COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: February 14, 2018

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of a Coastal Development Permit and Design Review Permit, pursuant to Sections 6328.4 and 6565.3 of the San Mateo County Zoning Regulations, respectively, to allow construction of a new 1,499 sq. ft. single-story residence and, 483 sq. ft. garage, on a 7,943.66 sq. ft. legal parcel (Certificate of Compliance Type A recorded on February 27, 2017; PLN 2010-00275) at 991 San Ramon Avenue in the unincorporated Moss Beach area of San Mateo County. No trees are to be removed and only minor grading is required. The CDP is appealable to the California Coastal Commission.

County File Number: PLN 2017-00294 (Dotter)

PROPOSAL

The applicant, Russ Dotter, has submitted an application to construct a new single-family residence, on a legal vacant parcel. The proposed 1,499 sq. ft. one-story home includes a master bedroom and bathroom, a guest bedroom, bathroom, kitchen, dining room, and living room, as well as a 483 sq. ft. garage. No significant trees are proposed for removal and only minimal grading is involved. The project site is located in the Geological Hazard (GH) Zoning District and the California Coastal Commission's appeals jurisdiction. The project parcel is in the Riviera Ocean Villa subdivision recorded on June 15, 1908.

RECOMMENDATION

That the Planning Commission approve the Coastal Development Permit and Design Review Permit, County File Number PLN 2017-00294, based on and subject to the required findings and conditions of approval listed in Attachment A.

SUMMARY

The project site is a corner lot that is currently vacant and relatively flat in topography. The general area contains other single-family residences; however, no houses currently exist on the block containing the project parcel. Undeveloped parcels are located to the

north and west and single-family homes can be found to the south and east. The site is bounded by San Ramon Avenue to the south and Bernal Avenue to the east.

The project complies with the Visual Quality Policies of the County's General Plan, the Visual Resources Component of the County's Local Coastal Program (LCP), and the Design Review District Standards of the County's Zoning Regulations. The Coastside Design Review Committee (CDRC) considered this project at the regularly scheduled CDRC meeting on November 9, 2017, determined that the project is in compliance with applicable Design Review Standards, and recommended approval. The size of the residence is modest in comparison to many in the immediate area. The project is architecturally compatible with homes in the immediate area and uses colors, materials, and landscaping that complement its surroundings.

The project also complies with the Urban Land Use Policies of the County's General Plan and the Locating and Planning New Development Component of the County's LCP. The project proposes a house in an existing, developed urban area with access to services and utilities. In addition, regarding the cap of allowable dwelling units per year on the Midcoast, the subsequent building permit, active for 5 years, is likely to be and required to remain within this limit. The project site, though located in proximity to Half Moon Bay airport, complies with the safety, noise and height limit criteria for compatibility as noted in the LCP and the Half Moon Bay Airport Land Use Compatibility Plan.

Because the site is located in the Geotechnical Hazards Zoning District, geotechnical review was required for this project. The project has shown to be compliant with the Geotechnical Hazard Policies of the County's General Plan, the Hazards Component of the LCP, and the Geological Hazards District Standards of the County's Zoning Regulations. The geotechnical report for this project concludes that "the property is geotechnically suitable for the proposed development" and that "there are no indications of geotechnical hazards that would preclude use of the site for the proposed development." The project geotechnical consultant estimates that the site is 150 feet south of the main trace of the Seal Cove fault and at least 950 away from the coastal bluff.

The project is in conformance with the Water Supply and Wastewater Policies of the County's General Plan which require development to minimize impacts on these respective resources. The project also meets the County's Zoning Regulations, specifically the development standards of the S-105 Combining District.

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: February 14, 2018

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of a Coastal Development Permit and Design Review Permit, pursuant to Sections 6328.4 and 6565.3 of the San Mateo County Zoning Regulations, respectively, to allow construction of a new 1,499 sq. ft. single-story residence and 483 sq. ft. garage, on a 7,943.66 sq. ft. legal parcel (Certificate of Compliance Type A recorded on February 27, 2017; PLN 2010-00275) at 991 San Ramon Avenue in the unincorporated Moss Beach area of San Mateo County. No trees are to be removed and only minor grading is required. The CDP is appealable to the California Coastal Commission.

County File Number: PLN 2017-00294 (Dotter)

PROPOSAL

The applicant, Russ Dotter, has submitted an application to construct a new single-family residence, on a legal vacant parcel. The proposed 1,499 sq. ft. one-story home includes a master bedroom and bathroom, a guest bedroom, bathroom, kitchen, dining room, and living room, as well as a 483 sq. ft. garage. No significant trees are proposed for removal and only minimal grading is involved. The project site is located in the Geological Hazard (GH) Zoning District and the California Coastal Commission's appeals jurisdiction. The project parcel is in the Riviera Ocean Villa subdivision recorded on June 15, 1908.

RECOMMENDATION

That the Planning Commission approve the Coastal Development Permit and Design Review Permit, County File Number PLN 2017-00294, based on and subject to the required findings and conditions of approval listed in Attachment A.

BACKGROUND

Report Prepared By: Ruemel Panglao, Project Planner, Telephone 650/286-4582

Applicant: Russ Dotter

Owner: Amber Forke

Location: 991 San Ramon Avenue, Moss Beach

APN: 037-287-030

Size: 7,943.66 square feet

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 2.3 dwelling units/acre)

Sphere-of-Influence: City of Half Moon Bay

Existing Land Use: Vacant Parcel

Water Supply: Montara Water and Sanitary District

Sewage Disposal: Montara Water and Sanitary District

Flood Zone: FEMA Flood Insurance Rate Map designation indicates parcel as Zone X, Areas of Minimal Flooding, Community Panel No. 06081C0119F, dated August 2, 2017.

Environmental Evaluation: This project is categorically exempt from environmental review pursuant to California Environmental Quality Act (CEQA) Guidelines, Section 15303, Class 3, relating to the construction of one single-family residence in a residential zone.

Setting: The project site is a corner lot that is currently vacant and relatively flat in topography. The general area contains other single-family residences; however, no houses currently exist on the block containing the project parcel. Undeveloped parcels are located to the north and west and single-family homes can be found to the south and east. The site is bounded by San Ramon Avenue to the south and Bernal Avenue to the east.

Chronology:

Date		Action
February 27, 2017	-	Certificate of Compliance (Type A) recorded.
July 19, 2017	-	Application submitted.

November 9, 2017 - Coastside Design Review Committee (CDRC) considers the project and recommends approval based on its conformance with Design Review District Standards.

February 14, 2018 - Planning Commission public hearing.

DISCUSSION

A. KEY ISSUES

1. Conformance with the County's General Plan

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

a. Visual Quality Policies

Policy 4.15(a) (Appearance of New Development) 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 house are complementary with the neighborhood design context. The size of the residence is modest in comparison to many in the immediate area while being architecturally compatible in both style and aesthetics. The height of the structure is 19 feet 6 inches, 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 5 of this report.

Policy 4.36 (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 to ensure 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 architectural style of the surrounding neighborhood. Because the proposed house is the corner house on an otherwise undeveloped block with residential parcels, it will establish a precedent for future homes because of the overall quality of the design.

b. Urban Land Use Policies

Urban Land Use Policy 8.30 (Infilling) encourages the infilling of urban areas where infrastructure and services are available. The project complies with this policy, as the subject site is located within an existing developed residential area and within an approved residential subdivision. Two (2) existing residences are located directly across Bernal Avenue. Also, a new single family residence is proposed close by on San Ramon Avenue at APN 037-284-190 (PLN 2017-00064), which was recommended for approval by the CDRC on November 9, 2017 and will be reviewed by the Planning Commission at an upcoming hearing.

c. Water Supply and Wastewater Policies

Water Supply Policy 10.10 (Water Suppliers in Urban Areas) and Wastewater Policy 11.5 (Wastewater Management in Urban Areas) identifies municipal water and sewage treatment systems as the preferred method of water supply and wastewater management in urban areas. The Montara Water and Sanitary District (MWSD), the service provider for this urban area, requires the applicant to obtain a Sewer Permit. A sewer grinder pump may also be required during construction. MWSD also requires the applicant to obtain a Domestic Water/Fire Protection Connection and submittal of fire flow calculations from a Certified Fire Protection Contractor (see Conditions 20, 21, 22, and 23).

d. Geotechnical Hazard Policies

Geotechnical Hazard Policy 15.20 (Review Criteria for Locating Development in Geotechnical Hazard Areas) requires consideration of geotechnical hazards when determining the siting of structures. The Geotechnical Report (Attachment D) for this project, prepared by The PRA Group, Inc. on July 12, 2017, concludes that "the property is geotechnically suitable for the proposed development" and that "there are no indications of geotechnical hazards that would preclude use of the site for the proposed development." The PRA Group, Inc., estimates that the site is 150 feet south of the main trace of the Seal Cove fault and at least 950 away from the coastal bluff. See further discussion in Section 2.c of this report.

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 contain or adjoin an area of sensitive habitat. The site is located within the Geological Hazard (GH) Zoning District. 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 through the "infilling" of existing residential subdivisions. The project site is located in an existing, partially developed urban area. Two (2) existing residences are located directly across Bernal Avenue. Also, a new single family residence is proposed on the block across the street, on San Ramon Avenue at APN 037-284-190 (PLN 2017-00064). That project was recommended for approval by the CDRC on November 9, 2017 and will be reviewed by the Planning Commission at an upcoming hearing.

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 by new residential development. As of the printing of this report, no building permits for new dwelling units have been issued in 2018. This requested permit would be valid for 5 years; therefore, the project is likely to be, and will required to be, within the building permit limit.

Policy 1.36 (Half Moon Bay Airport Influence Area Requirements – Map 1.5) shows that the project site in the Half Moon Bay Airport Influence Area (Zone 7) based on the Half Moon Bay Safety Zones Map of the Airport Land Use Compatibility Plan (ALUCP) for the Environs of Half Moon Bay Airport adopted in October 2014. The aircraft accident risk level is considered to be low within Zone 7. Single family residential uses are not prohibited within this zone. Regarding noise, the site is outside of the mapped noise contours on the 2032 Noise Exposure Contours map of the ALUCP. See further discussion in Section 3.

b. Visual Resources Component

Visual Resources Policy 8.9(a) (Trees) and 8.9(b) requires new development to minimize tree removal and to protect significant trees per the Significant Tree ordinance. No trees are to be removed under the scope of this project. A tree protection plan shall be submitted at

the building permit stage to protect nearby off-site trees, including a 14-inch DBH (diameter at breast height) pine tree in the San Ramon Avenue right-of-way (ROW), a 60-inch DBH pine tree in the Bernal Avenue (ROW), and 4 Monterey Pine trees on the adjoining lot to the north.

Visual Resources Policy 8.12(a)(1) (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 Design Review criteria established by Section 6565.20 of the Zoning Regulations. The Coastside Design Review Committee (CDRC) considered this project at the regularly scheduled CDRC meeting on November 9, 2017, determined that the project is in compliance with applicable Design Review Standards, and recommended approval. See further discussion in Section 5.

Visual Resources Policy 8.13 (Special Design Guidelines for Coastal Communities) establishes design guidelines for Montara, Moss Beach, El Granada, and Miramar. The proposed residence 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 cedar siding, has a natural appearance.

(3) The proposed home design uses shed roofs, including non-reflective, standing seam metal as the primary roof material.

(4) The proposed house is designed to be compatible with other houses in the area since the proposed overall lot coverage of 24.95% (1,982 sq. ft.) is within the maximum allowed of 25% (1,986 sq. ft.). Additionally, the total floor area proposed is 24.95% (1,982 sq. ft.), lower than the maximum allowed of 48% (3,812.96 sq. ft.).

Visual Resources Policy 8.32(a) (Regulation of Scenic Corridors in Urban Areas) provides for the regulation of Scenic Corridors in urban areas and requires the application of the Design Review regulations. The project site is located immediately to the west of the boundary of the Cabrillo Highway (Highway 1) Scenic Corridor. The house will be screened from Cabrillo Highway by the existing mature trees around the neighborhood and along Highway 1. The Coastside Design Review Committee (CDRC) considered this project at the regularly

scheduled CDRC meeting on November 9, 2017, determined that the project is in compliance with applicable Design Review Standards, and recommended approval. See further discussion in Section 4.

c. Hazards Component

Policy 9.3 (Regulation of Geologic Hazard Areas) requires the application of the following sections of the Resource Management (RM) Zoning Ordinance to sites located in a designated geologic hazard area: Section 6326.3 (Seismic Fault/Fracture Area Criteria) and Section 6326.4 (Slope Instability Area Criteria). Single-family residential structures are allowed in these areas if no other locations susceptible to such hazards are reasonably available on the site for development, are subject to the submittal of a detailed geologic site investigation prepared by a geologist registered in the State of California, and require 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 (Attachment D) by The PRA Group, Inc., (PRA), was prepared on July 12, 2017 to confirm that the site is suitable for development for a new residence, contingent upon the implementation of the report's geotechnical recommendations. The recommendations include, but are not limited to, constructing the house using a conventional spread footing foundation system with concrete slab-on-grade floors underlain by a minimum 4 inch thick capillary break of pea gravel or clean crushed 1/2-inch by 3/4-inch rock. Also, per the report, the possibility of fault rupture is unlikely based on the absence of any fault trace traversing the site as determined by the fault study conducted on-site. It is estimated that the main trace of the Seal Cove Fault is located 150 feet to the north of the project site. The site is sufficiently set back from the escarpment that no significant slope stability issues are anticipated. It is estimated that the site is located at least 950 feet away from the coastal bluff which will prevent any coastal bluff hazards.

The report also included review of two previous fault studies located at the project site, conducted by JCP Engineers (JCP) in 1988 and PRA in 2011. Exploratory trenches were excavated as part of both studies. The 6-foot deep exploratory trench of the JCP Engineers study reported encountering an active branch trace of the Seal Cove-San Gregorio fault crossing the eastern corner of the property. PRA's study concluded that no fault trace was present within the trench excavated for their respective study. Their 10-foot exploratory trench extended deeper than the JCP trench and PRA determined that the previously noted fault trace terminated just below the 6-foot depth of

the initial JCP trench and was underlain by undisturbed terrace deposits. The Planning and Building Department's Geotechnical Consultant at the time, Jean DeMouthe, was present during the 2011 study to observe the open trench and review the trench log prepared in the field.

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 report was reviewed and approved by Ms. DeMouthe who found it adequate for planning permit approval. As required by Policy 9.10, further review of the project, including structural and foundation designs and compliance with report recommendations, will be required at the building permit stage.

3. Conformance with the Half Moon Bay Airport Land Use Compatibility Plan

Upon review of the provisions of the Half Moon Bay ALUCP for the Environs of Half Moon Bay Airport, as adopted by the City/County Association of Governments (C/CAG) on October 9, 2014, staff has determined that the project's site location complies with the safety, noise and height limit criteria for airport compatibility. The project site is located in the Half Moon Bay Airport Runway Safety Zone 7 of the Airport Influence Area (AIA), where the airport accident risk level is considered low. The project site is outside of the defined aircraft noise exposure contours and, therefore, will not be exposed to high levels of aircraft noise. The proposed height of 19.5 feet does not penetrate the established airspace threshold.

4. 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/CD Zoning designation as indicated in the following table:

	S-105	**Proposed**
	Development Standards	
Building Site Area	20,000 sq. ft.	7943.66 sq. ft. (existing)
Building Site Width	75 ft.	77.16 ft. (existing)
Maximum Building Site Coverage	(25%) 1,986 sq. ft.	(24.95%) 1,982 sq. ft.
Maximum Floor Area	(48%) 3,812.96 sq. ft.	(24.95%) 1,982 sq. ft.
Minimum Front Setback	20 ft.	20 ft.
Minimum Rear Setback	20 ft.	25 ft.
Minimum Right Side Setback	10 ft.	10 ft.

	S-105	Proposed
	Development Standards	
Minimum Left Side Setback	10 ft.	10 ft.
Maximum Building Height	28 ft.	19 ft.- 6 in
Minimum Parking Spaces	2	2
Facade Articulation	Finding by CDRC	Complies

The parcel is non-confirming in size and was created by the historic Riviera Ocean Villa Tract recorded on June 15, 1908. The site was eligible for a Certificate of Compliance Type A (COC/A) as the parcel was transferred separately from adjoining parcels prior to the adoption of the Subdivision Regulations (1945) on November 27, 1915, and a COC/A was recorded on February 27, 2017. The development of the parcel does not require a Use Permit per Section 6133(a)(1) of the Zoning Regulations, as the parcel is greater than 5,000 sq. ft. (7943.66 sq. ft.).

The proposed one-story residence meets the zoning district height standards, and includes a design, scale and size compatible with other residences located in the vicinity including a proposed overall lot coverage of 24.95% (1,982 sq. ft.) of total lot size, where 25% (1,986 sq. ft.) is the maximum allowed. Additionally, the total floor area proposed is 24.95% (1,982 sq. ft.) of total lot size, where 48% (3,812.96 sq. ft.) is the maximum allowed. Also, the mass and bulk of the project are mitigated by the articulation of exterior facades.

5. Conformance with Design Review District Standards

The Coastside Design Review Committee (CDRC) considered the project at the regularly scheduled CRDC meeting on November 9, 2017. At that meeting, 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:

a. Section 6565.20(B) NEIGHBORHOOD DEFINITION AND CHARACTER: The proposed project incorporates nicely into the neighborhood character and with most adjacent homes in the immediate area.

b. Section 6565.20(C) SITE PLANNING AND STRUCTURE PLACEMENT. 1. Integrate Structures with the Natural Setting: The

materials and landscape complement the naturally rustic surroundings.

c. Section 6565.20(D) ELEMENTS OF DESIGN. 2. Architectural Styles and Features. d. Entries: The entries are nicely landscaped and inviting.

d. Section 6565.20(D) ELEMENTS OF DESIGN. 4. Exterior Materials and Colors: This is a modest home in comparison to many in the immediate area while being architecturally compatible in both style and aesthetics.

e. Section 6565.20(F) LANDSCAPING, PAVED AREAS, FENCES, LIGHTING AND NOISE. 1. Landscaping: The landscaping will enhance the design of the home and improve the immediate vegetation which currently surrounds the area. The natural rock and boulder accents maximize natural surfaces along with supporting drainage through the use of permeable surfaces.

6. Conformance with Geological Hazards (GH) District Standards

The site is located in the Geological Hazard Area Zone 3, the most stable part of the Seal Cove area. Section 6296.2 *(Description of Hazardous Zones in Seal Cove Area)* notes that risk to development in this area is considered low to moderate. The feasibility of reducing the risks to acceptable levels in this zone is generally high. As discussed in Section 2.c of this report, a report has been submitted and reviewed by the Geotechnical Section of the Planning and Building Department. The report indicates that the site is suitable for development contingent upon the implementation of the report's geotechnical recommendations. A reduction to the risk to development is achieved by the development recommendations of the project geotechnical consultant, which is referenced in Condition 37 of Attachment A.

In accordance with GH District Regulations, Condition of Approval No. 36 requires, pursuant to Section 6294.4(2) of the San Mateo County Zoning Ordinance, that the applicant record the following deed restriction with the San Mateo County Recorder's Office, prior to the issuance of the building permit, stated as follows "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 and Building Department, San Mateo County." The applicant has agreed to record the deed restriction.

B. ENVIRONMENTAL REVIEW

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

residential zone. Section 15300.2 (*Exceptions*) of the CEQA Guidelines states that Class 3 exemptions are qualified by consideration of where the project is to be located; a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. As a result, use of categorical exemptions generally do not apply where such as a location where a project could have an impact on an environmental resource of hazardous or critical concern, where designated, precisely mapped, and officially adopted pursuant to law by federal, state or local agencies.

While the site is located within a mapped geological hazard area (Geologic Hazards Zoning District), based on the geotechnical report submitted by the applicant and review by the Geotechnical Section of the San Mateo County Planning and Building Department, the site is suitable for the proposed construction of a new single-family residence, subject to the recommendations provided in the report from the project geotechnical consultant and pending further review at the building permit stage. During the site investigation, no active Seal Cove fault or fault traces were found on the property and the likelihood of the landslide complex impacting the proposed residence is considered low to moderate. The project, as designed and conditioned, complies with the recommendations of the project geotechnical consultant. Therefore, the project is not likely to have a significant impact in the area of geologic stability and qualifies for a categorical exemption under Class 3 of the CEQA Guidelines.

C. REVIEW BY THE MIDCOAST COMMUNITY COUNCIL

Staff referred the project to the Midcoast Community Council and did not receive any comments.

D. REVIEW BY THE CALIFORNIA COASTAL COMMISSION

Staff referred the project to the California Coastal Commission and received comments (Attachment F) that included a recommendation for staff to discuss LCP Policies regarding the implications of the development of a new single-family residence located in the Geological Hazards District and potential impacts to the Cabrillo Highway/Highway 1 County Scenic Corridor. Specific to hazards, the project, as designed and conditioned, complies with applicable regulations and recommendations specified by the project geotechnical consultant. Also, the applicant has agreed to the recordation of a deed restriction prior to the issuance of a building permit, pursuant to Section 6295.4 of the Zoning Regulations, as specified in Condition No. 36. With respect to the scenic corridor, as discussed in Section 2.b of this report, the project site is outside of the scenic corridor and, therefore, will not have an impact on this visual resource.

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. Geotechnical Report prepared by The PRA Group, Inc. on July 12, 2017
E. Coastside Design Review Committee Decision Letter, dated November 21, 2017
F. Comment Letter from the California Coastal Commission, dated August 22, 2017
G. 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 2017-00294 Hearing Date: February 14, 2018

Prepared By: Ruemel Panglao
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) Guidelines, related to new construction of small structures, including single-family residences in an urban 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 regarding infill development, hazards, and compliance with design review standards.

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 Policy 1.23.

Regarding the Design Review Permit, Find:

4. That, with the conditions of approval recommended by the Coastside Design Review Committee (CDRC) at its meeting of November 9, 2017, the project is in compliance with the Design Review Standards for the Coastside. The project, as designed and conditioned, complements the predominant style and respects the scale of the homes in the neighborhood. The project is architecturally compatible with homes in the immediate area and uses colors, materials, and landscaping that complement its surroundings.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The project shall be constructed in compliance with the plans approved by the Planning Commission on February 14, 2018. 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.

4. The applicant shall indicate the following on plans submitted for a building permit, as stipulated by the Coastside Design Review Committee:

    a. Limit mounted light fixtures to one per opening or the minimum required by applicable building codes.

    b. No additional landscape lighting other than those proposed shall be used.

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) the 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 the Community Development Director.

6. The property owner shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including, but not limited to, the following:

a. Delineation with field markers of clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses within the vicinity of areas to be disturbed by construction and/or grading.

b. Protection of adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.

c. Performing clearing and earth-moving activities only during dry weather.

d. Stabilization of all denuded areas and maintenance of erosion control measures continuously between October 1 and April 30.

e. Storage, handling, and disposal of construction materials and wastes properly, so as to prevent their contact with stormwater.

f. Control and prevention of the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals,

wash water or sediments, and non-stormwater discharges to storm drains and watercourses.

g. Use of sediment controls or filtration to remove sediment when dewatering site and obtain all necessary permits.

h. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.

i. Limiting and timing applications of pesticides and fertilizers to prevent polluted runoff.

j. Limiting construction access routes and stabilization of designated access points.

k. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.

l. Training and providing instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and construction Best Management Practices.

m. Additional Best Management Practices in addition to those shown on the plans may be required by the Building Inspector to maintain effective stormwater management during construction activities. Any water leaving the site shall be clear and running slowly at all times.

n. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.

7. 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.

8. The applicant shall include an erosion and sediment control plan to comply with the County's Erosion Control Guidelines on the plans submitted for the building permit. This plan shall identify the type and location of erosion control measures to be installed both upon the commencement of construction, and throughout the various stages of construction, in order to maintain the stability of the site and prevent erosion and sedimentation off-site.

9. 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.

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

11. No site disturbance shall occur, including any vegetation removal or grading, until a building permit has been issued.

12. 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 right-of-ways on San Ramon Avenue and Bernal 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 San Ramon Avenue and Bernal Avenue. There shall be no storage of construction vehicles in the public right-of-way.

13. The exterior color samples submitted to the CDRC 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. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m. weekdays and 9:00 a.m. to 5:00 p.m. Saturdays. Said activities are prohibited on Sundays, Thanksgiving and Christmas (San Mateo Ordinance Code Section 4.88.360).

15. Installation of the approved landscape plan is required prior to final inspection. Per LCP Policy 7.51 (Voluntary Cooperation), private landowners are encouraged to removed invasive plants from their lands such as blue gum seedlings, pampas grass, French, Scotch and other invasive brooms for the life of the project.

16. At the building permit application stage, the project shall demonstrate compliance with the Water Efficient Landscape Ordinance (WELO) and provide required forms. WELO applies to new landscape projects equal to or greater than 500 sq. ft. A prescriptive checklist is available as a compliance option for projects under 2,500 sq. ft. WELO also applies to rehabilitated landscape projects equal to or greater than 2,500 sq. ft. The following restrictions apply to projects using the prescriptive checklist:

    a. Compost: Project must incorporate compost at a rate of at least four (4) cubic yards per 1,000 sq. ft. to a depth of 6 inches into landscape area (unless contra-indicated by a soil test).

    b. Plant Water Use (Residential): Install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles and areas using recycled water.

    c. Mulch: A minimum 3-inch layer of mulch should be applied on all exposed soil surfaces of planting areas, except in areas of turf or creeping or rooting groundcovers.

    d. Turf: Total turf area shall not exceed 25% of the landscape area. Turf is not allowed in non-residential projects. Turf (if utilized) is limited to slopes not exceeding 25% and is not used in parkways less than 10 feet in width. Turf, if utilized in parkways is irrigated by sub-surface irrigation or other technology that prevents overspray or runoff.

e. Irrigation System: The property shall certify that Irrigation controllers use evapotranspiration or soil moisture data and utilize a rain sensor; Irrigation controller programming data will not be lost due to an interruption in the primary power source; and Areas less than 10 feet in any direction utilize sub-surface irrigation or other technology that prevents overspray or runoff.

17. At the building permit application stage, the applicant shall submit a tree protection plan to protect nearby off-site trees including a 14-inch DBH (diameter at breast height) pine tree in the San Ramon Avenue right-of-way (ROW), a 60-inch DBH pine tree in the Bernal Avenue (ROW), and 4 Monterey Pine trees on the adjoining lot to the north, including the following:

    a. Identify, establish, and maintain tree protection zones throughout the entire duration of the project;

    b. Isolate tree protection zones using 5-foot tall, orange plastic fencing supported by poles pounded into the ground, located at the driplines as described in the arborist's report;

    c. Maintain tree protection zones free of equipment and materials storage; contractors shall not clean any tools, forms, or equipment within these areas;

    d. If any large roots or large masses of roots need to be cut, the roots shall be inspected by a certified arborist or registered forester prior to cutting as required in the arborist's report. Any root cutting shall be undertaken by an arborist or forester and documented. Roots to be cut shall be severed cleanly with a saw or toppers. A tree protection verification letter from the certified arborist shall be submitted to the Planning Department within five (5) business days from site inspection following root cutting;

    e. Normal irrigation shall be maintained, but oaks shall not need summer irrigation, unless the arborist's report directs specific watering measures to protect trees;

    f. Street tree trunks and other trees not protected by dripline fencing shall be wrapped with straw wattles, orange fence and 2x4 boards in concentric layers to a height of eight feet; and

    g. Prior to Issuance of a Building Permit or Demolition Permit, the Planning and Building Department shall complete a pre-construction site inspection, as necessary, to verify that all required tree protection and erosion control measures are in place.

<u>Building Inspection Section</u>

18. The applicant shall apply for a building permit.

19. This project shall be designed and constructed according to the latest adopted and amended California Building Standards Code which at the time of this review is the 2016 version.

Montara Water and Sanitary District (District)

20. The applicant is required to obtain a Sewer Permit prior to issuance of building permit. Sewer Connection Fees must be paid prior to issuance of connection permit. A sewer grinder pump may be required.

21. The applicant is required to obtain a Domestic Water Connection Permit prior to issuance of building permit. Connection fee for domestic water must be paid prior to issuance of connection permit. Proof of well abandonment to SMC Health Department may be required.

22. Connection to the District's fire protection system is required. Certified Fire Protection Contractor must certify adequate fire flow calculations. Connection fee for fire protection system is required. Connection charge must be paid prior to issuance of Private Fire Protection permit.

23. Applicant must first apply directly to District for permits and not their contractor.

Coastside Fire Protection District

24. Fire Department access shall be to within 150 feet of all exterior portions of the facility and all portions of the exterior walls of the first story of the buildings as measured by an approved access route around the exterior of the building or facility. Access shall be a minimum of 20 feet wide, all weather capability, and able to support a fire apparatus weighing 75,000 lbs. Where a fire hydrant is located in the access, a minimum of 26 feet is required for a minimum of 20 feet on each side of the hydrant. This access shall be provided from a publicly maintained road to the property. Grades over 15% shall be paved and no grade shall be over 20%. When gravel roads are used, it shall be Class 2 base or equivalent compacted to 95%. Gravel road access shall be certified by an engineer as to the material thickness, compaction, all weather capability, and weight it will support.

25. All buildings that have a street address shall have the number of that address on the building, mailbox, or other type of sign at the driveway entrance in such a manner that the number is easily and clearly visible from either direction of travel from the street. New residential buildings shall have internally illuminated address numbers contrasting with the background so as to be seen from the public way fronting the building. Residential address numbers shall be at least six feet above the finished surface of the driveway. An address sign shall be placed at each break of the road where deemed applicable by the San Mateo County Fire Department. Numerals shall be contrasting in color to their background and shall

be no less than 4 inches in height, and have a minimum 1/2-inch stroke. Remote signage shall be a 6" x 18" green reflective metal sign.

26. Contact the Fire Marshal's Office to schedule a Final Inspection prior to occupancy and Final Inspection by a Building Inspector. Allow for a minimum of 72 hours notice to the Fire Department at (650) 573-3846.

27. A fire flow of 1000 gpm for 2 hours with a 20-psi residual operating pressure must be available as specified by additional project conditions to the project site. The applicant shall provide documentation including hydrant location, main size, and fire flow report at the building permit application stage. Inspection required prior to Fire's final approval of the building permit or before combustibles are brought on site.

28. Any chimney or woodstove outlet shall have installed onto the opening thereof an approved (galvanized) spark arrestor of a mesh with an opening no larger than 1/2-inch in size or an approved spark arresting device. Maintain around and adjacent to such buildings or structures a fuelbreak/firebreak made by removing and cleaning away flammable vegetation for a distance of not less than 30 feet and up to 100 feet around the perimeter of all structures or to the property line, if the property line is less than 30 feet from any structure. This is not a requirement nor an authorization for the removal of live trees. Remove that flammable portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe, or within 5 feet of any portion of any building or structures. Remove that dead or dying portion of any tree which extends over the roof line of any structure.

29. Smoke alarms and carbon monoxide detectors shall be installed in accordance with the California Building and Residential Codes. This includes the requirement for hardwired, interconnected detectors equipped with battery backup and placement in each sleeping room in addition to the corridors and on each level of the residence.

30. An approved Automatic Fire Sprinkler System meeting the requirements of NFPA-13D shall be required to be installed for your project. Plans shall be submitted to the San Mateo County Building Department for review and approval by the authority having jurisdiction.

31. A statement that the building will be equipped and protected by automatic fire sprinklers must appear on the title page of the building plans.

<u>Department of Public Works</u>

32. Prior to the issuance of the 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 of 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.

33. Prior to the issuance of the BLD permit, 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.

34. 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. Applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.

35. 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 #3277.

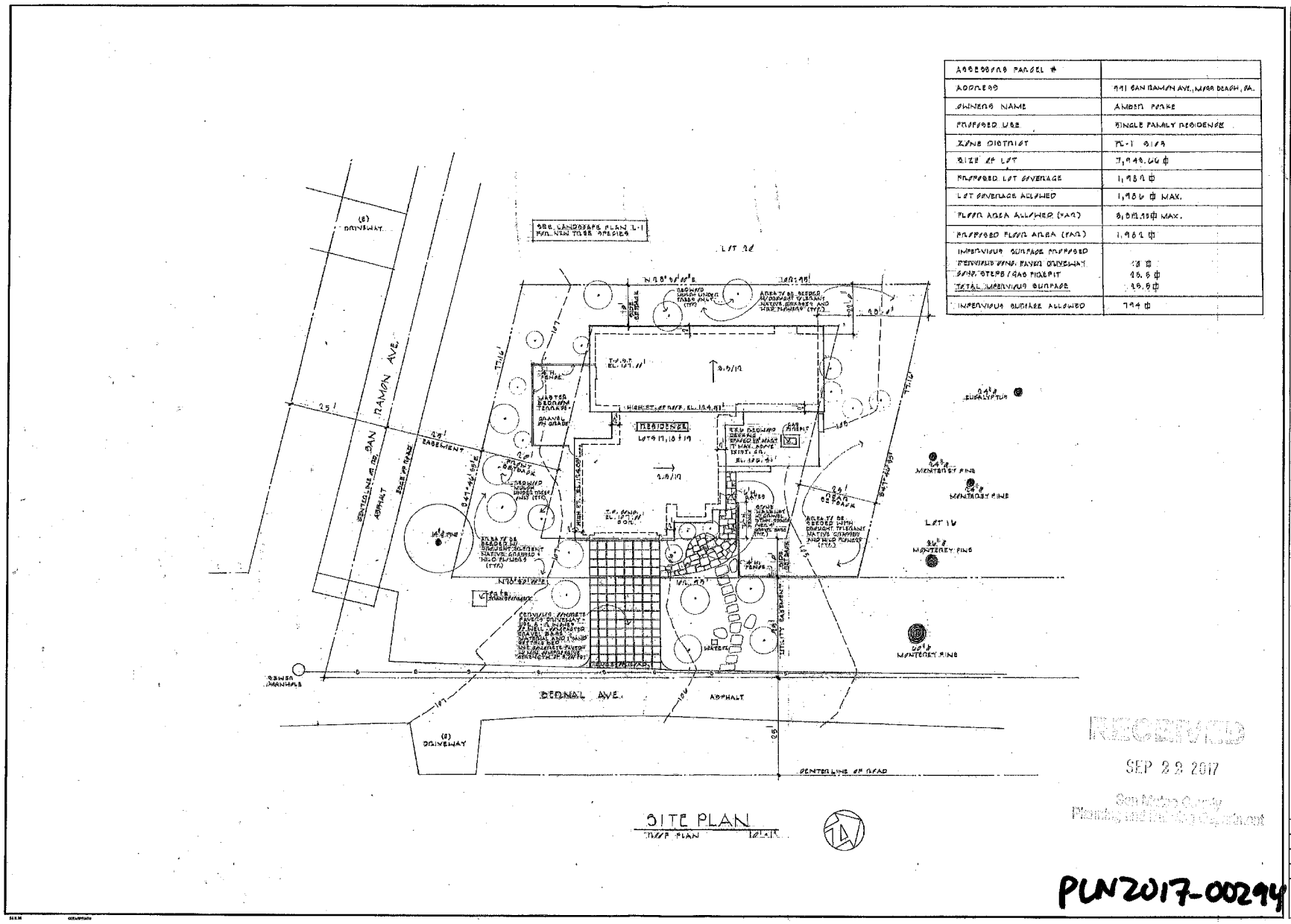
Geotechnical Section

36. Prior to the issuance of the building permit and pursuant to Section 6294.4(2) of the San Mateo County Zoning Ordinance, the applicant shall record a deed restriction with the San Mateo County Recorder's Office, stating the following: "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 and Building Department, San Mateo County."

37. The recommendations noted in Pages 8 through 19 in the geotechnical report (Attachment D) shall be conditions of approval for this project.

CML:RSP:aow – RSPCC0031_WAU.DOCX

Planning Commission Meeting	
Owner/Applicant:	**FORKE/DOTTER**
File Numbers:	**PLN 2017-00294**
Attachment:	**B**



PLN2017-00294

Dotter & Solffield
Architecture + Design
4891 PARK BOULEVARD
OAKLAND, CALIFORNIA 94602
PHONE 510 530 9721 FAX 510 530 7223

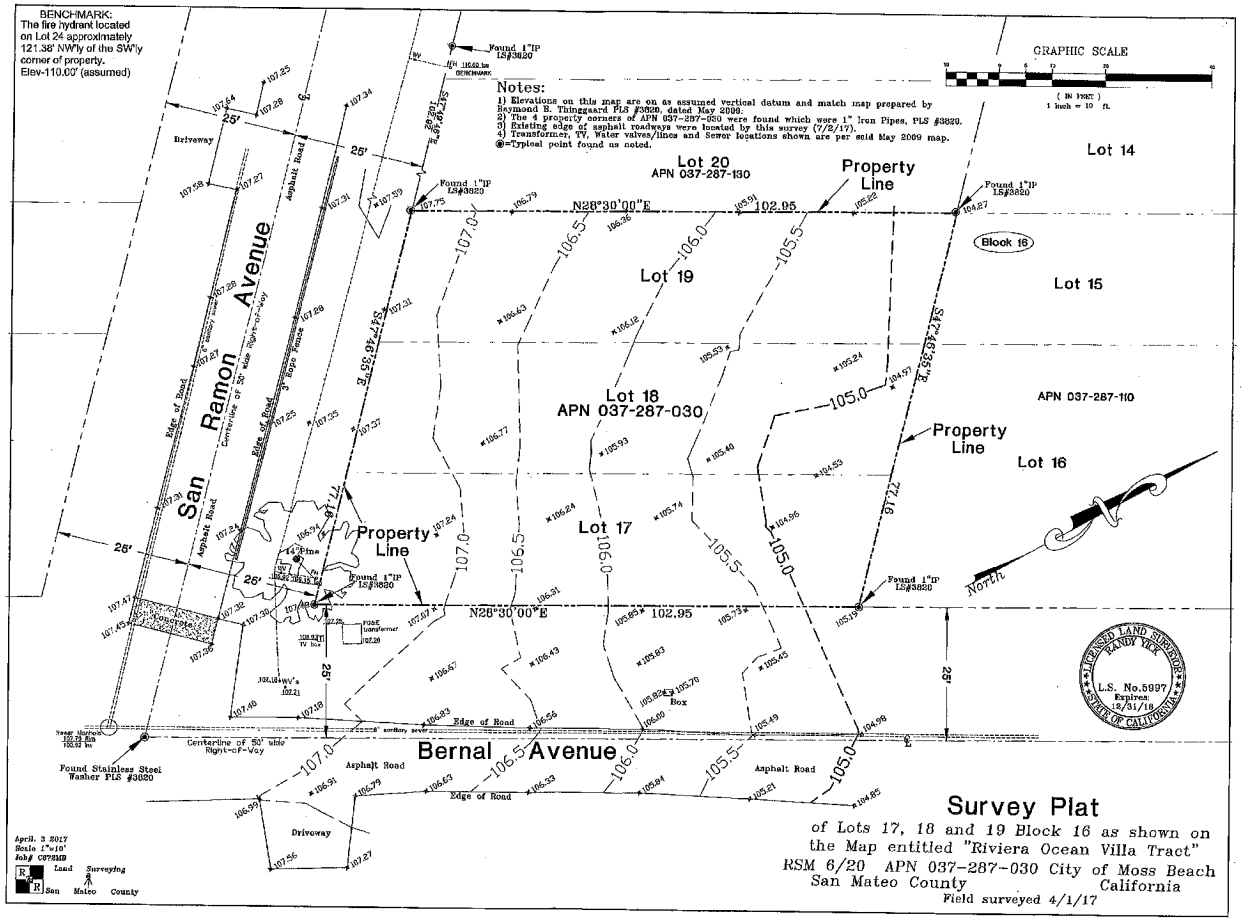
FORKE RESIDENCE
991 SAN RAMON AVE., MISS BEACH, FA.

REVISIONS | BY

Date 8-29-17
Scale
Drawn
Job
Sheet A 1
of Sheets

Planning Commission Meeting

Owner/Applicant:	**FORKE/DOTTER**
File Numbers:	**PLN 2017-00294**
Attachment:	**C**



REVISIONS | BY

Dotter & Solfield
Architecture + Design
4581 PARK BOULEVARD
OAKLAND CALIFORNIA 94602
PHONE 510 530 9221 FAX 510 530 9225

FONKE RESIDENCE
911 SAN RAMON AVE., MOSS BEACH, CA.

Date 8-24-17
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Job
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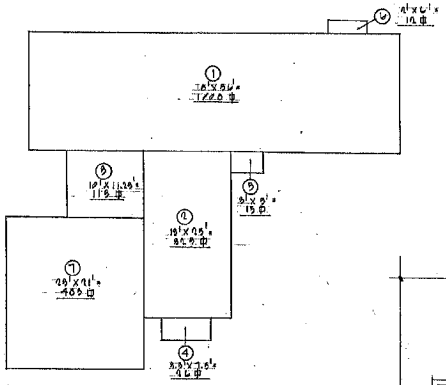
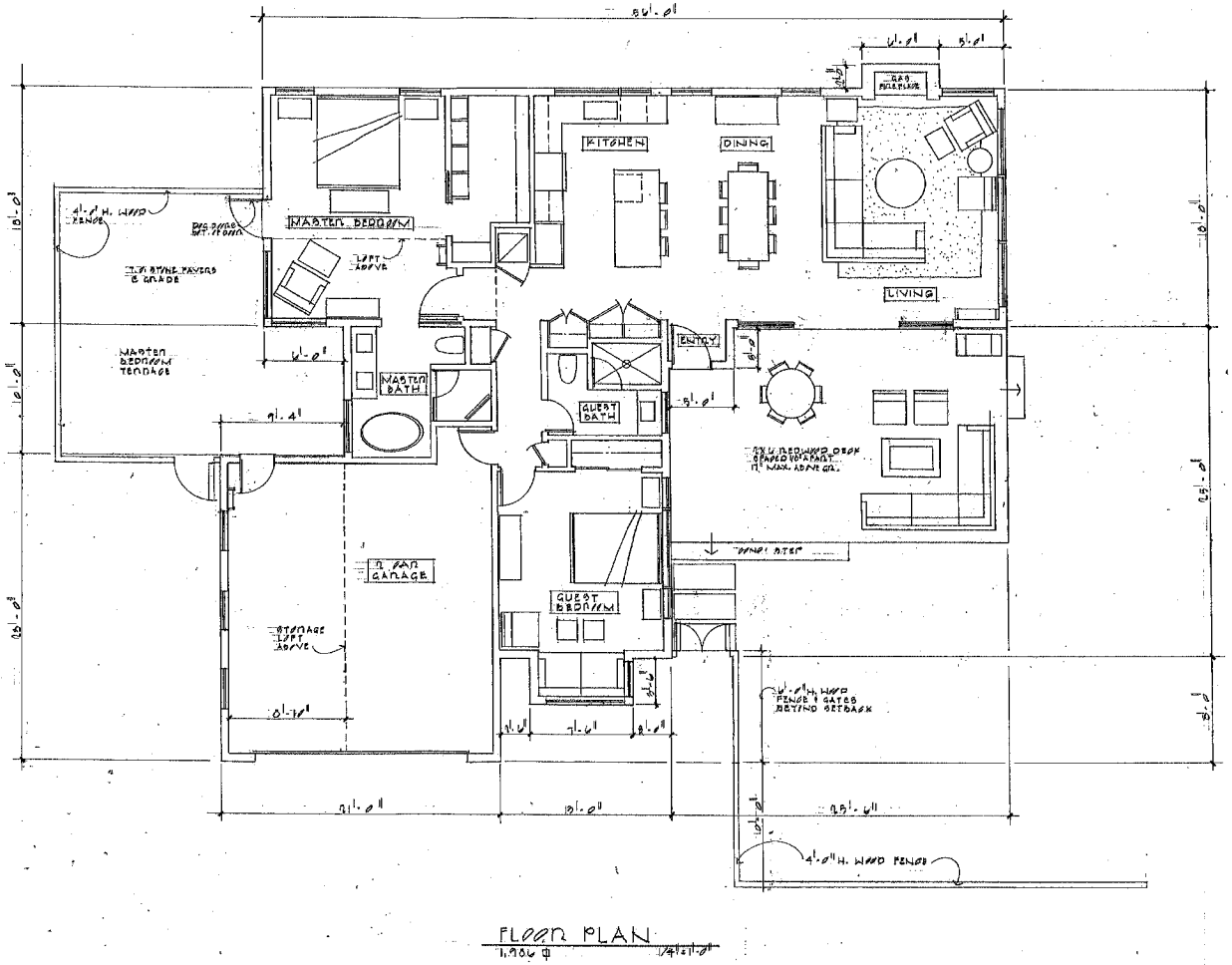
Of Sheets



SQ. FT. CALCULATIONS
RESIDENCE
1. 1000 ☐
2. 949 ☐
3. 115 ☐
4. 46 ☐
5. 15 ☐
6. 16 ☐
TOTAL 1499 ☐
GARAGE
7. 483 ☐
TOTAL SQ. FT.
1982 ☐



FLOOR PLAN
1,996 ☐ 1/4"=1'-0"

REVISIONS	BY

Dotter & Solfield
Architecture + Design
4891 PARK BOULEVARD
OAKLAND CALIFORNIA 94602
PHONE 510 530 9231 FAX 510 530 9233

FONKE RESIDENCE
911 SAN RAMAN AVE., NAPA BEACH, CA.

Date 9-22-17
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Job
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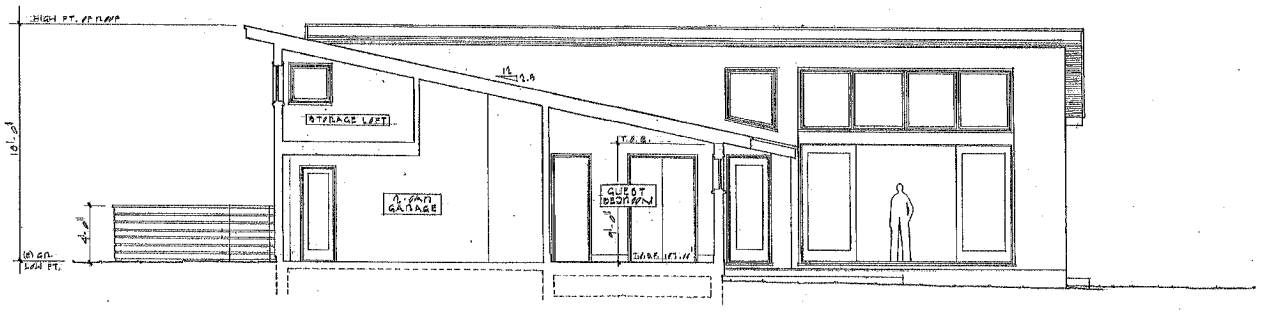
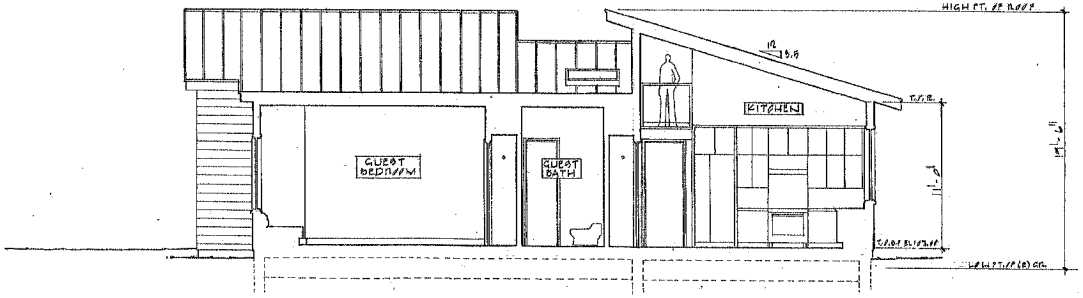
Of Sheets



SECTION THRU GARAGE - GUEST BEDROOM



SECTION THRU GUEST BEDROOM - KITCHEN

REVISIONS	BY

Botter & Solfjeld
Architecture + Design
2021 PAPE BOULEVARD
OAKLAND, CALIFORNIA 94602
PHONE 510 530 9231 FAX 510 530 9223

FORKE RESIDENCE
911 SAN RAMON AVE., MISS BEACH, CA.

Date 9-22-17
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Job
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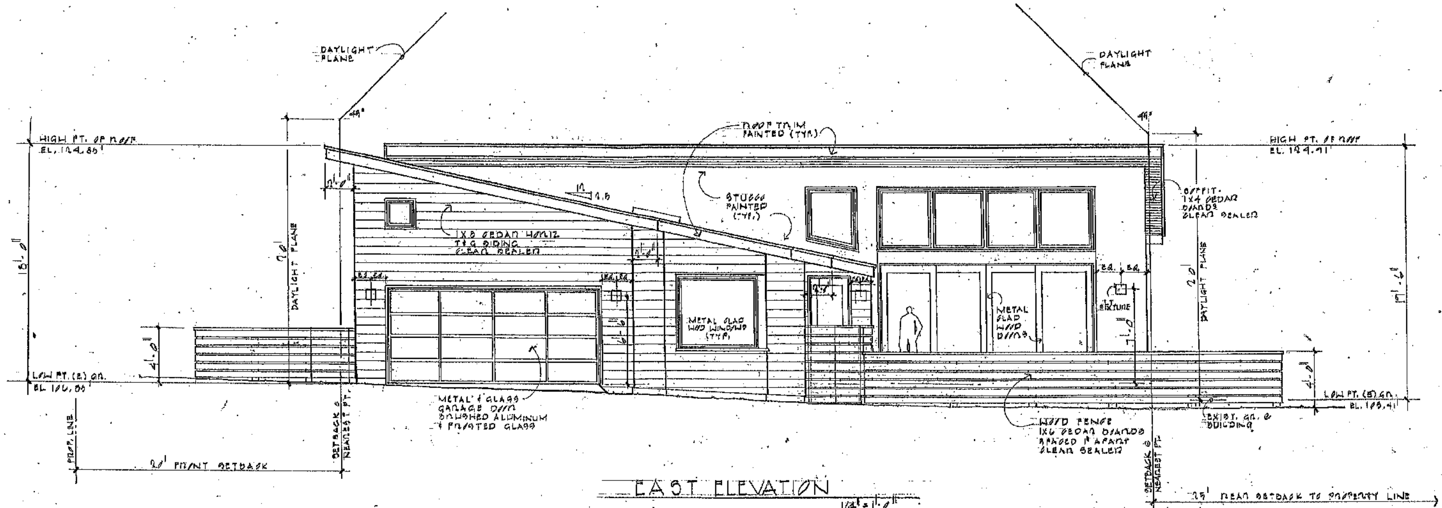
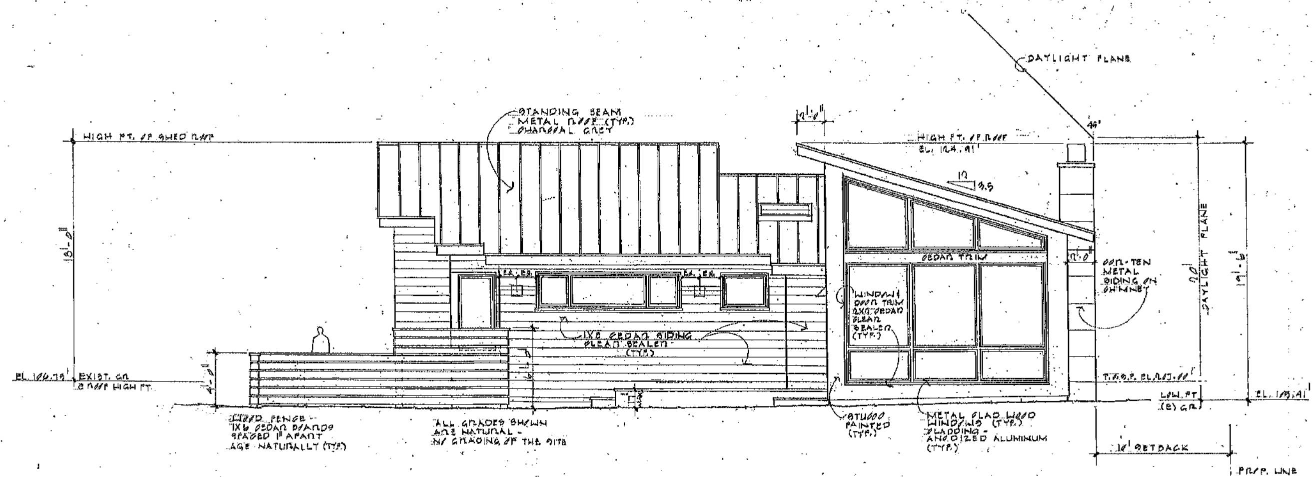
Of Sheets



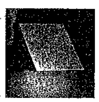
EAST ELEVATION

1/4" = 1'-0"



NORTH ELEVATION

1/4" = 1'-0"



682-WP SERIES

Exterior Wall Luminaire "Floating" Wedge

DARK SKY

QUICK SHIP (QS)

SUSTAINABLE DESIGN

ARRA

SPECIFICATION FEATURES

Material
Painted aluminum or solid bronze. 1/8" white acrylic diffuser for CFL/ Incandescent and clear tempered refractive glass for MH. Optional clear tempered glass for full cut-off.

Finish
Premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear.
Standard: Natural Bronze (NBZ) (Sustainable Design).
Note: Bronze will weather to a dark bronze patina.
Premium: Aluminum Paint (ALP), Black Paint (BK), Bronze Metallic Paint (BM), Dark Platinum Paint (DP), Gold Metallic Paint (GM), Graphite Metallic Paint (GRM), Grey Paint (GY), Verdigris (VG), White Paint (WH) or Custom Color (CC).

Optics
Refer to www.shaperlighting.com for complete photometrics.

Ballast
Integral electronic HPF multi-volt 120/277V (347V Canada), thermally protected with end-of-life circuitry to accommodate 26W, 32W or 42W lamps. Metal halide ballasts are HPF open core & coil type, multi-volt 120/277V for the specified lamp wattage. Contact the factory for 347V.

Lamp/Socket
8": One (1) or two (2) 26W or 32W (GX24q-3) triple CFL lamp(s), one (1) 42W (GX24q-4) triple CFL lamp, or one (1) 75W A-19 lamp.
11": Two (2) 26W, 32W (GX24q-3) or 42W (GX24q-4) triple CFL lamps, one (1) 50W, 70W or 100W ED-17 Metal halide lamp or one (1) 100W A-19 lamp.
CFL socket injection molded plastic. INC socket fired ceramic rated for 660W-250V. MH socket ceramic pulse-rated, 4KV. INC socket fired ceramic rated for 660W/250V. Lamps furnished by others.

LED
8" L0:1000 nominal lumens at max 15.6W

Long-life LED system coupled with electrical driver to deliver optimal performance. Electronic drivers are available for 120-277 applications. The standard driver is ELV reverse phase dimmable. Type IV-Forward throw optic is standard.

Installation
Supplied with a mounting back for a standard 4" J-box or stucco ring. Optional rear (through wall) feed conduit mounting. Surface mount conduit power feed - Contact factory.

Options
Rear (through wall) Feed Conduit Mounting (C), Blunt Nose (BN), Photocell with 1 1/2" deep back support (PH), Quartz Restrike - MH 11" only (QR), Clear Tempered Glass Lense for full cut-off (TGL) (Dark Sky Compliant).

Labels
U.L. and C.U.L. listed for wet location.

Modifications
Shaper's skilled craftspeople with their depth of experience offer the designer the flexibility to modify standard exterior wall luminaires for project specific solutions. Contact the factory regarding scale options, unique finishes, mounting, additional materials/colors, or decorative detailing.

24 X 36 CLEARPRINT

REVISIONS	BY

Dotter & Solfjeld
Architecture + Design
4801 PARK BOULEVARD
OAKLAND CALIFORNIA 94602
PHONE 510 530 9231 FAX 510 530 9223

FORKE RESIDENCE

791 SAN RAMON AVE., MOSS BEACH, CA.

Date 9-20-17

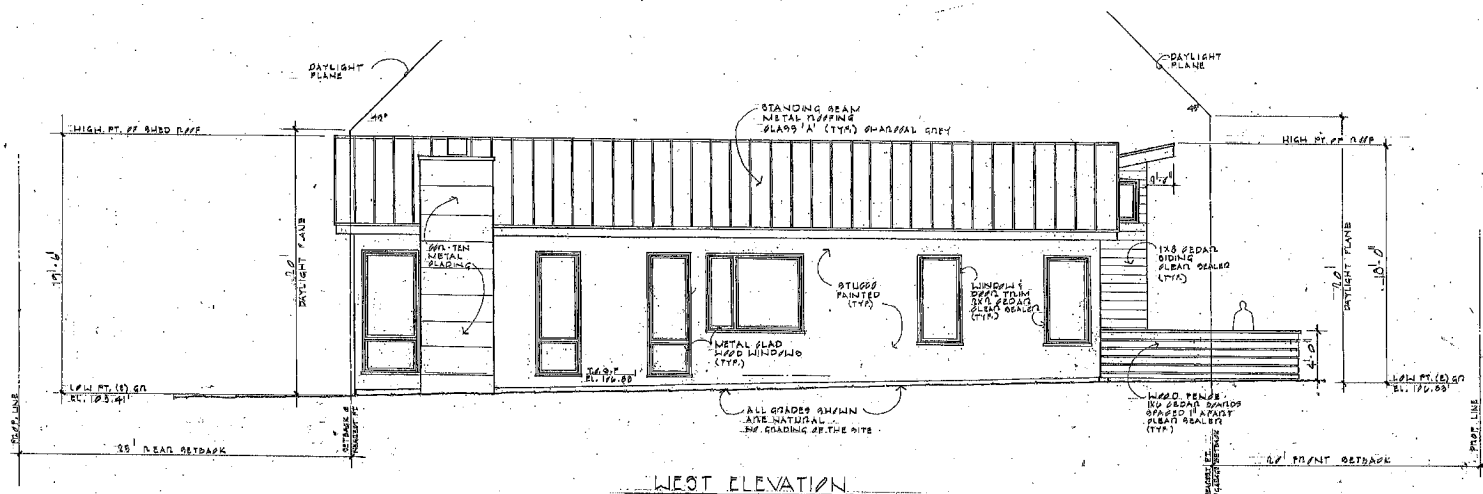
Scale

Drawn

Job

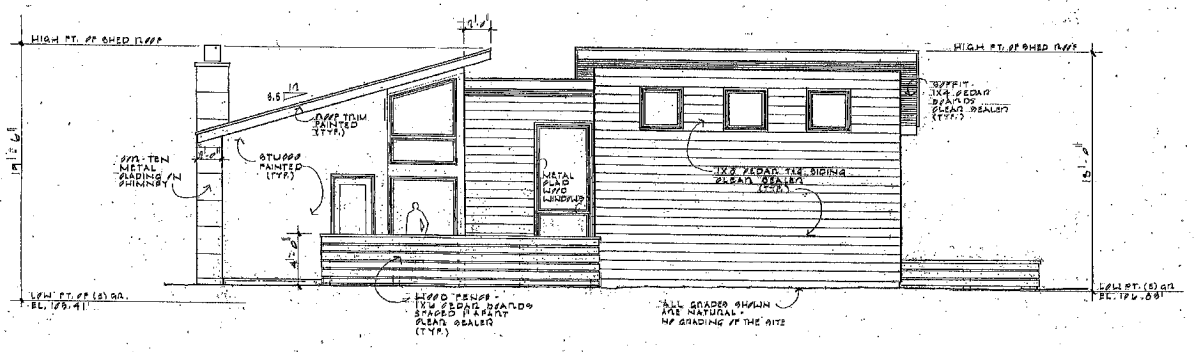
Sheet A4

Of Sheets



WEST ELEVATION

1/4" = 1'-0"



SOUTH ELEVATION

1/4" = 1'-0"

REVISIONS | BY

Dotter & Solfield
Architecture + Design
1389 PARK BOULEVARD
OAKLAND, CA 94610
PHONE 510 530 9221, FAX 510 530 9223

FENKE RESIDENCE

191 SAN RAMON AVE, MILL'S BEACH, CA.

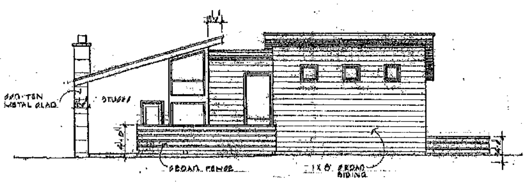
Date 9-22-17

Scale

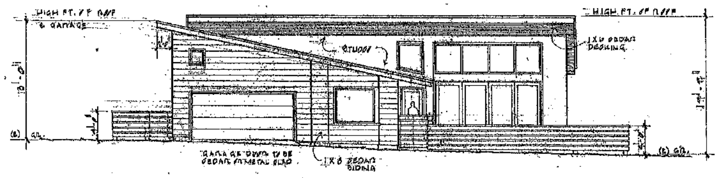
Drawn

Job

Sheet A5 Of Sheets

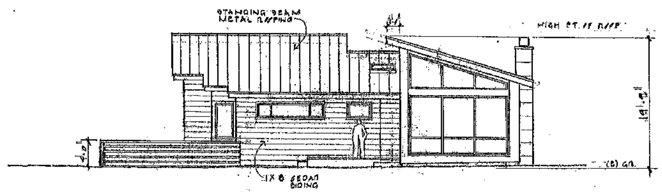


SOUTH ELEVATION
1/8" = 1'-0"

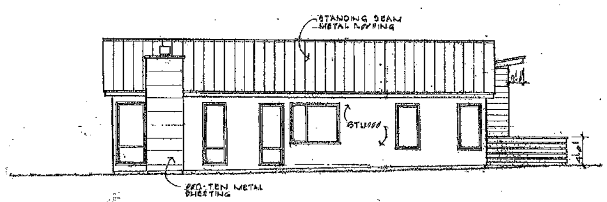


ALL WINDOWS TO BE
WOOD W/ METAL
CLADDING

EAST ELEVATION
1/8" = 1'-0"



NORTH ELEVATION
1/8" = 1'-0"



WEST ELEVATION
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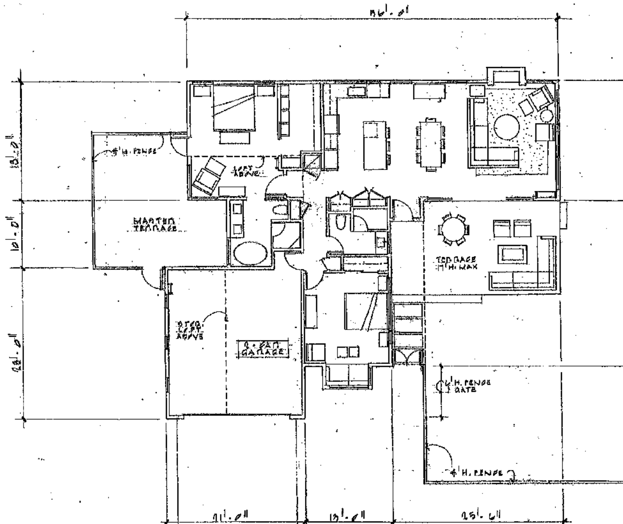


FLOOR PLAN
1/8" = 1'-0"

REVISIONS	BY

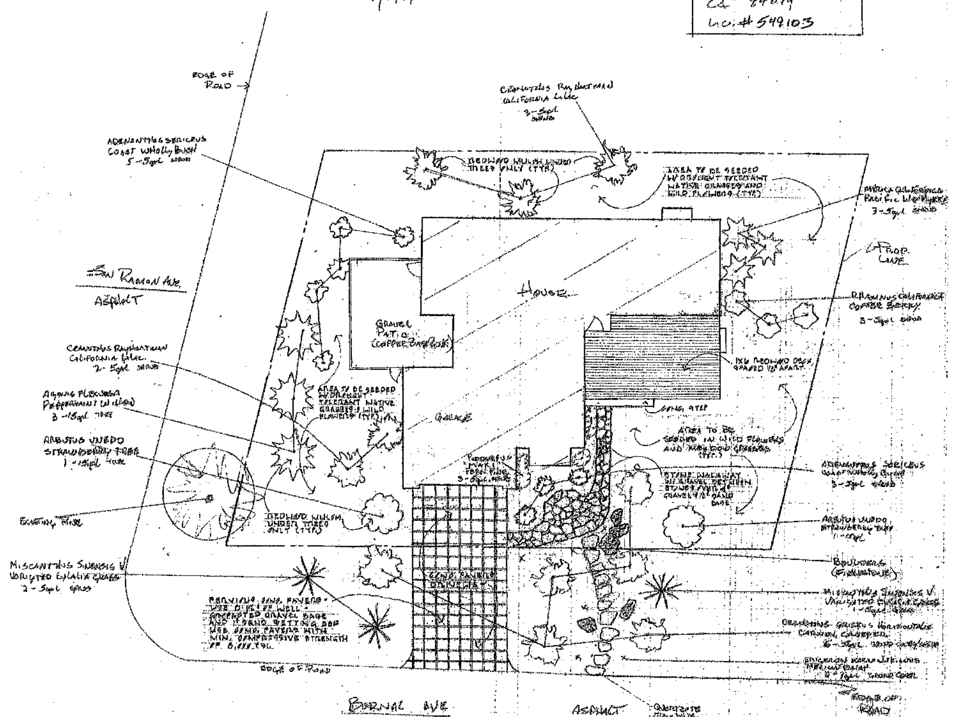
Dotter & Solfjeld
Architecture + Design
4801 PARK BOULEVARD
OAKLAND CALIFORNIA 94602
PHONE 510 530 9231 FAX 510 530 9223

FORKE RESIDENCE
991 SAN RAMON AVE., MOSS BEACH, CA.

Date 9-20-17
Scale
Drawn
Job
Sheet A6
Of Sheets

FORKE RESIDENCE
991 SAN RAMON AVE.
MOSS BEACH, CA.
7/8/17

FLORA FARM
340 PURISSIMA ST.
HALF MOON BAY
CA 94019
LIC.# 549103



* ALL PLANTINGS TO BE HAND WATERED

TOTAL PLANTS
5 - 15gal
31 - 5gal
6 - 1gal

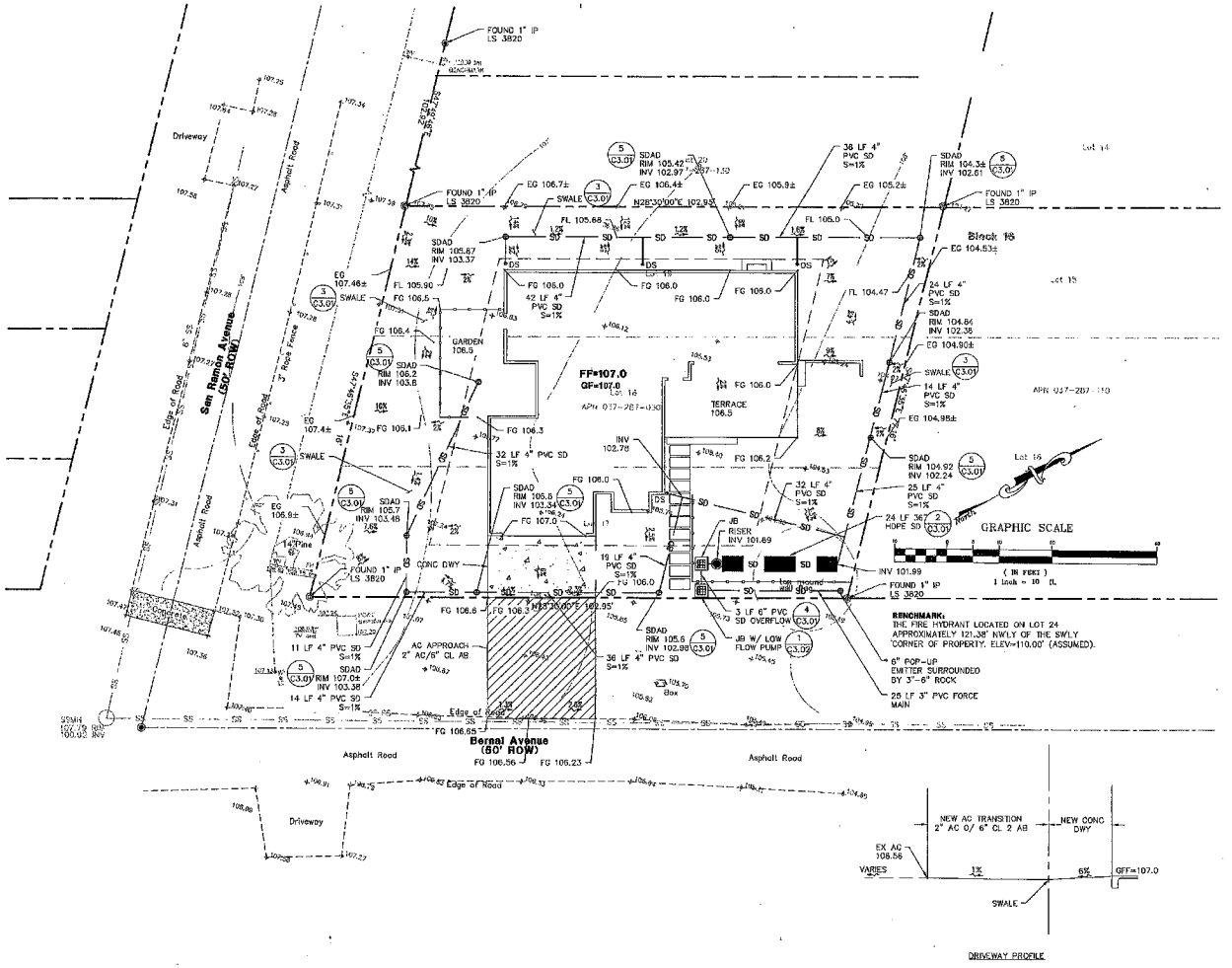
* LOT TO BE SEEDED W/ DROUGHT TOLERANT NATIVE GRASSES AND WILD FLOWERS - REDWOOD MULCH UNDER TREES (TYP.)

LANDSCAPE PLAN

REVISIONS	BY

FORKE RESIDENCE
991 SAN RAMON AVE., MOSS BEACH, CA.

Date 9-20-17
Scale
Drawn
Job
Sheet L1
Of Sheets



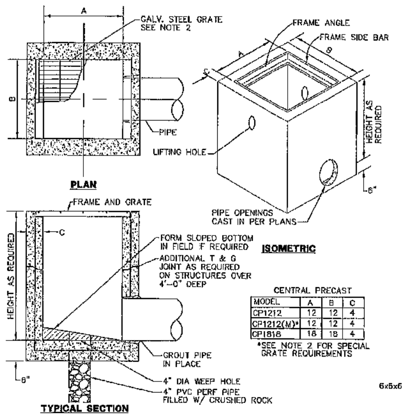
ROUNDHOUSE INDUSTRIES, INC.
900 ROSITA ROAD
PACIFICA, CA 94044
650.303.0495

GRADING AND DRAINAGE PLAN

No.	Revisions	Approved

AMBER FORKE
991 SAN RAMON AVENUE
MOSS BEACH, CA

DATE: 6.19.17
SCALE: 1"=10'
DRAWN: MO
JOB NO: 2017-028
SHEET C2.01



CENTRAL PRECAST

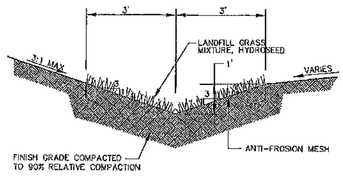
MODEL	A	B	C
CP1212	12	12	4
CP1212(M)*	12	12	4
CP1818	18	18	4

*SEE NOTE 2 FOR SPECIAL GRATE REQUIREMENTS

NOTES :

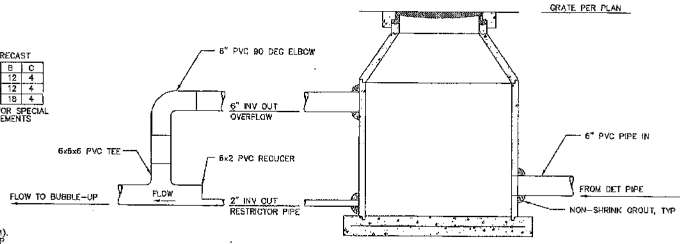
1. CATCH BASIN SHALL BE CENTRAL PRECAST DI OR EQUAL.
2. FRAMES AND GRATES SHALL BE STANDARD UNLESS DESIGNATED (M). GRATES DESIGNATED (M) SHALL BE NEENAH R-4990-CX TYPE P GRATE W/ MATCHING FRAME OR EQUAL.

1 / - **JUNCTION BOX**



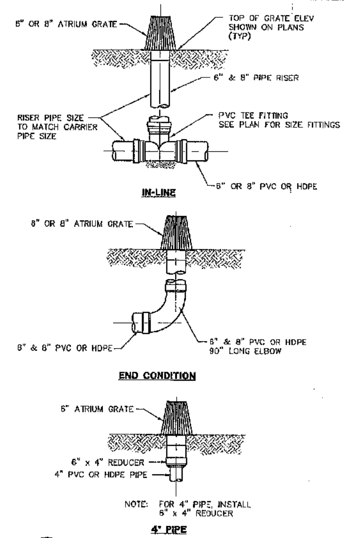
3 / - **GRASS LINED SWALE**

NTS



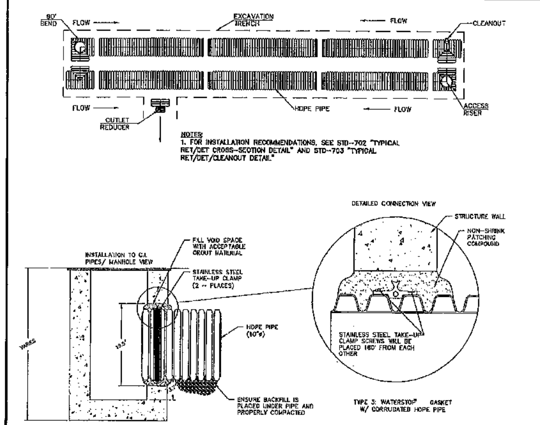
4 / - **OVER FLOW AND RESTRICTOR**

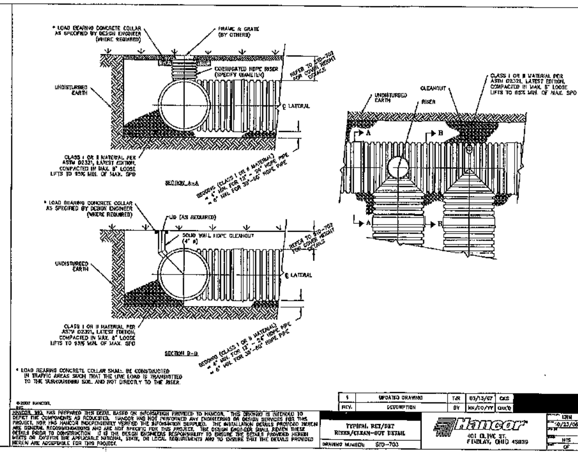
SCALE: NTS

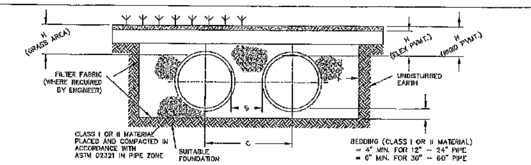


5 / - **AREA DRAINSW/ ATRIUM GRATE**

NTS







NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12" (300 MM)	14.5" (368 MM)	11" (279 MM)	25.4" (645 MM)	8" (203 MM)	12" (292 MM)	12" (292 MM)
15" (375 MM)	18" (457 MM)	12" (292 MM)	28.9" (734 MM)	8" (203 MM)	12" (292 MM)	12" (292 MM)
18" (450 MM)	21" (533 MM)	13" (330 MM)	33.8" (882 MM)	9" (229 MM)	12" (292 MM)	12" (292 MM)
24" (600 MM)	28" (711 MM)	13" (330 MM)	40.7" (1034 MM)	10" (254 MM)	12" (292 MM)	12" (292 MM)
30" (750 MM)	36" (914 MM)	18" (457 MM)	53.1" (1347 MM)	18" (457 MM)	12" (292 MM)	12" (292 MM)
36" (900 MM)	42" (1067 MM)	22" (559 MM)	63" (1600 MM)	18" (457 MM)	12" (292 MM)	12" (292 MM)
42" (1050 MM)	48" (1219 MM)	24" (610 MM)	71.9" (1826 MM)	18" (457 MM)	12" (292 MM)	24" (610 MM)
48" (1200 MM)	54" (1372 MM)	25" (635 MM)	78.5" (1994 MM)	18" (457 MM)	12" (292 MM)	24" (610 MM)
60" (1500 MM)	67" (1702 MM)	24" (610 MM)	90" (2286 MM)	18" (457 MM)	12" (292 MM)	24" (610 MM)

1	ADDED PIPE O.C. & "C" DIMENSION	TJR	05/24/07	CKS
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

TYPICAL RET/DET CROSS SECTION DETAIL

DRAWING NUMBER: STD-702

Hancor — 401 OLIVE ST. FINDLAY, OHIO 45839 — 07.25.00 — NTS

2 / - **DETENTION PIPES**

ROUNDHOUSE INDUSTRIES, INC.
900 ROSITA ROAD
PACIFICA, CA 94044
650.303.0495

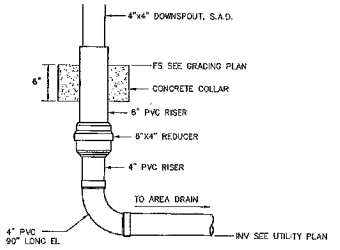
DETAILS

No. | Revisions | Approved

AMBER FORKE
991 SAN RAMON AVENUE
MOSS BEACH, CA

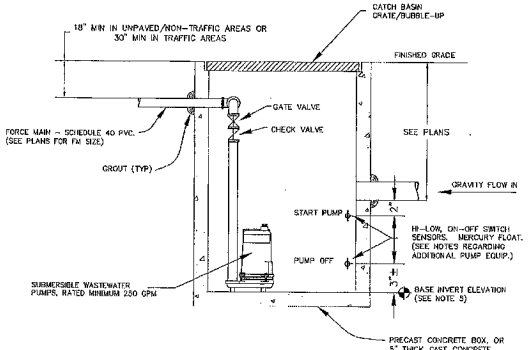
DATE: 6.19.17
SCALE: AS SHOWN
DRAWN: MD
JOB NO: 2017-026
SHEET

C3.01



2 — ROOF WATER LEADER

NTS



NOTE: ADDITIONAL EQUIPMENT FOR PUMP

1. INSTALL PUMP(S) PER MANUFACTURES RECOMMENDATIONS.
2. CONTRACTOR SHALL SUPPLY A COMPLETELY SELF-CONTAINED SIMPLEX MOTOR CONTROL PANEL. THE CONTROL PANEL SHALL PROVIDE SHORT CIRCUIT AND OVERLOAD PROTECTION FOR THE PUMP.
3. PROVIDE HIGH-WATER ALARM SYSTEM.
4. PROVIDE BENTONITE PASTE AT ALL PIPE CONNECTIONS TO PUMP BASIN. INSTALL RAISED/EXPOSED (3" MAXIMUM) #4 REBAR AROUND PERIMETER OF PUMP BASE TO PROTECT SUMP PUMP FROM SETTLED SOLIDS.
5. CONTRACTOR SHALL FIELD VERIFY ACTUAL BASE ELEVATION BASED ON FINAL FIELD CONDITIONS.
6. PUMP MAINTENANCE REQUIREMENTS (MINIMUM): CLEAN STORM DRAIN BASIN AND PUMP OF DEBRIS EVERY SIX MONTHS.

1 — STORM WATER QUALITY SUMP PUMP

NTS

ROUNDHOUSE INDUSTRIES, INC.
900 ROSITA ROAD
PACIFICA, CA 94044
650.303.0495

DETAILS

No.	Revisions	Approved

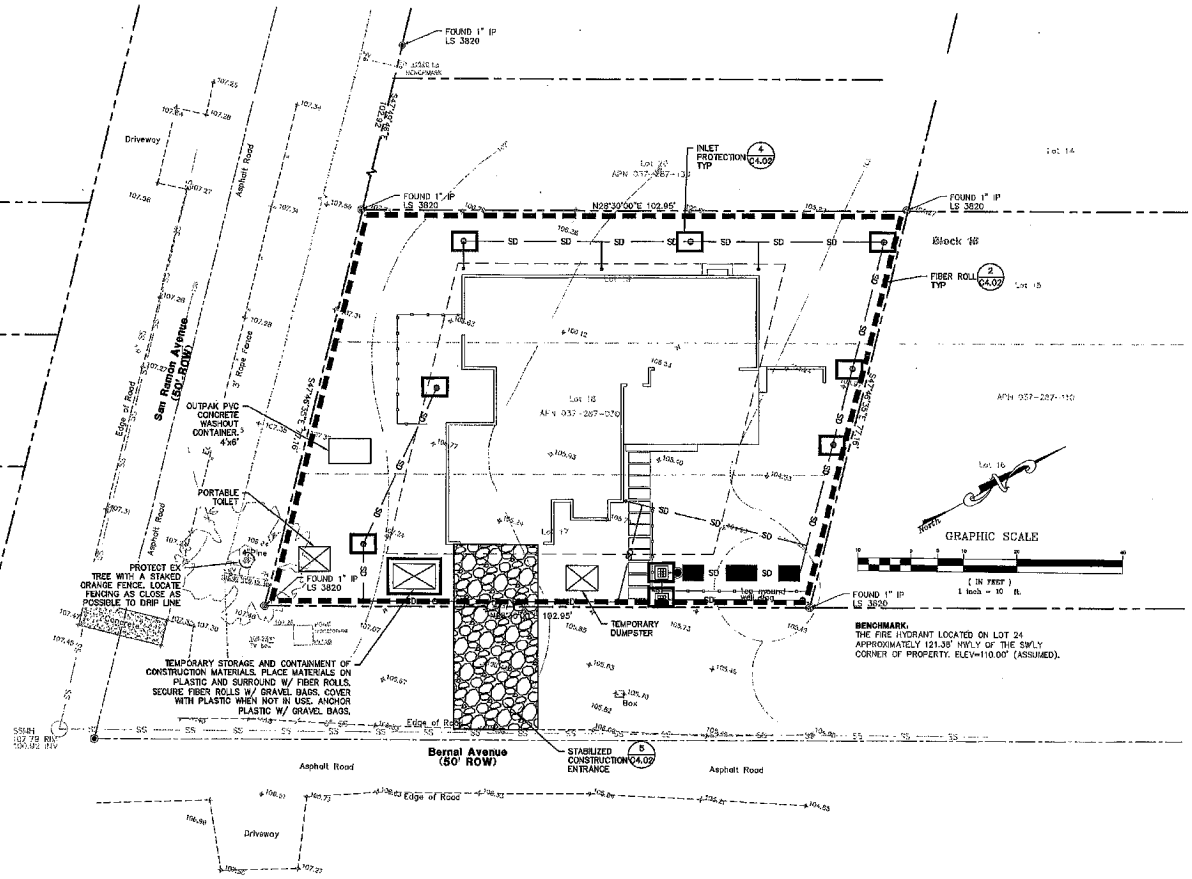
AMBER FORKE
991 SAN RAMON AVENUE
MOSS BEACH, CA

REGISTERED PROFESSIONAL ENGINEER
No. 75811
EXP. 06/30/18
CIVIL
STATE OF CALIFORNIA

DATE: 6.19.17
SCALE: AS SHOWN
DRAWN: MO
JOB NO: 2017-026
SHEET: C3.02

COUNTY EROSION NOTES:

1. COVER TEMPORARY STOCKPILES USING ANCHORED PLASTIC SHEETING.
2. EROSION CONTROL POINT OF CONTACT IS MIKE O'CONNELL, P.E. – CELL – 650.303.0495.
3. PERFORM CLEARING AND EARTH-MOVING ACTIVITIES ONLY DURING DRY WEATHER. MEASURES TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED PRIOR TO EARTH MOVING ACTIVITIES AND CONSTRUCTION.
4. MEASURES TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL ARE REQUIRED YEARROUND.
5. STABILIZE ALL DENUDED AREAS AND MAINTAIN EROSION CONTROL MEASURES CONTINUOUSLY BETWEEN OCTOBER 1 AND APRIL 30.
6. STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENTS, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATERCOURSES.
7. USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DEWATERING SITE AND OBTAIN ALL NECESSARY PERMITS.AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN A DESIGNATED AREA WHERE WASH WATER IS CONTAINED AND TREATEDMUNT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.
8. LIMIT CONSTRUCTION ACCESS ROUTES TO STABILIZED, DESIGNATED ACCESS POINTS.
9. AVOID TRACKING DIRT OR OTHER MATERIALS OFF-SITE; CLEAN OFF-SITE PAVED AREAS AND SIDEWALKS USING DRY SWEEPING METHODSTRAIN AND PROVIDE INSTRUCTION TO ALL EMPLOYEES AND SUBCONTRACTORS REGARDING THE WATERSHED PROTECTION MAINTENANCE STANDARDS AND CONSTRUCTION BEST MANAGEMENT PRACTICES.
10. PLACEMENT OF EROSION MATERIALS AT THESE LOCATIONS ARE REQUIRED ON WEEKENDS AND DURING RAIN EVENTS: (LIST LOCATIONS)THE AREAS DELINEATED ON THE PLANS FOR PARKING, GRUBBING, STORAGE ETC. SHALL NOT BE ENLARGED OR RUN OVER.
11. CONSTRUCTION SITES ARE REQUIRED TO HAVE EROSION CONTROL MATERIALS ON SITE DURING THE 'OFF SEASON'. DUST CONTROL IS REQUIRED YEAR ROUND.
12. EROSION CONTROL MATERIALS SHALL BE STORED ON SITE.
13. USE OF PLASTIC SHEETING BETWEEN OCTOBER 1ST AND APRIL 30TH IS NOT ACCEPTABLE.
14. THE TREE PROTECTION SHALL BE IN PLACE BEFORE ANY GRADING, EXCAVATING OR GRUBBING IS STARTED.
15. AN INSPECTION TO VERIFY THE INSTALLATION OF EROSION CONTROL MEASURES IS REQUIRED PRIOR TO BUILDING PERMIT ISSUANCE.



ROUNDHOUSE INDUSTRIES, INC.
900 ROSITA ROAD
PACIFICA, CA 94044
650.303.0495

EROSION CONTROL PLAN

No.	Revisions	Approved

AMBER FORKE
991 SAN RAMON AVENUE
MOSS BEACH, CA

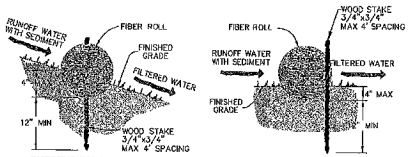
REGISTERED PROFESSIONAL ENGINEER
No. 78811
EXP. 03/31/18
CIVIL
STATE OF CALIFORNIA

DATE: 6.19.17
SCALE: 1"=10'
DRAWN: MO
JOB NO: 2017-026
SHEET C4.01

EROSION & SEDIMENT CONTROL NOTES

1. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. IN GENERAL THE CONTRACTOR IS RESPONSIBLE FOR KEEPING SEDIMENT-LADEN STORM RUN OFF FROM LEAVING THE SITE. FIBER ROLLS, SAND BAGS, AND SILT FENCES SHALL BE USED BY THE CONTRACTOR ON AN AS NEEDED BASIS TO INHIBIT SILT FROM LEAVING THE SITE AND ENTERING THE STORM DRAIN SYSTEM. ALL EXISTING, TEMPORARY, OR PERMANENT CATCH BASINS SHALL USE ONE OF THE SEDIMENT BARRIERS SHOWN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES TO PUBLIC AND/OR PRIVATELY OWNED AND MAINTAINED ROADS CAUSED BY THE CONTRACTOR'S GRADING ACTIVITIES, AND SHALL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE. ADJACENT PUBLIC ROADS SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OPERABLE FROM OCTOBER 1 TO APRIL 15 OR UNTIL VEGETATION IS ESTABLISHED ON DISTURBED SURFACES.
4. DURING THE RAINY SEASON, ALL PAVED AREAS ARE TO BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE IS TO BE MAINTAINED SO AS TO MINIMIZE SEDIMENT- LADEN RUNOFF TO ANY STORM DRAIN SYSTEM.
5. BORROW AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION
6. ALL EROSION CONTROL FACILITIES MUST BE MONITORED AS REQUIRED IN THE SWPPP. ALL SLOPES SHALL BE REPAIRED AS SOON AS POSSIBLE WHEN DAMAGED.
7. CONTROL MEASURES (TARPS, STRAW WATTLES, SILT FENCES ETC.) TO ENSURE SILT DOES NOT LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM.
8. ALL TRUCK TIRES SHALL BE CLEANED PRIOR TO EXITING THE PROPERTY.
9. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES
10. DURING PERIODS WHEN STORMS ARE FORECASTED --
    A. EXCAVATED SOILS SHOULD NOT BE PLACED IN STREETS OR ON PAVED AREAS.
    B. ANY EXCAVATED SOILS SHOULD BE REMOVED FROM THE SITE BY THE END OF THE DAY.
    C. WHERE STOCKPILING IS NECESSARY, USE A TARPAULIN OR SURROUND THE STOCKPILED MATERIAL WITH FIBER ROLLS, SILT FENCE, OR OTHER RUNOFF CONTROLS
    D. USE INLET SEDIMENT BARRIERS FOR STORM DRAINS ADJACENT TO THE STOCKPILED SOIL.
    E. THOROUGHLY SWEEP ALL PAVED AREAS EXPOSED TO SOIL EXCAVATION AND PLACEMENT.
11. DURING PERIODS WHEN STORMS ARE NOT FORECASTED --
    A. PREVENT STOCKPILED MATERIAL FROM ENTERING THE STORM DRAIN SYSTEM.
    B. THOROUGHLY REMOVE LOOSE SOIL VIA SWEEPING FOLLOWING REMOVAL OF DIRT.
12. OPEN SPACE AREAS ARE TO BE PLANTED BY SEPTEMBER 15. IF THIS CONDITION IS NOT MET, CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN TO THE CONSTRUCTION MANAGER FOR REVIEW AND APPROVAL.
13. DURING CONSTRUCTION, THE MAINTENANCE OF SUMMERTIME DRAINAGE THROUGH THE SITE IS THE RESPONSIBILITY OF THE CONTRACTOR.
14. MAINTENANCE, MONITORING, AND INSPECTION SHALL BE CONDUCTED ACCORDING TO BEST MANAGEMENT PRACTICES. TRAINING OF INSPECTION PERSONNEL WILL BE CONDUCTED PRIOR TO IMPLEMENTATION OF THE MONITORING PROGRAM. THE MONITORING PROGRAM SHALL INCLUDE REGULAR SITE INSPECTIONS AND REPORTS. MONITORING FORMS AND COMPLIANCE CERTIFICATION SHALL BE PROVIDED TO THE OWNER AND ENGINEER BY JULY 1 FOR THE PREVIOUS YEARS ACTIVITIES.

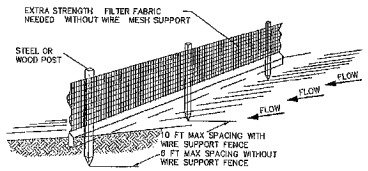
1 - EROSION CONTROL NOTES
NTS

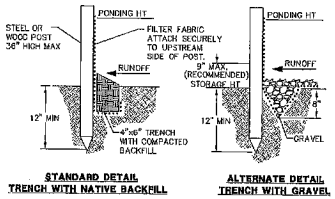


ENTRENCHMENT DETAIL IN SLOPE AREA | **ENTRENCHMENT DETAIL IN FLAT AREA**

NOTES:
1. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 4" DEEP, DUG ON CONTOUR.
2. ADJACENT ROLLS SHALL TIGHTLY ABUT.
3. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND FIBER ROLL.

2 - FIBER ROLL DETAIL
NTS

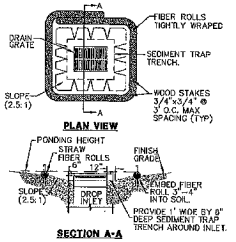




STANDARD DETAIL TRENCH WITH NATIVE BACKFILL | **ALTERNATE DETAIL TRENCH WITH GRAVEL**

NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

3 - SILT FENCE
NTS

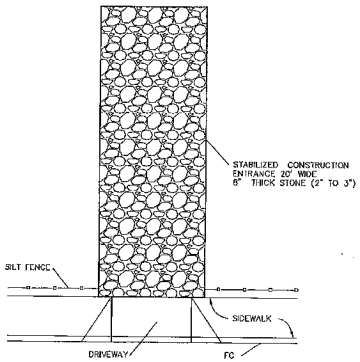


SECTION A-A

NOTES:
1. PLACE FIBER ROLLS AROUND ALL INLETS, NEW & EXISTING, TO WHICH RUNOFF FROM CONSTRUCTION AREA WILL DRAIN. (FIBER ROLLS ARE TUBES MADE FROM STRAW BOUND W/ PLASTIC NETTING. THEY ARE APPROX 8" DIA AND 20 - 30 FT LONG.)
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE FIBER ROLL IN A TRENCH, 3"-4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR ROUND FIBER ROLL.
3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW HE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY-PASSING THE INLET. EXCAVATION OF A BASIN ADJACENT TO THE DROPINLET OR A TEMPORARY DIKE ON THE DOWNSLOPE OF THE STRUCTURE MAY BE NECESSARY.

(TIME FRAME: AREA DRAINS – BETWEEN AREA DRAIN INSTALLATION AND PROJECT COMPLETION
CURB INLETS – BETWEEN CURB INLET INSTALLATION AND FINAL PAVING OPERATIONS)

4 - SEDIMENT BARRIER
NTS



5 - STABILIZED CONSTRUCTION ENTRANCE
NTS

ROUNDHOUSE INDUSTRIES, INC.
900 ROSITA ROAD
PACIFICA, CA 94044
650.303.0495

EROSION CONTROL NOTES AND DETAILS

No.	Revisions	Approved

AMBER FORKE
991 SAN RAMON AVENUE
MOSS BEACH, CA

REGISTERED PROFESSIONAL ENGINEER No. 75811 CIVIL STATE OF CALIFORNIA

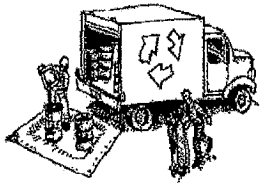
DATE: 6.19.17
SCALE: AS SHOWN
DRAWN: MO
JOB NO: 2017-026
SHEET: **C4.01**

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- ❑ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ❑ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ❑ Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ❑ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ❑ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ❑ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ❑ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control

Maintenance and Parking

- ❑ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ❑ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- ❑ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ❑ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ❑ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- ❑ Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving

- ❑ Schedule grading and excavation work during dry weather.
- ❑ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- ❑ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells
  - Buried barrels, debris, or trash.

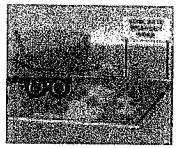
Paving/Asphalt Work

- ❑ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ❑ Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ❑ Shovel, absorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ❑ If sawcut slurry enters a catch basin, clean it up immediately.

Concrete, Grout & Mortar Application

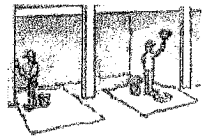


- ❑ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- ❑ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ❑ When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

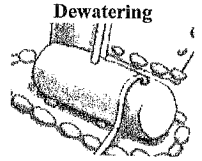
Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ❑ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ❑ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.

Dewatering



- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- ❑ Divert run-on water from offsite away from all disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

Storm drain polluters may be liable for fines of up to $10,000 per day!

PRA Group
CONSULTING ENGINEERS

No. GF-103/G356-01
July 12, 2017

Ms. Amber Forke
642 Johnston St., #3
Half Moon Bay, CA 94019

Subject: **GEOTECHNICAL STUDY UPDATE**
991 San Ramon Avenue
Moss Beach, California

Ms. Forke:

At your request, we are pleased to submit this Geotechnical Study Update for the proposed one-story single family dwelling at the above subject site in Moss Beach, California (see Figure 1, Site Location Map). The site is currently vacant and it is proposed to construct an approximately 1,984 square foot single family dwelling at the northern intersection of San Ramon Avenue and Bernal Avenue (see Figure 2, Site Plan). The site is located within a Special Study Zone for potentially active faults and was the subject of a fault study by JCP-Engineers (1988), and Purcell, Rhoades & Associates (2011). The results of the PRA 2011 study determined that there was no indication of a Holocene-active fault crossing the property within the limits of the exploratory trench evaluated. Based upon a site review, review of both the JCP-Engineers and PRA reports, and review of Geotechnical files at San Mateo County, is our opinion that the findings, conclusions, and recommendations of the 2011 PRA report are appropriate and remain applicable. Provided below are supplemental findings and recommendations that are applicable to your development.

Site Review

A Certified Engineering Geologist from this office performed a site review on 6/16/17. The subject site area is currently undeveloped, with scattered shrubs and trees. The site is mostly flat and covered with weeds.

The PRA Group, Inc.
▲ MATERIALS TESTING ▲ ENVIRONMENTAL ▲ GEOTECHNICAL ▲ GROUNDWATER ▲ GEOLOGY
3496 BUSKIRK AVENUE, STE. 100 PLEASANT HILL, CA 94523
TEL (925) 938-2801 FAX (925) 932-2795

Review of County Geotechnical Files

On 7/11/17, a representative of this office conducted a review of geotechnical reports on-file with San Mateo County Building Department. The purpose of that review was to determine if there were any reports on-file subsequent to the PRA 2011 report that would significantly impact the findings, conclusions, or recommendations of the PRA 2011 report. During this review, there were no reports reviewed that would significantly impact the findings, conclusions or recommendations of the PRA 2011 report.

Site Conditions

The subject site is an approximately 7,900 square foot semi-rectangular-shaped parcel located at the southeast corner of a residential area in Moss Beach. There is one single family house to the east and another to the south. There are several houses between the site and the ocean. This area of Moss Beach lies on a rounded, northwest trending ridge line bordered by the Seal Cove - San Gregorio fault and Half Moon Bay Airport on the northeast side and the Pacific Ocean along its southwest side. The site elevation is approximately 110 feet above sea level.

The geologic and seismic conditions for the subject site were described in detail in the PRA 2011 study. Figures from the PRA 2011 study are presented in Appendix A of this subject report.

The site is underlain by Quaternary marine terrace deposits (see Appendix A, Figure 4), which are locally described as the Seal Cove Bluffs, and considered equivalent to the Half Moon Bay Terrace, which is a high sea level stand of about 83,000 years ago (Kennedy et al, 1982; Lajoie et al, 1979). The site is approximately 950 northeast of the west facing coastal cliffs.

As determined In the PRA study, the subsurface materials at the site consist of natural soil that has developed over marine terrace deposits. The surficial soils consist of dark brown to black clayey silt and silt clay with some fine sand that are generally stiff to hard. The terrace deposits are interbedded, lensed, and locally channeled and vary widely in texture, consistency, and density. The texture varies from clay to sand, the consistency of the clay varies from medium stiff to hard, and the density of the sand varies from loose to dense. In general, the materials can be characterized as dense silty sands. Groundwater seepage was noted along the base of the trench at the northern end, along a sand and clay contact.

The site is located within the seismically active San Francisco Bay region, and as shown in Appendix A, Figure 5, entirely within the Special Study Zone for the Seal Cove-San Gregorio fault (California Division of Mines and Geology, 1982). The main trace of the Seal Cove fault is mapped along the east-facing bluff, approximately 150 feet east of the site.

The JCP (1988) study reported encountering an active branch trace of the Seal Cove-San Gregorio fault crossing the eastern corner of the property. The fault trace was an open crack in-filled with soil that traced to the bottom of the 6-foot deep trench. PRA's 2011 study included an exploratory trench that extended to a depth of 10 feet below grade and determined that the JCP trace terminated just below the depth of the JCP trench and was underlain by undisturbed terrace deposits. Therefore, it was the opinion of PRA that no fault trace was present within the trench excavated for the 2011 study. Appendix A, Figure 2 shows the locations of the projected JCP trace and the location of the PRA trench. During the PRA 2011 field exploration program, Ms. Jean DeMouthe, the Peer Review Geologist on behalf of San Mateo County observed the open trench and reviewed the trench log prepared in the field. The log of the exploratory trench is presented in Appendix A as Figure 7, Exploratory Trench Log T-1.

In the event of an earthquake, seismic risk to a structure will depend on the distance of the structure from the epicenter and source fault, the character and magnitude of the earthquake, the geologic, groundwater, and soil conditions underlying the structure and its immediate vicinity, and the nature of the construction. Structural damage due to ground shaking is caused by the transmission of earthquake vibrations from the ground into the structure. The variables which determine the extent of the damage are the characteristics of the underlying earth materials, the design of the structure, the quality of materials and workmanship used in construction, the location and magnitude of the earthquake, and the duration and intensity of the shaking. The most destructive effects of earthquakes are usually seen where the ground is unstable and the structures are poorly designed and constructed.

In the event of a near-source, large magnitude earthquake on the San Gregorio-Seal Cove fault, with surface fault rupture occurring at the site vicinity, it is reasonable to assume that the subject property may experience very violent levels of ground shaking.

Ground Failure

The site is generally flat to gently sloping upon this terrace level, but steepens to the east beyond the site along the Seal Cove Bluff escarpment resulting from vertical movement along the San Gregorio-Seal Cove fault. While the site is sufficiently distant from the escarpment to not be concerned with slope stability issues, a large earthquake on the San Gregorio-Seal Cove fault would result in very violent shaking at the site, and perhaps shallow ground cracks.

The site is approximately 150-feet west of this escarpment, and approximately 950-feet east of the coastal bluffs that are subject to surface erosion and wave undercutting, active landsliding and bluff retreat. The style of slope failure and the rate of coastal bluff retreat are, at least in part, controlled by the nature of the bedrock at the base of the cliff. The majority of the cliff face is underlain by Purisima Formation at the base of the cliff, and

overlain by terrace deposits. In areas of Purisima Formation consisting of weak and fissile mudstone, the cliff is unstable, and the slope tends to fail in large, deep-seated rotational landslides. Where the bedrock unit is moderately consolidated, thin-bedded to laminar mudstone and sandstone that is silicified, the bedrock is more resistant to wave impact, and the cliff face is generally steeper and tends to fail in shallow block slides and rock slides. Several estimates of the rate of coastal bluff retreat have been published. The environmental report for the Fitzgerald Marine Research (FMR) Master Plan (2002) stated that based upon interpretation of aerial photography and field reconnaissance, it was estimated that up to 100 feet of coastal bluff retreat had occurred since 1931 in the Cypress Point area. This would indicate an average rate of 1.5 feet per year, noting that there have been no moderate or large magnitude earthquakes on the San Gregorio-Seal Cove fault. The FMR study indicated that it would be prudent to assume a conservative value of 2.0 feet per year to account for the potential of a higher rate of retreat in the event of an earthquake. North of the mouth of San Vicente Creek, near the Moss Beach syncline, the rate of retreat was documented at 1.5 feet per year over a 105-year period between 1850 and 1955 (Lajoie and others, 1979). Southeast of the Cypress Avenue, in the Seal Cove community, the rate of retreat was documented at 1.0 feet per year over a 29-year period (Leighton and Associates, 1971). A recent regional coastline study by Hapke and Reid (2007) and Hapke and others (2009), indicated that the average rate of coastal cliff retreat in the Central California area was approximately 12 inches per year over a 70-year period of study, and in the San Francisco South portion of the Central California area, the rate of retreat was 8 inches per year. In review of the 2007 study, it was noted that the error variation was ±8 inches/yr. It was also reported that on the north side of Pillar Point, near Maverick's surfbreak, the highest rate in this region was 10 feet/yr. This latter area was noted as a large, active landslide. Assuming a 50-year economic site life, the use of a cliff retreat rate of 16-inches, 2-feet, or even 10 feet per year would be less than the present distance of 950 feet from the current cliff face to the site.

CONCLUSIONS

The recommendations presented herein are intended to reduce the risks associated with the adverse Geotechnical factors discussed above and to minimize their effects upon the planned improvements. The following conclusions are based on the results of our study of the subject site.

PRAG concurs with the findings, conclusions, and recommendations provided in the PRA 2011 study. As stated in the PRA study,

"It is our opinion, based on an analysis of the data and information obtained from the site reconnaissance, the subsurface exploration and Geotechnical evaluation combined with our experience and knowledge of the soil conditions in this area, that the property is Geotechnically suitable for the proposed development. This opinion requires that the recommendations contained herein are incorporated into the project design and adhered to during construction."

Based upon the review of prior published work, surface field reconnaissance, the review of off-site fault investigation reports, and exploratory trenching by PRA, it is our opinion that the site is not crossed by a Holocene-active trace of the Seal Cove fault. The main trace of the Seal Cove fault is presently mapped as forming the east-facing escarpment between the site and the Half Moon Bay airport, approximately 150 feet north of the site. Because the site is not crossed by a Holocene-active trace of the Seal Cove fault, it is our opinion that the previously required 10-foot construction setback be eliminated allowing construction to occur in this area. The site is sufficiently set back from the escarpment that no significant slope stability issues are anticipated.

The site is located within the Seal Cove community that is subjected to coastal bluff erosion. The site is at least 950 feet from the coastal bluff, and most studies of coastal

erosion in the site vicinity indicate on the order of 1.5 feet per year of expected bluff retreat. Even assuming a bluff retreat rate of 9-feet per year that was recorded in the area north of Pillar Point over an expected site life of 50 years, the site is well beyond any anticipated coastal bluff hazard.

Due to the proximity of active strands of the San Gregorio-Seal Cove fault system, very violent levels of seismic ground shaking must be expected in the event of a near-source major earthquake. Seismic ground shaking impacts will occur regionally in the San Francisco Bay area and the impacts of surface fault rupture will occur on property all along those sections of the active fault that ruptures. Even though local utility lines at this site may successfully resist the effects of the next earthquake, service may be interrupted due to regional damage incurred off-site.

Seismically induced ground shaking with minor to significant structural damage may occur within the economic life of the development. While surface fault rupture is presently anticipated to occur along known fault zones during a major earthquake, there is always the possibility that surface fault rupture may occur outside of identified fault zones.

Based upon the information determined from exploratory field program and laboratory testing by others, it is our opinion that the site can be developed, provided the recommendations provided in this report and the PRA 2011 study are incorporated into the design and construction phases of this project.

Based upon the laboratory testing of the surface soils, it is our opinion that the site has a low to moderate expansion potential with seasonal moisture fluctuations.

It is our opinion, based upon the subsurface information obtained from the site and engineering analysis by this office, that a single-story single-family, wood-framed residence can be constructed using a conventional spread footing foundation system with concrete

slab-on-grade floors, provided grading is performed to remove loose exploratory trench backfill and replacement with compacted engineered fill.

Site drainage controls will be a key factor for site development. Roof waters must be collected from down spouts into solid pipes for routing to an acceptable discharge point for release. It is recommended that all collected roof and surface waters be routed by piping and surface ditches to the appropriate discharge point approved by this office.

Depending upon the proposed site development plan, including grading, supplemental recommendations may be required from PRAG, and it is required that PRAG have the opportunity to review grading, drainage, and foundation plans prior to their submittal to reviewing agencies.

RECOMMENDATIONS

Geotechnical Hazards

Risk of Geotechnical hazards will always exist due to uncertainties of geologic conditions and the unpredictability of seismic activity in the Bay Area. However, in our opinion, based on available data, there are no indications of Geotechnical hazards that would preclude use of the site for the proposed development. The proposed structures should be designed to meet current *California Building Code* (CBC) requirements to limit potential damage from ground shaking.

Seismic Criteria

The California Building Code require the Geotechnical Engineer to provide supplemental seismic data (including coefficients SD_s and SD_1). Determination of these seismic parameters utilized seismic programs provided by the United States Geologic Survey (USGS) and the determination of the site soil classification. These values are calculated using the referenced USGS "Earthquake Hazards Program, Seismic Design Values for Buildings," website. This data is useful for engineers determining how a structure will react

to ground motions from an earthquake. The response is calculated for a range of periods. Within that range, the California Building Code refers to particular response periods that help define the shape of the "design spectra" that reflect the building codes.

The nearest fault is the Seal Cove - San Gregorio fault, located approximately 150 feet northeast of the subject site. The near-source factors for this fault are provided below using a site latitude and longitude of N 37.5155° and W -122.5089°:

SEISMIC CRITERIA	VALUE
Site Class	C
S_s Short Period 0.2-second Spectral Acceleration	2.291g
S_1 1.0 Second Spectral Acceleration	0.969g
Site Coefficient F_a	1.0
Site Coefficient F_v	1.3
Max. Short Period Spectral Response Acceleration $SM_s = F_a \times S_s$	2.291g
Max. Spectral Response Acceleration 1-second period $SM_1 = F_v \times S_1$	1.260g
Damped Design Spectral Response - Short Period $SD_s = 2/3 \times SM_s$	1.528g
Damped Design Spectral Response - 1-second Period $SD_1 = 2/3 \times SM_1$	0.840g

Grading

Final grading plans were not available during preparation of this report. We recommend that preliminary grading plans be reviewed by our office prior to submitting to reviewing agencies for permit approval. All grading must conform to Appendix B, Recommended Grading Specifications, in the PRA 2011 study ; however, the specifications are general

and would be expected to vary with site and soil conditions encountered during development.

All grading must be observed by a representative of our firm. It is especially important that our representative be present during the stripping, tree removal, and scarification process to observe whether undesirable materials are encountered and properly removed. In the footprint of the proposed structure plus an additional 5 feet, the Geotechnical Engineer will evaluate the subsurface soil condition to determine the removal depth of poor quality subsoils. In addition to the excavation of the exploratory trenches and replacement with compacted engineered fill, a minimum subexcavation depth of 12 inches is anticipated in the building pad footprint area plus 5 feet. The excavated subgrade level must be moisture conditioned to a minimum of 3 percent over optimum and compacted to a minimum of 90 percent relative compaction, except that the driveway subgrade must be compacted to a minimum of 95 percent relative compaction.

The following general recommendations are to be incorporated into the site grading operations and are subject to change based upon the field conditions and the Geotechnical intent of this report. On-site, low expansion (PI<10) soil generated by site grading may be used as fill provided that the soil is free of deleterious and organic materials and that it has been approved for use as fill by our Geotechnical Engineer or the Engineer's representative. Samples of any proposed import fill planned for use on this project must be submitted to our Geotechnical Engineer or the Engineer's representative for approval and appropriate testing no less than 4 working days before the expected delivery to the jobsite.

Exploratory trenches were loosely backfilled with the excavated soil. Where the proposed development is placed over the former exploratory trenches, subexcavation and recompaction will be required. A representative of this office must be present during grading operations to observe the subexcavation of loose subsoils and recompaction to subgrade level.

Foundation

The proposed structure will be single-story in height and wood-framed. The structural loads for this type of construction are expected to be relatively light. Based upon the nature of the proposed structure and the results of our study, we are recommending that the proposed structure be supported by a continuous spread footing foundation with a concrete slab-on-grade floor system. Exterior footings should be interconnected with tie-beams to the interior footings in order to stiffen the foundation system. Geotechnical design criteria should be implemented at the discretion of the Structural Engineer based upon his review and designed in conformance with current industry standards and the Geotechnical recommendations of this report.

Geotechnical design criteria should be implemented at the discretion of the Structural Engineer based upon his review and designed in conformance with current industry standards and the Geotechnical recommendations of this report. If a foundation system other than those recommended is desired, this office should be called for supplemental recommendations. Such recommendations would be presented as an addendum to this report. The foundation recommendations presented in the following Table I are based on the anticipated soil condition underlying the building pad.

TABLE I

SPREAD FOOTING FOUNDATION DESIGN CRITERIA

Wall Footings (Continuous)	
Width	Minimum 12 inches
Embedment	Minimum 18 inches
Column Footings (Isolated)	
Width	Minimum 12 inches
Embedment*	Minimum 18 inches
Allowable Bearing Capacity**	2000 pounds per square foot
Coefficient of Sliding Friction	0.30

* Footing embedment depth is measured from the lowest adjacent interior soil pad grade to the bottom of the footing.

** The allowable bearing capacity is for dead plus live loads. The bearing capacity may be increased by 1/3 for wind or seismic loads.

The reinforcement of the footings and the design criteria for stiffening elements should be designed by a Structural Engineer, however, as a minimum, the footing must include one No. 5 reinforcing bar, top and bottom. The interior load-bearing footings should be connected to the exterior footings to provide a more rigid foundation system to resist seismic loads and to reduce the potential for differential settlement between the interior and exterior foundations. Differential settlement is currently anticipated at an approximate maximum of 1 inch over a 40-foot span for exterior continuous footings and the interior spread footings.

The excavations for footings must be cleaned of loose material and debris prior to placement of concrete. All footing excavations must be observed by a representative of our firm to confirm the minimum depth of the footings, the suitability of the foundation and to observe the competence of the material in the excavations.

Concrete Slabs-on-Grade, Floors

We recommend that the minimum slab-on-grade floor thickness be 5 inches with the minimum reinforcement of No. 4 reinforcing bars spaced at 18 inches on-center, or with an alternate reinforcement system as required by the project Structural Engineer. The slabs are to be structurally integrated into the continuous footings with dowels consisting of No. 4 reinforcing bars spaced at 18 inches along the perimeter of the slabs. In general, the reinforcement should be supported by concrete dobies to attain its greatest efficiency in minimizing the cracking of the slabs. Crack control joints should be located to reduce the potential shrinkage cracking of the finish floor as directed by the Structural Engineer. Prior to placement of the concrete, the footings and the subgrade in the slab area must be moisture conditioned by extended sprinkling.

Concrete slab-on-grade floors should be underlain by a minimum 4-inch-thick capillary break of pea gravel or clean crushed 1/2 inch by 3/4 inch rock. If potential moisture vapor transmission through the slab is objectionable, we recommend that a Visqueen membrane (vapor retarder) of 10 mil minimum thickness be placed on the crushed rock and overlain by 1 to 2 inches of clean sand to assist in the proper curing of the slab. The membrane should be placed in accordance with the manufacturer's specifications. Any punctures or damage to the membrane that may occur must be repaired in accordance with the manufacturer's specifications. If a vapor barrier is desired, a membrane of 20 mil minimum thickness (such as Stego, or equivalent) is required. Some moisture transmission should be expected where a membrane vapor barrier is not utilized.

Recommendations presented in the American Concrete Institute should be complied with for all concrete placement and curing operations. Improper curing techniques and/or excessive slump (water-cement ratio) could cause excessive shrinkage, cracking, or curling.

Concrete Slabs-on-Grade, Miscellaneous Flatwork

1. It is recommended that the exterior flatwork slabs-on-grade be a minimum thickness of 4 inches and be structurally independent of the foundation to provide freedom of movement due to soil volume changes.

2. The exterior flatwork slabs-on-grade should be underlain by a minimum 2-inch thick rock cushion with the exterior portion of the slabs having a deepened edge of 4 inch minimum into the lowest adjacent grade subsoil.

3. Reinforcement of the concrete slabs will be as directed by the project structural engineer. We recommend that crack control joints be utilized as designated by the structural engineer.

We recommend that the owners be advised that some vertical displacement of exterior flatwork, sidewalks, driveways, and pavements be anticipated. Proper site drainage, maintenance and controlling landscape irrigation is recommended to reduce the amount of vertical displacement that may occur.

Retaining Walls

Where retaining walls are needed, the following Table II, presents our design recommendations for any retaining walls up to 6 feet in height. Retaining walls should be designed for a full-drained condition. We recommend installing a 4-inch diameter perforated SDR 35 pipe or better placed upon a 2-inch minimum layer of Cal Trans Class 2 permeable drain rock at the base of the wall located a minimum of 6-inches below any cold joint or interior crawl space (when incorporated into the house). The trench and pipe should be sloped a minimum of 1 percent and discharged into a suitable outlet. Where the retaining wall is not integrated into the foundation of a structure, the drain rock should be backfilled to within 1 foot of the surface, then capped with compacted clay material up to the finish surface. If needed, the following parameters should be implemented in the design. Any wall that is incorporated into the foundation of a building or restrained at the top, should be designed with a 100 psf uniform lateral surcharge load, in addition to the lateral earth pressures as provided below. To reduce the potential for moisture transmission through the retaining wall where moisture transmission would be objectionable, it is recommended that the appropriate face be hot-mopped in accordance with the manufacturer's specifications and an impermeable membrane be placed over the hot-mopped surface to protect the surface from damage during drain rock placement. Recommendations to control surface drainage are discussed in the drainage section of this report.

The proposed design should be reviewed by our firm to confirm that the retaining wall configuration is compatible with the assumed parameters. Design pressures are based on the native bedrock conditions encountered during the site investigation and are expressed as equivalent fluid pressures. All retaining walls must be supported on footings using the same criteria as discussed in the Foundation design section of this report.

TABLE II

RETAINING WALL DESIGN CRITERIA

Gradient of Backfill	Equivalent Fluid Weight (pcf)	Passive Resistance* (pcf)
Level	50	300
2H to 1V	65	300

***Commences a minimum of 1 foot below lowest adjacent grade.**
Allowable bearing pressure: 2000psf at 18 inches below grade.

The retaining wall design should be made by the Project Structural Engineer. All retaining walls must be free draining.

Utility Trenches

Utility trenches that parallel the sides of the buildings should be placed so that they do not extend below a line sloped down and away at a slope of 1H:1V (horizontal to vertical) from the bottom outside edge of the perimeter foundations (i.e., the base of exterior footings).

All trenches should be backfilled with native materials compacted uniformly to the relative compaction specified in Appendix B of the PRA 2011 study. If local building codes require use of sand as the trench backfill, all utility trenches entering the building should be provided with an impervious seal of either cohesive soil or lean concrete where the trench passes under the building perimeter. The impervious plug should extend 4 feet into, and out of, the building perimeter. Jetting of trench backfill is not recommended as it may result in an unsatisfactory degree of compaction.

Drainage

Surface water must not be allowed to pond adjacent to the building foundation. To preclude drainage problems, we recommend roof storm water control for the proposed facilities. It will be necessary to direct all water collected from roof down spouts into closed conduits that lead to acceptable discharge points away from the structures.

A positive cross slope gradient of 3 percent down and away from the building perimeter should be applied to the finished subgrade (inclusive of topsoil). This slope should extend no less than 5 feet away from the outside building perimeter. Where collector swales are necessary to direct the storm water to the fronting streets for discharge, a minimum swale slope gradient of 1% is required. Drop inlet facilities within the drainage swales should be provided to assist in the removal of runoff from around the structures where concrete walks or asphalt pavements do not abut the foundations and non-drainage recessed planter areas are located.

Plants should not be placed immediately adjacent to the structures. If vegetation must be planted adjacent to the buildings, plants that require very little moisture should be used. Sprinkler heads should not be placed where they could saturate foundation soil.

Pavements

We recommend selecting the pavement section after earthwork construction for the subject project has been completed. Based on the low to moderate expansion potential of the surface soils encountered at this site, the following preliminary pavement design is recommended.

Asphalt Concrete (inches)	Aggregate Base, R = 78+ (inches)
3	8

In the event a concrete roadway is considered, it is recommended that a minimum thickness of 6-inches be underlain by a 4-inch thick layer of Cal Trans Class 2 aggregate base rock. The roadway slab should be reinforced with a minimum of No. 4 reinforcing rods placed 24-inches on center each way in a grid pattern supported on dobies.

To perform to its greatest efficiency, the pavement section requires the following construction criteria:

a. Remove organic and deleterious materials from all pavement subgrade.

b. Moisture-condition the upper 6 inches of subgrade soil and compact it to a minimum relative compaction of 95 percent and to a moisture content of 2 to 4 percent over the optimum moisture content. All pavement subgrade should be stable with no "pumping" at the time the base rock is placed.

c. Use only good quality materials of the type and minimum thickness specified. All base rock should meet the *Standard Specifications* of the State of California for Class 2 baserock and should be angular in shape.

d. Compact the baserock uniformly to a minimum relative compaction of 95 percent.

e. Place the asphalt concrete only during periods of fair weather when the free air temperature is within the prescribed limits as set forth by the Asphalt Concrete Institute.

f. Compact all trench backfill under the pavement to reduce fill settlement and minimize pavement damage that may result from such settlement. Mechanical compaction is recommended because material placed by jetting or ponding will probably not attain satisfactory densities.

g. Provide adequate drainage or V-ditch systems to prevent surface water from migrating into the subgrade pavement soil from behind curb-and-gutter sections. For areas where pavements abut landscaping, we recommend extending the concrete curb to the bottom of the base rock layer to form a cut-off wall to prevent water from migrating into the base rock.

Construction During Fall and Winter Seasons

Wet weather may raise the moisture content of the soil well above optimum conditions and earthwork construction may be difficult or impossible. Supplemental recommendations will be provided by our Geotechnical engineer or the engineer's representative in the field, if appropriate.

Miscellaneous

Our exploration did not reveal the presence of any other buried items such as leaching fields, wells, storage tanks, etc. It is possible, however, that other items that could interfere with the facilities may be present. If such items are encountered during grading or during excavations of foundations, our firm should be notified immediately to provide recommendations for proper procedures. Exploratory trenches were excavated at this site and were backfilled at less than 90 percent relative compaction and subject to settlement over time. Where settlement may impact structural features such as driveways or foundations, the trench area must be subexcavated to the original trench bottoms estimated to range from 7 to 10 feet in depth, moisture conditioned to a minimum 3 percent over optimum and recompacted to a minimum 90 percent relative compaction. Also, this study did not include investigations for toxic substances or groundwater contamination of any type. If such conditions are encountered during site development, additional studies will be required. This study also did not include soil sampling and testing for corrosion potential and/or sulfate content of on-site soils. After site grading has been completed, it

is recommended that soil sampling be performed to determine if corrosive soils and high chloride and/or sulfate concentration soils are present that may require special recommendations for foundation cement type and protective membranes.

Plan Review

Before submitting design drawings and construction documents to the appropriate local agency for approval, copies of the documents must be reviewed by our firm to ensure that the recommendations in this report have been effectively incorporated.

Construction Observations

A representative of this firm must be present during grading and foundation excavation to observe that the work performed is in conformance with the specifications and recommendations provided in this report. We will also perform testing as necessary to evaluate the quality of the materials and their relative compaction. Records will be maintained of our site visits and test results. At the completion of site grading and foundation excavation, we will submit a summary of our observation and test results along with any necessary supplemental recommendations.

To assure that our personnel are at the site when needed, we require that you notify us at least 2 working days before the task begins.

LIMITATIONS

This report has been prepared for the exclusive use of Ms. Amber Forke, and her consultants for specific application to the proposed development. If changes occur in the nature, design location, or configuration of the proposed development, the conclusions and recommendations contained here will not be considered valid. Changes must be reviewed by our firm.

The analysis, opinions, conclusions and recommendations submitted in this report are based in part on the referenced materials, site visit and evaluation, and subsurface exploration. The nature and extent of variation among exploratory trenches may not become evident until construction. If variations appear, it will be necessary to re-evaluate or revise recommendations made in this report.

The recommendations in this report are contingent on conducting an adequate testing and monitoring program during construction of the proposed development. Unless the construction monitoring and testing program is provided by or coordinated with our firm, PRA Group, Inc. will not be held responsible for compliance with design recommendations presented in this report and other supplemental reports submitted as part of this report.

Our services have been provided in accordance with generally accepted Geotechnical engineering practices. No warranties are made, express or implied, as to the professional opinions or advice provided. Recommendations contained in this report are valid for a period of 2 years; after 2 years they must be reviewed by this firm to determine whether or not they still apply.

Very truly yours,

THE PRA GROUP, INC.

Daniel J. Rhoades, ME
Principal
GE-716, exp. 06-30-19

Dean Affeldt, PG
Principal
CEG-1108, exp. 07-31-17

Attachments: Figure 1 Site Location Map
Figure 2 Site Plan
Appendix A PRA 2011 Study Figures

lda/G35601.1

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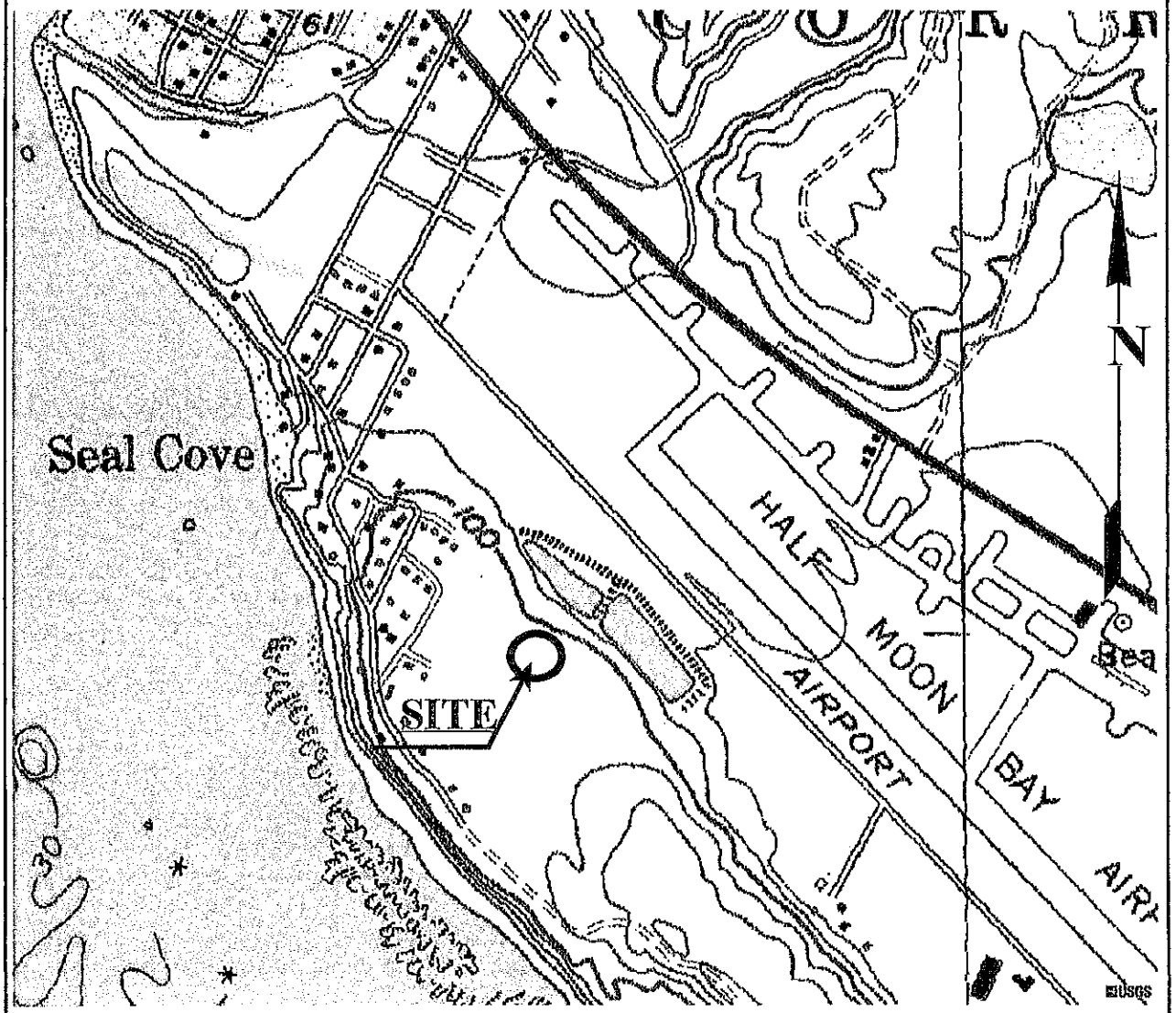
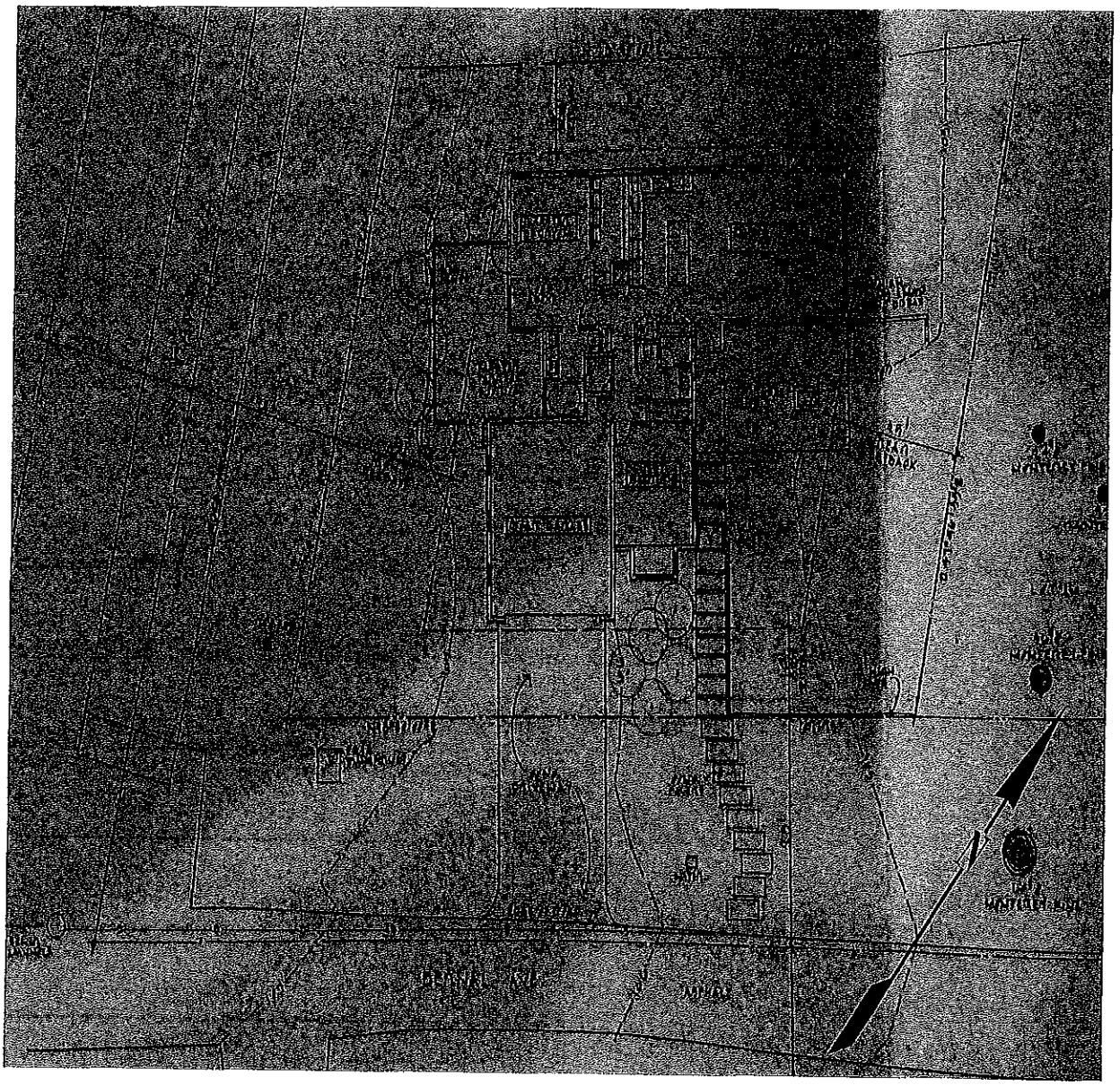


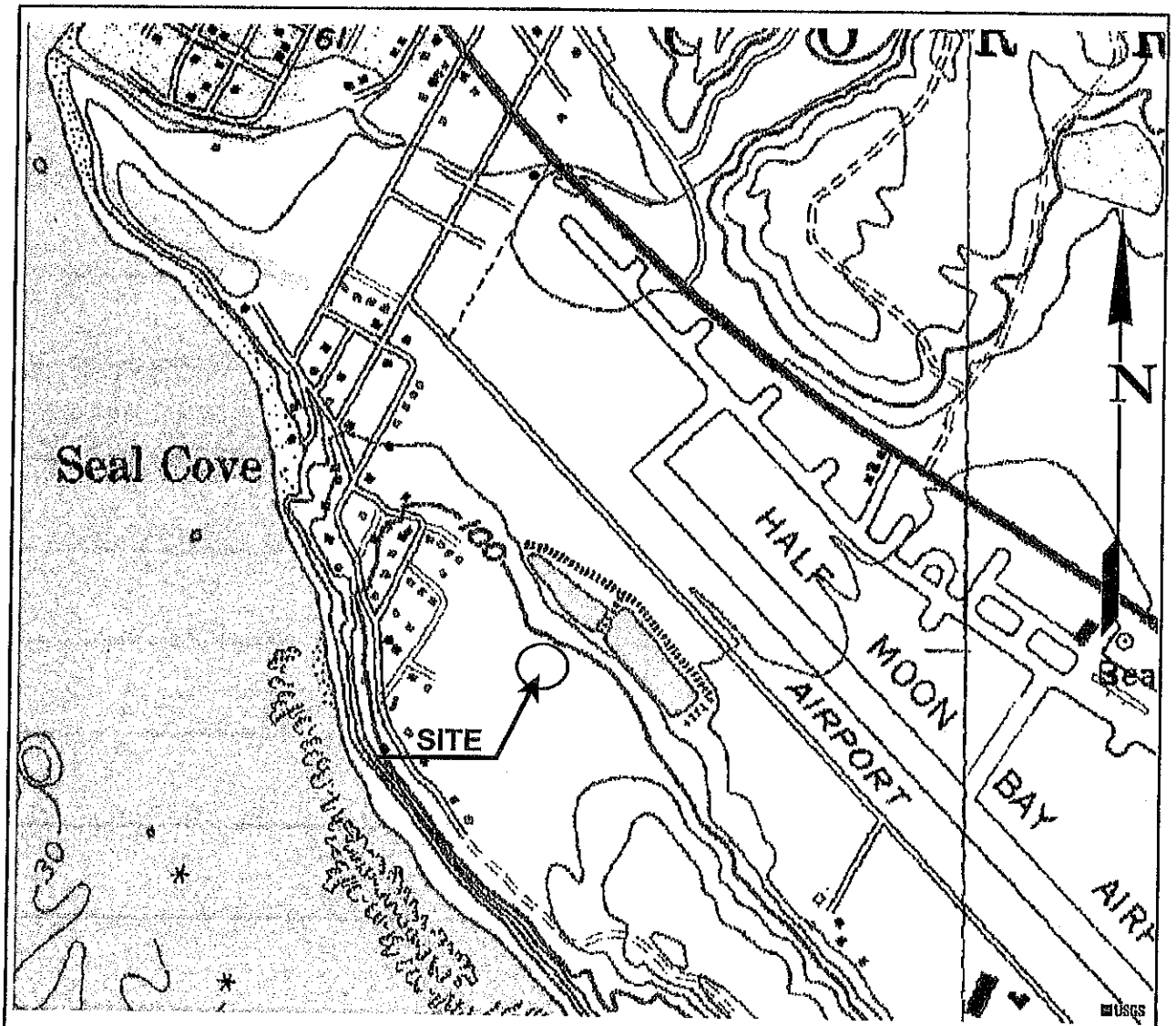
NOTES SOURCE: MSR MAPS NOT TO SCALE	DATE JULY 2017 JOB NO. G356-01 DWG NO. G35601FIG1 DRAWN IDA CHK'D DJR APP'D DJR	PRA Group CONSULTING ENGINEERS SITE LOCATION MAP 991 SAN RAMON AVENUE MOSS BEACH, CALIFORNIA CLIENT AMBER FORKE	FIGURE NO. 1 REV. NO.



NOTES SOURCE: SOTTER & SOLFJELD NOT TO SCALE	DATE JULY 2017 JOB NO. G356-01 DWG NO. G3560FIG2 DRAWN IDA CHK'D DJR APP'D DJR	PRA Group CONSULTING ENGINEERS	
		SITE PLAN 991 SAN RAMON AVENUE MOSS BEACH, CALIFORNIA	FIGURE NO. 2
		CLIENT AMBER FORKE	REV. NO.

APPENDIX A

PRA 2011 STUDY FIGURES



NOTES
SOURCE: MSR MAPS
NOT TO SCALE

DATE	FEBRUARY 2011
JOB NO.	7506-01
DWG NO.	G750601FIG1
DRAWN	IDA
CHK'D	JJA
APP'D	DJR

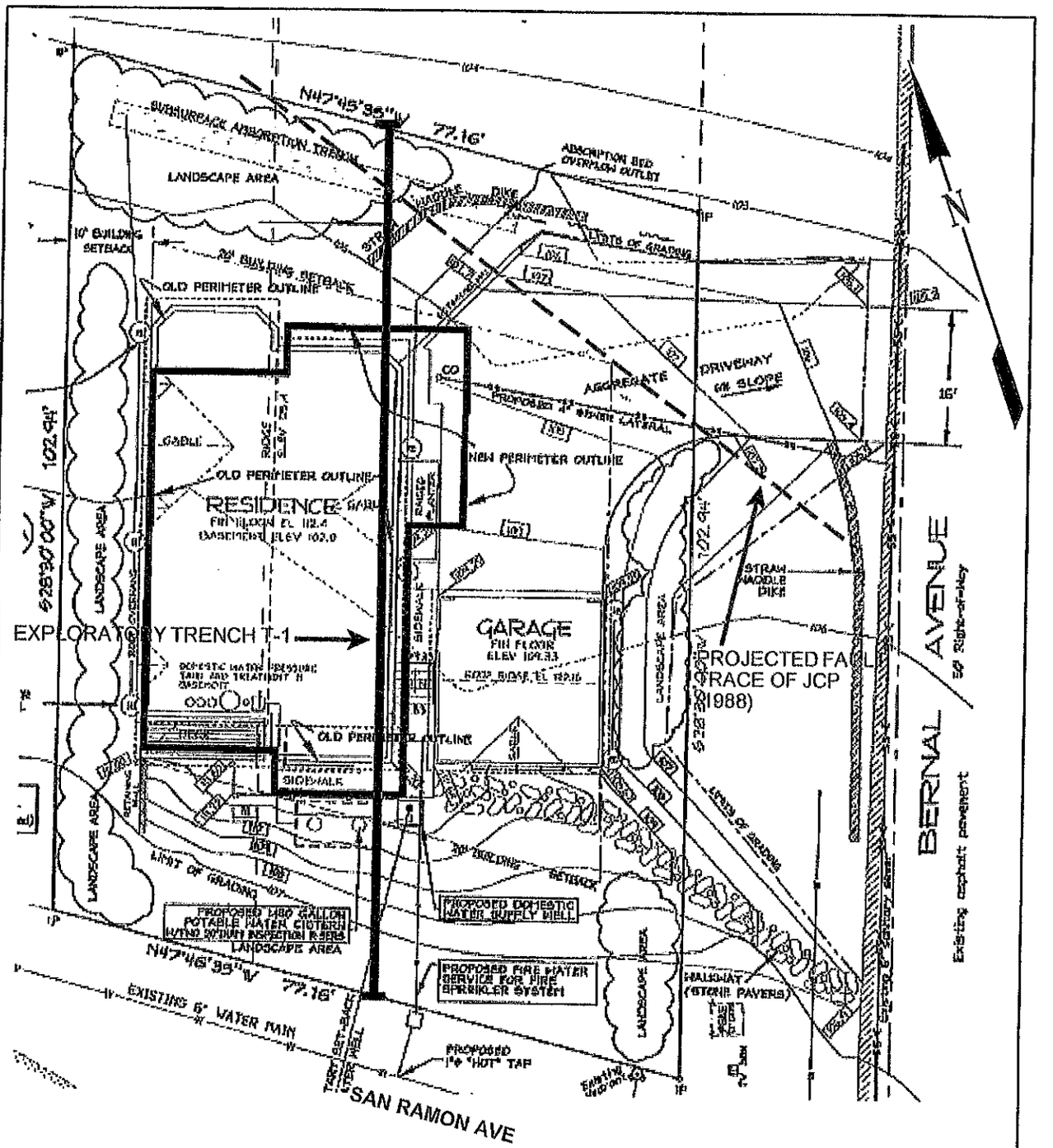
Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

SITE LOCATION MAP
991 SAN RAMON AVENUE
MOSS BEACH, CALIFORNIA

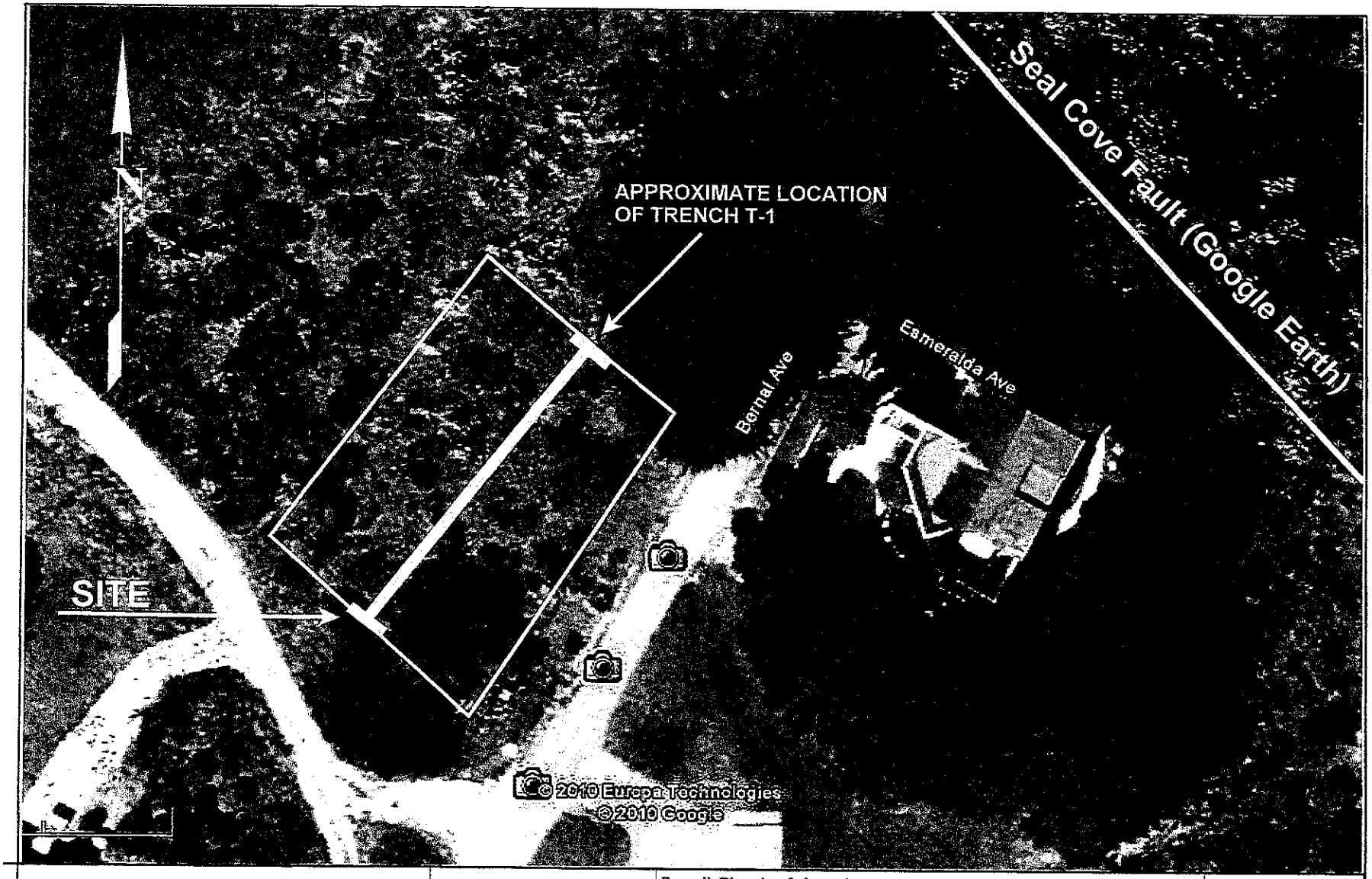
FIGURE NO. 1

CLIENT TIM & BELINDA GENDLE

REV. NO.



NOTES SOURCE: J.L. Johnson Engineering (April 2010) Scale: Approx. 1" = 20'	DATE FEBRUARY 2011 JOB NO. 7506-01 DWG NO. G750601FIG2 DRAWN JJA CHK'D JJA APP'D DJR	Purcell, Rhoades & Associates Consultants in the Applied Earth Sciences **PRELIMINARY SITE PLAN** 991 SAN RAMON AVENUE MOSS BEACH, CALIFORNIA CLIENT TIM & BELINDA GENDLE	FIGURE NO. 2 REV. NO.



NOTES

SOURCE: GOOGLE EARTH

LOT LINES APPROXIMATELY LOCATED

DATE	JANUARY 2011
JOB NO.	7506-01
DWG NO.	G7506O1FIG3
DRAWN	IDA
CHK'D	DJR
APP'D	DJR

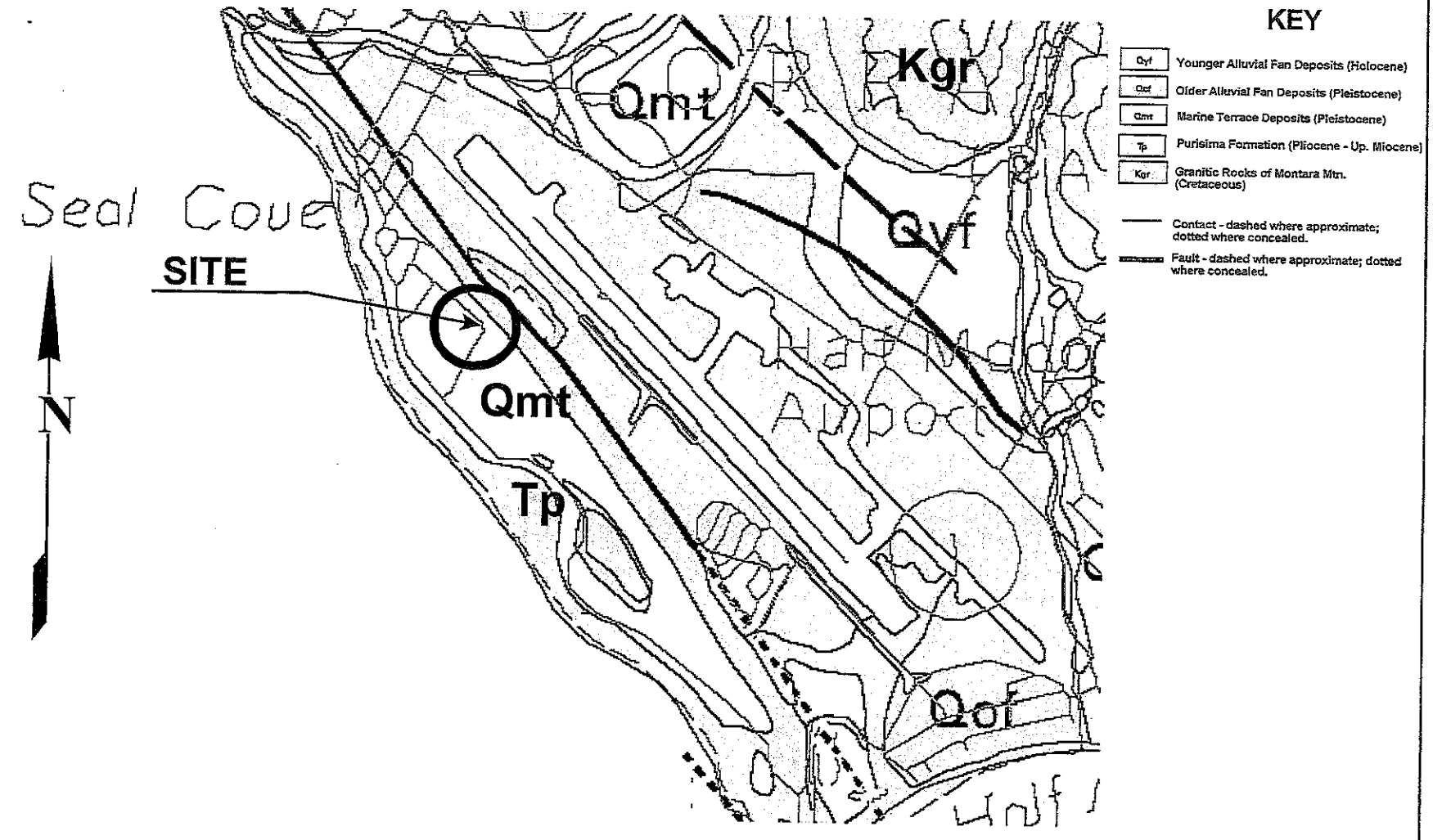
Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

SITE AERIAL PHOTO
991 SAN RAMON AVENUE
MOSS BEACH, CALIFORNIA

CLIENT TIM AND BELINDA GENDLE

FIGURE NO. 3

REV. NO.



NOTES

SOURCE:
BRABB, GRAYMER, AND JONES (1998)

DATE	JANUARY 2011
JOB NO.	7506-01
DWG NO.	G750601RG4
DRAWN	IDA
CHK'D	DJR
APP'D	DJR

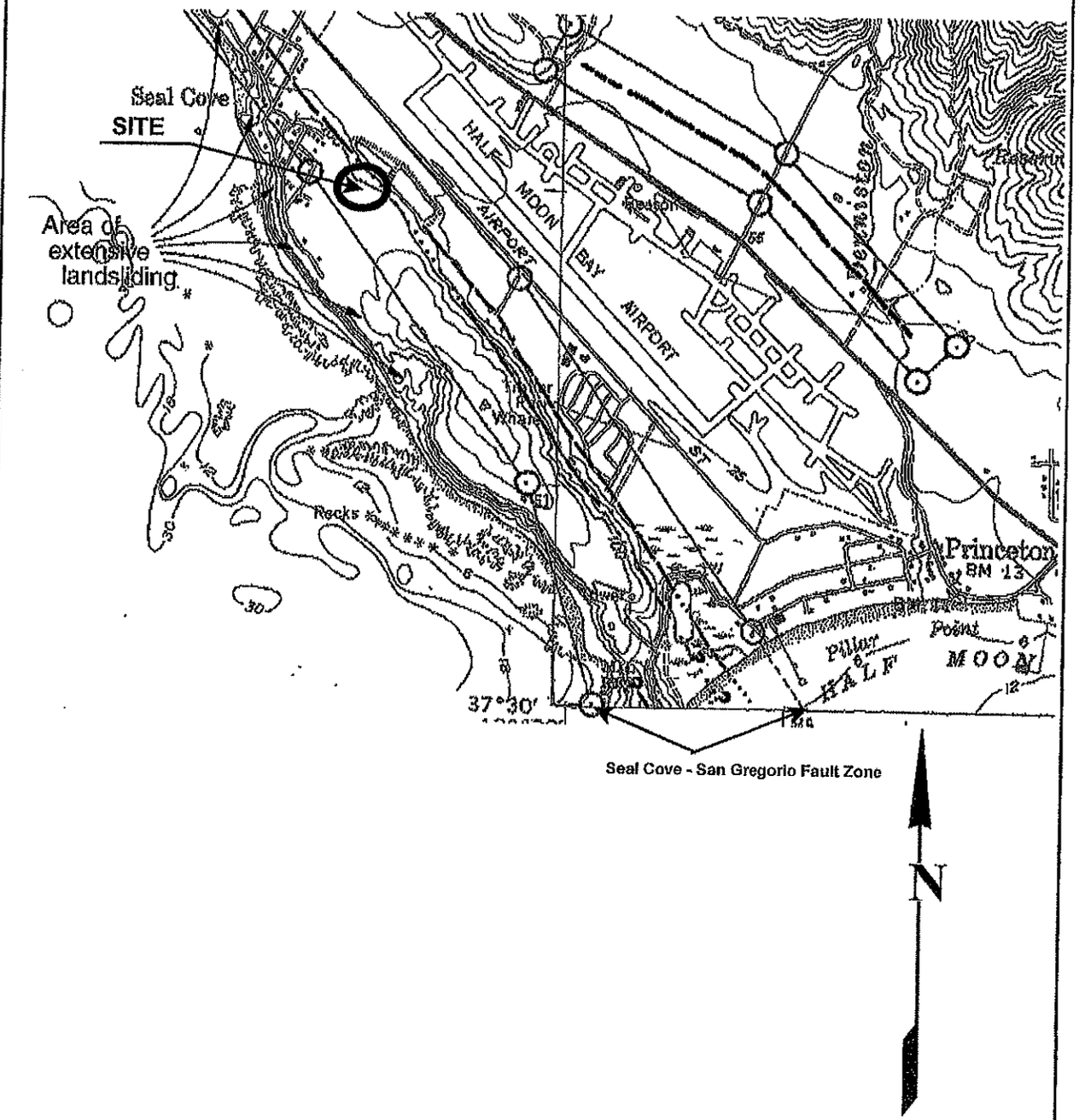
Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

AREA GEOLOGY MAP
991 SAN RAMON AVENUE
MOSS BEACH, CALIFORNIA

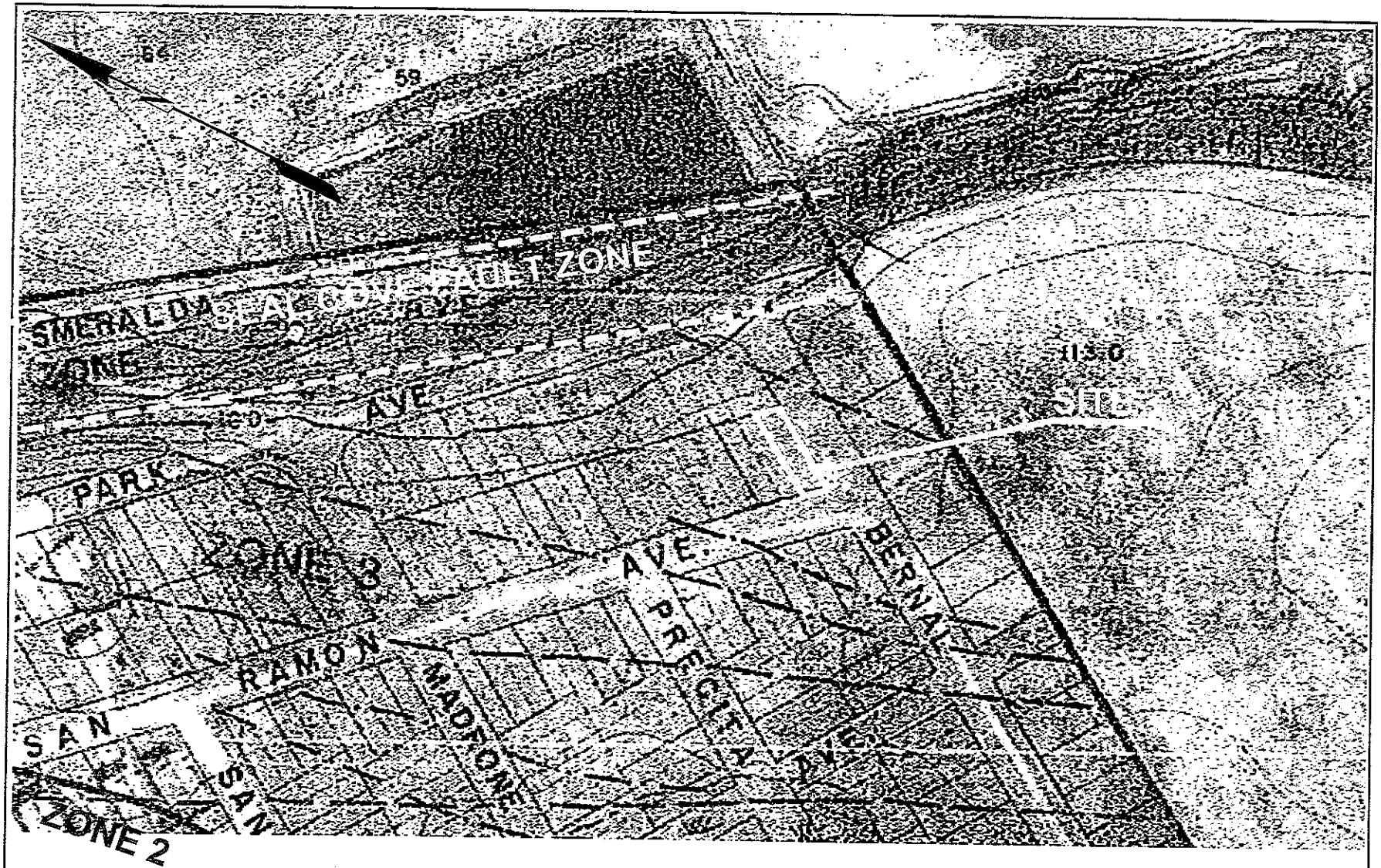
CLIENT TIM AND BELINDA GENDLE

FIGURE NO. 4

REV. NO.



NOTES SOURCE: CDMG, SPECIAL STUDIES ZONES MONTARA QUADRANGLE (1982) NOT TO SCALE	DATE JANUARY 2011 JOB NO. 7506-01 DWG NO. G750601FIG5 DRAWN IDA CHK'D DJR APP'D DJR	Purcell, Rhoades & Associates Consultants in the Applied Earth Sciences **SPECIAL STUDIES ZONE MAP** 991 SAN RAMON AVENUE MOSS BEACH, CALIFORNIA CLIENT TIM AND BELINDA GENDLE	FIGURE NO. 5 REV. NO.



NOTES

SOURCE: WILLIAM COTTON AND ASSOCIATES (1980)

Fault-Related Features Compiled From Aerial Photographs

Geotechnical Hazard Zone Boundary

DATE	JANUARY 2011
JOB NO.	7508-01
DWG NO.	G750801FIG6
DRAWN	IDA
CHK'D	DJR
APP'D	DJR

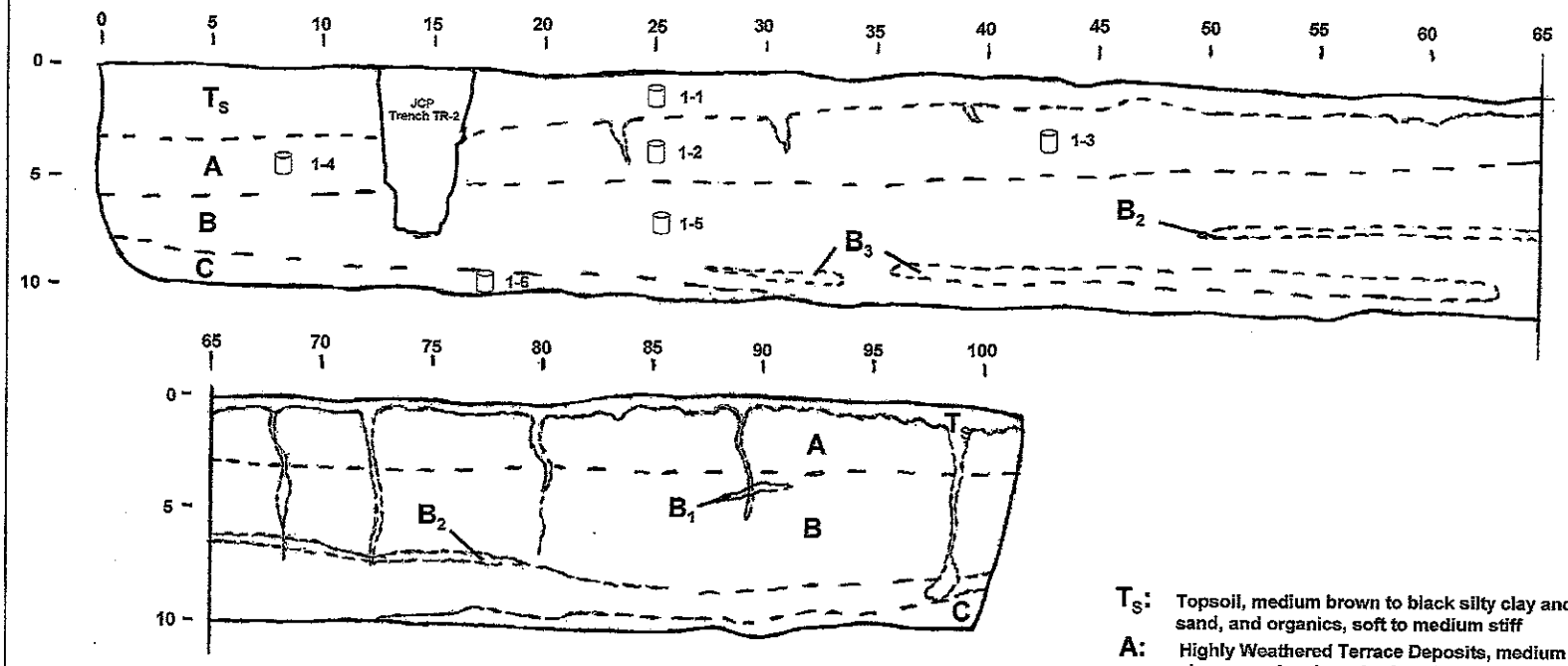
Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

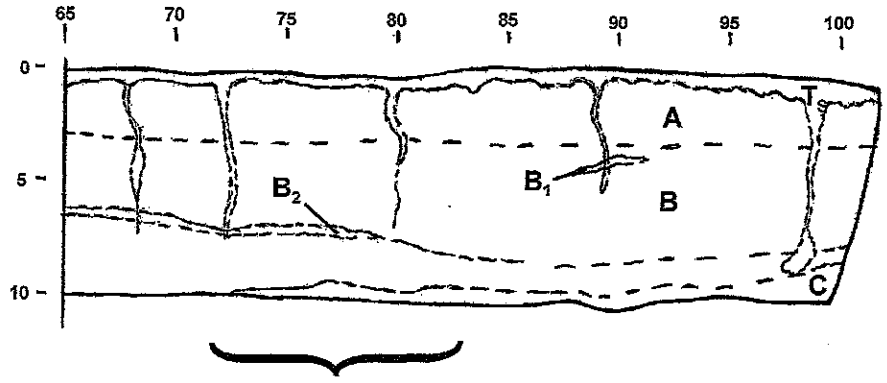
COTTON GEOTECHNICAL HAZARDS MAP
991 SAN RAMON AVENUE
MOSS BEACH, CALIFORNIA

CLIENT TIM AND BELINDA GENDLE

FIGURE NO. 6

REV. NO.





Approximate Area of JCP Fault Trace Projection

Scale: 1 inch = 5 Feet Horizontal and Vertical

T_S: Topsoil, medium brown to black silty clay and clayey silt, with some sand, and organics, soft to medium stiff

A: Highly Weathered Terrace Deposits, medium brown, fine grained clayey sand and sandy clay, dense and very stiff to hard

B: Weathered Terrace Deposits, coarse sand with some 3 inch rock fragments, predominantly reddish brown, with some black lenses

B_1: Very coarse lens with 1/2-inch size fragments, black and brown

B_2: Lense of coarse sand with clay

B_3: Green and brown silty clay

C: Green and brown sandy clay, very stiff to hard; seepage along contact of B and C

NOTES

Trench Azimuth : N28°E
North Wall of Trench Logged
Logged by Dean Affeldt, CEG 1108

SOILSAMPLE LOCATION

DATE	JANUARY 2011
JOB NO.	7508-01
DWG NO.	G7508O1FIG7
DRAWN	IDA
CHK'D	DJR
APP'D	DJR

Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

EXPLORATORY TRENCH LOG T-1
991 SAN RAMON AVENUE
MOSS BEACH, CALIFORNIA

CLIENT: TIM AND BELINDA GENDLE

FIGURE NO. 7

REV. NO.

COUNTY OF SAN MATEO
PLANNING AND BUILDING

County Government Center
455 County Center, 2nd Floor
Redwood City, CA 94063
650-363-4161 T
650-363-4849 F
www.planning.smcgov.org

November 21, 2017

Russ Dotter
4801 Park Boulevard
Oakland, CA 94602

Dear Mr. Dotter:

SUBJECT: Coastside Design Review Recommendation of Approval
991 San Ramon Avenue, Moss Beach
APN 037-287-030; County File No. PLN 2017-00294

At its meeting of November 9, 2017, the San Mateo County Coastside Design Review Committee (CDRC) considered your application for a design review recommendation to allow construction of a new 1,499 sq. ft. single-story residence, plus a 483 sq. ft. garage, on a 7,943.66 sq. ft. legal parcel (Certificate of Compliance Type A recorded on February 27, 2017; PLN 2010-00275), as part of a hearing-level Coastal Development Permit. No trees are to be removed and only minor grading is required. The associated CDP is appealable to the California Coastal Commission.

Based on the plans, application forms and accompanying materials submitted, the Coastside Design Review Committee recommended approval of your project based on and subject to the following findings and recommended conditions:

FINDINGS

The Coastside Design Review Officer found that:

1. For the Environmental Review

   This project is exempt from environmental review pursuant to the California Environmental Quality Act (CEQA), Section 15303, Class 3(a), relating to the construction of one single-family residence in a residential zone.

The Coastside Design Review Committee found that:

Planning Commission Meeting	
Owner/Applicant:	**FORKE/DOTTER**
File Numbers:	**PLN 2017-00294**
Attachment:	**E**

2. For the Design Review

The project, as proposed and conditioned, has been reviewed under and found to be in compliance with the Design Review Standards for One-Family and Two-Family Residential Development in the Midcoast, Section 6565.20 of the San Mateo County Zoning Regulations, specifically elaborated as follows:

a. *Section 6565.20(B) NEIGHBORHOOD DEFINITION AND CHARACTER: The proposed project incorporates nicely into the neighborhood character and with most adjacent homes in the immediate area;*

b. *Section 6565.20(C) SITE PLANNING AND STRUCTURE PLACEMENT. 1. Integrate Structures with the Natural Setting: The materials and landscape complement the naturally rustic surroundings;*

c. *Section 6565.20(D) ELEMENTS OF DESIGN. 2. Architectural Styles and Features. d. Entries: The entries are nicely landscaped and inviting;*

d. *Section 6565.20(D) ELEMENTS OF DESIGN. 4. Exterior Materials and Colors: This is a modest home in comparison to many in the immediate area while being architecturally compatible in both style and aesthetics;*

e. *Section 6565.20(F) LANDSCAPING, PAVED AREAS, FENCES, LIGHTING AND NOISE. 1. Landscaping: The landscaping will enhance the design of the home and improve the immediate vegetation which currently surrounds the area. The natural rock and boulder accents maximize natural surfaces along with supporting drainage through the use of permeable surfaces;*

RECOMMENDED CONDITIONS

Current Planning Section

1. The project shall be constructed in compliance with the plans once approved by the Planning Commission and as reviewed by the Coastside Design Review Committee on November 9, 2017. 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 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 the Planning Department 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) the 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 the Community Development Director.

3. The applicant shall indicate the following on plans submitted for a building permit, as stipulated by the Coastside Design Review Committee:

a. Limit mounted light fixtures to one per opening or the minimum required by applicable building codes.

b. No additional landscape lighting other than those proposed shall be used.

4. The property owner shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including, but not limited to, the following:

   a. Delineation with field markers of clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses within the vicinity of areas to be disturbed by construction and/or grading.

   b. Protection of adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.

   c. Performing clearing and earth-moving activities only during dry weather.

   d. Stabilization of all denuded areas and maintenance of erosion control measures continuously between October 1 and April 30.

   e. Storage, handling, and disposal of construction materials and wastes properly, so as to prevent their contact with stormwater.

   f. Control and prevention of the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.

   g. Use of sediment controls or filtration to remove sediment when dewatering site and obtain all necessary permits.

   h. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.

   i. Limiting and timing applications of pesticides and fertilizers to prevent polluted runoff.

   j. Limiting construction access routes and stabilization of designated access points.

   k. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.

   l. Training and providing instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and construction Best Management Practices.

m. Additional Best Management Practices in addition to those shown on the plans may be required by the Building Inspector to maintain effective stormwater management during construction activities. Any water leaving the site shall be clear and running slowly at all times.

n. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.

5. 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.

6. The applicant shall include an erosion and sediment control plan to comply with the County's Erosion Control Guidelines on the plans submitted for the building permit. This plan shall identify the type and location of erosion control measures to be installed upon the commencement of construction in order to maintain the stability of the site and prevent erosion and sedimentation off-site.

7. 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.

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

9. No site disturbance shall occur, including any vegetation removal or grading, until a building permit has been issued.

10. 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 right-of-way on 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 San Ramon Avenue. There shall be no storage of construction vehicles in the public right-of-way.

11. The project site is located within the Fitzgerald Area of Special Biological Significance (ASBS) Watershed and is considered a Construction Stormwater Regulated Site. Weekly construction inspections are required throughout the duration of land disturbance during the rainy season (Oct. 1 to through April 30) for sites within the ASBS Watershed, as required by the State Water Resources Control Board General Exceptions to the California Ocean Plan with Special Protections adopted on March 20, 2012.

12. The project site is located within the Fitzgerald Area of Special Biological Significance (ASBS) watershed. Runoff and other polluted discharges from the site are prohibited. Development shall minimize erosion, treat stormwater from new/replaced impervious surfaces, and prevent polluted discharges into the ASBS or a County storm drain (e.g., car washing in a driveway or street, pesticide application on lawn).

13. The exterior color samples submitted to the CDRC 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. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m. weekdays and 9:00 a.m. to 5:00 p.m. Saturdays. Said activities are prohibited on Sundays, Thanksgiving and Christmas (San Mateo Ordinance Code Section 4.88.360).

15. Installation of the approved landscape plan is required prior to final inspection.

16. At the building permit application stage, the project shall demonstrate compliance with the Water Efficient Landscape Ordinance (WELO) and provide required forms. WELO applies to new landscape projects equal to or greater than 500 sq. ft. A prescriptive checklist is available as a compliance option for projects under 2,500 sq. ft. WELO also applies to rehabilitated landscape projects equal to or greater than 2,500 sq. ft. The following restrictions apply to projects using the prescriptive checklist:

    a. Compost: Project must incorporate compost at a rate of at least four (4) cubic yards per 1,000 sq. ft. to a depth of 6 inches into landscape area (unless contra-indicated by a soil test).

    b. Plant Water Use (Residential): Install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles and areas using recycled water.

    c. Mulch: A minimum 3-inch layer of mulch should be applied on all exposed soil surfaces of planting areas, except in areas of turf or creeping or rooting groundcovers.

    d. Turf: Total turf area shall not exceed 25% of the landscape area. Turf is not allowed in non-residential projects. Turf (if utilized) is limited to slopes not exceeding 25% and is not used in parkways less than 10 feet in width. Turf, if utilized in parkways is irrigated by sub-surface irrigation or other technology that prevents overspray or runoff.

    e. Irrigation System: The property shall certify that Irrigation controllers use evapotranspiration or soil moisture data and utilize a rain sensor; Irrigation controller programming data will not be lost due to an interruption in the

primary power source; and Areas less than 10 feet in any direction utilize sub-surface irrigation or other technology that prevents overspray or runoff.

17. At the building permit application stage, the applicant shall submit a tree protection plan, including the following:

    a. Identify, establish, and maintain tree protection zones throughout the entire duration of the project;

    b. Isolate tree protection zones using 5-foot tall, orange plastic fencing supported by poles pounded into the ground, located at the driplines as described in the arborist's report;

    c. Maintain tree protection zones free of equipment and materials storage; contractors shall not clean any tools, forms, or equipment within these areas;

    d. If any large roots or large masses of roots need to be cut, the roots shall be inspected by a certified arborist or registered forester prior to cutting as required in the arborist's report. Any root cutting shall be undertaken by an arborist or forester and documented. Roots to be cut shall be severed cleanly with a saw or toppers. A tree protection verification letter from the certified arborist shall be submitted to the Planning Department within five (5) business days from site inspection following root cutting;

    e. Normal irrigation shall be maintained, but oaks shall not need summer irrigation, unless the arborist's report directs specific watering measures to protect trees;

    f. Street tree trunks and other trees not protected by dripline fencing shall be wrapped with straw wattles, orange fence and 2x4 boards in concentric layers to a height of eight feet; and

    g. Prior to Issuance of a Building Permit or Demolition Permit, the Planning and Building Department shall complete a pre-construction site inspection, as necessary, to verify that all required tree protection and erosion control measures are in place.

<u>Building Inspection Section</u>

18. The applicant shall apply for a building permit.

19. This project shall be designed and constructed according to the latest adopted and amended California Building Standards Code which at the time of this review is the 2016 version.

Montara Water and Sanitary District (District)

20. The applicant is required to obtain a Sewer Permit prior to issuance of building permit. Sewer Connection Fees must be paid prior to issuance of connection permit. A sewer grinder pump may be required.

21. The applicant is required to obtain a Domestic Water Connection Permit prior to issuance of building permit. Connection fee for domestic water must be paid prior to issuance of connection permit. Proof of well abandonment to SMC Health Department may be required.

22. Connection to the District's fire protection system is required. Certified Fire Protection Contractor must certify adequate fire flow calculations. Connection fee for fire protection system is required. Connection charge must be paid prior to issuance of Private Fire Protection permit.

23. Applicant must first apply directly to District for permits and not their contractor.

Coastside Fire Protection District

24. Fire Department access shall be to within 150 feet of all exterior portions of the facility and all portions of the exterior walls of the first story of the buildings as measured by an approved access route around the exterior of the building or facility. Access shall be a minimum of 20 feet wide, all weather capability, and able to support a fire apparatus weighing 75,000 lbs. Where a fire hydrant is located in the access, a minimum of 26 feet is required for a minimum of 20 feet on each side of the hydrant. This access shall be provided from a publicly maintained road to the property. Grades over 15% shall be paved and no grade shall be over 20%. When gravel roads are used, it shall be Class 2 base or equivalent compacted to 95%. Gravel road access shall be certified by an engineer as to the material thickness, compaction, all weather capability, and weight it will support.

25. All buildings that have a street address shall have the number of that address on the building, mailbox, or other type of sign at the driveway entrance in such a manner that the number is easily and clearly visible from either direction of travel from the street. New residential buildings shall have internally illuminated address numbers contrasting with the background so as to be seen from the public way fronting the building. Residential address numbers shall be at least six feet above the finished surface of the driveway. An address sign shall be placed at each break of the road where deemed applicable by the San Mateo County Fire Department. Numerals shall be contrasting in color to their background and shall be no less than 4 inches in height, and have a minimum 1/2-inch stroke. Remote signage shall be a 6" x 18" green reflective metal sign.

26. Contact the Fire Marshal's Office to schedule a Final Inspection prior to occupancy and Final Inspection by a Building Inspector. Allow for a minimum of 72 hours notice to the Fire Department at (650) 573-3846.

27. A fire flow of 1000 gpm for 2 hours with a 20-psi residual operating pressure must be available as specified by additional project conditions to the project site. The applicant shall provide documentation including hydrant location, main size, and fire flow report at the building permit application stage. Inspection required prior to Fire's final approval of the building permit or before combustibles are brought on site.

28. Any chimney or woodstove outlet shall have installed onto the opening thereof an approved (galvanized) spark arrestor of a mesh with an opening no larger than ½-inch in size or an approved spark arresting device. Maintain around and adjacent to such buildings or structures a fuelbreak/firebreak made by removing and cleaning away flammable vegetation for a distance of not less than 30 feet and up to 100 feet around the perimeter of all structures or to the property line, if the property line is less than 30 feet from any structure. This is not a requirement nor an authorization for the removal of live trees. Remove that flammable portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe, or within 5 feet of any portion of any building or structures. Remove that dead or dying portion of any tree which extends over the roof line of any structure.

29. Smoke alarms and carbon monoxide detectors shall be installed in accordance with the California Building and Residential Codes. This includes the requirement for hardwired, interconnected detectors equipped with battery backup and placement in each sleeping room in addition to the corridors and on each level of the residence.

30. An approved Automatic Fire Sprinkler System meeting the requirements of NFPA-13D shall be required to be installed for your project. Plans shall be submitted to the San Mateo County Building Department for review and approval by the authority having jurisdiction.

31. A statement that the building will be equipped and protected by automatic fire sprinklers must appear on the title page of the building plans.

Department of Public Works

32. Prior to the issuance of the 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 of 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.

33. Prior to the issuance of the BLD permit, 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.

34. 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. Applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.

35. 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 #3277.

Please note that the decision of the Coastside Design Review Committee is a recommendation regarding the project's compliance with design review standards, not the final decision on this project, which requires a hearing-level Coastal Development Permit. For more information, please contact Ruemel Panglao, at 650/363-4582, or by email at rpanglao@smcgov.org.

Please remove all story poles and materials used to demonstrate footprint as soon as possible.

To provide feedback, please visit the Department's Customer Survey at the following link: http://planning.smcgov.org/survey.

Sincerely,

Dennis P. Aguirre, Design Review Officer

DPA:RSP:aow – RSPBB0703_WAN.DOCX

cc: Stuart Grunow, Member Architect
Bruce Chan, Member Landscape Architect
Melanie Hohnbaum, Moss Beach Community Representative
Amber Forke, Owner
Steve Beardsley, Interested Member of the Public

CALIFORNIA COASTAL COMMISSION
NORTH CENTRAL COAST DISTRICT OFFICE
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105
PHONE: (415) 904-5260
FAX: (415) 904-5400
WEB: WWW.COASTAL.CA.GOV

August 22, 2017

Ruemel Panglao, Project Planner
County of San Mateo
Planning and Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063

RE: Planning Permit Application Referral for PLN2017-00294 (Dotter) (APN037-287-030)

Dear Mr. Panglao:

Thank you for forwarding the County of San Mateo's PLN2017-00294 permit referral form dated July 27, 2017 and received on July 31, 2017. We appreciate the additional time you provided in order for us to complete our review. The applicant is requesting Coastside Design Review and a Coastal Development Permit (CDP) for construction of a new 1,982-sq.-ft. one-story, single-family residence, a 483-sq.-ft. attached two-car, and minor grading of the site for the foundation, on an approximately 7,944-sq.-ft., undeveloped, legal parcel. The parcel is located at 991 San Ramon Avenue, in Moss Beach.

The proposed project site is located on a parcel within the Geologic Hazards Zone 3 area of Seal Cove. Local Coastal Program (LCP) Section 6296.2 describes Zone 3 as the most stable part of Seal Cove. LCP Section 6296.2 indicates that, generally, it is highly feasible to reduce risks of hazards to acceptable levels in Zone 3. We suggest that the County analysis discuss the proposed project's consistency with LCP Sections 6296.2 and 6296.3.

LCP Policy 9.3 regulates Geological Hazards Areas. LCP Policy 9.10 requires review of all building and grading permits in designated geologic hazardous areas to evaluate any potential geotechnical problems and to review and approve the adequacy of all required geotechnical investigations. We suggest that the County's analysis discuss whether or not the proposed development is consistent with the seismic and fault/fracture criteria provided in LCP Section 6326.3 and whether or not it meets the requirements of LCP Section 6295.4 for development in geologic hazard districts consistent with the requirements of LCP Policy 9.10. LCP Section 6295.4, in addition to requiring that the County Geologist evaluate the proposed project to determine if meets the criteria set forth in the district regulations, requires that no building permit be approved in a "GH" district until a deed restriction on the parcel has been recorded. We recommend that the County require the applicant to record a deed restriction on the parcel as provided under LCP Section 6295.4.

Ruemel Panglao, Project Planner
San Mateo County - Planning and Building Department
PLN2017-00294 (Dotter)
San Ramon Avenue, Moss Beach
August 22, 2017

The parcel is located adjacent to the Cabrillo Highway/Hwy-1 County Scenic Corridor, which abuts Bernal Street in this area. We suggest that the County analysis include a discussion of the proposed project's potential effect on this visual resource and the project's consistency with LCP Policy 8.32 that provides for the regulation of Scenic Corridors in urban areas.

Thank you for the opportunity to provide you with these comments. Please feel free to contact me at (415) 904-5292 or by email at renee.ananda@coastal.ca.gov if you have questions regarding the proposed project.

Sincerely,

Renée Ananda

Renée Ananda, Coastal Program Analyst
North Central Coast District

Planning Commission Meeting

Owner/Applicant:	**FORKE/DOTTER**
File Numbers:	**PLN 2017-00294**
Attachment:	**G**