be prudent (though not required) to underlay all slabs with at least 12 inches of non-expansive materials. This will help to reduce future expansive soil movements of the slabs. Slabs which are not underlain by this non-expansive material may undergo excessive seasonal shifting.

Slabs which will be subject to light vehicular loads and through which moisture transmission is not a concern (e.g. driveway) should be underlain by at least 6 inches of compacted baserock, in lieu of the sand and gravel. The 6 inches of granular subgrade may be included as part of the 12 inches of non-expansive materials. Exterior landscaping flatwork (e.g. patios and sidewalks) may be placed directly on proof-rolled soil subgrade materials (e.g. no granular subgrade), however, they will be potentially subject to shifting and moisture transmission.

As stated previously, in pavement (concrete or asphalt) areas to receive vehicular traffic, all baserock materials should be compacted to at least 95 percent of their MDD. Also, the upper 6 inches of native soil subgrade beneath any pavements should be compacted to at least 90 percent of its MDD.

To reduce post-construction expansive soil movements (i.e. heave) of any slabs, care should be taken to keep the subgrade moist for an extended period of time (two to three weeks) prior to pouring the slabs. *Shrinkage cracks should not be allowed to develop in the soil beneath any proposed slabs.*

Drainage

Due to the expansive nature of the site soils, it will be important to provide good drainage improvements at the property.

Surface Drainage - Adjacent to any buildings, the ground surface should slope at least 4 percent away from the foundations within 5 feet of the perimeter. Impervious surfaces should have a minimum gradient of 2 percent away from the foundation.

Surface water should be directed away from all buildings into drainage swales, or into a surface drainage system (i.e. catch basins and a solid drain line). "Trapped" planting areas should not be created next to any buildings without providing means for drainage.

All roof eaves should be lined with gutters. The downspouts should be connected to solid drain lines, or should discharge onto paved surfaces which drain away from the structure. The downspouts may be connected to the same drain line as any catch basins, but should not connect to any perforated pipe drainage system.

Footing Drain - Due to the potential for changes to surface drainage provisions, it would be wise (though not required) to install a perimeter footing drain to intercept water attempting to enter the crawlspace. If a footing drain is not installed, some infiltration of moisture into the crawlspace may occur. Such penetration should not be detrimental to the performance of the structure, but can possibly cause humidity and mildew problems within the house.

The footing drain system, if installed, should consist of a 12 inch wide gravel-filled trench, *dug a minimum of 3 feet deep, and at least 8 inches below the elevation of the adjacent crawlspace, whichever is deeper*. The trench should be lined with a layer of filter fabric (Mirafi 140N or equivalent) to prevent migration of silts and clays into the gravel, but still permit the flow of water. Then 1 to 2 inches of drain rock (clean crushed rock or pea gravel) should be placed in the base of the lined trench. Next a perforated pipe (minimum 3 inch diameter) should be placed on top of the thin rock layer. The perforations in the pipe should be face down. The trench should then be backfilled with more rock to within 6 inches of finished grade. The filter fabric should be wrapped over the top of the rock. Above the filter fabric 6 inches of native soils should be used to cap the drain. If concrete slabs are to directly overlay the drain, then the gravel should continue to the base of the slab, without the 6 inch soil cap. <u>This drain should not be connected to any surface drainage system.</u>

Drainage Discharge - The surface drain lines should discharge at least 15 feet away from the house. The discharge location(s) should be protected by energy dissipaters to reduce the potential for erosion. Care should be taken not direct concentrated flows of water towards neighboring properties. This may require the use of multiple discharge points.

The footing drain (if installed) and any back-of-wall drain lines should discharge independently from the surface drainage system. It is likely that a sump and pump would need to be installed due to the lack of significant surface elevation differences across the site.

The surface and subsurface drain systems <u>should not</u> be connected to one another.

Drainage Materials - Drain lines should consist of hard-walled pipes (e.g. Schedule 40 PVC or SDR 35). In areas where vehicle loading is not a possibility, SDR 38 or HDPE pipes may be used. Corrugated, flexible pipes may not be used in any drain system installed at the property.

Surface drain lines (e.g. downspouts, area drains, etc.) should be laid with a minimum 2 percent gradient (¼ inch of fall per foot of pipe). Subsurface drain systems (e.g. footing drains) should be laid with a minimum 1 percent gradient (⅛ inch of fall per foot of pipe).

Utility Lines

All new utility trenches should be backfilled with compacted native clay-rich materials within 5 feet of any buildings. This will help to prevent migration of surface water into trenches and then underneath the structures' perimeter. The rest of the trenches may be compacted with other native soils or clean imported fill. Only mechanical means of compaction of trench backfill will be allowed. Jetting of sands is not acceptable. Trench backfill should be compacted to at least 90 percent of its MDD. However, under pavements, concrete flatwork, and footings the upper 12 inches of trench backfill must be compacted to at least 95 percent of its MDD.

Plan Review and Construction Observations

The use of the recommendations contained within this report are contingent upon our being contracted to review the plans, and to observe geotechnically relevant aspects of the construction.

We should be provided with a full set of plans to review at the same time the plans are submitted to the building/planning department for review. A minimum of one working week should be provided for review of the plans.

At a minimum, our observations should include: compaction testing of fills and subgrades; pier drilling; forming of the grade beams voids; slab subgrade preparation; installation of any drainage system (e.g. footing and surface), and final grading. A minimum of 48 hours notice should be provided for all construction observations.

LIMITATIONS

This report has been prepared for the exclusive use of the addressee, and their architects and engineers for aiding in the design and construction of the proposed development. It is the addressee's responsibility to provide this report to the appropriate design professionals, building officials, and contractors to ensure correct implementation of the recommendations.

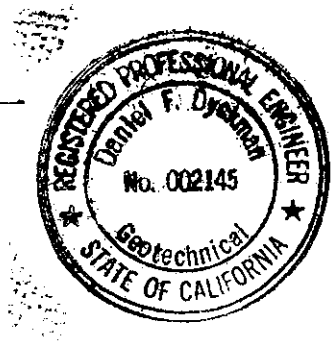
The opinions, comments and conclusions presented in this report were based upon information derived from our field investigation and laboratory testing, and our review of geologic reports by other professionals on adjacent lots. Conditions between, or beyond, our borings may vary from those encountered. Such variations may result in changes to our recommendations and possibly variations in project costs. Should any additional information become available, or should there be changes in the proposed scope of work as outlined above, then we should be supplied with that information so as to make any necessary changes to our opinions and recommendations. Such changes may require additional investigation or analyses, and hence additional costs may be incurred.

File: 201015
March 21, 2001

Our work has been conducted in general conformance with the standard of care in the field of geotechnical engineering currently in practice in the San Francisco Bay Area for projects of this nature and magnitude. We make no other warranty either expressed or implied. By utilizing the design recommendations within this report, the addressee acknowledges and accepts the risks and limitations of development at the site, as outlined within the report.

Respectfully Submitted;
GeoForensics, Inc.

Daniel F. Dyckman, PE, GE
Senior Geotechnical Engineer, GE 2145



cc: 5 to addressee

Department of Public Works

15. Prior to the issuance of the Building Permit, the applicant will be required to provide payment of "roadway mitigation fees" based on the increase in square footage (assessable space) do to the addition per ordinance #3277.

16. No construction work within the County right-of-way shall begin until Public Works requirements for the issuance of an encroachment permit, including review of applicable plans, have been met and an encroachment permit issued by the Department of Public Works.

Half Moon Bay Fire Protection District

17. A fire district approved fire hydrant (Clow 960) must be located within 250 feet of the proposed single family dwelling unit measured by way of driveable access. The hydrant must produce a minimum fire flow of 1,000 gallons per minute at 20 pounds per square inch residual pressure for two hours. Contact your local water purveyor for water flow details.

18. As per the California Building Code and State Fire Marshal regulations, the applicant is required to install State Fire Marshal approved and listed smoke detectors which are hard wired, interconnected and have battery backup. These detectors are required to be placed in each sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. A minimum of one detector shall be placed on each floor. Smoke detectors shall be tested and approved prior to the building final.

19. Building identification shall be conspicuously posted and visible from the street. (Temporary address numbers shall be posted prior to combustibles being placed on-site). The letters/numerals for permanent address signs shall be of adequate size and of color, which is contrasting with the background. In no case shall letters/numerals be less than 4 inches in height with a minimum 3/4-inch stroke. Such letters/numerals shall be internally illuminated and facing the direction of access.

20. The roof covering of every new building or structure, and materials applied as part of a roof covering assembly, shall have a minimum fire rating of Class "B" or higher as defined in the current edition of the California Building Code.

21. The applicant must have a maintained all-weather surface road for ingress and egress of fire apparatus. The San Mateo County Department of Public Works and the Half Moon Bay Fire District ordinance shall set road standards. Dead-end roads exceeding 150 feet shall be provided with a turnaround in accordance with Half Moon Bay Fire District specifications. Road width shall not be less than 20 feet.

22. The Half Moon Bay Fire District requires a minimum clearance of 30 feet, or to the property line of all flammable vegetation to be maintained around all structures by the property owner. This does not include individual species of ornamental shrubs and landscaping.

Montara Sanitary District

23. The Montara Sanitary District requires a remodel permit if any new fixtures will be added.

Geotechnical Section

24. The applicant shall submit all relevant Geotechnical reports to the Building Inspection Section at the time of application for a building permit for review and approval by the Geotechnical Section.

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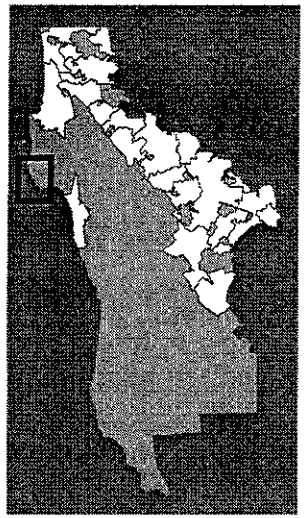

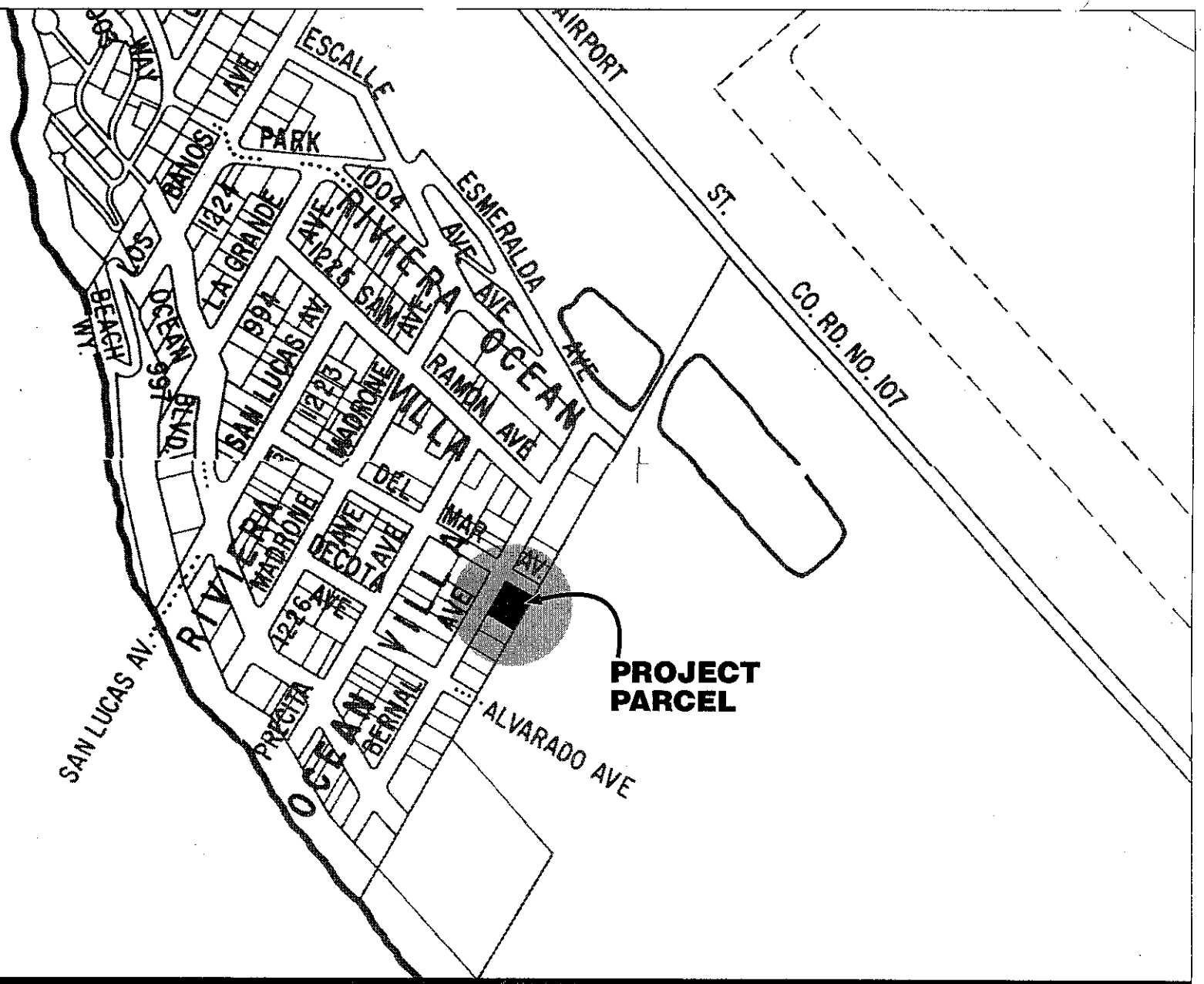

San Mateo County Zoning Hearing Officer Meeting

Applicant: Turner Home Services

Attachment: B

File Numbers: PLN 2001-00345

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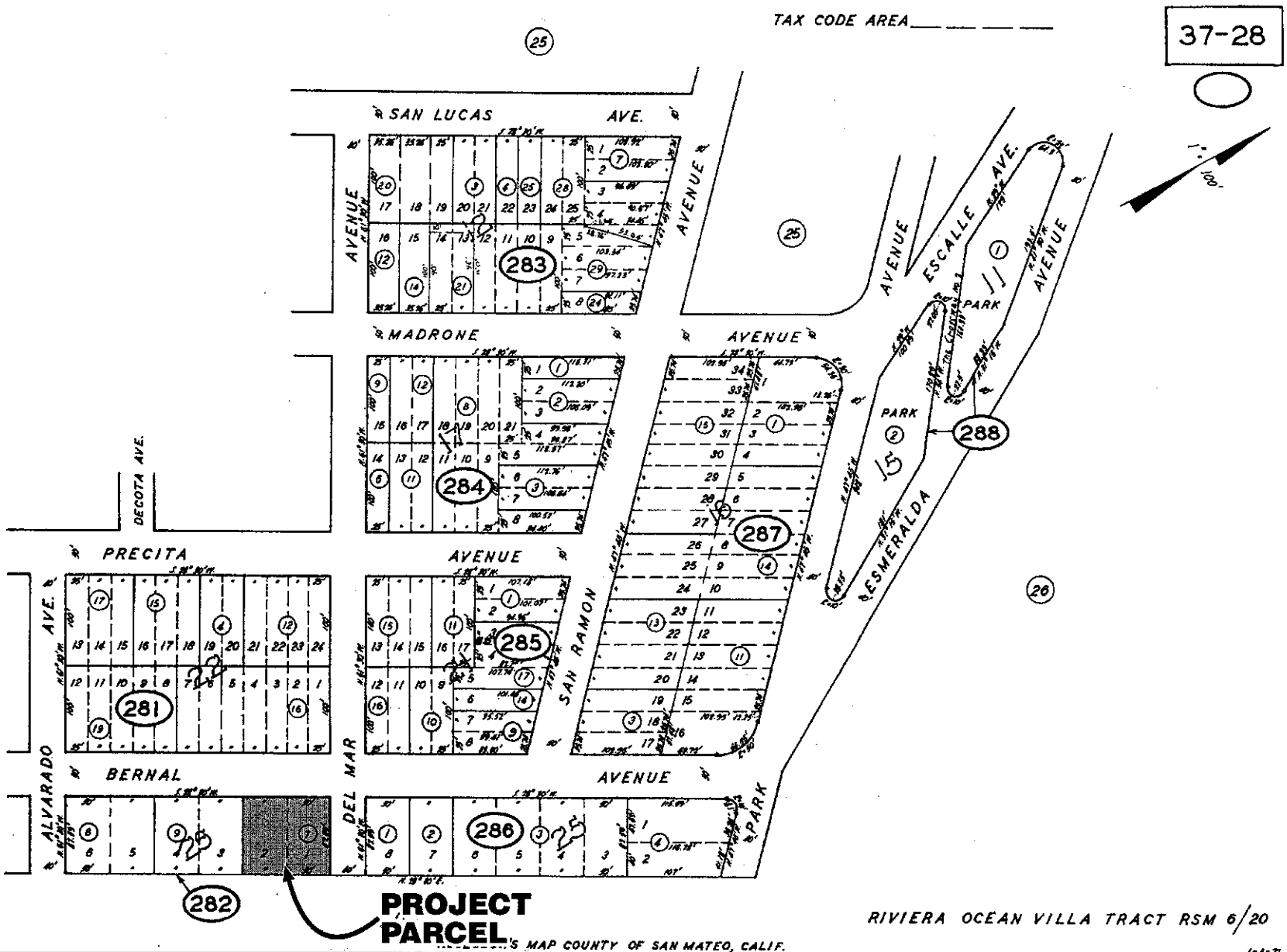

San Mateo County Zoning Hearing Officer Meeting

Applicant: Turner Home Services

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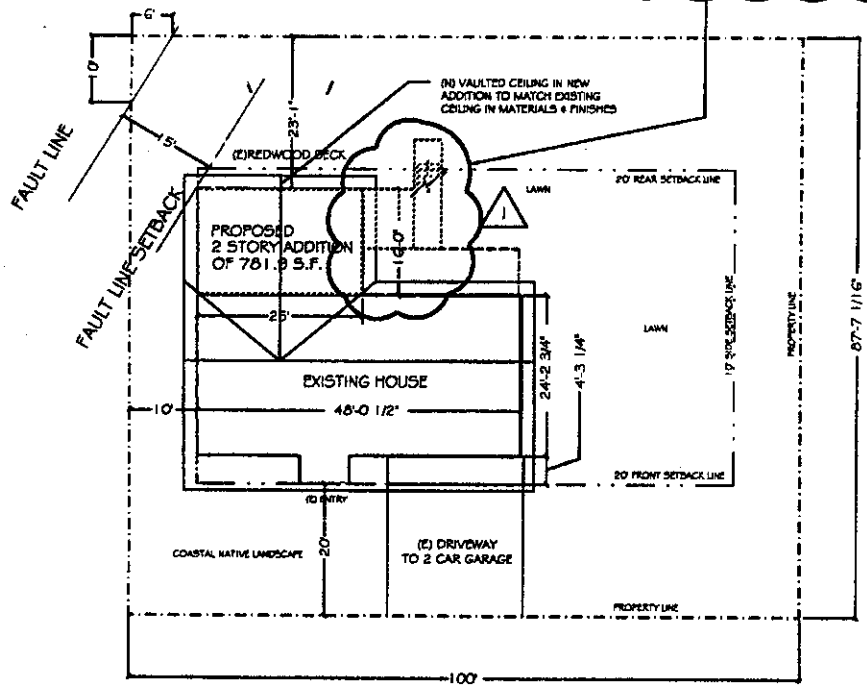


BERNAL AVE.

1 PLOT PLAN

SCALE: 1/8"=1'-0"

ORIGINAL SUBMITTED PLANS HAVE BEEN REVISED TO INDICATE DEMOLITION OF EXTERIOR STAIR, AND RECONSTRUCTED AT A NEW LOCATION. NEW CONSTRUCTION TO ALSO INCLUDE AN UNCOVERED DECK EXTENDING OFF OF EXISTING DECK. TOTAL OF 63.1 SQ. FT.

LOT DATA

APN # 037- 282- 070

LOT AREA	6,759.0	S.F.
EXISTING HOUSE	2,403.3	S.F.
EXISTING DECKS UNDER 18' IN HEIGHT OFF GRADE	669.9	S.F.
EXISTING DECK AND EXTERIOR STAIRS OVER 18' IN HEIGHT	390.3	S.F.
AREA OF DECK AND EXTERIOR STAIRS TO BE DEMODE	226.24	S.F.
PROPOSED HOUSE ADDITION	781.9	S.F.
NEW DECK AND STAIRS	15.4	S.F.
NEW TOTAL FOR DECKS & EXTERIOR STAIRS OVER 18' IN HEIGHT	343.66	S.F.

(E) LOT COVERAGE = 1,636.49 SQ. FT. 18.7%
PROP. LOT COVERAGE = 1,914.6 SQ. FT. 21.8%

(E) FLOOR AREA RATIO = 2,403.3 SQ.FT. 27.4%
PROP.FLOOR AREA RATIO 3,185.2 SQ.FT. 36.3%

LOCATION

PROJECT DESCRIPTION:

CONSTRUCT TWO STORY ADDITION OF 781.9 SQ. FT. TO EXISTING TWO STORY SINGLE FAMILY RESIDENCE. NEW ADDITION AT FIRST FLOOR OF A NEW CLOSET TO EXISTING BEDROOM AND A NEW BEDROOM W/ WALK-IN CLOSET AND HALLWAY ACCESSING NEW BATHROOM. REMODEL WORK IS TO CONVERT (E) BEDROOM SPACE INTO HALLWAY GIVING ACCESSIBILITY TO NEW BEDROOM. THE NEW SECOND FLOOR ADDITION IS OF A NEW OFFICE AND NEW FAMILY ROOM. NEW CONSTRUCTION IS TO MATCH IN STYLE, MATERIALS/ FINISHES TO EXISTING HOUSE.

TURNER Home Services, Inc.
121 MAIN STREET
HALF MOON BAY, CA 94019
(650) 726-7000
LICENSE #944726

NOTE: ALL DIMENSIONS ARE FINISHED MEASUREMENTS

PLOT PLAN

A-1

BY: R&C. / J.K.C.

JOB # 00066

DATE: 10-11-01

REVISED 1/09/01

SCALE: 1/8"= 1'0"

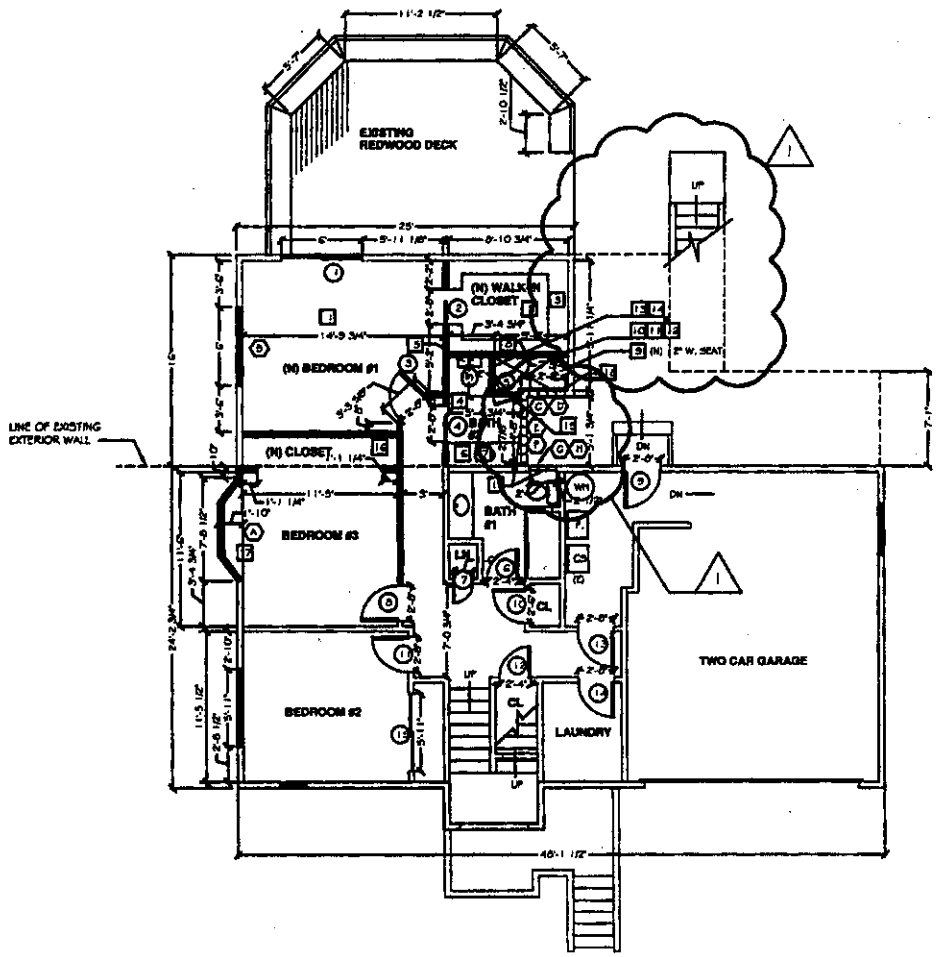
PLOT PLAN
REMODEL/ ADDITION FOR:
MICHAEL & KATHY YOLKEN
90 BERNAL STREET
MOSS BEACH, CA 94038

San Mateo County Zoning Hearing Officer Meeting

Applicant: Turner Home Services

Attachment: C

File Numbers: PLN 2001-00345



PROPOSED FIRST FLOOR PLAN

SCALE: 1/4"=1'-0"

SPECIFICATIONS:

1. (N) FLOORING IN BEDROOM #1 TO BE CARPET
2. (N) FLOORING IN WALK-IN CLOSET TO BE _____
3. WALK-IN CLOSET TO HAVE COAT RODS. DESCRIPTION: _____ TWO ROW OF 12" WOOD SHELVES OVER COAT ROD. FINISH: _____
4. BATHROOM #2 FLOORING TO BE _____. COLOR: _____, MODEL: _____
5. BATHROOM #2 (N) TOILET, MAKE: _____, MODEL: _____, COLOR: _____
6. BATHROOM #2 (N) VANITY AND SINK, MODEL: _____ MAKE: _____, COLOR: _____
7. BATHROOM #2 (N) VANITY FIXTURES, MODEL: _____, MAKE: _____, FINISH: _____
8. BATHROOM #2 (N) SHOWER CONTROL VALVE & FAUCET, MODEL: _____, MAKE: _____, FINISH: _____
9. BATHROOM #2 (N) 12" SHOWER SEAT, FINISH: _____
10. BATHROOM #2 SHOWER SOAP DISH, MAKE: _____, MODEL: _____
11. BATHROOM #2 SHOWER WALL TILE SIZE: _____, COLOR: _____ DESCRIPTION: _____
12. BATHROOM #2 SHOWER FLOOR TILE, SIZE: _____, MODEL: _____ DESCRIPTION: _____
13. SHOWER SURROUND TO BE TEMPERED GLASS TO MATCH SHOWER DOOR.
14. LOW 36" WALL TO BE TILED TO MATCH SHOWER WALL TILE. WALL TO HAVE TUB FIXTURE VALVE PLUMBING AND HAVE SHOWER SURROUND SET ON TOP LEDGE.
15. SHOWER CURB TO BE TILED. SIZE: _____, COLOR: _____
16. (N) CLOSET FLOORING TO BE: _____
17. (N) 7'-6 1/2" X 4'-6" BAY WINDOW: 45 CASEMENT BAY WINDOW WITH CW CASEMENT EGRESS FLANKERS.
18. GLASS BLOCK WINDOWS

NOTE: REPLACE ALL EXISTING INTERIOR DOORS WITH (N) DOORS. ALL INTERIORS DOOR TO BE SOLID CORE DOORS.

TURNER Home Services, Inc.
121 MAIN STREET
HALF MOON BAY, CA 94019
(650) 726-7000
LICENSE #644726

NOTE: ALL DIMENSIONS ARE FINISHED MEASUREMENTS

PROPOSED FLOOR PLAN

These plans are specifically for construction by TURNER HOME SERVICES, INC. and are not to be used by any other person building for any other TURNER HOME SERVICES, INC. and other owners are not responsible.

A-5

BY: RGC. / JKC.

JOB # 00066

FIRST FLOOR PLAN
REMODEL/ADDITION FOR:
MICHAEL & KATHY YOLKEN
90 BERNAL STREET
MOSS BEACH, CA 94038

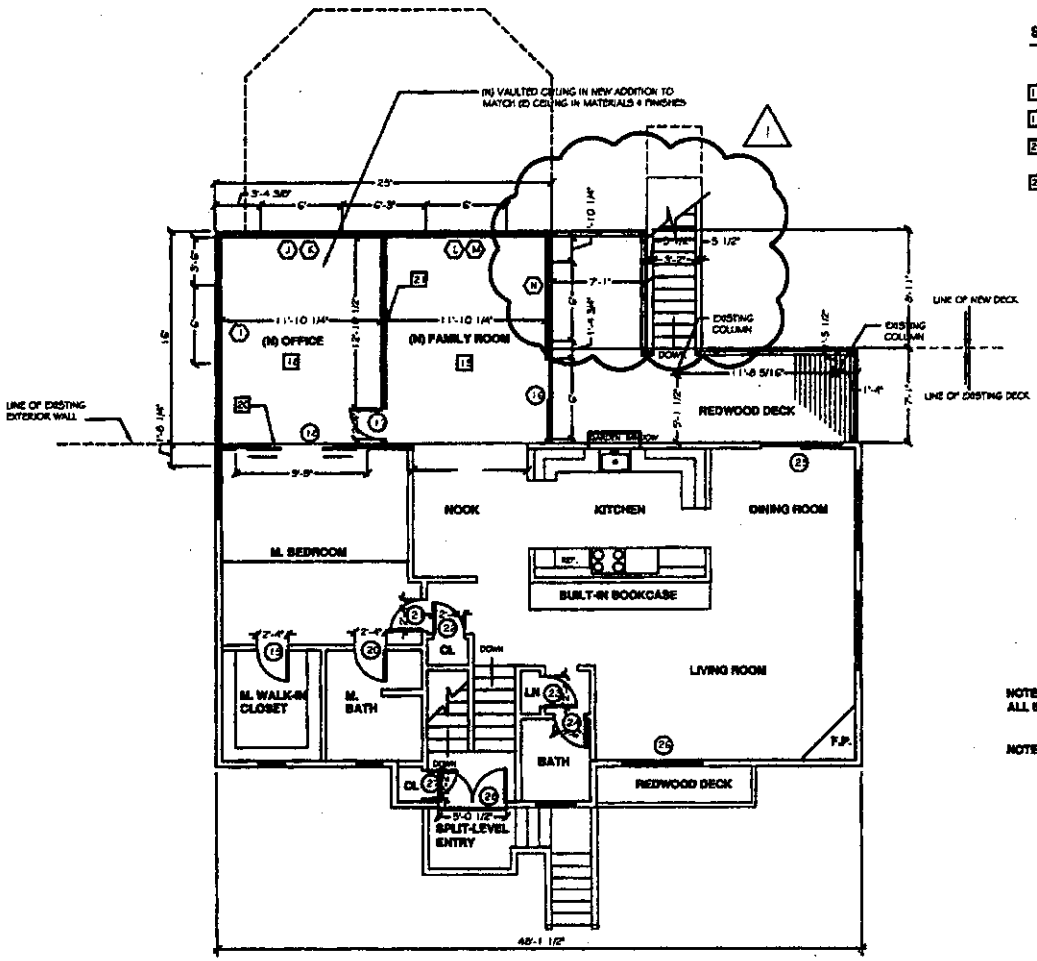
DATE: 10-11-01
REVISED 11/05/01
SCALE: 1/4"= 1'0"

San Mateo County Zoning Hearing Officer Meeting

Applicant: Turner Home Services

Attachment: D

File Numbers: PLN 2001-00345



PROPOSED SECOND/ MAIN FLOOR PLAN

1

SCALE: 1/4"=1'-0"

SPECIFICATIONS: (CONT.)

16 (N) OFFICE FLOORING:_____

19 (N) FAMILY ROOM FLOORING TO BE:_____

24 (N) 5'-0" X 6'-8" INTERIOR SLIDING GLASS DOORS, MAKE: ANDERSON DOORS, MODEL: FWG 1606 I I-4, FINISH:_____

27 (N) INTERIOR PARTITION WALL TO MATCH EXISTING WALLS IN FINISH

NOTE: REPLACE ALL EXISTING INTERIOR DOORS WITH (N) DOORS. ALL INTERIORS DOOR TO BE SOLID CORE DOORS.

NOTE: REPLACE ENTRY DOOR WITH (N) DOOR.

TURNER Home Services, Inc.
121 MAIN STREET
HALF MOON BAY, CA 94019
(650) 726-7500
LICENSE #644756

NOTE: ALL DIMENSIONS ARE FINISHED MEASUREMENTS

PROPOSED FLOOR PLAN

A-6

BY: RGC. / JKC.

JOB # 00066

SECOND FLOOR PLAN
REMODEL/ ADDITION FOR:
MICHAEL & KATHY YOLKEN
90 BERNAL STREET
MOSS BEACH, CA 94038

DATE: 10-11-01
REVISED: 11/6/01

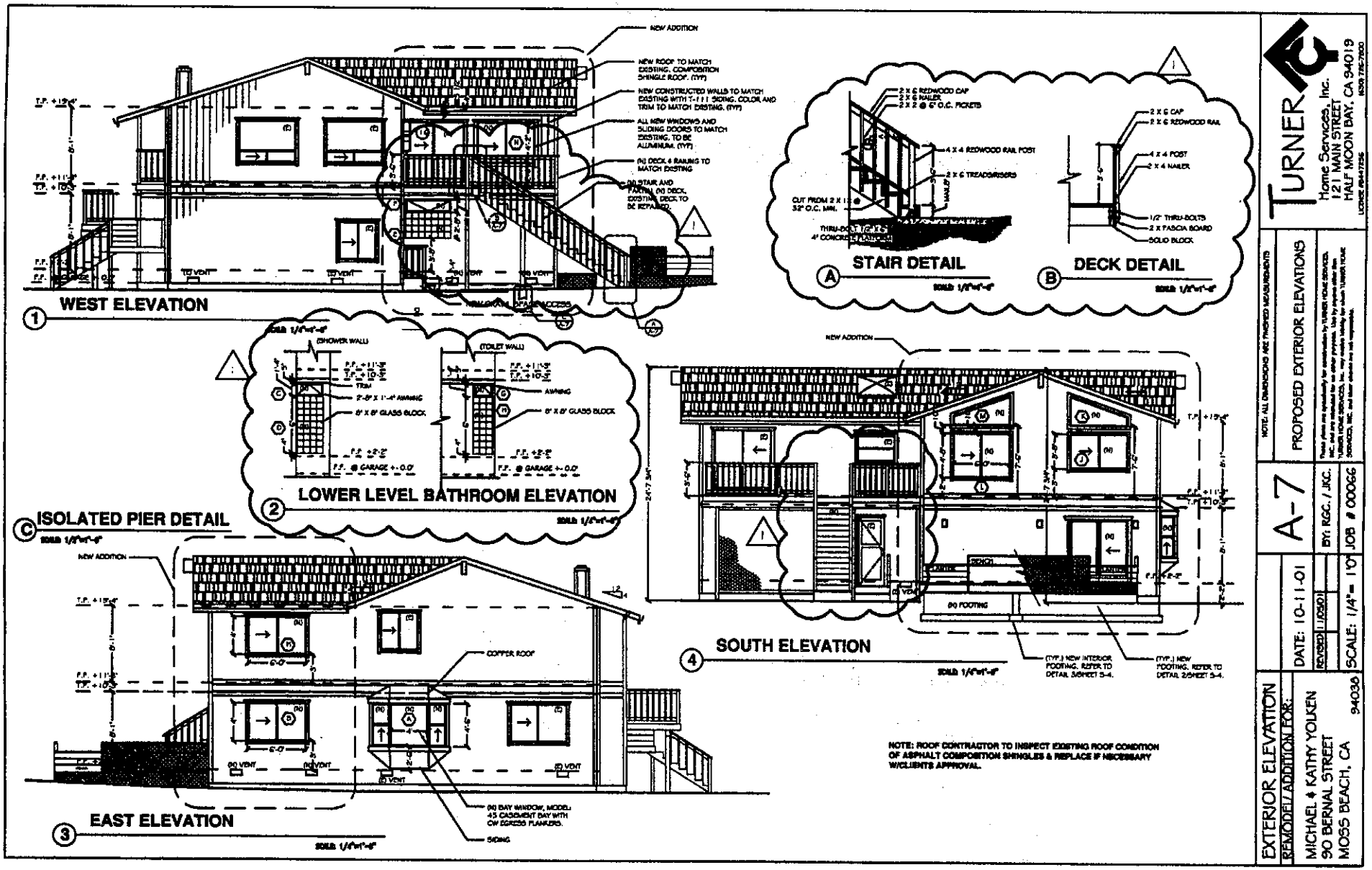
SCALE: 1/4"= 1'0"

San Mateo County Zoning Hearing Officer Meeting

Applicant: Turner Home Services

Attachment: D

File Numbers: PLN 2001-00345

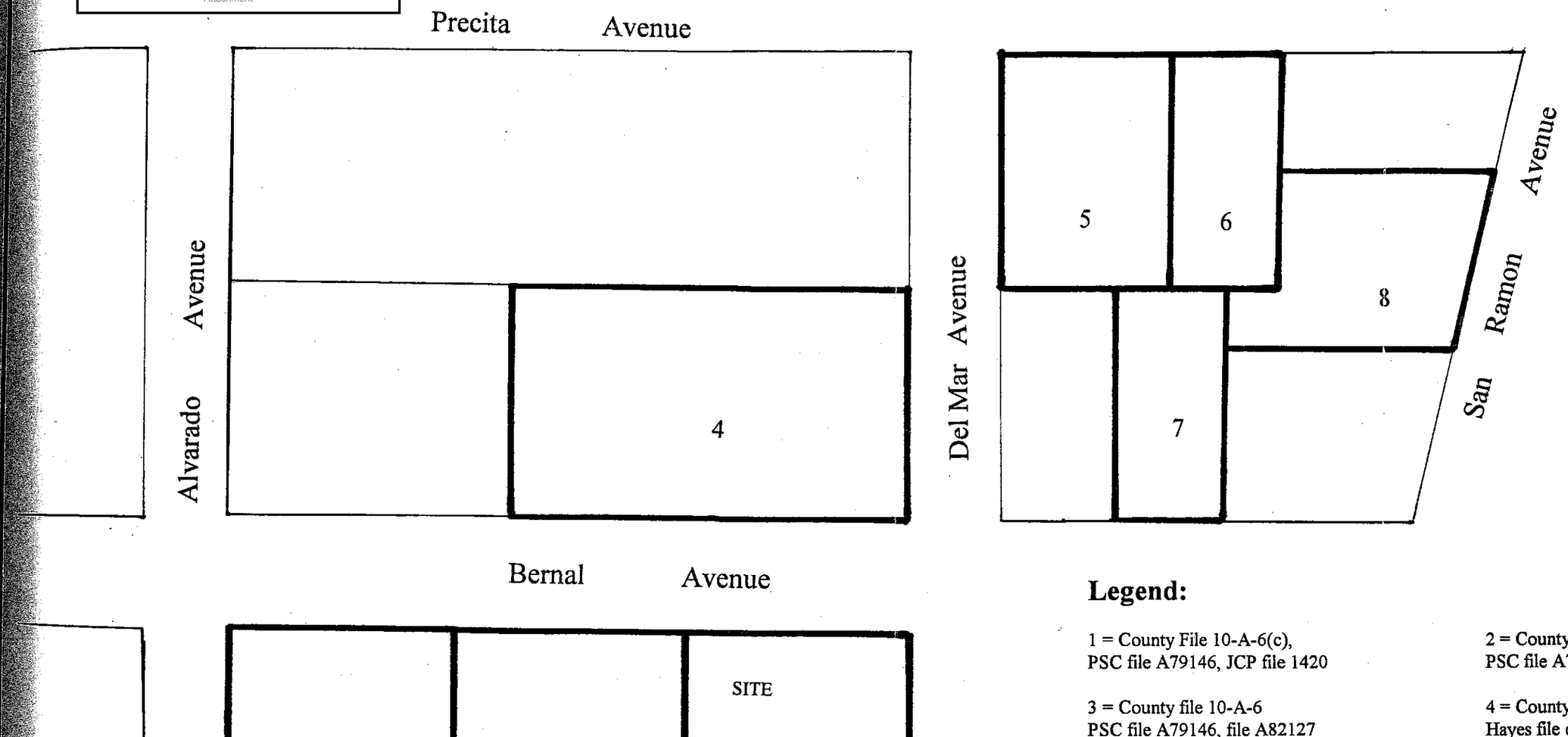


San Mateo County Zoning Hearing Officer Meeting

Applicant: Turner Home Services

Attachment: E

File Numbers: PLN 2001-00345



Legend:

1 = County File 10-A-6(c),
PSC file A79146, JCP file 1420

2 = County file 10-A-6(a)
PSC file A79146, file A82127

3 = County file 10-A-6
PSC file A79146, file A82127

4 = County file 10-A-5;
Hayes file dated 9/79

5 = County file 10-A-25;
Wood file 1004-84; JCP file 1650

6 = County file 10-A-23;
Wood file 1004-84, file 1003-84

7 = County file 10-A-20;
Wood file 1004-84, file 1003-84

8 = County file 10-A-31;
Wood file 1004-84, file 1003-84;
MJ King file dated 6/89

Scale: 1" = 50'

GeoForensics Inc.
561-D Pilgrim Drive Foster City, CA 94404
Tel: (650) 349-3369 Fax: (650) 571-1878

Figure 6 - Location of Geologic Studies

Dennis Aguirre - RE: San Ramon at Bernal

From: "Demouthe, Jean" <JDemouthe@calacademy.org>
To: "ABDUL, MAJDI" <ma9505@att.com>, Sigma Prime <sigmaprm@pacbell.net>, Den...
Date: 8/29/2014 11:51 AM
Subject: RE: San Ramon at Bernal

Dear Dr. Abdul:

The project has several phases, as I am sure you know by now. In the planning stage, which is where you are now, it is sufficient for us to have read the Sigma Prime report and to have given the planner the OK to proceed.

When you submit detailed plans for your building permit, the geotechnical section will conduct a detailed review of that report. We will ask questions of your consultant, and possibly remark on the plans themselves.

Until the process reaches the building permit stage, there is really nothing more I can do.

Jean DeMouthe

From: ABDUL, MAJDI [mailto:ma9505@att.com]
Sent: Friday, August 29, 2014 11:29 AM
To: ABDUL, MAJDI; Sigma Prime; Demouthe, Jean; Dennis Aguirre
Subject: RE: San Ramon at Bernal

Dear Dr. Jean,

Beside the communication with Mr. Dennis, do you have any necessary missing information that we suppose to provide so you can make your decision on the geological side of this project?

Kind Regards
Majdi Abdul |Phd| AT&T Mobility|
LEAD NEW TECH PROD DEV| VANGUARD TEAM | Desk 925-277-6464 | Cell 925-353-0362 |
ma9505@att.com

Sigma Prime Geosciences, Inc.

Planning Commission Meeting
PLN 2014-00007
Case
G
Attachment

September 3, 2014

Majdi Abdulqader
1904 Paprika Dr.
Brentwood, Ca. 94514

Subject: Geologic Hazard Letter: San Ramon Avenue, Moss Beach.
(APN:037-285-190)

Dear Mr. Abdulqader:

It has come to our attention that the County Planning Commission expressed some concerns, during a meeting, regarding geologic hazards at the project site and the possibility that the site may be unbuildable due to geologic hazards. The Planning Commission did not have access to our soils report.

As our soils report states, there are no geologic hazards at the site that make the site unbuildable. The active San Gregorio fault lies about 400 feet to the east. The fault's location is well documented in the area and is not expected to impact the project site, aside from the typical seismic shaking that the entire region is subject to. A fault study was performed for the property directly to the north. This study included a fault trench along the parallel to the north property line, less than 5 feet from the property line. This trench revealed no evidence of a fault. By extrapolation, there is no evidence of a fault on the subject property.

The house will be designed to withstand the potential for strong seismic shaking, as is the standard of practice. There is extensive landsliding in the vicinity, however the closest landslide activity to the subject property is about 750 feet to the west. The subject property is not threatened by landslide activity. In conclusion, there are no geologic hazards that will impact the sight to such an extent that it renders the property unbuildable. The building location and shape will not change from what is presented in the plans.

If there are any questions regarding the contents of this letter, please do not hesitate to call me at (650) 728-3590.

Yours,
Sigma Prime Geosciences, Inc.

Charles M. Kissick, P.E., C.E.G.

REGISTERED GEOLOGIST
Charles M. Kissick
No. 1567
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
CHARLES M. KISSICK
No. 62264
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332 Princeton Avenue, Half Moon Bay, CA 94019 tel: (650) 728-3590 fax: 728-3593