Staff Report to the Zoning Administrator

Application Number: 211155

Applicant: Matson Britton Architects – Cove Britton
Owner: Judi & Alex MacDonell
APN: 028-242-25
Site Address: 22702 E. Cliff Drive, Santa Cruz, CA

Agenda Date: June 17, 2022
Agenda Item #: 2
Time: After 9:00 a.m.

Project Description: (Continued from April 1, 2022 and May 20, 2022) Proposal to demolish an existing 2,474 square foot single-family dwelling and construct a two-story 6,064 square foot replacement dwelling with an attached 332.5 square foot one-car garage, an attached carport, a 310 square foot covered loggia, covered decks and a 4,463 square foot basement that includes a 283 square foot habitable hallway/bathroom, an attached non-habitable accessory structure (a 1,930 square foot storage room with a half-bathroom and a 2,250 square foot garage/workshop.

Location: Property located on the south side of East Cliff Drive (22702 E. Cliff Drive) approximately 600 feet south southeast of the intersection with 26th Avenue in Santa Cruz, in the RM-5-PP zone district.

Permits Required: Coastal Development Permit, a Residential Development Permit for a Large Dwelling, a Site Development Permit for a basement containing a non-habitable storage room that exceeds 640 square feet in size, a Variance to allow for a garage with a ceiling height of less than 7 feet 6 inches, a Pleasure Point Exception for a reduced second floor setback, Design Review, and a determination that the project is exempt from the provisions of CEQA.

Supervisorial District: 1st District (District Supervisor: Manu Koenig)

Staff Recommendation:

- Determine that the proposed action is exempt from further Environmental Review under the California Environmental Quality Act. CEQA Section 15270 states that "CEQA does not apply to projects which a public agency rejects or disapproves.
- Denial of Application 211155, based on the attached findings.

Project Description & Setting

The parcel is located on the southwest side of East Cliff Drive approximately 500 feet northwest of the parking lot at Moran Lake and 600 feet southeast of the intersection with 26th Avenue. The project site is located in a neighborhood with one and two-story single-family homes and townhouses that are located east, west and north of the parcel, with the Monterey Bay to the south. Coastal access to the nearest public beach is approximately 500 feet southeast of the site opposite Moran Lake. The parcel is relatively flat and fronts a coastal bluff to the southwest that has been historically armored by a system of rip rap revetment rock. The revetment extends from Moran Lake Beach northwestwards along the coast to the point where the beach extends further inland at 23rd Avenue.

The parcel is currently developed with a nonconforming 2,474 square foot two-story dwelling with an attached one-story garage. Due to a deeded view easement that exists across the entire northwestern portion of the parcel, the existing dwelling is located close to the southeastern property line and is nonconforming to development standards, in that a portion of the second floor does not comply with development standards for the Pleasure Point Combining District. This is because a portion of the upper floor exceeds 15 feet in height within the required 10-foot second-story setback.

This application includes a proposal to demolish the existing dwelling and to construct a two-story 6,064 square foot replacement dwelling with an attached 332.5 square foot one-car garage, an attached carport, a 310 square foot covered loggia, covered decks and a 4,463 square foot basement that includes a 283 square foot habitable hallway/bathroom, a 1,930 square foot non-habitable storage room with a half-bathroom and a 2,250 square foot garage/workshop.

Because the property is located within the appeals jurisdiction of the Coastal Zone, the proposed project requires the approval of a Coastal Development Permit. In addition, because the dwelling will exceed 5,000 square feet in floor area, the project requires approval of a Residential Development Permit for a Large Dwelling. The project also requires a Variance to the standards for off-street parking spaces set out in County Code section 13.10.554(A)(3), to allow for a garage that has a vertical clearance of less than 7 feet 6 inches, a Site Development Permit for a basement containing a non-habitable storage room that exceeds 640 square feet in size and a Pleasure Point Exception, which is required to allow for a reduction in the required 10-foot setback at portions of the southeast wall at the second floor to 5 feet 3¼ inches and 8 feet 3¼ inches. Furthermore, because the proposed dwelling exceeds 5,000 square feet and is located on a coastal bluff the project is subject to Design Review.

Project Background

The existing dwelling was constructed on the parcel in 1960. In 1979 Planned Development Permit 79-760-PD was approved for a second-story addition which was constructed in 1980 pursuant to Building Permit #63066. In 2006 Building Permit #146318, was issued for the construction of further additions to the dwelling. This work was exempt from Coastal Development Permit requirements in that the proposed additions did not increase net floor area of the dwelling by more than 10% or by more than 250 square feet. The remodel of the dwelling was completed in 2007. A Residential Development Permit was also approved in 2007 to construct a 6-foot-high fence within the required front and street-side yard setback area.

In addition to permits for the dwelling, Grading Permit #1977 was issued in November 1983 to recognize the placement of approximately 200 tons of riprap. No subsequent permits have been issued by the County of Santa Cruz for any ongoing maintenance or repairs to the revetement since that time.

Zoning & General Plan Consistency

The subject property, which is a 16,195.9 square foot lot that has a net developable area, excluding all areas of the coastal bluff, of 15,301.8 square feet, is located in the RM-5-PP (Multi-Family Residential - Pleasure Point Combining District) zone district, a designation that allows residential uses. A single-family dwelling is a principal permitted use within the zone district and the zoning

is consistent with the site's R-UM (Urban Medium-Density Residential) General Plan Designation. Although a small non-developable portion of the parcel adjacent to the coastal bluff is located within the PR-PP (Parks and Recreation - Pleasure Point Combining District) zone district, all proposed development is located within the RM-5-PP zoned portions of the parcel. Further, a small portion of the project site along the southwest property line is located inside a mapped flood hazard zone, as determined by FEMA; however, all proposed development is located outside the mapped flood zone area.

Site and Development Standards

The proposed single-family dwelling has been designed to meet the RM-5 zone district development standards; however, the parcel is located in the Pleasure Point Community Design "PP" Combining District which provides increased setbacks for upper floor construction to protect neighboring properties. The applicant is requesting an exception to the Pleasure Point residential development standards to allow for a reduction in the required upper floor setbacks in the PP zone district, based upon the existence of a 53.16-foot-wide view easement that runs across the northwestern portion of the property that limits the available building area of the parcel to an approximately 41-foot-wide strip of land located adjacent to the southeastern property line. This reduction in the second-floor setbacks would require the approval of a Pleasure Point Exception in accordance with the provisions of SCCC 13.10.477.

The table below illustrates required and proposed site and development standards that are relevant to this project.

Development Standard	Code Requirement	Proposed
Front Yard Setback	Min. 20 feet	22 feet 6 inches
First Floor Side Yard Setback	Min. 5 feet and 8 feet	SE side - 5 feet 3¼ inches NW side - approximately 53 feet 3 inches (limit of view easement)
Second Floor Side Yard	Min. 10 feet (both sides)	SE side - 5 feet 3¼ inches (rear office, wall length 20 feet 7 inches); 8 feet 3¼ inches (front two bedrooms/bathrooms, wall length 40 feet); 13 feet 11¼ inches (remainder of second story, wall length 63 feet 3½ inches) NW side - 53 feet 3 inches (limit of view easement)
Rear Yard Setback	15 feet	25 feet (minimum 25-foot geologic setback from the coastal bluff)
Height of Walls Within 10-foot Second Floor Side Yard	Max. 15 feet	Two-story areas - 25 feet approx. (varies) (total wall length 45 feet 3 ¼ inches) Single-story areas – 13 feet approx. (varies) (total wall length 63 feet 3½ inches)
Height	28 feet max	27 feet 10¾ inches (tallest point)
Lot Coverage	40% max	27.6%
Floor Area Ratio (FAR)	50% max	41.7%

Pleasure Point Exception

According to County Code section 13.10.444(A), one of the main purposes of the Pleasure Point Community Design Combining District is to "Reduce the visual and shading impacts of new and expanded houses on neighboring parcels and houses." To ensure this, within the PP combining district, side-yard setbacks at the second floor of structures located on any lot exceeding 35 feet in width, are required to maintain a minimum setback of 10 feet. As shown by the preceding table, two sections of the southeastern side-yard setback at the second floor do not conform to the required 10-foot setback adjacent to the southeastern property line, in that a proposed office at the second floor, that is located at the coastal bluff setback line, would be located immediately above the lower floor, 5 feet 3¼ inches from the side property line. In addition, two bedrooms at the front of the property would be located 8 feet 3¼ inches from the side property line. The intervening portion of the second floor exceeds the required 10-foot second-floor setback in that the wall at this portion of the second floor would be set back 13 feet 11¼ inches.

The project as currently designed therefore requires the approval of a Pleasure Point Exception in accordance with County Code section 13.10.447, which sets out that Exceptions to the Pleasure Point residential development standards may be granted if the project is found to be consistent with the Pleasure Point Community Design "PP" Combining District purposes, found in County Code section 13.10.444, the findings found in County Code section 18.10.230(A), and at least one of the following additional findings:

(1) There are special existing site or improvement characteristics or circumstances, including but not limited to the absence of adjacent residential parcels that could potentially be shaded by the proposed development, that appropriately excuses the proposed development from meeting one or more of the development standards; or

(2) The Pleasure Point Community Design "PP" Combining District purposes, found in County Code section 13.10.444, are better achieved by an alternative design; or

(3) The granting of an exception will result in a superior residential design that is consistent with the Pleasure Point Community Design "PP" Combining District purposes, found in County Code section 13.10.444.

As currently proposed, the portion of the second floor located closest to the front property line is 33 feet wide and encroaches into the 10-foot setback at the southeastern property line by 1 foot 8¾ inches. In addition, at the southernmost portion of the second floor of the dwelling, a portion of the second floor is located directly above the lower floor and encroaches into the setback by 4 feet 8¾ inches.

Staff reviewed the proposed project to determine whether the any of the above findings could be made. The site is encumbered by a view easement that restricts the available building envelope. However, the remaining portion of the site, which lies along the southeastern edge of the parcel, is just over 41-feet in width, which is wider than many other lots in the Pleasure Point area where increased a second-floor setbacks would also apply. Therefore, taking into account the required 10-foot setback requirement, which only applies to one side of the proposed building site, the building width at the second floor is restricted to just over 31 feet, which is wider than the available second floor building area available on many parcels in the surrounding Pleasure Point area. It should also be noted that the available building area outside of the view easement is of sufficient size that it still allows for an over 6,000 square foot dwelling, not including the proposed basement area.

Staff has therefore determined that the approval of an Exception would be inconsistent with the purposes of the Pleasure Point Community Design "PP" Combining District. No special existing site or improvement characteristics or circumstances exist that appropriately excuses the proposed development from meeting the development standards for the Pleasure Point Community Design "PP" Combining District. Further, no alternative design solutions or other modifications to the project have been proposed to result in a superior design solution that would reduce the potential visual and shading impacts of the proposed home. In addition, the granting of an exception for the proposed dwelling would not result in a residential design that is superior to one that is consistent with the Pleasure Point Community Design "PP" Combining District purposes. A complete list of findings is included with this report.

Parking

As currently designed, the proposed dwelling includes a total of eight rooms that qualify as a bedroom pursuant to County Code section 13.10.700-B. Therefore, in accordance with SCCC13.10.552(A)(1) "Off-Street Parking Space Requirements - Resident Parking", a total of seven parking spaces are required for the proposed dwelling. As shown on the project plans, a total of eight covered parking spaces will be provided, six within a basement garage, one within an attached surface-level garage and one within an attached carport. In addition, two parking spaces are indicated within the driveway area, therefore sufficient parking will be provided for the proposed dwelling in accordance with County Code.

Basement

The proposed single-family dwelling has been designed with a 4,463 square foot basement which includes an approximately 2,250 square foot garage, a 283 square foot heated hallway and half bathroom, and an approximately 1,930 square foot non-habitable storage room with a second half bathroom. Because the ceiling height within the basement will be less than 7 feet 6 inches in height, the floor area of the basement is not counted toward Floor Area Ratio (FAR) for the property.

As set out in County Code section 16.20.040(C), excavations below finished grade for basements and footings of a building are specifically exempted from the provisions of the County Grading Ordinance, Chapter 16.20.

Basement storage area

The basement includes an approximately 1,930 square foot non-habitable storage room that contains a half bathroom. This storage room meets the definition of an attached non-habitable accessory structure. As set out in County Code section 13.10.611, Table 13.10.611-1, a half-bathroom is allowed in a non-habitable accessory structure; however, the size of a non-habitable accessory structure within the urban services line is restricted to a maximum of 640 square feet. Therefore, in accordance with Table 13.10.611-2, a Site Development Permit is required to allow for the 1,930 square foot area. Because the storage room will be located entirely below grade this structure will not visually impact available open space in the surrounding area and the increased size is therefore considered to be appropriate.

Variance For Parking Spaces with Reduced Vertical Clearance

The basement includes a garage that would accommodate up to six parking spaces that would be accessed by a sloped driveway located within the yard area to the west of the proposed dwelling.

Because the ceiling height within the garage will be less than 7 feet 6 inches, a Variance has been requested to allow for a reduction in the allowed vertical clearance for a parking space from 7 feet 6 inches, as required by County Code section13.10.554(A)(3), to approximately 7 feet 5.5 inches for the basement parking spaces.

This neighborhood contains many parcels developed with residences that maximize the available land area on each lot. To maximize the available building area and to minimize disturbance of the view easement that encumbers the northwestern portion of the parcel, the proposed dwelling has therefore been designed to include a basement garage. The request for a minor reduction of the vertical clearance within the proposed basement parking area from 7 feet 6 inches to 7 feet 5.5 inches is considered reasonable since the loss of half an inch in height will not reduce the functionality of the parking spaces. Further, the proposed basement parking area will comply with all current Building code standards for covered and enclosed parking areas. Findings for this Variance can be found in Exhibit B.

Design Review

The proposed single-family dwelling meets the definition of a Large Dwelling a set out in County Code 13.10.325, in that it would have a total floor area of 11,055.1 square feet, not including covered, unenclosed areas. This total floor area includes 6,591.7 square feet that will be above grade (habitable area and a one-car garage) and 4,463.4 square feet within a subterranean basement. The dwelling is also located on a coastal bluff, adjacent to a public beach. Therefore, the project is subject to design review.

The site of the dwelling is roughly level and, not including the basement area which extends below the footprint of the dwelling, the only significant alteration to the existing grade will be for the driveway that slopes down to access to the basement garage. This driveway will be recessed into the natural topography and will not significantly impact any scenic views across the site. Existing landscaping is limited to hedges and tree planting along the northwestern and southeastern property lines and a small tree immediately adjacent to the existing older dwelling. The remainder of the site consists of an open lawn area. The existing hedges and trees along the northwestern property line will not be affected by the development of the property, although there is the potential that excavations for the proposed basement could jeopardize the health of existing trees that are located on the adjacent parcel along the southeastern property line.

With the current proposal, no visually significant landscaping or tree planting is proposed that would soften or screen the proposed structure. This is because the portion of the site that will remain undeveloped is largely constrained by a view easement within which all structures and vegetation is limited to a maximum height of four feet. Therefore, the undeveloped portion of the site will largely remain as an open lawn. Although the project cannot include significant landscaping, the scale of the proposed dwelling is broken up by architectural features to help reduce the bulk and mass of the structure. These include a varied roofline incorporating curved, flat and shed-roof elements, articulated wall planes with both vertical and horizontal elements and a palate of colors and materials incorporating a variety of natural-toned materials that include weathered wood-effect exterior tiles, stucco and stone.

The proposed dwelling would have a minimal impact on public views along East Cliff Drive, in that it would be set back from the public street by approximately 150 feet, beyond an existing dwelling. In views from the adjacent shoreline, the proposed house would be plainly visible,

although, the portion of the structure that would be closest to the bluff would be relatively narrow in relation to the entire width of the parcel. However, as proposed, the dwelling does not comply with the site and development standards for the Pleasure Point Community Design "PP" Combining District, in that it does not meet the required 10-foot second-floor setback along the southeastern property line. As previously set out in this report, staff has determined that the requested Pleasure Point Exception to permit these encroachments cannot be supported; therefore, it cannot be determined that the proposed dwelling, as currently proposed, is properly proportioned in relation to the net developable area of the parcel.

Furthermore, as required by County Code section 13.10.325(D)(10) the view to adjacent properties from large dwellings is required to be controlled. As currently shown on the submitted plans, the proposed dwelling includes an office space at the southern corner of the dwelling, extending back beyond the rear elevation of the existing house to the southeast. This room includes large windows that could have a significant potential impact on the privacy of the adjacent home in that they overlook the rear of the dwelling and its backyard area. Therefore, the proposed dwelling, as currently designed, does not comply with this requirement. Further, as previously set out in this report, the proposed office does not meet the required setbacks for the zone district, intended to protect adjacent homes from shading and other impacts and therefore, as currently proposed, the dwelling does not comply with the requirements of the County Design Review Ordinance.

In addition, as is discussed in greater detail below, the project scope may not be completely defined at this time, in that additional information is required in order to determine the appropriate setback from the coastal bluff and this information will likely result in a requirement that the design of the proposed home be amended.

Coastal Bluff

According to County Code section 16.10.070(H)(1)(b), new development located on a coastal bluff is required to have a minimum 25-foot setback from the top edge of the coastal bluff or provide the distance necessary to provide a stable building site over a 100-year lifetime of the structure, whichever is greater. Additionally, County Code section 16.10.070(H)(1)(c) stipulates the minimum setback shall be based on the existing site conditions and shall not take into consideration the effect of any proposed protection measures, such as shoreline protection structures, retaining walls, or deep piers. The conclusions of the Geologic and Geotechnical reports associated with the project indicate that, since the existing coastal bluff/riprap revetement on the property has remained essentially unchanged since the armoring refurbishment in 1983, it is anticipated that the top of the coastal bluff would remain relatively unchanged for the next 100 years. Both the Geologic Report and the Geotechnical report for the project stated that the design life of the proposed new blufftop residence would be dependent upon the repair and maintenance of the existing riprap revetment. Accordingly, in the letter dated August 12, 2021, accepting the subject April 21, 2021, Geologic report and the April 9, 2021 Geotechnical report, it was set out that as a condition of the acceptance of these reports, a Monitoring and Maintenance Agreement for the project site shoreline protection structure was required to be recorded by the property owners prior to the completion of the Building Permit. Based on the findings of the Geologic and Geotechnical reports the project engineers recommend a minimum setback of 25 feet from the top of the bluff/rip rap revetment and the 25-foot setback was incorporated into the project design.

As currently designed, the project includes a concrete patio and landscape wall that are located within the proposed 25-foot geologic bluff setback; however, because the proposed patio and 1.5-

foot maximum height landscape wall do not specifically require a building permit, these are allowed pursuant County Code section 16.10.070(H)(2), provided they will not unfavorably alter drainage patterns (defined as a change that would significantly increase or concentrate runoff over the bluff edge or significantly increase infiltration into the bluff).

Following the applicant's request for a continuance of the scheduled public hearing for this project from April 1, 2022, to May 20. 2022, staff, in response to questions raised by neighbors during public comment on the project, conducted further research into the permit history for the existing riprap shoreline protection structure. As a result, it was determined that the County of Santa Cruz did not have jurisdiction to issue the required Monitoring and Maintenance Agreement. Therefore, to ensure that ongoing maintenance of the revetment could occur as had been assumed in the Geologic and Geotechnical reports associated with the project, a condition of approval was added to the Development Permit, requiring that, prior to the issuance of a Building Permit for the construction of the dwelling, the applicant must submit proof of a valid Maintenance and Monitoring Agreement for the existing coastal protection structure, issued by the California Coastal Commission.

Following the release of the revised staff report but prior to the re-scheduled May 20, 2022, public hearing, the Zoning Administrator, as part of their due diligence consideration of this project, contacted the California Coastal Commission to confirm that a Maintenance and Monitoring Agreement could be issued in accordance with the recommenced condition of approval. During the conversation and in subsequent emails dated May 18, 2020 (Exhibit I), it was confirmed by Coastal Commission staff that a Maintenance and Monitoring Agreement would not be issued for this property to protect the proposed structure. This new information would have been discussed at the scheduled public hearing on May 20, 2022; however, due to a request from the project applicant for a further continuance of the project, no public hearing was held.

Based on this new information, Development Review staff contacted the County Geologist and Geotechnical Engineer, to discuss whether the proposed 25-foot setback was still appropriate, given that ongoing maintenance of the revetment could not be guaranteed as had originally been assumed. As a result, for the reasons outlined in the attached letter, dated XX June, 2022 (Exhibit J), the prior acceptance of the project Geologic and Geotechnical Reports was rescinded. The rate of recession of the coastal bluff absent ongoing maintenance of the riprap revetment, was not adequately analyzed in the submitted reports, thereby rendering it impossible to guarantee that the proposed 25-foot setback would provide a stable building site over a 100-year lifetime of the structure.

Local Coastal Program Consistency

The proposed project is not in conformance with Objective 6.2 (Slope Stability) of the County of Santa Cruz certified Local Coastal Program (LCP). As outlined above, the proposed development is located adjacent to a coastal bluff and is therefore within an area subject to geologic hazards. As such the LCP requires that development be set back an adequate distance to provide stability for the lifetime of the structure, and at least 100 years, and that the minimum 100 years of stability must be established through the use of appropriate setbacks and siting. Because ongoing maintenance of the existing riprap revetment cannot be guaranteed, as assumed in the submitted Geotechnical (Soils) and Geologic Reports, acceptance of these reports has been rescinded. Therefore, further analysis is required before it can be determined that the project has been

designed in accordance with an appropriate setback that would provide a stable building site over a 100-year lifetime of the structure.

As previously discussed, the proposed home does not appear to be in scale with and integrated with the character of the surrounding neighborhood, in that portions of the second floor encroach into the required setbacks required in the Pleasure Point Community Design "PP" Combining District. In addition, additional information and analysis will be required before the project Geotechnical (Soils) and Geologic Reports can be accepted and therefore the current project scope cannot be adequately defined. Review of the updated technical reports may result in modifications to the proposed development (i.e. an increased setback from the bluff); therefore, it cannot be determined that the project complies with the Local Coastal Program until revised technical reports have been accepted by the County Geologist and Geotechnical Engineer and an updated design has been submitted.

The project site is located between the shoreline and the first public road but is not identified as a priority acquisition site in the County's Local Coastal Program. Further, there is no public access to the beach or ocean across the parcel. Consequently, the project as currently proposed, would not interfere with public access to the beach, ocean, or other nearby body of water. Public beach access is available opposite the Moran Lake parking lot, located approximately 500 feet southeast of the subject property. Public beach access is also available at the end of 26th Avenue, located approximately 600 feet northeast of the project site and from other nearby streets that dead-end at the coastal bluff.

Public Outreach/Public Comment

Several letters and emails have been received from neighboring property owners, expressing opposition to the proposed project.

One of the main areas of concern is with regard to the project Geologic and Geotechnical Reports, particularly with regard to coastal erosion processes given the presence of sea caves on adjoining properties. The legality of the existing coastal armoring at the site, upon which the 25-foot coastal setback is based, has also been questioned. There are also concerns regarding the proposed basement, particularly regarding how the excavations for this portion of the proposed structure would affect the stability of the site and neighboring properties. In addition, the proposed Variance allowing for reduced clearance in the basement garage has been questioned because the lowered ceiling height exempts the basement area from calculations of Floor Area Ratio.

Further significant concerns have been raised regarding the size and design of the proposed dwelling, loss of privacy at adjacent homes and the impact of the structure on views from the adjacent beach because the home extends closer to the ocean than existing homes along this section of East Cliff Drive. Many also feel that granting a Pleasure Point Exception would be inappropriate. Additional comments were also made regarding the need for sufficient parking at the proposed dwelling because of the large number of bedrooms proposed.

All neighborhood correspondence received prior to the date of publishing of this report has been included as Exhibit H. of this report. Additional correspondence, if received after the date of publishing but prior to the public hearing of the project, will also be included into the public record of this project.

Conclusion

As proposed, the project is inconsistent with several applicable codes and policies of the Zoning Ordinance and General Plan/Local Coastal Program. Specifically, Coastal Development Permit Findings cannot be made, therefore it is not necessary to further evaluate the appropriateness of the other approvals being requested. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- **DETERMINE** that the proposed action is exempt from further Environmental Review under the California Environmental Quality Act. CEQA Section 15270 states that "CEQA does not apply to projects which a public agency rejects or disapproves.
- **DENY** Application Number **211155,** based on the attached findings.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.sccoplanning.com

Report Prepared By: Lezanne Jeffs
Santa Cruz County Planning Department
701 Ocean Street, 4th Floor
Santa Cruz CA 95060
Phone Number: (831) 454-2480
E-mail: Lezanne.Jeffs@santacruzcounty.us

Exhibits

A. Statutory Exemption (CEQA determination)
B. Findings
C. Parcel information
D. Project plans
E. Assessor's, Location, Zoning and General Plan Maps
F. *Geotechnical (Soils) Report* prepared by Pacific Crest Engineering, Inc. dated April 9, 2021
G. *Geologic Report* prepared by Zinn Geology, dated April 21, 2021 and Addendum letter dated October 21, 2021.
H. Letter dated August 12, 2021, accepting the subject April 21, 2021, Geologic report and the April 9, 2021, Geotechnical report.
I. Email from the Coastal Commission dated May 18, 2022, regarding issuance of Maintenance and Monitoring Agreements.
J. Letter dated May 31, 2022, rescinding the August 12, 2021, acceptance of the Geologic and Geotechnical Reports.
K. Other Comments & Correspondence

CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 211155
Assessor Parcel Number: 028-242-25
Project Location: 22702 E. Cliff Drive, Santa Cruz, CA

Project Description: Proposal to demolish an existing 2,474 square foot single-family dwelling and to construct a two-story 6,064 square foot replacement dwelling with a 4,463 square foot basement (garage/storage).

Person or Agency Proposing Project: Matson Britton Architects - Cove Britton

Contact Phone Number: (831)425-0544 Email: cove@matsonbritton.com

A. _____ The proposed activity is not a project under CEQA Guidelines Section 15378.

B. _____ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).

C. _____ **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.

D. __X__ **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

E. _____ **Categorical Exemption**

F. Reasons why the project is exempt:

Section 15270 - PROJECTS WHICH ARE DISAPPROVED

(a) CEQA does not apply to projects which a public agency rejects or disapproves.

(b) This section is intended to allow an initial screening of projects on the merits for quick disapprovals prior to the initiation of the CEQA process where the agency can determine that the project cannot be approved.

(c) This section shall not relieve an applicant from paying the costs for an EIR or Negative Declaration prepared for his project prior to the Lead Agency's disapproval of the project after normal evaluation and processing.

In addition, none of the conditions described in Section 15300.2 apply to this project.

_____ Date: _____

Lezanne Jeffs, Project Planner

EXHIBIT A

Development Permit Findings

1. **That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.**

This finding cannot be made, in that the project is located in an area subject to geologic hazards. Santa Cruz County Code Section 16.10.070(H)(5)(a) (Coastal Bluff and Beaches) states that for all development, demonstration that the potential hazards on the site can be mitigated, over the 100-year lifetime of the structure, as determined by the geologic hazards assessment or full geologic report and any other appropriate technical reports. Mitigations can include, but are not limited to building setbacks, elevation of the proposed structure and foundation design. Acceptance of the project Geologic and Geotechnical (soils) reports has been rescinded for the proposed development, therefore the hazards affecting the site have not been adequately addressed and mitigated as required by County Code.

The proposed single-family dwelling is located at the top of a coastal bluff that is currently protected by a riprap revetment and constitutes "Development/Development Activities" as defined in Santa Cruz County Code Section 16.10.040(19). SCCC Section 16.10.070(E)(1) (Slope Stability) states that all development activities shall be located away from potentially unstable areas as identified through a geologic hazards assessment, full geologic report, soils report or other environmental or technical assessment. The Geologic and Geotechnical (soils) Reports for the proposed project have not been accepted; therefore, the potentially unstable area has not been properly identified. In addition, hazards associated with development adjacent to a coastal bluff where maintenance of the existing riprap revetment is not allowed, have not been adequately addressed.

2. **That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.**

The property is zoned RM-5-PP/PR-PP (Multi-Family Residential, 5,000 sq.ft per unit/Parks Recreaton and Open Space - Pleasure Point Community Design Combining District) zone district. The proposed dwelling is located entirely within that portion of the property that is zoned RM-5-PP, a designation that allows residential uses.

This finding cannot be made, in that the proposed single-family dwelling does not meet all current site and development standards for the zone district because portions of the second floor of the structure are proposed within the 10-foot setback required within the "PP" Combining District.

In addition, the proposed single-family dwelling, which would have a total floor area of 11,055.1 square feet, meets the definition of a Large Dwelling as set out in County Code 13.10.325. As required by section 13.10.325(D)(10), the view to adjacent properties from large dwellings is required to be controlled. As currently proposed the dwelling includes an office space at the southern corner of the dwelling that extends back beyond the rear of the existing house to the southeast. This room includes large windows that could have a significant potential impact on the privacy of the adjacent home in that they overlook the rear of the dwelling and its backyard area. Therefore, the proposed dwelling does not comply with this requirement.

EXHIBIT B

Furthermore, the Geologic and Geotechnical (soils) Reports for the project have not been accepted, as they do not conform to County report guidelines. Consequently, the proposed location and design of the single-family dwelling cannot be comprehensively evaluated to ensure compliance with County Code and the General Plan/Local Coastal Program (LCP) with respect to the potential effects of coastal erosion processes and the potential recession of coastal bluff where maintenance of the existing riprap revetment is not allowed.

3. **That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.**

The subject property is designated R-UM (Urban Medium Density Residential) in the Santa Cruz County General Plan, a designation that requires that new residential development is within the density range of 7.3 to 10.8 units per acre (4,000 square feet to 6,000 square feet per unit). For the subject parcel, which is approximately 16,110 square feet (0.37 acre), this would mean that a minimum of two dwelling units would be required to be constructed to comply with the lowest end of the allowed density range. However, for the project site, due to the lack of adequate access to support the construction of additional units and because over half of the project site is encumbered by a view easement, within which no structures of over 4 feet in height may be constructed, the construction of more than one single-family dwelling is not feasible. Therefore, the proposed residential use has been determined to be consistent with the use and density requirements specified for the R-UM land use designation.

However, the proposed use will be inconsistent with General Plan Policy 6.2.15 (New Development on Existing lots of record) which allows development activities in areas subject to storm wave inundation or beach or bluff erosion on existing lots of record, within existing developed neighborhoods, only under the following circumstance:

(a) A Technical report (including a geologic hazards assessment, engineering geology report and /or soils engineering report) demonstrates that the potential hazards can be mitigated over the 100-year lifetime of the structure. Mitigations can include but are not limited to, building setbacks, elevation of the structure, and foundation design;
(b) Mitigation of the potential hazard is not dependent on shoreline or coastal bluff protection structures except on lots where both adjacent parcels are already similarly protected; and
(c) The Owner records a Declaration of Geologic Hazards on the property that describes the potential hazard and the level of geologic and /or geotechnical investigation conducted.

The project is located immediately adjacent to a coastal bluff, an area identified by the County Geologist and Senior Civil Engineer as being subject to Geologic Hazards. Technical reports in the form of an Engineering Geology and Geotechnical report have been required; however acceptance of these reports by the County has been rescinded because the submitted reports conclude that the design life of the proposed new blufftop residence would be dependent upon the repair and maintenance of the existing riprap revetment and ongoing maintenance will not be authorized. In absence of accepted technical reports, this finding cannot be made in that the proposed design does not adequately mitigate potential geologic hazards.

In addition, the proposed dwelling will not meet all current site and development standards for the zone district as specified in Policy 8.1.3 (Residential Site and Development Standards Ordinance), in that portions of the structure are located within the required 10-foot second-floor setback for the

Pleasure Point Community Design "PP" Zone District. Therefore, the proposed single-family dwelling has the potential to adversely shade adjacent properties.

Similarly, the proposed single-family dwelling will not be properly proportioned to the parcel size and the character of the neighborhood as specified in General Plan Policy 8.6.1 (Maintaining a Relationship Between Structure and Parcel Sizes), in that subject portions of the second floor of the structure are proposed within the 10-foot setback required within the "PP" Combining District.

A specific plan has not been adopted for this portion of the County.

4. **That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.**

This finding can be made, in that the proposed single-family dwelling is to be constructed on an existing developed lot. The expected level of traffic generated by the proposed project is anticipated to be only one peak trip per day (one morning and one evening peak trip per dwelling unit), such an increase will not adversely impact existing roads or intersections in the surrounding area. The basement storage room will not overload utilities or generate any additional traffic.

5. **That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.**

The proposed single-family dwelling does not meet all current site and development standards for the zone district because portions of the second floor of the structure are proposed within the 10-foot setback required within the "PP" Combining District. In addition, the structure would have a total floor area of 11,055.1 square feet and therefore meets the definition of a Large Dwelling as set out in County Code 13.10.325. As required by section 13.10.325(D)(10), the view to adjacent properties is required to be controlled and as currently proposed the dwelling includes an office space at the southern corner of the dwelling that extends back beyond the rear of the existing house to the southeast. This room includes large windows that could have a significant potential impact on the privacy of the adjacent home in that they overlook the rear of the dwelling and its backyard area. Therefore, the proposed dwelling does not comply with this requirement.

Furthermore, the Geologic and Geotechnical (soils) Reports for the project have not been accepted, as they do not conform to County report guidelines. Consequently, the proposed location and design of the single-family dwelling cannot be comprehensively evaluated to ensure compliance with County Code and the General Plan/Local Coastal Program (LCP).

Therefore, this finding cannot be made

6. **The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.**

The proposed single-family dwelling meets the definition of a Large Dwelling as set out in County Code 13.10.325, in that it would have a total floor area of 11,055.1 square feet, not including covered, unenclosed areas. This total floor area includes 6,591.7 square feet that will be above grade (habitable area and a one-car garage) and 4,463.4 square feet within a subterranean basement. Further, the project site is located on a coastal bluff and adjacent to a public beach; therefore, the project is subject to design review.

EXHIBIT B

As required by section 13.10.325(D)(10), the view to adjacent properties from large dwellings is required to be controlled. As currently proposed the dwelling includes an office space at the southern corner of the dwelling that extends back beyond the rear of the existing house to the southeast. This room includes large windows that could have a significant potential impact on the privacy of the adjacent home in that they overlook the rear of the dwelling and its backyard area. Therefore, the proposed dwelling does not comply with this requirement.

The proposed dwelling is set back from the public street by approximately 150 feet, beyond an existing dwelling where it will have a minimal impact on public views along East Cliff Drive. However, the proposed dwelling is not properly proportioned to the parcel size and the character of the neighborhood as viewed from the surrounding properties, in that portions of the second floor of the structure are proposed within the 10-foot setback required for the "PP" Combining District. Moreover, a significant portion of the structure that is immediately adjacent to the coastal bluff, is within the Pleasure Point setback area, which significantly increases the visual impact of the proposed home in views from the public beach. Consequently, the proposed single-family dwelling would visually impact available open space in the surrounding area and would not be of an appropriate scale and type of design that will blend with the aesthetic qualities of the surrounding properties.

Therefore, this finding can cannot be made.

Coastal Development Permit Findings

1. **That the project is a use allowed in one of the basic zone districts that are listed in LCP Section 13.10.170(D) as consistent with the LCP Land Use Plan designation of the site.**

The property is zoned RM-5-PP/PR-PP (Multi-Family Residential, 5,000 sq.ft per unit/Parks Recreaton and Open Space - Pleasure Point Community Design Combining District) zone district. The proposed dwelling is located entirely within that portion of the property that is zoned RM-5-PP, a designation that allows residential uses. The proposed single-family dwelling is a therefore a principal permitted use within the zone district and the zoning is consistent with the site's R-UM (Urban Medium-Density Residential) General Plan designation.

2. **That the project does not conflict with any existing easement or development restrictions such as public access, utility, or open space easements.**

The proposed dwelling has been sited outside an existing deeded view easement that extends over a 53.16-foot-wide strip across the northwestern half of the parcel. Further, no other structure or any landscaping that would exceed 4 feet in height has been proposed within the easement area, consistent with the conditions contained within the recorded deed. No other easements or restrictions are known to encumber the project site.

3. **That the project is consistent with the design criteria and special use standards and conditions of this chapter pursuant to SCCC 13.20.130 and 13.20.140 et seq.**

This finding cannot be made, in that the proposed dwelling does not meet all site and development standards for the zone district, in that portions of the second floor of the structure are located within the 10-foot setback required within the "PP" Combining District. The structure is therefore inconsistent with the design criteria in that it is not properly proportioned in relation to the net developable area of the parcel and has not been designed to be in scale with and integrated with the character of the surrounding neighborhood.

4. **That the project conforms with the public access, recreation, and visitor-serving policies, standards and maps of the LCP Land Use Plan, including Chapter 2: Section 2.5 and Chapter 7.**

The project site is located between the shoreline and the first public road but is not identified as a priority acquisition site in the County's Local Coastal Program. Further, there is no public access to the beach or ocean across the parcel. Consequently, the proposed project will not interfere with public access to the beach, ocean, or other nearby body of water. Public beach access is available opposite the Moran Lake parking lot, located approximately 500 feet southeast of the subject property. Public beach access is also available at the end of 26th Avenue, located approximately 600 feet northeast of the project site and from other nearby streets that dead-end at the coastal bluff.

5. **That the project conforms to all other applicable standards of the certified LCP.**

This finding cannot be made, in that the proposed development is located adjacent to a coastal bluff and is therefore within an area subject to geologic hazards. As such the LCP requires that development be set back an adequate distance to provide stability for the lifetime of the structure,

EXHIBIT B

and at least 100 years. The minimum 100 years of stability must be established through the use of appropriate setbacks and siting. Because ongoing maintenance of the existing riprap revetment cannot be guaranteed, as assumed in the submitted Geotechnical (Soils) and Geologic Reports, acceptance of these reports has been rescinded. Therefore, further analysis is required before it can be determined that the project has been designed in accordance with an appropriate setback that would provide a stable building site over a 100-year lifetime of the structure.

As previously discussed, the proposed home does not appear to be in scale with and integrated with the character of the surrounding neighborhood, in that portions of the second floor encroach into the required setbacks required in the Pleasure Point Community Design "PP" Combining District. In addition, additional information and analysis will be required before the project Geotechnical (Soils) and Geologic Reports can be accepted and therefore the current project scope cannot be adequately defined. Review of the updated technical reports may result in modifications to the proposed development (i.e. an increased setback from the bluff); therefore, it cannot be determined that the project complies with the Local Coastal Program until revised technical reports have been accepted by the County Geologist and Geotechnical Engineer and an updated design has been submitted.

6. **If the project is located between the nearest through public road and the sea or the shoreline of any body of water located within the Coastal Zone, that the project conforms to the public access and public recreation policies of Chapter 3 of the Coastal Act.**

The project site is located between the shoreline and the first public road but is not identified as a priority acquisition site in the County's Local Coastal Program. Further, there is no public access to the beach or ocean across the parcel. Consequently, the proposed project will not interfere with public access to the beach, ocean, or other nearby body of water. Public beach access is available opposite the Moran Lake parking lot, located approximately 500 feet southeast of the subject property. Public beach access is also available at the end of 26th Avenue, located approximately 600 feet northeast of the project site and from other nearby streets that dead-end at the coastal bluff.

Pleasure Point Exception Findings

Exceptions to the Pleasure Point residential development standards may be granted only if the project is found to be consistent with the Pleasure Point Community Design "PP" Combining District purposes, found in County Code section 13.10.444, the findings found in County Code section 18.10.230(A), and at least one of the following additional findings:

1. **There are special existing site or improvement characteristics or circumstances, including but not limited to the absence of adjacent residential parcels that could potentially be shaded by the proposed development, that appropriately excuses the proposed development from meeting one or more of the development standards; or**

The site is encumbered by a view easement that restricts the available building envelope. However, the remaining portion of the site, which lies along the southeastern edge of the parcel, is just over 41-feet in width, which is wider than many other lots in the Pleasure Point area where increased second-floor setbacks would also apply. Taking into account the required 10-foot setback, which only applies to one side of the proposed building site along the southeastern, property line, the building width at the second floor is restricted to just over 31 feet, which is wider than the second-floor building area available on many parcels in the surrounding Pleasure Point area. Therefore, no special existing site or improvement characteristics or circumstances exist that appropriately excuses the proposed development from meeting the development standards for the Pleasure Point Community Design "PP" Combining District and this finding cannot be made.

2. **The Pleasure Point Community Design "PP" Combining District purposes, found in County Code section 13.10.444, are better achieved by an alternative design; or**

There are modifications that can be made to the design that will eliminate the encroachment into the second story side yard setback, and which would eliminate the need for an exception. This particular design, with the encroachment, does not produce better achievement of the Pleasure Point design purposes than any alternative Therefore, this finding cannot be made.

3. **The granting of an exception will result in a superior residential design that is consistent with the Pleasure Point Community Design "PP" Combining District purposes, found in County Code section 13.10.444.**

This finding cannot be made, in that the granting of an exception for the proposed dwelling would not result in a superior residential design that is consistent with the Pleasure Point Community Design "PP" Combining District purposes.

EXHIBIT B

Variance Findings

1. **That because of special circumstances applicable to the property, including size, shape, topography, location, and surrounding existing structures, the strict application of the Zoning Ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification.**

To maximize the available building area and to comply with an existing view easement, the proposed dwelling has been designed to include a basement garage. The view easement is a circumstance particular to this lot. The neighborhood contains many parcels developed with residences that maximize the available land area on each lot. The request for a minor reduction of the vertical clearance within the proposed basement parking area from 7 feet 6 inches to 7 feet 5.5 inches is considered reasonable in that half an inch in height will not reduce the functionality of the parking spaces. Further, the proposed basement parking area will comply with all current Building Code standards for covered and enclosed parking areas.

2. **That the granting of the variance will be in harmony with the general intent and purpose of zoning objectives and will not be materially detrimental to public health, safety, or welfare or injurious to property or improvements in the vicinity.**

This finding cannot be made in that technical reports have not been accepted for the proposed development. As proposed, the project has not demonstrated that the design adequately mitigates potential geologic hazards affecting the project site. The design of the proposed development and the variances being requested are predicated on technical information that has not been accepted by County Staff. In the absence of accepted geologic and geotechnical reports that identify adequate mitigations for the geologic hazards present at the site, it cannot be determined that the project, as designed, will not result in adverse impacts to public health, safety, or welfare or injurious to property of improvements in the vicinity.

3. **That the granting of such variances shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such is situated.**

Other properties in the surrounding neighborhood are developed with single-family and multi-family dwellings that have a similar bulk and mass to the structure that is being proposed. Further, other dwellings in the vicinity of the project site have been constructed to include a basement garage, including garages that do not meet the required vertical clearance. The request for a reduction in the minimum parking space height does not affect the overall height of the proposed structure, nor does it affect the size of the above ground portion of the structure. The developable area of the lot is constrained by a view easement that prohibits the placement of structures with a height greater than four feet. Granting the request allows the applicant to construct a home that is comparable in size to other structures in the neighborhood and to provide sufficient parking in a manner that does not impact the view easement. For these reasons, it would not be a grant of a special privilege for the construction of a basement garage on the subject property. The proposed residential use is consistent with the existing pattern of development in the neighborhood.

EXHIBIT B

Parcel Information

Services Information

Urban/Rural Services Line:	X Inside __ Outside
Water Supply:	Santa Cruz Water Department
Sewage Disposal:	Santa Cruz Sanitation District
Fire District:	Central Fire Protection District
Drainage District:	Flood Control Zone 5

Parcel Information

Parcel Size:	16,195.9 square feet
Existing Land Use - Parcel:	Single-Family Dwelling
Existing Land Use - Surrounding:	Multi-Family Residential (includes several single-family dwellings). The Monterey Bay lies to the southwest of the parcel.
Project Access:	East Cliff Drive
Planning Area:	Live Oak
Land Use Designation:	R-UM (Urban Medium-Density Residential)
Zone District:	RM-5-PP/PR-PP (Multi-Family Residential, 5,000 sq.ft/unit/Parks Recreation and Open Space - Pleasure Point Community Design Combining District)
Coastal Zone:	X Inside __ Outside
Appealable to Calif. Coastal Comm.	X Yes __ No

Technical Reviews: Combined Geologic and Soils Report Review, REV211347

Environmental Information

Geologic Hazards:	Property is located on a coastal bluff
Fire Hazard:	Not a mapped constraint
Slopes:	Roughly level/gently sloped toward the coastal bluff
Env. Sen. Habitat:	Not mapped/no physical evidence on site
Grading:	Earthwork for the proposed basement and footings is exempted.
Tree Removal:	No significant trees proposed to be removed
Scenic:	Not a mapped resource, property located on a coastal bluff and visible from the adjacent beach.
Archeology:	Not mapped/no physical evidence on site

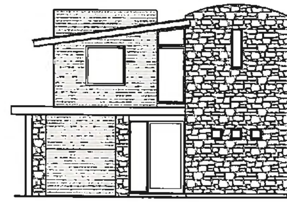
EXHIBIT C

MACDONELL

NEW RESIDENCE

22702 E. CLIFF DRIVE

SANTA CRUZ, CA 95062

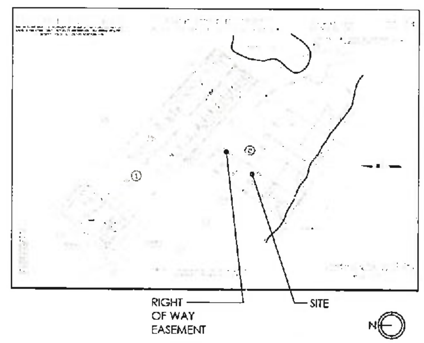


ABBREVIATIONS

&	AND	H.B.	HOSE BIB
L, A	ANGLE	HDR.	HEADER
@	AT	HDWR.	HARDWARE
°	DEGREE	HORIZ.	HORIZONTAL
A.B.	ANCHOR BOLT	HT., H.	HEIGHT
(A)	ABOVE	I.D.	INSIDE DIAMETER
A.C.I.	AMERICAN CONCRETE INSTITUE	IN.	INCH(ES)
ADJ.	ADJACENT	INSUL.	INSULATION
A.F.F.	ABOVE FINISH FLOOR	INT.	INTERIOR
A.I.S.C.	AMERICAN INSTITUE OF STEEL CONSTRUCTION	JT.	JOINT
ALT.	ALTERNATE	K.P.	KING POST
ALUM.	ALUMINUM	L.	LENGTH
APPROX.	APPROXIMATELY	LIN.	LINEAR
ARCH.	ARCHITECTURAL	MAX.	MAXIMUM
A.S.T.M.	AMERICAN SOCIETY OF TESTING MATERIALS	M.B.	MACHINE BOLT
(B)	BELOW	MEMB.	MEMBRANE
BD.	BOARD	MFR.	MANUFACTURER
BLDG.	BUILDING	MIN.	MINIMUM
BLKG.	BLOCKING	MISC.	MISCELLANEOUS
BM.	BEAM	MTL.	METAL
B.N.	BOUNDARY NAILING	MW.	MICROWAVE
B.O.	BOTTOM OF	N.	NORTH
BOT., BOTT.	BOTTOM	(N)	NEW
BTWN.	BETWEEN	N.T.S.	NOT TO SCALE
CAB.	CABINET	O/	OVER
C.B.	CEILING BEAM	O.C.	ON CENTER
C.J.	CEILING JOIST	O.D.	OUTSIDE DIAMETER
CLG.	CEILING	O.H.	OPPOSITE HAND
CLR.	CLEAR	OV.	OVEN
COL.	COLUMN	N.I.C.	NOT IN CONTRACT
CONC.	CONCRETE	PL.	PLATE
CONT.	CONTINUOS	PLYWD.	PLYWOOD
CTR.	CENTER	PKG.	PARKING
CL	CENTERLINE	P.S.F.	POUNDS PER SQUARE FOOT
Db	BAR DIAMETER	P.S.I.	POUNDS PER SQUARE INCH
DBL.	DOUBLE	QTY.	QUANTITY
DEG.	DEGREE	RAD.	RADIUS
DEMO.	DEMOLISH	R.B.	ROOF BEAM
DET., DTL.	DETAIL	RCP.	REFLECTED CEILING PLAN
D.W.	DISHWASHER	RE:	REFERENCE
DWG.	DRAWING	REF.	REFRIGERATOR
DWN., DN.	DOWN	REINF.	REINFORCED
(E)	EXISTING	REQ'D.	REQUIRED
EA.	EACH	RM.	ROOM
E.N.	EDGE NAILING	R.O.	ROUGH OPENING
EL., ELEV.	ELEVATION	R.R.	ROOF RAFTER
ELEV.	ELEVATOR	SCHED.	SCHEDULE
ENG.	ENGINEER	SF., SQ. FT.	SQUARE FOOT
EQ.	EQUAL	SHTG.	SHEATHING
EXT.	EXTERIOR	SHT.	SHEET
E.W.	EACH WAY	SIM.	SIMILAR
F.B.	FLOOR BEAM	SL.	SLOPED
F.F.	FINISHED FLOOR	SPKL.	SPRINKLER
FIN.	FINISH(ED)	SQ.	SQUARE
F.J.	FLOOR JOIST	STAGG.	STAGGER
FL.	FLUSH	STD.	STANDARD
FLR.	FLOOR	STL.	STEEL
F.N.	FIELD NAILING	STR., STRUCT.	STRUCTURAL
FND.	FOUNDATION	T&B	TOP & BOTTOM
F.O.	FACE OF	T&G	TONGUE & GROOVE
FP.	FIREPLACE	THK.	THICK
F.R.	FIRE RATED	T.O.	TOP OF
FT.	FOOT OR FEET	T.P.	TOILET PAPER
FTG.	FOOTING	TYP.	TYPICAL
FZR.	FREEZER	U.B.C.	UNIFORM BUILDING CODE
GA.	GAUGE	VERT.	VERTICAL
GALV.	GALVANIZED	W.	WIDTH
G.B.	GRADE BEAM	WD.	WOOD
GLB.	GLU-LAM BEAM	WH.	WATER HEATER
GYP. BD., G.W.B.	GYPSUM WALL BOARD		

VICINITY MAP

PARCEL MAP



FIRE PROTECTION NOTES

1. THESE PLANS SHALL COMPLY WITH 2019 CALIFORNIA BUILDING CODE AND 2019 CALIFORNIA FIRE CODE AND DISTRICT AMENDMENTS.

2. OCCUPANCY R-3 & U, TYPE V-B, FULLY SPRINKLED. APPROVED AUTOMATIC SYSTEM COMPLYING WITH THE EDITION OF NFPA 13D CURRENTLY ADOPTED IN CHAPTER 35 OF THE CALIFORNIA BUILDING CODE.

3. ADDRESS NUMBERS SHALL BE POSTED AND MAINTAINED AS SHOWN ON THE SITE PLAN. NUMBERS SHALL BE A MINIMUM OF 4 INCHES IN HEIGHT AND OF A COLOR CONTRASTING TO THEIR BACKGROUND.

4. ROOF COVERING SHALL BE NO LESS THAN CLASS "B" RATED.

5. ALL CHIMNEYS SHALL BE APPROVED WITH AN APPROVED SPARK ARRESTOR ON THE TOP OF THE CHIMNEY. WIRE MESH NOT TO EXCEED ½" IS ACCEPTABLE.

6. THE JOB COPIES OF THE BUILDING PLANS AND PERMITS MUST REMAIN ON-SITE DURING INSPECTIONS.

7. PUBLIC FIRE HYDRANT REQUIRED WITHIN 400 FT. OF ANY PORTION OF THE BUILDING WITH A MINIMUM 1500 GALLON FIRE FLOW. AVAILABLE FIRE HYDRANT APPROXIMATELY 400' FROM BUILDING.

CODE COMPLIANCE

THIS RESIDENTIAL CONSTRUCTION COMPLIES WITH TITLE 24 AND THE FOLLOWING CODES:

- 2019 CALIFORNIA RESIDENTIAL CODE (CRC)
- 2019 CALIFORNIA BUILDING CODE (CBC)
- 2019 CALIFORNIA MECHANICAL CODE (CMC)
- 2019 CALIFORNIA PLUMBING CODE (CPC)
- 2019 CALIFORNIA ELECTRICAL CODE (CEC)
- 2019 CALIFORNIA ENERGY CODE (CEnC)
- COUNTY OF SANTA CRUZ ORDINANCES

CONSULTANTS

ARCHITECT:	MATSON BRITTON ARCHITECTS 728 N. BRANCIFORTE SANTA CRUZ, CA 95062 PHONE: 831-425-0544
CIVIL ENGINEER:	R.I. ENGINEERING, INC. 303 POTRERO STREET, STE. 42-202 SANTA CRUZ, CA 95060 PHONE: 831-425-3901
SURVEYOR:	MICHAEL BEAUTZ 565 RISSO CT SANTA CRUZ, CA, 95062 (831) 476-3748
GEOLOGIST:	ZINN GEOLOGY 112 SAGE HEN AVENUE LEWISTOWN, MT 59457 PHONE: 831-334-4833
GEOTECHNICAL:	PACIFIC CREST ENGINEERING, INC. 444 AIRPORT BLVD., SUITE 106 WATSONVILLE, CA 95076 PHONE: 831-722-9446

PROJECT CALCULATIONS CONT'D

TOTAL AREAS:	
BASEMENT LEVEL (INCL. ELEV, GARGES, STORAGE)	4,213.3 S.F.
FIRST FLOOR	3,206.5 S.F.
SECOND FLOOR	3,052.7 S.F.
TOTAL AREA:	10,472.5 S.F.

PROJECT INFORMATION

OWNER:	ALEX AND JUDI MACDONELL 22702 E. CLIFF DRIVE SANTA CRUZ, CA 95062
A. P. N.:	028-242-25
ZONING:	PR-PP; RM-5-PP
OCCUPANCY GROUP:	R-3 & U (PER 2019 CBC)
CONSTRUCTION TYPE:	V-B (SPRINKLERED)

PROJECT DESCRIPTION:
NEW CONSTRUCTION OF 2 STORY 6 BEDROOM, 8.5 BATHROOM RESIDENCE WITH (1) 1-CAR GARAGE AND BASEMENT LEVEL

SHEET INDEX

ARCHITECTURAL DRAWINGS

- P1 TITLE SHEET
- P1.1 PROJECT AREAS △
- P2 SITE PLAN
- P3 PROPOSED BASEMENT FLOOR PLAN
- P4 PROPOSED SECOND FLOOR PLAN
- P5 PROPOSED SECOND FLOOR PLAN
- P6 EXTERIOR ELEVATIONS
- P7 EXTERIOR ELEVATIONS

CIVIL DRAWINGS

- C1 GRADING & DRAINAGE PLAN
- C2 DETAILS
- C3 STORMWATER POLLUTION CONTROL PLAN

SURVEY PLAN

- SU-1 SURVEY
- SU-2 SURVEY
- SU-3 SURVEY

PROJECT CALCULATIONS

GROSS LOT SIZE:	16,195.9 SQ. FT.
NET LOT SIZE:	15,301.8 S.F. (SEE P1.1) △
MAX LOT COVERAGE (45% OF NET LOT SIZE):	6,885.18 S.F.
CONDITIONED AREAS:	
FIRST FLOOR	3,206.5 S.F.
SECOND FLOOR	3,052.7 S.F.
BASEMENT (HT. LESS THAN 7'-6")	283.0 S.F.
TOTAL CONDITIONED AREA	6,542.2 S.F.
PROPOSED UNCONDITIONED AREAS:	
BASEMENT (HT. LESS THAN 7'-6")	4,180.4 S.F.
EXTERIOR AREAS:	
LOGGIA	310.7 S.F.
1ST FLOOR PATIO	2566.1 S.F.
FIRST FLOOR OVERHANG	247.4 S.F.
2ND FLOOR DECK	95.2 S.F.
PROPOSED LOT COVERAGE:	
4221.1/15,300.8 SQ. FT	27.6%
PROPOSED F.A.R.	
BASEMENT INHABITABLE AREA	283.0 S.F.
1ST FLR COND. + COVERED AREAS* + GARAGE**	
3,206.5+18.4 +107.5=	3,332.4 S.F.
2ND FLR COND. + COVERED AREAS***	
3,052.7 + 0	3,052.7 S.F.
TOTAL F.A.R.:	
(3,332.4 + 3,052.7)/15,301.8	41.7%

PARKING:
1 COVERED/9 UNCOVERED : 10 TOTAL △

F.A.R. CALCULATIONS:
*COVERED LOGGIA:176.7 - 140 SF = 36.7/2 = 18.4 SF
*COVERED AREA AT DRIVEWAY PAST 3'-0":
149.5 - 140 CREDIT X 2 (TWO SIDES) = 0 S.F.
**GARAGE: 332.5-225 CREDIT = 107.5 S.F.
***COVERED DECK PAST 3'-0": 25.4/2 =12.7-140 = 0 S.F.

This space reserved SCCO ePlan stamp

MATSON

REVISIONS
△ 06-10-2021
△ 10-25-2021

MACDONELL RESIDENCE
22702 EAST CLIFF DRIVE
SANTA CRUZ, CA 95062
APN: 028-242-25

TITLE SHEET

DATE	07/20/2021
DRAWN	NH
JOB	MACDONELL
SHEET	P1

EXHIBIT D

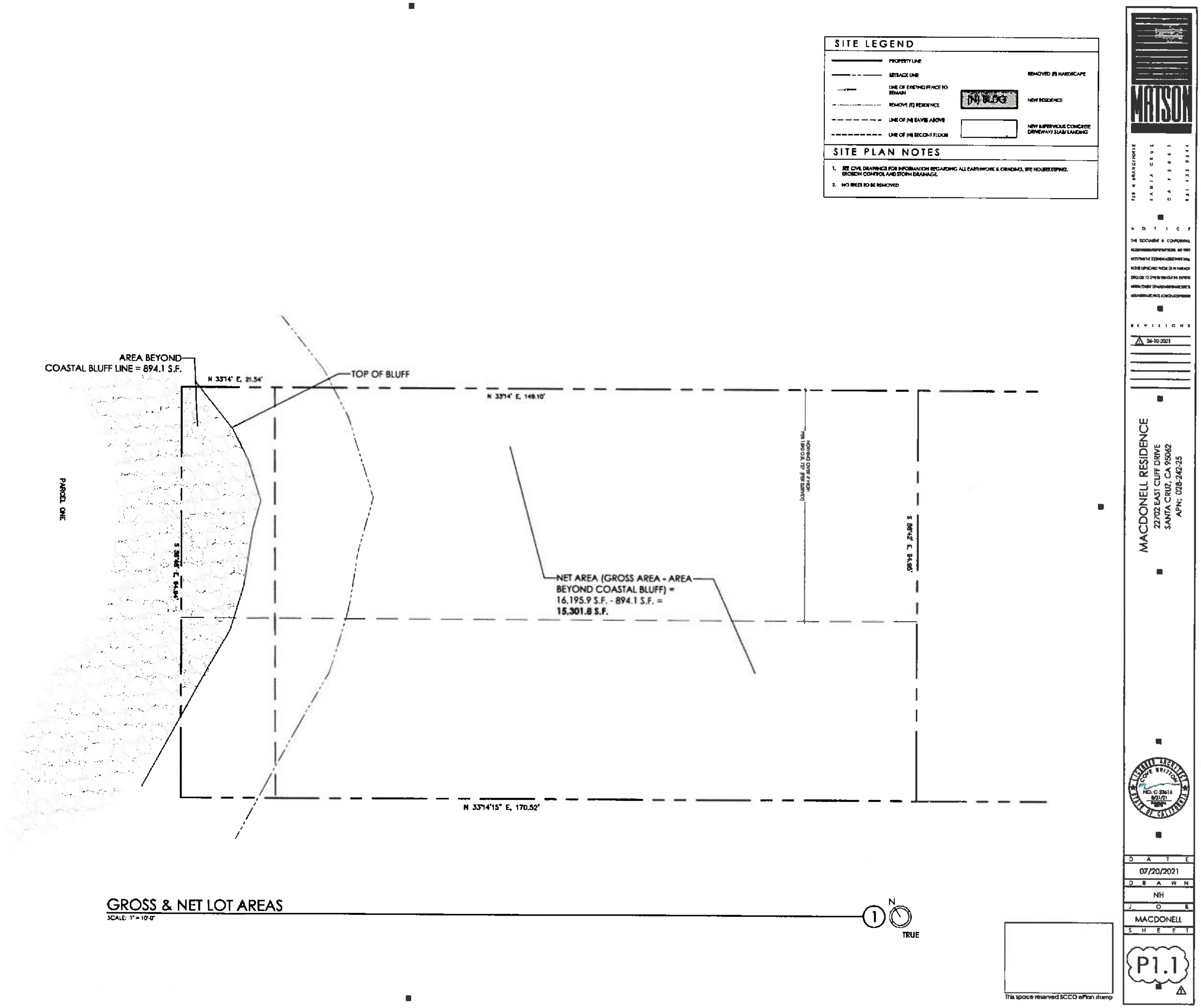

SITE LEGEND
PROPERTY LINE
SETBACK LINE
REMOVE (E) RESIDENCE
LINE OF (N) EAVES ABOVE
(N) BLDG
NEW RESIDENCE
SITE PLAN NOTES
MATSON
MACDONELL RESIDENCE
22702 EAST CLIFF DRIVE
SANTA CRUZ, CA 95062
APN: 028-242-25
DATE
07/20/2021
DRAWN
NH
JOB
MACDONELL
SHEET
P1.1
This space reserved SCCO ePlan stamp
AREA BEYOND
COASTAL BLUFF LINE = 894.1 S.F.
TOP OF BLUFF
N 33°14' E, 21.54'
N 33°14' E, 149.10'
N 33°14'15" E, 170.52'
NET AREA (GROSS AREA - AREA
BEYOND COASTAL BLUFF) =
16,195.9 S.F. - 894.1 S.F. =
15,301.8 S.F.
PARCEL ONE
GROSS & NET LOT AREAS
SCALE: 1" = 10'-0"
1
N
TRUE

EXHIBIT D

MACDONELL RESIDENCE
22702 EAST CLIFF DRIVE
SANTA CRUZ, CA 95062
APN: 028-242-25

SITE PLAN

DATE 07/20/2021
DRAWN NH
JOB MACDONELL
SHEET P2

EAST CLIFF DRIVE

SITE LEGEND

SITE PLAN NOTES

NEW RESIDENCE
22702 E. CLIFF DRIVE

(N) 1-CAR GARAGE

(N) LOGGIA

PARCEL ONE
PARCEL TWO

S 56°42' E, 94.95'

S 57°00' E, 94.94' "NO STRUCTURE SOUTHERLY OF THIS LINE" AS PER 464 O.R. 20, APRIL 10, 1946

N 33°14'15" E, 170.52'

N 33°14' E, 148.10'

S 56°45'45" E, 34.73'

S 56°45'45" E, 5.49'

SITE PLAN
SCALE: 1" = 10'-0"

EXHIBIT D

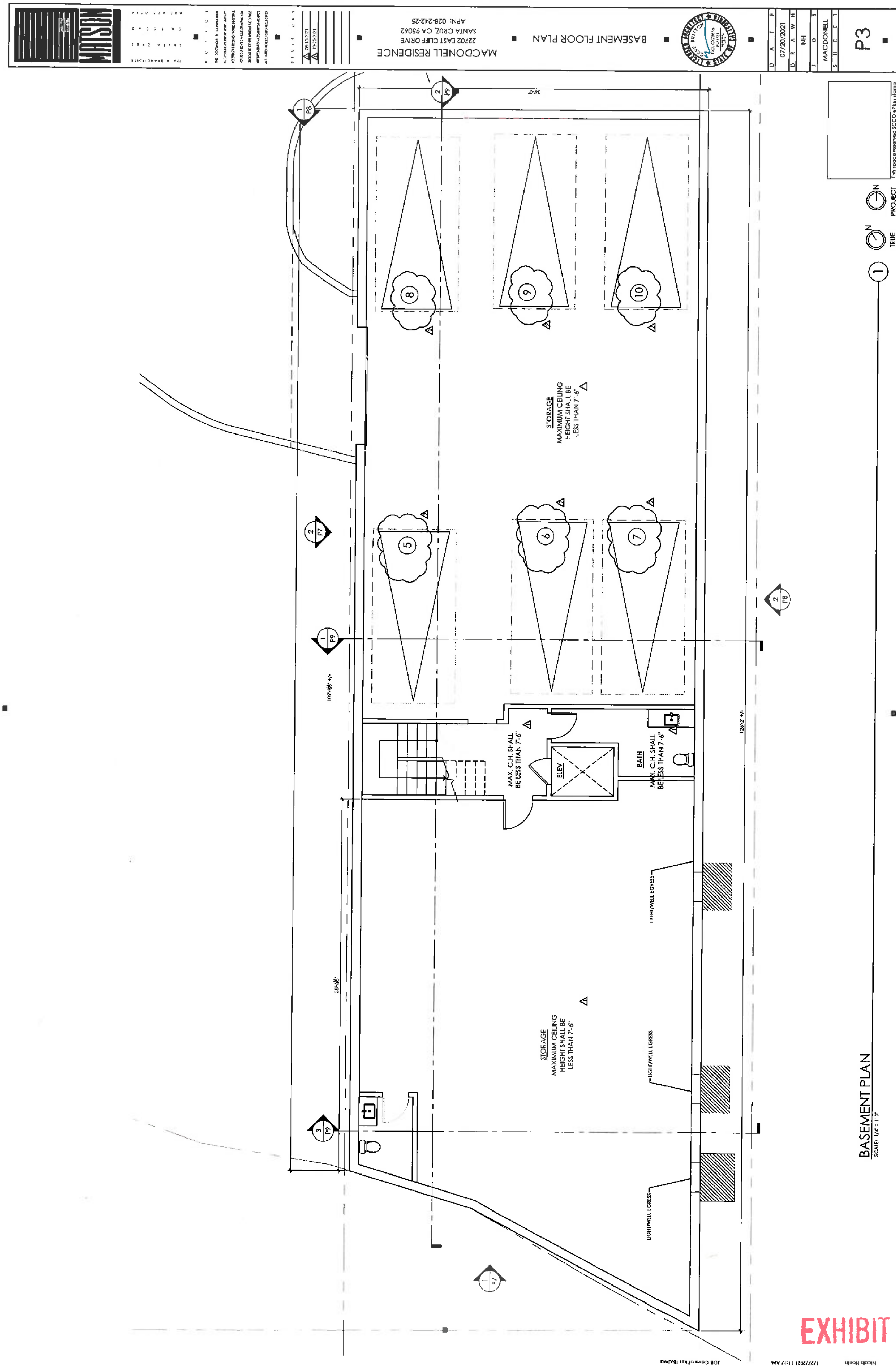

MACDONELL RESIDENCE
22702 EAST CLIFF DRIVE
SANTA CRUZ, CA 95062
APN: 028-242-25
BASEMENT FLOOR PLAN
07/20/2021
NH
MACDONELL
P3
STORAGE
MAXIMUM CEILING HEIGHT SHALL BE LESS THAN 7'-6"
MAX. C.H. SHALL BE LESS THAN 7'-6"
ELEV
BATH
MAX. C.H. SHALL BE LESS THAN 7'-6"
LIGHT/WELL EGRESS
LIGHT/WELL EGRESS
LIGHT/WELL EGRESS
STORAGE
MAXIMUM CEILING HEIGHT SHALL BE LESS THAN 7'-6"
TRUE
PROJECT
BASEMENT PLAN
SCALE: 1/4" = 1'-0"

EXHIBIT D

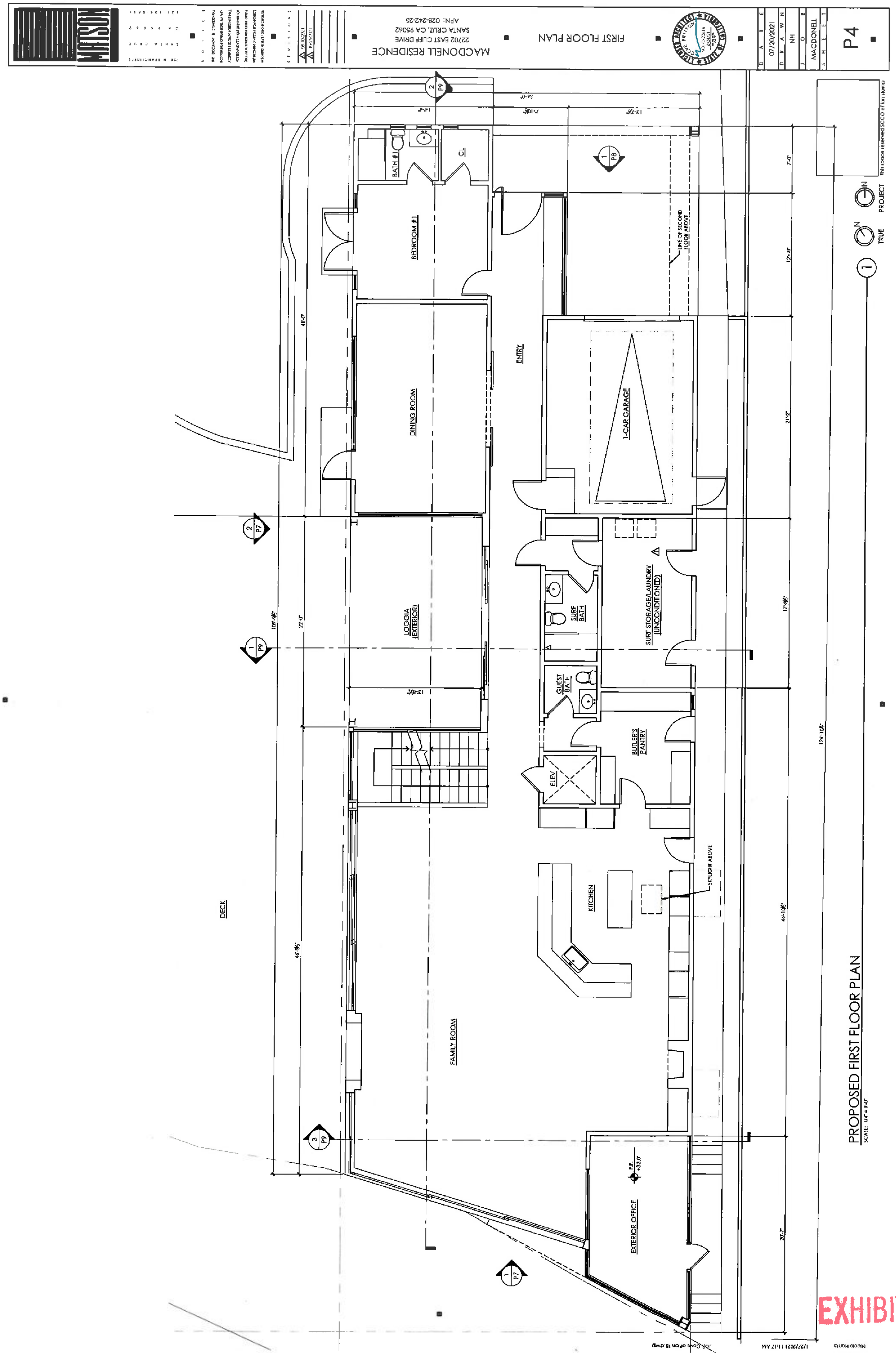
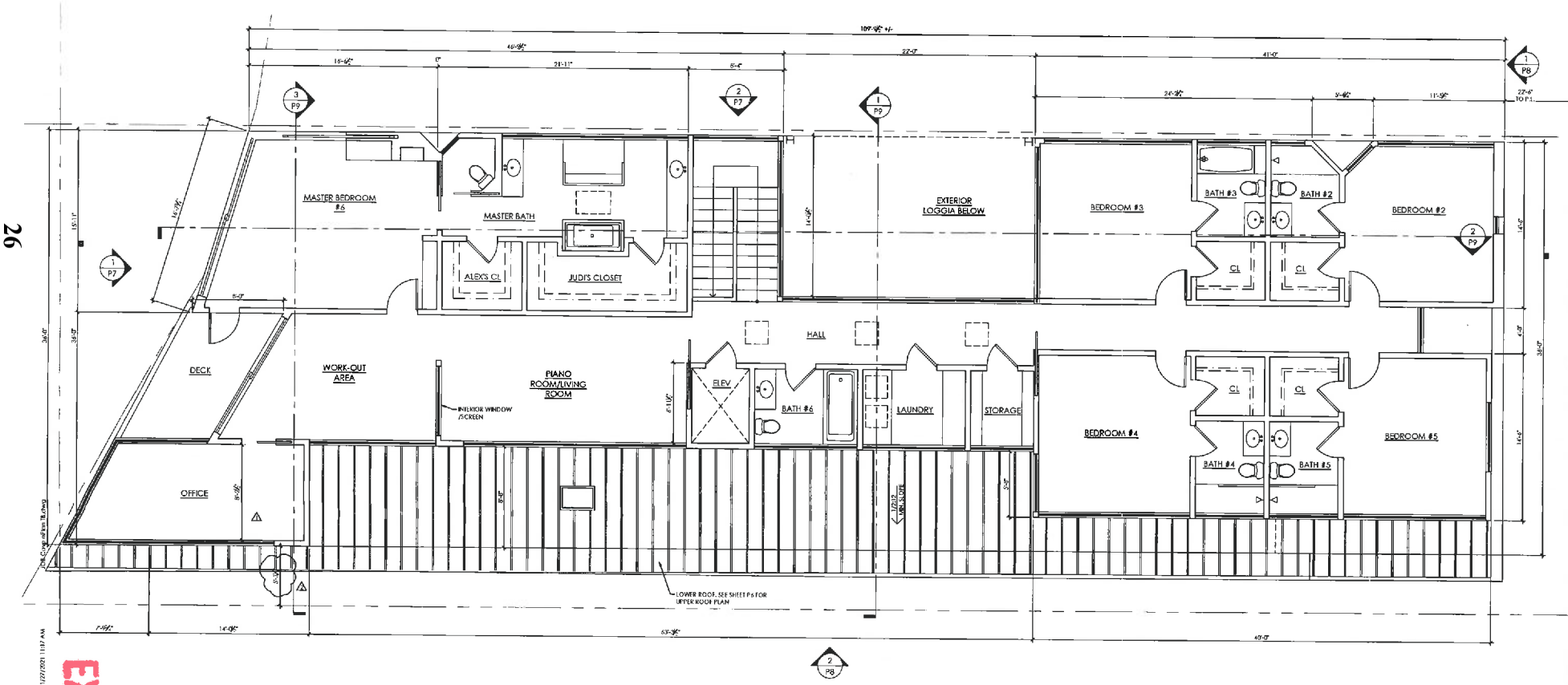

MACDONELL RESIDENCE
22702 EAST CLIFF DRIVE
SANTA CRUZ, CA 95062
APN: 028-242-25
FIRST FLOOR PLAN
07/20/2021
NH
MACDONELL
P4
BATH #1
CL
BEDROOM #1
DINING ROOM
ENTRY
1-CAR GARAGE
LINE OF SECOND FLOOR ABOVE
LOGGIA (EXTERIOR)
SURF BATH
SURF STORAGE/LAUNDRY (UNCONDITIONED)
GUEST BATH
BUTLER'S PANTRY
ELEV
KITCHEN
SKYLIGHT ABOVE
DECK
FAMILY ROOM
EXTERIOR OFFICE
TRUE
PROJECT
PROPOSED FIRST FLOOR PLAN

EXHIBIT D



PROPOSED SECOND FLOOR PLAN

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

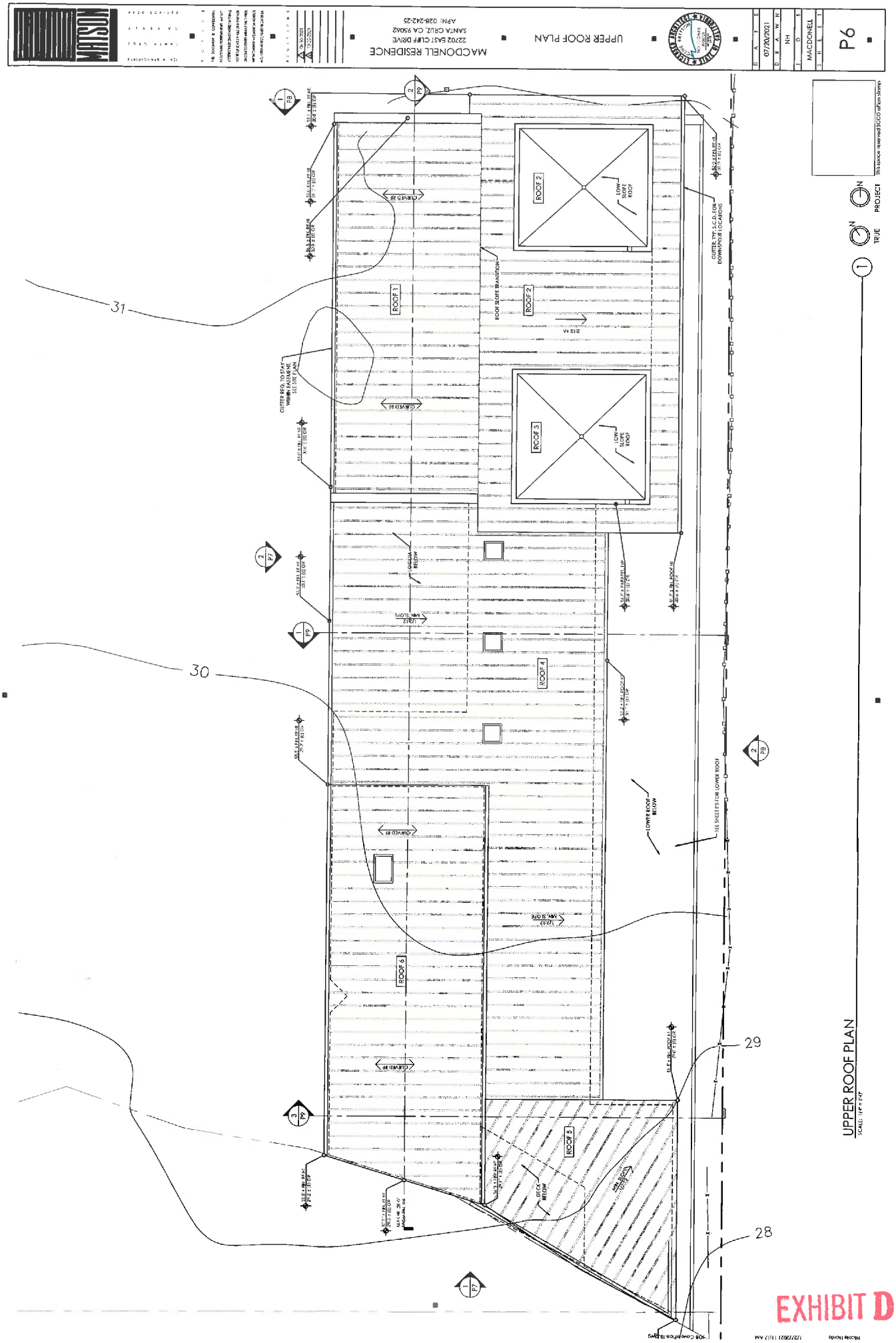
EXHIBIT D

MATSON

MACDONELL RESIDENCE
22702 EAST CLIFF DRIVE
SANTA CRUZ, CA 95062
APN: 028-242-25

SECOND FLOOR AND LOWER ROOF PLAN

DATE 07/20/2021
DRAWN NH
JOB MACDONELL
SHEET P5


MACDONELL RESIDENCE
22702 EAST CLIFF DRIVE
SANTA CRUZ, CA 95062
APN: 028-242-25
UPPER ROOF PLAN
DATE 07/20/2021
DRAWN NH
JOB MACDONELL
SHEET P6
ROOF 1
ROOF 2
ROOF 3
ROOF 4
ROOF 5
ROOF 6
LOW SLOPE ROOF
LOWER ROOF BELOW
DECK BELOW
ROOF SLOPE TRANSITION
CLUTTER REQ. TO STAY WITHIN EASEMENT. SEE SHEET L1
CLUTTER, TYP. S.C.D. FOR DOWNSPOUT LOCATIONS
SEE SHEET P5 FOR LOWER ROOF
TRUE NORTH
PROJECT NORTH
UPPER ROOF PLAN
SCALE: 1/4" = 1'-0"
31
30
29
28
EXHIBIT D

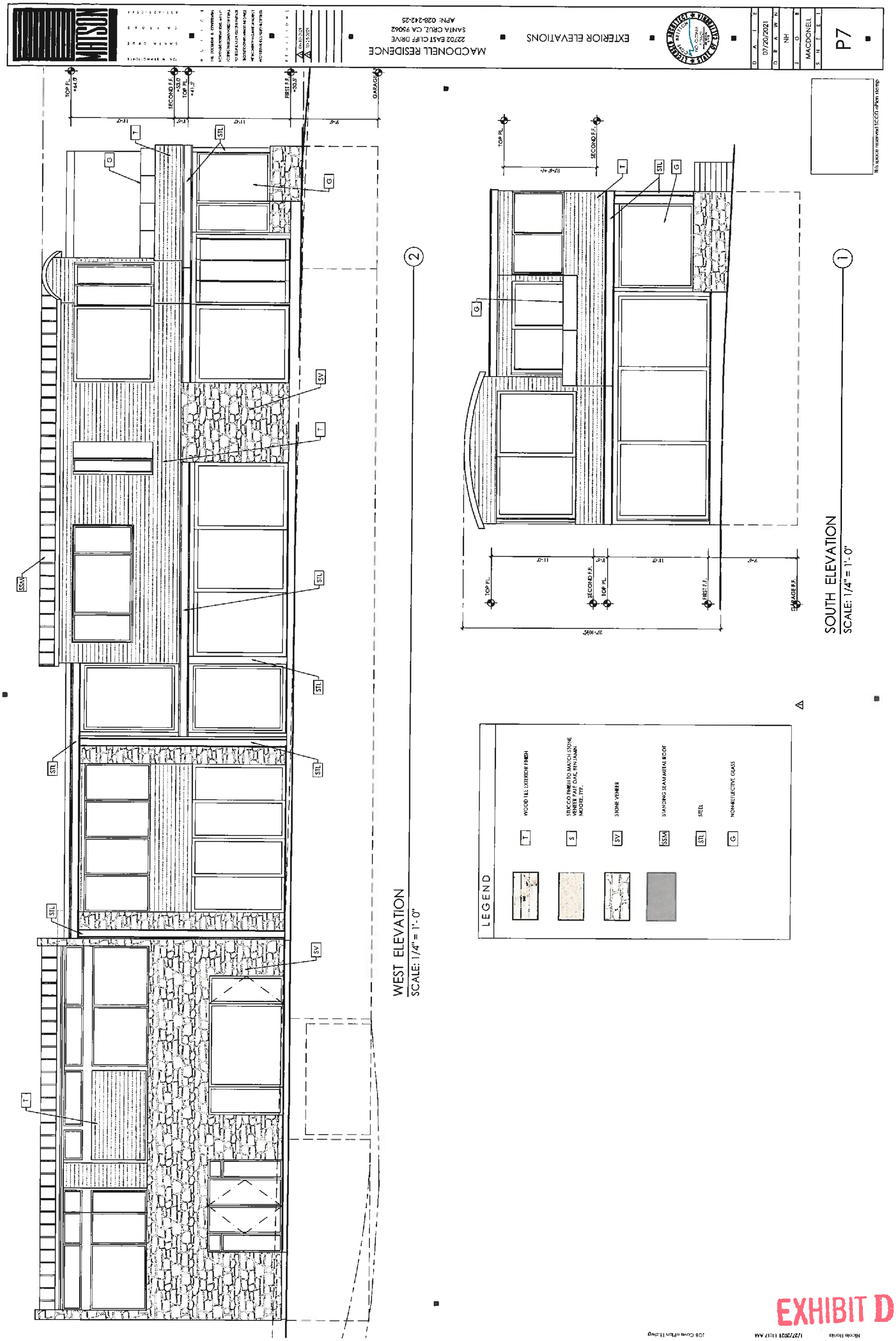

MACDONELL RESIDENCE
22702 EAST CLIFF DRIVE
SANTA CRUZ, CA 95062
APN: 028-242-25
EXTERIOR ELEVATIONS
07/20/2021
NH
MACDONELL
P7
WEST ELEVATION
SCALE: 1/4" = 1'-0"
SOUTH ELEVATION
SCALE: 1/4" = 1'-0"
TOP PL.
SECOND F.F.
FIRST F.F.
GARAGE F.F.
LEGEND
T WOOD T&G EXTERIOR FINISH
S STUCCO FINISH TO MATCH STONE VENEER PAINT OAK, BENJAMIN MOORE, TYP.
SV STONE VENEER
SSM STANDING SEAM METAL ROOF
STL STEEL
G NON-REFLECTIVE GLASS

EXHIBIT D

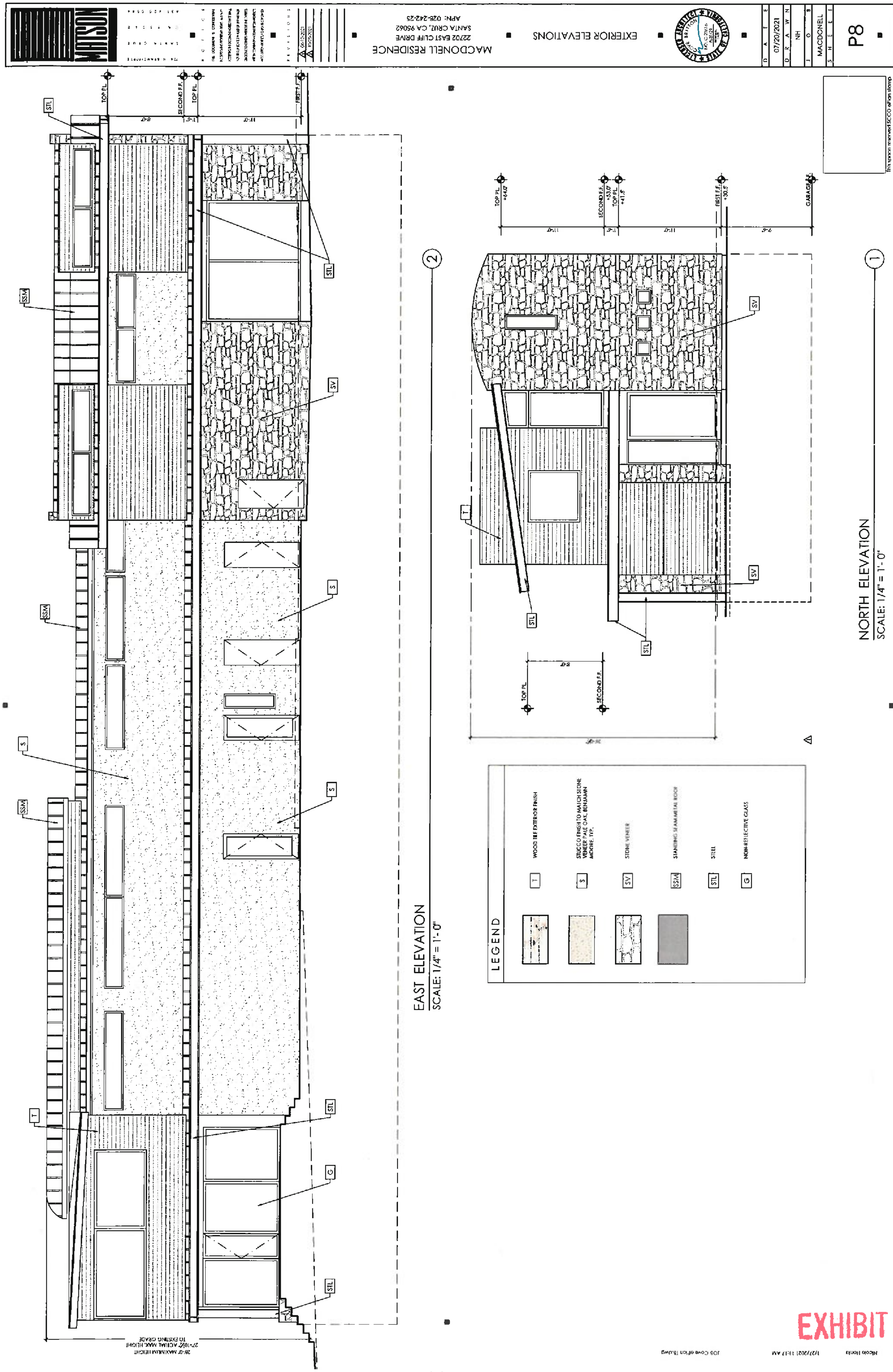
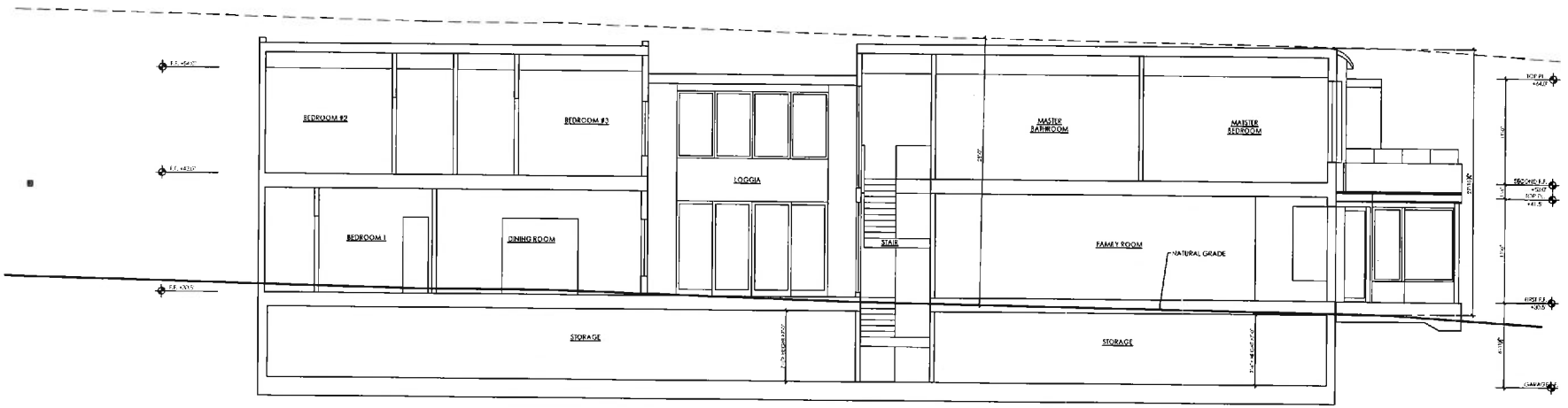

MACDONELL RESIDENCE
22702 EAST CLIFF DRIVE
SANTA CRUZ, CA 95062
APN: 028-242-25
EXTERIOR ELEVATIONS
07/20/2021
NH
MACDONELL
P8
EAST ELEVATION
SCALE: 1/4" = 1'- 0"
NORTH ELEVATION
SCALE: 1/4" = 1'- 0"
LEGEND
T WOOD TILE EXTERIOR FINISH
S STUCCO FINISH TO MATCH STONE VENEER PALE OAK, BENJAMIN MOORE, TYP.
SV STONE VENEER
SSM STANDING SEAM METAL ROOF
STL STEEL
G NON-REFLECTIVE GLASS

EXHIBIT D



LONGITUDINAL SECTION
SCALE: 3/16" = 1'-0"

1

MACDONELL RESIDENCE
22702 EAST CLIFF DRIVE
SANTA CRUZ, CA 95062
APN: 028-242-25

SECTIONS

DATE
07/20/2021
DRAWN
NH
JOB
MACDONELL
SHEET
P9

This space reserved for C.C.E.O. e-Plan stamp

EXHIBIT D

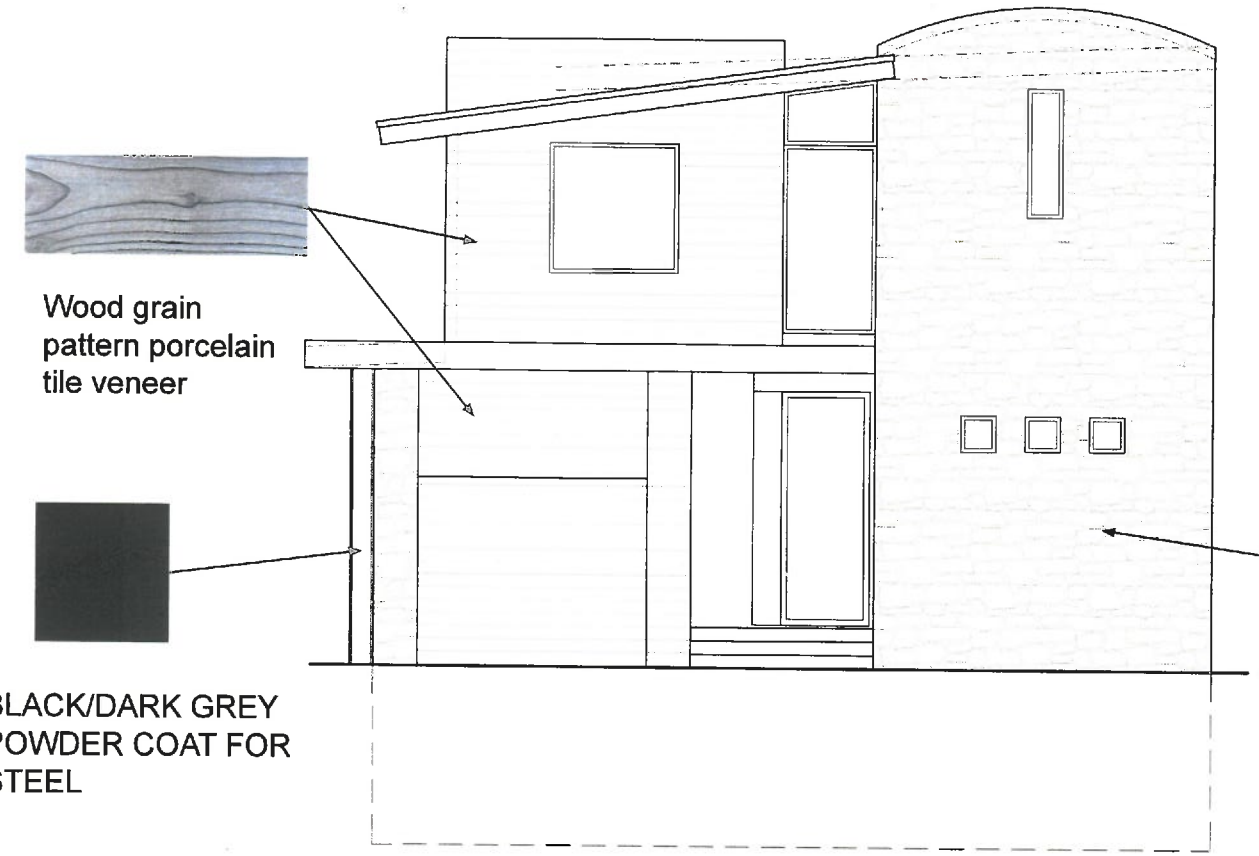
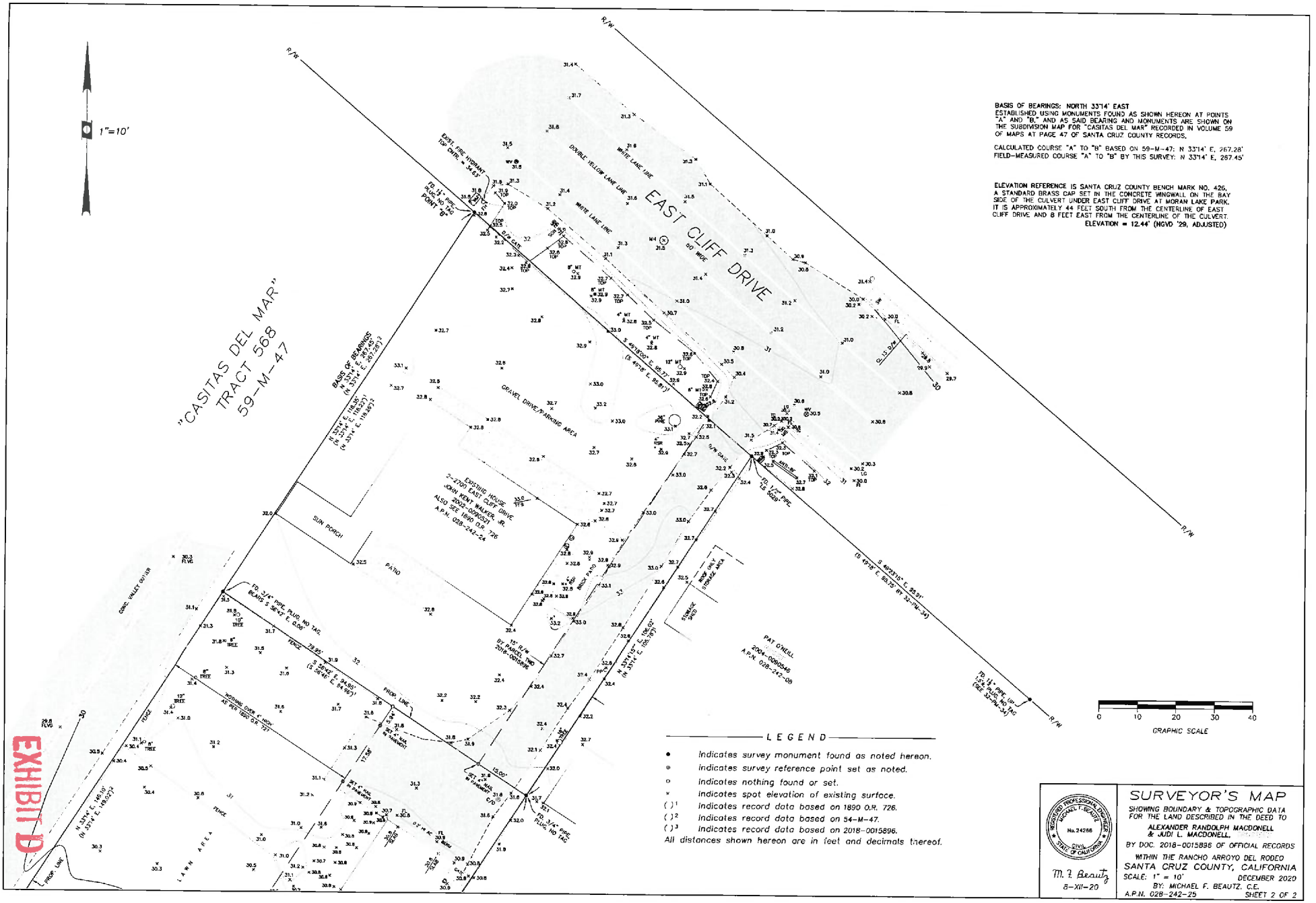

Wood grain pattern porcelain tile veneer
BENJAMIN MOORE CHEALSEA GRAY HC-168 FOR STUCCO
BLACK/DARK GREY POWDER COAT FOR STEEL
CULTURED STONE VENEER "MINNESOTA FIELDSTONE IN HURON'

EXHIBIT D



BASIS OF BEARINGS: NORTH 33°14' EAST
ESTABLISHED USING MONUMENTS FOUND AS SHOWN HEREON AT POINTS "A" AND "B," AND AS SAID BEARING AND MONUMENTS ARE SHOWN ON THE SUBDIVISION MAP FOR "CASITAS DEL MAR" RECORDED IN VOLUME 59 OF MAPS AT PAGE 47 OF SANTA CRUZ COUNTY RECORDS.

CALCULATED COURSE "A" TO "B" BASED ON 59-M-47: N 33°14' E, 267.28'
FIELD-MEASURED COURSE "A" TO "B" BY THIS SURVEY: N 33°14' E, 267.45'

ELEVATION REFERENCE IS SANTA CRUZ COUNTY BENCH MARK NO. 426, A STANDARD BRASS CAP SET IN THE CONCRETE WINGWALL ON THE BAY SIDE OF THE CULVERT UNDER EAST CLIFF DRIVE AT MORAN LAKE PARK. IT IS APPROXIMATELY 44 FEET SOUTH FROM THE CENTERLINE OF EAST CLIFF DRIVE AND 8 FEET EAST FROM THE CENTERLINE OF THE CULVERT.
ELEVATION = 12.44' (NGVD '29, ADJUSTED)

0 10 20 30 40
GRAPHIC SCALE

LEGEND

- ● Indicates survey monument found as noted hereon.
- ⊛ Indicates survey reference point set as noted.
- o Indicates nothing found or set.
- × Indicates spot elevation of existing surface.
- ( )¹ Indicates record data based on 1890 O.R. 726.
- ( )² Indicates record data based on 54-M-47.
- ( )³ Indicates record data based on 2018-0015896.

All distances shown hereon are in feet and decimals thereof.

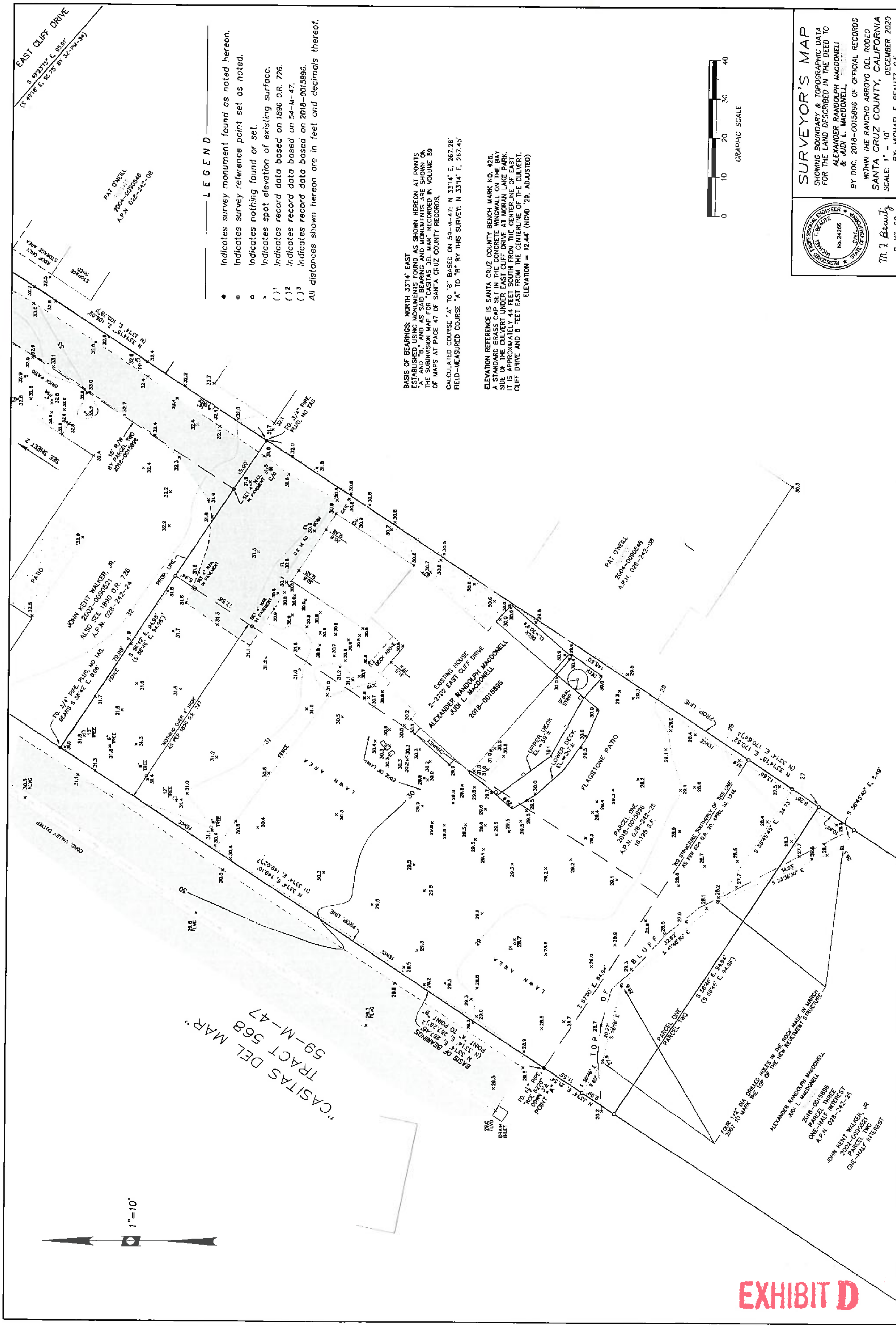
REGISTERED PROFESSIONAL ENGINEER
MICHAEL F. BEAUTZ
No. 24266
CIVIL
STATE OF CALIFORNIA

M. F. Beautz
8-XII-20

SURVEYOR'S MAP

SHOWING BOUNDARY & TOPOGRAPHIC DATA FOR THE LAND DESCRIBED IN THE DEED TO
ALEXANDER RANDOLPH MACDONELL & JUDI L. MACDONELL,
BY DOC. 2018-0015898 OF OFFICIAL RECORDS
WITHIN THE RANCHO ARROYO DEL RODEO
SANTA CRUZ COUNTY, CALIFORNIA
SCALE: 1" = 10' DECEMBER 2020
BY: MICHAEL F. BEAUTZ, C.E.
A.P.N. 028-242-25 SHEET 2 OF 2

EXHIBIT D


SURVEYOR'S MAP
SHOWING BOUNDARY & TOPOGRAPHIC DATA FOR THE LAND DESCRIBED IN THE DEED TO
ALEXANDER RANDOLPH MACDONELL & JUDI L. MACDONELL,
BY DOC. 2018-0015896 OF OFFICIAL RECORDS
WITHIN THE RANCHO ARROYO DEL RODEO
SANTA CRUZ COUNTY, CALIFORNIA
SCALE: 1" = 10'
DECEMBER 2020
BY: MICHAEL F. BEAUTZ, C.E.
A.P.N. 028-242-25
SHEET 1 OF 2
8-XII-20
GRAPHIC SCALE
LEGEND
Indicates survey monument found as noted hereon.
Indicates survey reference point set as noted.
Indicates nothing found or set.
Indicates spot elevation of existing surface.
( )¹ Indicates record data based on 1890 O.R. 726.
( )² Indicates record data based on 54-M-47.
( )³ Indicates record data based on 2018-0015896.
All distances shown hereon are in feet and decimals thereof.
BASIS OF BEARINGS: NORTH 33°14' EAST
ESTABLISHED USING MONUMENTS FOUND AS SHOWN HEREON AT POINTS "A" AND "B," AND AS SAID BEARING AND MONUMENTS ARE SHOWN ON THE SUBDIVISION MAP FOR "CASITAS DEL MAR" RECORDED IN VOLUME 59 OF MAPS AT PAGE 47 OF SANTA CRUZ COUNTY RECORDS.
CALCULATED COURSE "A" TO "B" BASED ON 59-M-47: N 33°14' E, 267.28'
FIELD-MEASURED COURSE "A" TO "B" BY THIS SURVEY: N 33°14' E, 267.45'
ELEVATION REFERENCE IS SANTA CRUZ COUNTY BENCH MARK NO. 426, A STANDARD BRASS CAP SET IN THE CONCRETE WINGWALL ON THE BAY SIDE OF THE CULVERT UNDER EAST CLIFF DRIVE AT MORAN LAKE PARK. IT IS APPROXIMATELY 44 FEET SOUTH FROM THE CENTERLINE OF EAST CLIFF DRIVE AND 8 FEET EAST FROM THE CENTERLINE OF THE CULVERT. ELEVATION = 12.44' (NGVD '29, ADJUSTED)
EAST CLIFF DRIVE
PAT O'NEILL
2004-0090546
A.P.N. 028-242-08
JOHN KENT WALKER, JR.
2002-0090521
ALSO SEE 1890 O.R. 726
A.P.N. 028-242-24
EXISTING HOUSE
2-2705 EAST CLIFF DRIVE
ALEXANDER RANDOLPH MACDONELL
JUDI L. MACDONELL
2018-0015896
PARCEL ONE
2018-0015896
A.P.N. 028-242-25
16,195 S.F.
FLAGSTONE PATIO
UPPER DECK
LOWER DECK
LAWN AREA
TOP OF BLUFF
PARCEL ONE
PARCEL TWO
ALEXANDER RANDOLPH MACDONELL
JUDI L. MACDONELL
2018-0015896
PARCEL THREE
ONE-HALF INTEREST
A.P.N. 028-242-26
JOHN KENT WALKER, JR.
2002-0090521
PARCEL TWO
ONE-HALF INTEREST
"CASITAS DEL MAR"
TRACT 568
59-M-47
SEE SHEET 2
1"=10'
EXHIBIT D

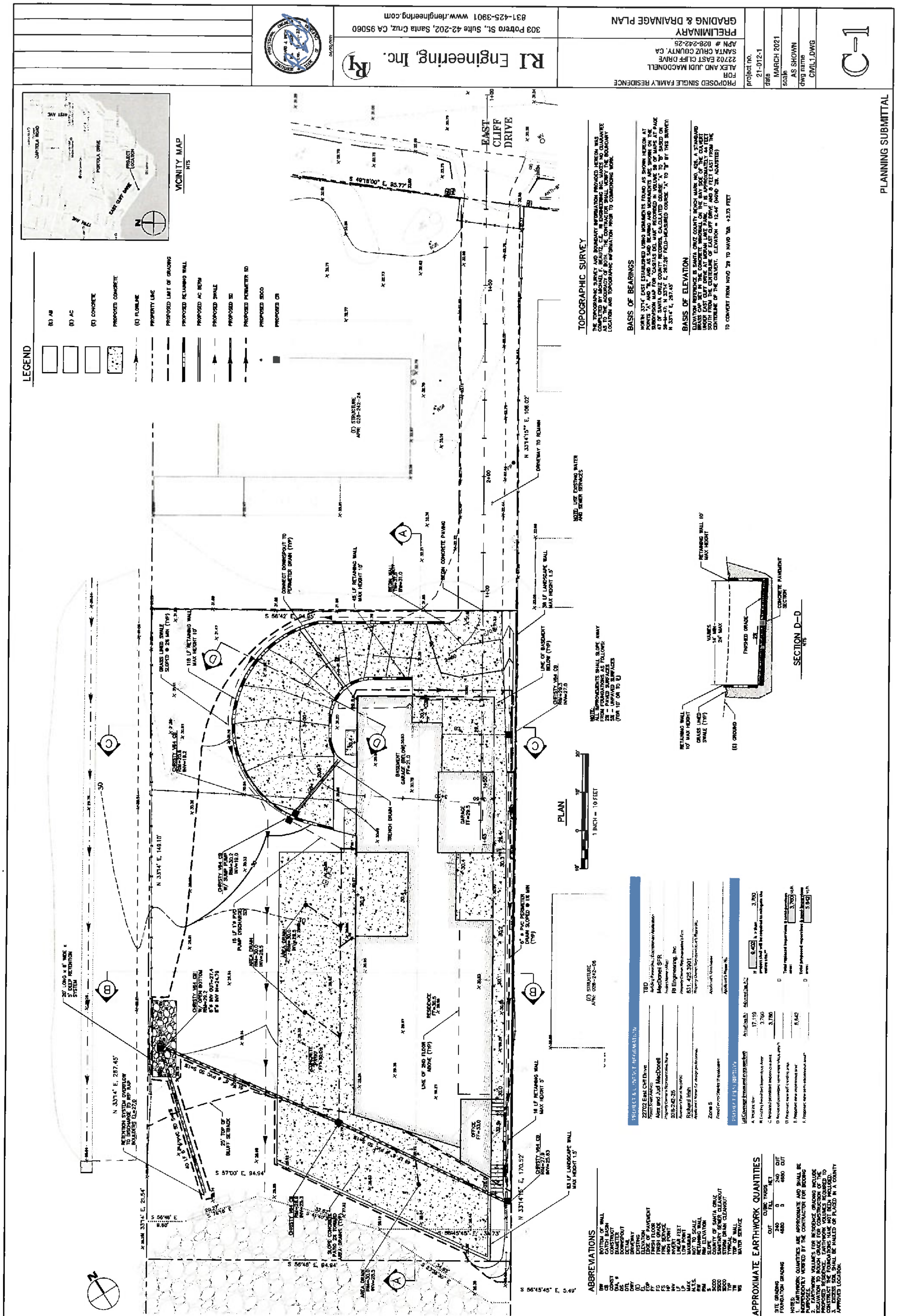
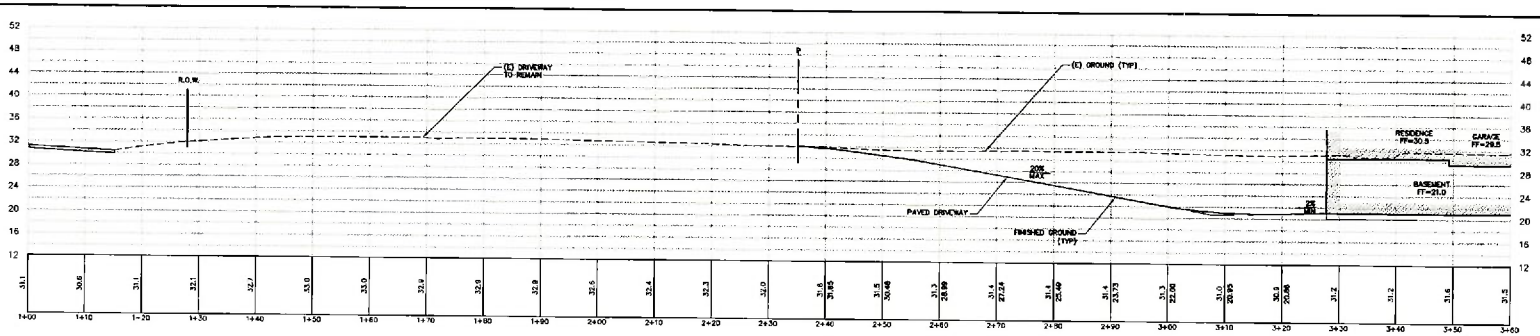
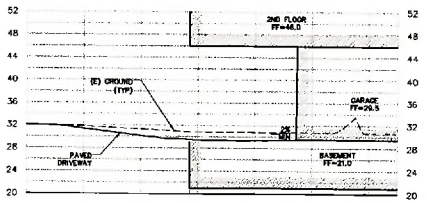

RI Engineering, Inc.
303 Potrero St., Suite 42-202, Santa Cruz, CA 95060
831-425-3901 www.rlengineering.com
PRELIMINARY
GRADING & DRAINAGE PLAN
PROPOSED SINGLE FAMILY RESIDENCE
FOR
ALEX AND JUDI MACDONELL
22702 EAST CLIFF DRIVE
SANTA CRUZ COUNTY, CA
APN # 028-242-25
project no.
21-012-1
date
MARCH 2021
scale
AS SHOWN
dwg name
CIVIL1.DWG
C-1
PLANNING SUBMITTAL
LEGEND
VICINITY MAP
TOPOGRAPHIC SURVEY
BASIS OF BEARINGS
BASIS OF ELEVATION
EAST CLIFF DRIVE
PLAN
SECTION D-D
ABBREVIATIONS
APPROXIMATE EARTHWORK QUANTITIES

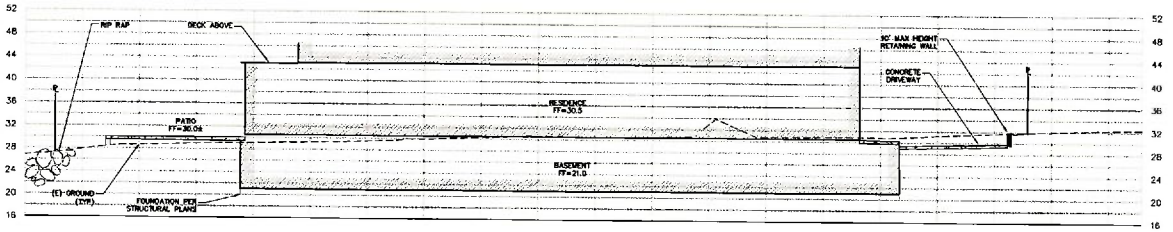
EXHIBIT D



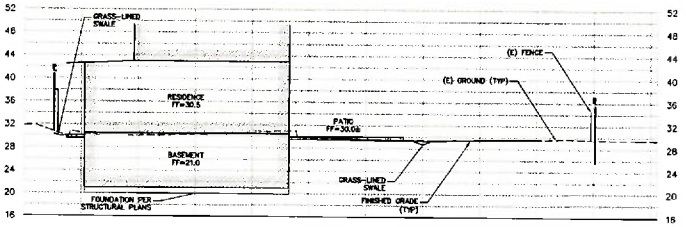
DRIVEWAY PROFILE



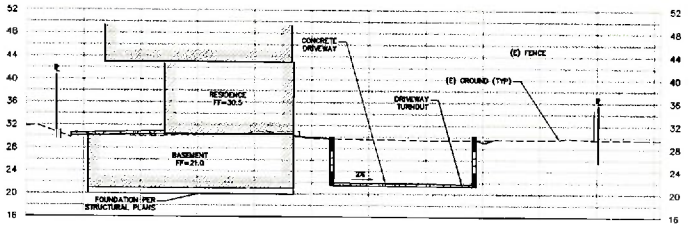
UPPER DRIVEWAY PROFILE
SCALE: 1"=10' HORIZONTAL, VERTICAL



SECTION A–A
SCALE: 1"=10' HORIZONTAL, VERTICAL



SECTION B–B
SCALE: 1"=10' HORIZONTAL, VERTICAL



SECTION C–C
SCALE: 1"=10' HORIZONTAL, VERTICAL

EXHIBIT D

PLANNING SUBMITTAL

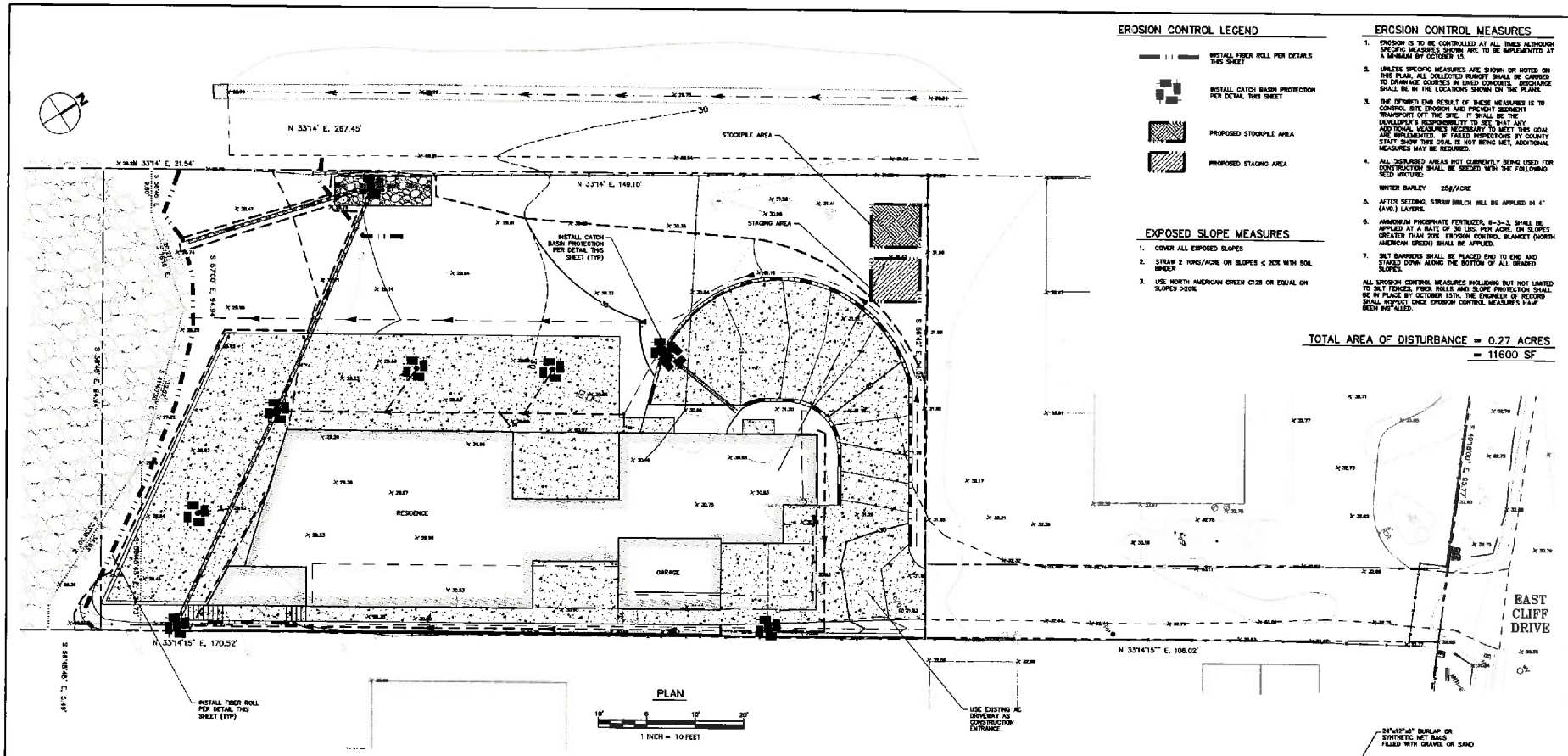
RJ Engineering, Inc.
303 Potrero St., Suite 42-202, Santa Cruz, CA 95060
831-425-3901 www.rjengineering.com

PROPOSED SINGLE FAMILY RESIDENCE
FOR
ALEX AND JUDI MACDONELL
22702 EAST CLIFF DRIVE
SANTA CRUZ COUNTY, CA
APN # 026-242-25

PROFILES AND SECTIONS

project no. 21-012-1
date MARCH 2021
scale AS SHOWN
dwg name CIVIL1.DWG

C-2



EROSION CONTROL LEGEND

- INSTALL FIBER ROLL PER DETAILS THIS SHEET
- INSTALL CATCH BASIN PROTECTION PER DETAIL THIS SHEET
- PROPOSED STOCKPILE AREA
- PROPOSED STAGING AREA

EXPOSED SLOPE MEASURES

1. COVER ALL EXPOSED SLOPES
2. STRAW 2 TONS/ACRE ON SLOPES ≤ 20% WITH SOIL BINDER
3. USE NORTH AMERICAN GREEN C125 OR EQUAL ON SLOPES >20%

EROSION CONTROL MEASURES

1. EROSION IS TO BE CONTROLLED AT ALL TIMES ALTHOUGH SPECIFIC MEASURES SHOWN ARE TO BE IMPLEMENTED AT A MINIMUM BY OCTOBER 15.
2. UNLESS SPECIFIC MEASURES ARE SHOWN OR NOTED ON THIS PLAN, ALL COLLECTED RUNOFF SHALL BE CARRIED TO DRAINAGE COURSES IN LINED CONDUITS. DISCHARGE SHALL BE IN THE LOCATIONS SHOWN ON THE PLANS.
3. THE DESIRED END RESULT OF THESE MEASURES IS TO CONTROL SITE EROSION AND PREVENT SEDIMENT TRANSPORT OFF THE SITE. IT SHALL BE THE DEVELOPER'S RESPONSIBILITY TO SEE THAT ANY ADDITIONAL MEASURES NECESSARY TO MEET THIS GOAL ARE IMPLEMENTED. IF FAILED INSPECTIONS BY COUNTY STAFF SHOW THIS GOAL IS NOT BEING MET, ADDITIONAL MEASURES MAY BE REQUIRED.
4. ALL DISTURBED AREAS NOT CURRENTLY BEING USED FOR CONSTRUCTION SHALL BE SEEDED WITH THE FOLLOWING SEED MIXTURE:

   WINTER BARLEY 25#/ACRE
5. AFTER SEEDING, STRAW BMBCH WILL BE APPLIED IN 4" (AVG.) LAYERS.
6. AMMONIUM PHOSPHATE FERTILIZER, 6-3-3, SHALL BE APPLIED AT A RATE OF 30 LBS PER ACRE. ON SLOPES GREATER THAN 20% EROSION CONTROL BLANKET (NORTH AMERICAN GREEN) SHALL BE APPLIED.
7. SILT BARRIERS SHALL BE PLACED END TO END AND STAKED DOWN ALONG THE BOTTOM OF ALL GRADED SLOPES.

ALL EROSION CONTROL MEASURES INCLUDING BUT NOT LIMITED TO SILT FENCES, FIBER ROLLS AND SLOPE PROTECTION SHALL BE IN PLACE BY OCTOBER 15TH. THE ENGINEER OF RECORD SHALL INSPECT ONCE EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

TOTAL AREA OF DISTURBANCE = 0.27 ACRES
= 11600 SF

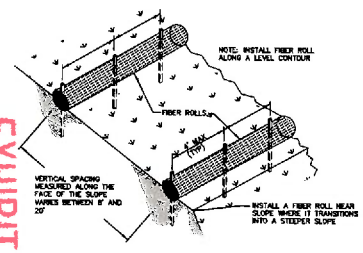
SITE HOUSEKEEPING REQUIREMENTS

CONSTRUCTION MATERIALS
1. ALL LOOSE STOCKPILED CONSTRUCTION MATERIALS THAT ARE NOT ACTIVELY BEING USED (I.E. SOIL, SPOILS, AGGREGATE, FLY-ASH, STUCCO, HYDRATED LIME, ETC.) SHALL BE COVERED AND BERMED.
2. ALL CHEMICALS SHALL BE STORED IN WATERTIGHT CONTAINERS (WITH APPROPRIATE SECONDARY CONTAINMENT TO PREVENT ANY SPILLAGE OR LEAKAGE) OR IN A STORAGE SHED (COMPLETELY ENCLOSED).
3. STOCKPILE OF CONSTRUCTION MATERIALS TO PRECIPITATION SHALL BE MINIMIZED. THIS DOES NOT INCLUDE MATERIALS AND EQUIPMENT THAT ARE DESIGNED TO BE OUTDOORS AND EXPOSED TO ENVIRONMENTAL CONDITIONS (I.E. POLES, EQUIPMENT PADS, CABINETS, CONDUCTORS, INSULATORS, BRICKS, ETC.).
4. BEST MANAGEMENT PRACTICES TO PREVENT THE OFF-SITE TRACKING OF LOOSE CONSTRUCTION AND LANDSCAPE MATERIALS SHALL BE IMPLEMENTED.

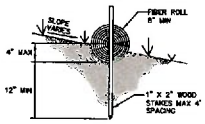
LANDSCAPE MATERIALS
1. CONTAIN STOCKPILED MATERIALS SUCH AS MULCHES AND TOPSOIL WHEN THEY ARE NOT ACTIVELY BEING USED.
2. CONTAIN FERTILIZERS AND OTHER LANDSCAPE MATERIALS WHEN THEY ARE NOT ACTIVELY BEING USED.
3. DISCONTINUE THE APPLICATION OF ANY ERODABLE LANDSCAPE MATERIAL WITHIN 2 DAYS BEFORE A FORECASTED RAIN EVENT OR DURING PERIOD OF PRECIPITATION.
4. APPLY ERODABLE LANDSCAPE MATERIAL AT QUANTITIES AND APPLICATION RATES ACCORDING TO MANUFACTURE RECOMMENDATIONS OR BASED ON WRITTEN SPECIFICATIONS BY KNOWLEDGEABLE AND EXPERIENCED FIELD PERSONNEL.
5. STACK ERODABLE LANDSCAPE MATERIAL ON PALLETS AND COVERING OR STORING SUCH MATERIALS WHEN NOT BEING USED OR APPLIED.

VEHICLE STORAGE AND MAINTENANCE
1. MEASURES SHALL BE TAKEN TO PREVENT OIL, GREASE, OR FUEL TO LEAK IN TO THE GROUND, STORM DRAINS OR SURFACE WATERS.
2. ALL EQUIPMENT OR VEHICLES, WHICH ARE TO BE FUELED, MAINTAINED AND STORED ONSITE SHALL BE IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMP'S.
3. LEAKS SHALL BE IMMEDIATELY CLEANED AND LEAKED MATERIALS SHALL BE DISPOSED OF PROPERLY.

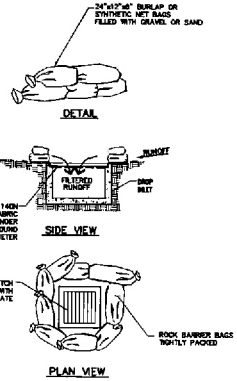
WASTE MANAGEMENT
1. DISPOSAL OF ANY RINSE OR WASH WATERS OR MATERIALS ON IMPERVIOUS OR PERVIOUS SITE SURFACES OR INTO THE STORM DRAIN SYSTEM SHALL BE PREVENTED.
2. SANITATION FACILITIES SHALL BE CONTAINED (E.G., PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATERS, AND SHALL BE LOCATED A MINIMUM OF 20 FEET AWAY FROM AN INLET, STREET OR DRIVEWAY, STREAM, RIPARIAN AREA OR OTHER DRAINAGE FACILITY.
3. SANITATION FACILITIES SHALL BE INSPECTED REGULARLY FOR LEAKS AND SPILLS AND CLEANED OR REPLACED AS NECESSARY.
4. COVER WASTE DISPOSAL CONTAINERS AT THE END OF EVERY BUSINESS DAY AND DURING A RAIN EVENT.
5. DISCHARGES FROM WASTE DISPOSAL CONTAINERS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER SHALL BE PREVENTED.
6. STOCKPILED WASTE MATERIAL SHALL BE CONTAINED AND SECURELY PROTECTED FROM WIND AND RAIN AT ALL TIMES UNLESS ACTIVELY BEING USED.
7. PROCEDURES THAT EFFECTIVELY ADDRESS HAZARDOUS AND NON-HAZARDOUS SPILLS SHALL BE IMPLEMENTED.
8. EQUIPMENT AND MATERIALS FOR CLEANUP OF SPILLS SHALL BE AVAILABLE ON SITE AND THAT SPILLS AND LEAKS SHALL BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY; AND
9. CONCRETE WASHOUT AREAS AND OTHER WASH-OUT AREAS THAT MAY CONTAIN ADDITIONAL POLLUTANTS SHALL BE CONTAINED SO THERE IS NO DISCHARGE INTO THE UNDERLYING SOIL AND ONTO THE SURROUNDING AREAS.



TYPICAL FIBER ROLL INSTALLATION
NTS



FIBER ROLL DETAIL IN SLOPE AREA
NTS



GRAVEL BAG CATCH BASIN PROTECTION
NTS

PLANNING SUBMITTAL

EXHIBIT D

R.I Engineering, Inc.
303 Potrero St., Suite 42-202, Santa Cruz, CA 95060
831-425-3901 www.rlengineering.com

PROPOSED SINGLE FAMILY RESIDENCE
FOR
ALEX AND JIDDI MACDONELL
22702 EAST CLIFF DRIVE
SANTA CRUZ COUNTY, CA
APN# 026-242-25

STORMWATER POLLUTION CONTROL PLAN

project no. 21-012-1
date MARCH 2021
scale AS SHOWN
dwg name CIVIL1.DWG

C-3

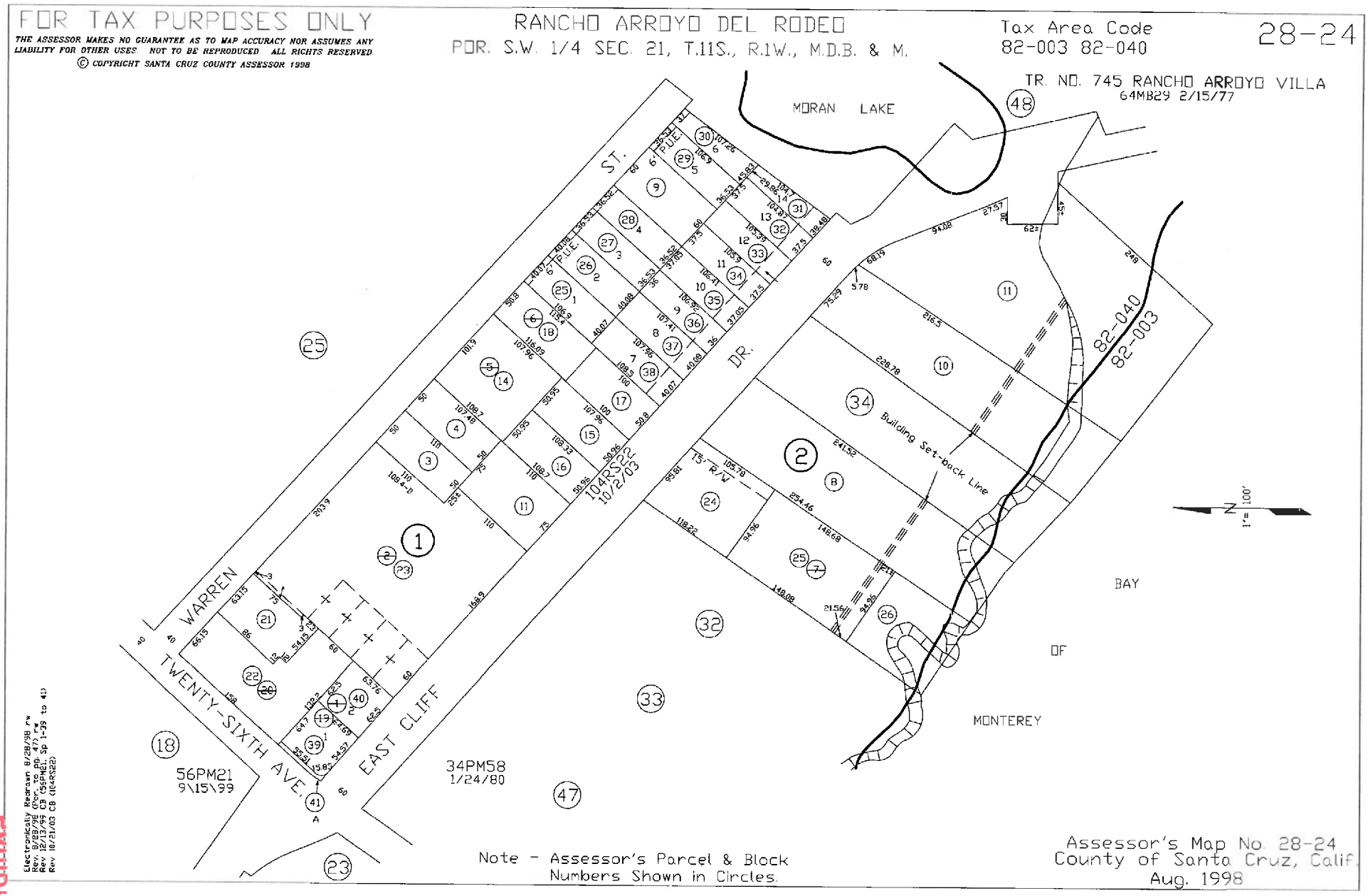
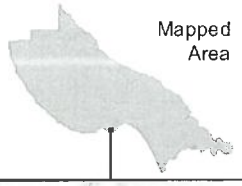
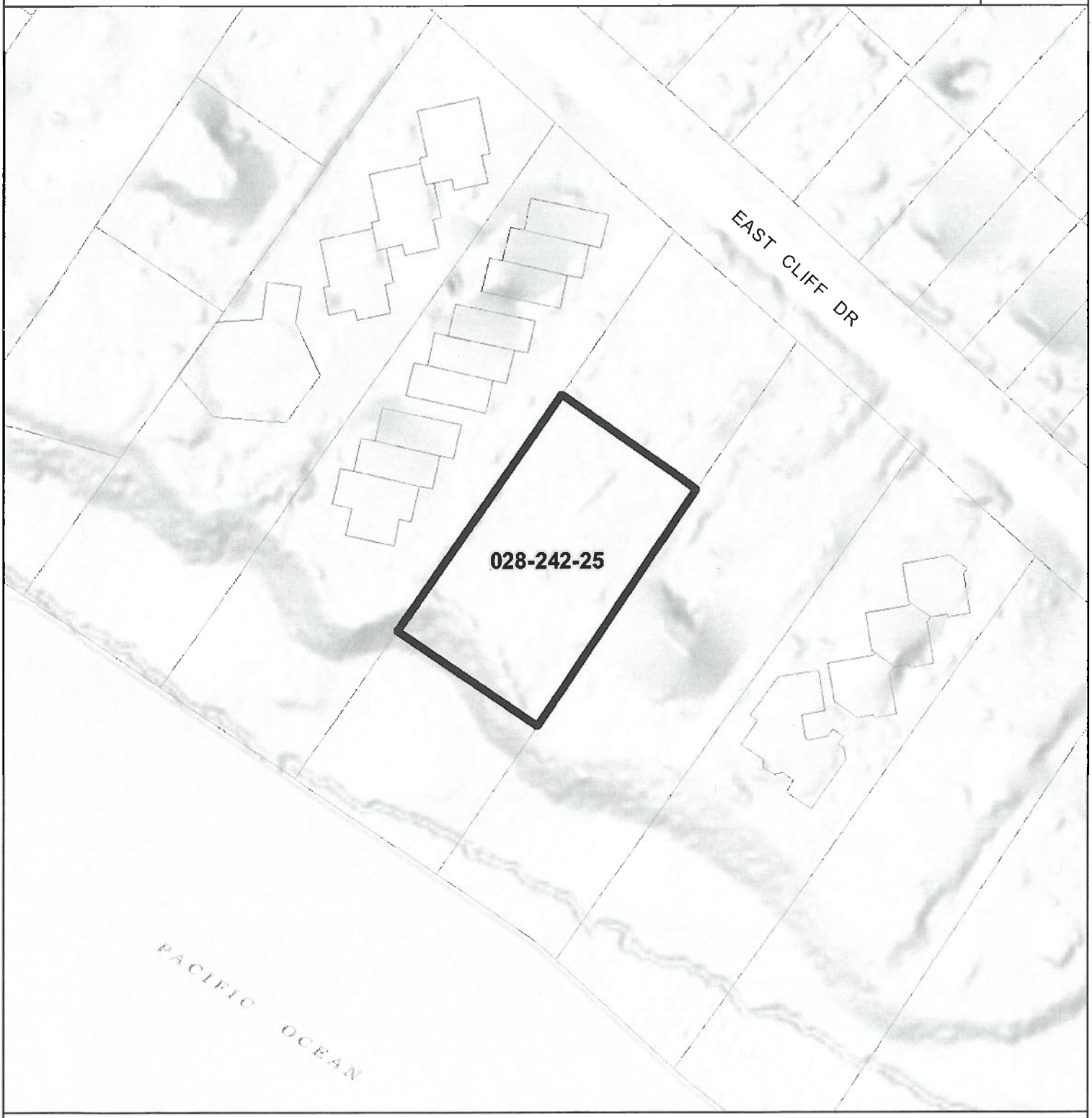

FOR TAX PURPOSES ONLY
THE ASSESSOR MAKES NO GUARANTEE AS TO MAP ACCURACY NOR ASSUMES ANY LIABILITY FOR OTHER USES. NOT TO BE REPRODUCED. ALL RIGHTS RESERVED.
© COPYRIGHT SANTA CRUZ COUNTY ASSESSOR 1998
RANCHO ARROYO DEL RODEO
POR. S.W. 1/4 SEC. 21, T.11S., R.1W., M.D.B. & M.
Tax Area Code
82-003 82-040
28-24
TR. NO. 745 RANCHO ARROYO VILLA
64MB29 2/15/77
MORAN LAKE
WARREN
TWENTY-SIXTH AVE.
EAST CLIFF DR.
56PM21
9\15\99
34PM58
1/24/80
104RS22
10/2/03
Building Set-back Line
75' R/W
82-040
82-003
BAY OF MONTEREY
Electronically Rearawn 8/28/98 rw
Rev. 8/28/98 (Por. to pg. 47) rw
Rev. 12/13/99 CB (56PM21, Sp 1-39 to 41)
Rev 10/21/03 CB (104RS22)
Note - Assessor's Parcel & Block Numbers Shown in Circles.
Assessor's Map No. 28-24
County of Santa Cruz, Calif.
Aug. 1998

EXHIBIT M

SANTA CRUZ COUNTY PLANNING DEPARTMENT

Parcel Location Map





Parcel: 02824225

Study Parcel

Assessor Parcel Boundary

Map printed: 21 Mar. 2022

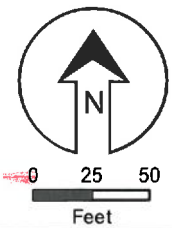
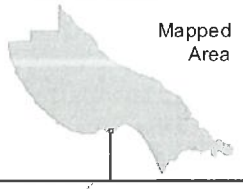


EXHIBIT E

SANTA CRUZ COUNTY PLANNING DEPARTMENT

Parcel General Plan Map



R-UM

028-242-25
(R-UM)

O-R

O-R *Parks, Recreation & Open Space*

R-UM *Res. Urban Medium Density*

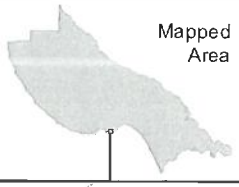
N

0 25 50
Feet

EXHIBIT E

SANTA CRUZ COUNTY PLANNING DEPARTMENT

Parcel Zoning Map



RM-4-PP

RM-5-PP

028-242-25
(PR-PP;
RM-5-PP)

PR-PP

PACIFIC OCEAN

PR *Parks, Recreation, & Open Space*

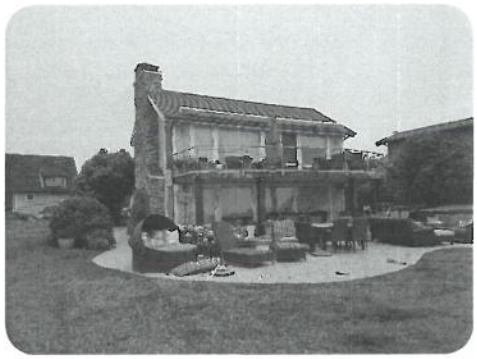
RM *Residential Multi-Family*

N

0 25 50

Feet

EXHIBIT E



GEOTECHNICAL INVESTIGATION

22702 EAST CLIFF DRIVE
A.P.N. 028-242-25
SANTA CRUZ COUNTY, CALIFORNIA

FOR
ALEX AND JUDI MACDONELL
SANTA CRUZ COUNTY, CALIFORNIA

Pacific Crest
ENGINEERING INC

CONSULTING GEOTECHNICAL ENGINEERS

2078-SZ68-H68
APRIL 2021
www.4pacific-crest.com

EXHIBIT F

April 9, 2021

Project No. 2078-SZ68-H68

Alex and Judi MacDonell
22702 East Cliff Drive
Santa Cruz, CA 95062

Subject: **Geotechnical Investigation – Design Phase**
MacDonell Residence
22812 East Cliff Drive
A.P.N. 028-242-25
Santa Cruz County, California

Dear Mr. and Mrs. MacDonell,

In accordance with your authorization, we have performed a geotechnical investigation for the planned residential development of your coastal property located at 22702 East Cliff Drive in Santa Cruz County, California.

The accompanying report presents our conclusions and recommendations as well as the results of the geotechnical investigation on which they are based. The conclusions and recommendations presented in this report are contingent upon our review of the plans during the design phase of the project, and our observation and testing during the construction phase of the project.

Very truly yours,

PACIFIC CREST ENGINEERING INC.

Elizabeth M. Mitchell, GE
President/Principal Geotechnical
GE 2718, Expires 12/31/22

Copies: 1 to Client
2 to Mr. Cove Britton, Matson Britton Architects
1 to Zinn Geology (e-copy)
1 to RI Engineering (e-copy)

TABLE OF CONTENTS

GEOTECHNICAL INVESTIGATION – DESIGN PHASE
MacDonell Residence
22702 East Cliff Drive, Santa Cruz County
APN 028-242-25

I. INTRODUCTION

PURPOSE AND SCOPE

This report describes the geotechnical investigation and presents our conclusions and recommendations for the proposed improvements to the existing single-family residence located at 22702 East Cliff Drive in the Live Oak community of Santa Cruz County, California.

Our scope of services for this project has consisted of:

1. Site reconnaissance to observe the existing conditions.

2. Review of the following reports and published maps:
   - An email from Zinn Geology entitled, Preliminary Geological Findings and Recommendations for MacDonell – 2-2702 East Cliff Dr., dated March 10, 2021.
   - Geologic Map of Santa Cruz County, California, Brabb, 1997.
   - Preliminary Map of Landslide Deposits in Santa Cruz County, California, Cooper-Clark and Associates, 1975.
   - Map Showing Geology and Liquefaction Potential of Quaternary Deposits in Santa Cruz County, California, Dupré, 1975.
   - Geographic Information System – Santa Cruz County, "GISWEB Interactive Mapping Application" http://gis.co.santa-cruz.ca.us/internet/wwwgisweb/ viewer.htm

3. The drilling and logging of 3 test borings.

4. Laboratory analysis of retrieved soil samples.

5. Engineering analysis of the field and laboratory test results.

6. Preparation of this report documenting our investigation and presenting geotechnical recommendations for the design and construction of the project.

PROJECT LOCATION

The subject property is a residential parcel located on the south side of East Cliff Drive between 26th Avenue and Lake Avenue within the Live Oak community of Santa Cruz County, California. Please refer

to the Regional Site Map, Figure No. 1, in Appendix A for the general vicinity of the project site, which is approximated by the following coordinates:

Latitude = 36.957210 degrees
Longitude = -121.979682 degrees

PROPOSED IMPROVEMENTS

Based on our discussions with the design team it is our understanding that the proposed improvements to the property will consist of the demolition of the existing, two-story single-family residence and replacing it with a new two-story single-family residence with a basement/storage level and below ground garage. The proposed structure will be located landward of the 25-foot prescriptive coastal bluff setback line as delineated in the Coastal Geologic Investigation prepared by Zinn Geology.

It is our understanding that the garage and storage/basement levels will underlie most of the residence and will form the foundation system for the structure. Finish floor elevation for the garage and basement/storage levels will be approximately 23.5 feet NAVD; therefore the basement excavation is expected to extend at least 10 feet below the existing ground surface.

We presume the new structure will be wood frame and masonry construction, combined with concrete slab-on-grade and/or wood frame floors. Structural loading conditions are not known at this time but are expected to be typical of residential-type construction. We also anticipate that retaining walls, exterior flatwork, and attendant utility and landscape improvements will be required.

If the proposed development differs significantly from that described above, our office should be contacted for additional recommendations.

II. INVESTIGATION METHODS

FIELD INVESTIGATION

Three, (3) 6-inch diameter test borings were drilled at the site on September 8, 2020. The approximate location of the test borings is shown on the Regional Site Map, Figure No. 2, in Appendix A. The drilling method used was hydraulically operated continuous flight augers on a tractor mounted drill rig. A geologist from Pacific Crest Engineering Inc. was present during the drilling operations to log the soil encountered and to choose sampler type and locations.

Relatively undisturbed soil samples were obtained at various depths by driving a split spoon sampler 18 inches into the ground. This was achieved by dropping a 140-pound hammer a vertical height of 30 inches. The hammer was actuated with a wire winch. The number of blows required to drive the

sampler each 6-inch increment and the total number of blows required to drive the last 12 inches was recorded by the field geologist. The outside diameter of the samplers used was 3-inch or 2-inch and is designated on the Boring Logs as "L" or "T", respectively.

The field blow counts in 6-inch increments are reported on the Boring Logs adjacent to each sample as well as the standard penetration test data. All standard penetration test data has been normalized to a 2-inch O.D. sampler and is reported on the Boring Logs as SPT "N" values. The normalization method used was derived from the second edition of the Foundation Engineering Handbook (H.Y. Fang, 1991). The method utilizes a Sampler Hammer Ratio which is dependent on the weight of the hammer, height of hammer drop, outside diameter of sampler, and inside diameter of sample.

The soils encountered in the borings were continuously logged in the field and visually described in accordance with the Unified Soil Classification System (ASTM D2488) as described in the Boring Log Explanation, Figures No. 3 and 4, in Appendix A. The soil classification was verified upon completion of laboratory testing in accordance with ASTM D2487.

Appendix A contains the site plan showing the locations of the test borings, our borings logs and an explanation of the soil classification system used. Stratification lines on the boring logs are approximate as the actual transition between soil types may be gradual.

LABORATORY TESTING

The laboratory testing program was developed to aid in evaluating the engineering properties of the materials encountered at the site. Laboratory tests performed include:

- Moisture Density relationships in accordance with ASTM D2937.
- Field penetrometer testing to approximate unconfined compressive strength.
- Gradation testing in accordance with ASTM D1140.
- Expansion Index testing in accordance with ASTM D4829.
- Unconfined Compression testing in accordance with ASTM D2166.
- Atterberg Limits testing in accordance with ASTM D4318.

The results of laboratory testing are presented on the boring logs opposite the sample tested and/or presented graphically in Appendix A.

III. FINDINGS AND ANALYSIS

GEOLOGIC SETTING

The geologic setting is more aptly described by Zinn Geology, and we refer the reader to their report for detailed discussion on this topic. In general, however, the subject property is located at the top of relatively flat marine terrace overlying bedrock of the Purisima formation. The materials encountered in our borings were generally consistent with marine terrace deposits overlying Purisima Formation bedrock.

SURFACE CONDITIONS

The subject property consists of an approximately 17,100 square foot parcel located on the south side of East Cliff Drive. The project site is relatively flat and fronts a coastal bluff that has been historically armored by a system of rip rap revetment rock. The proposed improvement area is currently occupied by a two-story single-family residence with a finished floor elevation of approximately 33.5 feet NAVD. The residence is enclosed by fencing on the east and west sides and the property is bound by the driveway and a residential property to the north. Adjacent properties to the north, east and west have been developed for residential use. The south side of the property fronts a coastal bluff, a narrow beach, and the Monterey Bay.

SUBSURFACE CONDITIONS

Our subsurface exploration consisted of one boring drilled in the backyard (landward of the coastal bluff) and two borings on the west side of the existing residence. Please refer Figure No. 2 in Appendix A for approximate boring locations. The borings ranged in depth from 26 to 33 feet below existing grade. The soil profiles and classifications, laboratory test results and groundwater conditions encountered for each test boring are presented in the Logs of Test Borings, in Appendix A. The general subsurface conditions are described below.

The test borings typically encountered 2½ to 4 feet of fill underlain by marine terrace deposits. The fill soils ranged from sandy clay to clayey sand. The sandy materials are described medium dense, very fine to medium grained, sub-angular to sub-rounded shaped and poorly graded. The clay materials are of very stiff consistency and exhibited low to intermediate expansion characteristics.

The marine terrace deposits generally consisted of 7½ to 9 feet of clay to sandy clay, of stiff to hard consistency and low to intermediate expansion characteristics. The clay stratum is underlain by medium dense to dense, fine to medium grained sand with varying amounts of silt and gravel. Gravels and clasts encountered within the terrace deposits were typically sandstone, sub-angular to well-rounded shaped and ranged from 1 to 3 inches in diameter.

Purisima Formation Sandstone bedrock was encountered at a depth of approximately 20½ to 21½ feet below the ground surface. The Purisima Formation was described as very dense, fine to medium grained, light olive to olive brown sand. The sandstone was generally massive and friable.

Groundwater was not encountered in any of the test borings to a maximum explored depth of 33 feet. In our opinion, several feet of perched groundwater can be expected to develop at least seasonally, where a contrast in permeability occurs between the marine terrace deposits and Purisima bedrock.

It should be noted that the groundwater level was not allowed to stabilize for more than a few hours; therefore, the actual groundwater level may be higher or lower than initially encountered. The groundwater conditions described in this report reflect the conditions encountered during our drilling investigation in September 2020 at the specific location drilled. It must be anticipated that the perched and regional groundwater tables may vary with location and could fluctuate with variations in rainfall, runoff, irrigation, and other changes to the conditions existing at the time our measurements were made. We note that the groundwater measurements were taken in the fall of an average rainfall year that was preceded by multiple drought years. It should be anticipated that the groundwater table may rise significantly in the winter of non-drought years.

FAULTING AND SEISMICITY

Faulting

Mapped faults which have the potential to generate earthquakes that could significantly affect the subject site are listed in Table No. 1. The fault distances are approximate distances based the U.S. Geological Survey and California Geological Survey, Quaternary fault and fold database, accessed on December 16, 2020 from the USGS website (http://earthquake.usgs.gov/hazards/qfaults/) and overlaid onto Google Earth.

Table No. 1 - Distance to Significant Faults

Fault Name	Distance (miles)	Direction
Zayante-Vergeles	7½	Northeast
San Andreas	10	Northeast
Sargent	12½	North-Northeast
Monterey Bay-Tularcitos	4½	South-Southwest
San Gregorio	11½	Southwest

Seismic Shaking and CBC Design Parameters

Due to the proximity of the site to active and potentially active faults, it is reasonable to assume the site will experience high intensity ground shaking during the lifetime of the project. Structures founded on thick, soft soil deposits are more likely to experience more destructive shaking, with higher amplitude and lower frequency, than structures founded on bedrock. Generally, shaking will be more intense closer to earthquake epicenters. Thick, soft soil deposits large distances from earthquake epicenters, however, may result in seismic accelerations significantly greater than expected in bedrock.

Selection of seismic design parameters should be determined by the project structural designer. The site coefficients and seismic ground motion values shown in the table below were developed based on CBC 2016 incorporating the ASCE 7-10 standard, and the project site location.

Table No. 2 - 2019 CBC Seismic Design Parameters [Notes 1, 2]

Seismic Design Parameter	ASCE 7-16 Value
Site Class	D
Spectral Acceleration for Short Periods	S_s = 1.664g
Spectral Acceleration for 1-second Period	S_1 = 0.634g
Short Period Site Coefficient	F_a = 1.0
1-Second Period Site Coefficient	F_v = See Note 2
MCE Spectral Response Acceleration for Short Period	S_{MS} = 1.664g
MCE Spectral Response Acceleration for 1-Second Period	S_{M1} = See Note 2
Design Spectral Response Acceleration for Short Period	S_{DS} = 1.109g
Design Spectral Response Acceleration for 1-Second Period	S_{D1} = See Note 2

Note 1: Design values have been obtained by using the ASCE Hazard Tool at https://asce7hazardtool.online

Note 2: Per Section 11.4.8 of ASCE 7-16, a ground motion hazard analysis may be required for Site Class D sites with S_1 greater than or equal to 0.2. The values provided in this table assume that the value of the seismic response coefficient Cs can be determined by the structural designer based on the Exceptions as detailed in Section 11.4.8. This should be verified by the structural designer and Pacific Crest Engineering Inc. should be contacted for revised Table 2 parameters if these Exceptions are not applicable to the project.

The recommendations of this report are intended to reduce the potential for structural damage to an acceptable risk level, however strong seismic shaking could result in architectural damage and the need for post-earthquake repairs. It should be assumed that exterior improvements such as pavements or sidewalks may need to be repaired or replaced following strong seismic shaking.

EXHIBIT F

GEOTECHNICAL HAZARDS

A quantitative analysis of geotechnical hazards was beyond our scope of services for this project. In general, the geotechnical hazards associated with the project site include seismic shaking (discussed above), ground surface fault rupture, liquefaction, lateral spreading, landsliding, and expansive soils. The Zinn Geology report should be consulted for a comprehensive discussion of the geologic hazards for this site, which include intense seismic shaking, coastal bluff retreat, and storm wave runup. Geotechnical aspects of these issues are also discussed qualitatively herein.

Ground Surface Fault Rupture

Pacific Crest Engineering Inc. has not performed a specific investigation for the presence of active faults at the project site. Based upon our review of the Santa Cruz County GIS Hazard Maps, the project site is not mapped within a fault hazard zone.

Ground surface fault rupture typically occurs along the surficial traces of active faults during significant seismic events. Since the nearest known active, or potentially active fault trace is mapped approximately 4½ miles from the site, it is our opinion that the potential for ground surface fault rupture to occur at the site should be considered low.

Liquefaction and Lateral Spreading

Based upon our review of the Santa Cruz County GIS Hazard Maps, the project site is not mapped within a liquefaction hazard zone.

Liquefaction tends to occur in loose, saturated fine-grained sands and coarse silt, or clay with low plasticity. We did not encounter potentially liquefiable soils and the project site is underlain by sandstone bedrock, an earth material that is not susceptible to liquefaction. Consequently, it is our opinion that liquefaction is not a hazard associated with the subject site.

Liquefaction induced lateral spreading occurs when a liquefied soil mass fails toward an open slope face or fails on an inclined topographic slope. Our analysis indicates that the site has a low potential for liquefaction, consequently the potential for lateral spreading is also considered low.

Coastal Landsliding

Coastal landsliding is caused by wave action at the base of a coastal bluff that undermines the bluff face and destabilizes the materials above. Bluff instability can also occur as a result of strong seismic shaking, especially within areas of bluff that are already oversteepened and/or underlain by intensely fractured, weakened rock.

EXHIBIT F

In our opinion the buttressing effect of the armoring against the bluff face protects the bluff from hydraulic impacts due to wave action and significantly reduces the potential for bluff instability to undermine structures landward of the bluff top. The rip rap revetment also serves to absorb wave energy, inhibiting runup and the potential for flooding. Provided the structure remains landward of the Zinn Geology setback line and the armoring rock is properly maintained over the design life of the project, it is our opinion there is a low potential for landsliding to adversely impact the residence. Please refer to the Zinn Geology report for additional discussion regarding coastal landsliding.

Coastal Bluff Retreat

Please refer to the Zinn Geology report for a discussion on the processes of coastal erosion, landslides and slope erosion that contribute to coastal bluff retreat along the Monterey Bay shoreline. The coastal bluff fronting this particular property is protected by an armoring system of rip-rap. As reported by Zinn Geology, the maintenance and monitoring of the armoring system is being provided by Haro, Kasunich and Associates. Provided our recommendations and those of Zinn Geology are closely followed and the existing bluff protection system is properly maintained over the design life of the project, it is our opinion the risk for coastal bluff retreat to undermine and/or damage the proposed residence may be considered ordinary.

The existing coastal protection armoring appears to have significantly reduced the potential for wave action to damage the property, however it is important to note that shoreline protection structures do not guarantee protection from storms, they only reduce the risk of storm damage. Coastal protection measures have finite lifespans and typically require maintenance or repair during their lifespan. Continued and routine maintenance of the existing coastal protection system will be essential to reduce (but never eliminate) the potential for wave action to damage structures landward of the coastal bluff.

Wave Runup

Wave runup is defined as the vertical height of water to which a wave will rise on a structure of infinite height. A quantitative analysis of wave runup was beyond our scope of services for this project. The Federal Emergency Management Agency (FEMA) has calculated the maximum wave runup elevation (1% BFE) for a 100-year recurrence interval to be 20 feet NAVD for this reach of Santa Cruz County coastline, which includes the seaward edge of the subject property.

Based on the recent topographic survey data, the top of the bluff is situated at an elevation of roughly 32 feet NAVD, about 12 feet above below the FEMA 1% BFE runup elevation. However, it should be anticipated that, as a minimum, splash and spray during a strong storm event could reach landward of the bluff crest. Should future runup or splash happen to flow above and landward of the bluff top, the basement will capture and hold some of that water should it make it that far.

EXHIBIT F 3

The proposed building site will be situated at least 25 feet from the top of the bluff and lies entirely within an area designated by FEMA as an "Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (Zone X)".

As discussed above coastal protection measures have finite lifespans and typically require maintenance or repair during their lifespan. Continued and routine maintenance of the existing coastal armoring will be essential to reduce (but never eliminate) the potential for coastal flooding to impact structures landward of the coastal bluff.

Expansive Soils

Based on the results of our investigation, the clay materials underlying the project site exhibit low to moderate expansion characteristics. In our experience highly expansive clay soils are prevalent within the marine terrace materials that form the coastal bluff areas in this area of Santa Cruz County. It is possible that expansive clays may be present beneath the existing residence. Expansive soils tend to heave during the rainy season and contract during the summer. This cyclical volume change within the soil will occur whenever the moisture content of the soil fluctuates, whether it occurs seasonally or otherwise. Seasonal moisture fluctuation and subsequent expansion and contraction of these types of soils typically occurs more so near the ground surface.

IV. DISCUSSION AND CONCLUSIONS

GENERAL

1. The results of our investigation indicate that the proposed residential development is feasible from a geotechnical engineering standpoint, provided our recommendations are included in the design and construction of the project.

2. Grading and foundation plans should be reviewed by Pacific Crest Engineering Inc. during their preparation and prior to contract bidding.

3. Pacific Crest Engineering Inc. should be notified at least four (4) working days prior to any site clearing and grading operations on the property in order to observe the stripping and disposal of unsuitable materials, and to coordinate this work with the grading contractor. During this period, a pre-construction conference should be held on the site, with at least the client or their representative, the grading contractor, a County representative and one of our engineers present. At this meeting, the project specifications and the testing and inspection responsibilities will be outlined and discussed.

4. Field observation and testing must be provided by a representative of Pacific Crest Engineering Inc., to enable them to form an opinion as to the degree of conformance of the exposed site conditions to

those foreseen in this report, the adequacy of the site preparation, the acceptability of fill materials, and the extent to which the earthwork construction and the degree of compaction comply with the specification requirements. Any work related to grading or foundation excavation that is performed without the full knowledge and direct observation of Pacific Crest Engineering Inc., the Geotechnical Engineer of Record, will render the recommendations of this report invalid, unless the Client hires a new Geotechnical Engineer who agrees to take over complete responsibility for this report's findings, conclusions and recommendations. The new Geotechnical Engineer must agree to prepare a Transfer of Responsibility letter. This may require additional test borings and laboratory analysis if the new Geotechnical Engineer does not completely agree with our prior findings, conclusions and recommendations.

PRIMARY GEOTECHNICAL CONSIDERATIONS

5. Based upon the results of our investigation, it is our opinion that the primary geotechnical issues associated with the design and construction of the proposed project at the subject site include the following:

a. *Variable and/or Disturbed Soil Conditions:* Soil conditions below the existing residence could not be explored and are consequently not known. Variable and/or disturbed soil conditions across the proposed building site are therefore expected to occur and should be anticipated, especially following demolition operations. These unknown conditions may include organics, debris, and clay soils of varying expansive potential. Our office should observe the exposed soil conditions following demolition operations and provide additional recommendations, if necessary.

b. *Non-Engineered Fills:* Approximately 3 to 4 feet of non-engineered fill was encountered in all three of our borings. It should be anticipated that other areas of non-engineered fills may be encountered during construction. To mitigate the potential for adverse settlement to occur beneath the proposed improvements, we recommend subexcavation and recompaction of existing fill be performed where such fills underlie proposed foundations, slab-on-grade floors, and pavements. Refer to the Site Preparation section of this report for recommendations.

c. *Below Ground Structures:* A below-ground storage/garage level is planned for this project, with a finish floor elevation approximately 10 feet below existing grades and below the grade of East Cliff Drive. It should be anticipated that the below ground structures will be susceptible to water intrusion. The design and construction of below ground structures should include provisions for rapid removal of surface runoff from around the residence, basement drains, robust waterproofing of floors and walls, and redundant power systems to ensure that pumps remain operational during electrical outages.

d. *Excavation Conditions*: The preliminary plans indicate temporary cuts on the order of 10 to 12 feet will be required to establish below grade levels. It is anticipated that the east side of the proposed residence will be located in close proximity to the east property boundary and the existing structures that occupy the neighboring property.

   Perched and/or shallow groundwater conditions can and should be expected during grading for the basement levels. Exposed cut slopes and/or excavations will be in soil and should not be expected to remain stable where saturated soils are present and temporary shoring of basement excavations may be required. A soldier pile wall along the eastern perimeter of the garage and storage/basement levels will most likely be necessary to protect adjacent improvements. Please refer to the Shoring and Retaining Walls sections of this report for further discussion.

e. *Coastal Flooding and Landsliding:* The coastal bluff fronting the property is protected by a rip rap armoring system. The existing coastal protection armoring appears to have significantly reduced the potential for wave action to damage the property, however it is important to note that shoreline protection structures do not guarantee protection from storms, they only reduce the risk of storm damage. Coastal protection measures have finite lifespans and typically require maintenance or repair during their lifespan. Continued and routine maintenance of the existing armoring will be essential to reduce (but never eliminate) the potential for damage to structures landward of the coastal bluff.

f. *Strong Seismic Shaking:* The project site is located within a seismically active area and strong seismic shaking is expected to occur within the design lifetime of the project. Improvements should be designed and constructed in accordance with the most current CBC and the recommendations of this report to minimize reaction to seismic shaking. Structures built in accordance with the latest edition of the California Building Code have an increased potential for experiencing relatively minor damage which should be repairable, however strong seismic shaking could result in architectural damage and the need for post-earthquake repairs.

g. *Surface Drainage*: An engineered drainage plan is recommended for this project. Control of runoff is necessary to control erosion and prevent ponded water from collecting on paved surfaces or improvements. Improvements should be planned so that all surfaces are sloped to positively drain away from the structure towards adequate collection facilities and that ponding water is minimized. Surface runoff should be directed to suitable outlets and discharged appropriately, away from any slopes.

V. RECOMMENDATIONS

EARTHWORK

Clearing and Stripping

1. The initial preparation of the site may consist of demolition of the existing residence and foundation, and removal of designated trees and debris. All foundation elements from existing structures must be completely removed from the building areas. Tree removal should include the entire stump and root ball. Septic tanks and leaching lines, if found, must be completely removed. The extent of this soil removal will be designated by a representative of Pacific Crest Engineering Inc. in the field. This material must be removed from the site.

2. Any voids created by the removal of structures and their foundations, tree and root balls, septic tanks, and leach lines must be backfilled with properly compacted engineered fill which meets the requirements of this report.

3. Any wells encountered shall be capped in accordance with the requirements and approval of the County Health Department. The strength of the cap shall be equal to the adjacent soil and shall not be located within 5 feet of a structural footing.

4. Surface vegetation, tree roots and organically contaminated topsoil should then be removed ("stripped") from the area to be graded. In addition, any remaining debris or large rocks must also be removed (this includes asphalt or rocks greater than 2 inches in greatest dimension). This material may be stockpiled for future landscaping.

5. It is anticipated that the depth of stripping may be 2 to 4 inches. Final required depth of stripping must be based upon visual observations of a representative of Pacific Crest Engineering Inc., in the field. The required depth of stripping will vary based upon the type and density of vegetation across the project site and with the time of year.

Subgrade Preparation

6. We encountered about 3 to 4 feet of man-made fill in all three borings. It is possible that there are other areas of man-made fill at the site that our field investigation did not detect. Areas of man-made fill, where such fills underlie proposed foundations, slab-on-grade floors and pavements, will need to be completely excavated to undisturbed native material. The excavation process should be observed, and the extent designated by a representative of Pacific Crest Engineering Inc., in the field. Any voids created by fill removal must be backfilled with properly compacted engineered fill.

7. Following the removal of unsuitable fills and stripping and backfilling of voids, the exposed soils below all grade beams and interior slab floors should be removed to a minimum depth of 18 inches below bottom of grade beams or slab subgrade elevation, whichever is deeper. Subexcavation and recompaction in exterior pavement or hardscape areas should include the upper 12 inches of subgrade. The base of the excavation should be scarified 8 inches, and the soil moisture conditioned and compacted as engineered fill.

8. Subexcavations should extend at least 18 inches horizontally beyond perimeter grade beams and at least 12 inches horizontally beyond pavements and exterior flatwork.

9. Wet and soft soils may be encountered at the bottom of the excavations. If wet or unstable subgrades are encountered, they may need to be further subexcavated and replaced with stabilization fabric, crushed rock or other materials to create a stable working surface. The depth of over-excavations should be determined by a representative of Pacific Crest Engineering Inc., in the field.

10. Following subexcavation of the native soils and bottom processing, the site should then be brought to design grades with non-expansive engineered fill. The fill should be placed in maximum 8-inch lifts (before compaction). There should be a minimum of 18 inches of engineered fill below all grade beam foundation elements and interior concrete slab floors.

11. Shallow ground water conditions may be encountered. Temporary dewatering of excavations may be required (please see the Excavation section of this report).

Material for Engineered Fill

12. Native or imported soil proposed for use as engineered fill should meet the following requirements:

a. free of organics, debris, and other deleterious materials,
b. free of "recycled" materials such as asphaltic concrete, concrete, brick, etc.,
c. predominately granular in nature, well graded, contain sufficient binder to allow utility trenches to stand open, and be non-expansive.
d. free of rocks in excess of 2 inches in size.

13. In addition to the above requirements, import fill should have a Plasticity Index between 4 and 12, and a minimum Resistance "R" Value of 30, and be non-expansive.

14. Samples of any proposed imported fill planned for use on this project should be submitted to Pacific Crest Engineering Inc. for appropriate testing and approval not less than ten (10) working days

EXHIBIT F

before the anticipated jobsite delivery. This includes proposed import trench sand, drain rock and for aggregate base materials. Imported fill material delivered to the project site without prior submittal of samples for appropriate testing and approval must be removed from the project site.

Engineered Fill Placement and Compaction

15. Following the subexcavation and subgrade preparation, the site should be brought up to design grades with engineered fill that is moisture conditioned and compacted according to the recommendations of this report. **This should result in a minimum of 18 inches of non-expansive engineered fill beneath all grade beams and slab-on-grade floors, and 12 inches beneath new pavements and exterior slabs.** Recompacted sections should extend at least 18 inches horizontally beyond all perimeter grade beams and interior slabs, and 12 inches beyond exterior slabs and pavements.

16. Due to the potentially expansive nature of the on-site soils**, native clay soils must not be used as engineered fill directly beneath foundations, slabs or pavements. If imported fill is necessary to meet this requirement, we recommend the upper 18 inches of engineered fill beneath all grade beams and interior slab-on-grade floors consist of imported Class 2 Aggregate Base material.** The upper 12 inches of non-expansive engineered below exterior slabs, pavements or other hardscape improvements should include a minimum of 6 inches of Class 2 AB directly beneath slabs and pavements.

17. Non-expansive native and imported engineered fill should be placed in maximum 8-inch lifts, before compaction, at a water content which is within 1 to 3 percent of the laboratory optimum value. Native expansive clays encountered at the base of subexcavations should be compacted to 88% to 90% relative compaction, at a moisture content of 2% to 4% over optimum.

18. The soil on the project site should be compacted as follows:

a. In pavement areas the upper 8 inches of subgrade, and all aggregate subbase and aggregate base, should be compacted to a minimum of 95% of its maximum dry density,
b. In pavement areas all utility trench backfill should be compacted to 95% of its maximum dry density,
c. Expansive native clays at the base of subexcavations should be compacted to 88% to 90% of maximum dry density, at moisture content of 3% to 4% above optimum,
d. All remaining soil on the project site should be compacted to a minimum of 90% of its maximum dry density.

EXHIBIT F

19. The maximum dry density will be obtained from a laboratory compaction curve run in accordance with ASTM Procedure #D1557. This test will also establish the optimum moisture content of the material. Field density testing will be performed in accordance with ASTM Test #D6938 (nuclear method).

20. We recommend field density testing be performed in maximum 1-foot elevation differences. In general terms, we recommend at least one compaction test per 200 linear feet of utility trench or retaining wall backfill, and at least one compaction test per 500 square feet of building or structure area. This is a subjective value and may be changed by the geotechnical engineer based on a review of the final project layout and exposed field conditions.

Soil Moisture and Weather Conditions

21. If earthwork activities are done during or soon after the rainy season, the on-site soils and other materials may be too wet in their existing condition to be used as engineered fill. These materials may require a diligent and active drying and/or mixing operation to reduce the moisture content to the levels required to obtain adequate compaction as an engineered fill. If the on-site soils or other materials are too dry, water may need to be added. In some cases, the time and effort to dry the on-site soil may be considered excessive, and the import of aggregate base may be required.

Cut and Fill Slopes

22. No permanent cut or fill slopes are anticipated. Should cut or fill slopes be proposed, supplemental geotechnical engineering recommendations will be required.

Utility Trench Backfill

23. Utility trenches that are parallel to the sides of the building should be placed so that they do not extend below a line sloping down and away at a 2:1 (horizontal to vertical) slope from the bottom outside edge of all footings.

24. Utility pipes should be designed and constructed so that the top of pipe is a minimum of 24 inches below the finish subgrade elevation of any road or pavement areas. Any pipes within the top 24 inches of finish subgrade should be concrete encased, per design by the project civil engineer.

25. For the purpose of this section of the report, backfill is defined as material placed in a trench starting one foot above the pipe, and bedding is all material placed in a trench below the backfill.

EXHIBIT F

26. Unless concrete bedding is required around utility pipes, free-draining clean sand should be used as bedding. Sand bedding should be compacted to at least 95 percent relative compaction. Clean sand is defined as 100 percent passing the #4 sieve, and less than 5 percent passing the #200 sieve.

27. Approved imported clean sand or native soil should be used as utility trench backfill. Backfill in trenches located under and adjacent to structural fill, foundations, concrete slabs and pavements should be placed in horizontal layers no more than 8 inches thick. This includes areas such as sidewalks, patios, and other hardscape areas. Each layer of trench backfill should be water conditioned and compacted to at least 95 percent relative compaction.

28. All utility trenches beneath perimeter footing or grade beams should be backfilled with controlled density fill (such as 2-sack sand\cement slurry) to help minimize potential moisture intrusion below interior floors. The length of the plug should be at least three times the width of the footing or grade beam at the building perimeter, but not less than 36 inches. A representative from Pacific Crest Engineering Inc. should be contacted to observe the placement of slurry plugs. In addition, all utility pipes which penetrate through the footings, stemwalls or grade beams (below the exterior soil grade) should also be sealed water-tight, as determined by the project civil engineer or architect.

29. Utility trenches which carry "nested" conduits (stacked vertically) should be backfilled with a control density fill (such as 2-sack sand\cement slurry) to an elevation one foot above the nested conduit stack. The use of pea gravel or clean sand as backfill within a zone of nested conduits is not recommended.

30. A representative from our firm should be present to observe the bottom of all trench excavations, prior to placement of utility pipes and conduits. In addition, we should observe the condition of the trench prior to placement of sand bedding, and to observe compaction of the sand bedding, in addition to any backfill planned above the bedding zone.

31. Jetting of the trench backfill is not recommended as it may result in an unsatisfactory degree of compaction.

32. Trenches must be shored as required by the local agency and the State of California Division of Industrial Safety construction safety orders.

Excavations and Shoring

33. It likely that permanent and/or temporary construction shoring will be necessary on this project. The design, construction and installation of the shoring system is the sole responsibility of the Contractor.

34. Care must be taken not to undermine adjacent ground on neighboring properties or public roads.

35. We recommend that temporary excavations in the native soil be no steeper than 1½:1 H:V. The "top" of any temporary cut slope or excavation should be set-back at least ten feet (measured horizontally) from any nearby structure or property line. Any excavations which cannot meet these requirements will need to have a shoring system designed to support steeper sidewall gradients.

36. It should be understood that on-site safety is the sole responsibility of the Contractor, and that the Contractor shall designate a competent person (as defined by CAL-OSHA) to monitor the slope excavation prior to the start of each work day, and throughout the work day as conditions change. The competent person designated by the Contractor shall determine if flatter slope gradients are more appropriate, or if shoring should be installed to protect workers in the vicinity of the slope excavation. Refer to Title 8, California Code of Regulations, Sections 1539-1543.

37. All excavations must meet the requirements of 29 CFR 1926.651 and 1926.652 or comparable OSHA approved state plan requirements.

38. Depending on the time of year that construction takes place excavation de-watering may be necessary. Groundwater should be expected at shallower depths during or soon after the rainy season. Temporary dewatering may be achieved by sloping the excavation to a system of sump pumps placed within the excavation, trenching from the base of excavations to discharge water by gravity flow, or other means. It is the Contractor's responsibility to design an adequate de-watering system for the project site, and to submit a detailed de-watering plan to the geotechnical engineer for review at least three weeks prior to the start of construction.

39. All shoring backfill to be placed in maximum 8-inch lifts, at a water content which is 1 to 3 percent above the laboratory optimum value. The material should be compacted to at least 90 percent relative compaction. If a clean gravel backfill is utilized as shoring backfill, it should be compacted in maximum 1 to 2-foot lifts using a vibra-plate or similar equipment. It is recommended that all voids behind the shoring system be completely filled with soil or gravel backfill while the shoring work is in progress.

40. Shoring wall systems chosen by the designer should include the geotechnical design criteria presented in the "Retaining Walls/Shoring Wall Design Recommendations" section of this report.

FOUNDATIONS – DRILLED PIERS

41. Based on the results of our investigation and the planned location of the building footprint we recommend a drilled pier foundation system to support the proposed residential structure. Such a system should consist of skin friction bearing, cast-in-place reinforced concrete piers in conjunction

with reinforced concrete grade beams. Piers should be designed and constructed in accordance with the following criteria:

42. Minimum pier embedment should be 5 feet into Purisima bedrock. This will necessitate pier depths of approximately 15 feet below the proposed basement/garage levels. Actual depths could depend upon a lateral force analysis performed by your structural designer.

a. The piers should contain steel reinforcement as determined by the Project Civil or Structural Engineer.

b. Minimum recommended pier diameter is 18 inches.

c. Piers constructed to the given criteria may be designed for an allowable skin friction capacity of 400 psf/ft of depth. The allowable pier capacity may be increased by one-third (1/3) for short duration loads such as those imposed by wind and seismic forces.

d. Passive pressures of 350 psf/ft of depth can be developed, acting over a plane 1½ times the pier diameter.

e. The piers should be drilled within ½ percent of a vertically plumb condition.

f. The pier excavation spoils should be removed from the site or compacted as engineered fill.

g. All pier excavations must be free of loose material and debris at the time concrete is placed.

h. Caving was not observed during the course of our drilling operations, however the possibility of encountering caving soils during drilling operations is always present, especially below the groundwater table. Consequently, casing of the pier excavations may become necessary.

i. If casing of the pier excavations becomes necessary, and the casing is pulled during the concrete pour, it must be pulled slowly with a minimum of 4 feet of casing remaining embedded within the concrete at all times.

j. Depending upon the time of year the construction takes place, groundwater may be encountered during the drilling of the piers. Any water encountered will have to either be pumped before steel and concrete placement or the concrete placed through a tremie.

k. All pier construction must be continuously observed by a representative from Pacific Crest Engineering Inc. Any piers constructed without the full knowledge and continuous observation of Pacific Crest Engineering Inc., will render the recommendations of this report invalid. The Contractor and drilling subcontractor should be notified regarding this requirement.

SLAB-ON-GRADE CONSTRUCTION (EXTERIOR SLABS)

43. All exterior slabs, patios, walkways, etc., should be structurally independent of structural foundation system(s).

44. All exterior slabs-on-grade should be underlain by a minimum of 12 inches of non-expansive native or imported fill. This material should be compacted to at least 90 percent compaction. Any areas to receive vehicle traffic should be compacted to at least 95 percent compaction.

45. Requirements for pre-wetting of the subgrade soils prior to the pouring of the slabs will depend on the specific soils and seasonal moisture conditions and will be determined by a representative of Pacific Crest Engineering Inc. at the time of construction. It is important that the subgrade soils be properly moisture conditioned at the time the concrete is poured. Subgrade moisture contents should not be allowed to exceed our moisture recommendations for effective compaction and should be maintained until the slab is poured.

46. Slab thickness, reinforcement, and doweling should be determined by the project civil or structural engineer. The use of welded wire mesh is not recommended for slab reinforcement.

RETAINING WALLS

47. Retaining walls with full drainage should be designed using the following criteria:

TABLE No. 3, Active and At-Rest Earth Pressure Values

Maximum Backfill Slope (H:V)	Active Earth Pressure (psf/ft of depth)	At-Rest Earth Pressure (psf/ft of depth)
Level	45	60
2:1	60	80
3:1	48	65

48. These lateral earth pressures assume fully drained conditions. If fully drained conditions cannot be achieved, the walls should be designed for an undrained condition and an additional lateral pressure of 55 psf/foot should be applied to the active or at rest earth pressures provided above.

EXHIBIT F

49. Should the slope behind the retaining walls be other than shown in Table 3, supplemental design criteria will be provided for the active earth or at rest pressures for the particular slope angle.

50. Active earth pressure values may be used when walls are free to yield an amount sufficient to develop the active earth pressure condition (about ½% of height). The effect of wall rotation should be considered for areas behind the planned retaining wall (pavements, foundations, slabs, etc.). When walls are restrained at the top or to design for minimal wall rotation, at-rest earth pressure values should be used.

51. For resisting passive earth pressure use 300 psf/ft of depth.

52. The mechanics of soil pressure on the footing keyway intended to enhance sliding stability has been considered. The active pressure on the keyway, acting opposite the passive pressure, may be taken as zero.

53. A "coefficient of friction" between base of foundation and soil of 0.30

54. Where short term earthquake or wind loads are included, the minimum safety factor for retaining wall sliding and overturning shall be 1.1 for earthquake loads and 1.2 for wind loads.

55. Retaining walls to be integrated with the building foundation should be supported by drilled pier foundations as recommended above. Site retaining walls independent of the building foundation may be supported on spread footings bearing upon a minimum of 12 inches of non-expansive engineered fill. In this case an allowable bearing capacity of 1,200 psf should be used, with a one-third increase for short term loading conditions.

56. To develop the resisting passive earth pressure, the retaining wall footings should be embedded a minimum of 18 inches below the lowest adjacent compacted grade. There should be a minimum of 5 feet of horizontal cover as measured from the outside edge of the footing.

57. For surcharge pressures due to traffic loading or other live or dead loads which will transmit a force to the wall, please refer to Figure No. 12 in Appendix A.

58. If the structural designer wishes to include seismic forces in their design, the wall may be designed using the above active soil pressures plus a horizontal seismic force of $10H^2$ pounds per lineal foot (where H is the height of retained material). The resultant seismic force should be applied at a point $1/3^{rd}$ above the base of the wall. This force has been estimated using the Mononobe-Okabe method

of analysis as modified by Whitman (1990) and Lew and Sitar (2010). A reduced factor of safety for overturning and sliding may be used in seismic design as determined by the structural designer.

59. The above seismic forces should not be used in combination with at rest lateral soil pressures.

Shoring Wall Design Recommendations

60. The design and construction of temporary shoring systems for this project will be the responsibility of the contractor. Shoring systems may be designed using the lateral earth pressure recommendations provided above. In addition, we anticipate that excavations adjacent to the east property boundary will require a soldier pile shoring system. Recommendations for the design and construction of soldier pile shoring systems are provided below.

61. Soldier pile retaining walls should be constructed with either timber or concrete lagging spanning between steel H beams founded in cast-in-place concrete piers. Timber lagging, including field cuts, must be preserved in accordance with CALTRANS Specifications, Section 58 and AWPA Standard M4.

62. Drilled piers should be designed to support vertical dead plus normal live loading using an allowable skin friction value of 350 pounds per square foot between the pier shaft and adjacent soil. End bearing capacity of the pier should also be neglected. This skin friction value may be increased by one-third when considering transient loads, such as wind and seismic loading.

63. Piers should be at least 1.5 feet in diameter with a pier spacing of between 3 and 4 pier diameters (e.g. 4.5 to 6.0 feet on center for a 1.5-foot diameter pier).

64. Pier embedment depth for resistance to lateral loads may be determined based on a passive soil pressure simulated by an equivalent fluid pressure of 300 psf/ft of depth. Passive pressures may be assumed to act on a plane which is 2.0 times the pier diameter. This value may be increased by one-third for short term seismic loads.

65. Passive resistance should be ignored for the upper two feet of pier embedment, or full height of the recommended subexcavation depth for all piles within 8 feet laterally of the subexcavation zone, whichever is greater.

66. For cantilever piers without tie-backs, the minimum pier embedment into competent native soil should be 12 feet. Final required embedment depths should be determined by the structural designer and verified by our representative in the field.

EXHIBIT F

67. Assuming drained, level backfill conditions, the pier and lagging wall should be designed for an active equivalent fluid earth pressure of 45 psf/ft.

68. If the structural designer wishes to include seismic forces in their design, the wall may be designed using the above active soil pressures plus a horizontal seismic force of $10H^2$ pounds per lineal foot (where H is the height of retained material). The resultant seismic force should be applied at a point $1/3^{rd}$ above the base of the wall. This force has been estimated using the Mononobe-Okabe method of analysis as modified by Whitman (1990) and Lew and Sitar (2010). A reduced factor of safety for overturning and sliding may be used in seismic design as determined by the structural designer.

69. Surcharge loads that should be considered for the wall, including adjacent foundation loads, should be estimated using Figure No. 12, Appendix A.

70. The piers should contain steel reinforcement as determined by the project civil or structural designer.

71. The piers should be drilled within ½ percent of a vertically plumb condition. The pier excavation spoils must be removed from the site.

72. If ground water is encountered during pier drilling it should be either pumped from the holes or the concrete placed via a tremie. The end of the tremie tube must remain embedded a minimum of 4 feet into the concrete at all times.

73. The base of all pier holes should be cleaned of all loose soil prior to placement of steel and concrete. All pier construction must be observed by a Pacific Crest Engineering Inc. so that we can verify that piers extend sufficiently into competent bearing materials. Any piers constructed without the full knowledge and continuous observation of a representative from Pacific Crest Engineering Inc., will render the recommendations of this report invalid.

Retaining Wall Drainage

74. The above design criteria are based on fully drained conditions. Therefore, we recommend that permeable material meeting the State of California Standard Specification Section 68-1.025, Class 1, Type A, be placed behind the wall, with a minimum width of 12 inches and extending for the full height of the wall to within 1 foot of the ground surface. The top of the permeable material should be covered with Mirafi 140N filter fabric or equivalent and then compacted native soil placed to the ground surface. A 4-inch diameter perforated rigid plastic drainpipe should be installed within 3 inches of the bottom of the permeable material and be discharged to a suitable, approved location away from the foundation and grading areas. The perforations should be placed downward, oriented along the lower

EXHIBIT F

half of the pipe. Neither the pipe nor the permeable material should be wrapped in filter fabric. Please refer to the Typical Retaining Wall Drain Detail, Figure 13, in Appendix A for details.

75. For walls that are incorporated into the building, the invert of the drainpipe should be at least 12 inches below the adjacent interior finished floor.

76. The area behind the wall and beyond the permeable material should be compacted with approved material to a minimum relative compaction of 90%.

Water Proofing Retaining Walls

77. A waterproofing system, including but not limited to water stops, bentonite board composite, concrete sealant or other appropriate options should be implemented for all subterranean retaining walls to reduce moisture in below grade portions of the structure. Waterproofing methods should be developed by the project architect. Under no circumstances should the retaining wall drains be considered as waterproofing.

PAVEMENT DESIGN

78. The design of the pavement section was beyond our scope of services for this project. To have the selected pavement sections perform to their greatest efficiency, it is very important that the following items be considered:

a. Properly scarify and moisture condition the upper 8 inches of the subgrade soil and compact it to a minimum of 95% of its maximum dry density, at a moisture content of 1 to 3% over the optimum moisture content for the soil.

b. Provide sufficient gradient to prevent ponding of water.

c. Use only quality materials of the type and thickness (minimum) specified. All aggregate base and subbase must meet Caltrans Standard Specifications for Class 2 materials and be angular in shape. All Class 2 aggregate base should be ¾ inch maximum in aggregate size.

d. Compact the base and subbase uniformly to a minimum of 95% of its maximum dry density.

e. Use ½ inch maximum, Type "A" medium graded asphaltic concrete. Place the asphaltic concrete only during periods of fair weather when the free air temperature is within prescribed limits by Cal Trans Specifications.

EXHIBIT F

f. **Porous pavement systems which consist of porous paving blocks, asphaltic concrete or concrete are generally not recommended due to the potential for saturation of the subgrade soils and resulting increased potential for a shorter pavement life. At a minimum, porous pavement systems should include a layer of Mirafi HP370 geotextile fabric placed on the subgrade soil beneath the porous paving section. These pavement systems should only be used with the understanding by the Owner of the increased potential for pavement cracking, rutting, potholes, etc.**

g. Maintenance should be undertaken on a routine basis.

SURFACE DRAINAGE

79. Surface water drainage is the responsibility of the project civil engineer. The following should be considered by the civil engineer in design of the project.

80. Surface water must not be allowed to pond or be trapped adjacent to foundations, or on building pads, hardscape and parking areas.

81. It should be anticipated that the below ground structures will be susceptible to water intrusion. The design and construction of below ground structures should include provisions for rapid removal of surface runoff from around the residence, basement drains, pumps, robust waterproofing of floors and walls, and redundant power systems to ensure that pumps remain operational during electrical outages. Water collected by pumps should be discharged away from basement wall drains.

82. All roof eaves should be guttered, with the outlets from the downspouts provided with adequate capacity to carry the storm water away from structures to reduce the possibility of soil saturation and erosion. The connection should be in a closed conduit which discharges at an approved location away from structures and graded areas.

83. Slope failures can occur where surface drainage is allowed to concentrate on unprotected slopes. Appropriate landscaping and surface drainage control around the project area is imperative in order to minimize the potential for shallow slope failures and erosion. Storm water discharge locations should not be located at the top or on the face of any slope.

84. Final grades should be provided with positive gradient away from all foundation elements. Soil grades should slope away from foundations at least 5 percent for the first 10 feet. Impervious surfaces should slope away from foundations at least 2 percent for the first 10 feet. Concentrations of surface runoff should be handled by providing structures, such as paved or lined ditches, catch basins, etc.

EXHIBIT F

85. Irrigation activities at the site should be done in a controlled and reasonable manner.

86. Following completion of the project we recommend that storm drainage provisions and performance of permanent erosion control measures be closely observed through the first season of significant rainfall, to determine if these systems are performing adequately and, if necessary, resolve any unforeseen issues.

87. The building and surface drainage facilities must not be altered, nor any filling or excavation work performed in the area without first consulting Pacific Crest Engineering Inc. Surface drainage improvements developed by the project civil engineer must be maintained by the property owner at all times, as improper drainage provisions can produce undesirable affects.

EROSION CONTROL

88. The surface soils are classified as having a moderate potential for erosion. Therefore, the finished ground surface should be planted with ground cover and continually maintained to minimize surface erosion. For specific and detailed recommendations regarding erosion control on and surrounding the project site, the project civil engineer or an erosion control specialist should be consulted.

PLAN REVIEW

89. We respectfully request an opportunity to review the project plans and specifications during preparation and before bidding to ensure that the recommendations of this report have been included and to provide additional recommendations, if needed. These plan review services are also typically required by the reviewing agency. Misinterpretation of our recommendations or omission of our requirements from the project plans and specifications may result in changes to the project design during the construction phase, with the potential for additional costs and delays in order to bring the project into conformance with the requirements outlined within this report. Services performed for review of the project plans and specifications are considered "post-report" services and billed on a "time and materials" fee basis in accordance with our latest Standard Fee Schedule.

VI. LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. This Geotechnical Investigation was prepared specifically for Alex and Judi MacDonell and for the specific project and location described in the body of this report. This report and the recommendations included herein should be utilized for this specific project and location exclusively. This Geotechnical Investigation should not be applied to nor utilized on any other project or project site. Please refer to the ASFE "Important Information about Your Geotechnical Engineering Report" attached with this report.

EXHIBIT F

2. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that planned at the time, our firm should be notified so that supplemental recommendations can be provided.

3. This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are called to the attention of the Architects and Engineers for the project and incorporated into the plans, and that the necessary steps are taken to ensure that the Contractors and Subcontractors carry out such recommendations in the field.

4. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural process or the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside of our control. This report should therefore be reviewed in light of future planned construction and then current applicable codes. This report should not be considered valid after a period of two (2) years without our review.

5. This report was prepared upon your request for our services in accordance with currently accepted standards of professional geotechnical engineering practice. No warranty as to the contents of this report is intended, and none shall be inferred from the statements or opinions expressed.

6. The scope of our services mutually agreed upon for this project did not include any environmental assessment or study for the presence of hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below or around this site.

EXHIBIT F

Important Information About Your

Geotechnical Engineering Report

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

The following information is provided to help you manage your risks.

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

EXHIBIT F

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 Geotechncial 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 you ASFE-member geotechnical engineer for more information.

ASFE
The Best People on Earth

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@asfe.org www.asfe.org

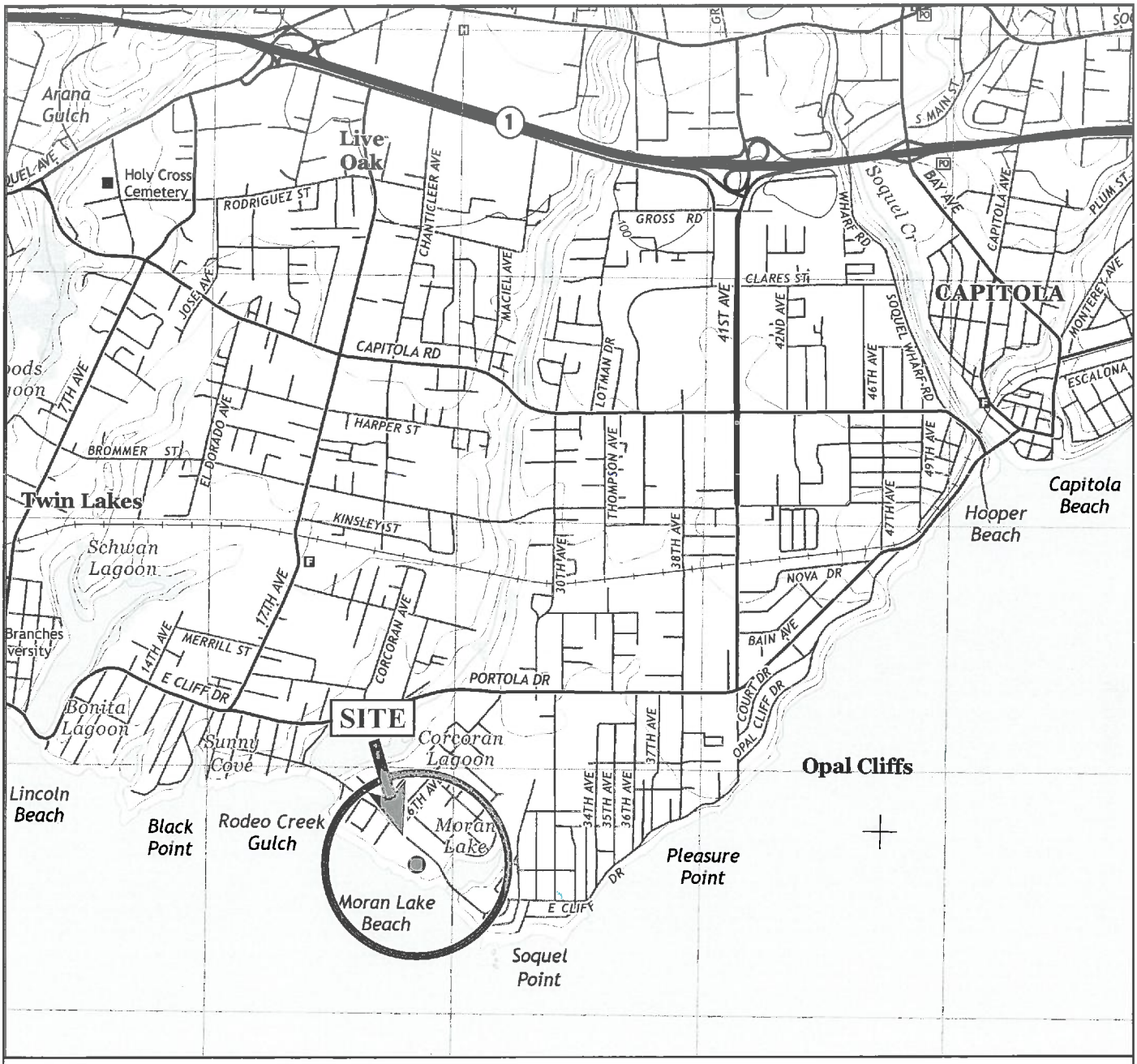
IIGER06045.0M

EXHIBIT F

APPENDIX A

Regional Site Map
Site Map Showing Test Borings
Key to Soil Classification
Log of Test Borings
Expansion Characteristics
Surcharge Pressure Diagram
Typical Retaining Wall Drain Detail

EXHIBIT F



Pacific Crest ENGINEERING INC	Regional Site Map 22702 East Cliff Drive Santa Cruz County, California	Figure No. 1 Project No. 2078 Date: 4/9/21

EXHIBIT F

EXPLANATION

EARTH MATERIALS

af/Qmt — Artificial fill over marine terrace deposits

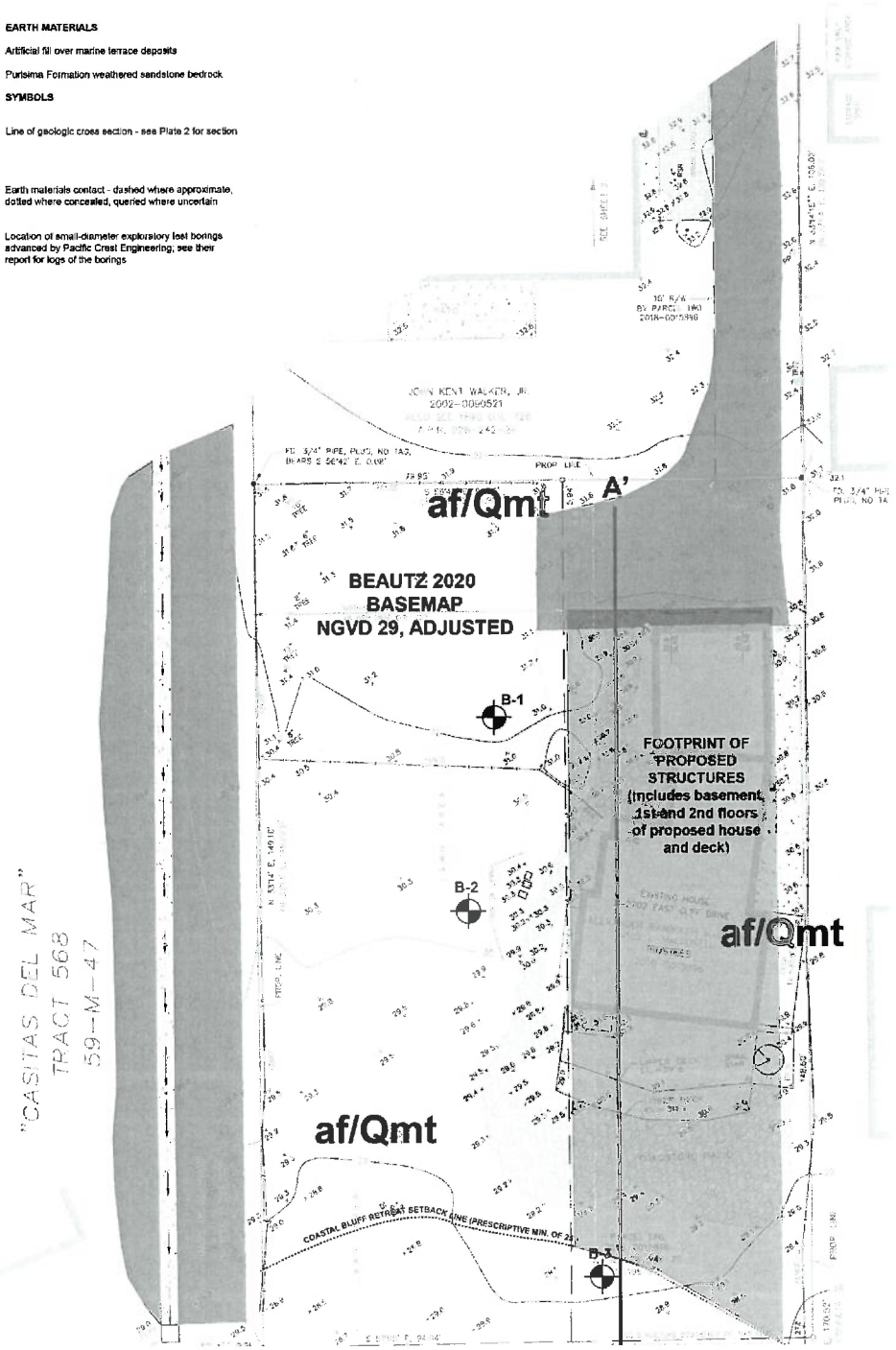
Tp — Purisima Formation weathered sandstone bedrock

SYMBOLS

A — A' — Line of geologic cross section - see Plate 2 for section

Earth materials contact - dashed where approximate, dotted where concealed, queried where uncertain

B-3 — Location of small-diameter exploratory test borings advanced by Pacific Crest Engineering; see their report for logs of the borings



0 20 40

Scale: 1 inch = 20 feet

Base Map Prepared by Zinn Geology:
"Plate 1 - Geologic Site Map (DRAFT)
Lands of MacDonell
2-2702 East Cliff Drive
Santa Cruz, California 95062"
10 March 2021, 1" = 10'

Pacific Crest ENGINEERING INC	Site Map Showing Test Boring Locations 22702 East Cliff Drive Santa Cruz County, California	Figure No. 2 Project No. 2078 Date: 4/9/21

EXHIBIT F

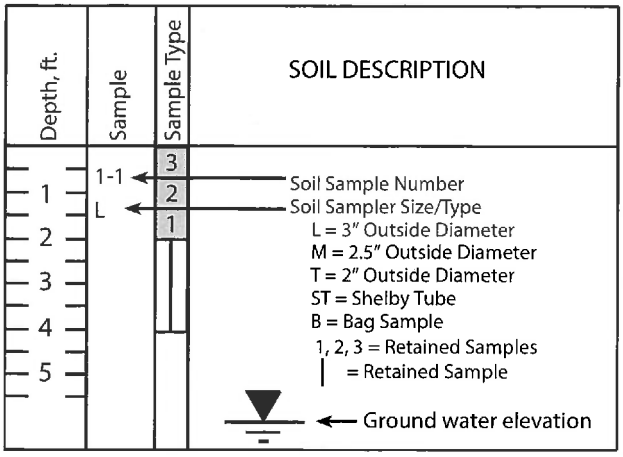
KEY TO SOIL CLASSIFICATION - FINE GRAINED SOILS (FGS)
UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2487 (Modified)

MAJOR DIVISIONS		SYMBOL	FINES	COARSENESS	SAND/GRAVEL	GROUP NAME
SILT AND CLAY	*LL < 35% Low Plasticity	CL Lean Clay PI > 7 Plots Above A Line -OR- ML Silt PI > 4 Plots Below A Line	<30% plus No. 200	<15% plus No. 200		Lean Clay / Silt
				15-30% plus No. 200	% sand ≥ % gravel	Lean Clay with Sand / Silt with Sand
					% sand < % gravel	Lean Clay with Gravel / Silt with Gravel
			≥30% plus No. 200	% sand ≥ % gravel	< 15% gravel	Sandy Lean Clay / Sandy Silt
					≥ 15% gravel	Sandy Lean Clay with Gravel / Sandy Silt with Gravel
				% sand < % gravel	< 15% sand	Gravelly Lean Clay / Gravelly Silt
					≥ 15% sand	Gravelly Lean Clay with Sand / Gravelly Silt with Sand
		CL - ML 4 < PI < 7	<30% plus No. 200	<15% plus No. 200		Silty Clay
				15-30% plus No. 200	% sand ≥ % gravel	Silty Clay with Sand
					% sand < % gravel	Silty Clay with Gravel
			≥30% plus No. 200	% sand ≥ % gravel	< 15% gravel	Sandy Silty Clay
					≥15% gravel	Sandy Silty Clay with Gravel
				% sand < % gravel	< 15% sand	Gravelly Silty Clay
					≥15% sand	Gravelly Silty Clay with Sand
	35% ≤ *LL < 50% Intermediate Plasticity	CI	<30% plus No. 200	<15% plus No. 200		Clay
				15-30% plus No. 200	% sand ≥ % gravel	Clay with Sand
					% sand < % gravel	Clay with Gravel
			≥30% plus No. 200	% sand ≥ % gravel	< 15% gravel	Sandy Clay
					≥ 15% gravel	Sandy Clay with Gravel
				% sand < % gravel	< 15% sand	Gravelly Clay
					≥ 15% sand	Gravelly Clay with Sand
	*LL > 50% High Plasticity	CH Fat Clay Plots Above A Line -OR- MH Elastic Silt Plots Below A Line	<30% plus No. 200	<15% plus No. 200		Fat Clay or Elastic Silt
				15-30% plus No. 200	% sand ≥ % gravel	Fat Clay with Sand Elastic Silt with Sand
					% sand < % gravel	Fat Clay with Gravel / Elastic Silt with Gravel
			≥30% plus No. 200	% sand ≥ % gravel	< 15% gravel	Sandy Fat Clay / Sandy Elastic Silt
					≥ 15% gravel	Sandy Fat Clay with Gravel / Sandy Elastic Silt with Gravel
				% sand < % gravel	< 15% sand	Gravelly Fat Clay / Gravelly Elastic Silt
					≥ 15% sand	Gravelly Fat Clay with Sand / Gravelly Elastic Silt with Sand

* LL = Liquid Limit

* PI = Plasticity Index

BORING LOG EXPLANATION



MOISTURE

DESCRIPTION	CRITERIA
DRY	Absence of moisture, dusty, dry to the touch
MOIST	Damp, but no visible water
WET	Visible free water, usually soil is below the water table

CONSISTENCY

DESCRIPTION	UNCONFINED SHEAR STRENGTH (KSF)	STANDARD PENETRATION (BLOWS/FOOT)
VERY SOFT	< 0.25	< 2
SOFT	0.25 - 0.5	2 - 4
FIRM	0.5 - 1.0	5 - 8
STIFF	1.0 - 2.0	9 - 15
VERY STIFF	2.0 - 4.0	16 - 30
HARD	> 4.0	> 30

Pacific Crest ENGINEERING INC

Boring Log Explanation - FGS
22702 East Cliff Drive
Santa Cruz County, California

Figure No. 3
Project No. 2078
Date: 4/9/21

EXHIBIT F

KEY TO SOIL CLASSIFICATION - COARSE GRAINED SOILS
UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2487 (Modified)

MAJOR DIVISIONS		FINES	GRADE/TYPE OF FINES	SYMBOL	GROUP NAME *
GRAVEL	More than 50% of coarse fraction is larger than No. 4 sieve size	<5%	Cu ≥ 4 and 1 ≤Cc ≤ 3	GW	Well-Graded Gravel / Well-Graded Gravel with Sand
			Cu < 4 and/or 1 > Cc > 3	GP	Poorly Graded Gravel /Poorly Graded Gravel with Sand
		5-12%	ML or MH	GW - GM	Well-Graded Gravel with Silt / Well- Graded Gravel with Silt and Sand
				GP - GM	Poorly Graded Gravel with Silt / Poorly Graded Gravel with Silt and Sand
			CL, CI or CH	GW - GC	Well-Graded Gravel with Clay / Well-Graded Gravel with Clay and Sand
				GP - GC	Poorly Graded Gravel with Clay / Poorly Graded Gravel with Clay and Sand
		>12%	ML or MH	GM	Silty Gravel / Silty Gravel with Sand
			CL, CI or CH	GC	Clayey Gravel / Clayey Gravel with Sand
			CL - ML	GC - GM	Silty, Clayey Gravel / Silty, Clayey Gravel with Sand
SAND	50% or more of coarse fraction is smaller than No. 4 sieve size	<5%	Cu ≥ 6 and 1 ≤Cc ≤3	SW	Well-Graded Sand / Well-Graded Sand with Gravel
			Cu < 6 and/or 1 > Cc > 3	SP	Poorly Graded Sand / Poorly Graded Sand with Gravel
		5-12%	ML or MH	SW - SM	Well-Graded Sand with Silt / Well- Graded Sand with Silt and Gravel
				SP - SM	Poorly Graded Sand with Silt / Poorly Graded Sand with Silt and Gravel
			CL, CI or CH	SW - SC	Well-Graded Sand with Clay / Well-Graded Sand with Clay and Gravel
				SP - SC	Poorly Graded Sand with Clay / Poorly Graded Sand with Clay and Gravel
		>12%	ML or MH	SM	Silty Sand / Silty Sand with Gravel
			CL, CI or CH	SC	Clayey Sand / Clayey Sand with Gravel
			CL - ML	SC - SM	Silty, Clayey Sand / Silty, Clayey Sand with Gravel

* The term "with sand" refers to materials containing 15% or greater sand particles within a gravel soil, while the term "with gravel" refers to materials containing 15% or greater gravel particles within a sand soil.

US STANDARD SIEVE SIZE:	3 inch	¾ inch	No. 4	No. 10	No. 40	No. 200	0.002 µm
	COARSE	FINE	COARSE	MEDIUM	FINE		
COBBLES AND BOULDERS	GRAVEL		SAND			SILT	CLAY

RELATIVE DENSITY

DESCRIPTION	STANDARD PENETRATION (BLOWS/FOOT)
VERY LOOSE	0 - 4
LOOSE	5 - 10
MEDIUM DENSE	11 - 30
DENSE	31 - 50
VERY DENSE	> 50

MOISTURE

DESCRIPTION	CRITERIA
DRY	Absence of moisture, dusty, dry to the touch
MOIST	Damp, but no visible water
WET	Visible free water, usually soil is below the water table

Pacific Crest ENGINEERING INC	Boring Log Explanation - CGS 22702 East Cliff Drive Santa Cruz County, California	Figure No. 4 Project No. 2078 Date: 4/9/21

EXHIBIT F

LOGGED BY CLA | DATE DRILLED 9/8/20 | BORING DIAMETER 6" SS | BORING NO. 1

DRILL RIG CCD Tractor | HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
1	1-1 L	2	FILL: SANDY LEAN CLAY: Grayish brown (10YR 5/2) and yellowish brown (10YR 5/8), very fine to fine grained, poorly graded, few rootlets, slightly moist, very stiff	CL	17							
2		1			18		+4.5	7.9	101.2			
3	1-2 T		Brown (10YR 4/3), slightly moist, very stiff		18 5	23	+4.5	9.7	108.1			Qu = 6976 psf
4					10 21	31		15.1				
5	1-3 L	2	NATIVE CLAY: Mottled light yellowish brown (2.5Y 6/3) and yellowish brown (10YR 5/8), trace very fine to fine grained quartz rich sand, clay exhibits intermediate plasticity, slightly moist, hard	CI	10 22		+4.5	20.7	102.2	92.1	28	
6		1			35	37	4.0	16.4	98.8			Atterberg Limits LL = 44% PL = 17% PI = 28
7												
8	1-4 T		Slightly moist, stiff		4 5			26.5				
9					9	14						
10												
11												
12	1-5 L		CLAYEY SAND: Grayish brown (10YR 5/2), fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, clay appears to exhibit low plasticity, trace sandstone clasts up to 2 inches in diameter,	SC	17			13.4				
13		2 1	moist, dense		25 25	50						
14												
15			Rocky drilling at 14½ feet									
16	1-6 T		SILTY SAND WITH GRAVEL: Yellowish brown (10YR 5/4 & 5/6), fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, sub-angular to well rounded sandstone clasts, gravels and cobbles up to 3 inches in diameter, moist, dense	SM	20			8.7				
17					20							
18			Rocky drilling at 18 feet		25	45						
19												
20	1-7 L		Increase in gravel content at 20 feet, moist, very dense		17							
21		2 1			15 50/6"	50/6"		22.0 37.8	102.3 78.7			
22	1-8 T		PURISIMA SANDSTONE BEDROCK WEATHERED TO SILTY SAND: Olive brown (2.5Y 4/3), fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, massive, friable, moist, very dense		15 50/6"	50/6"		20.2				
23			Trace binder, slightly moist, very dense									

Pacific Crest ENGINEERING INC

Log of Test Borings
22702 East Cliff Drive
Santa Cruz County, California

Figure No. 5
Project No. 2078
Date: 4/9/21

EXHIBIT F

LOGGED BY CLA DATE DRILLED 9/8/20 BORING DIAMETER 6" SS BORING NO. 1

DRILL RIG CCD Tractor HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
24	1-9 L	1	PURISIMA SANDSTONE BEDROCK WEATHERED TO SILTY SAND: Brownish yellow (10YR 5/6 & 5/8) and olive brown (2.5Y 4/3), fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, massive friable, few mica flakes, slightly moist, very dense		7 50/4"	50/4"		24.3	71.9			
25	1-10 T				10 23			26.2				
26			Slightly moist, very dense		50/6"	50/6"						
27												
28												
29												
30												
31												
32	1-11 L	1	Slightly moist, very dense		17 50/6"	50/6"		26.7	85.7			
33			Boring terminated at 33 feet. No free-standing groundwater encountered.									
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												

Pacific Crest ENGINEERING INC

Log of Test Borings
22702 East Cliff Drive
Santa Cruz County, California

Figure No. 6
Project No. 2078
Date: 4/9/21

EXHIBIT F

LOGGED BY CLA DATE DRILLED 9/8/20 BORING DIAMETER 6" SS BORING NO. 2

DRILL RIG CCD Tractor HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
1	2-1 L	2	FILL: SANDY CLAY: Very dark grayish brown (10YR 3/2), brown (10YR 4/3) and yellowish brown (10YR 5/8); very fine to fine grained sand, medium expansion potential, scattered rootlets, slightly moist, stiff	CL	3 5		+4.5	13.7	89.4			EI = 76
2		1			10	12	+4.5	13.7	102.3			
3	2-2 T		Brown (10YR 4/3), slightly moist, very stiff		7 11							
4					11	22		16.1		69.2		
5	2-3 L	2	NATIVE: SILTY SAND: Dark yellowish brown (10YR 4/4), very fine to fine grained, poorly graded, quartz rich, few rootlets; very moist, loose	SM	3 5			21.0	102.8			
6		1			6	6		24.4	95.6			
7												
8	2-4 T		SANDY CLAY: Mottled light gray (2.5Y 7/2) and dark brown (7.5YR 3/4), clay exhibits intermediate plasticity, very fine to fine grained quartz sand, very moist, stiff	CL	3 4							Atterberg Limits LL = 41% PL = 17%
9					7	11		26.3			24	PI = 24
10												
11												
12	2-5 L	2	CLAYEY SAND WITH GRAVEL: Brown (10YR 4/4), fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, clay appears to exhibit low plasticity, sub-rounded to rounded shaped sandstone	SC	10 21			11.8	121.8			
13		1	gravels up to 2 inches in diameter, moist, very dense		50/6"	50/6"		13.8	115.0			
14												
15			Rocky drilling at 14 feet									
16	2-6 T		Decrease in clay content, slight increase in gravel content, moist, dense		10 16							
17					21	37		11.2				
18			Increase in drilling resistance at 18½ feet. Dense, rocky drilling									
19												
20	2-7 L	2	Moist, dense PURISIMA SANDSTONE BEDROCK WEATHERED		4 21			19.1	100.4			
21		1	TO SILTY SAND: Olive brown (2.5Y 4/3), fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, massive, friable, slightly moist, very dense		50/6"	50/6"		22.6	98.0			
22	2-8 T				15 50/6"	50/6"		24.0				
23			Slightly moist, very dense									

Pacific Crest ENGINEERING INC

Log of Test Borings
22702 East Cliff Drive
Santa Cruz County, California

Figure No. 7
Project No. 2078
Date: 4/9/21

EXHIBIT F

LOGGED BY CLA DATE DRILLED 9/8/20 BORING DIAMETER 6" SS BORING NO. 2

DRILL RIG CCD Tractor HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
24	2-9 L	1	PURISIMA SANDSTONE BEDROCK WEATHERED TO SILTY SAND: Light olive brown (2.5Y 5/4 & 5/6), fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, massive, friable, moist, very dense		9 50/4"	50/4"		25.9	88.1			
25	2-10 T		Moist, very dense		18 50/6"	50/6"		28.1				
26			Boring terminated at 26 feet. No free-standing groundwater encountered.									
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												

Pacific Crest ENGINEERING INC

Log of Test Borings
22702 East Cliff Drive
Santa Cruz County, California

Figure No. 8
Project No. 2078
Date: 4/9/21

EXHIBIT F

LOGGED BY CLA DATE DRILLED 9/8/20 BORING DIAMETER 6" SS BORING NO. 3

DRILL RIG CCD Tractor HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
1	3-1 L	2	FILL: CLAYEY SAND: Very dark grayish brown (10YR 2/1) changing to black (10YR 3/2), fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, trace rounded gravels up to 1 inch in diameter, moist, medium dense	SC	3							
2					5			13.1	109.0			
		1			10	12		12.5	107.9			
3	3-2 T		NATIVE: SANDY LEAN CLAY: Black (10YR 2/1), very fine to fine grained quartz sand, moist, firm	CL	7							
					11							
4					11	22		16.2				
	3-3 L		Mottled dark gray (10YR 4/1) and yellowish brown (10YR 5/8), slight increase in sand content, few rootlets, slightly moist to moist, very stiff		3							Qu = 1400 psf
5		2			5		2.0	16.0	105.7			Atterberg Limits
		1			6	6	3.5	15.0	112.6	56.4	21	LL = 33% PL = 12% PI = 21
6												
7												
8	3-4 T		CLAY: Light brownish gray (2.5Y 6/2) and brownish yellow (10YR 6/8), clay exhibits intermediate plasticity, trace very fine to fine grained quartz sand, slightly moist, very stiff	CL	3							
					4							
9					7	11		23.4		92.2	26	Atterberg Limits LL = 44% PL = 18% PI = 26
10												
11												
12	3-5 L		SILTY SAND: Pale brown (10YR 6/3) and yellowish brown (10YR 5/8), very fine to fine grained, poorly graded, trace binder, slightly moist, medium dense	SM	10							
		2			21			23.8	96.2			
13		1			50/6"	50/6"		27.0	84.2			
14												
15			Rocky drilling at 15 feet									
16	3-6 T		CLAYEY SAND WITH GRAVEL: Dark yellowish brown (10YR 4/4), fine to medium grained with trace coarse grains, sub-angular to sub-rounded shaped, poorly graded, clay appears to exhibit intermediate plasticity, trace discontinuous clay lenses, sub-rounded to rounded shaped gravels up to 1 inch in diameter, moist medium dense	SC	10							
					16							
17					21	37		17.9				
18			Increase in drilling resistance at 18 feet.									
19												
20	3-7 L	2	Moist, medium dense		20			12.2	120.2			
		1	PURISIMA SANDSTONE BEDROCK WEATHERED TO SILTY SAND: Olive brown (2.5Y 4/3), fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, massive, slightly cemented at 21 feet, slightly moist to dry, very dense		50/6"	50/6"		14.2	113.9			
21	3-8 T				12							
22					28							
					50/6"	50/6"		25.2				
23			Friable, slightly moist, very dense									

Pacific Crest ENGINEERING INC

Log of Test Borings
22702 East Cliff Drive
Santa Cruz County, California

Figure No. 9
Project No. 2078
Date: 4/9/21

EXHIBIT F

LOGGED BY CLA DATE DRILLED 9/8/20 BORING DIAMETER 6" SS BORING NO. 3

DRILL RIG CCD Tractor HAMMER TYPE Wireline - Downhole Hammer

Depth (feet)	Sample	Sample Type	Soil Description	USCS	Field Blow Counts	SPT "N" Value	Pocket Pen. (tsf)	Moisture Content (%)	Dry Density (pcf)	% Passing #200	Plasticity Index	Additional Lab Results
24	3-9 L	2	PURISIMA SANDSTONE BEDROCK WEATHERED TO SILTY SAND: Light olive brown (2.5Y 4/3), fine to medium grained, sub-angular to sub-rounded shaped, poorly graded, massive, friable, moist to very moist, very dense		10			25.0	96.2			
		1			50/6"	50/6"		28.7	91.7			
25	3-10 T		Moist to very moist, very dense		17							
					23							
26					50/6"	50/6"		27.6				
27			Boring terminated at 26½ feet. No free-standing groundwater encountered.									
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												

Pacific Crest ENGINEERING INC

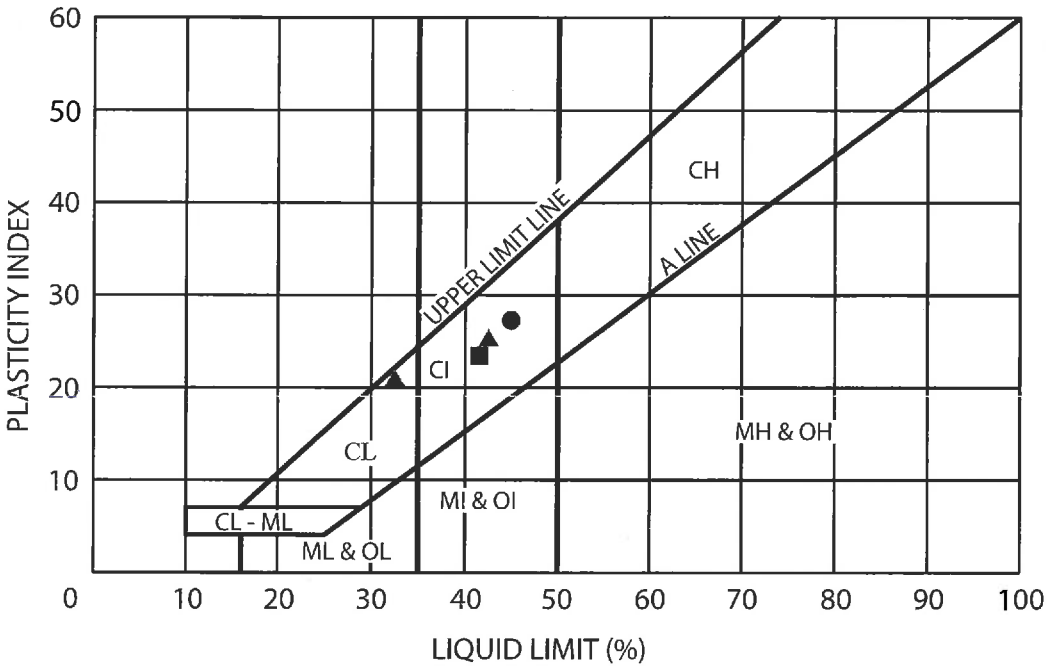
Log of Test Borings
22702 East Cliff Drive
Santa Cruz County, California

Figure No. 10
Project No. 2078
Date: 4/9/21

EXHIBIT F

ATTERBERG LIMITS - ASTM D4318

PLASTICITY CHART



*This chart has been modified to include the intermediate classifications CI, MI and OI for clays and silts with liquid limits between 35 and 50.

SYMBOL	SAMPLE #	LL (%)	PL (%)	PI
●	1-3-1	44	17	28
■	2-4	41	17	24
▲	3-3-1	33	12	21
▲	3-4	44	18	26

EXPANSION INDEX - ASTM D4829

SAMPLE #	EI	EXPANSION POTENTIAL
2-1-1	76	Medium

EXPANSION POTENTIAL	
0 - 20	Very Low
21-50	Low
51-90	Medium
91-130	High
>130	Very High

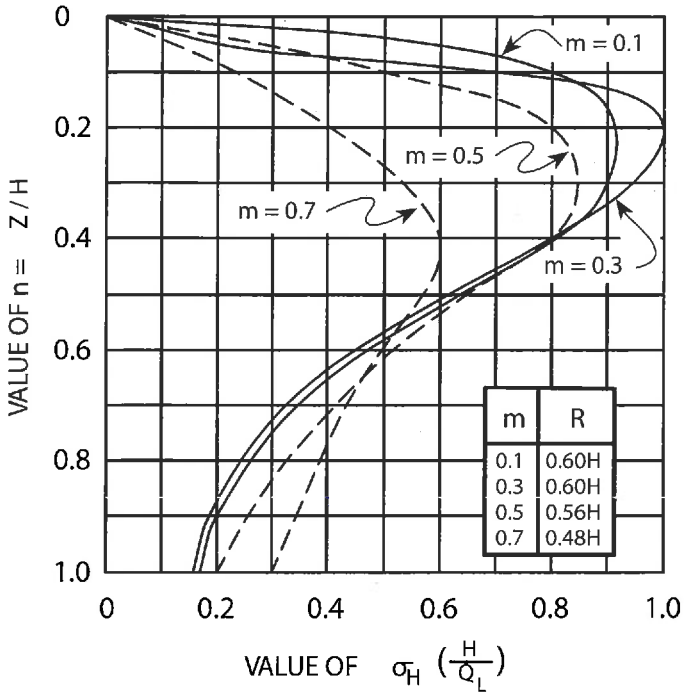
Pacific Crest ENGINEERING INC

Atterberg Limits/Expansion Index
22702 East Cliff Drive
Santa Cruz County, California

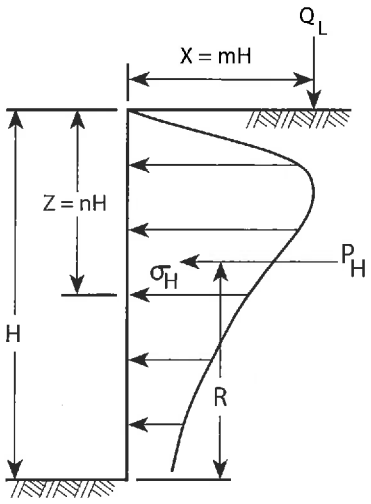
Figure No. 11
Project No. 2078
Date: 4/9/21

EXHIBIT F

LINE LOAD



m	R
0.1	0.60H
0.3	0.60H
0.5	0.56H
0.7	0.48H



FOR m ≦ 0.4:

$$\sigma_H \left(\frac{H}{Q_L}\right) = \frac{0.20\,n}{(0.16+n^2)^2}$$

$$P_H = 0.55\,Q_L$$

FOR m > 0.4:

$$\sigma_H \left(\frac{H}{Q_L}\right) = \frac{1.28\,m^2 n}{(m^2+n^2)^2}$$

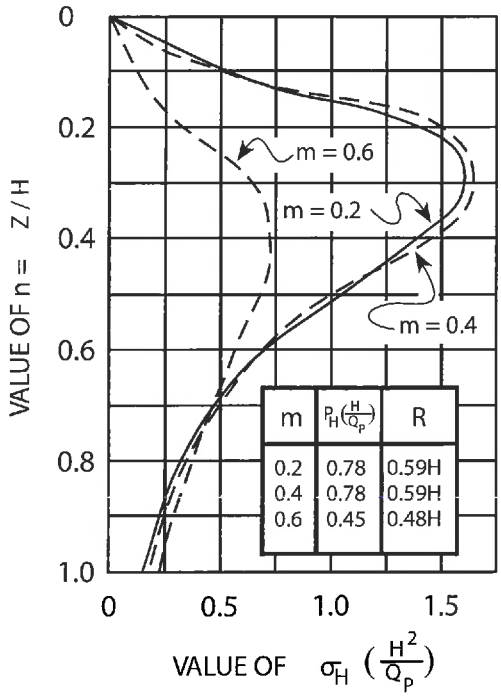
RESULTANT $P_H = \frac{0.64\,Q_L}{(m^2+1)}$

PRESSURES FROM LINE LOAD Q_L

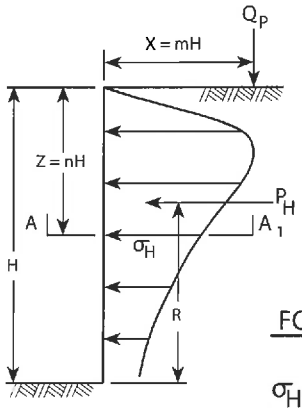
(BOUSSINESQ EQUATION MODIFIED BY EXPERMENT)

REFERENCE: Design Manual
NAVFAC DM-7.02
Figure 11
Page 7.2-74

POINT LOAD



m	$P_H\left(\frac{H}{Q_P}\right)$	R
0.2	0.78	0.59H
0.4	0.78	0.59H
0.6	0.45	0.48H



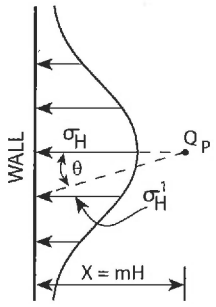
FOR m ≦ 0.4:

$$\sigma_H \left(\frac{H^2}{Q_P}\right) = \frac{0.28\,n^2}{(0.16+n^2)^3}$$

FOR m > 0.4:

$$\sigma_H \left(\frac{H^2}{Q_P}\right) = \frac{1.77\,m^2 n^2}{(m^2+n^2)^3}$$

$$\sigma_H^1 = \sigma_H \cos^2(1.1\,q)$$



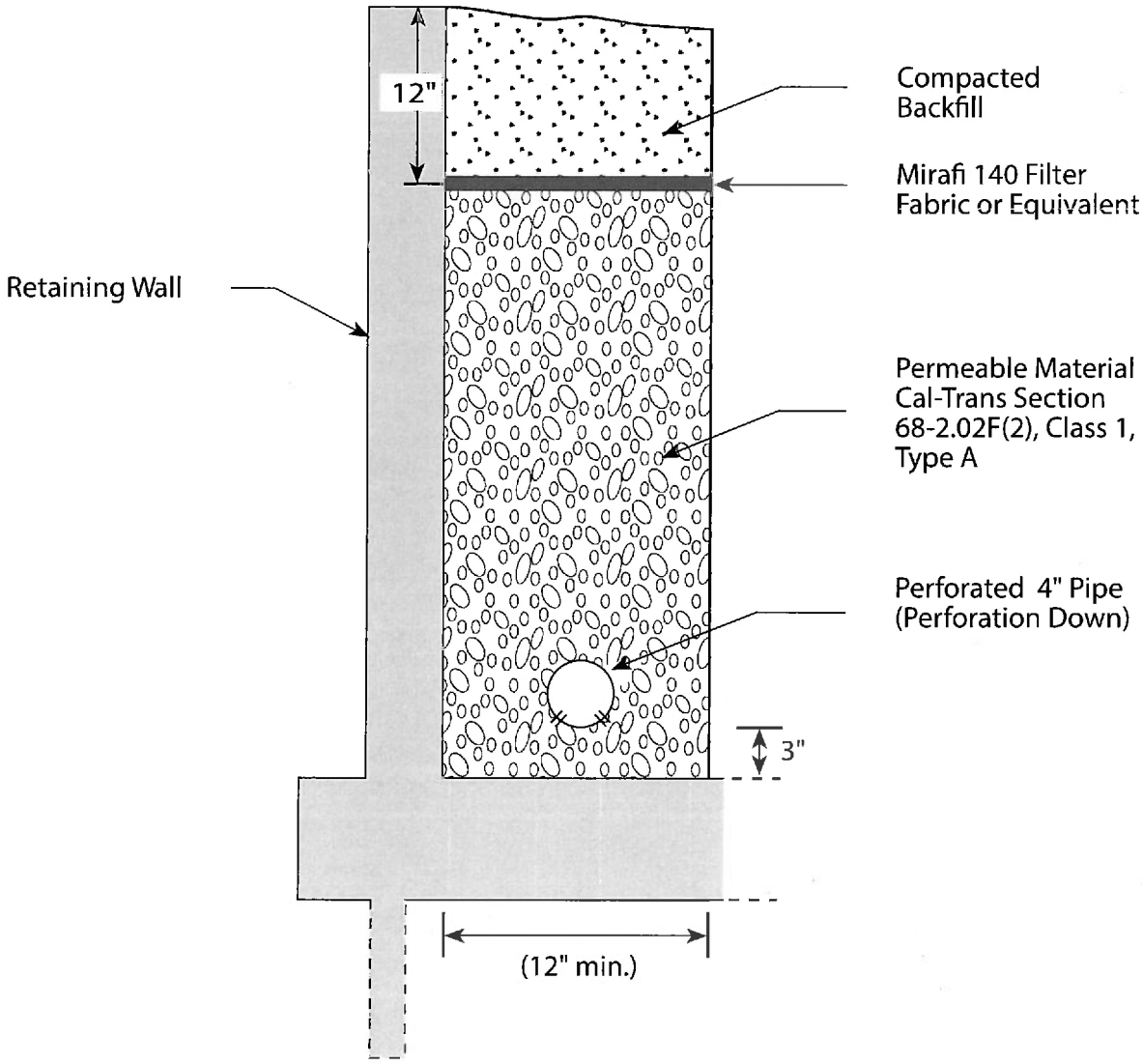
SECTION A-A_1

PRESSURES FROM POINT LOAD Q

(BOUSSINESQ EQUATION MODIFIED BY EXPERMENT)

Pacific Crest ENGINEERING INC	Surcharge Pressure Diagram 22702 East Cliff Drive Santa Cruz, California	Figure No. 12 Project No. 2078 Date: 4/9/21

EXHIBIT F



Not to Scale

Pacific Crest ENGINEERING INC	Typical Retaining Wall Drain Detail 22702 East Cliff Drive Santa Cruz County, California	Figure No. 13 Project No. 2078 Date: 4/9/21

EXHIBIT F

GEOLOGIC INVESTIGATION
MacDonell Residence
22702 East Cliff Drive
Santa Cruz, California 95062
County of Santa Cruz APN APN 028-242-25

Job #2020020-G-SC
21 April 2021

Engineering Geology ⚒ Coastal Geology ⚒ Fault & Landslide Investigations

EXHIBIT G

21 April 2021 Job #2020020-G-SC

Alex and Judi MacDonell
c/o Matson Britton Architects
Attention: Cove Britton
728 N Branciforte Ave
Santa Cruz, CA 95062

Re: Geologic investigation for proposed new residence
22702 East Cliff Drive
Santa Cruz, California
County of Santa Cruz APN 028-242-25

Dear Mr. And Mrs. MacDonell:

Our geologic report on the property referenced above is attached. This report presents the results of our geologic investigation for the property located at 22702 East Cliff Drive in Santa Cruz, California. The purpose of our investigation was to evaluate the potential geologic hazards relevant to the construction of a proposed residence on the currently developed property. This report documents geologic conditions on the subject property and addresses potential hazards to the proposed residence such as seismic shaking, wave run up and erosion.

FINDINGS

It is our opinion that the proposed residence is geologically suitable, and will be subject to "ordinary" risks as defined in Appendix B, provided our recommendations are followed. Appendix B should be reviewed in detail by the developer and all property owners to determine whether an "ordinary" risk as defined in the appendix is acceptable. If this level of risk is unacceptable to the developer and the property owners, then the geologic hazards in question should be mitigated to reduce the corresponding risks to an acceptable level.

The subject property lies on the margin of the lowest emergent marine terrace. The property is underlain by about a blanket of sediments with an aggregate thickness of about 21 ½ feet, comprised of up to 4 feet of artificial fill and about 17 feet of marine terrace deposits. The marine terrace deposits overlie an ancient uplifted fossil wave-cut platform beveled into the underlying the Purisima Formation weathered sandstone bedrock. The coastal bluff fronting the southwestern edge of the property is protected by an armoring system of rip-rap whose

maintenance and monitoring has been addressed in the past by Haro, Kasunich and Associates (2019a and 2019b).

No groundwater was observed to the depths explored on the property (up to 33 feet below the ground surface) on 8 September 2020. We have noted that groundwater in the marine terrace terrain of Santa Cruz can perch atop the underlying bedrock within the marine terrace deposits. It is therefore reasonable to assume that groundwater will perch atop the fossil wave-cut platform during the winter season in wet years and come to within several feet of the ground surface during those times.

The current proposed residence abuts our coastal bluff setback line (see Plates 1 and 2) and will include a basement with a finished floor elevation of approximately 23.5 feet (NAVD 88; see Plate 2). The proposed basement will be entirely embedded in marine terrace deposits. We do not anticipate that the basement will be placed below the permanent regional ground water table, although as noted above, we do anticipate that groundwater will perch atop the bedrock and saturate the marine terrace deposits seasonally during very wet years as has happened in the past..

The subject property is located in an area of high seismic activity and will be subject to strong seismic shaking in the future.

The coastline of northern Monterey Bay, including the area of the subject property, has been subject to episodic retreat due to wave erosion and mass movements, often associated with intense storms and possibly seismic shaking. The property is currently protected from coastal bluff retreat by a system of maintained coastal bluff armoring which is being monitored by Haro, Kasunich and Associates. The long-term historical coastal bluff retreat will essentially be nil on the subject property, provided that the armoring is adequately maintained in the future. Even if the top of the bluff erodes slightly, it certainly will not exceed a long term average retreat rate of 0.25 feet per year, which corresponds to the threshold for the County of Santa Cruz prescriptive minimum of 25 feet for the 100-year coastal bluff setback for development. It is our opinion that the proposed residence will be subject to an ordinary risk (see Appendix B) related to the coastal bluff retreat hazard, provided that the existing armoring system is adequately maintained.

The proposed residence lies out of and above the limit of the floodway flood zone VE. FEMA has calculated a coastal flood 100-year base flood elevation of +20 feet (NAVD 88) for this zone. The proposed residence currently includes a subterranean garage and basement that will be constructed below the ground surface. If future wave run up or splash happens to flow above and landward of the top of the bluff, the basement will capture and hold some of that water if it makes it that far.

RECOMMENDATIONS

1. All habitable structures and utilities should be located within our geological development envelope graphically portrayed on Plate 1.

EXHIBIT G

2. Seismic shaking values for any structures designed on the property should at least adhere to the minimum prescriptive design values outlined in the current California Residential Code. The seismic shaking values should be developed by the Project Geotechnical Engineer of Record as part of their soils report for the design of proposed structures.

3. The existing coastal bluff armoring system seawall should be adequately maintained to prevent future coastal bluff retreat related to wave erosion and landsliding. Periodic inspection and maintenance should be undertaken to ensure the retaining walls and rip-rap revetment are not damaged or undermined by wave erosion.

4. We recommend that all drainage from improved surfaces such as walkways, patios, roofs, and driveways be collected and dispersed on site in such a way as to avoid ponding on the ground adjacent to the house, spilling directly onto steep slopes without some form of erosion protection. Gutters should be utilized on rooftops, channeling drainage to existing gutters or storm drains or dispersed on the property in such a way as to avoid ponding or concentrated discharge on the coastal bluff. The proposed basement should be constructed in such a way as to not allow any seepage of water through the ceiling, walls or floors. A pump system with redundant power sources will need to be installed in the basement in order to pump out any storm water that enters the basement. Water collected by the pumps should be disposed of away from any installed subsurface drains, including the basement wall drains.

5. We recommend that our firm be provided the opportunity for a review of the final design and specifications in order that our recommendations may be properly interpreted and implemented in the design and specification. If our firm is not accorded the privilege of making the recommended review we can assume no responsibility for misinterpretation of our recommendations.

Sincerely,
ZINN GEOLOGY

Erik N. Zinn
Principal Geologist
P.G. #6854, C.E.G. #2139

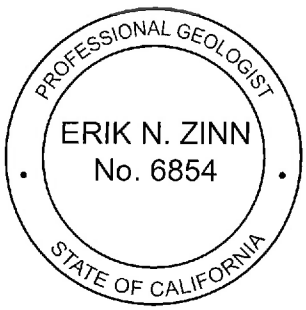


EXHIBIT G

TABLE OF CONTENTS

NOTE: Plates must accompany text of report in order for report to be considered complete.

EXHIBIT G

INTRODUCTION

This report presents the results of our geologic investigation on the currently developed property located at 22702 East Cliff Drive, Santa Cruz, California (Figure 1). It is our understanding that the existing residence will be demolished and replaced with a new two-story single-family residence with a basement underlying most of the residence. Finish floor elevation for the basement will be approximately 23.5 feet NAVD88, which will result in the basement extending about 10 feet below the existing ground surface.

The purpose of our investigation was to evaluate the potential geologic hazards relevant to the construction of the new single-family residence on the subject property. Our investigation focused on the hazards and attendant risks primarily associated with the wave run-up flooding and long-term retreat of the coastal bluff that fronts the property. Coastal bluff retreat in this region of the Monterey Bay is typically driven by the geological processes of intense seismic shaking during large magnitude earthquakes, storm-wave runup and storm-wave effects, landsliding and erosion.

SCOPE OF INVESTIGATION

Work performed during this study included:

1. A review of published and unpublished literature relevant to the proposed development on the subject property. Documents reviewed included:

   "Subject: Rip Rap Revetment Monitoring Report - Reference: Rip Rap Revetment Monitoring Report MacDonell Residence -APN 028-242-25 - 2-2702 East Cliff Drive - Santa Cruz, California 95062 - Commission Development Permit (CDP 3-02-013-A2)", unpublished consultant letter by Haro, Kasunich & Associates, dated 8 January 2019;

   "Rip Rap Revetment Maintenance Plan - 2-2702 East Cliff Drive - Santa Cruz, California - APN 028-242-25", unpublished consultant civil engineering plans by Haro, Kasunich & Associates dated 2 July 2019.

2. Examination and interpretation of historical stereo-pair vertical aerial photographs.

3. Location of two exploratory small-diameter borings advanced by Pacific Crest Engineering on the property.

4. Construction of a geologic map and cross section for the property.

5. Email and telephone correspondence with the client, the Project Architect Of Record, Cove Britton of Matson Britton Architects and the Project Geotechnical Engineer of Record, Elizabeth Mitchell of Pacific Crest Engineering.

EXHIBIT G

6. Analysis and interpretation of the geologic data and preparation of this report.

It is important to note that we did not work on or perform geological analyses of the existing rip-rap revetment that fronts the property. Haro, Kasunich & Associates is the current Project Geotechnical Engineer and Project Civil Engineer of record for the revetment and they have done extensive work related to monitoring and permitted maintenance of the revetment. Any questions or issues pertaining to the revetment should be directed to their firm.

REGIONAL GEOLOGIC SETTING

The subject property is located atop the first-emergent coastal marine terrace, forming a very gentle (nearly flat) plane that is truncated by a roughly northwest trending coastal bluff (Figure 1 and Plate 1). The coastal bluff fronting the property is one of many such cliffs along the northern coast of Monterey Bay, characterized by gently dipping, late Tertiary marine sedimentary rocks that are overlain by nearly horizontal, Quaternary terrace deposits, chiefly of marine and fluvial origins (Figure 2).

The northwest orientation of the local shoreline is nearly parallel to the dominant direction of approach for refracted waves in the northern portion of Monterey Bay. As a result littoral drift is rapid, inhibiting formation of a continuous protective beach (Griggs, 1990). Instead, a series of pocket beaches have formed, Capitola State Beach being the largest, which are sensitive to seasonal changes and human intervention. At New Brighton State Beach the shoreline turns to a northeast orientation, which is more conducive to the formation of a wide, continuous beach. We will return to the site-specific geologic setting of the subject property in our discussion of the site geologic setting and potential geologic hazards, below.

REGIONAL SEISMIC SETTING

California's broad system of strike-slip faulting has had a long and complex history. Some of these faults present a seismic hazard to the subject properties. The most important of these are the San Andreas, Zayante(-Vergeles) and Monterey Bay-Tularcitos fault zones (Figures 2 and 3). These faults are either active or considered potentially active (Petersen et al., 1996; Working Group On Northern California Earthquake Potential [NCEP], 1996). Each fault is discussed below. Locations of epicenters associated with the faults are shown in Figure 3.

San Andreas Fault

The San Andreas fault is active and represents the major seismic hazard in northern California (NCEP, 1996). The main trace of the San Andreas fault trends northwest-southeast and extends over 700 miles from the Gulf of California through the Coast Ranges to Point Arena, where the fault extends offshore.

EXHIBIT G

Geologic evidence suggests that the San Andreas fault has experienced right-lateral, strike-slip movement throughout the latter portion of Cenozoic time (the past 20 to 30 million years), with cumulative offset of hundreds of miles. Surface rupture during historical earthquakes, fault creep, and historical seismicity confirm that the San Andreas fault and its branches, the Hayward, Calaveras, and San Gregorio faults, are all active today.

Historical earthquakes along the San Andreas fault and its branches have caused significant seismic shaking in the Monterey Bay area. The two largest historical earthquakes on the San Andreas to affect the area were the moment magnitude (M_w) 7.9 San Francisco earthquake of 18 April 1906 (actually centered near Olema) and the M_w 6.9 Loma Prieta earthquake of 17 October 1989. The San Francisco earthquake caused severe seismic shaking and structural damage to many buildings in the Monterey Bay area. The Loma Prieta earthquake appears to have caused more intense seismic shaking than the 1906 event in localized areas of the Santa Cruz Mountains, even though its regional effects were not as extensive. There were also significant earthquakes in northern California along or near the San Andreas fault in 1838, 1865 and possibly 1890 (Sykes and Nishenko, 1984; NCEP, 1996).

Geologists have recognized that the San Andreas fault system can be divided into segments with "characteristic" earthquakes of different magnitudes and recurrence intervals (Working Group on California Earthquake Probabilities [WG], 1988 and 1990). A study by NCEP in 1996 has redefined the segments and the characteristic earthquakes for the San Andreas fault system in northern and central California. Two "locked" overlapping segments of the San Andreas fault system represent the greatest potential hazard to the properties.

The first segment is defined by the rupture that occurred from Cape Mendocino to San Juan Bautista along the San Andreas fault during the great M_w 7.9 earthquake of 1906. The NCEP (1996) has hypothesized that this "1906 rupture" segment experiences earthquakes with comparable magnitudes at intervals of about two hundred years.

The second segment is defined by the rupture zone of the M_w 6.9 Loma Prieta earthquake. Although it is uncertain whether this "Santa Cruz Mountains" segment has a characteristic earthquake independent of great San Andreas fault earthquakes, the NCEP (1996) has assumed an "idealized" earthquake of M_w 7.0 with the same right-lateral slip as the 1989 Loma Prieta earthquake but having an independent segment recurrence interval of 138 years and a multi-segment recurrence interval of 400 years.

The 2002 WG (2003) segmentation model is largely similar to that adopted by NCEP in 1996, although they have added far more complexity to the model, and have reduced the forecasted magnitudes for the different segments. The 2002 California probabilistic seismic hazard maps issued by the California Geological Survey (Cao et al., 2003) appear to have largely adopted the earthquake magnitudes issued by the 2002 WG. The most significant change in modeling the San Andreas Fault Zone by Cao et al. (2003) is the elimination of a singular listing of the penultimate event, the 1906 Mw 7.9 earthquake (although such an event can be derived by

EXHIBIT G

looking at the aggregate probability of the individual segments rupturing together, as they did in 1906).

In spite of the increasing complexity of the models addressing different size earthquakes with different recurrence intervals on the sundry segments of this fault, it is undeniable that the 1906 M_w 7.9 earthquake still eclipses all the other events which have occurred on the San Andreas fault in this region. Keeping this in mind, it is important that any site-specific seismic analyses performed for development on the properties take the 1906 event into account, particularly since the empirical evidence presented by field researchers indicates the 1906 event recurs every several centuries.

Zayante (-Vergeles) Fault

The Zayante fault lies west of the San Andreas fault and trends about 50 miles northwest from the Watsonville lowlands into the Santa Cruz Mountains. The southern extension of the Zayante fault, known as the Vergeles fault, merges with the San Andreas fault south of San Juan Bautista.

The Zayante-Vergeles fault has a long, well-documented history of vertical movement (Clark and Reitman, 1973), probably accompanied by right-lateral, strike-slip movement (Hall et al., 1974; Ross and Brabb, 1973). Stratigraphic and geomorphic evidence indicates the Zayante-Vergeles fault has undergone late Pleistocene and Holocene movement and is potentially active (Buchanan-Banks et al., 1978; Coppersmith, 1979).

Some historical seismicity may be related to the Zayante-Vergeles fault (Griggs, 1973). For instance, the Zayante-Vergeles fault may have undergone sympathetic fault movement during the 1906 earthquake centered on the San Andreas fault, although this evidence is equivocal (Coppersmith, 1979). Seismic records strongly suggest that a section of the Zayante-Vergeles fault approximately 3 miles long underwent sympathetic movement in the 1989 earthquake. The earthquake hypocenters tentatively correlated to the Zayante-Vergeles fault occurred at a depth of 5 miles; no instances of surface rupture on the fault have been reported.

In summary, the Zayante-Vergeles fault should be considered potentially active. The NCEP (1996) considers it capable of generating a magnitude 6.8 earthquake with an effective recurrence interval of 10,000 years. Alternatively, Cao et al. (2003) considers this fault capable of generating a maximum earthquake of Mw 7.0, with no stated recurrence interval.

Monterey Bay-Tularcitos Fault Zone

The Monterey Bay-Tularcitos fault zone is 6 to 9 miles wide, about 25 miles long, and consists of many en échelon faults identified during shipboard seismic reflection surveys (Greene, 1977). The fault zone trends northwest-southeast and intersects the coast in the vicinity of Seaside and Ford Ord. At this point, several onshore fault traces have been tentatively correlated with offshore traces in the heart of the Monterey Bay-Tularcitos fault zone (Greene, 1977; Clark et al.,

1974; Burkland and Associates, 1975). These onshore faults are, from southwest to northeast, the Tularcitos-Navy, Berwick Canyon, Chupines, Seaside, and Ord Terrace faults. Only the larger of these faults, the Tularcitos-Navy and Chupines, are shown on Figure 2. It must be emphasized that these correlations between onshore and offshore portions of the Monterey Bay-Tularcitos fault zone are only tentative; for example, no concrete geologic evidence for connecting the Navy and Tularcitos faults under the Carmel Valley alluvium has been observed, nor has a direct connection between these two faults and any offshore trace been found.

Outcrop evidence indicates a variety of strike-slip and dip-slip movement associated with onshore and offshore traces. Earthquake studies suggest the Monterey Bay-Tularcitos fault zone is predominantly right-lateral, strike-slip in character (Greene, 1977). Stratigraphically, both offshore and onshore fault traces in this zone have displaced Quaternary beds and, therefore, are considered potentially active (Buchanan-Banks et al., 1978). One offshore trace, which aligns with the trend of the Navy fault, has displaced Holocene beds and is therefore active by definition (Buchanan-Banks et al., 1978).

Seismically, the Monterey Bay-Tularcitos fault zone may be historically active. The largest historical earthquakes *tentatively* located in the Monterey Bay-Tularcitos fault zone are two events, estimated at 6.2 on the Richter Scale, in October 1926 (Greene, 1977). Because of possible inaccuracies in locating the epicenters of these earthquakes, it is possible that they actually occurred on the nearby San Gregorio fault zone (Greene, 1977). Another earthquake in April 1890 might be attributed to the Monterey Bay-Tularcitos fault zone (Burkland and Associates, 1975).

The NCEP (1996) has assigned an earthquake of M_w 7.1 with an effective recurrence interval of 2,600 years to the Monterey Bay-Tularcitos fault zone, based on Holocene offshore offsets. Petersen et al. (1996) have a similar earthquake magnitude, but for a recurrence interval of 2,841 years. Their earthquake is based on a composite slip rate of 0.5 millimeters per year (after Rosenberg and Clark, 1995).

Cao et al. (2003) has developed a model for the Monterey Bay fault zone that combines slip rates of the different segments, resulting in a composite slip rate of 0.5 mm per year and a forecasted earthquake of Mw 7.3, with no stated recurrence interval. The Cao et al. (2003) model adopted implicitly assumes that all the assessed segments in the Monterey Bay fault zone each have an independent slip rate of 0.1 mm per year (based upon the one slip rate developed by Rosenberg and Clark, 1995 for the Tularcitos segment), and essentially assigns the composite slip rate to the Tularcitos trace of the Monterey Bay fault zone.

SITE GEOLOGIC SETTING

The Geologic Site Map (Plate 1) and Geologic Cross Section (Plate 2) graphically depicts relevant geologic information for the subject property. See also the Local Geology Map (Figure 4) and other attached figures for information of a more general nature.

Topography

The subject property is located at the southern edge of a terrace that comprises most of the Live Oak region adjacent to the seashore. The property is currently developed. The terrace surface drops off steeply at the southwestern edge of the property where the marine terrace surface intersects the top of the coastal bluff, dropping approximately 20 feet to near the toe of an existing rip-rap revetment where it intersects the beach sand (Plate 1 and Plate 2). The area between the top of the coastal bluff and the beach appears to be occupied by an existing permitted rip-rap revetment that has been recently maintained (Plate 1). Further offshore, a gently-sloping sandstone bedrock shelf is exposed beneath the wedge of beach sand, extending considerably seaward beyond the bluff.

Earth Materials

Brabb (1997, Figure 4; see also Plate 1) has mapped the subject property as straddling the contact between the Purisima Formation and lowest emergent marine terrace deposits of Quaternary age. The property lies on top of about 20 feet of relatively unconsolidated clay, silt, sand, and gravel which in turn overlie a relatively uplifted, gently seaward-dipping fossil wave-cut platform abraded into the underlying bedrock.

The Purisima Formation bedrock is described by Brabb (1997) as consisting of very thick bedded, yellowish gray, tuffaceous and diatomaceous siltstone containing thick interbeds of bluish-gray, semi-friable, andesitic sandstone. Although the bedrock is not exposed on the property due to concealment by the armoring, it was encountered in the small-diameter borings advanced by Pacific Crest Engineering and was composed of massive, brownish yellow and olive brown, well sorted, poorly graded, micaceous, sub-angular to sub-rounded, quartz rich, fine- to medium-grained silty sandstone.

As previously noted, the top of the Purisima Formation sandstone bedrock in this area represents a wave-cut platform, likely formed 85,000 to 125,000 years ago, during a major sea-level high stand. The top of the wave-cut platform slopes approximately 1° to 2° toward the south beneath the veneer of marine terrace deposits, based upon the results of our field mapping and the exploratory borings advanced by Pacific Crest Engineering.

Lowest emergent marine terrace sediments (Qmt) are deposited atop the wave-cut platform on the Purisima Formation sandstone bedrock. Brabb (1997) describes these sediments as semi-consolidated, generally well sorted sand with a few thin, discontinuous layers of gravel. This is only partially consistent with the earth materials encountered in the borings advanced on the property, which were mainly comprised of layers of mixed clay, silt, sand and gravel. The upper 8 feet of this package appears to be clay-rich due to the deposition of illuvial clays over the last 85,000 to 125,000 years. Overall the whole formational package of marine terrace deposits grades coarser downward on the property.

Approximately four feet of sandy clay fill overlies the marine terrace deposits in the areas drilled for this project. We are uncertain as to precisely how and when this fill was placed and do not know if it was engineered.

Existing Armoring

An existing rip-rap revetment lies seaward of the bluff on the property and the revetment was recently maintained under permit (Haro, Kasunich & Associates, 2019a; Haro, Kasunich & Associates, 2019b). We observed that he revetment appeared to be freshened up and conformed to the plans developed by Haro, Kasunich & Associates in July 2019, so presumably the work to restack the rip-rap has been completed.

In any event, the armoring appears to have been constructed sometime between 1964 and 1972 maintained since at least 1993, based on our measurements made in the field and a review of the Haro Kasunich & Associates plans and historical aerial photographs. The top of the bluff does not appear to have measurably retreated since at least 2001, probably entirely due to the protection afforded by the revetment and the fact that the revetment has been maintained.

We did not observe evidence that the rip-rap has moved seaward since the recent maintenance, in the form of: displacement between the back (landward edge) of the rip-rap and the bluff, depleted pockets in the face of the rip-rap and shallow slope face gradients indicative of toe failure and seaward movement of the rip-rap mass.

Drainage and Groundwater

Drainage at the site is primarily by sheet flow to the southwest toward the coastal bluff.

No water was observed in any of the borings advanced on the property by Pacific Crest Engineering, but it should be noted that groundwater can typically perch within the marine terrace deposits atop the bedrock on a seasonal basis in the Live Oak region. Given that, it is reasonable to assume that groundwater will perch atop the sandstone bedrock and rise to within several feet of the ground surface under the house during the winter of wet years.

GEOLOGIC HAZARDS

In our opinion, the primary geologic hazard that could potentially affect the proposed residence is intense seismic shaking. We have also evaluated the risks to the proposed residence related to coastal bluff retreat, including storm wave erosion and landsliding and flooding and wave impact due to storm wave run-up, but both of those hazards appear to present an ordinary risk to the proposed residence, as discussed below.

Seismic Shaking Hazard

Seismic shaking on the subject property will be intense during the next major earthquake along local fault systems. Seismic shaking values for any structures designed on the property should at least adhere to the minimum prescriptive design values outlined in the 2019 California Residential Code. The seismic shaking values should be developed by the Project Geotechnical Engineer of Record as part of their soils report for the design of the proposed structures.

Coastal Bluff Retreat

The long-term retreat of the coastal bluffs that comprise the shoreline of northern Monterey Bay results from erosion and landsliding processes, including hydraulic impact and scour from intense winter storms and mass movements associated with intense rainfall and seismic shaking (Plant and Griggs, 1990). Coastal erosion is controlled by lithology, structure, stratigraphy and exposure to wave energy (Griggs and Johnson, 1979). Coastal landsliding is episodic, with mass movements associated with intense storms and seismic shaking (Griggs and Johnson, 1983).

Coastal Erosion

Erosion occurs at the base of sea cliffs by hydraulic impact and scour from wave action. The northwest swells that are predominant in this area are refracted into the Monterey Bay, resulting in a loss of energy as they are redirected in a west-east direction, roughly paralleling the shoreline below the subject property. The shoreline-parallel swells result in littoral drift and transport of sand from the San Lorenzo river down coast, accumulating on narrow beaches and in pocket beaches until the coastline bends to the southeast at New Brighton State Beach. Human activities that interrupt the sand-laden littoral drift, such as the construction of the Santa Cruz Harbor jetties in 1962, reduce the amount of sand available to replenish the pocket beaches (Griggs and Johnson, 1979). As pocket beaches decrease in size, the amount of protection they afford the adjacent bluffs from damaging southwesterly storms is reduced. Beach shrinkage related the harbor construction was most rapid between 1962 to 1967. Griggs and Johnson (1979, Figure 5) documented a rate of shoreline retreat near the subject property of 0.6 feet per year between 1930 and 1962, and 0.5 feet per year between 1962 and 1970.

We reviewed the flooding and erosion maps issued by the Pacific Institute in 2009 (Soquel Quadrangle issued in Pacific Institute, 2009; go here to access map online: http://www2.pacinst.org/reports/sea_level_rise/hazmaps/Soquel.pdf). The Pacific Institute map depicts the year 2100 shoreline position in the vicinity of the subject property as lying 180 feet inland from the current shoreline position. The method used to derive this future shoreline position driven by shoreline retreat is somewhat crude and is not intended to be used for site-specific design, particularly since it ignores the fact that some portions of the coastline are armored to protect existing residences or infrastructure. This map is therefore irrelevant to the project, since there is no proposal to remove the armoring that fronts the subject property. In

fact, the existing armoring will presumably continue to be maintained and refurbished in the future when needed, in order to protect the existing residences in this area.

The Purisima Formation sandstone bedrock and the unconsolidated terrace deposits near the subject property can erode rapidly if directly exposed to wave erosion, even though the dominant wave direction results in little direct wave impact. The erosion rate of the Purisima Formation depends on the hardness of different beds and the orientation of joints and faults contained within it; where unprotected, the erosion rate in the section of coastline between Seabright and New Brighton State Beaches is approximately 12 to 24 inches per year (Griggs and Johnson, 1979). The lower bluff retreat rates recorded by Griggs and Johnson (1979) in the 1960's may reflect the fact that a thin beach and pocket beach fronts the bluff on the subject property for most the year. It is also important to note that the terrace deposits overlying the Purisima Formation bedrock in this area erode and retreat at a much higher rate than the bedrock.

The armoring system that currently protects the bluff from erosion was put into place sometime between 1964 and 1972 (based on photo analysis) and was recently maintained. The system shields the bluff from both wave erosion and terrestrial erosion, as well as buttressing the bluff and preventing landsliding. At this point, it is safe to assume that the bluff retreat in the future will be nil, provided the existing armoring system is adequately maintained.

Coastal Landslides

The removal of material at the base of coastal bluffs by hydraulic impact and wave scour results in episodic mass failures, often associated with intense rainfall and seismic shaking. Griggs and Johnson (1983) documented slope failures along the coastal bluffs in northern Monterey Bay following the storms of January and February of 1978 and January of 1983, and discovered patterns in the causes and mechanisms of failures reported in 1978 and 1983 and in the historical record of damage from previous storms. The 1978 storms brought waves with heights of 14 to 21 feet from the southwest. The destructive storm of 1983 brought large waves from the southwest and occurred at a 6.6 foot high tide. Of 20 documented storms causing significant damage in northern Monterey Bay, 13 were confirmed as arriving from the southwest and only one was documented as being northwesterly, with the remainder unknown. Wave hindcasting data from National Marine Consultants (1970) indicates that waves with heights in excess of 10 feet can be expected 23 days per year, and that 15-foot waves can be expected 3 times a year. On average, tidal heights exceed 5.5 feet 100 days per year and 6 feet 25 to 35 days per year. Griggs and Johnson (1983) conclude that the probability of large storm waves occurring from the southwest at high tides is reasonably large. These storms caused many large mass failures within the coastal bluffs near the subject property, due to intense wave action and elevated groundwater conditions. Plant and Griggs (1989) documented mass failures and landslides following the 1989 Loma Prieta Earthquake (LPE) of October 17, 1989, in the coastal bluffs between Seabright Beach and New Brighton Beach. They found that intense seismic shaking causes failures in the Purisima Formation along joints and fractures, where these features are undercut and weakened by wave action. Unconsolidated terrace deposits that overlie the failed Purisima Formation

bedrock slide with it. An important observation made by Plant and Griggs (1989) is that mass failures of the coastal bluff were essentially non-existent in the vicinity of seawalls, due to the buttressing effect that the seawalls have upon the overall stability of the coastal bluff.

Slope Erosion

The marine terrace deposits are relatively unconsolidated and are highly susceptible to erosion when exposed. Uncontrolled erosion, if left unchecked, may impact development by undermining foundations and piers. The bluff is currently covered with rip-rap providing the slope with erosion protection by deflecting raindrop impacts and erosion and deflecting storm water runoff and wave splash and wave run up flows into the Pacific Ocean.

In our opinion, the hazard potential is low for erosion driven by terrestrial and oceanic processes to impact the proposed residence, with an attendant ordinary risk (see Appendix C), provided that the bluff armoring system is adequately maintained in the future.

Summary And Overview For Coastal Bluff Retreat

The coastal bluff on the property has remained essentially unchanged since the armoring was installed. One of the primary objectives of this project was to establish the forecasted position of the top of the coastal bluff 100 years from today. Based upon the results listed above, the current position of the top of the coastal bluff should stay essentially unchanged for the next 100 years provided that the existing coastal bluff armoring is adequately maintained in the future.

We have plotted a "prescriptive 25-foot minimum setback" line from the top of the bluff, since the County of Santa Cruz local ordinances dictate that new development along coastal bluffs should be setback 25 feet from the top of the coastal bluff, or behind the 100-year bluff retreat line, whichever is greater. The preliminary layout of the proposed residence by Matson Britton appears to have taken this setback into account.

In summary, it is our opinion that the proposed residence will be subject to an ordinary risk (see Appendix C) related to the coastal bluff retreat hazard, provided that the existing coastal bluff armoring is adequately maintained, based upon our observations and research performed in the region by other scientists.

Wave Runup

The Federal Emergency Management Agency (FEMA) 09/29/2017 Flood Insurance Rate Map (FIRM) Community Panel number 060353 0353 F (Map number 06087C0353F) portrays the entire marine terrace portion of the property as being outside the limit of the floodway flood zone VE. FEMA has calculated a coastal flood 100-year base flood elevation of +20 feet (NAVD 88) for this zone. Since the marine terrace portion of the ground surface lies at roughly between 32

and 34 feet NAVD 88), the risk to structures constructed at or near the existing grade of the marine terrace surface due to coastal flooding is clearly ordinary.

We have not included a detailed discussion of the storm history for this region, since that is typically done for sites where a site-specific coastal wave run-up analysis is performed, and there is no need to perform such an analysis, since FEMA has effectively performed that analysis for this stretch of coastline. As noted above, FEMA has determined that the base flood elevation at the site is +20 feet NAVD 88. Since the proposed residence will be placed landward and above the base flood boundary, flooding due to wave run up is not a going concern for the design and corresponds to an ordinary risk.

The basement for the residence lies below the marine terrace surface and it will be susceptible to water intrusion from both storm water and any sort of wave splash or runup. It is important that the design and construction of the basement include drainage provisions for rapid removal of surface runoff from around the residence, subsurface drains, pumps with redundant power systems and waterproofing of floors and walls. All pump-collected drainage should be discharged away from the basement drains.

FINDINGS

It is our opinion that the proposed residence is geologically suitable, and will be subject to "ordinary" risks as defined in Appendix B, provided our recommendations are followed. Appendix B should be reviewed in detail by the developer and all property owners to determine whether an "ordinary" risk as defined in the appendix is acceptable. If this level of risk is unacceptable to the developer and the property owners, then the geologic hazards in question should be mitigated to reduce the corresponding risks to an acceptable level.

The subject property lies on the margin of the lowest emergent marine terrace. The property is underlain by about a blanket of sediments with an aggregate thickness of about 21 ½ feet, comprised of up to 4 feet of artificial fill and about 17 feet of marine terrace deposits. The marine terrace deposits overlie an ancient uplifted fossil wave-cut platform beveled into the underlying the Purisima Formation weathered sandstone bedrock. The coastal bluff fronting the southwestern edge of the property is protected by an armoring system of rip-rap whose maintenance and monitoring has been addressed in the past by Haro, Kasunich and Associates (2019a and 2019b).

No groundwater was observed to the depths explored on the property (up to 33 feet below the ground surface) on 8 September 2020. We have noted that groundwater in the marine terrace terrain of Santa Cruz can perch atop the underlying bedrock within the marine terrace deposits. It is therefore reasonable to assume that groundwater will perch atop the fossil wave-cut platform during the winter season in wet years and come to within several feet of the ground surface during those times.

EXHIBIT G

The current proposed residence abuts our coastal bluff setback line (see Plates 1 and 2) and will include a basement with a finished floor elevation of approximately 23.5 feet (NAVD 88; see Plate 2). The proposed basement will be entirely embedded in marine terrace deposits. We do not anticipate that the basement will be placed below the permanent regional ground water table, although as noted above, we do anticipate that groundwater will perch atop the bedrock and saturate the marine terrace deposits seasonally during very wet years as has happened in the past..

The subject property is located in an area of high seismic activity and will be subject to strong seismic shaking in the future.

The coastline of northern Monterey Bay, including the area of the subject property, has been subject to episodic retreat due to wave erosion and mass movements, often associated with intense storms and possibly seismic shaking. The property is currently protected from coastal bluff retreat by a system of maintained coastal bluff armoring which is being monitored by Haro, Kasunich and Associates. The long-term historical coastal bluff retreat will essentially be nil on the subject property, provided that the armoring is adequately maintained in the future. Even if the top of the bluff erodes slightly, it certainly will not exceed a long term average retreat rate of 0.25 feet per year, which corresponds to the threshold for the County of Santa Cruz prescriptive minimum of 25 feet for the 100-year coastal bluff setback for development. It is our opinion that the proposed residence will be subject to an ordinary risk (see Appendix B) related to the coastal bluff retreat hazard, provided that the existing armoring system is adequately maintained.

The proposed residence lies out of the limit of the floodway flood zone VE with a FEMA calculated 100-year base flood elevation of +20 feet (NAVD 88) for this zone. The proposed residence currently includes a subterranean garage and basement that will be constructed below the ground surface. If future wave run up or splash happens to flow above and landward of the top of the bluff, the basement will capture and hold some of that water if it makes it that far.

RECOMMENDATIONS

1. All habitable structures and utilities should be located within our geological development envelope graphically portrayed on Plate 1.

2. Seismic shaking values for any structures designed on the property should at least adhere to the minimum prescriptive design values outlined in the current California Residential Code. The seismic shaking values should be developed by the Project Geotechnical Engineer of Record as part of their soils report for the design of proposed structures.

3. The existing coastal bluff armoring system seawall should be adequately maintained to prevent future coastal bluff retreat related to wave erosion and landsliding. Periodic inspection and maintenance should be undertaken to ensure the retaining walls and rip-rap revetment are not damaged or undermined by wave erosion.

4. We recommend that all drainage from improved surfaces such as walkways, patios, roofs, and driveways be collected and dispersed on site in such a way as to avoid ponding on the ground adjacent to the house, spilling directly onto steep slopes without some form of erosion protection. Gutters should be utilized on rooftops, channeling drainage to existing gutters or storm drains or dispersed on the property in such a way as to avoid ponding or concentrated discharge on the coastal bluff. The proposed basement should be constructed in such a way as to not allow any seepage of water through the ceiling, walls or floors. A pump system with redundant power sources will need to be installed in the basement in order to pump out any storm water that enters the basement. Water collected by the pumps should be disposed of away from any installed subsurface drains, including the basement wall drains.

5. We recommend that our firm be provided the opportunity for a review of the final design and specifications in order that our recommendations may be properly interpreted and implemented in the design and specification. If our firm is not accorded the privilege of making the recommended review we can assume no responsibility for misinterpretation of our recommendations.

INVESTIGATIVE LIMITATIONS

1. Our services consist of professional opinions and recommendations made in accordance with generally accepted engineering geology principles and practices. No warranty, expressed or implied including any implied warranty of merchantability or fitness for the purpose is made or intended in connection with our services or by the proposal for consulting or other services, or by the furnishing of oral or written reports or findings.

2. The analysis and recommendations submitted in this report are based on the geologic information derived from the steps outlined in the scope of services section of this report. The information is derived from necessarily limited natural and artificial exposures. Consequently, the conclusions and recommendations should be considered preliminary.

3. The conclusions and recommendations noted in this report are based on probability and in no way imply the site will not possibly be subjected to ground failure or seismic shaking so intense that structures will be severely damaged or destroyed. The report does suggest that building structures at the subject site, in compliance with the recommendations noted in this report, is an "ordinary" risk as defined in Appendix B.

4. This report is issued with the understanding that it is the duty and responsibility of the owner or his representative or agent to ensure that the recommendations contained in this report are brought to the attention of the architect and engineer for the project, incorporated into the plans and specifications, and that the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

EXHIBIT G

5. The findings of this report are valid as of the present date. However, changes in the conditions of property and its environs can occur with the passage of time, whether they be due to natural processes or to the works of man. In addition, changes in applicable or appropriate standards occur whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or partially, by changes outside our control. Therefore, the conclusions and recommendations contained in this report cannot be considered valid beyond a period of two years from the date of this report without review by a representative of this firm.

EXHIBIT G

REFERENCES

Aerial Photographs

1928, Frames SC-29 and 30, black and white, nominal scale 1:12,000, California Joint Highway District #9.

25 April 1948, Frames CDF5-4 61 and 62, black and white, nominal scale 1:10,000, California Division of Forestry.

June 2 1956, Frames CJA-2R-84 and -85, black and white, nominal scale 1:10,000, U.S. Department of Agriculture Commodity Stabilization Service.

December 6 1961, Frames S.C. 1-32 and -33, black and white, nominal scale 1:10,000, U.S Army Corps of Engineers.

May 30 1963, Frames SC-1-6 and -7, black and white, nominal scale 1:10,000, U.S. Army Corps of Engineers.

31 July 1964, Frame HA-YB-95 & -96, black and white, nominal scale 1:14,400, Mark Hurd Aerial Surveys.

1972, Frame 7220082, oblique aerial photo posted on California Coastal Records Project, https://largeimages.californiacoastline.org/images/1972/large/2/7220082.JPG

18 June 2001, Frame 0321. color, nominal scale 1:10,800, Pacific Western Aerial Surveys.

Maps and Reports

Brabb, E.E., 1997, Geologic map of Santa Cruz County, California: a digital database: U.S. Geological Survey, Open-File Report 97-489, scale 1:62,500.

Buchanan-Banks, J.M., Pampeyan, E.H., Wagner, H.C., and McCulloch, D.S., 1978, Preliminary map showing recency of faulting in coastal south-central California, U.S. Geological Survey Miscellaneous Field Studies Map MF-910, 3 sheets, scale 1:250,000.

Burkland and Associates, 1975, Geotechnical study for the seismic safety element, prepared for the Planning Department, Monterey County, California, 125 p.

California Department of Conservation, California Geological Survey, 2000, Magnitude 4 and greater earthquakes, compiled from various sources, 1769-2000; available at www.consrv.ca.gov/CGS/rghm/quakes/cgs2000_fnl.txt.

EXHIBIT G

Clark, J.C., and Reitman, J.D., 1973, Oligocene stratigraphy, tectonics, and paleogeography southwest of the San Andreas fault, Santa Cruz Mountains and Gabilan Range, California Coast Ranges: U. S. Geological Survey Professional Paper 783, 18 p.

Clark, J.C., Dibblee, T.W., Jr., Greene, H.G., and Bowen, O.E., Jr., 1974, Preliminary geologic map of the Monterey and Seaside 7.5 Minute Quadrangles, Monterey County, California, with emphasis on active faults, U. S. Geological Survey Miscellaneous Field Studies Map MF-577, 2 sheets, scale 1:24,000.

Cooper-Clark and Associates, 1975, Preliminary map of landslide deposits in Santa Cruz County, California, *in* Seismic safety element, an element of the Santa Cruz County General Plan; Santa Cruz Country Planning Dept., California, scale 1:62,500.

Coppersmith, K.J., 1979, Activity assessment of the Zayante-Vergeles fault, central San Andreas fault system, California, unpublished Ph.D. dissertation, University of California, Santa Cruz, 216 p.

Graham, S.A., and Dickinson, W.R., 1978, Evidence of 115 km right-slip on the San Gregorio-Hosgri fault trend, Science, v. 199, p. 179-181.

Greene, H.G., 1977, Geology of the Monterey Bay region, California, U. S. Geological Survey Open-File Report 77-718, 347 p., 9 plates, scale 1:200,000.

Griggs, G.B., 1973, Earthquake activity between Monterey and Half Moon Bays, California, California Geology, Geology, v. 26, p. 103-110.

Griggs, G.B., and Johnson, R.E., 1979, Coastal erosion, Santa Cruz County: California Geology, v. 32, no. 4, p. 67-76.

Griggs, G.B., and Johnson, R.E., 1983, Impact of 1983 storms on the coastline, northern Monterey Bay, Santa Cruz County: California Geology, v. 36, no. 8, p. 163-174.

Griggs, G.B., 1990, Coastal erosion and protection, northern Monterey Bay, *in* Griggs, G.B. and Weber, G.E., eds., Coastal Geologic Hazards and Coastal Tectonics, Association of Engineering Geologists Field Trip Guide, p. 1-49.

Hall, N.T., Sarna-Wojcicki, A.M., and Dupré, W.R., 1974, Faults and their potential hazards in Santa Cruz County, California: U. S. Geological Survey Miscellaneous Field Studies Map MF-626, 3 sheets, scale 1:62,500.

Haro, Kasunich & Associates, 2019a, Subject: Rip Rap Revetment Monitoring Report - LReference: Rip Rap Revetment Monitoring Report MacDonell Residence -APN 028-242-25 -

2-2702 East Cliff Drive - Santa Cruz, California 95062 - Commission Development Permit (CDP 3-02-013-A2), unpublished consultant letter.

Haro, Kasunich & Associates, 2019b, Rip Rap Revetment Maintenance Plan - 2-2702 East Cliff Drive - Santa Cruz, California - APN 028-242-25, unpublished consultant civil engineering plans.

Jennings, C.W. et al., 1975, Fault map of California, California Division of Mines and Geology, California Geologic Data Map Series, map no. 1.

Jennings, C.W., 1977, Geologic map of California: California Department of Conservation, Division of Mines and Geology, scale 1:750,000.

Lawson, A.C. et al., 1908, The California Earthquake of April 18, 1906, Report of the State Earthquake Investigation Commission: Carnegie Institute of Washington, Publication 87, 2 v., 600 p.

National Marine Consultants, 1970, Wave statistics for seven deep water stations along the California coast: report prepared for U.S. Army Corps of Engineers, Los Angeles and San Francisco Districts, 20 p.

Pacific Institute, 2009, California Flood Risk: Sea Level Rise - Soquel Quadrangle, map published at scale 1"=2000', can be accessed on line at http://www2.pacinst.org/reports/sea_level_rise/hazmaps/Soquel.pdf .

Petersen, M.D., Bryant, W.A., Cramer, C.H., Cao, T., Reichle, M.S., Frankel, A.D., Lienkaemper, J.J., McCrory, P.A., and Schwartz, D.P., 1996, Probabilistic seismic hazard assessment for the State of California, California Division of Mines and Geology Open-File Report 96-08 and U.S. Geological Survey Open-File Report 96-706.

Plant, N., and Griggs, G.B., 1990, Coastal landslides caused by the October 17, 1989 earthquake, Santa Cruz County, California: California Geology, v. 43, no. 4, p. 75-84.

R.M. Towill, Inc., 1965, Planning Study, Rio Del Mar: Santa Cruz County, sheets 62A and 69A, scale 1"=100'.

Rosenberg, L.I., and Clark, J.C., 1995, Quaternary faulting of the greater Monterey area, California: Association of Engineering Geologists, Annual Meeting Abstracts, p.81-82.

Ross, D.C., and Brabb, E.E., 1973, Petrography and structural relations of granitic basement rocks in the Monterey Bay area, California: U. S. Geological Survey Journal of Research, v. 1, p. 273-282.

Santa Cruz County Public Works Department, 1989, Orthophoto / Topo Mapping, sheet A3, scale 1"=100'.

Saucedo, G.J., Bedford, D.R., Raines, G.L., Miller, R.J., and Wentworth, C.M., 2000, GIS Data for the Geologic Map of California: California Department of Conservation, Division of Mines and Geology, CD-ROM 2000-007, ver. 2.0.

Sykes, L.R., and Nishenko, S.P., 1984, Probabilities of occurrence of large plate-rupturing earthquakes for the San Andreas, San Jacinto, and Imperial faults, California, 1983-2003: Journal of Geophysical Research, v. 89, p. 5905-5927.

U.S. Geological Survey, 1954, photorevised 1980, Soquel quadrangle, California, 7.5 minute topographic series, scale 1:24,000.

U.S. Geological Survey, 1971, State of California, scale 1:1,000,000.

Weber, G.E., and LaJoie, K.R., 1974, Evidence of Holocene displacement on the San Gregorio fault, San Mateo County, California (abs.), Geological Society of America Abstracts with Programs, v. 6, no. 3, p. 273-274.

Weber, G.E., and Cotton, W.R., 1981, Geologic investigation of recurrence intervals and recency of faulting along the San Gregorio fault zone, San Mateo County, California, U. S. Geological Survey Open-File Report 81-263, 133 p.

Weber, G.E., Nolan, J.M., and Zinn, E.N., 1995, Determination of late Pleistocene-Holocene slip rates along the San Gregorio fault zone, San Mateo County, California: U.S. Geological Survey Open-File Report 95-210, p. 805-807.

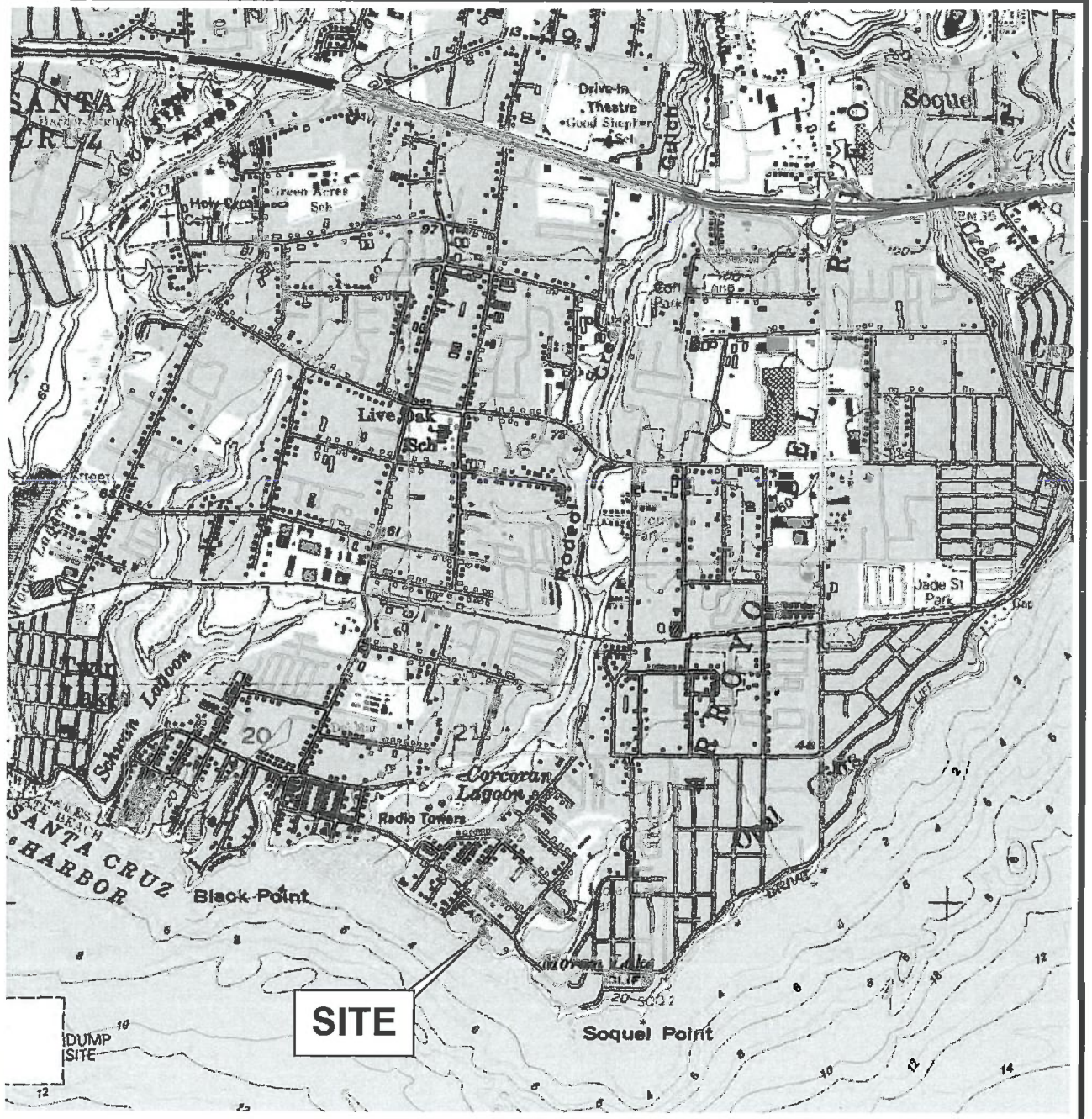
Working Group on California Earthquake Probabilities, 1988, Probabilities of large earthquakes occurring in California on the San Andreas fault, U.S. Geological Survey Open-File Report 88-398, 62 p.

Working Group on California Earthquake Probabilities, 1990, Probabilities of large earthquakes in the San Francisco Bay region, California: U.S. Geological Survey Circular 1053, 51 p.

Working Group on Northern California Earthquake Potential, 1996, Database of potential sources for earthquakes larger than magnitude 6 in northern California: U.S. Geological Survey Open-File Report 96-705, 53 p.

APPENDIX A

FIGURES



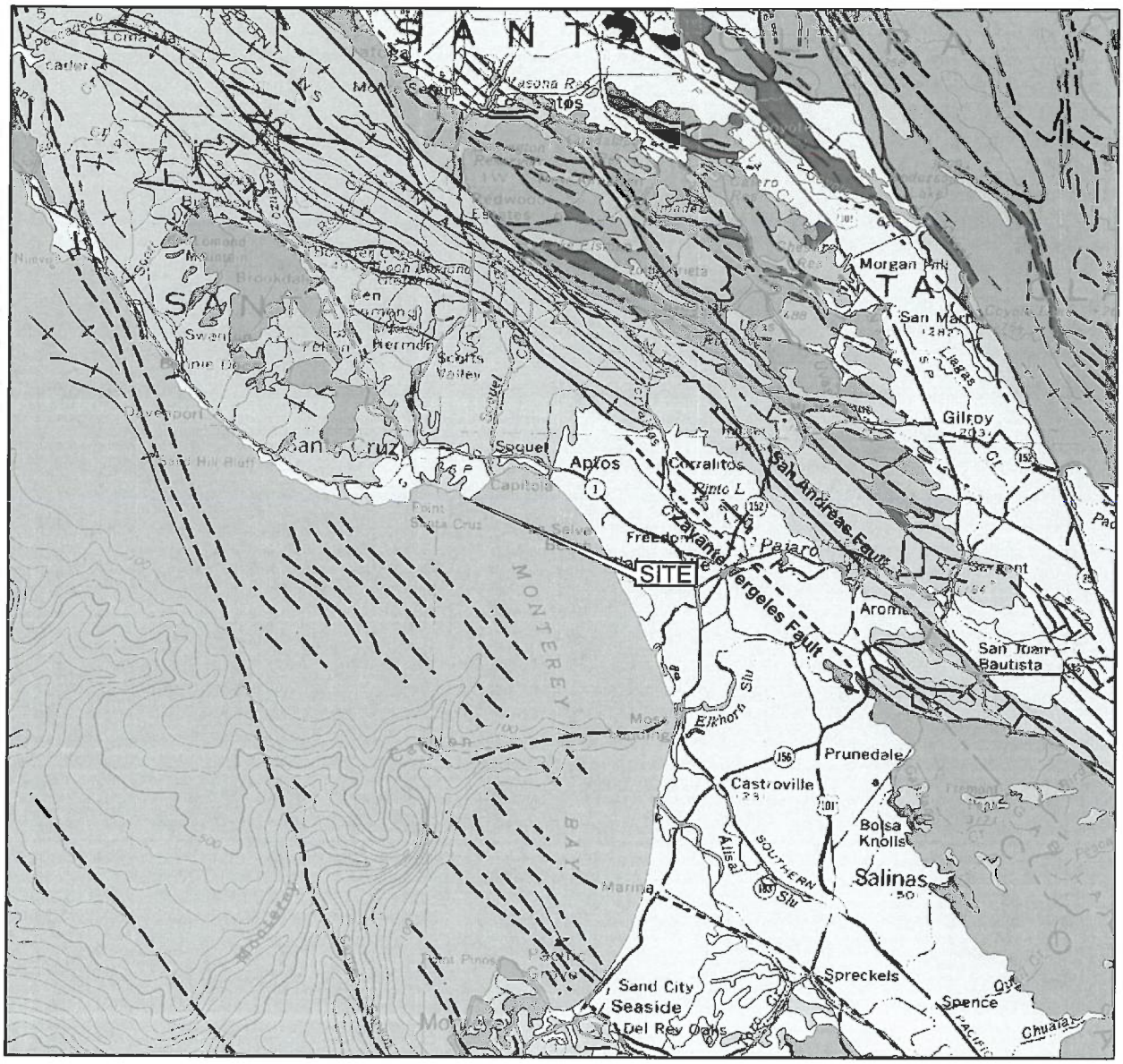
BASE MAP: U.S. Geological Survey, 1954 (revised 1994), Soquel Quadrangle, California, U.S. Geological Survey 7.5' topographic series, scale 1:24,000.

ZINN GEOLOGY

Topographic Index Map
Lands of MacDonell
22702 East Cliff Drive
Santa Cruz, California

FIGURE #
1
JOB #
2020020-G-SC

EXHIBIT G



Reference: Jennings, C.W., 1977, Geologic Map of California: California Department of Conservation, Division of Mines and Geology, scale 1:750,000.
Digital Data: Saucedo, G.J., Bedford, D.R., Raines, G.L., Miller, R.J., and Wentworth, C.M., 2000, GIS Data for the Geologic Map of California: California Department of Conservation, Division of Mines and Geology, CD-ROM 2000-007, ver. 2.0.

EXPLANATION

Geologic Units

- Quaternary Deposits
- Quaternary Volcanics
- Tertiary Sedimentary Rocks
- Tertiary Volcanic Rocks
- Pre-Tertiary Sedimentary Rocks
- Pre-Tertiary Volcanic Rocks
- Grantic Intrusive Rocks
- Franciscan Complex
- Ultramafic Rocks
- Pre-Tertiary Metamorphic Rock
- Pre-Cambrian Metamorphic and Igneous Rocks

Symbols

- contact
- fault, certain
- fault,approx. located
- fault, concealed or inferred
- anticline
- monocline
- syncline

N
W E
S

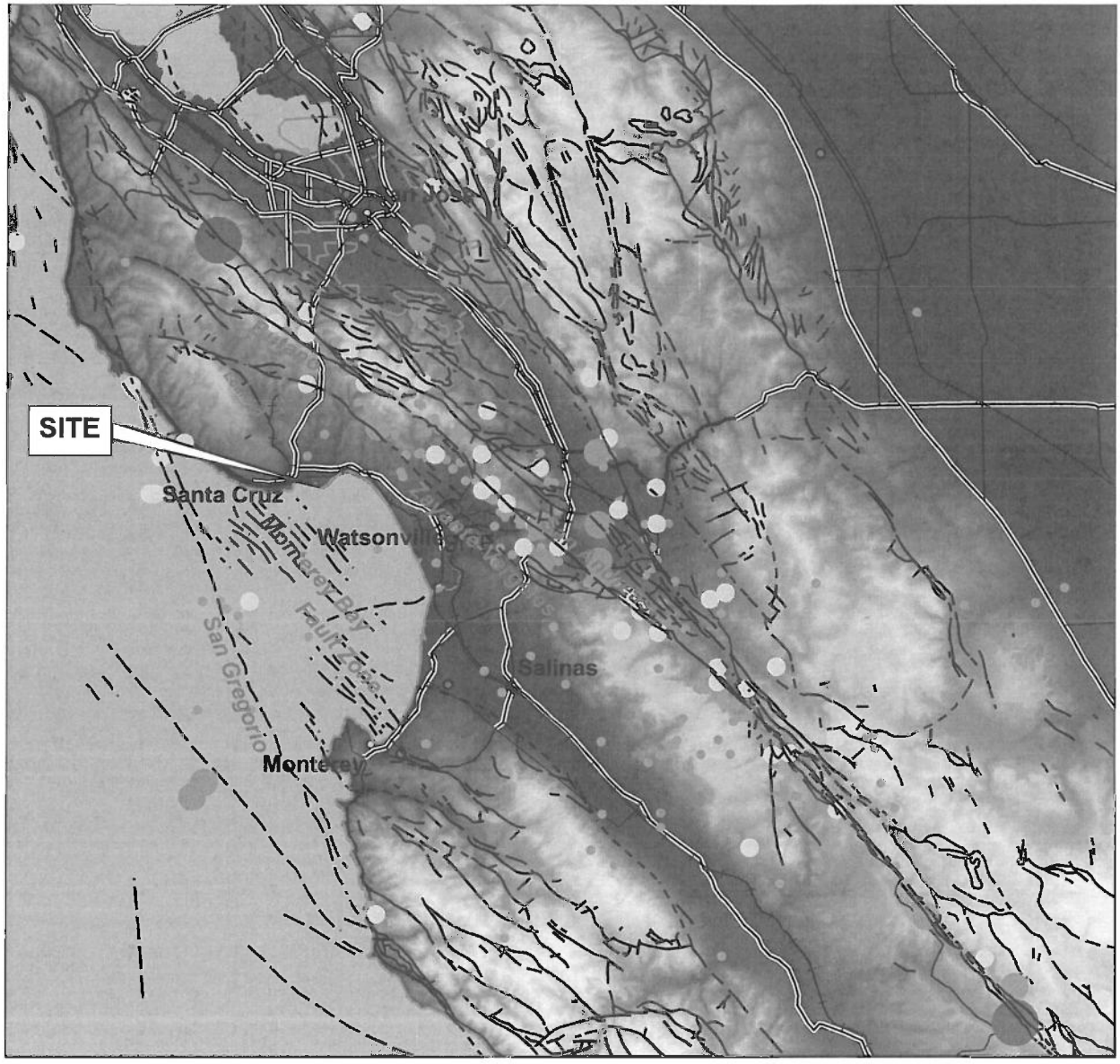
SCALE 1:500,000
10 Miles 0

ZINN GEOLOGY

Regional Geologic Map
Lands of MacDonell
22702 East Cliff Drive
Santa Cruz, California

FIGURE # 2
JOB # 2020020-G-SC

EXHIBIT G



Seismicity Information: Magnitude 4 and greater earthquakes, compiled from various sources, 1769 to 2000; available at www.consrv.cagov/CGS/rghm/quakes/cgs2000_fnl.txt
Fault Information: Jennings, C.W., 1977, Geologic map of California: California Department of Conservation, Division of Mines and Geology, scale 1:750,000

EXPLANATION

Symbols

- fault, certain
- fault,approx. located
- fault, concealed or inferred

Earthquake Magnitude

- 4.0 to 4.99
- 5.0 to 5.99
- 6.0 to 6.99
- 7.0 +

N W E S

SCALE 1:1,000,000

10 5 0 10

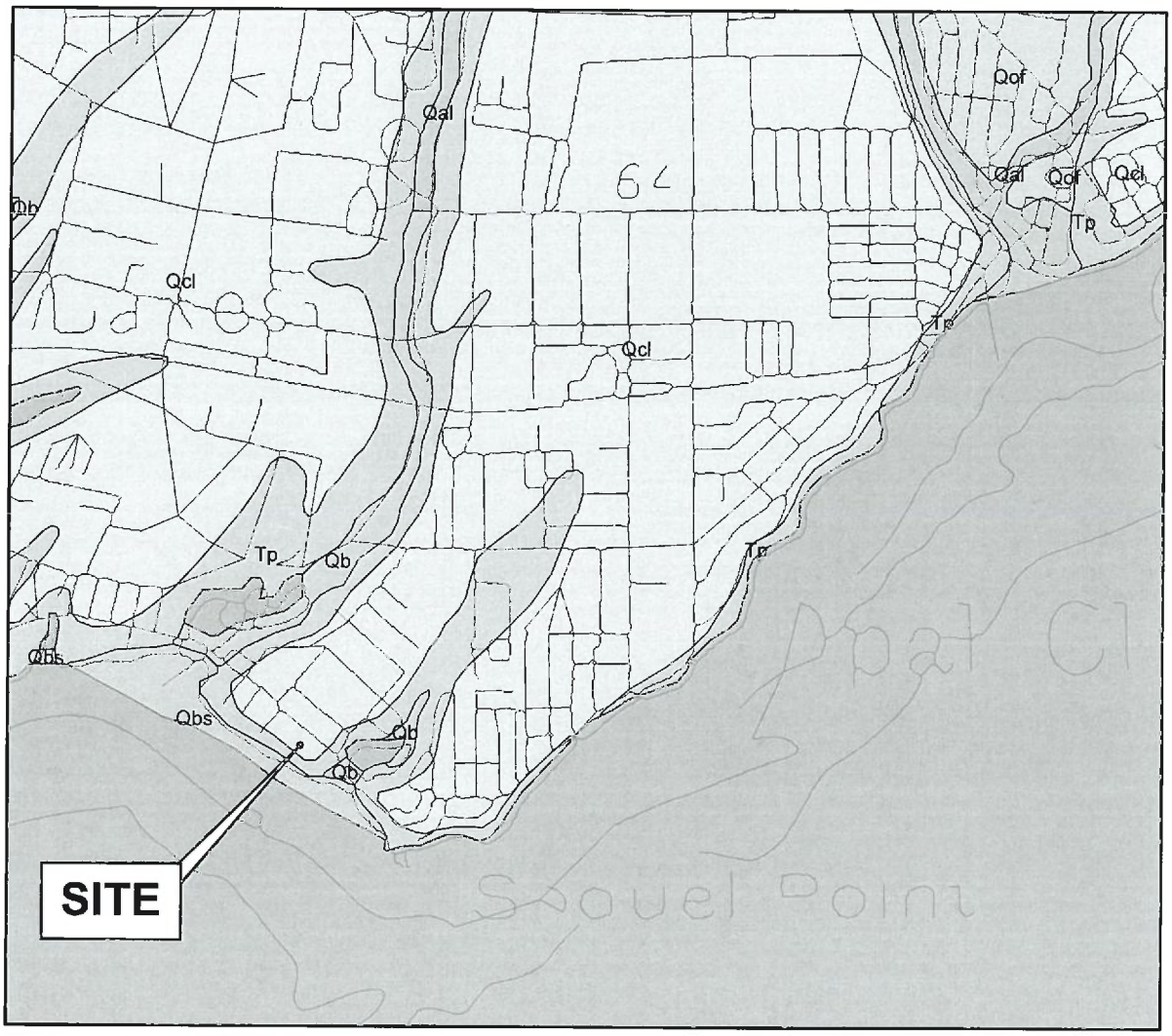
Miles

ZINN GEOLOGY

Regional Seismicity Map
Lands Of MacDonell
22702 East Cliff Drive
Santa Cruz, California

FIGURE #
3
JOB #
2020020-G-SC

EXHIBIT G



BASE MAP: Brabb, E.E., 1997, Geologic map of Santa Cruz County, California: a digital database: U.S. Geological Survey, Open-File Report 97-489, scale 1:62,500.

Explanation

UNITS

- Qal - Alluvium
- Qb - Basin deposits
- Qbs - Beach sand
- Qcl - Marine terrace deposits
- Qof - Old flood plain deposits
- Tp - Purisima Formation
- Water

SYMBOLS

- contact, certain
- water boundary

N
W E
S

SCALE 1:24,000

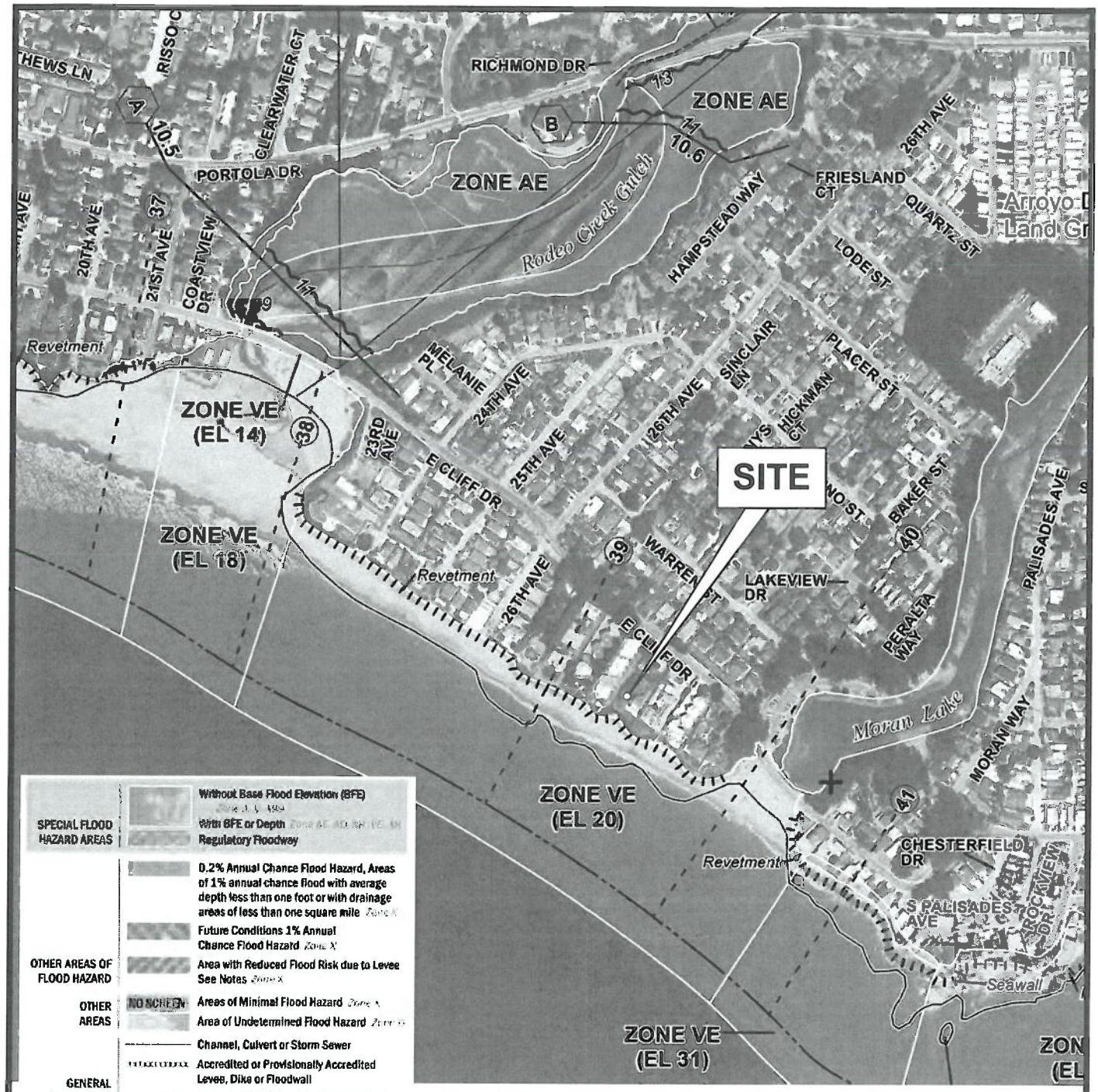
1000 0 1000 2000 feet

ZINN GEOLOGY

Local Geologic Index Map
Lands Of MacDonell
22702 East Cliff Drive
Santa Cruz, California

FIGURE # 4
JOB # 2020020-G-SC

EXHIBIT G



ZINN GEOLOGY

FEMA FIRM Index Map
Lands Of MacDonell
22702 East Cliff Drive
Santa Cruz, California

FIGURE #
5
JOB #
2020020-G-SC

EXHIBIT G

APPENDIX B

SCALE OF ACCEPTABLE RISKS FROM GEOLOGIC HAZARDS

SCALE OF ACCEPTABLE RISKS FROM SEISMIC GEOLOGIC HAZARDS		
Risk Level	Structure Types	Extra Project Cost Probably Required to Reduce Risk to an Acceptable Level
Extremely low[1]	Structures whose continued functioning is critical, or whose failure might be catastrophic: nuclear reactors, large dams, power intake systems, plants manufacturing or storing explosives or toxic materials.	No set percentage (whatever is required for maximum attainable safety).
Slightly higher than under "Extremely low" level.[1]	Structures whose use is critically needed after a disaster: important utility centers; hospitals; fire, police and emergency communication facilities; fire station; and critical transportation elements such as bridges and overpasses; also dams.	5 to 25 percent of project cost.[2]
Lowest possible risk to occupants of the structure.[3]	Structures of high occupancy, or whose use after a disaster would be particularly convenient: schools, churches, theaters, large hotels, and other high rise buildings housing large numbers of people, other places normally attracting large concentrations of people, civic buildings such as fire stations, secondary utility structures, extremely large commercial enterprises, most roads, alternative or non-critical bridges and overpasses.	5 to 15 percent of project cost.[4]
An "ordinary" level of risk to occupants of the structure.[3,5]	The vast majority of structures: most commercial and industrial buildings, small hotels and apartment buildings, and single family residences.	1 to 2 percent of project cost, in most cases (2 to 10 percent of project cost in a minority of cases).[4]

1 Failure of a single structure may affect substantial populations.
2 These additional percentages are based on the assumptions that the base cost is the total cost of the building or other facility when ready for occupancy. In addition, it is assumed that the structure would have been designed and built in accordance with current California practice. Moreover, the estimated additional cost presumes that structures in this acceptable risk category are to embody sufficient safety to remain functional following an earthquake.
3 Failure of a single structure would affect primarily only the occupants.
4 These additional percentages are based on the assumption that the base cost is the total cost of the building or facility when ready for occupancy. In addition, it is assumed that the structures would have been designed and built in accordance with current California practice. Moreover the estimated additional cost presumes that structures in this acceptable-risk category are to be sufficiently safe to give reasonable assurance of preventing injury or loss of life during and following an earthquake, but otherwise not necessarily to remain functional.
5 "Ordinary risk": Resist minor earthquakes without damage: resist moderate earthquakes without structural damage, but with some non-structural damage; resist major earthquakes of the intensity or severity of the strongest experienced in California, without collapse, but with some structural damage as well as non-structural damage. In most structures it is expected that structural damage, even in a major earthquake, could be limited to repairable damage. (Structural Engineers Association of California)

Source: ***Meeting the Earthquake,*** Joint Committee on Seismic Safety of the California Legislature, Jan. 1974, p.9.

EXHIBIT G

SCALE OF ACCEPTABLE RISKS FROM NON-SEISMIC GEOLOGIC HAZARDS[6]		
Risk Level	Structure Type	Risk Characteristics
Extremely low risk	Structures whose continued functioning is critical, or whose failure might be catastrophic: nuclear reactors, large dams, power intake systems, plants manufacturing or storing explosives or toxic materials.	1. Failure affects substantial populations, risk nearly equals nearly zero.
Very low risk	Structures whose use is critically needed after a disaster: important utility centers; hospitals; fire, police and emergency communication facilities; fire station; and critical transportation elements such as bridges and overpasses; also dams.	1. Failure affects substantial populations. Risk slightly higher than 1 above.
Low risk	Structures of high occupancy, or whose use after a disaster would be particularly convenient: schools, churches, theaters, large hotels, and other high rise buildings housing large numbers of people, other places normally attracting large concentrations of people, civic buildings such as fire stations, secondary utility structures, extremely large commercial enterprises, most roads, alternative or non-critical bridges and overpasses.	1. Failure of a single structure would affect primarily only the occupants.
"Ordinary" risk	The vast majority of structures: most commercial and industrial buildings, small hotels and apartment buildings, and single family residences.	1. Failure only affects owners /occupants of a structure rather than a substantial population. 2. No significant potential for loss of life or serious physical injury. 3. Risk level is similar or comparable to other ordinary risks (including seismic risks) to citizens of coastal California. 4. No collapse of structures; structural damage limited to repairable damage in most cases. This degree of damage is unlikely as a result of storms with a repeat time of 50 years or less.
Moderate risk	Fences, driveways, non-habitable structures, detached retaining walls, sanitary landfills, recreation areas and open space.	1. Structure is not occupied or occupied infrequently. 2. Low probability of physical injury. 3. Moderate probability of collapse.
[6] Non-seismic geologic hazards include flooding, landslides, erosion, wave runup and sinkhole collapse		

EXHIBIT G

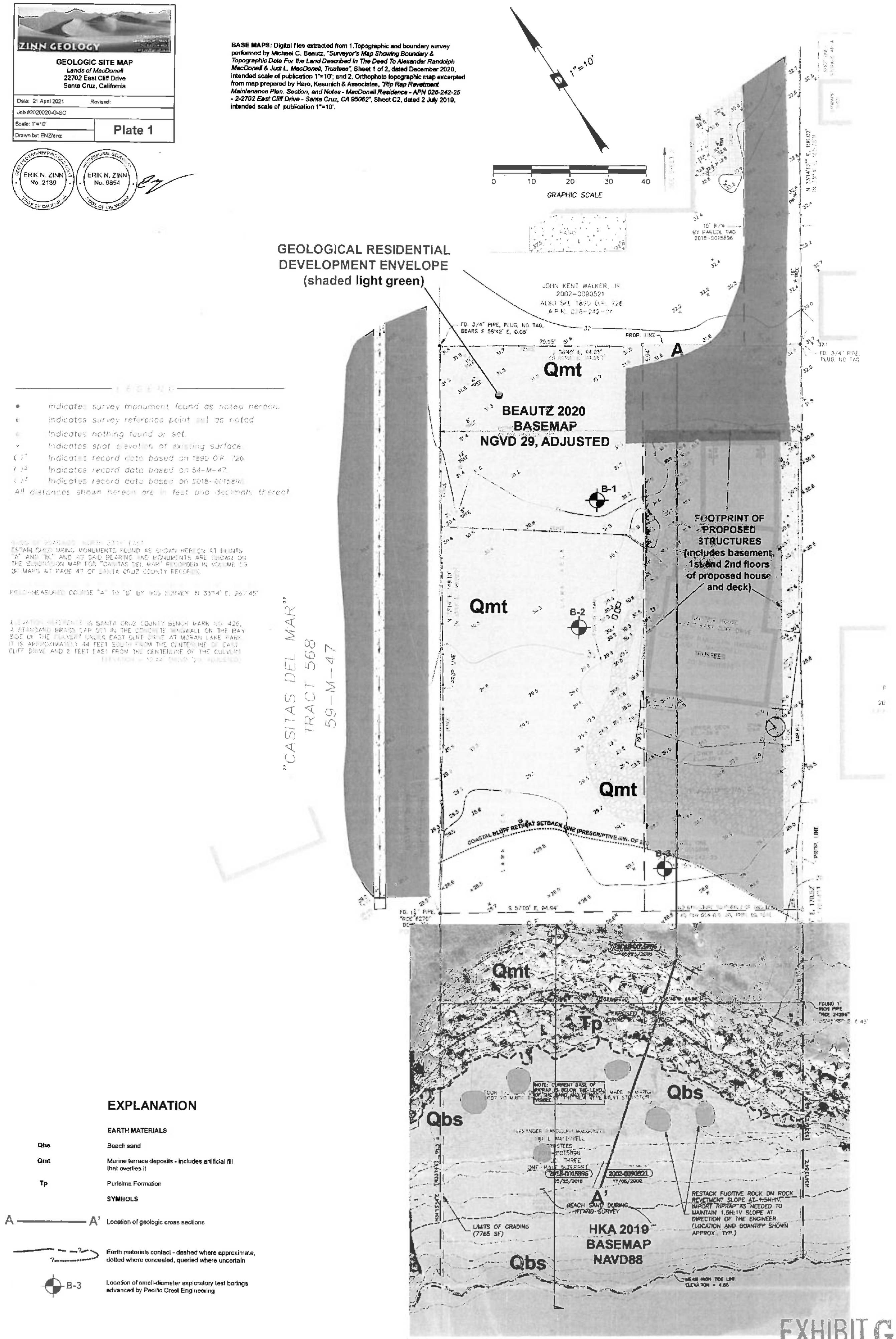
ZINN GEOLOGY

GEOLOGIC SITE MAP
Lands of MacDonell
22702 East Cliff Drive
Santa Cruz, California

Date: 21 April 2021	Revised:
Job #2020020-G-SC	
Scale: 1"=10'	**Plate 1**
Drawn by: ENZ/enz	

ERIK N. ZINN No. 2130 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA
ERIK N. ZINN No. 6854 — PROFESSIONAL GEOLOGIST — STATE OF CALIFORNIA

BASE MAPS: Digital files extracted from 1.Topographic and boundary survey performed by Michael C. Beautz, *"Surveyor's Map Showing Boundary & Topographic Data For the Land Described In The Deed To Alexander Randolph MacDonell & Judi L. MacDonell, Trustees"*, Sheet 1 of 2, dated December 2020, intended scale of publication 1"=10'; and 2. Orthophoto topographic map excerpted from map prepared by Haro, Kasunich & Associates, *"Rip Rap Revetment Maintenance Plan, Section, and Notes - MacDonell Residence - APN 028-242-25 - 2-2702 East Cliff Drive - Santa Cruz, CA 95062"*, Sheet C2, dated 2 July 2019, intended scale of publication 1"=10'.



EXPLANATION

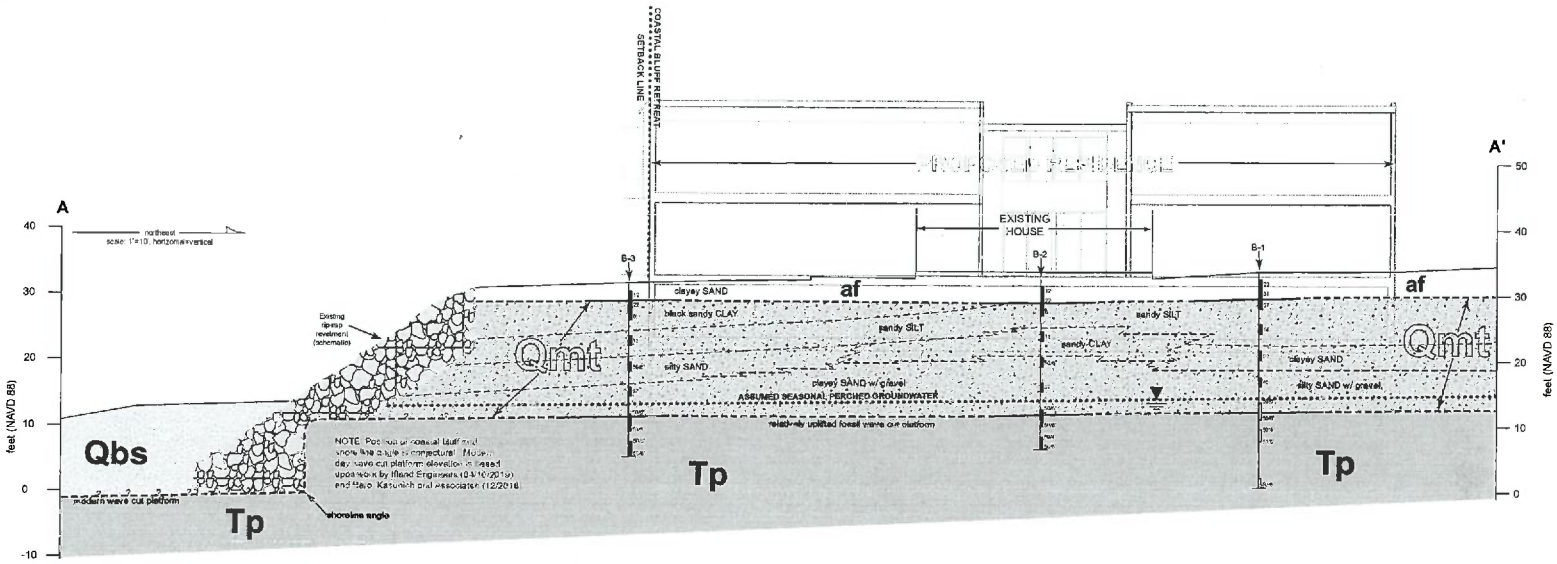
EARTH MATERIALS

Qbs	Beach sand
Qmt	Marine terrace deposits - includes artificial fill that overlies it
Tp	Purisima Formation

SYMBOLS

A —— A'	Location of geologic cross sections
—— – –?– ?······	Earth materials contact - dashed where approximate, dotted where concealed, queried where uncertain
B-3	Location of small-diameter exploratory test borings advanced by Pacific Crest Engineering

EXHIBIT G



EXPLANATION

EARTH MATERIALS

Qbs	Beach sand
af	Artificial fill
Qmt	Marine terrace deposits
Tp	Purisima Formation

SYMBOLS

Earth materials contact - dashed where approximate, queried where uncertain

Intraformational contact in Marine terrace deposits; marks interpretive contact between different fluvial sedimentary packages

B-3

Location of small-diameter exploratory test borings advanced by Pacific Crest Engineering; rectangles abutted by integers graphically depict sample intervals and SPT "N" values; see PCE report for logs of the borings

ERIK N. ZINN
No. 2139
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

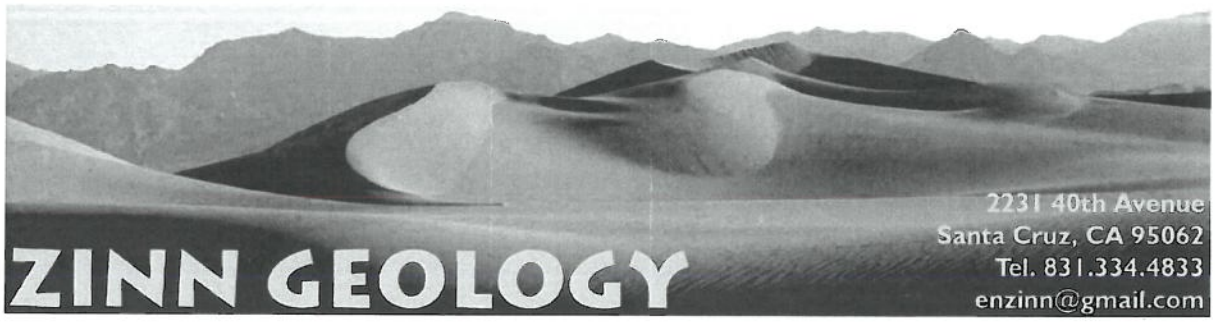
ERIK N. ZINN
No. 6854
PROFESSIONAL GEOLOGIST
STATE OF CALIFORNIA

ZINN GEOLOGY

GEOLOGIC CROSS SECTION
Lands of MacDonell
2-2702 East Cliff Drive
Santa Cruz, California 95062

Date: 10 March 2021	Revised: 21 April 2021
Job #2020020-G-SC	
Scale: 1"=10', H=V	Plate 2
Drawn by: ENZ/enz	

EXHIBIT G



21 October 2021 Job #2020020-G-SC

Alex and Judi MacDonell
c/o Matson Britton Architects
Attention: Cove Britton
728 N Branciforte Ave
Santa Cruz, CA 95062

Re: Addendum geologic letter regarding existing revetment
22702 East Cliff Drive
Santa Cruz, California
County of Santa Cruz APN 028-242-25

Dear Mr. And Mrs. MacDonell:

We have prepared this letter at the request of your architect, Cove Britton of Matson-Britton Architects. In our original geology report, dated 21 April 2021, we incorrectly stated that the "revetment was recently maintained under permit (Haro, Kasunich & Associates [HKA], 2019a; Haro, Kasunich & Associates, 2019b). We observed that he revetment appeared to be freshened up and conformed to the plans developed by Haro, Kasunich & Associates in July 2019, so presumably the work to restack the rip-rap has been completed."

The above statement was made by looking at oblique aerial photographs produced by californiacoastaline.org, flown in 2015 and 2019 (see attached figures for digital excerpts of the photos). There is more vegetation draped over the existing rip-rap in the 2015 photo than the 2019 photo, which in light of the plans for future maintenance prepared by HKA, led to the assumption that the maintenance had been performed.

Cove Britton has since discussed with this with the owner, Alex MacDonell, and Mr. MacDonell has stated that no changes have been made to the rip-rap, but that the non-native ice plant was removed at the recommendation of the California Coastal Commission staff.

Moses Cupril of HKA has also indicated that none of the maintenance outlined on their plan has ever been performed as far as they know.

In light of the above facts and findings, we would like to retract our finding that the revetment was maintained and "freshened up" after July 2019. The only thing activity that has occurred near the top of the bluff under the MacDonell ownership is the removal of the non-native ice plant.

Sincerely,
ZINN GEOLOGY

Erik N. Zinn
Principal Geologist
P.G. #6854, C.E.G. #2139

CERTIFIED ENGINEERING GEOLOGIST
ERIK N. ZINN
No. 2139
STATE OF CALIFORNIA

PROFESSIONAL GEOLOGIST
ERIK N. ZINN
No. 6854
STATE OF CALIFORNIA

Attachments: Figure 1 - 2015 Photo
Figure 2 - 2019 Photo

EXHIBIT G

FIGURE 1 - 2015 PHOTO

SOURCE: digitally excerpted from oblique aerial photo archives owned and maintained by California Coastal Records Project; https://www.californiacoastline.org/

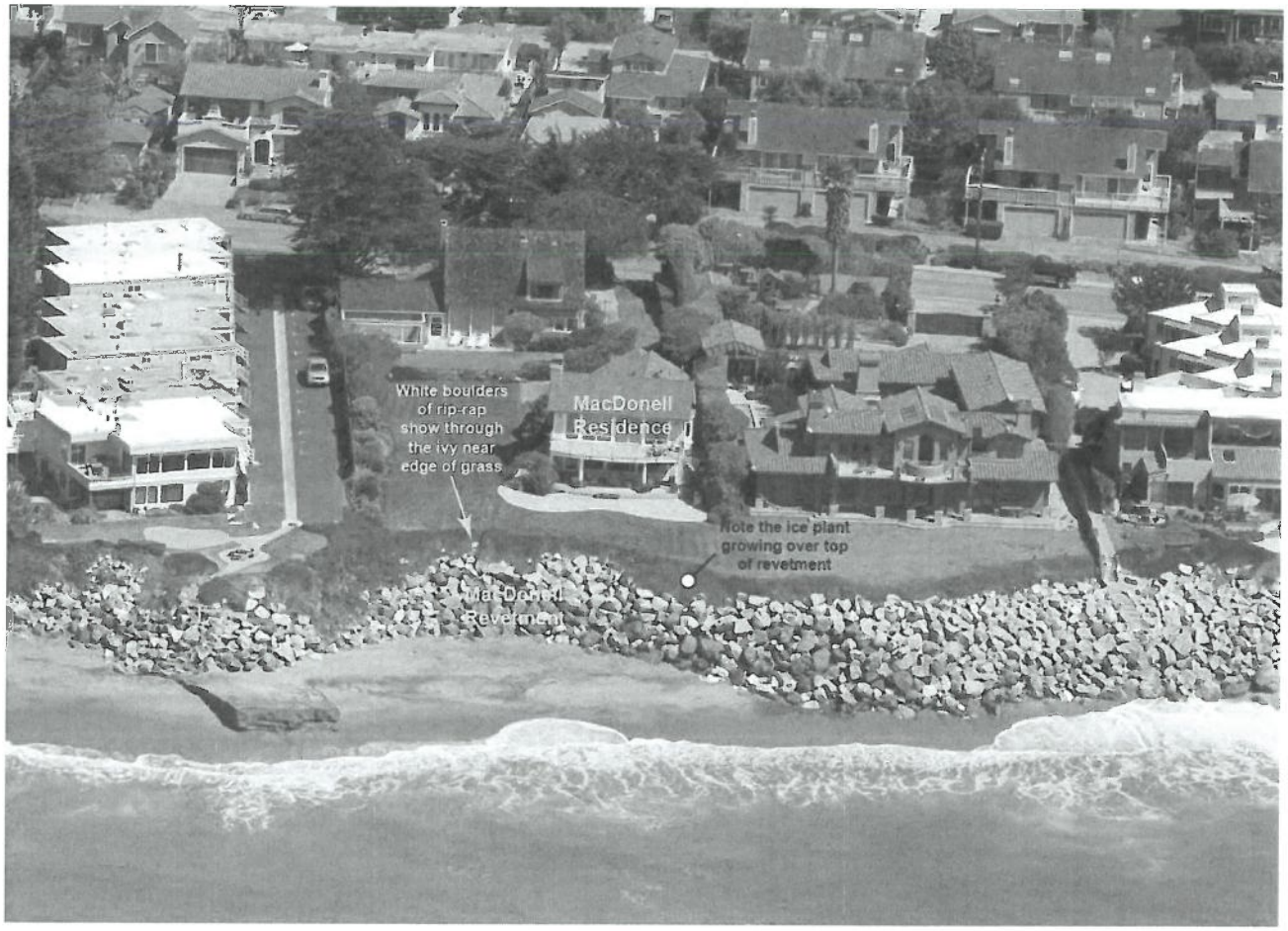


EXHIBIT G

FIGURE 2 - 2019 PHOTO

SOURCE: digitally excerpted from oblique aerial photo archives owned and maintained by California Coastal Records Project; https://www.californiacoastline.org/

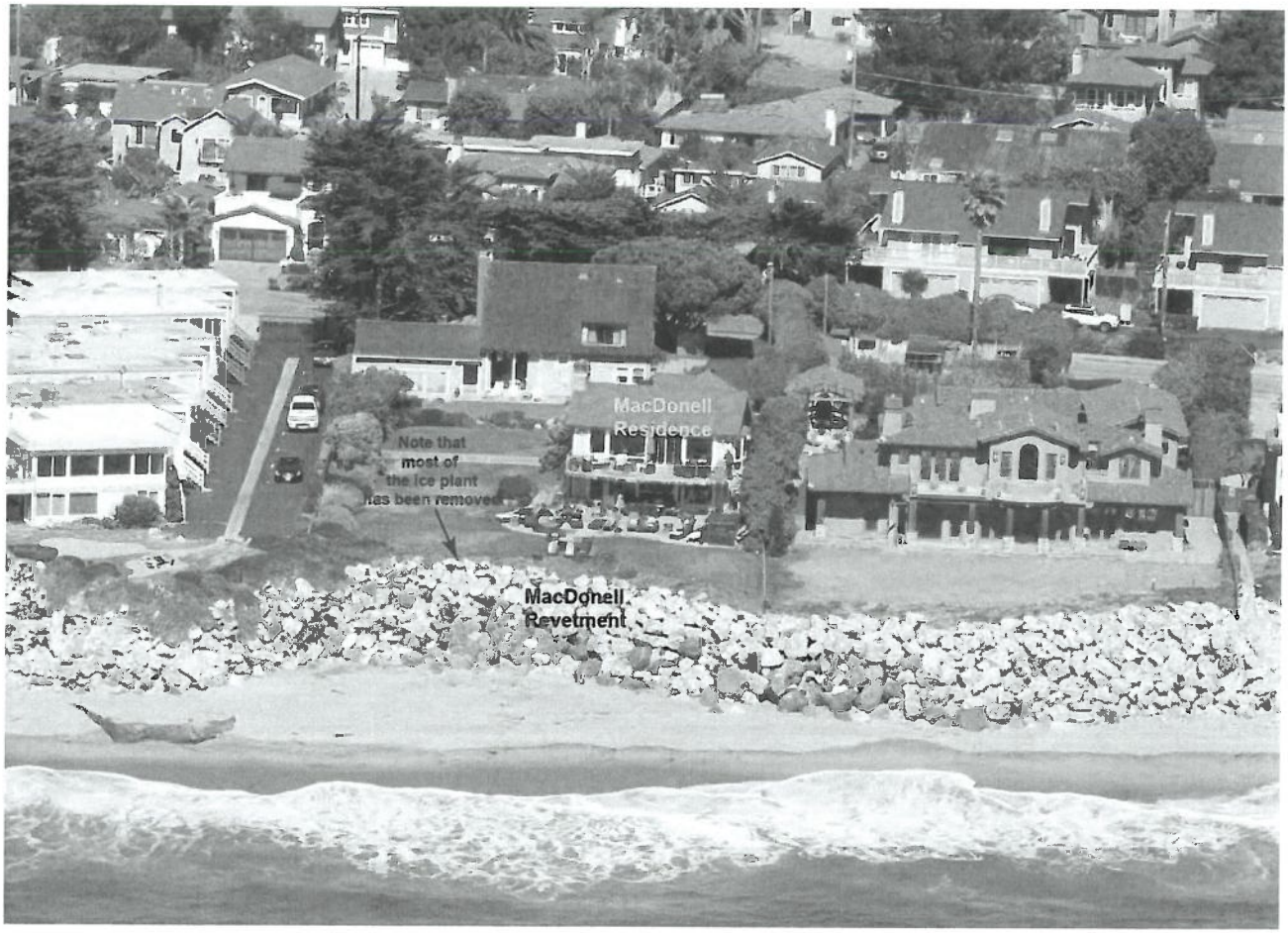


EXHIBIT G

COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

12 August 2021

Judi and Alex MacDonell <alexmacdonell5@gmail.com>
22702 East Cliff Drive
Santa Cruz, CA 95062-5360

Subject: Review of Geologic investigation for the MacDonnell Residence at 22702 East Cliff Drive/APN 028-242-25, County of Santa Cruz by Zinn Geology dated 21 April 2021 Job. No. 2020020-G-SC.

Review of Geotechnical Investigation for Proposed New Residence at 22702 East Cliff Drive/APN 028-242-25, Santa Cruz County, California by Pacific Crest Engineering, Inc. dated 9 April 2021 - Project No. 2078-SZ68-H68.

Project Site: 22702 East Cliff Drive
APN 028-242-25
Application No. REV211347

Dear Applicant:

The purpose of this letter is to inform you that the Planning Department has accepted the subject reports and the following items shall be required:

1. All project design and construction shall comply with the recommendations of the reports.

2. Final plans shall reference the subject reports by titles, authors, and dates. Final Plans should also include a statement that the project shall conform to the reports' recommendations.

3. After plans are prepared that are acceptable to all reviewing agencies, please request both your project geologist and geotechnical engineer submit a completed Consultant Plan Review Form (PLG300) to Environmental Planning. The authors of the geology and geotechnical reports shall sign and stamp their completed forms. Please note that the plan review forms must reference the final plan set by last revision date.

4. Both the subject geology and geotechnical reports state the design life of the proposed new blufftop residence is dependent upon the repair and maintenance of the existing riprap revetment. Prior to the completion of the Building Permit, a Monitoring and Maintenance Agreement for the project site shoreline protection structure shall be recorded by the owners.

   The Monitoring and Maintenance Agreement for the riprap revetment will be developed by Environmental Planning Staff. Please contact Rick Parks at (831) 454-3168 or Rick.Parks@santacruzcounty.us regarding the Monitoring and Maintenance Agreement.

EXHIBIT H

5. The subject geotechnical report cover letter lists the project site as 22812 East Cliff Drive. Please provide a corrected geotechnical report for County archives.

Any updates to report recommendations necessary to address conflicts between the reports and plans must be provided via a separate addendum to the geotechnical report and/or geology report.

Electronic copies of all forms required to be completed by the Geotechnical Engineer may be found on our website: www.sccoplanning.com, under "Environmental", "Geology & Soils", and "Assistance & Forms".

After building permit issuance the geotechnical engineer and engineering geologist *must remain involved with the project* during construction. Please review the Notice to Permits Holders (attached).

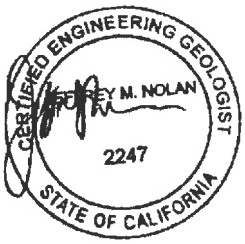
Our acceptance of the reports is limited to their technical content. Other project issues such as zoning, fire safety, septic or sewer approval, etc. may require resolution by other agencies.

Please note that this determination may be appealed within 14 calendar days of the date of service. Additional information regarding the appeals process may be found online at: http://www.sccoplanning.com/html/devrev/plnappeal_bldg.htm

Please contact Rick Parks at (831) 454-3168/email: Rick.Parks@santacruzcounty.us or Jeff Nolan at (831) 454-3175/Jeffrey.Nolan@santacruzcounty.us if we can be of any further assistance.

Respectfully,

Rick Parks, GE 2603
Civil Engineer – Environmental Planning
County of Santa Cruz Planning Department



Jeffrey Nolan, CEG 2247
County Geologist– Environmental Planning
County of Santa Cruz Planning Department

Cc: Environmental Planning, Attn: Jessica deGrassi
Elizabeth Mitchell, Pacific Crest Engineering
Erik Zinn, Zinn Geology
Cove Britton, Matson-Britton Architects

Attachments: Notice to Permit Holders

EXHIBIT H

NOTICE TO PERMIT HOLDERS WHEN SOILS AND GEOLOGY REPORTS HAVE BEEN PREPARED, REVIEWED AND ACCEPTED FOR THE PROJECT

After issuance of the building permit, the County requires your soils engineer and engineering geologist to be involved during construction.

1. **At the completion of construction,** a *Soils (Geotechnical) Engineer Final Inspection Form* and a *Geologist Final Inspection Form* are required to be submitted to Environmental Planning that includes copies of all observations made during construction and is stamped and signed, certifying that the project was constructed in conformance with the recommendations of the soils and geology reports.

   If the *Final Inspection Form* identifies any portions of the project that were not observed by the soils engineer and/or geologist, you may be required to perform destructive testing in order for your permit to obtain a final inspection. The soils engineer and/or geologist then must complete and initial an *Exceptions Addendum Form* that certifies that the features not observed will not pose a life safety risk to occupants.

EXHIBIT H

Lezanne Jeffs

From: Jocelyn Drake
Sent: Friday, May 20, 2022 11:25 AM
To: Lezanne Jeffs
Subject: FW: 22702 East Cliff

Jocelyn Drake
Principal Planner
County of Santa Cruz – Planning Department
70 1 Ocean Street, 4th Floor
Santa Cruz, CA 95060
(831)454-3127
Jocelyn.drake@santacruzcounty.us

From: Graeven, Rainey@Coastal <Rainey.Graeven@coastal.ca.gov>
Sent: Wednesday, May 18, 2022 3:55 PM
To: Jocelyn Drake <Jocelyn.Drake@santacruzcounty.us>
Subject: RE: 22702 East Cliff

Hi Jocelyn,

That is correct.

Rainey

From: Jocelyn Drake <Jocelyn.Drake@santacruzcounty.us>
Sent: Wednesday, May 18, 2022 3:25 PM
To: Graeven, Rainey@Coastal <Rainey.Graeven@coastal.ca.gov>
Subject: 22702 East Cliff

Hi Rainey –

Thank you for taking my call today. In preparation for the hearing, I wanted to confirm that Coastal is not inclined to issue a maintenance agreement for this property at this time. Staff's recommendation is to move the project forward on the condition that the owner obtain a maintenance agreement from Coastal (for the existing revetment) prior to issuance of a building permit. This presumes a maintenance agreement is attainable. Based on our conversation it sounds like it is not. Am I correct in understanding Coastal's position on the maintenance agreement?

Thank you -

Jocelyn

EXHIBIT I

County of Santa Cruz

DEPARTMENT OF COMMUNITY DEVELOPMENT AND INFRASTRUCTURE

701 OCEAN STREET, FOURTH FLOOR, SANTA CRUZ, CA 95060-4070
Planning (831) 454-2580 Public Works (831) 454-2160

Matt Machado, Deputy CAO, Director of Community Development and Infrastructure

Carolyn Burke	Stephanie Hansen	Kent Edler	Steve Wiesner	Travis Cary	Kim Moore
Assistant Director	*Assistant Director*	*Assistant Director*	*Assistant Director*	*Director*	*Assistant Director*
Unified Permit Center	*Housing & Policy*	*Special Services*	*Transportation*	*Capital Projects*	*Administration*

31 May 2022

Judi and Alex MacDonnell
22702 East Cliff Drive
Santa Cruz, CA 95062

Subject: Review of the Geologic investigation, MacDonnell Residence, 22702 East Cliff Drive, Santa Cruz, California, 95062, County of Santa Cruz APN 028-242-25 dated 21 April 2021 and the Addendum Geologic Letter Regarding Existing Revetment at 22702 East Cliff Drive dated 21 October 2021 by Zinn Geology Job. No. 2020020-G-SC.

Review of the Geotechnical Investigation, 22702 East Cliff Drive, APN 028-242-25, Santa Cruz County, California by Pacific Crest Engineering, Inc. dated 9 April 2021, Project No. 2078-SZ68-H68.

Project Site: 22702 East Cliff Drive
APN 028-242-25
Application No. REV211347

Dear Applicants:

The purpose of this letter is to inform you that the Planning Department has rescinded our previous letter dated 12 August 2021 accepting the subject 21 April 2021 geologic report and the 9 April 2021 geotechnical report for the proposed new residence at the project site. The Addendum Geologic Letter Regarding Existing Revetment at 22702 East Cliff Drive dated 21 October 2021 by Zinn Geology was submitted after our report review letter.

The subject geologic and geotechnical reports condition the recommendations of the reports (including the 100-year setback from the top edge of the coastal bluff) upon the rip-rap revetment being properly and adequately maintained over the design life of the project. However, recent research and information has indicated that a maintenance agreement for the rip-rap revetment does not currently exist, and a future maintenance agreement will not be approved by the California Coastal Commission. So, the reliance on maintenance in the determination of the 100-year setback is not acceptable.

EXHIBIT J

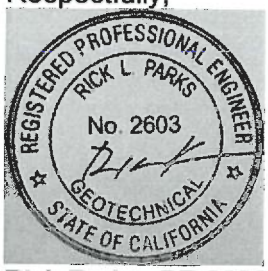
REV211347
APN 028-242-25
22702 East Cliff Drive
31 May 2022

Please request your geologic and geotechnical consultants revise their reports to provide recommendations for a minimum of 100 years of stability for the proposed coastal bluff development without maintenance of the existing revetment.

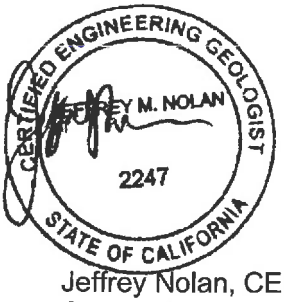
Please note that this determination may be appealed within 14 calendar days of the date of service. Additional information regarding the appeals process may be found online at: http://www.sccoplanning.com/html/devrev/plnappeal_bldg.htm

Please contact Rick Parks at (831) 454-3168/Rick.Parks@santacruzcounty.us or Jeff Nolan at (831) 454-3175/Jeff.Nolan@santacruzcounty.us if we can be of any further assistance.

Respectfully,



Rick Parks, GE 2603
Civil Engineer – Environmental Planning
County of Santa Cruz Planning Department



Jeffrey Nolan, CEG 2247
County Geologist – Environmental Planning
County of Santa Cruz Planning Department

Cc: Elizabeth Mitchell, Pacific Crest Engineering
Erik Zinn, Zinn Geology
Cove Britton, Matson-Britton Architects
Jessica de Grassi

EXHIBIT J

Dear Lezanne,

We are writing to express our opposition to Application #211155 the demolition of the current structure and proposed development.

The applicant was well aware of the view easements, coastal bluff setbacks, LCP, and the Pleasure Point Combining Zone District when he purchased the property a few years ago. His purchase price reflected the encumbrances of the view easements, coastal restrictions, and setbacks in place. His purchase price would have been substantially higher if the restrictions were lifted and the proposed development with required exemptions were approved for the parcel. If the proposed development was to be approved as is with the exceptions, it would therefore create a substantial and detrimental negative economic impact on the neighborhood properties.

We're asking that you uphold the current policy we have in place. That we honor and acknowledge staying true to the rules and regulations set forth and not allow the unjustified exemptions to be granted. There are many properties the applicant can purchase to meet his desires of excessive dwelling units as he so desires but his current parcel is not one that supports his proposed development plans. The applicant's proposed project to demolish his existing 2474 sq foot residence and replace it with approximately 6260 sq foot two story house with an additional approximately 4463 sq foot basement is not consistent with the Santa Cruz County's LCP in its current form nor consistent with the Pleasure Point Combining Zone District.

To allow the applicant exemptions because he doesn't like the view easement and other restrictions, he purchased will set a precedence that the Pleasure Point Community Plan and LCP policy means nothing when you purchase property within the boundaries and ask for exemptions. It would pave the pathway for the very thing Santa Cruz County and Pleasure Point Code put in place to stop and prevent for future development and purchasing. Allowing the Pleasure Point Exception to reduce the 10-foot second floor setback to be 5 feet would have an overwhelming negative impact to my property on the eastern side. The dramatic monolithic structure of the second story would then be within 5 feet from my property instead of the required 10-foot setback. The proposed Walmart warehouse style structure at the second story height and within 5 feet of my property would only give the applicant complete viewshed into my property where my courtyard and pool are located and I'm raising my kids. He is proposing an exception to encroach within 5 feet, towering over the privacy of my yard. In addition, the design to have windows all along the upper second floor and decks on the eastern side only gives the applicant 5 feet of closer proximity and direct view into my property when he has the entire bluff side and western side with unobstructed views of the ocean and bluffs to have the window views and decks located. It is perplexing and deeply concerning that he wants windows and bedrooms on a massive upper second story eastern side within 5 feet of my property to give himself an additional 5 feet distance to my family and direct views only of which will be my pool and private courtyard.

In current state all the properties from 26th Ave to Moran Lake have structures setback that create unobstructed coastal bluff views and are not substantially visible from the beach. The applicant is proposing to become nonconforming being the only property to build a large dwelling structure out to his fabricated 25-foot setback obstructing everyone's bluff and coastal view from 26th Ave to Moran Lake. This raises LCP consistency issues including with respect to LUP Policies 5.10.2 "Development within Visual Resource Areas", 5.10.4 "Preserving Natural Buffers", and 5.10.7 "Open Beaches and Blufftops". LUP Policy 5.10.2 acknowledges the importance of visual resources and requires that projects

EXHIBIT K

be evaluated against their unique environment (i.e., the surrounding projects and natural context), and LUP Policy 5.10.7 prohibits the placement of new permanent structures that would be visible from the public beach except where allowed on existing parcels of record and "where compatible with the pattern of existing development." These visual resource provisions are further codified in the requisite coastal permit findings (see IP Section 13.20.110(E). The proposed 6,000+ square foot residence set back only 25 feet from the coastal bluff would not be compatible with surrounding residential development and would represent a significant intrusion into the public viewshed. His proposed development would stand out and obstruct all neighboring properties views as well. He would be the only parcel to have development not only obstructing neighboring property views but also in the public's view on the beach between Moran Lake and 26th Ave. This does not reflect the policies of the large dwelling unit permit, LCP Policy, and Pleasure Point Plan. Any proposed residence over 5,000 square feet in size must also meet the required large dwelling permit findings including that the proposed structure is compatible with the surroundings/locational/environmental context; that the project meets the coastal permit findings of 13.20 including that it is consistent with all other LCP provisions including those identified above; and that the project includes mitigations such as re-siting/FAR reduction to meet the large dwelling permit findings. Given the significant LCP compliance issues and that the resident directly overlooks the beach, it does not appear that the findings necessary to approve a residence over 5,000 square feet in size can be made, and thus the project should be reduced below 5,000 square feet in addition to relocated landward. Furthermore, the determination Zin and Pacific found there would be "nil" erosion and then Cove stating HKA will keep the revetment in perfect condition when they are both well aware that Coastal Commission doesn't allow you to use an existing seawall to measure erosion for a new house shows a level of either deeply concerning incompetency or blatantly designing a development that is impossible to build as designed. It is astonishing that a long time experienced coastal geologist and coastal architect would come to the determination that a new development 25 foot setback is determined as if there was coastal armoring and as if there would be maintence allowed to a non-existing armoring. Please reference The LCP which requires that a coastal bluff building site be stable for a minimum of 100 years in its pre-development application condition, and that any development be set back an adequate distance to provide stability for the development's lifetime, and at least 100 years. The minimum 100 years of stability must be established through the use of appropriate setbacks and siting, and shall "not [be] dependent on shoreline or coastal bluff protection structures" (see LUP Policy 6.2.15). Relatedly, LUP Policy 6.2.15 specifies that shoreline protection structures shall be limited to "protect existing structures from a significant threat" (LUP Policy 6.2.16). Thus, the LCP has a two-part minimum 100-year stability requirement: first, there must be a portion of the site in question that itself will be stable for at least 100 years in a pre-development (i.e., no project) scenario without reliance on structural development; and second, any development then introduced onto the site must also be stable for its lifetime measured for at least 100 years without reliance on engineering measures. In this case, the geologic setback line is predicated on the armoring (in this case a riprap revetment) being both maintained and remaining in place for the lifetime of the development.

In addition, the proposed basement, almost the size of my entire house creates another deep concern to not only my property but the neighboring properties as well. The basement would be a substantial landform alteration of a coastal bluff and the LCP Policy 6.3.9 requires site design to minimize grading. In addition, basements have the potential to impact the natural erosion process of coastal bluffs and with the current sea caves present on both sides of adjacent properties of the applicant and near the property line shared with the applicant (my property and the other neighboring property Casitas Del

EXHIBIT K

Mar) the bluff stability is already dangerously impacted. Furthermore, the unresolved issues of Casitas Del Mar may lead to the resolution of removal of all armoring fronting the property combined with the fact that the proposed project would render the applicant's residence a redeveloped structure revoking its existing structure status leading to possible removal of all armoring as well. If the loss of the armoring for both neighboring properties occurs this would cause a catastrophic disaster for my property and all the properties downward creating a potential massive bluff collapse. Please reference LCP Policy 6.2.15 and 6.2.16.

Sincerely,

Pat O'Neill and Amber Jones

EXHIBIT K

Michael A. Guth
Attorney at Law
2-2905 East Cliff Dr., Santa Cruz, CA 95062
(831) 462-8270 email: mguth@guthpatents.com
California Bar 219295 USPTO Reg. No. 45,983

Lezanne Jeffs
Santa Cruz County Planning Department
701 Ocean Street
Santa Cruz, CA 95060

January 31, 2022

Re: Application No. 211155
APN: 028-242-25

Dear Ms. Jeffs,

I am writing to express my strong opposition to extending an exception to the building envelope limits of the Pleasure Point Community Design Combining District to this proposed development. In addition, the proposed design does not conform to the County's site design requirements. The proposed project is also non-compliant to the County's LCP with regard to visual resource protection. Lastly, the amount of excavation proposed in support of a large basement is not compliant to the County LCP.

Pleasure Point Community Design Development Standards

The Pleasure Point Community Design residential development standards, at 13.10.446, require that second story side walls "shall be set back at least 10 feet from the side yard property line." An exception requires that the project be found consistent with the Pleasure Point Community Design Combining District Purposes, as seen in 13.10.447. The first purpose is to reduce the visual and shading impacts of new and expanded housed on neighboring parcels and houses. As a person who was involved with the creation of these standards at all steps back to their inception, I can state without hesitation that this proposed project is far, far outside the circumstances for which the exception clause was included in the code. For example, in some portions of Pleasure Point, a side yard may adjoin an alleyway internal to the block, which is a common occurrence. It is to address these types of circumstances that the exception was envisioned to be applied, certainly not to allow for reduced offset along a side yard to side yard situation for a design where the applicant is seeking a 6000+ square foot house design approval.

The exception further requires that there "are special existing site or improvement characteristics or circumstances, including but not limited to the absence of adjacent residential parcels that could potentially be shaded by the proposed development, that appropriately excuses the proposed development from meeting one or more of the development standards." There can only be one circumstance under consideration to meet this requirement, and it must be discarded. The only special circumstance is that this parcel is burdened by a view easement. This is a voluntary

EXHIBIT K

circumstance that the owner willingly subjected themselves to in a free market transaction. The owner spent less money buying a lot that was encumbered. The owner now seeks to export this cost, which they themselves were not willing to shoulder, onto the neighbors and onto the community. The idea of finding a special circumstance because an owner willingly bought an encumbered lot that would still allow for a very large home (approx. 4500 sq. ft.) turns the equities on their head. The remaining building envelope is still very large by any measure. Finding a special circumstance imposes upon the neighbors, and in turn upon the community by a weakening of the Pleasure Point Community Design Combining District standards, a burden resulting only from the applicant's willing purchase of an encumbered lot. The existing home is 2474 sq. ft., and the applicant could double the size of this home without seeking an exception. This exception should not be granted.

Compatible Site Design

13.11.072 requires that new development be visually compatible and integrated with the character of the surrounding area. The proposed project pushes out onto the bluff in a way that conflicts with the surrounding properties. A photo across the site of the proposed project illustrates the existing character:

The existing developments do not crowd the bluff in the manner that is proposed in the present application. The project should be further back from the bluff edge than is seen in the present design. Further, this may be required by the applicant having used an improper standard for the geologic setback line. The California Coastal Commission comment letter on this project, dated 11/22/2021, claims that the geology report for this project has taken the existing armoring into account when calculating the geologic setback line. This may then also lead to withdrawing the proposed project

EXHIBIT K

further from the top of bluff. It must be noted that the proposed development is extremely large – a 253% increase over the existing home, and that scaling the project size back would still provide both a large home and represent a significant increase relative to the existing square footage.

Visual Resource Protection

As seen in the photo in the section above, the proposed design would encroach out into an area of the bluff not similarly intruded upon by the neighboring developments. This bluffward intrusion will be visible from the beaches and public view areas. The County's LCP LUP Policy 5.10.7 prohibits such structures if not compatible with the pattern of existing development. The extension of this development, especially along its eastern boundary, is not compatible with the pattern of existing development.

Basement

The bluffs in this area between Moran and Corcoran lagoons have areas of significant erosion well inland into the bluffs, which has been an issue for nearby and even adjacent parcels. The amount of excavation required in the bluff for a 4463 sq. ft. basement is a risky endeavor in this location. The County's LCP requires site design to minimize grading. A one hundred and twenty four foot long subterranean basement down into a coastal bluff can certainly be made smaller, and pushed further back from the bluff, in this proposal.

Summary

The Pleasure Point Community Plan was created in order preserve the character of Pleasure Point, and to ensure that the scale of new developments and improvements is complementary to adjacent buildings, stressing the importance of context sensitive design. The Pleasure Point Community Design Combining District codified site standards and was enacted to implement this vision. A focus of the District standards was a slightly reduced building envelope, especially with regard to side yard setbacks. Exceptions were to be allowed for circumstances sometimes seen in Pleasure Point, but no such circumstance is seen on the site of the proposed development.

The proposed development does not merit exception to the Pleasure Point Community Design Combining District development standards.

Thank you for your consideration of these comments.

Michael A. Guth

EXHIBIT K

Attn: Santa Cruz County Planning Office
Re: Application 211155

To Whom it May Concern: February 3, 2022

As part of the community on East Cliff Drive, we are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to protect and remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should completely disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. This is instead an attempt by the Applicant to maximize the size of the house in every dimension, with significant exemptions that are not justified. Indeed, it will be a major structural intrusion on bluffs where most current properties blend into the coastline. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and attempt to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. This project would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on both adjacent parcels. The proposed development would create a substantial loss of bluff stability for not only its parcel but the neighboring parcels as well. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, a concern notably and alarmingly raised in the Coastal Commission's written comments to your office.

The Applicant has not shown that he is entitled to a setback exemption or that his home is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. While not required under County guidelines, we would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community in which the home is to be located. We again urge you to reconsider this project, and deny Application #211155.

Sincerely,

Lynn and Mary Lois Comeskey

Lynn and Mary Lois Comeskey
22838 East Ckiff Drive

EXHIBIT K

February 24, 2022

Attn: Santa Cruz County Planning Officer
Re: Application 211155

Dear Lezanne,

I'm writing to follow up on my letter of January 3, 2022, regarding Application 211155 for a project at 22702 East Cliff Drive. Upon reviewing the documentation regarding the project, including communications between the Applicant's architect and the Planning Office, significant further concerns have arisen, especially with regards to the geotechnical report and grading issues.

First, we would like to express our support for your determination that certain rooms in the Application are "bedrooms." Your determination is supported by SCCC 13.10.700-B. A "bedroom" under 13.10.700-B is "any space in the conditioned (heated) area of a dwelling unit which is 70 square feet and greater in size and which is an exterior room . . . unless" it is one of the enumerated rooms listed in this section.[1] Therefore, the "office," "piano room," and other rooms in the application not labeled "bedrooms" are indeed bedrooms, and must be counted as such for the purpose of allotting parking spaces pursuant to SCCC 13.10.552. Moreover, contrary to the Applicant's architect's assertion to the Planning Officer that she has no justification for her determination, section 13.10.700-B explicitly provides that "[s]ewing rooms, dens, offices, studios, lofts, game rooms, and any other exterior room 70 square feet and greater in size shall be counted as bedrooms regardless of whether they are entered through a door, unless the room is otherwise exempted." The office is a "bedroom"—and the area in the basement with two bathrooms is a "bedroom" as well. Thus, pursuant to SCCC 13.10.552, additional parking spaces are required, or the project should be reduced.[2]

It also appears, based on records gathered from the California Coastal Commission, that Applicant is in violation of his Coastal Development Permit (CDP) regarding riprap. Applicant's predecessor-in-interest, Chuck Dimmick, received CDP 3-02-013. This CDP requires a maintenance and monitoring report every 5 years. Mr. Dimmick also received an emergency CDP for repairs in 2013 (3-13-004G), which he was working on translating into a regular CDP as required (application no. 3-16-0019). He received an exception allowing him to repair the riprap under the 3-02-013 CDP. But the Applicant did not submit his maintenance and monitoring report until 2019, putting him in violation of the conditions of his permit (which required the report at least before 2018). Nevertheless, as the Coastal Commission staff noted,

---

[1] This list includes "hall, bathroom, kitchen, living room (maximum of one per dwelling unit), dining room (opening off of the kitchen or living room, maximum one per dwelling unit), family room (opening off of the kitchen or living room, maximum one per dwelling unit), breakfast nook (opening off of the kitchen, maximum of one per dwelling unit), pantry (maximum of one per dwelling unit), laundry room, [and] closet/dressing room opening off of a bedroom." Applicant has already received all of these exemptions he is entitled to.

[2] The increase of bedrooms through this development constitutes an "intensification of use" under SCCC 13.10.700-I and under SCCC 13.20.040—and certainly a new coastal development permit given that it constitutes a demolition of the existing structure, as noted by the California Coastal Commission's comments on the project.

EXHIBIT K

this project may require removal of all armoring fronting the project because the project entails redeveloping the residence.

Moreover, significant issues with sea caves and permit compliance with the CDPs on either side of the property[3] leave the property's riprap status up in the air, and cast *significant doubt* on the Applicant's geologist's determinations that "the hazard potential is low for erosion" and "the proposed residence will be subject to an ordinary risk . . . ." (Zinn Geology report page 15). Under SCCC 16.10.070(H)(1)(c), "[t]he determination of the minimum setback shall be based on the existing site conditions and shall not take into consideration the effect of any proposed protection measures, such as shoreline protection structures, retaining walls, or deep piers." This analysis does not take into account the sea caves or increasing erosion on either side of the structure. The 100-year lifetime setback requirement will likely be significantly more than 25 feet suggested by the applicant's geologist.

The applicant's request for an exception to the large dwelling size restrictions of SCCC 13.10.323(E)(3) is also inappropriate. Under SCCC 13.10.325, a large dwelling permit is appropriate if it is compatible with its surroundings, and "will be adequately screened from public view and will not adversely impact public viewsheds, neighboring property privacy or solar access." The project cannot meet these standards and the findings required in section 13.10.325(B). As discussed in my previous letter, this structure may be the largest on East Cliff Drive, and is not compatible with its surroundings. It will have *significant* implications to the privacy of its neighbors, and given the request for a setback exemption, will by no means be "adequately screened from public view"—it will be easily viewable by any individual on the 26th St Beach. Therefore, a large-dwelling permit should be denied.

Furthermore, the proposed structure does not meet the additional conditions regarding design for large-dwelling design guidelines (SCCC 13.10.325(D)). The "building height appearance" is not minimized, and there is scarcely any variation in the height of the roof elements, let alone appropriate setting back of those elements. The project is noncompliant with design standard 8, which requires architectural features to break up massing, and further confirms the building's lack of "compatibility" with the neighborhood. (SCCC 13.10.325(D)(8)). The lack of setback will interfere with public views from the beach under design standard 11 (SCCC 13.10.325(D)(11))—*and* under the blufftop development requirements of 13.20.130(D)(1).

Most significantly, the view to adjacent properties is not only "not controlled" under design standard 10 (SCCC 13.10.325(D)(10)), but proposes *enormous* "second-story windows facing close neighboring properties." The application, in other words, proposes a building that would flout all the relevant criteria for approval of a dwelling of this kind. Under SCCC 13.10.321(A)(5), part of the purpose of the residential zoning code is to "[t]o ensure adequate light, air, privacy, solar access, and open space for each dwelling unit." As submissions from other neighbors have indicated, the proposed development would infringe on the light and privacy of its neighbors, contrary to that purpose. The Application also violates SCCC

[3] See Coastal Commission comments of November 22, 2021.

EXHIBIT K

13.10.323(E)(1), preventing encroachments of "second story rooftop decks and landings" that pose the same privacy issues.

Finally, while Applicant's architect contends the planning office cannot take into account basements in grading, that "exemption" (SCCC 16.20.050) does not exempt the project from County environmental review regulations (Ch 16.01), erosion control ordinance (Ch 16.22), geological hazard ordinance (Ch 16.10), or the sensitive habitat protection ordinance (Ch 16.32). For instance, SCCC 16.10.070 requires any development take place away from "potentially unstable areas as identified through the geologic hazards assessment, full geologic report, soils report or other environmental or technical assessment" and under SCCC 16.22.060, erosion control plans are required. Moreover, SCCC 16.20.050 presents no exemption for garages and the significant driveway slope the Applicant proposes—both of which should be taken into account in grading. We believe the excavation and grading for the project presents significant erosion issues and could be subject to geologic hazards, given the sea caves on either side. The county geologists should carefully review this issue further—and the Planning Director request further "information including, but not limited to, geologic reports, engineered plans, beach sand profiles and structural profiles" under SCCC 16.20.115.

Thank you for consideration of these comments.

Best,

--Quinn Walker

EXHIBIT K

Re: Proposed Development at 22702 East Cliff Drive

To the Planning Commission:

My name is Quinn Walker. My family owns the house at 22700 East Cliff Drive, and I lived there for seven months last year, from June 2020 to January 2021. My grandparents John and Isabel Walker bought the property in 1968, and our family has been going to the house since then. It has a special place in our hearts. During this time, four different families have lived at 22702 East Cliff Drive, and we have had a good relationship with all of them.

Pat O'Neill, our neighbor at 22720 East Cliff, informed us a few days ago that the Applicant had put up a sign in front of Pat's property indicating he was seeking permits for a significant development on 22702 East Cliff. This came as a complete surprise to us. During my time living there (during which I often had conversations with the Applicant and his wife), they gave no indication that they were contemplating any remodel, let alone a total tear-down. Pat similarly had no knowledge of a potential development. My aunt additionally communicates with the Applicant often, and heard nothing about construction plans. Further, we did not receive any mailed notification of the proposed project from the county or from the applicant or his architect.

Since receiving a copy of the plans on December 29th, we have done an initial review and it appears that: 1) the surveyor has incorrectly mapped the easement of way across our property, 2) multiple structures proposed by the Applicant would interfere with our easement of view, and 3) the project, which includes an extensive basement, has significant implications for the landform. Moreover, the Applicant did not submit information regarding the easements in the proposed plan, as required by Santa Cruz County Code (SCCC) 13.20.110(B).

We additionally believe that the proposal may violate Public Resources Code 30235, which states that " . . . cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses **or to protect existing structures** . . ." (emphasis added). The plan entails *entirely demolishing* the existing structure at 22702 East Cliff—at which point there would no longer be an "existing structure" justifying a cliff retaining wall. Finally, under PRC 30253(b), the basement structure (of over four thousand square feet) in primarily sandstone bluff may "contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area."

The plans also appear to be contrary to the "strongly suggested guidelines" of the Pleasure Point community plan implemented by the SCCC, which requires setbacks and strongly discourages massive, bulky structures. The proposed plan certainly does not comport with "a compatible community aesthetic as opposed to maximum-sized and bulkier/boxy designs" under SCCC 13.20.130(B)(1), or "scenic character" under (B)(7). It may also implicate the provisions of SCCC 13.20.130(D) raising concerns about "a visually intrusive structure seen from the beach."

We appreciate your consideration of our concerns. As this is our first impression of the Applicant's plans, we look forward to following up.

Quinn Walker

EXHIBIT K

Lezanne Jeffs

From: Quinn Walker <quinn.walker@gmail.com>
Sent: Tuesday, March 8, 2022 1:26 PM
To: Lezanne Jeffs
Subject: Application #211155
Attachments: Neighbor Letter Signed 8.3.docx

Good afternoon Lezanne,

Several neighbors have asked me to pass along the attached letter, which they have signed regarding the proposed development at #211155. There may be additional signatories, but I wanted to get it in so you had it.

I'd also like to ask whether the applicant has submitted updated plans/drawings/schematics since the communications we obtained from the planning office on January 24th (I think that was the date, but didn't seem like any new renderings had been submitted in January, so really at any point there). We noted some conflicts between the 3D rendering and blueprints and wanted to see if those had been trued up.

Many thanks,
--Quinn

EXHIBIT K

Attn: Santa Cruz County Planning Office/Lezanne Jeffs
Re: Application 211155

We are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. We would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community. We urge you to take a second look at this project and deny Application #211155.

Signed,

Steve Forer; 22752 E Cliff Dr
Heidi McCarty-Forer; 22752 E Cliff Dr
Fred Ruegg; 22756 E Cliff Drive
Dominique Ruegg; 22756 E Cliff Drive
Mary Blanchard; 22780 E. Cliff Drive
Harry Blanchard; 22780 E. Cliff Drive
Frank Alberti; 22754 East Cliff Drive
Linda Alberti; 22754 East Cliff Drive

EXHIBIT K

Please sign and return in the attached envelope.
Or sign online at https://forms.gle/LoSdaayTyeV6zRoi9

To: Lezanne Jeffs / Santa Cruz County Planning Office
Re: Application 211155

We are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. We would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community. We urge you to take a second look at this project and deny Application #211155.

Signature: Alexandra Knight Printed Name: Alexandra Knight

Address: 22705 E Cliff Dr, Santa Cruz CA 95062

Ilon Joseph Ilon Joseph

EXHIBIT K

Please sign and return in the attached envelope.
Or sign online at https://forms.gle/LoSdaayTyeV6zRoi9

To: Lezanne Jeffs / Santa Cruz County Planning Office
Re: Application 211155

We are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. We would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community. We urge you to take a second look at this project and deny Application #211155.

Signature: Judy M'Cool John M'Cool

Printed Name: Judy M'Cool John M'Cool

Address: 22719 East Cliff Drive, Santa Cruz

Thank you for alerting us to this destructive proposal — We've suffered through Pat O'Neals rebuild & lost our view of the ocean. When we went to file a complaint they told us he pretty much

EXHIBIT K

Dear Santa Cruz, so good luck. As become about big tax money and the differences between the haves & have nots. No regard to the environmental impact or social rights of the neighbors. Thank you again for your very informative letter. Please keep me posted.

EXHIBIT K

Please sign and return in the attached envelope.
Or sign online at https://forms.gle/LoSdaayTyeV6zRoi9

To: Lezanne Jeffs / Santa Cruz County Planning Office
Re: Application 211155

We are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. We would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community. We urge you to take a second look at this project and deny Application #211155.

Signature: _____ Printed Name: Robert Galvin

Address: 22680 East Cliff Drive #6 Santa Cruz, CA 95062

EXHIBIT K

To: Lezanne Jeffs / Santa Cruz County Planning Office
Re: Application 211155

I am writing to express my opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While I do support the ability of homeowners to remodel their coastal homes or construct new homes consistent with local standards, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

The proposed development is inconsistent with our neighborhood in both style and substance. In size alone, the plans outstrip any other house visible from the 26th Street Beach. There has not been any attempt to fit into "a compatible community aesthetic," as required by Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines. No attempt has been made to contact potential neighbors and owners to understand their perception of the impact such a large structure will have. At the very least, any construction must be compliant with all current standards and without any code exemptions.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission. Any construction must not negatively effect cliff erosion but must improve it.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a member of the local community, I had no knowledge of this project during the many months it must have been under development. I would have expected that the applicant and the architect involved would have considered the feelings and wishes of the community. I urge you to take a second look at this project and deny Application #211155 in its present form.

Signature: 

Printed Name: Dane Elliot

Address:

22660 East Cliff Drive Santa Cruz, CA 95062-5358

EXHIBIT K

Please sign and return in the attached envelope.
Or sign online at https://forms.gle/LoSdqavTyeV6zRoi9

To: Lezanne Jeffs / Santa Cruz County Planning Office
Re: Application 211155

We are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. We would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community. We urge you to take a second look at this project and deny Application #211155.

Signature: Ray R Bold

Printed Name: RAY R BOLD

Address: 2736 WARREN ST.

EXHIBIT K

Please sign and return in the attached envelope.
Or sign online at https://forms.gle/LoSdaavTyeV6zRoi9

To: Lezanne Jeffs / Santa Cruz County Planning Office
Re: Application 211155

We are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. We would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community. We urge you to take a second look at this project and deny Application #211155.

Signature: Jeanne Ryan

Printed Name: Jeanne Ryan

Address: 2750 Warren Street Santa Cruz, CA 95062

EXHIBIT K

Please sign and return in the attached envelope.
Or sign online at https://forms.gle/LoSdaayTyeV6zRoi9

To: Lezanne Jeffs / Santa Cruz County Planning Office
Re: Application 211155

We are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. We would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community. We urge you to take a second look at this project and deny Application #211155.

Signature: Ruth L. Cuzick

Printed Name: Ruth L. Cuzick

Address: 2230 Wanda St, Santa Cruz, CA 95062

EXHIBIT K

Please sign and return in the attached envelope.
Or sign online at https://forms.gle/LoSdaayTyeV6zRoi9

To: Lezanne Jeffs / Santa Cruz County Planning Office
Re: Application 211155

We are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. We would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community. We urge you to take a second look at this project and deny Application #211155.

Signature: Frank Alberti

Printed Name: Frank Alberti

Address: 22754 East Cliff Drive Santa Cruz, Ca 95062

EXHIBIT K

Lezanne Jeffs

From: JOANNA PHILLIPS <jpjoanna@aol.com>
Sent: Friday, March 4, 2022 7:02 PM
To: Lezanne Jeffs
Subject: Re: Alex macdonnell property

****CAUTION:This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email.****

Thank u so much....I will be there

Sent from my iPad

> On Mar 4, 2022, at 5:37 PM, Lezanne Jeffs <Lezanne.Jeffs@santacruzcounty.us> wrote:
>
> Dear Joanna,
>
> Thank you for your email, this will be included into the public record for the project.
>
> With regard to noticing for the upcoming hearing, these have not been sent out yet and will be mailed to surrounding properties ten days before the scheduled hearing date. At this time the hearing is expected to be held on April 1, 2022.
>
> Lezanne
> Lezanne Jeffs
> Principal Planner, Development Review
> Tel: (831) 454 2480; Cell (831) 345 7839
> Email: lezanne.jeffs@santacruzcounty.us
>
>
>
> The Department's Zoning, Building, and Environmental Planning counters
> are open BY APPOINTMENT, Monday through Thursday from 8:00 to 11:30
> AM Either in-person or telephone.
> Self-schedule your appointment here.
>
> -----Original Message-----
> From: JOANNA PHILLIPS <jpjoanna@aol.com>
> Sent: Friday, March 4, 2022 4:20 PM
> To: Lezanne Jeffs <Lezanne.Jeffs@santacruzcounty.us>
> Subject: Alex macdonnell property
>
> ****CAUTION:This is an EXTERNAL email. Exercise caution. DO NOT open
> attachments or click links from unknown senders or unexpected
> email.****
>
> I live next door to this property and have never received any notice
> from the county about a hearing for the rebuild.....these people don't
> follow rules anytime.....they cross over our lot to go down our stairs
> Never ask....why do you think he will be different now....the drawings

EXHIBIT K

> don't go with the neighbor hood.....way too large.....I don't trust them
> at all.....why didn't we get a notice for a hearing? You end up with a
> NO From all the neighbors....thank you Sent from my iPad

EXHIBIT K

Lezanne Jeffs

From: Cove Britton <cove@matsonbritton.com>
Sent: Monday, March 7, 2022 4:56 PM
To: Lezanne Jeffs
Cc: Callie Walker; John Erskine; Paia Levine; Daniel Zazueta; Derric G. Oliver; Jamie Sehorn; Erik Zinn; Richard J. Irish; Elizabeth Mitchell; Melodye Serino
Subject: Re: 22702 East Cliff - Request for Delay

Hi Callie-

Please do not hesitate contacting me or having your architect do so.

It should be noted:

1. The adjacent home (Pat O'Neill's) is similar in size (when the basement is not counted) from what we can determine (the assessor's records for Pat's house are unclear as it notes two buildings but only notes the square footage of one...and I just haven't gotten to the bottom of it.

2. Under current County code and State legislation, the use of the MacDonell's property can be far denser than proposed.

3. The exceptions being requested are consistent with County code and also reduce the amount of *existing* second floor area that does not comply with the 10 foot second floor setback.

4. Ultimately it is ***not*** improbable that someone could develop this property with two story condo units within 5 feet of the property line adjacent to your condos. That is not the situation *now*....but not at all out of the question in the future. Doing this project now makes it far less probable.

5. Technical issues regarding bluff protection make all coastal owners natural allies. The MacDonell property has a recognized and legal bluff protection. It is helpful to them for your property to continue to protect your homes. I have no doubt that is consistent with the Coastal Act and State and Federal laws.

I will say it is not my role to discuss personal issues regarding neighbors nor will I.

I have also cc'd your association's attorney Derek Oliver (or at least past one), and the County Supervisor's office for this district and the technical experts for this project. I believe having very transparent communication is helpful.

On one of my projects a few years ago there was a planner, Alice Dailey, who told the neighbors there would never be two homes on a property if they rejected the proposed single one. Now there are two homes and the neighbors were deeply unhappy with her. I have every *hope* that Lezanne will not make that same error.

That experience, amongst many others, have led me to make things *very* transparent and to rely on doing things that do not involve hyperbole and are done correctly and without animus and bais.

That can be confirmed with various neighbors including Mr. and Mrs. Steve Laub, Mr. and Mrs. Bob Zollars, Mrs. Tucker, Mr. Gallivan, Mr. and Mrs. Colligan, Mr. and Mrs. Porter, Mr. and Mrs. Gallivan, Mr. and Mrs. Swinton, Mr. and Mrs. Foy, Mr. and Mrs. Cote, Mr. and Mrs. Coghlin, Mr. and Mrs. Salvador, Mr. and Mrs. Reilley, Bridgette O'Neill, and I can go on. Even my wife and I lived on East Cliff at one point as did my father.

So as said, I am available to discuss the project with your architect and of course with your HOA. In fact I request it!

Cheers!

On Mon, Mar 7, 2022 at 12:45 PM Lezanne Jeffs <Lezanne.Jeffs@santacruzcounty.us> wrote:

Hi Callie,

Sorry I didn't get back to you sooner.

As I explained to you the other day, the projected hearing date for this project is currently April 1, 2022, and any materials that are received prior to the date that the staff report is published (March 24, 2022) will be included into the staff report package. If the additional information that you are pursuing from an architect and geologist is not received by March 24, 2022, this can still be submitted at any time before the hearing, or at the hearing itself, and it will still be entered into the public record and will be available to the Zoning Administrator to guide their decision.

If, however, you are unable to provide the materials before or at the hearing, you would still be able to request that the Zoning Administrator continue the application to allow you additional time to provide the additional information. Please note that the ZA may choose to accept this request if it is felt that the additional information is pertinent to the decision being made but that they not required to do so.

Regards,

Lezanne

Lezanne Jeffs

Principal Planner, Development Review

EXHIBIT K

Tel: (831) 454 2480; Cell (831) 345 7839

Email: lezanne.jeffs@santacruzcounty.us

The Department's Zoning, Building, and Environmental Planning counters are open

BY APPOINTMENT, Monday through Thursday from 8:00 to 11:30 AM

Either in-person or telephone.

Self-schedule your appointment here.

From: Callie Walker <walker.callie@gmail.com>
Sent: Wednesday, March 2, 2022 11:06 PM
To: Lezanne Jeffs <Lezanne.Jeffs@santacruzcounty.us>
Subject: 22702 East Cliff - Request for Delay

Hi Lezanne,

Thanks for taking the time to talk with me regarding the application for 22702 East Cliff Drive -- my family and a few neighbors would like to request extra time before the staff report is submitted.

We recently hired an architect to review the plans and are awaiting that report. We are also in the process of getting a geological report. We plan to submit both reports to the county, preferably before the hearing.

Multiple neighbors (in the Casitas del Mar condos) have informed us that they are currently writing letters to the Planning Department -- they hadn't been informed of the project until we contacted them, which explains the delayed timeline.

EXHIBIT K

I know this is a lot of work for you and we appreciate the time and thoughtfulness you are giving to this application as it affects so many neighbors and has a significant on the environment and the beach.

Best,

Callie

--
Cove Britton
Matson Britton Architects

O. (831) 425-0544

EXHIBIT K

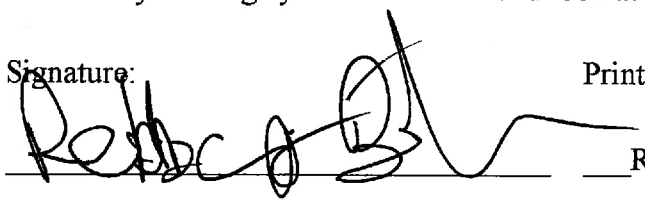
To: Lezanne Jeffs / Santa Cruz County Planning Office
Re: Application 211155

We are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. We would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community. We urge you to take a second look at this project and deny Application #211155.

Signature: 

Printed Name: ___Rebecca DiManto_____

Address:

222727 East Cliff Drive
Santa Cruz, Ca. 33706

EXHIBIT K

Lezanne Jeffs

From: Carolyn Burke
Sent: Wednesday, March 30, 2022 4:24 PM
To: Cove Britton
Cc: Jocelyn Drake; Paia Levine; Matt Machado; Lezanne Jeffs; jflynn@nossaman.com
Subject: RE: FW: 028-242-25

Hi Cove,

Thanks for your email – we will continue the hearing to 5/20/22.

Due to timing, we will take public comment at the hearing on 4/1/22 but you are not required to have a representative present.

I appreciate your note on the missing 10-day notice – staff will print a replacement and re-post this afternoon.

Paia is back in the office next week, and I'll coordinate with her to schedule an in-person meeting the week of 4/11 – 4/14 (prioritizing 4/11); we will send available meeting times to you and the owner's counsel when available.

Best, CB

Carolyn Burke
Assistant Director – Permit Center
Santa Cruz County Community Development & Infrastructure
Office: (831) 454-5121

From: Cove Britton <cove@matsonbritton.com>
Sent: Wednesday, March 30, 2022 3:05 PM
To: Carolyn Burke <Carolyn.Burke@santacruzcounty.us>
Cc: Jocelyn Drake <Jocelyn.Drake@santacruzcounty.us>; Paia Levine <Paia.Levine@santacruzcounty.us>; Matt Machado <Matt.Machado@santacruzcounty.us>; Lezanne Jeffs <Lezanne.Jeffs@santacruzcounty.us>; jflynn@nossaman.com
Subject: Re: FW: 028-242-25

Hi Carolyn-

Thank you for the continuance. I am suggesting it be continued 5/20/22.

Assuming this is acceptable, no representative for the MacDonell's intend to attend the hearing on 4/1/22.

Please note that someone appears (not our office or the owner) to have removed the yellow 10 day notice (Logan from my office drove by and noticed that). We are happy to put another one up but need to be sent the replacement which is unlikely to occur prior to Friday morning?

EXHIBIT K

Next week is fairly packed but it appears that 4/11/22 to 4/14/22 is fairly open. May we (attorneys John Flynn and/or John Erskine and I) schedule for 4/11/22? We would like this to be in person if possible....I always find that more productive.

Regards-

On Tue, Mar 29, 2022 at 5:33 PM Carolyn Burke <Carolyn.Burke@santacruzcounty.us> wrote:

Hi Cove,

Yes, we can continue the Zoning Administrator hearing for Application 211155 from the original hearing date of 4/1/22 to 5/6/22 or 5/20/22 – please confirm your preferred date.

Paia and I are available to meet in person as early as next week – please let us know what times work for your schedule and we'll send an invitation.

As a reminder, any revised plans or other information in support of the project should be uploaded with the staff report for consideration by the Zoning Administrator. Please submit these materials to staff two weeks prior to the continued hearing date.

Sincerely,

Carolyn Burke

Assistant Director – Permit Center

Santa Cruz County Community Development & Infrastructure

Office: (831) 454-5121

From: Cove Britton <cove@matsonbritton.com>
Sent: Monday, March 28, 2022 3:09 PM
To: Jocelyn Drake <Jocelyn.Drake@santacruzcounty.us>; Paia Levine <Paia.Levine@santacruzcounty.us>
Cc: Matt Machado <Matt.Machado@santacruzcounty.us>; Lezanne Jeffs <Lezanne.Jeffs@santacruzcounty.us>; Flynn,

John J. <jflynn@nossaman.com>
Subject: 028-242-25

****CAUTION:This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email.****

Hi Paia and Jocelyn-

I am requesting a 1 month continuance for this application (211155) currently scheduled to be heard on April 1, 2022.

In addition I am requesting an in person meeting with Paia and Annette Olsen to discuss the staff report for this project. I realize Annette's role at the County has shifted but I believe her prior experience as a Zoning Administrator would be helpful.

I am concerned that there appears to be several issues with the staff report for this project. For example there are two compliance issues noted in the staff report that were not noted in any prior communications from Lezanne. As you are aware, typically such issues are discussed prior to the staff report and are noted in the completeness comments as compliance issues.

The short notice (my office just received the staff report) of the compliance issues, and other concerns with the staff report that I have, makes it impossible to adequately prepare for the hearing on Friday.

Thank you for your consideration.

--

Cove Britton

Matson Britton Architects

O. (831) 425-0544

--
Cove Britton
Matson Britton Architects

O. (831) 425-0544

EXHIBIT K

STATE OF CALIFORNIA — NATURAL RESOURCES AGENCY
GAVIN NEWSOM, *GOVERNOR*

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
PHONE: (831) 427-4863
FAX: (831) 427-4877
WEB: WWW.COASTAL.CA.GOV

03/30/2022

Jocelyn Drake, Zoning Administrator
Santa Cruz County Planning Department
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060
Subject: **Application 211155 (APN 028-242-25)**

Dear Ms. Drake:

We are aware that Coastal Development Permit application 211155 (APN 028-242-25) is scheduled for hearing April 1 with the Zoning Administrator. I am writing to reiterate comments we provided throughout the application process for this project that have gone unaddressed. Below please find our routing comments, which were provided for each routing on this application without response. In short, this project presents a number of inconsistencies with the County's Local Coastal Program. A Coastal Development Permit should either not be approved or should, at minimum, contain conditions alleviating each of the issues enumerated in our comments, below.

Comments:

1. **Geologic Setback.** The LCP requires that a coastal bluff building site be stable for a minimum of 100 years in its pre-development application condition, and that any development be set back an adequate distance to provide stability for the development's lifetime, and at least 100 years. The minimum 100 years of stability must be established through the use of appropriate setbacks and siting, and shall "not [be] dependent on shoreline or coastal bluff protection structures" (see LUP Policy 6.2.15). Relatedly, LUP Policy 6.2.15 specifies that shoreline protection structures shall be limited to "protect existing structures from a significant threat" (LUP Policy 6.2.16). Thus, the LCP has a two-part minimum 100-year stability requirement: first, there must be a portion of the site in question that itself will be stable for at least 100 years in a pre-development (i.e., no project) scenario without reliance on structural development; and second, any development then introduced onto the site must also be stable for its lifetime measured for at least 100 years without reliance on engineering measures.

   In this case, the geologic setback line is predicated on the armoring (in this case a riprap revetment) being both maintained and remaining in place for the lifetime

EXHIBIT K

of the development. Specifically, the geology report notes, "it is safe to assume that the bluff retreat in the future will be nil, provided the existing armoring system is adequately maintained." However, the neighboring upcoast property, Casitas Del Mar, has open and unresolved violations (in addition to seacaves on either side of the natural headland including one near to the property line shared with the subject site that are due, in part, to work that was completed without the requisite geotechnical evaluation or coastal permit authorization. Because shoreline armoring may only protect *existing structures* in danger of erosion; and Casitas Del Mar is not "in danger of erosion," resolution of the violations at the Casitas Del Mar property may entail removal of all armoring fronting the property, particularly in light of the fact that the proposed project would render the MacDonell residence a redeveloped structure (i.e., revoking its "existing structure" status). Accordingly, the LCP's required 100-year geologic setback line should be determined without consideration to any armoring (i.e., without consideration to any armoring fronting both the Casitas Del Mar property and the MacDonell property). In other words, the geologic setback line should provide for 100 years of stability assuming the removal of the riprap revetment immediately upcoast and fronting the subject site.

2. **Basement.** The "basement" component of the project should be eliminated from the proposed project including because the basement would represent substantial landform alteration of a coastal bluff, and the LCP requires site design to minimize grading (see LUP Policy 6.3.9). Moreover, in the event the basement becomes threatened (due to sea level rise, storm surge, tidal inundation, etc.), its removal would also result in damaging landform alteration. Furthermore, basements have the potential to impact the natural erosional processes of coastal bluffs and in some instances function as de facto upper bluff shoreline armoring. Finally, basements have consistently been denied by the Commission for the reasons stated above (see especially A-6-ENC-16-0060 [Martin SFD] and A-6-ENC-16-0068 [Hurst SFD]), and thus it is reasonable to assume that any future basements proposed to be excavated and constructed into a coastal bluff would also be denied by the Commission.

3. **Visual Resource Protection.** The proposed project would be substantially visible from the beach, which raises LCP consistency issues including with respect to LUP Policies 5.10.2 "Development within Visual Resource Areas", 5.10.4 "Preserving Natural Buffers", and 5.10.7 "Open Beaches and Blufftops". LUP Policy 5.10.2 acknowledges the importance of visual resources and requires that projects be evaluated against their unique environment (i.e., the surrounding projects and natural context), and LUP Policy 5.10.7 prohibits the placement of new permanent structures that would be visible from the public beach except where allowed on existing parcels of record and "where compatible with the pattern of existing development." These visual resource provisions are further codified in the requisite coastal permit findings (see IP Section 13.20.110(E). The proposed 6,000+ square foot residence set back only 25 feet from the coastal bluff would not be compatible with surrounding

EXHIBIT K

residential development and would represent a significant intrusion into the public viewshed. However, reducing the size of the residence and setting the house back landward of the 100-year setback line without reliance on shoreline armoring (including to meet other LCP consistency issues—see Items #4 and #1, respectively) would, however, help address inconsistencies with the LCP's visual resource protection standards.

4. **Large Dwelling Permit Findings.** Finally, any proposed residence over 5,000 square feet in size must also meet the required large dwelling permit findings including that the proposed structure is compatible with the surroundings/locational/environmental context; that the project meets the coastal permit findings of 13.20 including that it is consistent with all other LCP provisions including those identified above; and that the project include mitigations such as re-siting/FAR reduction to meet the large dwelling permit findings. Given the significant LCP compliance issues discussed in more detail above and that the resident directly overlooks the beach, it does not appear that the findings necessary to approve a residence over 5,000 square feet in size can be made, and thus the project should be reduced below 5,000 square feet in addition to relocated landward as is discussed in more detail above.

Please contact me at Robert.Moore@coastal.ca.gov if you have any questions or would like to discuss these issues further.

Sincerely,

Robert Moore
Coastal Planner
Central Coast District Office
California Coastal Commission

cc: Cove Britton (Matson Britton Architects)

EXHIBIT K

Lezanne Jeffs

From: Steve Forer <s4aqom@pacbell.net>
Sent: Monday, April 4, 2022 12:02 PM
To: Lezanne Jeffs
Cc: Quinn Walker; amberl825@yahoo.com; First District
Subject: Re: 22702 East Cliff Update
Attachments: Signed letter to oppose redevelopment at 22702 E Cliff - Forer.pdf

Lezanne:

Attached, please find our letter opposing the redevelopment project at 22702 East Cliff Dr. We will not be able to attend the rescheduled Public Hearing on 5/20/22. So please include our letter with the documents prepared for the hearing on 5/20/22.

Thank you.

Steve & Heidi Forer
22752 East Cliff Dr.

On Friday, April 1, 2022, 08:52:14 AM PDT, Quinn Walker <quinn.walker@gmail.com> wrote:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZGZjZThlNWEtMGM3Mi00MWJhLWE2NjItY2ExYjYwNzQ1NGVj%40thread.v2/0?context=%7b%22Tid%22%3a%2252044d34-04cb-41a4-a0cd-54ae6eeffb9f%22%2c%22Oid%22%3a%22a7712f0c-9859-4a53-ae12-754785b14df8%22%7d
Here's the link to the hearing! It's scheduled to start at 9, and there are two items before 22702, but they should announce whether it's postponed up front. Thanks.

On Thu, Mar 31, 2022 at 10:00 AM Quinn Walker <quinn.walker@gmail.com> wrote:
Good morning!

We have found out that Cove Britton, the architect for the property, has requested a continuance of one month for the hearing. It's unclear why, he might be trying to respond to the lack of exemptions granted. Unfortunately, we don't know if this postponement will be granted until the start of the meeting itself--and it's possible that he is trying to pull a bait-and-switch to get people not to show up. What we would recommend is people **attend the meeting** and **if the continuance is granted, save our comments for the hearing in a month**. That way Cove has less time to prepare a response and we can focus our energy there.

In case the continuance is not granted or Cove decides not to pursue it, I wanted to send out several points we think would be helpful to raise from the neighborhood perspective, in case they are useful in preparing remarks

- Visual impact from the beach not reduced, will be significantly increased from current status, where it is already visible.
- The Staff Report does not address bulk & mass at all under the design review
  - "Varied roofline" cited by planner not visible to any parties--instead the public sees only the huge front and back
  - All the variation is in the middle of the home and irrelevant

EXHIBIT K

- Not consistent with the character of the neighborhood
  - Cannot find a single basement with the size this proposes
  - Several recently approved along E Cliff are under 500ft--this is over 4000ft.
- Significant concerns about coastal stability, totally ignoring the Coastal Commission's comments and implications for neighbors/cliff stability

Please let me know if you have any questions about the process or these points.

Best,
--Quinn

On Mon, Mar 28, 2022 at 8:03 PM Quinn Walker <quinn.walker@gmail.com> wrote:
Hi all--

The staff report is out (attached). To summarize, the planning officer involved has essentially recommended approval of the entire application--she recommended changes to one second floor setback and the windows on one side, but otherwise, it's basically the same.

We thought this might happen, because she had indicated she was looking to approve. You'll see from the report, she didn't consider many of the points raised, and failed to analyze others. In some ways, that's beneficial: there's a lot of room to raise these points again and point out the flaws in the report at the public hearing. It's an opportunity for us to cast doubt on all of her conclusions.

I'm working on some talking points that we think would be helpful to raise at the hearing, and will send them out on Wednesday if anyone wants to use them! Also happy to discuss the report and our thoughts at any point--just let me know if it would be useful.

I also wanted to let everyone know that they've announced the video link for the hearing in the link below:
https://sccounty01.co.santa-cruz.ca.us/planning/plnmeetings/ASP/Display/ASPX/DisplayAgenda.aspx?MeetingDate=4/1/2022&MeetingType=2
You can call in or access online, and there's no need to sign up or anything ahead of time.

All the best,
--Quinn

EXHIBIT K

Steve & Heidi Forer
22752 East Cliff Dr.
Santa Cruz, CA 95062

April 4, 2022

Applicant #: 21155
APN: 028-242-25
22702 East Cliff Dr.

Lezanne Jeffs
Santa Cruz Planning Dept
701 Ocean Ave., 4th floor
Santa Cruz, CA 95060

Dear Lezanne:

We are writing to you in opposition to the proposed Redevelopment Project at 22702 East Cliff Dr., (Applicant #211155, APN 028-242-25). We attended the Public Hearing held on Friday, April 1, 2022, but understand the item has been postponed until May 20, 2022. Unfortunately, we will be unavailable to attend the hearing at that time, so we are submitting our written comments in advance. The current redevelopment proposal as we understand it, is to demolish and existing 2,474 square foot single family dwelling along the coastal bluff at 22702 East cliff Dr. and to construct a two-story 6,064 square foot two story structure, with a 4,463 square foot subterranean basement. The developer and property owners have requested variances to several building codes and LCP requirements for Coastal Beach and Bluffs. We understand the project may be modified before the hearing on 5/20/22. Here are our concerns and reasons why we oppose this redevelopment project.

- Contrary to the Geological Hazards Assessment Report submitted with this application, the coastal bluff at 22702 East Cliff Dr. is **NOT STABLE.**
- The bluff is surrounded by sea caves, two to the West and one to the East of this parcel. Each sea cave is at least 20 feet deep. Emergency Repair Permits have been approved.
- We have had to repair and restack some of our revetment rocks twice in the last 3 years due to coastal erosion at 22750 East Cliff Dr., just two doors East of the proposed redevelopment project.
- To dig a 4,463 square foot subterranean basement within 25 feet of the coastal bluff is reckless and could cause the entire bluff to collapse.
- The Coastal Commission in their letter of 11/22/21, opposes this project with a 4,463 subterranean basement within 25 feet of the bluffs edge.
- The Coastal Commission and LCP requirements for the minimum set-back from the bluff's edge is 25 feet or projected 100 year point of coastal erosion, which ever is greater and calculated **WITHOUT** the benefit of any coastal armoring.
- If the County were to approve this redevelopment project as proposed with the requested variances, it may jeopardize the CCC's approval of the pending LCP Amendments submitted by the County.

Please include our comment letter with the documents prepared for the Public Hearing on 5/20/22.

Thank you for your consideration.

Steve Forer
22752 East Cliff Dr.

Heidi McCarty-Forer
22752 East Cliff Dr.

EXHIBIT K

Lezanne Jeffs

From: Moore, Robert@Coastal <robert.moore@coastal.ca.gov>
Sent: Wednesday, May 4, 2022 2:08 PM
To: Carolyn Burke
Cc: Graeven, Rainey@Coastal; Jessica deGrassi
Subject: Maintenance Agreement Status - CDP 3-02-013-A2 (22702 East Cliff Drive)
Attachments: 3-02-013-A2.pdf

Hello Carolyn,

In answer to your question about the status of the maintenance agreement for the riprap fronting 22702 East Cliff Drive, please see the attached CDP amendment, which established the maintenance agreement. Special condition 13(h), on page 11 of the PDF, indicates that the maintenance agreement 1) was in effect until 2009, and 2) could be extended with permission from the Coastal Commission's executive director. We did not receive a request for extension, and the maintenance agreement therefore expired in 2009.

Please let me know if you have any further questions.

Best,

Rob Moore
Coastal Planner
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060
(831) 427-4865 (office)

CONDITION COMPLIANCE

STATE OF CALIFORNIA —THE RESOURCES AGENCY
ARNOLD SCHWARZENEGGER, Governor

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
(831) 427-4863
www.coastal.ca.gov

AMENDMENT TO COASTAL DEVELOPMENT PERMIT

DATE: April 16, 2004

Permit No: 3-02-013-A2

issued to: Mr. Patrick O'Neill; Ms. Isabel Walker

for **CDP issued to Patrick O'Neill and Isabel Walker to repair and maintain an existing revetment (fill gaps and voids - no seaward encroachment) on the bluffs seaward of 2-2700 and 2-2720 East Cliff Drive along 26th Avenue Beach in the Live Oak beach area of unincorporated Santa Cruz County. (DC-SC)**

at **2-2720 East Cliff Drive (along 26th Avenue Beach), San Andreas (Santa Cruz County)**

has been amended to include the following changes:

Amend original conditions of approval to allow maintenance on a five-year basis, and to modify construction, monitoring, maintenance, and mitigation parameters to more effectively protect coastal resources in the long-term.

This amendment was determined by the Executive Director to be immaterial, was duly noticed, and no objections were received or the Commission concurred with the Executive Director's determination of immateriality (Sec. 13166 (b)(2)).

This amendment will become effective upon return of a signed copy of this form to the Central Coast District office. Please note that the original permit conditions are still in effect.

Sincerely,
PETER M. DOUGLAS
Executive Director

By: STEVE MONOWITZ
Permit Supervisor

ACKNOWLEDGMENT:

I have read and understand the above amendment and agree to be bound by its conditions and the remaining conditions of Permit No: 3-02-013-A2. Refer to attached special conditions.

Date: 6-12-04 Signature:

RECEIVED
JUN 18 2004
CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

EXHIBIT K

ADOPTED

B. Special Conditions

1. **Approved Repair Plans.** This approval allows for the repair of the revetment present on the bluff seaward of 2-2700 and 2-2720 East Cliff Drive (APNs 028-242-26 and 028-242-08) to a 1.5:1 slope as measured inland from the existing toe of the subject revetment in conformance with the plans submitted to the Coastal Commission (by Haro, Kasunich and Associates ("Repair Plans"), shown in exhibit B of adopted Coastal Development Permit staff report for 3-02-013). Placement of rock seaward of the existing toe of the revetment or seaward of the 1.5:1 slope profile at any point on the revetment is prohibited. All private stairways, railings, and associated structures present in the revetment shall be removed in their entirety.

   All requirements of this condition above shall be enforceable components of this coastal development permit and shall apply for the lifetime of the approved development.

   The Permittee shall undertake development in accordance with the approved Repair Plans. Any proposed changes to the approved Repair Plans shall be reported to the Executive Director. No changes to the approved Repair Plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

2. **Construction Plan.** PRIOR TO ISSUANCE OF THE AMENDED COASTAL DEVELOPMENT PERMIT, the Permittee shall submit a Construction Plan (in both full-size and 11" x 17" formats with a graphic scale; two sets of each) to the Executive Director for review and approval. The Construction Plan shall include, at a minimum, the following:

   (a) **Construction Areas.** The Construction Plan shall identify the specific location of all construction areas, all staging areas, all storage areas, all construction access corridors (to the construction sites and staging areas), and all public pedestrian access corridors in site plan view. All such areas within which construction activities and/or staging are to take place shall be minimized to the maximum extent feasible in order to minimize construction encroachment on both the beach and beach access point opposite the parking lot at Moran Lake County Park, and to have the least impact on public access.

   (b) **Construction Methods and Timing.** The Construction Plan shall specify all construction methods to be used, including all methods to be used to keep the construction areas separated from beach and blufftop recreational use areas (including using the blufftop space available on the Permittee's property inland of the revetment for staging, storage, and construction activities to the maximum extent feasible) and shall include a final construction schedule. All erosion control/water quality best management practices to be implemented during construction and their location shall be noted.

   (c) **Property Owner Consent.** The Construction Plan shall be submitted with evidence indicating that the owners of any properties on which construction activities are to take place, including properties to be crossed in accessing the site, consent to the use of their properties in these manners.

   (d) **Construction Coordinator.** The Construction Plan shall designate a construction coordinator to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and in emergencies), and shall include their contact information (i.e.,

EXHIBIT K

address, phone numbers, etc.) including, at a minimum, a telephone number that will be made available 24 hours a day for the duration of construction. The Construction Plan shall require that the construction coordinator record the name, phone number, and nature of all complaints received regarding the construction, and that the construction coordinator investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry.

(e) Construction Criteria. The Construction Plan shall, at a minimum, include the following required criteria specified via written notes on the Plan:

- All work shall take place during daylight hours and lighting of the beach area is prohibited unless, due to extenuating circumstances, the Executive Director authorizes non-daylight work and/or beach area lighting.

- Construction work or equipment operations shall not be conducted below the mean high water line unless tidal waters have receded from the authorized work areas.

- Grading of intertidal areas is prohibited with one exception as follows: existing rock that has migrated seaward of the revetment, that is naturally exposed, and that can be retrieved without substantial excavation of the surrounding sediments, shall be retrieved and reused or removed to an appropriate disposal site offsite. Any existing rock retrieved in this manner shall be recovered by excavation equipment positioned landward of the waterline (i.e., excavator equipment with mechanical extension arms).

- Any construction materials and equipment that cannot be delivered to the site from the blufftop above, shall be delivered to the beach area by rubber-tired construction vehicles. When transiting on the beach, all such vehicles shall remain as high on the upper beach as possible and avoid contact with ocean waters and intertidal areas.

- All construction materials and equipment placed on the beach during daylight construction hours shall be stored beyond the reach of tidal waters. All construction materials and equipment shall be removed in their entirety from the beach area by sunset each day that work occurs. The only exceptions shall be for erosion and sediment controls (e.g., a silt fence at the base of the revetment) as necessary to contain rock and/or sediments at the revetment site, where such controls are placed as close to the toe of the revetment as possible, and are minimized in their extent.

- Construction (including but not limited to construction activities, and materials and/or equipment storage) is prohibited outside of the defined construction, staging, and storage areas.

- No work shall occur on the beach during weekends and/or the summer peak months (i.e., from the Saturday of Memorial Day weekend through Labor Day, inclusive) unless, due to extenuating circumstances, the Executive Director authorizes such work.

- Equipment washing, refueling, and/or servicing shall not take place on the beach.

- The construction site shall maintain good construction site housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of

EXHIBIT K

all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the beach).

- All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction-related runoff and/or sediment from entering into the Pacific Ocean.

- The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 working days in advance of commencement of construction, and immediately upon completion of construction.

All requirements of this condition above shall be enforceable components of this coastal development permit. The Permittee shall undertake construction in accordance with the approved Construction Plan. Any proposed changes to the approved Construction Plan shall be reported to the Executive Director. No changes to the approved Construction Plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

3. **Construction Site Documents.** DURING ALL CONSTRUCTION, copies of each of the following shall be maintained in a conspicuous location at the construction job site at all times (where such copies shall be available for public review) and all persons involved with the construction shall be briefed on the content and meaning of each prior to commencement of construction: (a) the signed coastal development permit; (b) the approved repair plans (see special condition 1); and (c) the approved construction plan (see special condition 2). In addition, the designated construction coordinator's contact information (including their address and 24-hour phone number at a minimum) shall be conspicuously posted at the job site where such contact information is readily visible from public viewing areas, along with indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies).

4. **Beach Restoration.** WITHIN THREE (3) DAYS OF COMPLETION OF CONSTRUCTION, the Permittee shall restore all beach areas and all beach access points impacted by construction activities to their pre-construction condition or better. Any beach sand impacted shall be filtered as necessary to remove all construction debris from the beach. The beach access ramp, providing pedestrian access from the crosswalk on East Cliff Drive to the sandy beach opposite Moran Lake, shall be reestablished. The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office upon completion of beach-area restoration activities to arrange for a site visit to verify that all beach-area restoration activities are complete. If planning staff should identify additional reasonable measures necessary to restore the beach and beach access points, such measures shall be implemented immediately. The beach and beach access points shall be considered restored, and this condition satisfied, upon written indication of same from planning staff of the Coastal Commission's Central Coast District Office.

5. **Beach Access Easement.** PRIOR TO ISSUANCE OF THE AMENDED COASTAL DEVELOPMENT PERMIT, the Permittee shall execute and record a document, in a form and content acceptable to the Executive Director, granting or irrevocably offering to dedicate to a political subdivision, public agency or private association approved by the Executive Director either fee title or an easement for public beach access (Beach Dedication). The Beach Dedication shall

EXHIBIT K

apply to that portion of the Permittees' property (APNs 028-242-26 and 028-242-08) located seaward of the intersection of the revetment with beach sand or, when beach sand has been stripped, with Purisima Formation sandstone. The Beach Dedication shall state that future rip-rap removal shall require an amendment to the Beach Dedication to extend the dedication area inland to the seaward extent of: (1) permitted shoreline armoring immediately installed to replace the rip-rap (e.g., to the seaward face of the base of a seawall); or (2) the base of the coastal bluff, where the inland extent of the dedication area is required to extend inland to the sand-bluff intersection as the beach sands vacillates and as the bluff erodes. The recorded document shall include a legal description and a site plan of the easement area and APNs 028-242-26 and 028-242-08.

6. **Upper Bluff Plan.** WITHIN ONE (1) MONTH OF COMPLETION OF REVETMENT CONSTRUCTION, the Permittee shall submit an Upper Bluff Plan to the Executive Director for review and approval. The Upper Bluff Plan shall have three related and overlapping elements: a revegetation plan, an irrigation plan, and a drainage plan. These are more specifically described as follows:

   (a) Revegetation Plan. The revegetation plan shall provide for the removal of all the non-native invasive iceplant currently present on the upper bluff area above the revetment, and the planting of native species along the full linear extent of the bluff area above the revetment in a manner designed to provide for a dense cascading screen of vegetation to completely cover the upper one-third (roughly 10 vertical feet) of the revetment. Soils, soil composites (e.g., a mixture of sandy loam soil and cement), and support for same (such as filter fabric or equivalent), may be placed in and/or on top of the upper portion of the revetment to provide adequate planting pockets as necessary to ensure effective and successful screening. The revegetation plan shall clearly identify in site plan view the type, size, extent and location of all native plant materials to be used as chosen from the following native planting palette (substitutions of appropriate native bluff edge plants to complement this planting palette may be allowed upon written consent from the Executive Director):

   - Achillea millefolium – yarrow
   - Artemisia californica – California sagebrush
   - Baccharis pilularis – prostrate greasewood
   - Bromus carinatus var. maritimus – seaside brome
   - Ceanothus griseus var. horizontalis – "Carmel creeper"
   - Ceanothus griseus var. horizontalis – "Yankee Point"
   - Dudleya caespitosa – live forever
   - Dudleya farinosa – live forever
   - Elymus glaucus – blue wild rye
   - Erigeron glaucus – seaside daisy
   - Eriogonum latifolium – buckwheat
   - Eriogonum parvifolium – dune buckwheat
   - Eriophyllum staechadifolium – lizard tail

EXHIBIT K

- Fragaria chiloensis – beach strawberry
- Grindelia stricta – gumweed
- Leymus pacificus – beach wild rye
- Mimulus aurantiacus – sticky monkey flower
- Myrica californica – wax myrtie
- Poa douglasii – maritime bluegrass
- Rhamnus californica – coffeeberry

The revegetation plan shall include maintenance and monitoring parameters, and shall require that all plants are replaced as necessary to maintain the dense cascading screen of vegetation to completely cover the upper one-third (roughly 10 vertical feet) of the revetment over the life of the revetment.

(b) Irrigation Plan. The irrigation plan shall provide for irrigation (e.g., drip emitters) as necessary to ensure that the revegetation plan is successful. All irrigation elements necessary for planting success shall be clearly identified in site plan view. All other irrigation elements present in the blufftop area shall be identified.

(c) Drainage Plan. The drainage plan shall clearly identify all permanent measures to be taken to collect and direct blufftop area drainage. Such drainage may be used for landscape irrigation, including for the native planting revegetation, provided such irrigation use does not contribute to bluff instability in any way. Any drainage not used for on-site irrigation purposes shall be collected and directed inland to East Cliff Drive. Drainage shall not be allowed: to pond at the bluff edge; sheet flow over the bluff seaward; or otherwise be directed seaward. Drainage pipes are prohibited in, under, over, or through the revetment.

✓ The Upper Bluff Plan shall be developed with input from a landscape professional experienced in iceplant eradication and native bluff planting efforts, and shall be submitted with evidence of the review and approval of an licensed engineering geologist or licensed geotechnical engineer to ensure that the Plan is consistent with promoting bluff stability.

The Upper Bluff Plan shall be implemented immediately upon its approval by the Executive Director. WITHIN ONE (1) MONTH OF APPROVAL OF THE UPPER BLUFF PLAN BY THE EXECUTIVE DIRECTOR, all native species identified in the Plan shall be planted and all drainage and irrigation facilities shall be installed and shall be in working order.

The Permittee shall undertake development in accordance with the approved Upper Bluff Plan. Any proposed changes to the approved Upper Bluff Plan shall be reported to the Executive Director. No changes to the approved Upper Bluff Plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office when all native species identified in the Plan have been planted and all drainage and irrigation facilities have been installed and are in working order consistent with the approved Plan. Initial implementation of the Upper Bluff Plan shall be considered complete, and this condition satisfied.

EXHIBIT K

upon written indication of same from planning staff of the Coastal Commission's Central Coast District Office.

7. **As-Built Revetment Plans.** WITHIN TWO (2) MONTHS OF COMPLETION OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval As-Built Plans of the deck and revetment structures in 11" x 17" format with a graphic scale that includes one or more permanent surveyed benchmarks inland of the revetment for use in future monitoring efforts. The As-Built Plans shall at a minimum identify in site plan and cross-section views: the full extent of the revetment; the bluff and the blufftop edge, and all principal residential structures immediately inland of the revetment. All property and parcel lines, and any other structures, shall be identified in site plan view. Photographs of the as-built revetment, with the date and time of the photographs and the location of each photographic viewpoint noted on a site plan, shall be included. The benchmark elevation(s) shall be described in relation to National Geodetic Vertical Datum (NGVD). The As-Built Plans shall indicate vertical and horizontal reference distances from the surveyed benchmark(s) to survey points along the inland-most top and seaward-most toe of the revetment (located at those points in site plan view where the delineation of the revetment's edge changes direction) and for use in future monitoring efforts; there shall be at least 3 such survey points along the inland top edge of the revetment (one at each parcel line and one in between), and at least 3 such survey points along the seaward toe of the revetment (one at each parcel line and one in between). The survey points shall be identified through permanent markers, benchmarks, survey position, written description, et cetera to allow measurements to be taken at the same location in order to compare information between years.

   The As-Built Plans shall be submitted with certification by a licensed civil engineer with experience in coastal structures and processes, acceptable to the Executive Director, verifying that the shoreline structure has been constructed in conformance with the approved repair plans described by special condition 1 above.

8. **Monitoring.** The Permittee shall ensure that the condition and performance of the as-built revetment is regularly monitored by a licensed civil engineer with experience in coastal structures and processes. Such monitoring evaluation shall at a minimum address whether any significant weathering or damage has occurred that would adversely impact future performance, and identify any structural damage requiring repair to maintain the as-built revetment profile. At a minimum, the Permittee shall submit to the Executive Director for review and approval a monitoring report at five year intervals by May 1st of each fifth year (with the first report due May 1, 2007, and subsequent reports due May 1, 2012, May 1, 2017, and so on) for as long as the revetment exists at this site. Each such report shall be prepared by a licensed civil engineer with experience in coastal structures and processes and shall cover the monitoring evaluation described in this condition above. All monitoring reports shall also include a section on the effectiveness of the vegetation screen. Photographs of the as-built structures for representative viewpoints (including, at a minimum, from vantage points upcoast, downcoast, and directly seaward of the revetment), with the date and time of the photographs and the location of each photographic viewpoint noted on a site plan, shall be included. Each report shall contain recommendations, if any, for necessary maintenance, repair, changes or modifications to the as-built revetment and upper bluff elements (i.e., the vegetation screening, drainage, or irrigation system specified in Special Condition 6 above).

9. **Shoreline Development Stipulations.** By acceptance of this permit, the Permittee acknowledges and agrees, on behalf of itself and all successors and assigns that:

EXHIBIT K

(a) No Further Seaward Encroachment. Any future development, as defined in Section 30106 ("Development") of the Coastal Act, including but not limited to modifications to the revetment, shall be constructed inland of, and shall be prohibited seaward of, the seaward plane of the revetment with the following development excepted from this prohibition: (1) appropriately permitted construction activities associated with construction, maintenance, or repair of the revetment and related structures approved by coastal development permit 3-02-013; and (2) standard beach maintenance activities (e.g., those undertaken by the grantee of the fee or easement or of the offer of dedication thereof recorded pursuant to special condition 5). The seaward plane of the revetment and deck is defined by the approved (per coastal development permit 3-02-013) revetment footprint and profile as shown on: (1) the approved repair plans; and (2) the approved as-built plans.

(b) Revetment Screening. The upper one-third (roughly 10 vertical feet) of the revetment located at the seaward edge of APNs 028-242-26 and 028-242-08 shall be completely screened from view (as seen from the beach) by a dense cascading screen of native vegetation. To allow for initial growth, the required screening shall be initially achieved by at least May 1, 2006, with an interim standard that at least the top 5 vertical feet of the revetment shall be screened by May 1, 2005. After May 1, 2006, the 10 vertical feet of revetment screening shall be maintained for the life of the revetment. An Upper Bluff Plan has been approved pursuant to coastal development permit 3-02-013 that specifies the allowed native planting palette and the required vegetation maintenance parameters. All native plantings shall be maintained in good growing conditions and shall be replaced as necessary to maintain the dense cascading screen of vegetation to completely cover the upper one-third (roughly 10 vertical feet) of the revetment over the life of the revetment.

(c) Maintenance. It is the Permittee's responsibility to maintain the revetment and vegetative screening in a structurally sound manner and their approved state (per coastal development permit 3-02-013) as shown on: (1) the approved repair plans; and (2) the approved as-built plans. Future maintenance of the revetment as specified in Special Condition 13 is authorized pursuant to the parameters of coastal development permit 3-02-013, but this does not obviate the need to obtain permits from other agencies for any future maintenance and/or repair episodes.

(d) Rock Retrieval. Any rocks that move seaward of the as-built revetment shall be retrieved as soon as is feasible and either: (1) restacked within the approved as-built revetment footprint and profile; or (2) removed off the beach to a suitable inland disposal location (subject to any permits and/or approvals that may be required to place the rocks at the chosen disposal location). Final repair plans and as-built plans have been approved pursuant to coastal development permit 3-02-013 that define the profile and footprint of the approved revetment. Any rock retrieval episode shall be pursuant to the maintenance parameters of coastal development permit 3-02-013. Any existing rock retrieved in this manner shall be recovered by excavation equipment positioned landward of the waterline (i.e., excavator equipment with mechanical extension arms).

(e) Debris Removal. The Permittee shall immediately remove all debris that may fall from the area seaward of the residence onto the revetment or the beach below.

(f) Assumption of Risk, Waiver of Liability and Indemnity Agreement. The Permittee acknowledges and agrees, on behalf of itself and all successors and assigns: (i) that the site is subject to hazards from episodic and long-term bluff retreat and coastal erosion; (ii) to assume

EXHIBIT K

the risks to the Permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (v) that any adverse effects to property caused by the permitted project shall be fully the responsibility of the landowner.

(g) **Future Shoreline Planning.** The Permittee agrees, on behalf of itself and all successors and assigns, to participate in future shoreline armoring planning efforts that involve the revetment approved pursuant to coastal development permit 3-02-013. Such planning efforts may involve consideration of a shoreline armoring management entity meant to cover the larger shoreline that includes the revetment here, and may involve consideration of potential modifications and/or programs designed to reduce public viewshed and beach access impacts due to shoreline armoring. Agreeing to participate in no way binds the Permittee (nor any successors and assigns) to any particular outcome of such planning efforts, and in no way limits the ability of the Permittee (nor any successors and assigns) to express his/her viewpoint during the course of such planning efforts.

10. **Other Agency Review.** PRIOR TO ISSUANCE OF THE AMENDED COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the project as approved by coastal development permit 3-02-013 have been granted by: (1) Santa Cruz County; and (2) the Monterey Bay National Marine Sanctuary. Any changes to the approved project required by these agencies shall be reported to the Executive Director. No changes to the approved project shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

11. **Public Rights.** The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights which may exist on the property. The Permittee shall not use this permit as evidence of a waiver of any public rights which may exist on the property.

12. **Rodent Removal.** If, at any time, evidence indicates that rodents are living in the voids within the revetment, then the Permittee shall take reasonable action to eliminate such rodent colonization consistent with generally accepted professional pest control methods that also ensure the health and safety of the public.

13. **Future Maintenance.** Coastal development permit 3-02-013 authorizes future maintenance as described in this special condition. The Permittee acknowledges and agrees, on behalf of itself and all successors and assigns that: (a) it is the Permittee's responsibility to maintain the approved revetment, the vegetative screening, and all irrigation and drainage structures in a structurally sound manner and their approved state; (b) to retrieve rocks that move seaward of the revetment and either restack them (within the approved revetment footprint and profile) or dispose of them at a suitable inland disposal location as soon as is feasible after discovery of the rock movement; and (c) to remove all debris that may fall from the area seaward of the residence onto the revetment or the beach below. Any such development, or any other maintenance development associated with the

EXHIBIT K

revetment, the vegetative screening, and all irrigation and drainage structures, shall be subject to the following:

(a) Maintenance. "Maintenance," as it is understood in this condition, means development that would otherwise require a coastal development permit whose purpose is: (1) to reestablish or place rock within the permitted footprint and/or profile of the approved revetment structure; (2) to reestablish the permitted drainage, vegetation, and/or irrigation elements of the approved upper bluff plan; and/or (3) to retrieve any rocks that move seaward of the approved revetment footprint and/or profile.

(b) Maintenance Parameters. Maintenance shall only be allowed subject to the approved construction plan required by special condition 2. All beach areas shall be restored subject to the beach restoration parameters of special condition 4 above. Any proposed modifications to the approved construction plan and/or beach restoration requirements associated with any maintenance event shall be reported to planning staff of the Coastal Commission's Central Coast District Office with the maintenance notification (described below), and such changes shall require a coastal development permit amendment unless the Executive Director deems the proposed modifications to be minor in nature (i.e., the modifications would not result in additional coastal resource impacts).

(c) Other Agency Approvals. The Permittee acknowledges that these maintenance stipulations do not obviate the need to obtain permits from other agencies for any future maintenance and/or repair episodes.

(d) Maintenance Notification. At least two weeks prior to commencing any maintenance event, the Permittee shall notify, in writing, planning staff of the Coastal Commission's Central Coast District Office. The notification shall include a detailed description of the maintenance event proposed, and shall include any plans, engineering and/or geology reports, proposed changes to the maintenance parameters, other agency authorizations, and other supporting documentation describing the maintenance event. The maintenance event shall not commence until the Permittee has been informed by planning staff of the Coastal Commission's Central Coast District Office that the maintenance event complies with this coastal development permit.

(e) Maintenance Coordination. Maintenance events shall, to the degree feasible, be coordinated with other maintenance events proposed in the immediate vicinity with the goal being to limit coastal resource impacts, including the length of time that construction occurs in and around the beach area and beach access points. As such, the Permittee shall make reasonable efforts to coordinate the Permittee's maintenance events with other events (such as those of Santa Cruz County and nearby landowners), including adjusting maintenance event scheduling as directed by planning staff of the Coastal Commission's Central Coast District Office.

(f) Non-compliance Proviso. If the Permittee is not in compliance with the conditions of this permit at the time that a maintenance event is proposed, then the maintenance event that might otherwise be allowed by the terms of this future maintenance condition shall not be allowed by this condition.

(g) Emergency. Nothing in this condition shall serve to waive any Permittee rights that may exist in cases of emergency pursuant to Coastal Act Section 30611, Coastal Act Section 30624, and

EXHIBIT K

Subchapter 4 of Chapter 5 of Title 14, Division 5.5, of the California Code of Regulations (Permits for Approval of Emergency Work).

(h) **Duration of Covered Maintenance.** Future maintenance under this coastal development permit is allowed subject to the above terms for five (5) years from the date of amendment approval (i.e., until April 15, 2009). Maintenance can be carried out beyond the 5-year period if the Executive Director extends the maintenance term in writing. The intent of the permit is to regularly allow for 5-year extensions of the maintenance term unless there are changed circumstances that may affect the consistency of the development with the policies of Chapter 3 of the Coastal Act and thus warrant a re-review of the permit.

14. **Deed Restriction.** PRIOR TO ISSUANCE OF THE AMENDED COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director for review and approval documentation demonstrating that the Permittee has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the special conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the property. The deed restriction shall include a legal description and site plan of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

EXHIBIT K

Lezanne Jeffs

From: Jocelyn Drake
Sent: Monday, May 9, 2022 2:20 PM
To: Lezanne Jeffs; Carolyn Burke
Subject: FW: Comments on Behalf of Applicants Judi and Alex MacDonell – May 20 Zoning Administrator Hearing re Application No. 211155
Attachments: Comments on Behalf of Applicants Judi and Alex MacDonell – May 20 Zoning Administrator Hearing re Application No. 211155.pdf

fyi

Jocelyn Drake
Principal Planner
County of Santa Cruz – Planning Department
70 1 Ocean Street, 4th Floor
Santa Cruz, CA 95060
(831)454-3127
Jocelyn.drake@santacruzcounty.us

From: Taylor, Amy R. <ataylor@nossaman.com>
Sent: Monday, May 9, 2022 2:15 PM
To: Jocelyn Drake <Jocelyn.Drake@santacruzcounty.us>
Cc: Matt Machado <Matt.Machado@santacruzcounty.us>; Carolyn Burke <Carolyn.Burke@santacruzcounty.us>; Flynn, John J. <jflynn@nossaman.com>; Erskine, John <jerskine@nossaman.com>
Subject: Comments on Behalf of Applicants Judi and Alex MacDonell – May 20 Zoning Administrator Hearing re Application No. 211155

Good Afternoon,

Per Mr. Flynn's instruction, the attached is submitted regarding Application No. 211155. Please contact me should you have any difficulty opening the attachment.

Thank you,

Amy R. Taylor
Legal Secretary
NOSSAMAN LLP
18101 Von Karman Avenue, Suite 1800
Irvine, CA 92612
ataylor@nossaman.com
T 949.833.7800 F 949.833.7878
D 949.477.7630

EXHIBIT K

PLEASE NOTE: The information in this e-mail message is confidential. It may also be attorney-client privileged and/or protected from disclosure as attorney work product. If you have received this e-mail message in error or are not the intended recipient, you may not use, copy, nor disclose to anyone this message or any information contained in it. Please notify the sender by reply e-mail and delete the message. Thank you.

EXHIBIT K

NOSSAMAN LLP

ATTORNEYS AT LAW

18101 Von Karman Avenue
Suite 1800
Irvine, CA 92612
T 949.833.7800
F 949.833.7878

John J. Flynn III
D 949.477.7634
jflynn@nossaman.com

Refer To File # 504356-0001

VIA EMAIL ONLY

May 9, 2022

Jocelyn Drake, Zoning Administrator
Santa Cruz County Planning Department
701 Ocean Street, Fourth Floor
Santa Cruz, CA 95060
Jocelyn.Drake@santacruzcounty.us

Re: Nossaman LLP Comments on Behalf of Applicants Judi and Alex MacDonell – May 20 Zoning Administrator Hearing re Application No. 211155 (22702 E. Cliff Dr., Santa Cruz, CA)

Dear Ms. Drake:

This law firm represents Judi and Alex MacDonell, the owners of 22702 E. Cliff Drive regarding Application No. 211155 for a Coastal Development Permit for a new single family dwelling to replace an older, existing single family dwelling. The matter is scheduled for a hearing on May 20.

Our clients appreciate the recommendation of approval, but were disappointed to see staff's recommended denial of the Pleasure Point side setback exception for the second floor. In particular, Conditions 3 and 4 appear to be based on a misunderstanding of the new home's site orientation, configuration and project setting. Our primary objective in providing you this comment letter is to set the record straight about the MacDonells' plans and the Project impacts, and we respectfully request approval of their application, including the Pleasure Point setback exception, deletion of Conditions 3 and 4, and of course appropriate revisions to the recommended findings.

(1) The Project Qualifies for the Pleasure Point Setback Exception.

As a threshold matter, the Project should qualify for the exception allowed by section 13.10.447 of the County's code because the site is encumbered by an easement that severely restricts the available building envelope, a fact acknowledged in the Staff Report. The impact of that easement alone should be sufficient to qualify as a "special existing site" circumstance. Aside from that special and rather unique circumstance, the Project should qualify as well because the design, configuration and orientation of the home were carefully planned so as to avoid shading effects on nearby structures (as evidenced by the already-submitted shade and shadow study), and any intrusions on the privacy of the neighbors, as should be evident from the plans and drawings you have before you.

(2) We Request Deletion of Conditions 3 and 4.

Conditions 3 and 4 were unexpected by the applicant or architect, especially given the fact that there was no factual evidence set forth in the Staff Report that would have laid the groundwork for these conditions. As stated above, these conditions also appear to be based on misunderstandings about the Project and the Project setting, and building orientation. The windows at issue face an area unlikely ever to be developed, and the deck overlooks ***only*** the MacDonells' yard and the ocean. Accordingly, there appears to be no need for either of the conditions, and we ask that they be deleted.

(3) The Bluff Setback Complies With the County's LCP.

A couple of the commenters, including a Commission staff member in his March 30 letter, have mistakenly invoked Land Use Plan ("LUP") policies 6.2.15 and 6.2.16, arguing that these policies require a 100-year coastal bluff setback, without reliance on structural development or engineering measures.

The argument, however, simply ignores policy 6.2.12, which reads, in pertinent part:

> "The determination of the minimum 100-year setback shall be based on the ***existing*** site conditions and shall not take into consideration the effect of any ***proposed*** shoreline or coastal bluff protection measures." (Emphasis added.)

The shoreline protection for the MacDonells' property is already in existence; it is *not* proposed.

Moreover, the County's LCP consists not only of the LUP, but also of the implementing regulations ("IP"). These regulations have been ignored by the commenters. The Staff Report, by contrast, gets it right:

> "According to County Code section 16.10.07(II)(1)(b), new development located on a coastal bluff is required to have a minimum 25-foot setback from the top edge of the coastal bluff or provide the distance necessary to provide a stable building site over a 100-year lifetime of the structure, whichever is greater.
>
> "Additionally, County Code section 15.10.070(H)(1)(c) stipulates the minimum setback shall be based on the ***existing*** site conditions and shall not take in consideration the effect of any ***proposed*** protection measures, such as shoreline protection structures, retaining walls, or deep piers. The conclusions of the Geologic Report associated with the Project indicate that, since the coastal bluff/riprap revetment on the property has remained essentially unchanged since the armoring refurbishment in 1983, it is anticipated that the top of the coastal bluff will remain relatively unchanged for the next 100 years." (Emphasis added.)

(4) Approval of the Basement Is Amply Justified by the Only Substantial Evidence in the Record.

EXHIBIT K

As for comments on the basement, the related excavations, as noted in the Staff Report, are exempted by section 16.20.040(C) of the County's code. But, in addition to the referenced exemption, we have provided the necessary geologic engineering reports, which provide the only technically competent evidence before you on the effects of the basement construction. As also observed in the Staff Report, any geologic effects from the construction of the basement will be further addressed via a preconstruction meeting between the City's and the MacDonells' geologists and engineers. Any comments to the contrary by unlicensed persons cannot possibly constitute substantial evidence, and are therefore rightly disregarded.

In addition, and very significantly, both the County and the Coastal Commission have approved nearby basements: Laub, at 2866 S. Palisades Ave.; Zollars, at 22810 East Cliff Dr.; and the Porters, at 3030 Pleasure Point, the latter approved by the Coastal Commission.

(5) As Acknowledged in the Staff Report, the Project Is Compatible With Surrounding Development.

The public comments on the visual effects of the Project rely on nothing more than unsupported conclusions about the compatibility of the Project with surrounding residential development, conclusions that contradict the on-the-ground realities correctly acknowledged in the Staff Report.

As for the issue of "large dwellings," again, the only evidence before you is that which is set forth in the Staff Report and the architectural plans and drawings submitted in support of the MacDonells' application. To reiterate, we take exception to the Staff observations relating to intrusions on privacy, erroneously assumed to result from the design of the home, and a failure to understand the careful site planning that went into the project.

(6) Comments by Coastal Commission Staff Member.

For all the same reasons stated above, including misapplication of the County LCP and the lack of substantial evidence, the March 30, 2022 letter provided by Coastal Commission staff member Robert Moore provides no basis for questioning the consistency of the MacDonells' application with the County LCP.

In the latter connection, apparently prompted by Mr. Moore, Ms. Carolyn Burke has, at the eleventh hour, questioned the implications of an "expired" revetment maintenance agreement, a matter that has nothing whatsoever to do with approval of the MacDonells' CDP application. The revetment exists now by virtue of a vested right, and the MacDonells have a vested right to maintain it.

It is our hope that, upon further review of the evidence before you, and applicable provisions of the County's LCP and pertinent code sections, you will approve the Project application, with the Pleasure Point exception for the second-floor setback, delete Conditions 3 and 4, and appropriately revise the pertinent findings.

EXHIBIT K

Thank you very much for your consideration of our letter, which we submit without waiving the right to present any supplemental letters or additional evidence, whether before or at the hearing of the matter, which is currently scheduled for May 20, 2022.

Very truly yours,

John J. Flynn III
Nossaman LLP

JJF:art

cc: Matt Machado, PE, LS
Deputy County Administrative Officer
Director of Community Development and Infrastructure
via email only: Matt.Machado@santacruzcounty.us

Carolyn Burke
Assistant Director - Permit Center
Santa Cruz County Community Development & Infrastructure
via email only: Carolyn.Burke@santacruzcounty.us

EXHIBIT K

Lezanne Jeffs

From: marion@morrismed.com
Sent: Saturday, May 28, 2022 8:48 PM
To: Lezanne Jeffs
Subject: Project Opposition - 22702 E. Cliff (MacDonell)
Attachments: 20220527_162430.jpg

My name is Marion Morris and my husband and I live in the adjacent townhouse complex, Casitas del Mar. We have attended the last 2 meetings on this proposed project and in each one neither the applicant nor their representatives made a showing but rather cancelled out at the last minute. I find this to be acting in bad faith when so many of their neighbors took time from their busy day to attend. We may not be able to make it to the next meeting, but we would like to go on the record in opposing this development. I am also including the on-line petition form that my husband and I submitted months ago but was never included in the staff's report.

Furthermore, I would like to add that the County has rules and regulations in place for a reason. To grant exceptions based partly on the logic that the Applicants are entitled because their lot is encumbered, while ignoring the negative impacts on their neighbors, is unconscionable and would set an unwelcome precedent. Aside from our horizon views being affected, my biggest concern is that the large excavation will challenge bluff stability. I'm baffled by the geologist report because the problems are so visible. Our bluff at Casitas is sinking and we have a couple of sea caves, one of which runs adjacent to the proposed development. As mentioned at the first meeting, we have Danger signs posted due to instability of bluff and rip rap. How can the MacDonell's property not be affected by this?

Also, the proposed design calls for a rather large underground water retention system (20' long x 5' wide) that would sit right on the property line with our complex. I would think that a leak or malfunction might negatively impact our property, specifically our driveway. Should there not be a setback on this?

Who will be responsible and liable should the adjacent properties be adversely affected by this development should it happen as proposed?

Sincerely,

Marion Morris

EXHIBIT K

22702 East Cliff Drive Petition

Attn: Santa Cruz County Planning Office/Lezanne Jeffs
Re: Application 211155

We are writing to express our opposition to Application #211155, the demolition and building of a structure at 22702 East Cliff Drive. While we support the ability of homeowners to remodel their coastal homes, the proposed development raises safety, environmental, and aesthetic concerns that should disqualify the application from approval.

We do not believe that the proposed development is consistent with our neighborhood in style or substance. In size alone, the plans would outstrip any other house visible from the 26th Street Beach. There is no attempt to fit into "a compatible community aesthetic," as required by the Santa Cruz County code. The Application seeks to maximize the size of the house in every dimension, with significant code exemptions unsupported by any rationale. It also raises concerns about visual impacts and sightline for residents and the public alike, given the dramatic increase in height and plans to build up to the Applicant's property lines.

The demolition of the house at 22702 East Cliff may also have significant implications for the Coastal Development Permits of its neighbors. The Coastal Commission has already indicated the proposed demolition could result in the loss of a CDP, and the removal of the adjoining riprap. This would adversely impact the structure of the bluff, upon which many of our homes rely—especially given the sea caves on the adjacent parcels. We also have significant concerns about the implications of the proposed basement, which may impact the structure, stability, and safety of the East Cliff bluff and the 26th Street Beach, an issue also raised by the Coastal Commission.

The Applicant has not shown that the project justifies a setback exemption or that the plan is consistent with the structure of the homes around it. As a community, we had no knowledge of this project for the many months it has been under development. We would have expected that the Applicant and the architect involved would have considered the feelings and wishes of the community. We urge you to take a second look at this project and deny Application #211155.

Marion Morris

Dennis Morris

22680 East Cliff Dr., Unit 4

EXHIBIT K

Lezanne Jeffs

From: Joe Pruss <joepruss@gmail.com>
Sent: Saturday, June 4, 2022 2:29 PM
To: Lezanne Jeffs; Joe Pruss; Cheryl Pruss; amberl825@yahoo.com
Subject: Parcel 028-242-25

Dear Lezanne,

I am writing to you today to have this letter included with the letters being reviewed by County Staff and the Zoning Administrator and included in the Staff Report for Public review.

I have attended 2 prior meetings regarding Parcel 028-242-25, neither of which were attended by a representative for the Applicant.

My wife Cheryl Pruss and I are unable to attend the next scheduled Planning Zoning Administrator's meeting on this Parcel and we want our Voice opposing several exceptions and interpretations, by Staff, to be heard and recorded as follows:

1. The full underground basement is Geologically unsafe and likely to weaken the Bluff to the detriment of neighboring parcels.

2. The unknown status of the neighboring Casitas Del Mar Coastal Armoring is under review with the Coastal Commission and without a Resolution from the Coastal Commission it is not possible to validate a Geotechnical Plan for this Parcel.

3. The method of measuring the required setback from the Bluff is incorrect and not aligned with the Coastal Commission's Requirement and will result in a View Plane Interference with neighboring Parcels that have historically complied with the Coastal Commission's Requirements. This setback should be measured from the unarmored face of the bluff.

4. The method of measuring the required setback from the Bluff will result in more visible bulk from the beach and make this the most visible house from Moran Lake to 26th Avenue.

EXHIBIT K

5. No fences or landscaping should exceed 3ft in height within the 25ft setback from the bluff. If allowed it will reduce the 180deg view from neighboring parcels.

6. This parcel includes a View Easement that prevents development for less than 1/2 of the parcel. The owner should have known this prior to purchasing this parcel and NO Exception to setback requirements should be granted as the Historical interpretations for granting setback exceptions in Live Oak has been for a less than 5000sq.ft. irregularly shaped parcel on the Avenues. This lot is almost 18,000sq.ft with over 9000sq.ft. buildable.

7. The habitable size of the house should include the basement as it includes air conditioned space that, despite a commitment to not inhabit, will be difficult for the County to Manage in the future. The size of this Proposed House is out of Character with the Pleasure Point Development District and would result in a house much larger than any existing home in the neighborhood.

8. County Regulated Side yard setbacks should be maintained to provide sufficient space for landscaping to hide the structure.

9. Ceiling lighting alongside the side yard setback should be designed to not shine into the adjacent parcel.

10. The groundwater runoff increased from impervious coverage will need special planning and pumping it onto East Cliff Drive will possibly cause flooding to adjacent parcels and the County Park at Moran Lake near the garbage cans and blocking the bike lane..

The applicant was a NO SHOW at the prior 2 virtual meetings where more than 50 attendees took the time to voice their concerns about this project. In a court of Law this would be viewed with Contempt. I request that the Zoning Administrator DENY this applicant's exception requests for the above points and ask that no further extensions be granted.

Regards,
Joseph and Cheryl Pruss
22628 East Cliff Dr.
Parcel 02847109
joepruss@gmail.com

EXHIBIT K