



**COUNTY OF HUMBOLDT
PLANNING AND BUILDING DEPARTMENT
CURRENT PLANNING DIVISION**

3015 H Street Eureka CA 95501
Phone: (707)445-7541 Fax: (707) 268-3792

Hearing Date: June 4, 2015

To: Humboldt County Planning Commission

From: Kevin R. Hamblin, Director of Planning and Building Department

Subject: **Bautista/Wriggle** Coastal Development Permit
Application Number 8620
Case Number CDP-13-076
Assessor Parcel Number 511-041-008-000
3344 Letz Road, McKinleyville

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Please contact Steven Lazar, Senior Planner, at 268-3741, or by email at slazar@co.humboldt.ca.us, if you have any questions about the scheduled public hearing item.

cc: Applicant, California Coastal Commission

AGENDA ITEM TRANSMITTAL

Hearing Date	Subject	Contact
June 4, 2015	Coastal Development Permit	Steven Lazar

Project: A Coastal Development Permit for the proposed construction of a two-story approximately 2,200 square foot single-family residence with a total of 612 square feet of covered decks. The project also includes an approximately 484 square foot attached garage and connecting breezeway. The approximately 5-acre parcel is currently undeveloped. The residence is approximately 30 feet in height and the garage will be 15 feet tall. In addition to the residence and garage, the project also includes construction of an approximately 700 foot long gravel driveway and installation of an on-site septic system. Water will be provided to the development by the McKinleyville Community Services District.

Project Location: The project is located in Humboldt County, in the McKinleyville area, on the west side of Letz Avenue, approximately 200 feet south of the intersection of Letz Road and Dolack Road, on the property known as 3344 Letz Avenue, and further described as APN 511-041-008-000.

Present Plan Designation: Residential Estates (RE), McKinleyville Area Plan (MCAP), Density: 0-2 dwelling units per acre. Slope Stability: Relatively Stable (0) and Low Instability (1)

Present Zoning: (RS-X/AP,G,N) Residential Single Family-No Further Subdivision Allowed (RS-X), Airport Safety Review (AP), Alquist-Priolo Fault Hazard (G), Noise Impact (N)

Application Number 8620

Case Numbers: CDP-13-076

Assessor Parcel Number: 511-041-008-000

Applicant

Sonia R. Bautista and Mark Wriggle
1371 Fernwood Drive
McKinleyville, CA 95501

Owner(s)

Sonia Bautista Sonia
1371 Fernwood Dr
Mckinleyville, CA 95519

Agent

None

Environmental Review:

CEQA Exemption Section: 15303-New Construction/Conversion Small Structures

Major Issues:

Coastal Bluff Retreat

State Appeals Status:

Project is appealable to the California Coastal Commission

BAUTISTA/WRIGGLE COASTAL DEVELOPMENT PERMIT

Case Number: CDP-13-076

Assessor Parcel Number: 511-041-008-000

Recommended Commission Action:

1. Describe the application as a Public Hearing;
2. Request staff presents the project;
3. Open the public hearing and receive testimony; and,
4. After receiving testimony, close the hearing and make a motion to:

Find the project exempt from environmental review pursuant to Section 15303 of the State CEQA Guidelines, make all of the required findings for approval of the Coastal Development Permit, based on evidence in the staff report, and adopt the Resolution approving the Bautista/Wriggle project subject to the recommended conditions.

Executive Summary: A Coastal Development Permit is being requested for the construction of a two-story approximately 2,200 square foot single-family residence with a total of 612 square feet of covered decks. The project also includes an approximately 484 square foot attached garage and connecting breezeway. The approximately 5-acre parcel is currently vacant. The residence is approximately 30 feet in height and the garage will be 15 feet tall. In addition to the residence and garage, the project also includes construction of an approximately 700 foot long gravel driveway and installation of an on-site septic system. Water will be provided to the proposed development by the McKinleyville Community Services District.

The project proposes to develop APN 511-041-008-000, on the property identified as 3344 Letz Avenue. The parcel is located within the Appeals Jurisdiction of the California Coastal Commission and therefore requires a public hearing. The parcel is located east of the Mad River. To the north and south are similarly sized parcels that are host to existing residential development. The Highway 101 right-of-way borders the eastern edge of Letz Avenue.

Following circulation of referrals to various agencies, comments were received from staff at the Coastal Commission and Department of Fish and Wildlife. Both agencies cited the site as potentially sensitive for Siskiyou checkerbloom, a special status species, and recommended that a seasonally appropriate botanical survey be conducted. A survey was conducted by a biologist with Streamline Planning Consultants, and included several visits to the property between May and September of 2014. It was determined that much of the property was dominated by non-native grasses and forbs, while the bluff and area surrounding it was host to more native species.

A second concern raised by the Coastal Commission was the suitability of the building site considering the potential for bluff retreat. The Coastal Bluff Setback Recommendation Report prepared by LACO Associates evaluated bluff retreat including effects of sea level rise. A setback distance was calculated using the California Coastal Commission's methodology (Johnsson 2003). This setback combines the factor of safety distance (43 feet) with the estimated erosion distance (170 feet) over the 75 year minimum life of the development. Using this methodology a minimum setback distance of 213 feet from the bluff edge was established.

Considering the bluff retreat setback recommendation, the proposed residence and any associated ground disturbance will be sited well away from the bluff edge and any impacts to any rare, threatened, or endangered plants, including Siskiyou Checkerbloom will be avoided.

All of the reviewing agencies have either recommended approval or conditional approval of the project. Accordingly, the Department has determined that the project, as proposed and conditioned, will not have a significant effect on the environment.

The project is consistent with the Humboldt County Framework Plan, the McKinleyville Area Plan, and the H.C.C. for the following reasons: 1) the proposed use is allowed in the Residential Estates (RE) land use designation and is a principally permitted use in the Residential Suburban (RS) Zone; 2) the proposed development complies with applicable development standards of the zone, 3) All referral agencies have recommended approval of the project, and 4) There is no evidence that the proposed development will negatively impact the environment. The Department believes that the project may be found Categorical Exempt from environmental review pursuant to Section 15303 [New Construction] of the California Environmental Quality Act (CEQA).

Staff Recommendations: Based upon the on-site inspection, a review of Planning Division reference sources, and comments from all involved referral agencies, Planning staff believes that the applicant has submitted evidence in support of making all of the required findings for approving the Coastal Development Permit.

Alternatives: Several alternatives may be considered: 1) The Planning Commission could elect to add, modify, or delete conditions of approval; or 2) The Planning Commission could elect not to approve the project. This alternative should be implemented if the Commission is unable to make all of the required findings. Planning Division staff is confident that the required findings can be made. Consequently, planning staff does not recommend further consideration of this alternative.

**RESOLUTION OF THE PLANNING COMMISSION
OF THE COUNTY OF HUMBOLDT
Resolution Number 15-
Case Number CDP-13-076
Assessor Parcel Number 511-041-08**

Makes the Required Findings for Certifying Compliance with the California Environmental Quality Act and Conditionally Approves the Bautista/Wriggle Coastal Development Permit Application.

WHEREAS, Sonia Bautista and Mark Wriggle, submitted an application and evidence in support of approving a Coastal Development Permit for the construction of a new single-family residence on a vacant parcel; and

WHEREAS, the County Planning Division has reviewed the submitted application and evidence and has referred the application and evidence to involved reviewing agencies for site inspections, comments and recommendations; and

WHEREAS, the project is categorically exempt from environmental review pursuant to Article 19, Section 15303, Class 3, of the California Environmental Quality Act (CEQA) Guidelines; and

WHEREAS, Attachment 2 in the Planning Division staff report includes evidence in support of making all of the required findings for approving the Coastal Development Permit (Case Number CDP-13-076); and

WHEREAS, a public hearing was held on the matter before the Humboldt County Planning Commission on June 4, 2015.

NOW, THEREFORE, be it resolved, determined, and ordered by the Planning Commission that:

1. The project is categorically exempt from environmental review pursuant to Section 15303, Class 3 of the CEQA Guidelines; and
2. The Planning Commission further makes the findings in Attachment 2 of the Planning Division staff report for Case Number CDP-13-076 based on the submitted evidence; and
3. The Planning Commission approves the Coastal Development Permit applied for as recommended and conditioned in Attachment 1 for Case Number CDP-13-076.

Adopted after review and consideration of all the evidence on June 4, 2015.

The motion was made by Commissioner _____ and seconded by Commissioner _____.

AYES: Commissioners:

NOES: Commissioners:

ABSTAIN: Commissioners:

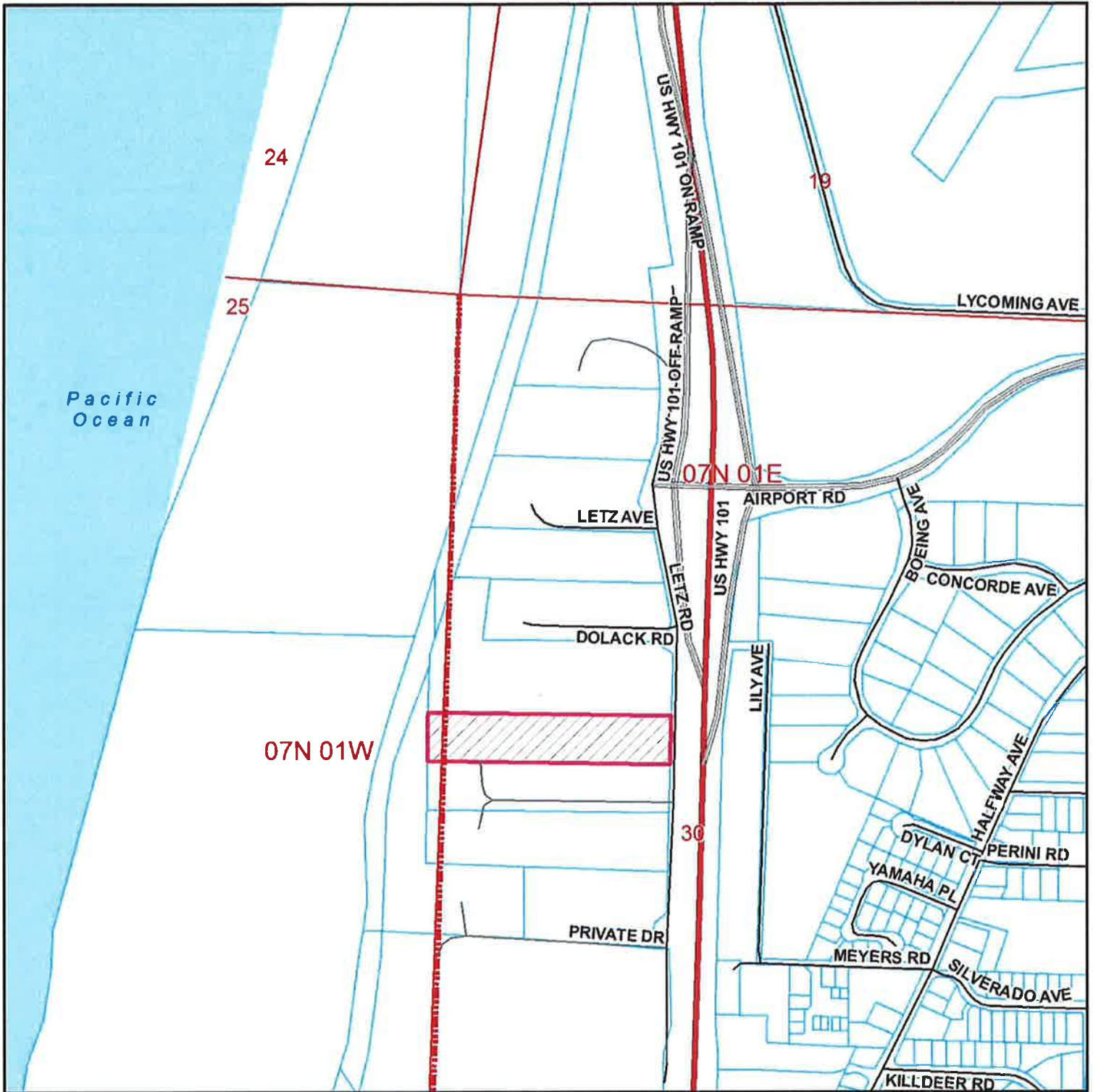
ABSENT: Commissioners:

DECISION: Motion passes

Robert Morris, Chair

I, Catherine Munsee, Clerk to the Planning Commission of the County of Humboldt, do hereby certify the foregoing to be a true and correct record of the action taken on the above entitled matter by said Commission at a meeting held on the date noted above.

Catherine Munsee, Clerk



LOCATION MAP

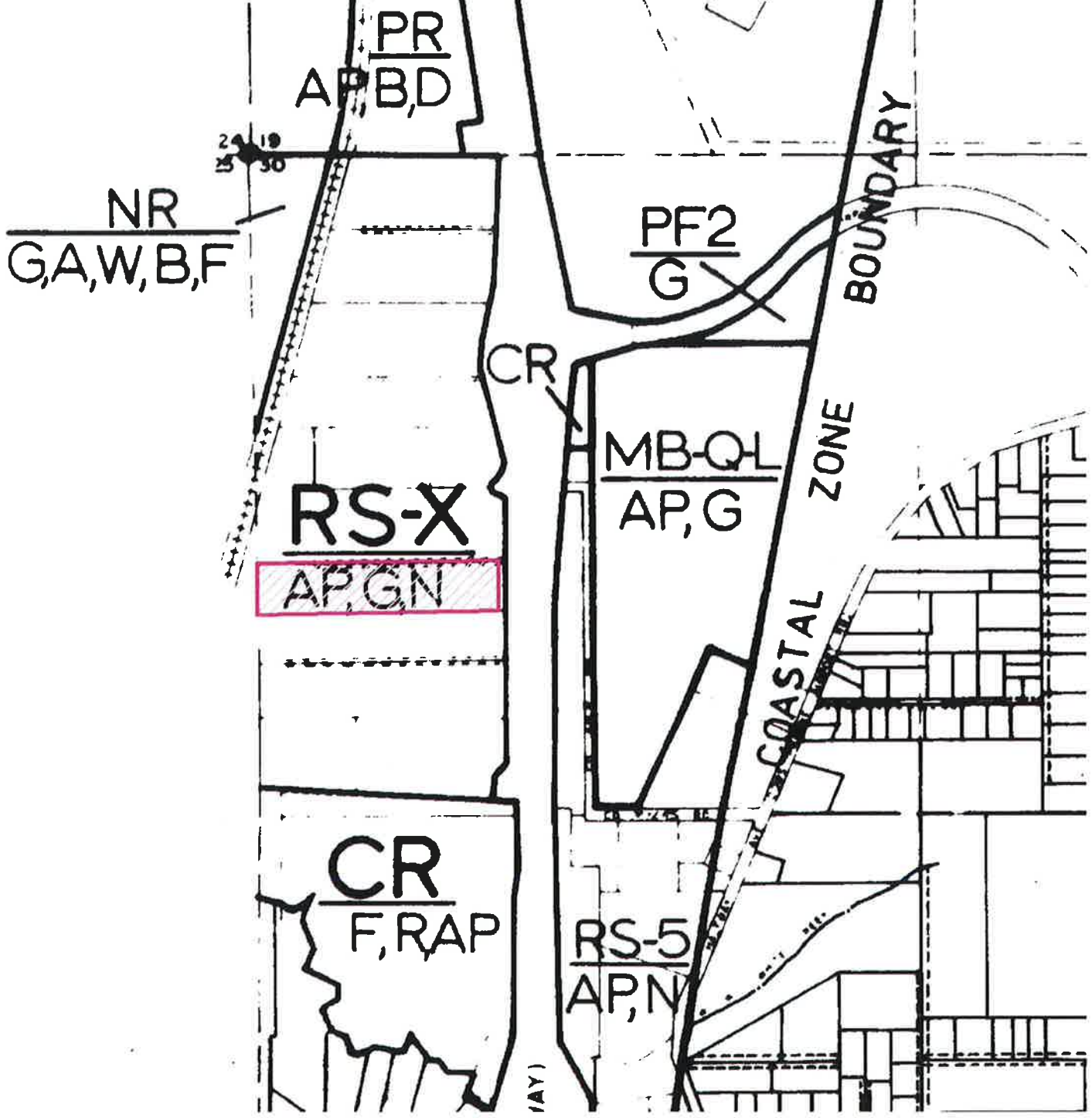
Project Area = 

**PROPOSED BAUTISTA & WRIGGLE
COASTAL DEVELOPMENT PERMIT
MCKINLEYVILLE AREA
CDP-13-076
APN: 511-041-008
T07N R01E S30 HB&M (Arcata North)**



This map is intended for display purposes and should not be used for precise measurement or navigation. Data has not been completely checked for accuracy.





PROJECT SITE = 

ZONING MAP

**PROPOSED BAUTISTA & WRIGGLE
 COASTAL DEVELOPMENT PERMIT
 MCKINLEYVILLE AREA
 CDP-13-076
 APN: 511-041-008
 T07N R01E S30 HB&M (Arcata North)**

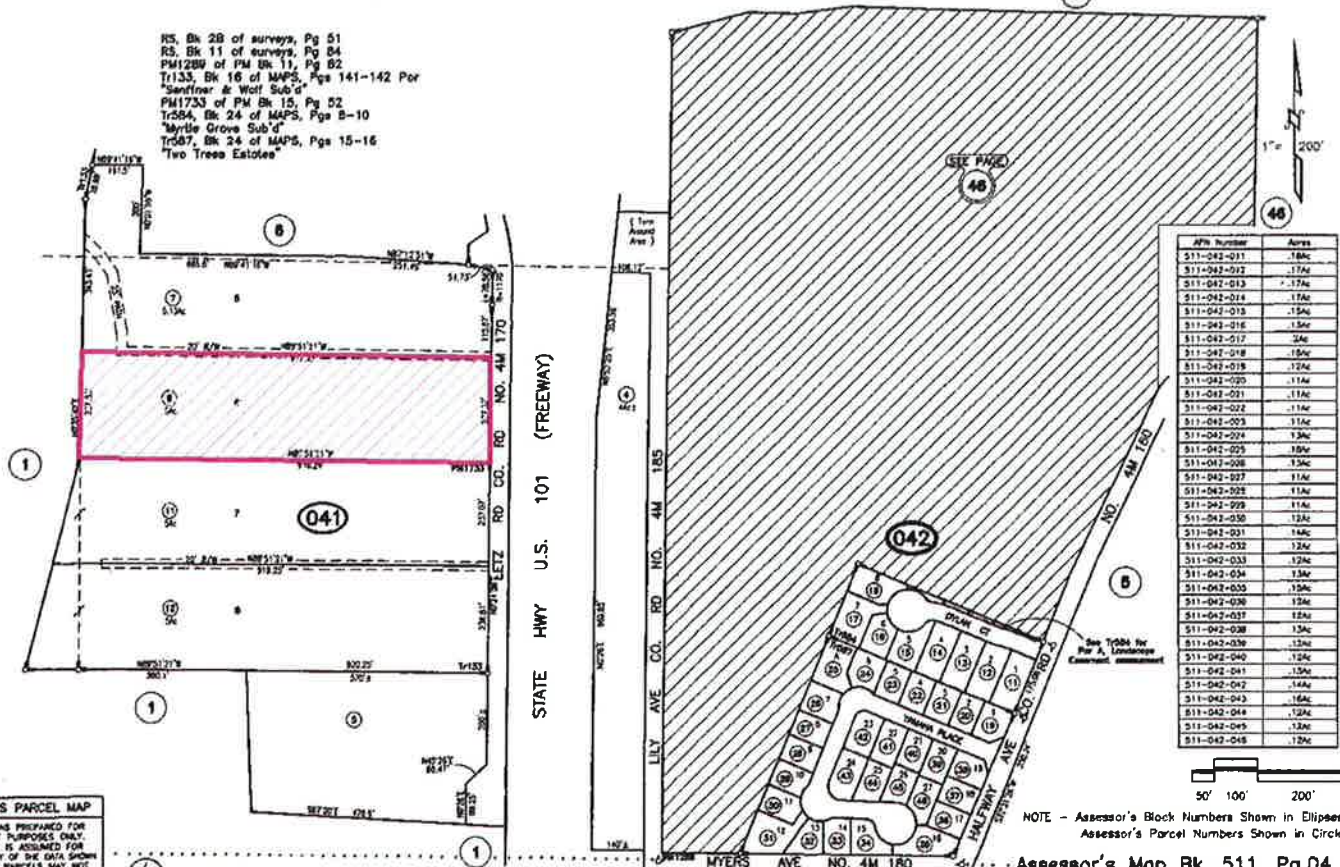


MAP NOT TO SCALE

PTN W1/2 SEC 30 T7N, R1E H.B.& M.

511-04

RS, Bk 2B of surveys, Pg 51
 RS, Bk 11 of surveys, Pg 84
 PM125P of PM Bk 11, Pg 82
 T135, Bk 16 of MAPS, Pgs 141-142 Per
 "Sanfirer & Wolf Sub'd"
 PM1733 of PM Bk 15, Pg 52
 Tr584, Bk 24 of MAPS, Pgs 8-10
 "Maylie Grove Sub'd"
 Tr587, Bk 24 of MAPS, Pgs 15-16
 "Two Trees Estates"



ASSESSOR'S PARCEL MAP
 1. THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY.
 2. NO LIABILITY IS ASSIGNED FOR THE ACCURACY OF THE DATA SHOWN.
 3. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL, STATE OR BUILDING SITE ORDINANCES.

Jan 30, 2007

NOTE - Assessor's Block Numbers Shown in Ellipses
 Assessor's Parcel Numbers Shown in Circles

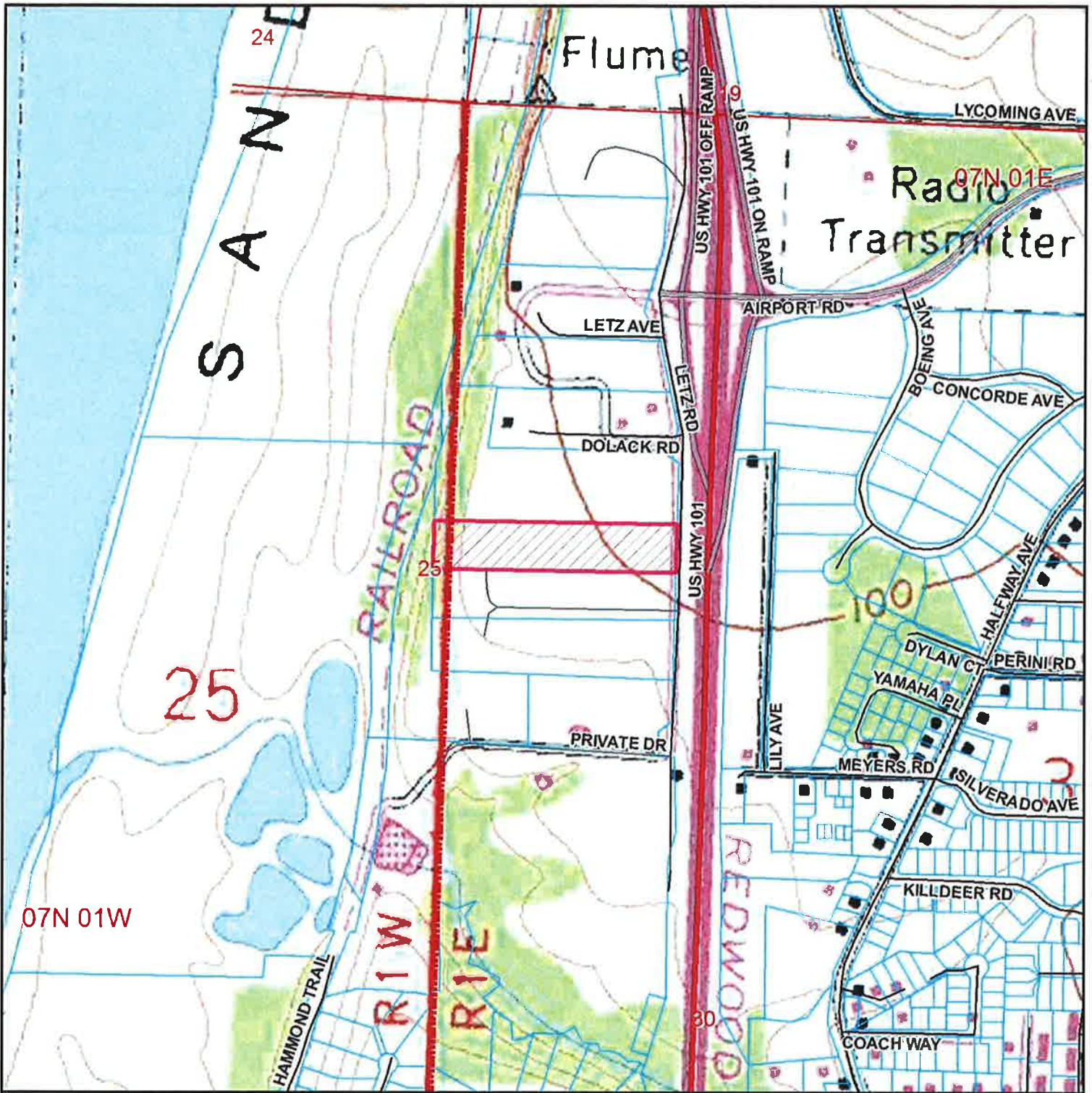
Assessor's Map Bk. 511, Pg.04
 County of Humboldt, CA.

ASSESSOR PARCEL MAP

PROJECT SITE =

**PROPOSED BAUTISTA & WRIGGLE
 COASTAL DEVELOPMENT PERMIT
 MCKINLEYVILLE AREA
 CDP-13-076
 APN: 511-041-008
 T07N R01E S30 HB&M (Arcata North)**

MAP NOT TO SCALE



TOPO MAP

Project Area = 

**PROPOSED BAUTISTA & WRIGGLE
COASTAL DEVELOPMENT PERMIT
MCKINLEYVILLE AREA**

CDP-13-076

APN: 511-041-008

T07N R01E S30 HB&M (Arcata North)

This map is intended for display purposes and should not be used for precise measurement or navigation. Data has not been completely checked for accuracy.





AERIAL MAP

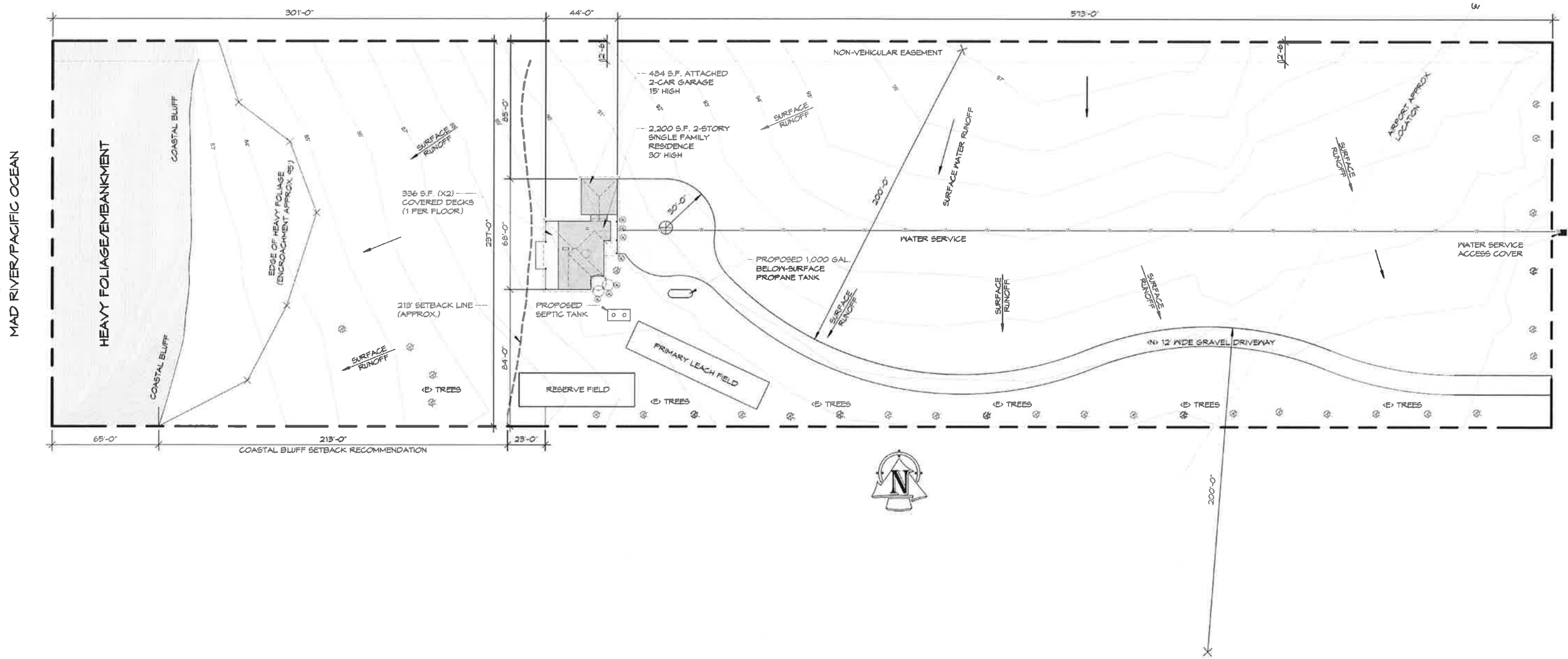
Project Area = 

**PROPOSED BAUTISTA & WRIGGLE
COASTAL DEVELOPMENT PERMIT
MCKINLEYVILLE AREA
CDP-13-076
APN: 511-041-008
T07N R01E S30 HB&M (Arcata North)**

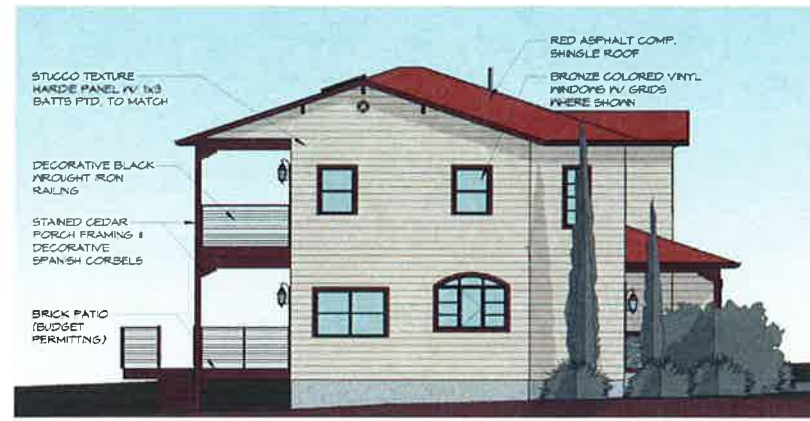


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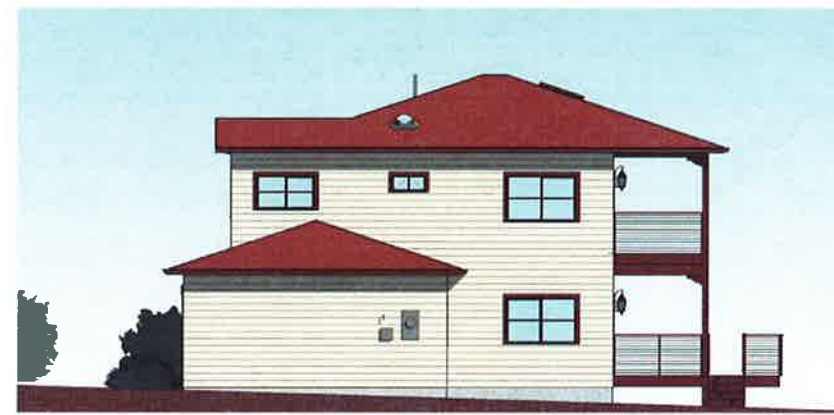
1 SITE PLAN
1" = 40'-0"



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



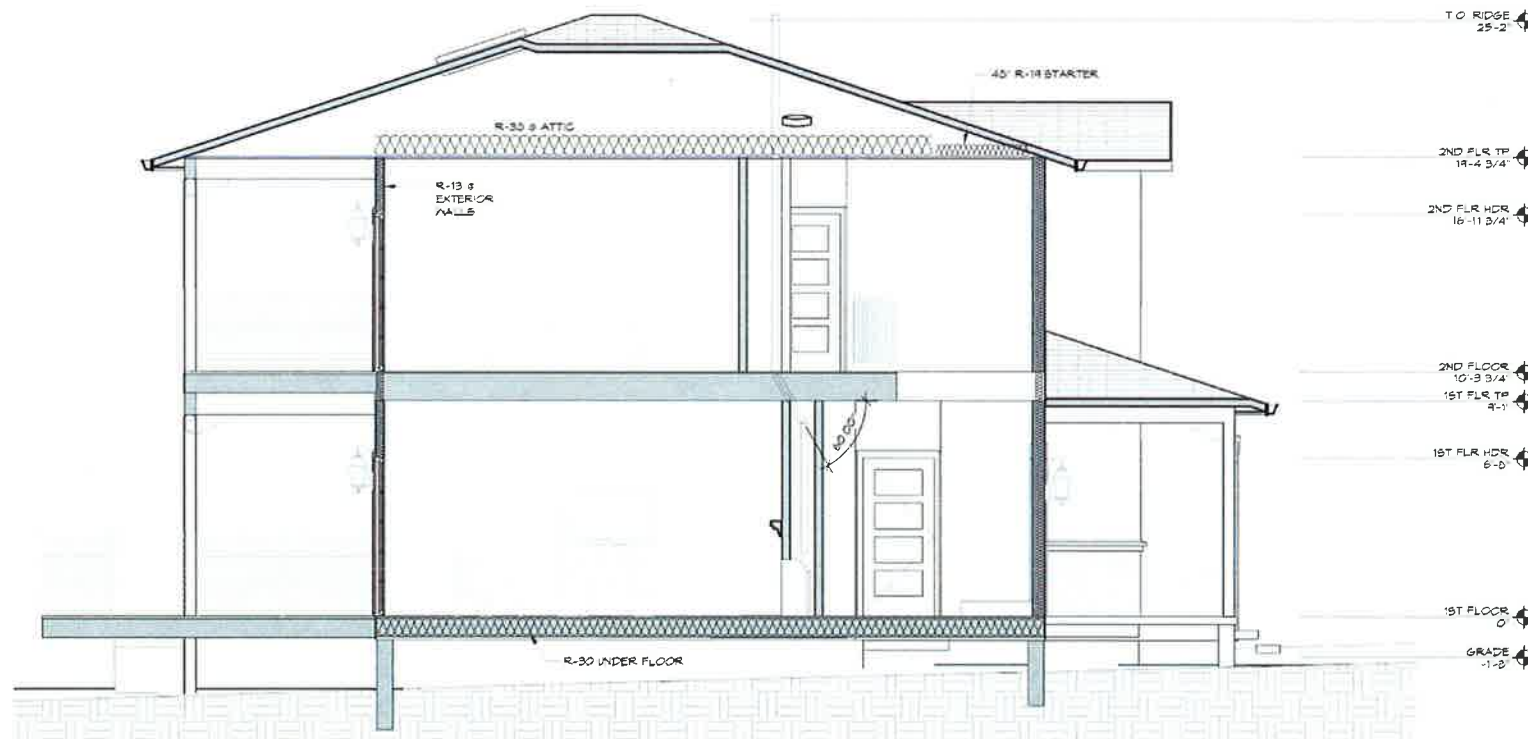
1 EAST
1/8" = 1'-0"



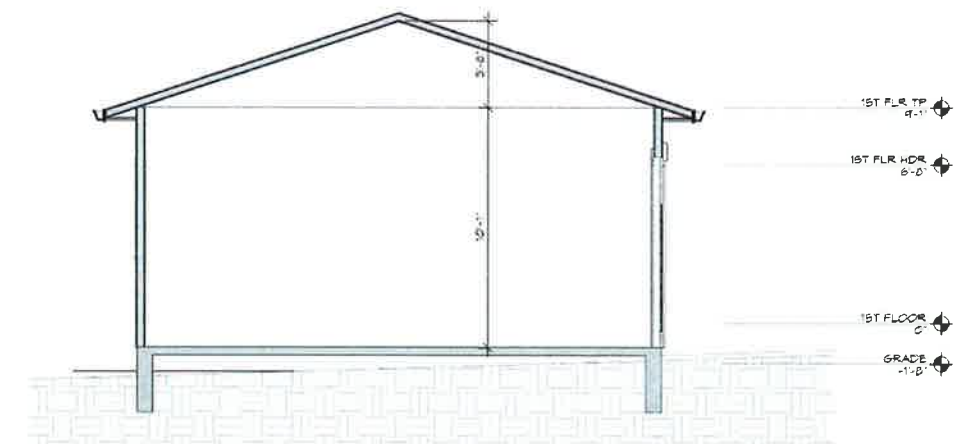
4 NORTH
1/8" = 1'-0"



3 WEST
1/8" = 1'-0"



6 Section at Residence
1/4" = 1'-0"



5 Section at Garage
1/4" = 1'-0"

REV	BY	DATE	DESCRIPTION



NOT FOR CONSTRUCTION



BAUTISTA & WRIGGLE RESIDENCE
PROJECT ADDRESS: 14711 12th St, Marina del Rey, CA 90292
APN: 01-01-041-018

SHEET NAME
EXTERIOR ELEVATIONS & SECTIONS

SHEET NUMBER
A3.1
DATE: 02/16/15
DRAWN BY: DJT
CHECKED BY: CHEKA
BAUTISTA WRIGGLE Page 12
185310

ATTACHMENT 1

RECOMMENDED CONDITIONS OF APPROVAL

Approval of the Coastal Development Permit is conditioned upon the following terms and requirements which must be fulfilled before a building permit is issued or the use is initiated.

1. In accordance with the Framework, Vol.1, General Plan, the applicant shall:
 - a) maintain erosion control as specified in §3432(9) of the Framework Plan;
 - b) implement "Best Management Practices" for erosion and sediment control during the construction phase of the project;
 - c) use dust control techniques when excavating to minimize dust problems on adjacent dwelling(s).
 - d) reseed/gravel disturbed areas prior to winter rain.
 - e) take all precautions necessary to avoid the encroachment of dirt or debris on adjacent properties.

This condition shall appear as an information note on the Building Permit plot plan.

2. The development authorized by this permit approval shall conform to all recommendations and requirements contained in the approved geologic report prepared and filed for the project. Compliance with the report's recommendations to the satisfaction of the Chief Building Inspector shall be a condition of the building permit final. In particular, vegetated portions of the site disturbed by construction shall be landscaped and re-vegetated as soon as possible after completion of earthwork, but in no case later than the beginning of the rainy season after the disturbance has occurred (October 1).
3. Prior to issuance of building permits, the applicant must obtain a permit through the Division of Environmental Health for the on-site sewage disposal system.
4. The residence shall be connected to the public water system prior to occupancy of the dwelling or before a "final" is issued for the building permit. The applicant shall submit verification of connection from McKinleyville Community Services District.
5. All parking required by Code must be constructed on-site. All parking must be constructed **prior** to occupancy of building or "final" issued for building permit.
6. The applicant shall apply for and obtain an encroachment permit for the driveway. The permit will require that the driveway entrance be surfaced with asphalt concrete or Portland cement concrete. The paved area shall extend a minimum of 20 feet back from the edge of the existing roadway pavement and be flared a minimum of 30 feet at the intersection with the County road. The driveway shall intersect the County road at a 90° angle. The driveway grade shall not exceed 2% in the first 20 feet. Site visibility must be maintained at the driveway entrance in conformance with County Code.

No runoff drainage from the driveway or building site shall be channeled or directed to flow across the traveled section of the County roadway. Drainage shall be contained at the edge of the County road surface. The applicant shall be responsible to correct any involved drainage problems to the satisfaction of the Department of Public Works.
7. Gates are not permitted on County right of way for public roads without authorization of the Board of Supervisors. Gates must not create a traffic hazard and must provide an appropriate turnaround in front of the gate (set back approximately 25 feet from the road). Existing gates shall be evaluated for conformance.

8. The project lies within Zone B1 of the Airport Land Use Compatibility Plan for the Arcata Eureka Airport. Applicant shall cause to be dedicated to the County of Humboldt an Avigation Easement for the benefit of the Arcata-Eureka Airport in a manner satisfactory to the Land Use Division of Public Works.
9. The applicant shall adhere to all building recommendations set forth in the Preliminary Geologic/Soils Engineering Report prepared by LACO Associates (January 15, 2008) which is subject to the review and approval of the Building Division and the Planning Director.
10. To best insure that no shoreline protective devices will be needed during the "economic lifespan of the structure", all development shall be located at or beyond the 213-foot bluff retreat setback defined in the July 29, 2013 "Coastal Bluff Setback Recommendation Report" prepared by LACO Associates.
11. The project shall comply with all mitigation measures included in the Biological Assessment / Botanical Survey prepared by Sarah Caldwell of Streamline Planning Consultants, dated September 2014. These include:
 - A. Prohibition on development within Environmentally Sensitive Habitat Areas (ESHA), their buffer(s), or along the bluff face
 - B. Installation of temporary flagging or fencing of ESHA prior to and during all construction activities.
 - C. Prohibition on the staging of equipment or piling of vegetation, soil, and project materials in areas with known sensitive natural communities.
12. The owner shall execute a "Deed Restriction and Hold Harmless Agreement" as required per Section 338-8 of the Humboldt County Code on forms provided by the Planning Division. A legal document review fee (currently \$86.00) shall be paid to the County, along with the applicable recordation fees.
13. The applicant shall submit three (3) copies of a Development Plan to the Planning Division for review and approval. The map shall be a minimum of 11 inches by 17 inches (11" x 17"). The map shall be drawn to scale and give detailed specifications as to the development and improvement of the site, and shall include the following site development details:
 - A. Mapping
 - (1) Property Boundaries, footprint of residence, garage, and related improvements / all buildings and structures and areas targeted for development, including driveway areas.
 - (2) The location of all plant communities identified within the Biological Assessment / Botanical Survey prepared by Sarah Caldwell of Streamline Planning Consultants, dated September 2014.
 - (3) The edge of the bluff and 213-foot bluff retreat setback defined in the July 29, 2013 "Coastal Bluff Setback Recommendation Report" prepared by LACO Associates.
 - B. Notation
 - (1) "The site of the grading is not located within an area where known cultural resources have been located. As there exists the possibility that undiscovered cultural resources may be encountered during construction activities, the following mitigation measures are required under state and federal law:

If cultural resources are encountered, all work must cease and a qualified cultural resources specialist contacted to analyze the significance of the find and formulate further mitigation (e.g., project relocation, excavation plan, protective cover). Pursuant to California Health and Safety Code Section 7050.5, if human remains are encountered, all work must cease and the County Coroner contacted.

The applicant and successors in interest are ultimately responsible for ensuring compliance with this condition.

- (2) "Re-seed and mulch all disturbed areas following construction activities. All exposed areas must be seeded and mulched prior to October 1st.
- (3) "NEW DEVELOPMENT TO REQUIRE PERMIT. Any new development as defined by Section 313-139 of the Humboldt County Code (H.C.C.) shall require a coastal development permit or permit modification, except for Minor Deviations from the Plot Plan as provided under Section 312-11.1 of the Zoning Regulations."
- (4) "Please note that the information and requirements described and/or depicted on this Development Plan are current at the time of preparation but may be superseded or modified by changes to the laws and regulations governing development activities. Before commencing a development project, please contact the Planning Division to verify if any standards or requirements have changed."
- (5) "The 213 foot bluff retreat setback shall remain in open space / undeveloped."
- (6) "No bluff or shoreline protective device shall be constructed to protect the development on the parcel."

14. The applicant shall cause to be recorded a "Notice of Development Plan and Geologic Report" on forms provided by the Humboldt County Planning and Building Department. Document review fees as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors (currently \$75.00 plus applicable recordation fees) will be required.

On-going Requirements/Development Restrictions Which Must be Satisfied for the Life of the Project:

1. All new and existing outdoor lighting shall be compatible with the existing setting and directed within the property boundaries.
2. Where feasible, new utilities shall be underground or sited unobtrusively if above ground.
3. By acceptance of this permit, the applicant acknowledges and agrees that the site may be subject to hazards from landslide, bluff retreat, erosion and earth movement; and that 1) the applicant assumes the risks to the property that is the subject of this permit, 2) the applicant unconditionally waives any claim of damage or liability against the County for personnel injury from such hazards, and 3) to indemnify and hold harmless the County, its officers and employees with respect to the County's approval of the project against any and all liability, claims, demands, damages, costs and expenses arising from injury or damage due to such hazards.
4. By acceptance of this permit, the applicant acknowledges that bluff retreat and coastal bluff erosion is a natural process and the County shall not approve any future requests for construction of any protective devices to combat said erosion/bluff retreat.

Informational Notes:

1. If cultural resources are encountered during construction activities, the contractor on site shall cease all work in the immediate area and within a 50 foot buffer of the discovery

location. A qualified archaeologist as well as the appropriate Tribal Historic Preservation Officer(s) are to be contacted to evaluate the discovery and, in consultation with the applicant and lead agency, develop a treatment plan in any instance where significant impacts cannot be avoided.

The Native American Heritage Commission (NAHC) can provide information regarding the appropriate Tribal point(s) of contact for a specific area; the NAHC can be reached at 916-653-4082. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, shellfish or faunal remains, and human burials. If human remains are found, California Health and Safety Code 7050.5 requires that the County Coroner be contacted immediately at 707-445-7242. If the Coroner determines the remains to be Native American, the NAHC will then be contacted by the Coroner to determine appropriate treatment of the remains pursuant to PRC 5097.98. Violators shall be prosecuted in accordance with PRC Section 5097.99

The applicant is ultimately responsible for ensuring compliance with this condition.

2. The applicant is responsible for receiving all necessary permits and/or approvals from other state and local agencies.
3. This permit shall expire and become null and void at the expiration of one (1) year after all appeal periods have lapsed (see "Effective Date"); except where construction under a valid building permit or use in reliance on the permit has commenced prior to such anniversary date. The period within which construction or use must be commenced may be extended as provided by Section 312-11.3 of the Humboldt County Code.
4. The subject property is located within the McKinleyville Drainage Area and is subject to payment of drainage fees (as set forth in County Code Section 328.1-13 et seq.) at the time that a building permit is issued.

ATTACHMENT 2

Staff Analysis of the Evidence Supporting the Required Findings

Required Findings: To approve this project, the Hearing Officer must determine that the applicant has submitted evidence in support of making **all** of the following required findings.

The Coastal Zoning Ordinance, Section 312-17.1 of the Humboldt County Code (Required Findings for All Discretionary Permits) specifies the findings that are required to grant a Coastal Development Permit and Conditional Use Permit:

1. The proposed development is in conformance with the County General Plan;
2. The proposed development is consistent with the purposes of the existing zone in which the site is located;
3. The proposed development conforms with all applicable standards and requirements of these regulations; and
4. The proposed development does not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law (the midpoint of the density range specified in the plan designation) unless the following written findings are made supported by substantial evidence: 1) the reduction is consistent with the adopted general plan including the housing element; and 2) the remaining sites identified in the housing element are adequate to accommodate the County share of the regional housing need; and 3) the property contains insurmountable physical or environmental limitations and clustering of residential units on the developable portions of the site has been maximized.
5. The proposed development and conditions under which it may be operated or maintained will not be detrimental to the public health, safety, or welfare; or materially injurious to property or improvements in the vicinity.
6. In addition, the California Environmental Quality Act (CEQA) states that one of the following findings must be made prior to approval of any development which is subject to the regulations of CEQA. The project either:
 - a) is categorically or statutorily exempt; or
 - b) has no substantial evidence that the project will have a significant effect on the environment and a negative declaration has been prepared; or
 - c) has had an environmental impact report (EIR) prepared and all significant environmental effects have been eliminated or substantially lessened, or the required findings in Section 15091 of the CEQA Guidelines have been made.

Staff Analysis of the Evidence Supporting the Required Findings

To approve this project, the Hearing Officer must determine that the applicant has submitted evidence in support of making **all** of the following required findings.

1. The proposed development must be consistent with the General Plan.

The following table identifies the evidence which supports finding that the proposed development is in conformance with all applicable policies and standards of the McKinleyville Area Plan (MCAP) and the Framework Plan (FP).

Plan Section(s)	Summary of Applicable Goal, Policy or Standard	Evidence Which Supports Making the General Plan Conformance Finding
Land Use §5.20 (MCAP)	Residential Estates, (RE), Density: 0-2 dwelling units per acre.	The proposed residence is consistent with the uses anticipated under the Residential Estates Land Use Designation. As the project parcel is approximately 5 acres in size, the proposal complies with the density prescribed under the Residential Estates Land Use Designation.
Urban Limits §3.21 (MCAP)	New development shall be located within existing developed areas or in areas with adequate public services.	This parcel and neighboring parcels are developed and served by community water and sewer.
Housing §3.25 (MCAP)	Housing shall be developed in conformity with the goals and policies of the Humboldt County Housing Element.	The proposed project involves the development of a single-family residence and attached garage on an approximately 5-acre parcel. The proposal likely represents the maximum density that may be permitted under the density limitations imposed on parcels within the "B1" zone, pursuant to the Land use Plan for the Arcata-Eureka Airport. The plan recognizes development of "low density residential" (2 to 10 acre lots) as potentially compatible with restrictions.

<p>Hazards §3.28 (MCAP)</p>	<p>New development shall minimize risks to life and property in areas of high geologic, flood and fire hazard.</p>	<p>The subject parcel targeted for development is located in an area with a low wildland fire hazard rating. Per FIRM map 060060 0625B, the parcel is in an area of minimal flooding (C). The parcel is located approximately 1100 feet southwest from the nearest Special Studies Zone per the Arcata North Alquist-Priolo Fault Hazard map. The portion of the subject parcel targeted for development is located in an area designated 'relatively stable' (D₀) in the County's Geologic Hazard Mapping. The property is characterized by mostly level terrain which terminates in a coastal bluff at the western edge. A Geologic Hazard Evaluation prepared by LACO Associates evaluated bluff retreat and established a setback of 213 from the bluff edge, which is reflected in the siting of the proposed residence. A Condition requiring that a Development Plan be prepared and recorded has been included, and will help memorialize these restrictions.</p>
<p>Biological Resource Protection §3.40 (MCAP)</p>	<p>Protect designated sensitive and critical resource habitats.</p>	<p>The project site is currently vacant. Comments received from both the Coastal Commission and Department of Fish & Wildlife requested that the applicant have a rare plant survey performed. A seasonally appropriate botanical survey was conducted by Sarah Caldwell, a Biologist with Streamline Planning Consultants, and included several visits to the property between May and September of 2014. The survey determined that much of the property (grassland) was dominated by non-native grasses and forbs, while the bluff was host to more native species, and that as designed, the project would not affect any rare, threatened, or endangered plants, including Siskiyou Checkerbloom. A Condition of Approval has been included, requiring that a Development Plan be prepared and that a Notice of Development Plan be recorded. This will help identify and protect the Northern Coastal Scrub and the degraded Willow habitat on the parcel. Both these areas are located within the 213-foot geologic setback proposed to be observed by the project.</p>

Cultural Resources §3.29 (MCAP)	Protect cultural, archeological and paleontological resources.	The project was referred to the Northwest Information Center (NWIC) for review and comment. Additionally, referrals were circulated to the Wiyot Tribe, Blue Lake Rancheria, and Bear River Band of the Rohnerville Rancheria. The NWIC did not have any record of cultural resources or cultural resource studies for the project area, and required that one be performed. Comments from the Bear River Tribe made note that their database did not identify any previous cultural resources within or adjacent to the project parcel, and recommended that the standard condition regarding inadvertent discovery be made a mitigation measure. This mitigation measure has been included as a condition of approval.
Visual Resources §3.42 (MCAP)	Protect and conserve scenic and visual qualities of coastal areas.	The site is not within a coastal scenic/coastal view area. The proposed development is consistent with existing development in the area.

2. The proposed development is consistent with the purposes of the existing zone in which the site is located; and 3. The proposed development conforms with all applicable standards and requirements of these regulations. The following table identifies the evidence which supports finding that the proposed development is in conformance with all applicable policies and standards in the Humboldt County Coastal Zoning Regulations.

Zoning Section	Summary of Applicable Requirement	Evidence That Supports the Zoning Finding
§ 313-6.1 Residential Single Family	Single Family Residences and accessory structures are principally permitted uses.	The project is for the development of a single-family residence on a vacant parcel. Lot 6 of an 8 lot subdivision completed in 1978 (Seffner & Wolf), the majority of the resulting parcels have been developed with single-family residences during the intervening years.
Minimum Parcel Size and Lot Width	20,000 square feet 75' width	± 5 acres Lot Width: 237.32'
Max. Density	0.1 dwelling units per/acre (restricted by Airport Land Use Plan)	Though this parcel is only five acres in size, the plan recognizes development of "low density residential" (2 to 10 acre lots) as potentially compatible with restrictions.
Maximum Lot Depth	3 x lot width(237) = 711'	Lot depth is ± 870' (avg.)

Minimum Yard Setbacks per Zoning:	Front: 20' Rear: 10' Interior Side: 5'	Front: ± 600 feet Rear: ± 301 feet Northern Interior Side: ± 85 feet Southern Interior Side: ± 84 feet
Maximum Ground Coverage	Thirty-five Percent (35%)	Approximately 1.3%
Maximum Structure Height	Thirty-five feet (35')	Residence: ± 30' Attached garage/shop: ±15'
§313-109.1 Off-Street Parking	Four (4) on-site parking spaces are required.	Two spaces are shown in the attached garage. Additional spaces are available within the circular driveway turnaround.
Combining Zones		
§313-16.1 No Further Subdivision Allowed	To prohibit further subdivisions of any lots within the zone.	No subdivision is proposed.
§313-16.3 Airport Safety Review	The purpose of these provisions is to establish regulations to maintain compatibility between proposed land uses and development and Humboldt County airports.	Per Airport/Land Use Compatibility Zones mapping, the parcel is within the approach/departure area (B1). The parcel is located outside of applicable airport noise contours that would require mitigation. The density requirement is one (1) dwelling per 10 acres. Though this parcel is only five acres in size, the plan recognizes development of "low density residential" (2 to 10 acre lots) as potentially compatible with restrictions. These include, dedication of an aviation easement, placing structures the maximum distance from the extended airport runway, and minimizing potential hazards to flight. Control of potential sources of dust, steam, smoke, glare, and electrical interference, and any use(s) which could attract large flocks of birds is therefore required. Recordation of an Aviation Easement and implementation of measures to minimize hazards to flight has been included as a Condition of Approval.
§313-22.1 Alquist-Priolo Fault Hazard	Address potential hazards resulting from surface faulting or fault creep.	The project parcel is not within a Alquist-Priolo Special Studies zone, and is in fact located 1100 feet southwest from the closest zone.

313-29.1 Noise Impact	The purpose of these provisions is to establish regulations to maintain, within single family and multi-family structures and within structures designed for transient habitation, low exposure levels to noise associated with airports and major roads.	The proposed development is outside the mapped 60 CNEL zone per the Airport Master Plan. Therefore, no mitigation is required.
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4. Residential Density Target: The following table identifies the evidence which supports finding that the proposed project will not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law.

Code Section & Summary of Applicable Requirement
312-17.1.5 Housing Element Densities - The proposed development shall not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law (the midpoint of the density range specified in the plan designation), except where: 1) the reduction is consistent with the adopted general plan including the housing element; and 2) the remaining sites identified in the housing element are adequate to accommodate the County share of the regional housing need; and 3) the property contains insurmountable physical or environmental limitations and clustering of residential units on the developable portions of the site has been maximized.
Evidence that Supports the Required Finding
The parcel is currently vacant and is zoned for residential development. While not located within a Housing Opportunity Zone, it was included in the 2014 Regional Housing Needs Assessment, and estimated as having the potential for 1 unit. The proposal to develop the property is therefore in keeping with the projected density and expected development potential.

5. Public Health, Safety and Welfare, and 6. Environmental Impact. The following table identifies the evidence which does support finding that the proposed location of the use and conditions under which it may be operated or maintained will not be detrimental to the public health, safety or welfare, or materially injurious to properties or improvements in the vicinity, and will not adversely impact the environment.

Code Section	Summary of Applicable Requirement	Evidence That Supports the Zoning Finding
§312-17.1 Discretionary Permit Findings	The proposed development will not be detrimental to the public health, safety and welfare, and will not be materially injurious to properties or improvements in the vicinity.	All reviewing referral agencies have approved or conditionally approved the proposed project design. As conditioned, the project is consistent with the general plan and zoning ordinances, and the project will not cause significant environmental damage.

<p>§ 15303 of CEQA</p>	<p>Categorically exempt from State environmental review</p>	<p>Class 3, Section 15303(e); New Construction or Conversion of Small Structures. Per the submitted evidence and agency responses, none of the exceptions to the Categorical Exemption per Section 15300.2 of the State CEQA Guidelines apply to this project.</p>
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ATTACHMENT 3

Applicant's Evidence In Support of the Required Findings

Attachment 3 includes a listing of all written evidence which has been submitted by the applicant in support of making the required findings. The following materials are on file with the Planning Division:

- Application Form [in file]
- Plot Plan/Tentative Map Checklist [in file]
- Site Plan Map [attached]
- Elevations [attached]
- Floor Plans [in file]
- Coastal Bluff Setback Recommendation Report, LACO Associates, May, 29, 2013 [attached]
- Botanical Survey, Streamline Planning Consultants, September 2014
- Preliminary Geologic/Soils Engineering Report, LACO Associates, January 15, 2008

Coastal Bluff Setback Recommendation Report

3344 Letz Avenue, McKinleyville, California
Assessor's Parcel Number 511-041-008

July 29, 2013

Prepared For:
Dr. Sonia Bautista and Mark Wriggle

Prepared By:
LACO Associates, Inc.
21 W. 4th Street
Eureka, California 95501
707 443-5054

Project No. 6818.01



Engineer to inspect
footing/excavations.

APPROVED
Humboldt County
Building Inspection Division

DEC 02 2013

By: 

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Coastal Bluff Setback Recommendation Report

3344 Letz Avenue, McKinleyville, California
Assessor's Parcel Number 511-041-008

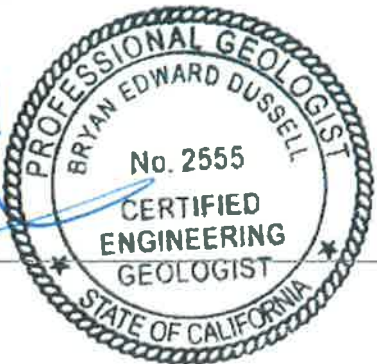
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Prepared For:
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LACO Project No. 6818.01



Bryan E. Dussell, CEG



PROFESSIONAL GEOLOGIST
BRYAN EDWARD DUSSELL
No. 2555
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA



Matthew R. Love, EIT

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FIGURES

Figure 1 Location Map
Figure 2 Site Map

APPENDIX 1

ASFE Brochure

APPENDIX 2

Slope Stability Analysis Results

APPENDIX 3

Historic Aerial Photographs References

APPENDIX 4

Bluff Retreat Results

Note: Cover Photo taken from Google Earth (Google 2012)

1.0 INTRODUCTION

1.1 Purpose

This Report presents a recommended development setback from the coastal bluff that defines the western edge of the marine terrace at Assessor's Parcel Number (APN) 511-041-008 (Site) in McKinleyville, California (Figure 1). In 2008, LACO prepared a *Preliminary Geologic/Soils Engineering Report* for the Site (LACO 2008). This Report provides supplemental information to the 2008 LACO Report regarding the stability of the bluff slope and a revised setback recommendation.

The Site is within the Coastal Zone appeal jurisdiction (located within the Humboldt County jurisdiction). The Humboldt County Planning Department has requested slope setback recommendations in accordance with California Coastal Commission Requirements. The recommended development setback is based on the results of a site specific quantitative slope instability analysis and bluff retreat rate analysis completed in accordance with California Coastal Commission Memorandum W11.5 (Johnsson 2003).

This Report was prepared in accordance with our Engineering Services Agreement dated May 3, 2013, with Dr. Sonia Bautista and Mark Wriggle (Clients). Our Scope of Services included:

- Site review and mapping of ocean bluff (within approximately 100 feet laterally of the subject parcel).
- Preparation of a scaled topographic cross section of the bluff using existing remote sensing (LIDAR) data.
- Review and compilation of existing soil laboratory data for strength characteristics available in our in-house database and published documents for use in a mathematical slope instability analysis.
- Performance of a mathematical slope instability analysis of the bluff using assumed soil strength parameters based on data from our database and published literature.
- Completion of a time-series aerial-photographic analysis and review of existing published data to estimate historic bluff retreat rates.
- Establishment of a recommended setback from the existing edge of bluff based on the results of the stability analysis and a 75-year design life (per California Coastal Commission Memorandum W11.5 guidelines).
- Preparation of this Report documenting the result of LACO's quantitative slope instability analysis, bluff retreat rate, and providing a minimum development setback distance from the top of the existing bluff edge based on California Coastal Commission Memorandum W11.5 guidelines.

Our Scope of Services did not include the collection of subsurface data or survey controlled topographic mapping.

1.2 Limitations

This Report has been prepared for the exclusive use of Dr. Sonia Bautista and Mark Wriggle (clients), their contractors and consultants, and appropriate public authorities for specific application to development of the Site. LACO has exercised a standard of care equal to that generated for this industry to ensure that the information contained in this Report is current and accurate. A brochure prepared by Association of Firms Practicing in the Geosciences (ASFE) has been included as Appendix 1 of this Report. We recommend that all individuals reading this Report also read this brochure.

Data generated for this Report represent information gathered at that time and at the indicated locations. Subsurface conditions may change with time and under anthropologic influences. As such, the recommendations included in this Report are based, in part, on assumptions about subsurface conditions that may only be observed and/or tested during subsequent project earthwork. Accordingly, the validity of these recommendations is contingent upon review of the subsurface conditions exposed during construction in order to check that they are consistent with those characterized in this Report. Upon request, LACO can discuss the extent of (and fee for) observations and tests required to check the validity of the recommendations presented herein.

LACO disclaims any and all liability for any errors, omissions, or inaccuracies in the information and data presented in this Report and/or any consequences arising therefrom, whether attributable to inadvertence or otherwise. LACO makes no representations or warranties of any kind including, but not limited to, any implied warranties with respect to the accuracy or interpretations of the data furnished. This Report is valid solely for the purpose, site, and project described in this document. Any alteration, unauthorized distribution, or deviation from this description will invalidate this Report. LACO assumes no responsibility for any third-party reliance on the data presented. Additionally, the data presented should not be utilized by any third-party to represent data for any other time or location.

2.0 PROJECT DESCRIPTION

2.1 Project Location

Pertinent Site location information is listed in Table 1.

Table 1 – Project Location Information

Latitude and Longitude*	41.1518°N and -124.1361°W
Legal Description	Assessor Parcel Number 511-041-008
Parcel Size	4.40 acres
United States Geologic Survey Quadrangle	Arcata North 7.5-minute quadrangle

*Based on coordinates provided by Humboldt County Planning and Building GIS Portal for parcel centroid

2.2 Proposed Development

The Site is currently undeveloped and encompasses nearly level to gently sloping terrain toward the bluff edge at the western end of the Site. As we understand, the current development plan is to construct a new, single-family residence on the western side of the property. The exact building location has yet to be determined and will be based on the findings of this Report. Community water and sewer services are available by the McKinleyville Community Services District; an on-site sewage disposal system is not required.

3.0 SITE AND SUBSURFACE CONDITIONS

3.1 Geologic and Seismic Setting

The Site is situated on the edge of low gradient marine terrace surface adjacent to the Pacific Ocean and the mouth of the Mad River. The marine terrace surface is at an elevation ranging from 90 to 100 feet mean sea level (msl), approximately 80 feet above the existing dune field below. Published geologic maps indicate that the area is underlain by Quaternary marine terrace deposits consisting of poor to moderate consolidated marine silts, sands, and gravels (CDMG 1984; McLaughlin et al 2000). The terrace surface underlying the project site is estimated to be approximately 83,000 years old (Carver and Burke 1988).

The terrace deposits in the vicinity are faulted by a series of active northwest-striking thrust faults within the Mad River fault zone which result in multiple terrace surfaces that increase in age and elevation from west to east. Table 2 summarizes the active faults adjacent to the Site.

Table 2: Seismic Sources in the Project Vicinity¹

Fault System	Distance from Site (Kilometers)	Direction from Site	Maximum Moment Magnitude ²	Peak Ground Acceleration ³ (g)
McKinleyville Fault	<1	North	7.0	0.85
Mad River	<1	South	7.1	0.87
Little Salmon	18	South	7.1	0.26
Cascadia Subduction Zone	36	West	9.0	0.18

¹ Based on EQFAULT (v. 2.01) and a digitized data file of the California Division of Mines and Geology Fault Activity Map of California (Jennings 1994).

² Earthquake magnitudes are expressed in terms of the moment magnitude scale (M_w) and were obtained from Tables of California Fault Parameters in Peterson et al. (1996), Cao et al. (2003), and from EQFAULT.

³ Peak ground accelerations are average values estimated for the maximum moment magnitude earthquake, using attenuation relationships developed by Boore et al. (1997), Campbell (1993 and 1997), and Sadigh et al. (1997) for a site underlain in the upper 30 meters by stiff alluvial soils.

The western edge of the Site is a bluff that descends steeply to a beach and sand dune field adjacent to the Pacific Ocean. The bluff has been interpreted as a sea cliff that was abandoned as a result of coseismic uplift during past seismic events (Carver, Adto, and Burke 1992). Local uplift resulted in regression of the shoreline the formation of dune field between the bluff and the swash zone of the beach. The dune field protects the bluff from active ocean erosion. However, episodic migration of the mouth of the Mad River in front of the Site results temporary removal of the dune field and exposure of the bluff to erosion from both the river and ocean of this Report. Additional discussion of the migration of the river and historic rates of erosion are provided in Section 3.5 below.

3.2 Soil Conditions

Based on observations of the bluff face made during our site reconnaissance on May 31, 2013, and review of information reported from prior explorations in the project vicinity (LACO 2008, Taber 1975, LGC 2012,

and LACO 2012), the soils beneath the Site are assumed to be composed of approximately 5 feet of loose eolian sand and silt overlying an undetermined thickness of weakly- to moderately-cemented silty sand (SM), poorly-graded sand (SP), and well-graded sands/gravels (SW/GW). Soils observed on the bluff face consisted primarily of moderately-cemented silty sands (SM) and silty sands with gravel (SM).

3.3 Groundwater Conditions

Groundwater was not observed seeping from the bluff face during our May 31, 2013, site reconnaissance or within subsurface exploration borings completed in 2008 (LACO, 2008). To evaluate possible shallow groundwater conditions within the Site, we reviewed groundwater data from prior unpublished reports in the Site (SHN 2013; LGC 2012) as well as published reports from the State Water Resource Control Board's Geotracker Database (<http://geotracker.waterboards.ca.gov>) for the Arcata Airport Avis Rent-a-Car (Site T0602391120). The reviewed groundwater data records groundwater within approximately 15 feet of the ground surface near the Site (SHN 2013). Deep groundwater is recorded at the Arcata Airport Avis Rent-a-Car facility. However, the facility is located on the hanging wall of an active fault and is not considered representative of conditions at the Site.

Boring and well locations are shown on Figure 1 and groundwater data is presented below in Table 3.

Table 3: Groundwater Elevations in the Project Vicinity

Source	Distance from site	Screened Interval Depth (feet)	Depth to water (feet)	Groundwater Elevation ¹ (feet)
LGC, 2012	5,000 feet Southeast	Boring Only	15	87
SHN, 2013	700 feet West	Boring Only	15	90
Geotracker, 2012	3,250 feet Northeast	95-135	128 - 134	67 - 73

¹Groundwater elevation based on surface elevation (NAVD88) from LiDAR (CCC 2009-2011)

For this project, we assume that groundwater is at an elevation of 90 feet (NAVD88).

3.4 Bluff Face and Slope Instability

Historic slope failure events provide evidence that coastal bluffs within the Site are susceptible to both mass wasting and erosion. Slope failures along the coastal bluffs in the vicinity of the Site typically occur as a result of toe erosion with shear failure in the weakly-cemented soils and as tensile-exfoliation failures in areas that are moderately-cemented.

Currently, the bluff is heavily vegetated and displays no evidence of recent or incipient slope failure. The bluff is approximately 80 feet high, and is oriented from north to south.

3.5 Location of the Mad River Inlet

Prior to 1970, the Mad River inlet occupied a 0.8-mile wide oscillation zone located approximately 1.75 miles south of the Site, after which the inlet began to migrate north (Borgeld et al. 1993; Borgeld 2000). In 1991, the river progressed north toward Highway 101, which prompted CalTrans to construct rock slope protection (RSP) along the right bank of the river, approximately 0.45 miles north of the project site. The mouth of the Mad River passed the Site in 1988, and the river persisted along the base of the bluff until approximately 1999. In 1999, the river breached through the dunes approximately 1.25 miles south of the Site and the dune field in front of the Site was restored. Since 1999, the river mouth has been migrating north at a rate of approximately 0.25 miles per year. The mouth of the Mad River is currently west of the Site, but not actively eroding the base of the bluff.

4.0 QUANTITATIVE SLOPE INSTABILITY ANALYSIS

4.1 Discussion and Methodology

Table 1 of Memorandum W11.5 (Johnsson 2003) presents the guidelines for performing quantitative slope stability analysis for purposes of establishing setback distances. Simplified, the guidelines state the following:

- The analysis should demonstrate a setback distance associated with a factor of safety of 1.5 for static conditions and 1.1 for seismic conditions.
- The effects of earthquakes on slope stability may be addressed through pseudostatic slope analysis assuming a horizontal seismic coefficient of 0.15g.
- All slope stability analysis should be undertaken with water table or potentiometric surfaces for the highest groundwater conditions.
- Circular failure surfaces should be sought using methods such as Spencer's (Spencer 1967; 1973) or Morgenstern-Price (Morgenstern and Price 1965).

To evaluate the stability of the bluff under both static and dynamic conditions, LACO performed a quantitative slope stability analysis of the bluff using Slide (version 5.0) slope stability software. The software assesses the stability of the slope using the Spencer Method to compare the forces resisting failure to the forces driving failure. The ratio of the two forces is defined as a "factor of safety" (F). In a stable slope, the forces resisting failure exceed the driving forces and the resultant F is greater than 1.0. When the two forces are equal, the F is equal to 1.0 and slope failure is imminent. The greater the F, the greater the stability of the slope.

The stability analysis for this site used slope geometry obtained from publically available LIDAR data (CCC 2009-2011) and a simplified 2-layer model of the slope soil materials. The two layers used included the loose sand and silt overlying the weakly- to moderately-cemented granular soils.

Soil strength properties are based on data presented in the deep boring logs from prior explorations within the project vicinity (LGC 2012; LACO 2012), published values, and from our experience with similar soils. Table 4 summarizes the soil parameters used in the slope instability analysis for the Site.

Table 4: Soil Parameters Used in the Factor of Safety Analysis

Description	Sand and Silt (SM, ML)	Cemented Granular Soil (SM, SP, SW, GW)
Dry Unit Weight	90 pounds per cubic foot (pcf)	115 pcf
Saturated Unit Weight	100 pcf	125 pcf
Cohesion	0 pounds per square foot	400 psf
Friction Angle	30	36.7°

Groundwater is modeled at an elevation of 90 feet (NAVD88) to represent high groundwater conditions, as discussed in the Section 3.3 of this Report.

4.2 Results of Factor of Safety Analysis

Graphic results from the Factor of Safety analysis are included in Appendix 2. The model analysis reflecting a slope failure surface with an F equal to 1.5 under static conditions (termed F_s) is located 40 feet east of

the present bluff edge. The slope failure surface with an F equal to 1.1 under dynamic conditions (termed F_D) is located 43 feet east on the present bluff edge within the model profile.

5.0 BLUFF RETREAT RATE

5.1 Discussion and Methodology

A long-term bluff retreat rate was estimated for this site by reviewing rates presented by previous studies (Borgeld 1993; Komar et al., 2000; Sweet 2000, PWA 2002) and by performing a site specific aerial photographic review covering approximately 64 years from 1948 to 2012. A list of the aerial photographs referenced is included as Appendix 3.

The site specific aerial photograph review utilized a constant transect through the Site to measure changes in distance to the bluff from a fixed location over time. The centerline of Letz Avenue was used as the fixed location for the years 1965 through 2012. For years prior to 1965 (and construction of Letz Avenue), the edge of a heavily vegetated area (with known distance to the centerline of Letz Avenue) was used as the fixed point to find the distance to the bluff.

5.2 Results of Bluff Retreat Rate Analysis

Based on review of aerial photographs, the edge of the bluff at the Site has retreated approximately 40 feet from 1948 to 2012, which results in an average long-term bluff retreat rate of approximately 0.63 feet per year. Distances from the edge of bluff to the fixed reference point for each photo year reviewed are summarized in Appendix 4 (Bluff Retreat Results).

The greatest rate of bluff retreat (2.27 ft/yr) occurred between 1988 and 1999 and corresponds to a time interval when the Mad River was present at the base of the bluff. In 1999, the mouth of the river abruptly migrated south, and the base of the bluff was no longer exposed to erosion by the river. The erosion rate since 1999 has averaged 0.08 feet per year.

6.0 SEA LEVEL RISE

It is widely accepted that sea level is predicted to rise in the future. The rate and effects of sea level rise on coastal Humboldt County are debatable. The Pacific Institute estimates that a rise in sea level of approximately 5 feet (1.5 meters) by the year 2100 will result in an average of 525 feet (160 meters) of dune erosion and 200 feet (61 meters) of cliff erosion (Pacific Institute, 2009). However, the Pacific Institute study does not consider the effects of tectonic uplift. Uplift rates in the vicinity of the Site are estimated to be approximately 1 millimeter per year.

Rising sea level at a faster rate than tectonic uplift will result in an increased rate of coastal erosion. Historically, the swash zone west of the bluff during times when the Mad River is south of the Site (when the river is not at the base of the bluff) is approximately 1,000 feet west of the bluff. Utilizing the dune erosion rate predicted by the Pacific Institute and ignoring the effects of uplift, 525 feet of dune erosion will remove approximately half of the dune field which currently separates the base of the bluff from swash zone (or Mad River from swash zone). Under this scenario, the rate of bluff erosion at the Site due to the effects of sea level rise would be unchanged due to the continued presence of a dune field between the base bluff and the swash zone.

7.0 RECOMMENDED SETBACK

7.1 Discussion and Methodology

California Coastal Commission Memorandum W11.5 (Johnsson 2003) recommends that the bluff setback be established by combining the distance from the present bluff edge to the most distant slope failure surface ($F_S = 1.5$ or $F_D = 1.1$ slope failure surface, whichever is greater) with the estimated erosion distance over a 75-year period.

The factor of safety analysis indicates that the failure distance associated with the F_D is greater than the distance associated with F_S and therefore should be used in the establishment of the setback.

The erosion rate analysis indicates that the highest rate of erosion at this site occurs during times when the river is in contact with the base of the bluff. As such, the establishment of a future bluff retreat rate for this site is heavily weighted on a prediction of the future location and migration pattern of the Mad River. Unfortunately, a repeatable pattern of river migration does not exist. A conservative approach is to estimate that the river will be present at the base of the bluff with an erosion rate of 2.27 feet per year for the entire 75-year design period. This erosion rate is consistent with a previously accepted erosion rate for a nearby property (Sweet 2000; California Coastal Commission 2000). For this particular project, we understand that this conservative approach is acceptable by the project team because the preferred location of the home is approximately 250 feet west of the bluff edge. Arguments can be made for a lower

erosion rate based on the historically episodic migration pattern of the Mad River. Since 1999, the Mad River has not passed across the base of the bluff.

Given that the stability related setback exceeds 10 feet, an additional setback buffer is not required by Coastal Commission procedures.

7.2 Setback

Using the results of our bluff retreat study for this project and the methodology suggested by the California Coastal Commission, LACO recommends a minimum setback distance of 213 feet from edge of the bluff. This setback distance is based on a combined 43-foot slope stability and 170-foot erosion rate setback.

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\\laco-fs3\projects\6800\6818 Dr. Sonia Bautista\6818.01 Wriggle Letz Ave Coastal Development\08 Geology\6818.01 Bautista-Wriggle Bluff Setback Report.docx

FIGURES

Figure 1 Location Map

Figure 2 Site Map

LACO

EUREKA • UKIAH • SANTA ROSA

1-800-515-5054 www.lacoassociates.com

PROJECT	COASTAL BLUFF SETBACK RECOMMENDATION REPORT	BY	JB	FIGURE	1
CLIENT	DR. SONIA BAUTISTA	DATE	7/24/13	JOB NO.	6818.01
LOCATION	3344 LETZ AVENUE, MCKINLEYVILLE, CA.	CHECK	MRL		
	LOCATION MAP	SCALE	AS SHOWN		

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KEY NOTES	
①	TABER, 1975
②	LGC, 2012
③	LACO, 2012
④	SHN, 2013
⑤	SWEET, 2000
⑥	BORGELD, 1993 KOMAR ET AL., 2000 CALIFORNIA COASTAL COMMISSION, 2003

Jul 24, 2013 - 1:07 pm
 I:\Coofiles\6800\6818 - Dr. Sonia Bautista\Draw\ 6818.01 GEO FIGURE 1.dwg

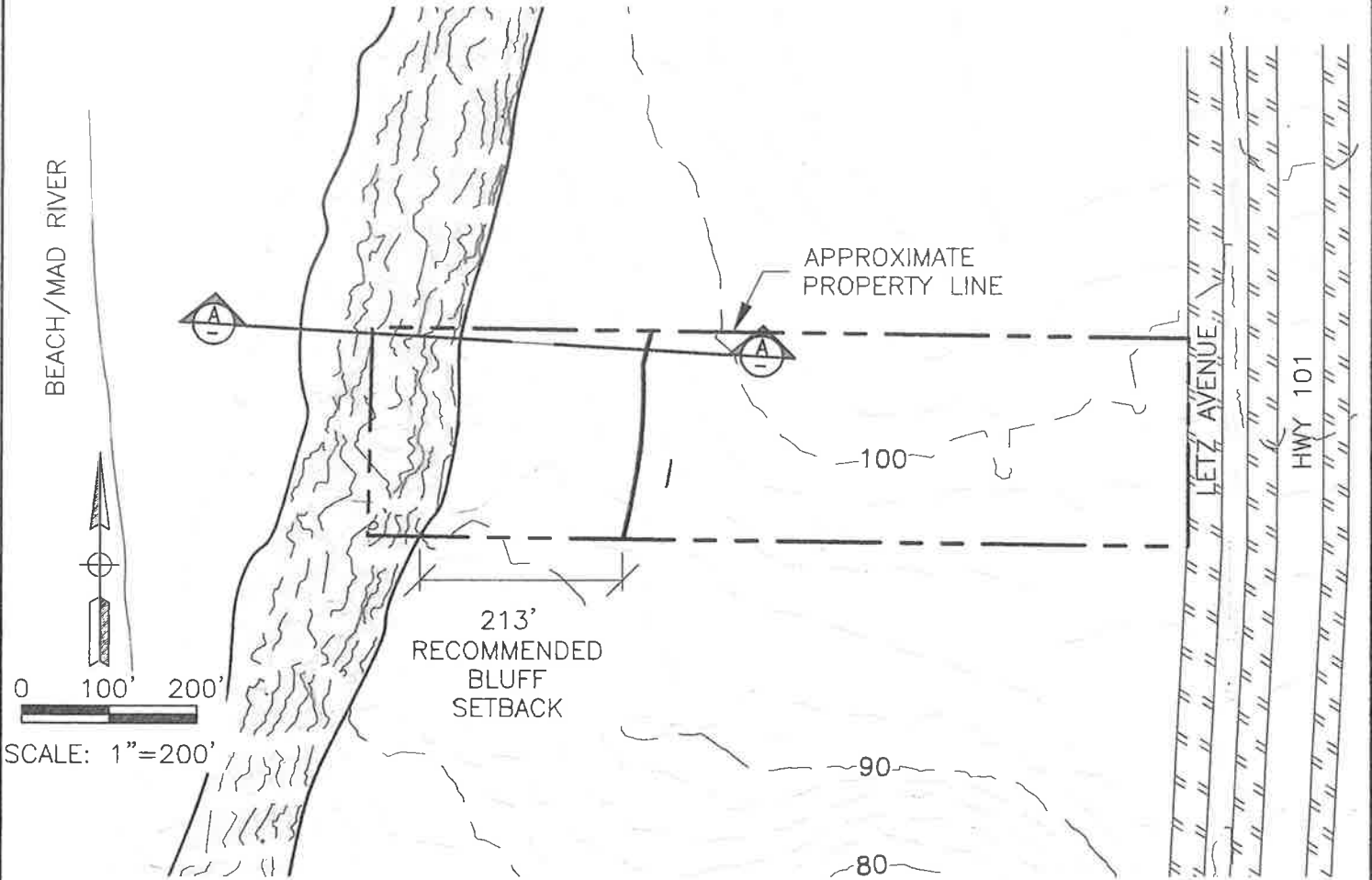
LACO

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PROJECT	COASTAL BLUFF SETBACK RECOMMENDATION REPORT	BY	JB	FIGURE	2
CLIENT	DR. SONIA BAUTISTA	DATE	7/30/13	JOB NO.	6818.01
LOCATION	3344 LETZ AVENUE, MCKINLEYVILLE, CA.	CHECK	MRL		
	SITE MAP	SCALE	AS SHOWN		

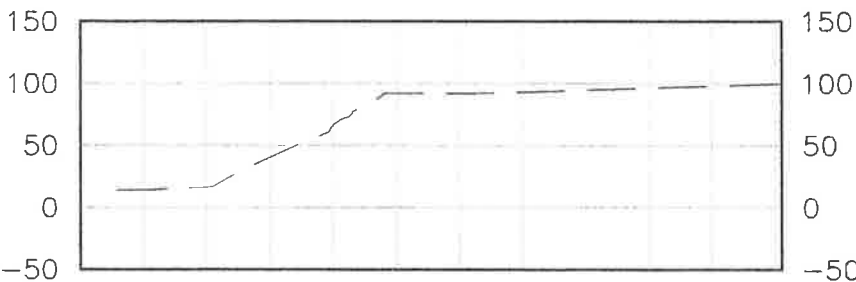
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Jul 30, 2013 - 3:00pm
T:\Cofiles\6800\6818 - Dr. Sonia Bautista\Uwg\ 6818.01 GEO FIGURE 2.dwg

NOTES:

1. BASE MAP ADAPTED FROM DATA AVAILABLE THROUGH 2009-2011 COASTAL CONSERVANCY LIDAR PROJECT.
2. CONTOUR INTERVAL IS 2 FOOT.
3. ELEVATION DATUM IS NAVD88.
4. ALL LOCATIONS ARE APPROXIMATE.
5. SECTION A PROFILE WAS USED FOR SLOPE STABILITY ANALYSIS.



A **SECTION**
1" = 150' HORZ. AND VERT.

APPENDIX 1

ASFE Brochure

Important Information about Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply the report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should never be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time to perform additional study.* Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention.* Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.

Rely on Your ASFE-Member Geotechnical Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.



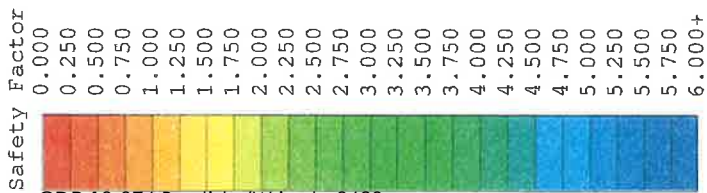
8011 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/569-2017
e-mail: info@asfe.org www.asfe.org

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APPENDIX 2

Slope Stability Analysis



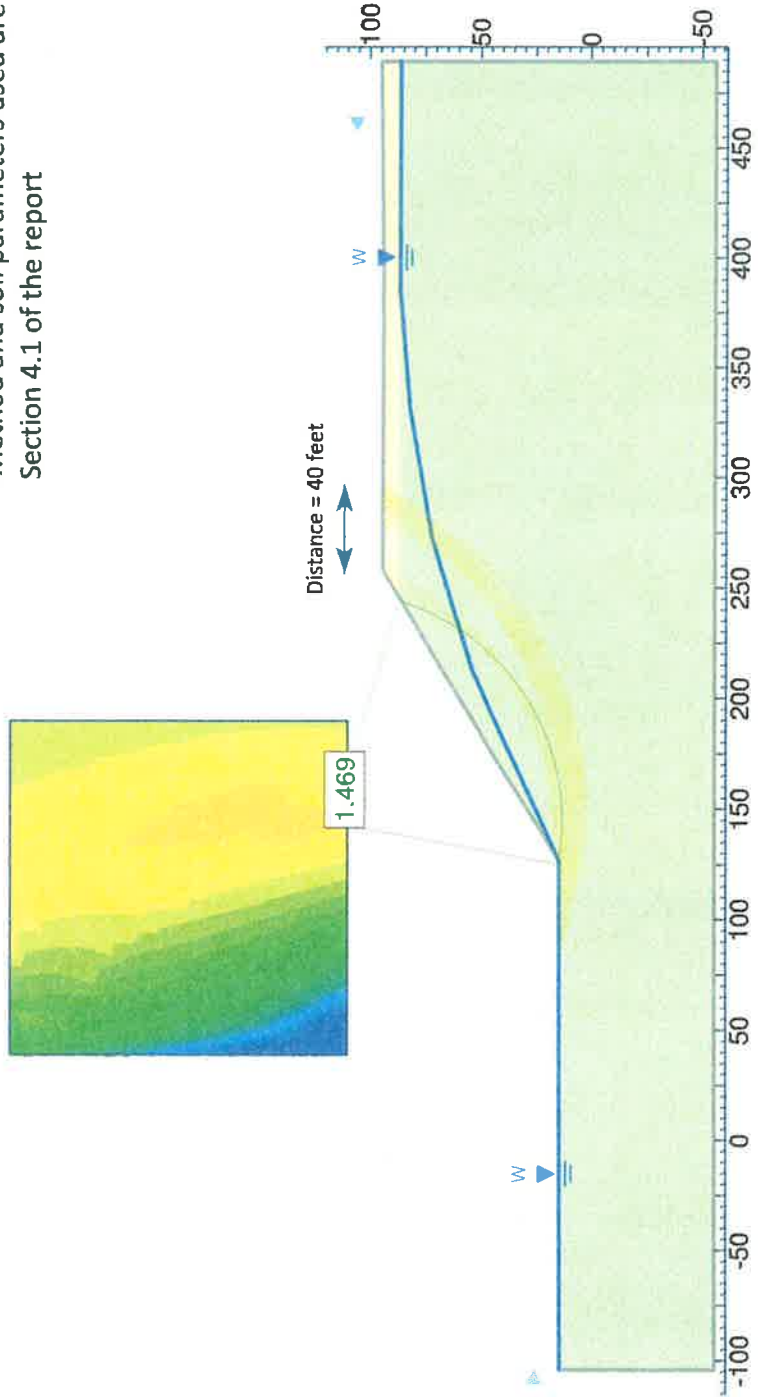
Coastal Bluff Setback Recommendation Report

Static Conditions (Fs=1.5)

3344 Letz Avenue, McKinleyville CA
LACO Project No. 6818.01

Notes:

- All predicted failure planes with $F_s < 1.5$ shown
- Method and soil parameters used are discussed in Section 4.1 of the report

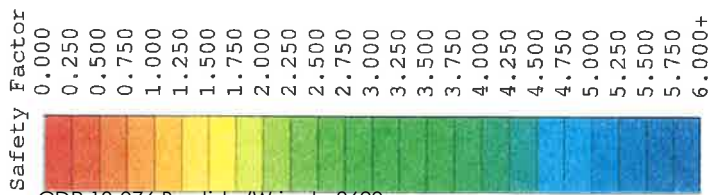


Coastal Bluff Setback Recommendation Report

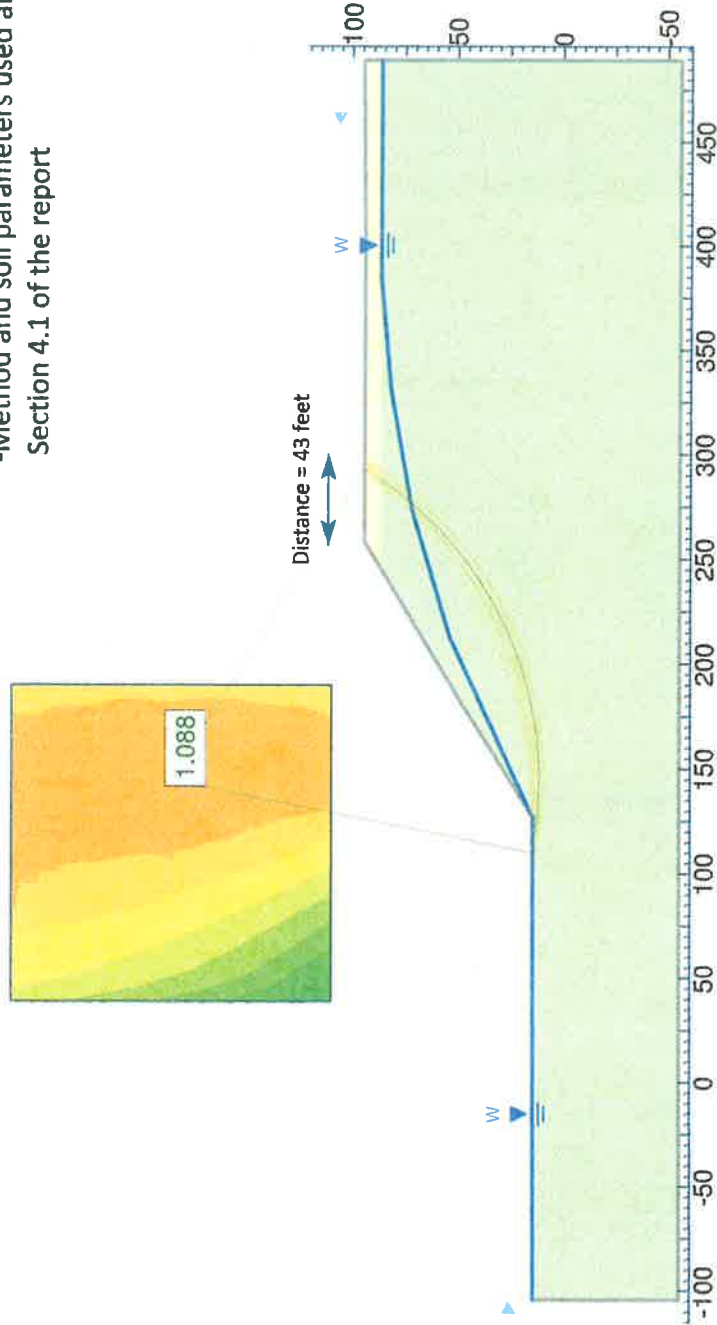
Seismic Conditions (Fd=1.1)

3344 Letz Avenue, McKinleyville CA

LACO Project No. 6818.01



Notes:
 -All predicted failure planes with $F_d < 1.1$ shown
 -Method and soil parameters used are discussed in Section 4.1 of the report



APPENDIX 3

Historic Aerial Photographs References

AERIAL PHOTOGRAPH REFERENCES

1948 – CDF, Scale +/- 1:20,000, Line 16, Photos 62-63

1954– CVL, Scale +/- 1:20,000, Line 13N, Photos 93-94

1958 – Delano (HU), Scale +/- 1:20,000, Line 10, Photos 37-38

1962 – Humboldt County Assessor, Scale +/- 1:20,000, HCN-2, Line 12, Photos 41-42

1965 – CDF, Scale +/- 1:20,000, Line 18FF, Photos 214-215

1966 – Humboldt County Assessor, Scale +/-1:12,000; HC-66, Line 16B, Photos 53-54.

1970 – Humboldt County Assessor, Scale +/-1:12,000; CH-70, Line 16B, Photos 56-57.

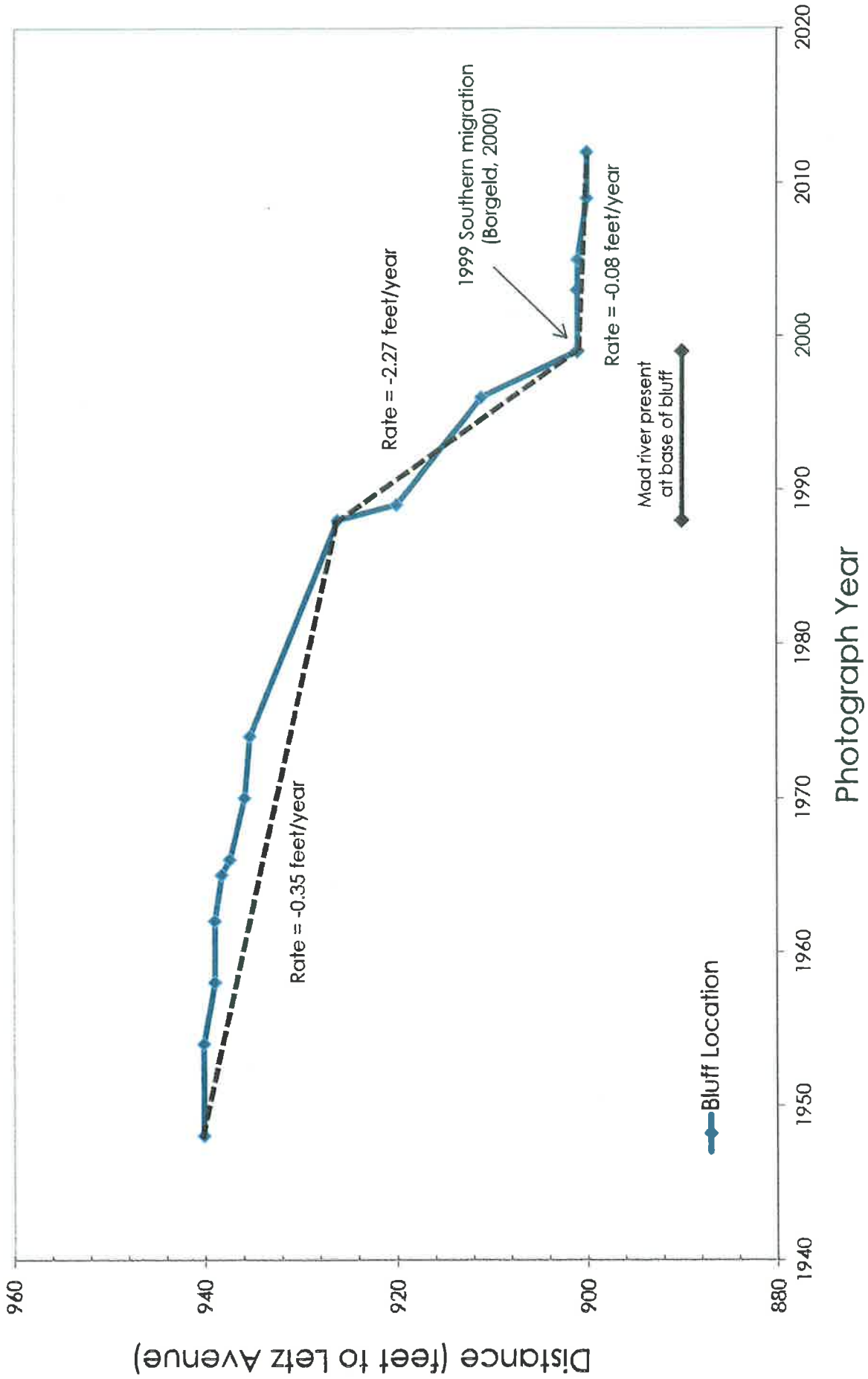
1974 – Humboldt County Assessor, Scale +/-1:12,000; HC-74, Line 16B, Photos 52-53.

1988 – WAC-88CA, Scale +/-1:31,680; Line 2, Photos 47-48.

1988 – WAC-96CA, Scale +/-1:31,680; Line 30, Photos 164-165.

APPENDIX 4

Bluff Retreat Results





July 29, 2013

6818.01

1371 Fernwood Drive
McKinleyville, California 95519

Attention: Dr. Sonia Bautista and Mark Wriggle

Subject: 2010 CBC Addendum Letter: *Preliminary Geologic/Soils Engineering Report*
Proposed Single-Family Residence, 3344 Letz Avenue, McKinleyville
Dated January 15, 2008; LACO Associates Project No. 6818.00

Dear Dr. Bautista and Mr. Wriggle:

In accordance with our service agreement dated March 12, 2013, LACO Associates (LACO) has prepared this amendment to the above referenced Geologic/Soils Engineering Report. Unless noted otherwise herein, the findings, conclusions, and recommendations presented in our 2008 Report remain valid and should be adhered to.

Scope of Services

Our Scope of Services for this amendment consisted of the following:

- 1) Review of the original 2008 report
- 2) Reconnaissance of the subject property for modifications to the ground surface that may have occurred since the existing report was prepared
- 3) Preparation of this addendum

Our Scope of Services did not include subsurface exploration, soil sampling, laboratory analysis, engineering, and/or surveying services.

Current Site Conditions

A brief site visit was conducted by a LACO Assistant Engineer on May 31, 2013, to review current conditions of the property. Based on our site reconnaissance, no evidence of a change in site conditions from those characterized in our 2008 Report was observed.

Seismic Ground Motion Hazards

Based on the conditions characterized in our 2008 Report, along with our literature review, we have classified the Site as Site Class D consisting of a "stiff soil profile" (Section 1613.5.2, 2010 CBC). The design spectral response accelerations S_s , S_1 , F_a , F_v , S_{MS} , S_{M1} , S_{DS} , and S_{D1} were determined using the United States Geological Survey (USGS) seismic calculator software, "Seismic Hazard Curves, Response Parameter, Design Parameters: Seismic Hazard Curves and Uniform Hazard Response Spectra", version 5.1.0a on July 15, 2013, utilizing the American Society of Civil Engineers (ASCE) Standard 7-05, Minimum Design Loads for Buildings and Other Structures analysis option. Calculated values are presented Table 1.

21 W. 4th Street, Eureka, California 95501 707 443-5054 Fax 707 443-0553
311 S. Main Street, Ukiah, California 95482 707 462-0222 Fax 707 462-0223
3450 Regional Parkway, Suite B2, Santa Rosa, California 95403 707 525-1222

Table 1 - Summary of Seismic Design Factors

Site Class	F ₀	F _v	S _s	S ₁	S _{M5}	S _{M1}	S _{D5}	S _{D1}
D	1.0	1.5	2.563	1.154	2.563	1.731	1.709	1.154

*Latitude and longitude are 41.1518° North and -124.1361° West, respectively, based on coordinates provided by Humboldt County Planning and Building GIS Portal for the site centroid.

These design spectral response accelerations are further defined as follows:

- F₀ Short period coefficient to modify 0.2-second period of mapped spectral response accelerations for Site Class D.
- F_v Long period coefficient to modify 1.0-second period of mapped spectral response accelerations for Site Class D.
- S_s Mapped spectral response acceleration, 5 percent damped, at 0.2-second period for Site Class B (%g).
- S₁ Mapped spectral response acceleration, 5 percent damped, at 1.0-second period for Site Class B (%g).
- S_{M5} Maximum considered earthquake spectral response acceleration, 5 percent damped, at 0.2-second for Site Class effects (%g).
- S_{M1} Maximum considered earthquake spectral response acceleration, 5 percent damped, at 1.0-second period for Site Class effects (%g).
- S_{D5} Design spectral response acceleration, 5 percent damped, at 0.2-second period (%g).
- S_{D1} Design spectral response acceleration, 5 percent damped, at 1.0-second period (%g).

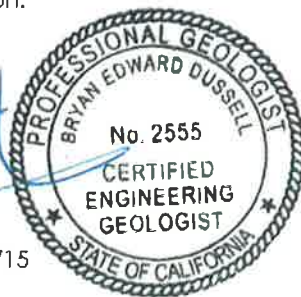
Additional Recommendations

We have no additional recommendations for the proposed residential development of this site.

Please feel free to contact our office at (707) 443-5054, if you have any questions or require additional information.

Sincerely,
 LACO Associates

Bryan Dussell
 CEG 2555, Exp. 6/30/15



Reference

LACO (LACO Associates). 2008. Preliminary Geologic/Soils Engineering Report, 3344 Letz Avenue, McKinleyville, CA, APN 511-041-008, LACO ASSOCIATES Project No. 6818.00, dated January 15, 2008, 50 pages.

P:\6800\6818 Dr. Sonia Bautista\6818.01 Wriggle Letz Ave Coastal Development\08 Geology\6818.01 CBC Update.docx

ATTACHMENT 4

Referral Agency Comments and Recommendation

Referral Agency	Response	Recommendation	Attached	On File
County Building Inspection Division	✓	Conditional Approval		✓
Public Works, Land Use Division	✓	Conditional Approval		✓
Division of Environmental Health	✓	Approval		✓
McKinleyville Community Services District		Approval		
Arcata Fire Protection District	✓			✓
CA. Dept. of Fish and Wildlife	✓	Conditional Approval		✓
California Coastal Commission	✓	Comments	✓	
Blue Lake Rancheria	✓	Conditional Approval		✓
Wiyot Tribe				
Bear River Band of the Rohnerville Rancheria	✓	Conditional Approval		✓
Northwest Information Center	✓	Comments		✓
California Regional Water Quality Control Board				

From: Kraemer, Melissa@Coastal [<mailto:Melissa.Kraemer@coastal.ca.gov>]

Sent: Thursday, December 05, 2013 5:11 PM

To: Lazar, Steve

Cc: Planning Clerk

Subject: comments on CDP 13-076 (Bautista & Wriggle)

We received the subject referral on December 2nd and offer the following comments:

1. In the County's analysis of the project's consistency with geologic hazard policy requirements of the McKinleyville Area Plan (MAP), the County should consider both bluff retreat rate and slope stability analyses for the site. The bluff retreat rate analysis should not only look at historic bluff retreat rates but also should include consideration of any expected retreat rate increase related to future sea-level rise effects on the bluff as well as river hydrodynamics affecting the bluff. The slope stability analysis should include a recommend setback distance from the bluff edge sufficient to ensure a minimum factor of safety of 1.5. All proposed development, including septic systems, should be sited sufficiently back from the bluff edge to ensure safety from geologic hazards for the development's presumed economic lifespan without the need for future bluff protection to protect development that may become threatened by bluff erosion.
2. In addition to requiring appropriate siting of structures to minimize geologic hazard risks, the permit also should include enforceable conditions prohibiting the future construction of shoreline/bluff protective devices in the event that the authorized development eventually becomes threatened with damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, ground subsidence or other natural hazards in the future.
3. Please forward a copy of the 7/29/13 LACO geologic report. After reviewing the report, we may have further comments related to the proposed geologic setback.
4. There are rare plants and habitats known to occur in the vicinity of the property (e.g., Siskiyou checkerbloom, coastal prairie). A habitat assessment should be conducted to determine if there is the potential for rare plants and/or rare coastal prairie habitat to occur on the site and if so, a seasonally appropriate rare plant/habitat survey should be conducted by a qualified botanist to determine whether any environmentally sensitive habitat is present. If ESHA is found, it should be protected (as required by MAP policies) from impacts and degradation with appropriate buffers and restrictions on the use and enjoyment of portions of the property containing environmentally sensitive areas.
5. The project must be consistent with the visual resources protection policies of the MAP, including policies that protect public views to the ocean and require minimization of visual impacts on the public viewshed.

Thanks for the opportunity to comment, and let me know if you have any questions.

Melissa B. Kraemer
California Coastal Commission
North Coast District
1385 Eighth Street, Suite 130
Arcata, CA 95521
Ph: 707/826-8950 ext. 5
F: 707/826-8960
www.coastal.ca.gov

From: Lazar, Steve
Sent: Friday, January 03, 2014 11:44 AM
To: 'Kraemer, Melissa@Coastal'
Subject: RE: comments on CDP 13-076 (Bautista & Wriggle)

Hi Melissa-

Attached to this email is a copy of the Bluff Retreat Analysis performed by LACO. Page 9 contains a discussion of Sea Level Rise.

The applicant has been asked to have a seasonally appropriate botanical survey performed.

From: Lazar, Steve [<mailto:SLazar@co.humboldt.ca.us>]
Sent: Friday, April 17, 2015 12:43 PM
To: Kraemer, Melissa@Coastal
Subject: Apps# 8620 | CDP-13-076 | Bautista/Wriggle | APN 511-041-08 | Biological Assessment & Plot Plan Revision

Hi Melissa/Jen-

Attached to this email is a copy of a Botanical Survey prepared by Sarah Caldwell for the Bautista/Wriggle Coastal Development Permit application on Letz Road. The survey involved several site visits between May and October of last year, and determined that the area targeted for development is dominated by invasive non-native "introduced perennial grassland" species as well as other non-native species (Scotch Broom, Yellow bush lupine, and Queen Anne's Lace) found within the a transition zone near the bluff face, which characterizes the western margin of the property. No checkerbloom was observed during any of the field visits and Ms. Caldwell speculates that though the site location is appropriate for checkerbloom, competition from abundant non-native grasses reduces the quality of the site as habitat and may be responsible for the lack of occurrence. Ms. Caldwell also concludes that soil moisture is unlikely sufficient to support either of the sedges listed in the CNDDDB, and did not observe any occurrences during her fieldwork. Attached is a copy of the revised plot plan, which reflects a significant reduction in the building footprint, over the original proposal. We will be requiring that a Development Plan be prepared for the project memorializing the geologic setback and restricting landscaping and vegetation removal / manipulation within the western transition zone where Northern Coastal Bluff Scrub / Coastal dune willow are located. As this area falls within the 213 foot setback from the bluff face (prescribed in the geologic report prepared by LACO Associates), no impact to this plant community should result from the proposed development activities.

Call or email if you have any questions or feedback.

Thanks!

From: Kraemer, Melissa@Coastal [<mailto:Melissa.Kraemer@coastal.ca.gov>]
Sent: Friday, April 17, 2015 1:19 PM
To: Lazar, Steve
Subject: RE: Apps# 8620 | CDP-13-076 | Bautista/Wriggle | APN 511-041-08 | Biological Assessment & Plot Plan Revision

Thanks Steve. I just took a quick look. Where is the willow thicket deemed "not especially valuable" in relation to the 213-ft-setback line, do you know?

Also, have you analyzed the visual impact of this development design from public views from 101?

thanks

From: Lazar, Steve
Sent: Friday, April 17, 2015 2:15 PM
To: 'Kraemer, Melissa@Coastal'
Cc: 'Olson, Jennifer@Wildlife'
Subject: RE: Apps# 8620 | CDP-13-076 | Bautista/Wriggle | APN 511-041-08 | Biological Assessment & Plot Plan Revision

Melissa-

Attached are several aerial photos showing the approximate locations of the plant communities identified in the biological assessment, as well as the proposed residence, driveway, and geologic setback.

Though not within a Coastal View area, we have evaluated visual compatibility and determined that the size and location of the proposal is in keeping with the scale and pattern of development on neighboring parcels in the vicinity –the majority of land along Letz Road is already host to similar residential development and was part of the same subdivision that created the project parcel (recorded in 1978) –you'll find this map and a GoogleEarth view of the vicinity attached as well.

-Steve



driveway (approx.)

51104106

bdg. footprint

213' setback

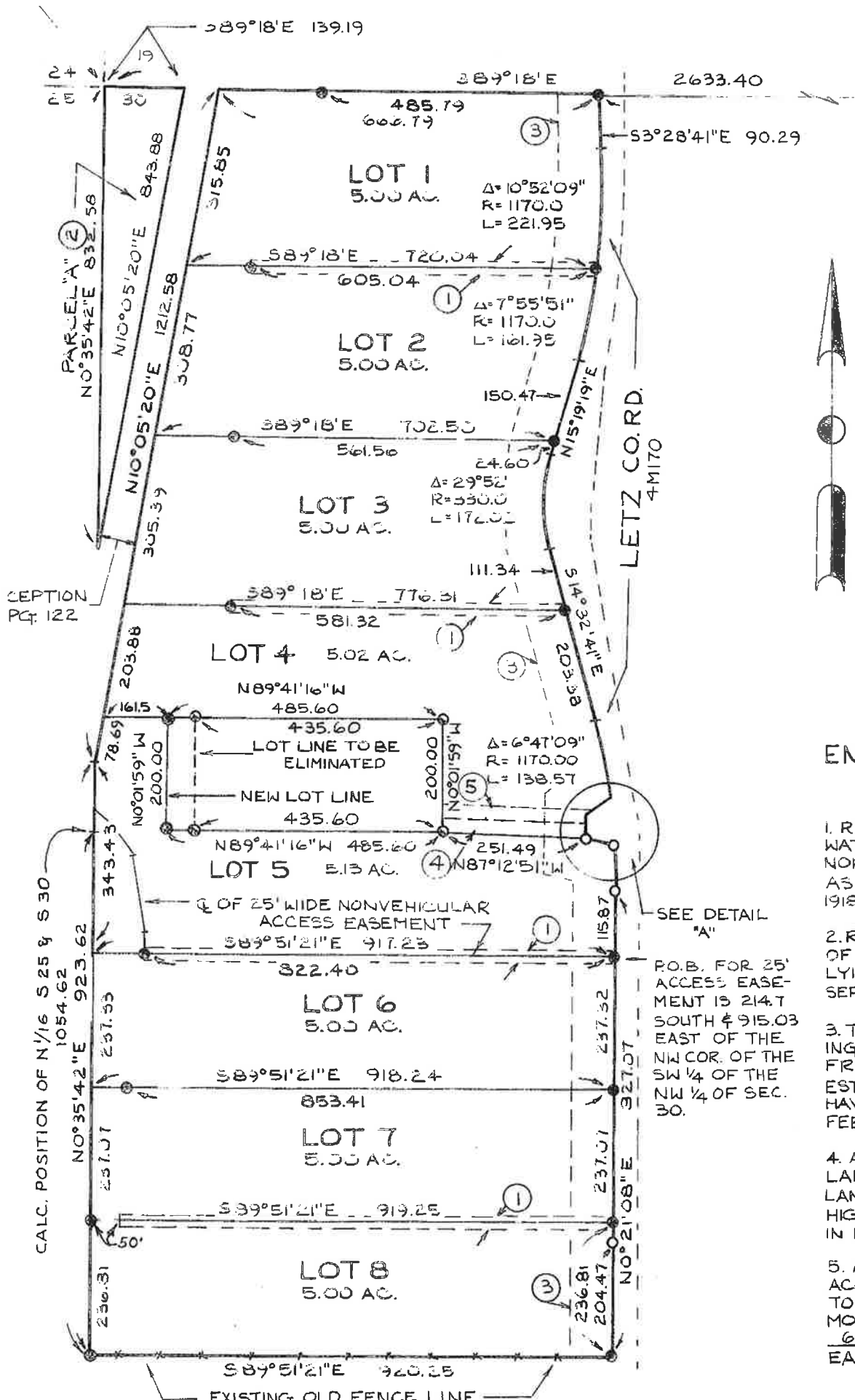
Coastal Scrub
Grassland
Transition Zone

Degraded
Salt/Rubus
scrub

Northern
Coastal
Scrub

51104111

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ATTACHMENT 4

Referral Agency Comments and Recommendation

Referral Agency	Response	Recommendation	Attached	On File
County Building Inspection Division	✓	Conditional Approval		✓
Public Works, Land Use Division	✓	Conditional Approval		✓
Division of Environmental Health	✓	Approval		✓
McKinleyville Community Services District		Approval		
Arcata Fire Protection District	✓			✓
CA. Dept. of Fish and Wildlife	✓	Conditional Approval		✓
California Coastal Commission	✓	Comments	✓	
Blue Lake Rancheria	✓	Conditional Approval		✓
Wiyot Tribe				
Bear River Band of the Rohnerville Rancheria	✓	Conditional Approval		✓
Northwest Information Center	✓	Comments		✓
California Regional Water Quality Control Board				

From: Kraemer, Melissa@Coastal [<mailto:Melissa.Kraemer@coastal.ca.gov>]

Sent: Thursday, December 05, 2013 5:11 PM

To: Lazar, Steve

Cc: Planning Clerk

Subject: comments on CDP 13-076 (Bautista & Wriggle)

We received the subject referral on December 2nd and offer the following comments:

1. In the County's analysis of the project's consistency with geologic hazard policy requirements of the McKinleyville Area Plan (MAP), the County should consider both bluff retreat rate and slope stability analyses for the site. The bluff retreat rate analysis should not only look at historic bluff retreat rates but also should include consideration of any expected retreat rate increase related to future sea-level rise effects on the bluff as well as river hydrodynamics affecting the bluff. The slope stability analysis should include a recommend setback distance from the bluff edge sufficient to ensure a minimum factor of safety of 1.5. All proposed development, including septic systems, should be sited sufficiently back from the bluff edge to ensure safety from geologic hazards for the development's presumed economic lifespan without the need for future bluff protection to protect development that may become threatened by bluff erosion.
2. In addition to requiring appropriate siting of structures to minimize geologic hazard risks, the permit also should include enforceable conditions prohibiting the future construction of shoreline/bluff protective devices in the event that the authorized development eventually becomes threatened with damage or destruction from waves, erosion, storm conditions, bluff retreat, landslides, ground subsidence or other natural hazards in the future.
3. Please forward a copy of the 7/29/13 LACO geologic report. After reviewing the report, we may have further comments related to the proposed geologic setback.
4. There are rare plants and habitats known to occur in the vicinity of the property (e.g., Siskiyou checkerbloom, coastal prairie). A habitat assessment should be conducted to determine if there is the potential for rare plants and/or rare coastal prairie habitat to occur on the site and if so, a seasonally appropriate rare plant/habitat survey should be conducted by a qualified botanist to determine whether any environmentally sensitive habitat is present. If ESHA is found, it should be protected (as required by MAP policies) from impacts and degradation with appropriate buffers and restrictions on the use and enjoyment of portions of the property containing environmentally sensitive areas.
5. The project must be consistent with the visual resources protection policies of the MAP, including policies that protect public views to the ocean and require minimization of visual impacts on the public viewshed.

Thanks for the opportunity to comment, and let me know if you have any questions.

Melissa B. Kraemer
California Coastal Commission
North Coast District
1385 Eighth Street, Suite 130
Arcata, CA 95521
Ph: 707/826-8950 ext. 5
F: 707/826-8960
www.coastal.ca.gov

From: Lazar, Steve
Sent: Friday, January 03, 2014 11:44 AM
To: 'Kraemer, Melissa@Coastal'
Subject: RE: comments on CDP 13-076 (Bautista & Wriggle)

Hi Melissa-

Attached to this email is a copy of the Bluff Retreat Analysis performed by LACO. Page 9 contains a discussion of Sea Level Rise.

The applicant has been asked to have a seasonally appropriate botanical survey performed.

From: Lazar, Steve [<mailto:SLazar@co.humboldt.ca.us>]
Sent: Friday, April 17, 2015 12:43 PM
To: Kraemer, Melissa@Coastal
Subject: Apps# 8620 | CDP-13-076 | Bautista/Wriggle | APN 511-041-08 | Biological Assessment & Plot Plan Revision

Hi Melissa/Jen-

Attached to this email is a copy of a Botanical Survey prepared by Sarah Caldwell for the Bautista/Wriggle Coastal Development Permit application on Letz Road. The survey involved several site visits between May and October of last year, and determined that the area targeted for development is dominated by invasive non-native "introduced perennial grassland" species as well as other non-native species (Scotch Broom, Yellow bush lupine, and Queen Anne's Lace) found within the a transition zone near the bluff face, which characterizes the western margin of the property. No checkerbloom was observed during any of the field visits and Ms. Caldwell speculates that though the site location is appropriate for checkerbloom, competition from abundant non-native grasses reduces the quality of the site as habitat and may be responsible for the lack of occurrence. Ms. Caldwell also concludes that soil moisture is unlikely sufficient to support either of the sedges listed in the CNDDB, and did not observe any occurrences during her fieldwork. Attached is a copy of the revised plot plan, which reflects a significant reduction in the building footprint, over the original proposal. We will be requiring that a Development Plan be prepared for the project memorializing the geologic setback and restricting landscaping and vegetation removal / manipulation within the western transition zone where Northern Coastal Bluff Scrub / Coastal dune willow are located. As this area falls within the 213 foot setback from the bluff face (prescribed in the geologic report prepared by LACO Associates), no impact to this plant community should result from the proposed development activities.

Call or email if you have any questions or feedback.

Thanks!

From: Kraemer, Melissa@Coastal [<mailto:Melissa.Kraemer@coastal.ca.gov>]
Sent: Friday, April 17, 2015 1:19 PM
To: Lazar, Steve
Subject: RE: Apps# 8620 | CDP-13-076 | Bautista/Wriggle | APN 511-041-08 | Biological Assessment & Plot Plan Revision

Thanks Steve. I just took a quick look. Where is the willow thicket deemed "not especially valuable" in relation to the 213-ft-setback line, do you know?

Also, have you analyzed the visual impact of this development design from public views from 101?

thanks

From: Lazar, Steve
Sent: Friday, April 17, 2015 2:15 PM
To: 'Kraemer, Melissa@Coastal'
Cc: 'Olson, Jennifer@Wildlife'
Subject: RE: Apps# 8620 | CDP-13-076 | Bautista/Wriggle | APN 511-041-08 | Biological Assessment & Plot Plan Revision

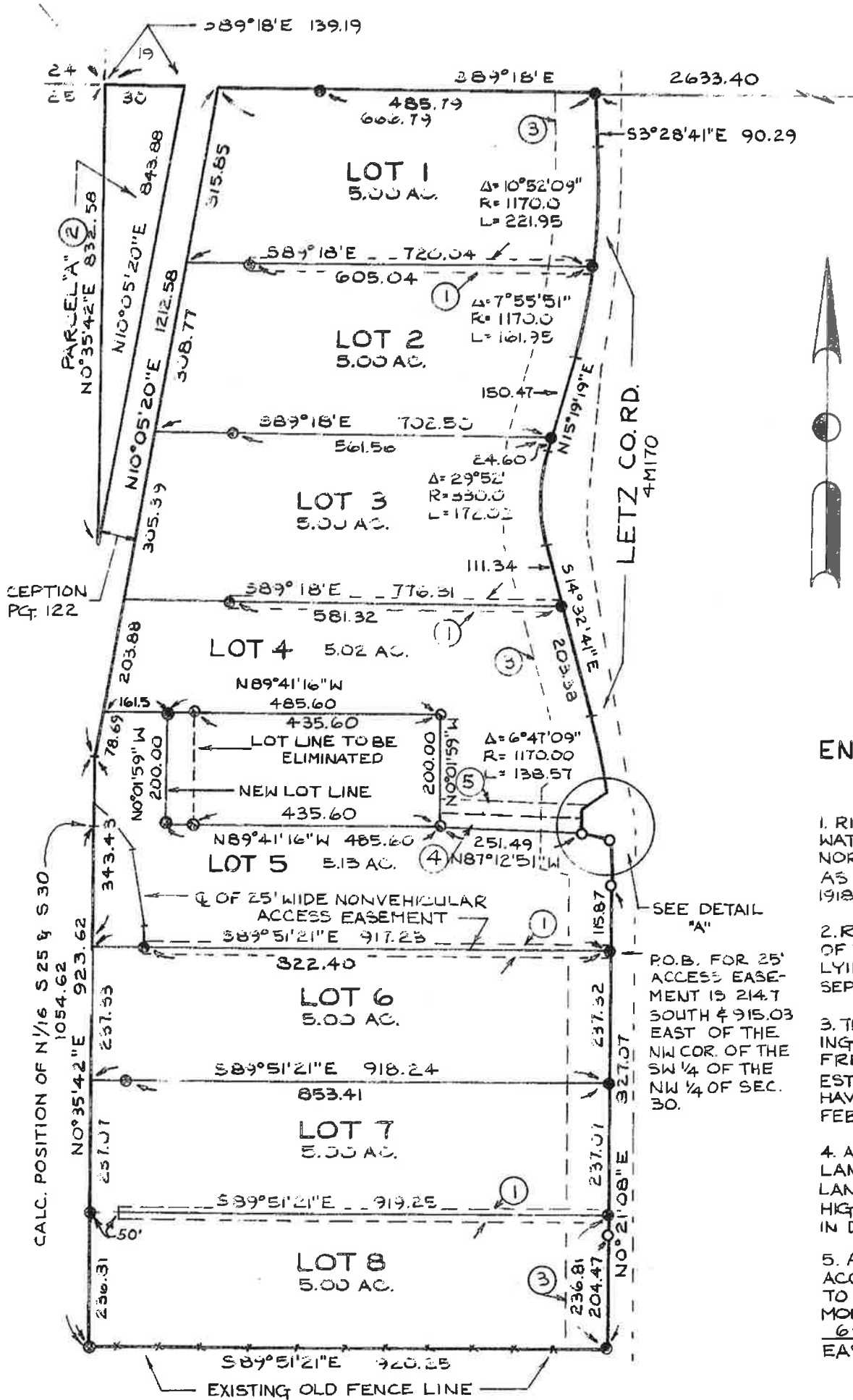
Melissa-

Attached are several aerial photos showing the approximate locations of the plant communities identified in the biological assessment, as well as the proposed residence, driveway, and geologic setback.

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-Steve





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SEE DETAIL "A"
 P.O.B. FOR 25' ACCESS EASEMENT IS 214.7 SOUTH & 915.03 EAST OF THE NW COR. OF THE SW 1/4 OF THE NW 1/4 OF SEC. 30.

