CALIFORNIA COASTAL COMMISSION
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Item T-7d

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Staff Report: 7/25/2001
Hearing Date: August 6-10, 2001
Commission Action:

STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-01-018

RECORD PACKET COPY

APPLICANTS: Robert and Nancy Conger

AGENT: GWC Architects, Attn: Gerald Compton

PROJECT LOCATION: 501 Paseo de la Playa, City of Torrance, Los Angeles Co.

PROJECT DESCRIPTION: Interior remodel and construction of a 591 square foot, 12.5-foot high first story addition at the rear of an existing 3,152 square foot, two-story single family residence on the bluff top, and construction of three retaining walls, a 404 square foot patio area with spa and stairs, and a 246 square foot wood deck located 12 inches above existing grade on the bluff face in the rear yard of a 23,400 square foot, R-1 zoned bluff lot. A total of 8.9 cubic yards of excavation and fill would be required to install the spa, and 34.8 cubic yards of excavation and fill would be required for the proposed patio, stairs and footings.

Lot Area	23,400 square feet
Building Coverage	2,802 square feet
Pavement Coverage	1,890 square feet
Landscape Coverage	1,788 square feet
Parking Spaces	2
Zoning	R-1
Plan Designation	Low Density Residential
Ht above final grade	12.5 feet (addition only)

LOCAL APPROVAL: City of Torrance Approval in Concept, 12/13/99.

SUMMARY OF STAFF RECOMMENDATION

The proposed project raises concerns regarding development on the face of a coastal bluff. Staff is recommending **APPROVAL** of the proposed project with conditions that would eliminate a portion of the house extension and all of the proposed deck, pool and hot tub. The recommended conditions would require the applicant to: (1) provide revised plans eliminating all development proposed to be located seaward of the top of bluff; (2) assume the risk of the proposed development; (3) agree to not build any bluff protection devices; and (4) conform to the consultants' recommendations and the foundation requirements of the City of Torrance Department of Building and Safety, and agree to refrain from removal of vegetation on the lower portion of the bluff. The applicants do not agree with the staff recommendation, particularly the recommendation to eliminate all development proposed to be located seaward of the top of bluff. The applicants also disagree with staff's determination of where the top of the bluff is located on the site.

SUBSTANTIVE FILE DOCUMENTS:

1. City of Torrance Land Use Plan, certified with suggested modifications 1981.
2. Regional Interpretive Guidelines for Los Angeles County, adopted October 14, 1980.
3. Coastal Development Permits P-4-20-77-716 (Warren); A-79-4879 (McGraw); 5-83-618 (Fire); 5-84-187 & amendment (Briles); 5-85-183 (Hall); 5-85-755 (Briles); 5-90-506 (Stamegna); 5-90-868 (Schreiber); 5-90-1041 & amendments (Campbell); 5-90-1079 & 5-91-697 (Wright); 5-96-167 (Lichter); 5-97-050 (Kreag); and 5-99-456 (Conger), 4-99-211 (Lever), 5-00-228 (Hopkins)
4. Emergency permits: 5-98-524-G (Penfil), 5-99-419-G (Lynn), 5-99-351-G (McMurray), 5-99-230-G (Ocean Trails),
5. *Wave Impact Study, 501 Paseo de la Playa, Torrance, CA* prepared by Skelly Engineering dated March 2001.
6. *Geological Investigation for Proposed Residential Improvements, 501 Paseo de la Playa, Torrance, California* (Project No. 4705-00) prepared by Keith W. Ehlert, Consulting Engineering Geologist dated July 11, 2000.
7. *Geotechnical Engineering Investigation Report – Proposed Spa, Deck and Exterior of House, 501 Paseo de la Playa, Redondo Beach, California* (Project No. 1601C-070) prepared by Coastline Geotechnical Consultants, Inc. dated August 8, 2000.
8. Mark Johnsson, Senior Geologist, California Coastal Commission: Geologic Review Memorandum Re: Conger CDP application (5-01-018), July 12, 2001
9. Jon Allen, Staff Ecologist, Memorandum: "El Segundo Blue Butterflies on Conger Property;" July 23, 2001
10. Gail Kobetich and Chris Nagano, United Stated Fish and Wildlife Service, "Endangered El Segundo Blue Butterfly and Restoration Program at 433 Paseo de la Playa, Torrance," October, 5, 1995

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution to **APPROVE** the coastal development permit application with special conditions:

MOTION

"I move that the Commission approve with special conditions Coastal Development Permit 5-01-018 per the staff recommendation as set forth below."

Staff recommends a **YES** vote which would result in the adoption of the following resolution and findings. An affirmative vote by a majority of the Commissioners present is needed to pass the motion.

I. Resolution: Approval with Conditions

The Commission hereby **APPROVES** a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. Special Conditions

1. Revised Plans

A) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall submit revised plans to the Executive Director for review and approval. The revised plans shall show the following changes to the project:

1. Show only development inland of the top of bluff on the plans and eliminate from plans all proposed development seaward of the top of the bluff.

2. Show the proposed living room and family room addition inland of the top of bluff at the rear of the existing single family residence.

3. Relocate inland of the top of bluff or eliminate from plans the proposed patio area, spa, retaining walls, stairs and cantilevered wood deck.

4. Eliminate the previously revised plans, which incorporated Revision 3, Drainage Plan, for the proposed spa.

B) The revised plans shall, prior to submittal to the Executive Director, be reviewed and certified by a qualified professional to ensure that they are consistent with the Commission's approval and with the recommendations of any required technical reports *[Please see Special Condition Four].*

C) The permittees shall undertake development in accordance with the final plans approved by the Executive Director. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

2. Assumption of Risk, Waiver of Liability and Indemnity

A) By acceptance of this permit, the applicants acknowledge and agree: (i) that the site may be subject to hazards from landslide, bluff retreat, erosion and/or earth movement, (ii) to assume the risks to 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; and (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.

B) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall execute and record a lease restriction, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition. The lease restriction shall include a legal description of the applicants' entire parcel. The lease restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This lease restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

3. No Future Protective Device

A) By acceptance of this permit, the applicants agree, on behalf of themselves and all successors and assigns, that no bluff or shoreline protective device(s) shall ever be constructed to protect the subject property approved pursuant to Coastal Development Permit 5-01-018, including future improvements, in the event that the property is threatened with damage or destruction from erosion, landslide, waves, storm conditions or other natural hazards in the future. By acceptance of this permit, the applicants hereby waive, on behalf of themselves and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235.

B) **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicants shall execute and record a lease restriction in a form and content acceptable to the Executive Director, which reflects the above restriction on development. The lease restriction shall include a legal description of the applicants' entire parcel. The lease restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This lease restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

4. Conformance of Plans to Recommendations and Requirements

A) All final design and construction plans shall meet or exceed all recommendations and requirements contained in Geological Investigation Report No. 4705-00 prepared by Keith W. Ehlert, Consulting Engineering Geologist, dated July 11, 2000, Geotechnical Engineering Investigation Report No. 1601C-070 prepared by Coastline Geotechnical Consultants, Inc. dated August 8, 2000, Wave Impact Study prepared by Skelly Engineering dated March 2000 and the requirements of the City of Torrance, Department of Building and Safety, to the extent that they are consistent with the conditions imposed by the Commission.

B) The permittees shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment of this coastal development permit unless the Executive Director determines that no amendment is required.

5. No future improvements without a coastal development permit.

A. This permit is only for the development approved in Coastal Development Permit 5-01-018. Pursuant to Title 14 California Code of Regulations, section 13250(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610(a) shall not apply to the portions of the parcel located between the westerly wall of the single family house approved in this permit 5-01-018 and the westerly property line. Accordingly, any future improvements located on the subject portion of the parcel, except for a property line fence, and landscaping installed pursuant to a landscaping

plan approved pursuant to condition 6 below, but otherwise including, but not limited to repair and maintenance and/or the installation or removal of ground cover or landscaping identified as not requiring a permit in Public Resources section 30610(d) and Title 14 California Code of Regulations sections 13252(a)-(b), which are proposed within the restricted area shall require an amendment to Permit 5-01-018 from the Commission or shall require an additional coastal development permit from the Commission..

B. **Prior to Issuance of the Coastal Development Permit**, the applicant shall execute and record a lease restriction in a form and content acceptable to the Executive Director, reflecting the above restrictions on development in the restricted area. The lease restriction shall include legal descriptions of both the applicant's entire parcel and the restricted area. The lease restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This lease restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

6. Landscape Plan

A. **Prior to issuance of a Coastal Development Permit**, the applicant shall submit a landscaping plan prepared by a professionally licensed landscape architect or resource specialist, for review and approval by the Executive Director. The plan shall include, at a minimum, the following components: a map showing the type, size, and location of all plant materials that will be installed on the previously disturbed portions of the site: the areas around the house and on and above the bench shown in Exhibit 3.

(a) On the portion of the lot disturbed by the approved construction, the applicant shall employ only low water use plants. The applicant shall not install invasive plants listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled Recommended List of Plants for Landscaping in the Santa Monica Mountains, dated February 5, 1996, those listed in the "Ocean Trails Invasive Plants list" and those plants identified by the United States Fish and Wildlife Service as having potentially negative effects on the Malaga Cove habitat (notably *Eriogonum fasiculatum.*)

(b) The applicants shall not direct drainage or irrigation from the addition onto the bluff face, or stockpile or store equipment on the bluff face or beach.

C. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

7. **Erosion and Drainage Control**

A. **Prior to Issuance of the Coastal Development Permit,** the applicant shall submit, for review and approval of the Executive Director, a plan for erosion and drainage control.

1) Erosion and Drainage Control Plan

(a) The erosion and drainage control plan shall demonstrate that:

- During construction, erosion on the site shall be controlled to avoid adverse impacts on adjacent properties, the beach, and the bluff face.
- The following temporary erosion control measures shall be used during construction: temporary sediment basins (including debris basins, desilting basins or silt traps), temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes, and close and stabilize open trenches as soon as possible.
- Permanent erosion and drainage control measures shall be installed to ensure the stability of the site, adjacent properties, and public streets.
- All roof drainage from the addition

(b) The erosion control plan shall include, at a minimum, the following components:

- A narrative report describing all temporary run-off and erosion control measures to be used during construction and all permanent erosion control measures to be installed for permanent erosion control.
- A site plan showing the location of all temporary erosion control measures.
- A schedule for installation and removal of the temporary erosion control measures.
- A written review and approval of all erosion and drainage control measures by the applicant's engineer and/or geologist.
- A written agreement indicating where all excavated material will be disposed and acknowledgement that any construction debris disposed within the coastal zone requires a separate coastal development permit.

(c) The permanent site drainage control plan shall demonstrate that:

- Run-off from the project shall not increase the sediment or pollutant load in the storm drain system above pre-development levels.
- Run-off from all roofs, patios, driveways and other impervious surfaces on the site shall be collected and discharged to avoid ponding and/or erosion either on or off the site.

(d) The drainage control plan shall include, at a minimum, the following components:

- The location, types and capacity of pipes, drains and/or filters proposed.
- A schedule for installation and maintenance of the devices.
- A site plan showing finished grades at two-foot contour intervals and drainage improvements.

(e) These erosion and drainage control measures shall be required to be in place and operational on the project site prior to or concurrent with the initial grading operations and maintained throughout the development process to minimize erosion and sediment from the runoff waters during construction. All sediment shall be retained on-site unless removed to an appropriately approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill.

(f) The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils, and cut and fill slopes with geotextiles and/or mats, sand bag barriers, and/or silt fencing; and include temporary drains and swales and sediment basins. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.

B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description

The project site is located within an existing residential area at 501 Paseo de la Playa, City of Torrance, Los Angeles County (Exhibit #1). The site is one of 27 lots on the bluff top between the first public road, Paseo de la Playa, and the sea. The adjacent blufftop lots have all been developed with single family residences. Torrance Beach, the beach seaward of the toe of the bluff is public. Vertical public access to this beach is available to pedestrians via public parking lots and footpaths located at the Los Angeles County Beaches and Harbors' "Torrance Beach Park" approximately one-quarter to one-half mile north of the project site (Exhibit #1).

The 23,400 square foot lot extends from the street down 120 feet in elevation to the 200-foot wide public beach (Exhibit #2). The top portion of the lot is approximately 50 feet wide, flat, and developed with an existing two-story single family residence. The flat part of the lot

extends approximately 75 feet from the street to the top edge of the bluff, which is located at the seaward side of the concrete patio pad located at the rear of the existing single family residence (Exhibits #3, p.2 & #4, (Geology Report, p.1).

The applicants are proposing to build a 591 square foot addition to the living room and family room at the rear of the existing single family residence, extending that portion of the house nine feet six inches toward the bluff edge. The applicants also propose to extend the present patio and build a new 404 square foot patio area at the same level as the house, supported with cement footings, one of which will support the house, the other of which will be six feet high, three feet of which will extend over the visible top of the slope. This retaining wall will support the patio. Slightly below this, also supported by a backfilled retaining wall, the applicants propose to construct a spa. They also propose to construct stairs leading down to a new 246 square foot wood deck shown as 12 inches above existing grade, extending past the concrete swale to the edge of the lower bench. All of this development is located seaward of the top of bluff (Exhibit #3, pp.1-2). Three retaining walls are proposed to support the building pad for the house extension and the patio, deck and spa, forming a three-tiered rear yard. The construction will extend seaward of a concrete swale that the applicant believes is located on the historic top of the bluff (Exhibit #3, p.2). The inland retaining wall would support the foundation and the upper concrete patio slab, and would be backfilled. The second and third retaining walls would each be 4 feet high and support fill. A planter would be located inland of the second retaining wall and the lower patio and spa would be located inland of the third (seawardmost) retaining wall. A 36-inch high glass wall would stand above the seawardmost retaining wall. The retaining walls are part of the project design and would support the house, decks and spa. Grading is proposed for installation of the spa (8.9 cubic yards), patio, stairs and footings (34.8 cubic yards). The applicant does not propose any encroachment onto the bluff face below the footings supporting the lower deck. No encroachment into City property is proposed. The major issue in this case is that the proposed development is located seaward of the top of bluff and is on the bluff face.

The applicant contends that the "traditional edge of the bluff" is seven feet seaward of a concrete swale located on a ten-foot wide graded bench on the bluff face. The applicant's architectural plans, in a theoretical depiction, show the edge of bluff seven feet seaward of the proposed lower deck. However, in the deck plans, the deck extends seven feet past the swale, so the lower deck would extend to the seaward edge of the break in slope. The applicants contend that some time in the past, grading occurred on the bluff, resulting in the deposit of earth up to the level of the street (identified as the fill area). Further grading, including cutting, occurred, resulting in a level area, a bench at the top of the steeper portion of the bluff five feet seaward of the concrete swale. The applicants contend that the steep area inland of this lower bench is a cut slope, cut into the fill that supports the house pad. The lower flat area is in the view of the applicant, the historic top of bluff and the historic and proper limit of development. This issue is discussed further in section B below.

The applicants do not propose any development below the lower deck and propose to leave the remainder of the bluff face undisturbed. The applicants note that the United States Fish and Wildlife Service (USFWS) has identified habitat for the rare and endangered El Segundo Blue butterfly (*Euphilotes bernardino allyni*) on the face of the lower slope. The applicants

also contend that the proposed development is set well back from the habitat and will not disturb it.

B. Top of Bluff

The proposed project raises concerns regarding development on the face of a coastal bluff. The conditions above would eliminate all of the applicants' decks and the spa and possibly require relocation of the footings for the room expansion and about a foot and a half of the addition to the single family home. The applicants do not agree with the staff recommendation, particularly the recommendation to eliminate all development proposed to be located seaward of the top of bluff. The applicants also disagree with staff's determination of where the top of the bluff is located on the site.

This recommendation reflects the Commission's recent concern regarding development on coastal bluff faces. Second, in view of the cumulative effect on safety, public views and bluff habitat statewide, the Commission has determined in many instances that the policy most protective of resources is to prevent development from extending on to the face of the bluff.

In the case of the Torrance bluffs, this represents a reaction to refined information. The Commission, in many instances in the past, most recently in 1997, has required the residences to be set back landward of a safe building line, which is approximately at the top of the bluff. However, it has permitted applicants to construct pools and decks seaward of the top of the bluff, extending to either the string line or to a man-made drainage channel located about ten feet below the pads. In part that practice was a reflection of the existing pattern of development on the northernmost lots, and in part, from an idea that the lower bench, described in more detail below, represented the top of the bluff. In some older permits, and in the 1981 LUP, this channel is noted as demarcating a former sewer line. With these cases, two involving unpermitted emergency repairs, and two located adjacent to the public beach, applicants have been allowed to grade and construct retaining walls even lower on the bluffs. Most recently, the Commission has approved pools and decks extending either to a stringline, to the City's "safe building line", or to the "swale". Three of these are located to the south of the subject parcel, between this lot and Palos Verdes Estates. Most recently the Commission approved a deck on the seaward side of the house at 511 Paseo de la Playa (5-85–183 Exhibit 16, also visible in Exhibit 20) the residence three lots to the south. That deck, which is located upslope and inland of the proposed deck and addition, was required to be landward of the "safe building line". Applicants have been required to record assumptions of risk, and have also been required to refrain from vegetation removal on the lower reaches of the bluff, where in 1985, the United States Fish and Wildlife Service identified habitat for the El Segundo Blue butterfly, an endangered species.

Bluff collapses or failures and emergency permits have led the Commission to change its views on bluff encroachments through out the coast. Since 1997, the Commission has witnessed a number of serious failures on bluffs that had not been expected to fail. A number of them were associated with grading and/or excess moisture from human–induced water sources. Secondly the Commission has noted cumulative pressure on bluff faces for stairways and other improvements. The Commission has observed that cumulatively, such development obscures the public's view of the natural landforms of bluffs and cliffs. In this

case the staff is recommending conditions that follow the Commission's most recent direction on bluff face development, which will, if followed, prevent bluff faces from encroachments and enhance the safety of development.

Although the bluff has been modified by past grading activities, the top of bluff is located at its original location on the top of a manufactured 2:1 slope where the existing home's concrete patio is situated (above the concrete swale). The applicants disagree, claiming that the top of the bluff is located on the seaward edge of a small graded area located near the concrete swale (Exhibit #5).

As noted above, the applicants and their geologist contend that historically, (1930's) (before the bench was cut) the top of bluff (at an approximate elevation of +130 MSL) was located approximately 9.5 feet seaward of the rear side of the existing house. There is an existing concrete patio on the same level as the house. The staff geologist presently identifies the seaward edge of the existing patio as the edge of the bluff. The bluff face slopes seaward from that edge.

However, the applicants contend that when this lot was graded in the past to create a lower bench the seaward edge of the lower bench became the edge of the bluff. This grading of the lot and the adjacent lots occurred prior to enactment of the Coastal Act, resulting in a graded 2:1 slope descending 20 horizontal feet from the (1930's) top of bluff (located at the rear of the house) to a ten-foot wide bench. The bench, which in some other submittals is identified as the site of a former sewer easement, extends horizontally across the bluff beneath the residential development (Exhibit #3, p.2). A concrete swale found in the middle of the bench is also located on many of the other lots in the area. Because the top of the bluff has been disturbed, they identify the area inland of the cut slope as "fill", and claim that the top of "the bluff" is the seaward edge of the bench. In fact the geology report identifies the soils under the house as the same material that is found in the remainder of the upper bluff.

Seaward of the concrete swale is a relatively flat grade that extends approximately seven horizontal feet (Exhibit #3, p.2). At the edge of the bench the bluff descends to the sandy beach. The applicants assert that the edge of the bench is the top of the bluff. The applicants point out that the seaward edge of the bench is identified on a site plan for a number of houses dated 1961 as the "irregular top of cliff" (Exhibit #5). The 1961 plan also shows the footprints of the existing blufftop homes. The slope below the cut slope extends approximately 300 linear feet down to the beach where the property has a maximum width of 86 feet at the seaward property line.

In response to the applicant's objections to a staff report challenging this definition of the edge of the bluff, Mark Johnsson, senior staff geologist, visited the site. The following are his comments concerning the technical definition of the top of the bluff: (The entire letter is attached, Exhibit 13.)

> The proposed development, which consists of two decks connected by staircases, a spa, and windscreens, would cascade down a cut slope in the upper portion of the coastal bluff at the site to a bench cut into the bluff ... ..

As indicated in reference (2), the proposed development is to occur on the face of a coastal bluff. I understand that the applicant disagrees with this assessment. The applicant maintains that the upper portion of the slope, which extends to the very edge of the principal residence on the site, is a cut slope which modified the natural bluff. The cut slope is approximately 12 feet in height, as indicated on the topographic survey (reference 3), and descends to a sloping bench approximately ten feet wide, which contains a concrete-lined swale for drainage purposes. A wooden deck currently occupies part of this bench. Below the bench, the slope descends to the beach. One intervening bench occurs at approximately mid-slope, also containing a concrete-lined swale.

The applicant has submitted a set of architectural drawings dated 1961 (reference 1) that show a line labeled "irregular top of cliff" that is approximately 30 feet seaward (measure horizontally) of the residence at the site. The applicant feels that any setbacks from the top of bluff should use this line as point of reference, as the top of the slope cut into the top of the bluff is not a natural feature. There are no topographic data on reference (1) with which to evaluate whether this was an accurate bluff edge determination at the time; it is my opinion that it is certainly not an accurate depiction of the current bluff edge.

In order to determine the location of the current bluff edge, I have reviewed the topographic map in reference (3) and the cross-sections provided in reference (6) against the standard set forth in §13577, paragraph (h), of Title 14 of the California Code of Regulations, in which the top of bluff is defined. It provides in relevant part:

> "Bluff line or edge shall be defined as the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the cliff is rounded away from the face of the cliff as a result of erosional processes related to the presence of the steep cliff, the bluff line or edge shall be defined as that point nearest the cliff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the cliff. In a case where there is a steplike feature at the top of the cliff face, the landward edge of the topmost riser shall be taken to be the cliff edge.

Nothing in the Coastal Act or its regulations stipulates that a coastal bluff need be unmodified by human activities to preserve its status as a coastal bluff. If the morphology of a bluff has been changed by prior grading, the only standard by which to establish the current bluff edge is as defined in the regulation. By this definition, the bluff edge (in this case, the landward edge of the topmost riser) is approximately at the edge of the residence itself. Any development seaward of the edge of the house would be on the bluff face.

The Commission has denied applications for bluff face development in the past due to, among other things, problems associated with geologic instability. In so doing, the Commission has relied on § 30253 of the Coastal Act. In this case, the proposed development does raise geological stability issues. Ongoing erosion associated with a corroded storm water discharge pipe is occurring and increasingly places development on the bluff face at risk. However, even if this pipe were repaired, the bluff would continue to be subject to shallow failures and to creep, as acknowledged in references (5) and (6). Indeed, because of the uncertainty associated with predicting geologic processes into the future, I would recommend that development be set back from the bluff edge to assure stability. Accordingly, I recommend that the Commission find that the proposed development on the bluff face does not assure stability, and is therefore not consistent with the requirements of Section 30253 of the Coastal Act. [see Exhibit 13 for the remainder of senior geologist's assessment.]

The applicants maintain that the bluff has been graded such that a portion of the bluff face is notched out (Exhibit #4, p.8). The Commission does not contest that the slope leading to the top of the bluff has been re-graded. However, pursuant to the Coastal Act definition of the bluff edge, the Commission finds that the current highest point of the bluff, that is, the landward edge of the topmost riser, is the bluff edge. This is the upper part of the 2:1 slope where the existing concrete patio pad is situated. The lower edge of the flattened bench, seaward of the swale, is not the top of bluff as the applicants assert (Exhibits #3, p.2 and #5).

C. Bluff Face Development

Of the several proposed developments on this lot, only the proposed addition to the house would be situated primarily inland of the top of bluff. All of the other proposed developments, including a small portion of the house addition, the proposed patio area, spa, retaining walls, stairs and wood deck would be located on the bluff face seaward of the top of bluff (Exhibit #3, p.2).

The development proposed to be located seaward of the top of the bluff is inconsistent with the following Coastal Act policies.

Section 30251 of the Coastal Act states, in part:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.*

Section 30253 of the Coastal Act states, in pertinent part:

> *New development shall:*
>
> *(I) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(II) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

1. Visual Impacts

While some bluff faces in southern California have been subdivided and developed, development does not extend down the Torrance bluffs. The bluffs extend from about 60

feet high at the north end to almost one hundred thirty feet high as the coast curves toward Palos Verdes. The bluff also becomes steeper, changing from a 2:1 slope covered with dune sand to a rocky cliff. (Exhibits 18, 19) From the beach, the roofs, parts of the rear walls of houses and the edges of patios are visible. With three exceptions, the development to the south of the proposed development (toward Palos Verdes) is set back from the bluff and does not extend onto the bluff face. One exception, several doors south of the applicant, has a glassed in patio and pool extending to the edge of an upper bench (Hall, 511 Paseo de la Playa, 5-95-183), that is eight to ten feet above the lower bench cited by the applicant as the logical edge of the bluff. For the most part, however the bluff face to the south, where the bluff rises more steeply, is undisturbed. It forms a vegetated and irregular backdrop to the beach. In the area to the north, where the bluff is lower and flatter, there is more disturbance of the bluff face. The edge of the bluff of the southern lots is more irregular than the bluff in the north—Exhibit 5 for example shows a bulge of deep lots several houses to the south of applicant, and then the lots again become more shallow as the cliff steepens. To the north of the subject lot, the bluff is lower and flatter, and as a result the fronts of the houses and their decks are more visible from the beach.

Several bluff face stairs exist, and on two lots at the northernmost end of row of houses there are stairways and gazebos permitted by a former Commission that extend to the toe of the bluff. Even with these exceptions, in general, the bluff face still resembles the bluff face shown in the sketch in the LUP, irregular cliffs overlain by blown sand, vegetated with a mixture of ice plant and native plants. The roofs and front windows of houses and the edges of decks are visible from the beach, but generally the bluff front in this area also appears undisturbed. The parcel next door and directly north of the proposed project (449 Paseo de la Playa) was extensively graded in response to erosion. In an after-the-fact permit the applicant on that lot proposed to reconstruct the bluff face, reduce the size of a lower pad (some of which is now landscaped as lawn) and revegetate the bluff face with native plant materials. (5-90-868, 449 Paseo de la Playa). The reconstructed lower pad is at least five feet lower than the bench on the applicants' property. The bluff face repair is no longer evident.

In its previous actions on the Torrance bluffs, the Commission has relied on (1) a stringline, (2) the Torrance City "safe building line" (which does not extend to this parcel), and (3) the City of Torrance adopted "bluff line", which is located at the seaward edge of the lower bench. The Commission permitted structures to extend as far seaward as adjacent structures as well as allowed development to extend as far seaward as the existing swale.

The applicants have proposed to build a new patio area, spa, retaining walls, and cantilevered wood deck on the bluff face (seaward of the top of the bluff). The lowest deck would extend to seven feet past the swale, to the edge of the bench identified above. Since the majority of lots to the south of the applicant do not have decks, continuing to apply the policies outlined above and allowing this development would encourage a continued extension of southward development along the bluff face. The result would be a visible row of decks and their windscreens lower on the bluff than the present line of development, and hence more visible from the beach. Secondly, this applicant and those to the south, are unable to extend development to the edge of the bench without constructing retaining walls to support their yards, spas and decks because the bluff is progressively steeper on its southern end. Also there is a greater difference in elevation between the house pads and

the bench on the southern lots. These yard improvements and the walls supporting them would be visible from the beach. There would, in the view of the Commission, be a cumulative impact on views to and along the coast, increasing use of fill and retaining walls, and creating further alteration of landforms.

This section of Paseo del la Playa in Torrance includes one- and two-story single family residences on individual lots. The proposed addition to the living room and family room of the single-family residence is 12.5 feet high, which is lower than the roof height of the existing two-story home. The proposed addition would be partially visible from the beach below the bluff, as is the existing house. However, since the entire blufftop in this area is developed with residences and the addition does not exceed the height of the existing residences, the proposed addition to the house would not negatively impact the visual quality of the blufftop. The patio area and spa would also not be visible from the beach, but the reason they would not be visible is that they would be hidden behind the retaining walls, which would be visible from the sea and some sections of the beach.

All of the proposed development, except for the majority of the proposed house addition, are located seaward of the top of bluff and inland of the lower edge of cut slope. Development is proposed on the previously modified bluff face. The placement of retaining walls seaward of the lower edge of the cut slope on the bluff face would require alteration of the bluff. Retaining walls seaward of the lower edge of cut slope would also be visible from the beach.

Section 30251 of the Coastal Act requires minimization of alteration of landforms. Although a portion of the upper bluff has been significantly graded in the past (prior to enactment of the Coastal Act), further development on the bluff face would be inconsistent with that requirement. Furthermore, cumulatively, continuing the policy that has been applied in the past would extend a line of development ten feet or twelve feet down from the top of the bluff, presenting a visible line of structures on the bluff face that would be visible from the beach. Therefore, Special Condition One requires the submission and implementation of revised plans that eliminate all development proposed to be located seaward of the top of bluff. The resulting plans would be for the addition to the house only (landward of the top of the bluff).

By permitting the proposed addition to the house only within the currently proposed footprint, the Commission is approving only development inland of the top of bluff. The proposed project, if revised according to the requirements of Special Condition One, would be consistent with Section 30251 of the Coastal Act. Only as conditioned is the proposed project consistent with the Section 30251 of the Coastal Act, which requires that scenic and visual qualities of coastal areas be considered and protected as a resource of public importance, and alteration of landform be minimized. The project, only as conditioned to remove the proposed lower retaining walls, and to the applicants' agreement to not place protective devices at toe of the bluff in the future, is consistent with Section 30253 of the Coastal Act, which requires that new development not require the construction of protective devices that would substantially alter natural landforms along bluffs.

2. Habitat Impacts

The host plant for the El Segundo blue butterfly (*Euphilotes bernardino allyni*), an endangered species, is located in patches throughout the bluff face on many of the lots along Paseo de la Playa, especially seaward of the lower edge of cut slope. The United States Fish and Wildlife Service (USFWS) provided the Commission written notice of this discovery in 1995 (Letter, Gail Kobetich, 1995). Recently, according to the applicants and since confirmed by the USFWS, both the host plant and the butterfly were identified on the lower levels of the applicants' lot.

In response to the applicants' report of the presence of the habitat on the lot, Jon Allen, the staff ecologist visited the site accompanied by the habitat restoration specialist employed by the USFWS. The butterfly and the host plant were confirmed to exist on the lower levels of the bluff face. The staff ecologist stated:

> To follow up on our site visit to the Conger Property at Torrance Beach, I am sending a picture of *Eriogonum parvifolium*, dune buckwheat, the host plant of the El Segundo blue butterfly (ESB), *Euphilotes battoides allyni*. There are two fairly good pictures of the butterfly itself (on the Conger property), one on the invasive iceplant, *Carpobrotus edulis* and one on its normal host plant, *Eriogonum parvifolium* (Figure 1). The El Segundo blue butterfly is in the family Lycaenidae and has been listed as federally endangered since 1976. The ESB is restricted to the sand dune habitat in the Los Angeles metropolitan area where urbanization has destroyed approximately 99% of its required sand dune habitat (Arnold and Goins 1987). The ESB is univoltine (i.e. has one generation per year) and the adult butterflies emerge at the time of flowering of its dune buckwheat host plant (June to September). In many lepidopterous species, the adult butterflies will feed on nectar from many different kinds of flowers even though the larvae may require a particular host plant, but in the ESB both the larvae and the adults are obligate on *Eriogonum parvifolium*, dune buckwheat. This makes the ESB particularly sensitive to disruption of its host plant since both adults and larvae require it. The more common *Eriogonum fasiculatum*, (California buckwheat) is not a suitable host for ESB, and in fact supports numerous competing Lepidopterous species (Longcore et al 1997). We are grateful to Travis Longcore for this information and for pointing out the ESB and its host plant at the site in accordance with our request.
>
> The ESB apparently requires a distribution of age classes of its buckwheat host plant. Juveniles and older plants do not produce as many flowers as middle-aged plants. Field observations suggest that buckwheat plants less than about five years of age do not produce enough flowers for ESB larvae to effectively utilize them (Arnold 1983). So survival of ESB is dependent upon 'middle-aged' buckwheat plants plus steady recruitment of younger plants into the middle age group as they senesce. This continual 'conveyor belt' of dune buckwheat age groups is indicative of a healthy dune ecosystem, and hence the butterfly is good indicator species for the health of this system.
>
> According to Arnold and Goins (1987) dune buckwheat is very susceptible to displacement by non-native invasive species that have invaded its dune habitat (e.g. *Carpobrotus* (ice plant) and non-native grasses). In the presence of invasive competitors, recruitment of juveniles is greatly reduced and the age distribution of buckwheat shifts to older plants which do not produce enough flowers to adequately support ESB. Therefore any attempts at restoration should have elimination of non-natives as a first priority.
>
> In summary it is my opinion that the *Eriogonum parvifolium* at the Conger property is both rare and performing an important ecological function (supporting a population of federally endangered El Segundo blue butterflies). It is easily disturbed by human activities, and because of this it fits the definition of environmentally sensitive habitat under the Coastal Act, Section 30107.5 and must be protected under Section 30240. (Jon Allen, July 2001 entire report attached Exhibit 14.)

It is clear that development and conventional landscaping and other forms of disturbance need to be kept back from the habitat area. The applicants' plan their deck to be set back from the habitat area, and no landscaping is planned at the bench level. Since all of the applicants' proposed development is situated inland of the lower edge of cut slope in an area that was previously modified and contains ornamentals; it would not directly impact the El Segundo Blue butterfly or its habitat. Moving the development encroachment line seaward, however, brings development and associated human activity closer to existing habitat.

When there is an interest in expanding living areas, homeowners frequently seek to build down bluffs, supporting their new structures on pilings and retaining walls. This can occur in cities like Torrance, where there is a height limit for protection of the views of inland homeowners. Once development has occurred, a new line is created, with new requests to exceed it. It is also possible that landowners at this and other properties on this street may in the future apply for permits to allow development seaward of the lower edge of cut slope (as has occurred in the past). The question is where the Commission will draw the line on bluff face development that historically has encroached into this sensitive habitat. To allow development to the lower edge of cut slope on the bluff face could effectively establish a development setback closer to the natural bluff that supports this habitat. The project, only as conditioned by Special Condition One to not allow development seaward of the top of bluff in this existing setback area, is consistent with Section 30240 of the Coastal Act.

A second potential impact to habitat, as a result of any construction, is siltation of ocean waters due to unrestricted runoff and erosion. To prevent this and to assure protection of offshore waters and the bluff face vegetation, the Commission has imposed conditions to prevent erosion during construction and discharge of excess water over the face of the bluff or onto the beach and offshore waters. Any repair of the drainpipe located on the bluff face will require an amendment to this permit or a new permit as required by special condition 5, Future Improvements. The reason for the condition is to assure that grading for drain repair will only be done if the proposed activities are first reviewed for possible impacts to habitat. The Commission requires, as has the City, that the applicant direct run off away from the bluff face and beach. As conditioned, the development is consistent with Sections 30230 and 30240 of the Coastal Act.

3. Geologic Hazards

Development on a coastal bluff is inherently risky. To evaluate the feasibility of future residential development at the subject site, the applicants commissioned a geological investigation by Keith W. Ehlert (Consulting Engineering Geologist), a geotechnical investigation by Coastline Geotechnical Consultants Inc., and a wave impact study by Skelly Engineering.

The scope of the geological investigation involved review of published and unpublished reports and maps pertaining to the geologic conditions on the site and in surrounding areas, aerial photographs, geologic mapping in the site area and on the bluff below the site, analysis and evaluation of data, and test excavations (Exhibit #7). According to the report, '[t]he purpose of the investigation was to obtain sufficient information to evaluate geologic conditions within the site with respect to construction of additions to the rear portion of the existing house" (Exhibit #7).

The geotechnical engineering investigation involved "geotechnical observations, subsurface explorations and sampling, field and laboratory testing, calculations and analyses" (Exhibit #4, p.1). The consultant reviewed "Reconnaissance Seismic Hazard" maps prepared by the State of California, Division of Mines and Geology dated March 25, 1999 (Exhibit #4, p.2), excavation, laboratory tests, and slope stability analyses to develop recommendations pertaining to use of the site, bluff stability and grading. The report includes conclusions and recommendations regarding liquefaction potential, foundations on terrace deposits, lateral loads and spread footings, cast-in-place friction piles, lateral loads and piles, creep, retaining walls, temporary excavation slopes, drainage, floor slabs-on-grade, grading and inspection. The wave impact study involved the review of historical and annual aerial photographs and calculations of wave runup and overtopping to determine if the proposed development will be subject to wave runup or wave attack over the typical life (100 years) of the development.

Geological and Geotechnical Engineering Investigation Reports

The geological investigation report concluded that (1) the site is underlain by bedrock of the Miocene Monterey Formation mantled by relatively thick terrace deposits, (2) maps provided no indication of active faults or landslides at the site, (3) no features were observed which indicate the site is undergoing or has undergone any gross instability problems, and (4) considerable damage could occur to the site from earthquakes generated on any of several faults in southern California. The report recommends that the project soils engineer perform appropriate stability analysis.

Several conclusions, requirements and recommendations were made in the geotechnical engineering investigation report. The City of Torrance requires a foundation slope setback for the placement of structures on, or adjacent to, slopes steeper than 3:1 (horizontal to vertical) to provide protection from water, mudflow, loose slope debris and shallow slope failures. The setback is the horizontal clearance from the face of the foundations to the lower edge of cut slope, which is the top of the steeper than 3:1 slope. The report refers to and includes a copy of the City's information sheet for slope setback requirements (Exhibit #4, p.3). For the proposed project, the information is used to determine the required setback for footings and spas from the descending slope surface, which is the lower edge of cut slope.

The "Reconnaissance Seismic Hazard" maps indicate the site is not in an area that may contain liquefiable materials. The report concludes that due to the depth of groundwater being in excess of 50 feet, liquefaction is considered unlikely. It establishes standards for construction of the spa and the house and the footings. It requires site drainage to be dispersed by non-erosive devices to preclude concentrated run-off and erosion over the site, water to not be allowed to pond or drain down the slope in a concentrated and uncontrolled manner, and water to be conducted to Paseo de la Playa. Refer to Exhibit #4, pp.6-7 for the numerous grading specifications named in the report. The report states that inspection by the geotechnical engineer or the engineering geologist is required during construction. The project geologist established a setback for the footings from the face of the cut slope based on the height of the slope (Exhibit 4 and 13). The City accepted the calculations.

The lot on which development is proposed is a 2:1 sloped parcel with an approximate angle of 26 degrees. The vertical distance from the beach to the lower edge of cut slope is 115

feet (page 1 of the Wave Impact Study report) (Exhibit #6, p.1). Basing its requirements on the height of the bluff, the City requires a 38-foot 4-inch setback for the footings from the lower edge of cut slope. (Exhibit #3, p.2) and a 25.5-foot setback for the spa. Special Condition One would move the footings back about two feet (Exhibit 3) in order to comply with the requirement that no development occur on the face of the bluff. The City allowed the spa to be set back to a less rigorous standard—the spa setback is one-half the building footing setback distance required above or 19-foot 2-inch setback for the spa from the lower edge of cut slope. Special Condition One requires the elimination of the proposed spa because it is located on the bluff face.

The Commission's senior geologist reviewed the geology report, the geotechnical engineering report and wave impact study report prepared for the site. Based on these reports, he commented that the minimum setbacks for the house footings and the spa that are required by the City are adequate to ensure stability of the bluff under current conditions and he concurs that the site is grossly stable. However, he points out that uncontrolled drainage could change the conditions rapidly--continued surficial creep could occur and instability could increase markedly if the erosion caused by the defective storm drain that is located on the bluff face is not repaired. More importantly he points out that the applicant's geologist has not established a safe building line. He explains his differences with the applicant's geologist's identification of the edge of the bluff (Exhibit 13 and page 11 above).

> References (4) and (5) together address other geologic hazards at the site, as well as provide criteria for foundation design. The lower slope is underlain by the Monterey Formation, which is known to be subject to landsliding, but in this area the bedding dips to the north, nearly at right angles to the trend of the bluff, so bedding planes are not exposed on the bluff face. The upper slope is underlain by marine terrace deposits. A quantitative slope stability analysis in reference (5) demonstrates that the slope is globally stable (factor of safety of 1.8 static, 1.2 pseudostatic) with respect to sliding. The report does not show the location of the hypothetical failure surface corresponding to this factor of safety, so there is no way of identifying the way to establish setbacks behind a line corresponding to a particular factor of safety. Reference (5) also reports a 1.6 factor of safety against surficial sliding, using the method of infinite slopes. Nevertheless, it is acknowledged that slope is "partially unstable," and is subject to creep. Significant erosion is occurring on the lower third of the slope due to leakage from a corroding storm water drain. I concur with the assessments of references (4) and (5) that the slope is currently grossly stable, but that continued surficial creep, slumps, and gulleying are to be expected. Instability could increase markedly if the erosion caused by the defective storm water drain is not repaired. ...

With regard to stability on the bluff face (the spa and yard, the staff geologist indicates:

> The Commission has denied applications for bluff face development in the past due to, among other things, problems associated with geologic instability. In so doing, the Commission has relied on § 30253 of the Coastal Act. In this case, the proposed development does raise geological stability issues. Ongoing erosion associated with a corroded storm water discharge pipe is occurring and increasingly places development on the bluff face at risk. However, even if this pipe were repaired, the bluff would continue to be subject to shallow failures and to creep, as acknowledged in references (5) and (6). Indeed, because of the uncertainty associated with predicting geologic processes into the future, I would recommend that development be set back from the bluff edge to assure stability. Accordingly, I recommend that the Commission find that the proposed development on the bluff face does not assure stability, and is therefore not consistent with the requirements of section 30253 of the Coastal Act. (Mark Johnsson, staff geologist, July 12, 2001, Exhibit 13)

The Commission finds in this particular case that the City's setback requirements for the footings and spa will not add to instability, but will add to a pattern of development extending onto the bluff face. The Commission concludes that placing a spa on the face of a bluff that is subject to failure if it is inundated is risky practice. Since spas can result in uncontrolled drainage, a spa could contribute to instability. Since bluff face development would require walls and pilings, such development would disturb the visual integrity of the bluff face. Allowing additional development on the bluff face would add to a cumulatively unstable pattern along this stretch of the bluff.

However the Commission notes that the applicants' geologist recommends controlling the discharge of water over the bluff face and correcting uncontrolled drainage that exists. In addition to requiring the applicant to assume the risk of the development and to develop in conformance with the engineered plans in conformance with the geology report, the Commission in Condition 7 requires that drainage be directed away from the bluff face, and not discharged on the bluff face. The spa is another source of water or leaks. However due to its location seaward of the natural top of bluff, the Commission is not approving the spa.

The Commission finds that the living room and family room addition, to the extent that it is located inland of the top of bluff, can be approved consistent with section 30253. Only as conditioned (1) to have footings correctly set back form the cut slope, and (2) to have all ancillary structures located inland of or at the top of the bluff, is the proposed addition consistent with Section 30253 of the Coastal Act.

Assumption of Risk, Waiver of Liability and Indemnity

Under Section 30253 of the Coastal Act new development in areas of high geologic, flood, and fire hazard may occur so long as risks to life and property are minimized and the other policies of Chapter 3 are met. The Coastal Act recognizes that new development may involve the taking of some risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use his/her property.

The existing single family residence lies on a sloping coastal blufftop lot. The geological and geotechnical engineering investigation reports and wave impact report state that the subject property is well suited for the proposed development. Although the wave impact report states a conservative estimate of bluff retreat of one-half foot per year, this speed is highly unlikely. The Commission's senior geologist agrees with the project engineer's assessment of bluff retreat (See Exhibit 13, page 2).

The applicants, however, commissioned these reports, and ultimately the conclusion of the report and the decision to construct the project relying on the report is the responsibility of the applicants. The proposed project, even as conditioned, may still be subject to natural hazards such as slope failure and erosion. The geological and geotechnical evaluations do not guarantee that future erosion, landslide activity, or land movement will not affect the stability of the proposed project. Because of the inherent risks to development situated on a coastal bluff, the Commission cannot absolutely acknowledge that the design of the addition to the single family residence and other improvements will protect the subject property during future

storms, erosion, and/or landslides. Therefore, the Commission finds that the proposed project is subject to risk from erosion and that the applicants shall assume the liability of such risk.

The applicants may decide that the economic benefits of development outweigh the risk of harm, which may occur from the identified hazards. However, neither the Commission nor any other public agency that permits development should be held liable for the applicants' decision to develop. Therefore, the applicants are required to expressly waive any potential claim of liability against the Commission for any damage or economic harm suffered as a result of the decision to develop. The assumption of risk, when recorded against the property as a lease restriction, will show that the applicants are aware of and appreciate the nature of the hazards which may exist on the site and which may adversely affect the stability or safety of the proposed development.

In case an unexpected event occurs on the subject property, the Commission attaches Special Condition Two which requires recordation of a lease restriction whereby the applicants assume the risk of extraordinary erosion and/or geologic hazards of the property and accepts sole responsibility for the removal of any structural or other debris resulting from landslides, slope failures, or erosion on and from the site. The lease restriction will provide notice of potential hazards of the property and help eliminate false expectations on the part of potential future lessees of the property, lending institutions, and insurance agencies that the property is safe for an indefinite period of time and for further development indefinitely in the future.

Therefore, prior to issuance of the coastal development permit, the applicants shall execute and record a lease restriction in a form and content acceptable to the Executive Director, which reflects the above restriction on development. The lease restriction shall include a legal description of the applicants' entire parcel. The lease restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This lease restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

Conformance of Plans to Recommendations and Requirements

Recommendations regarding the design and installation of the addition to the single family home, patio area, spa, deck and grading have been provided in several reports submitted by the applicants. Adherence to the recommendations and requirements contained in these reports and named by the City of Torrance Department of Building and Safety, except those that are proposed seaward of the bluff top as identified in Exhibit 3 is necessary to ensure assure the stability of the permitted development. Construction on the bluff face as determined by this report is in conflict with special condition one requiring the removal of all development, and in the view of Commission's geologist (Exhibit 13), is potentially subject to damage from erosion or bluff failure. As conditioned, the development will assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way requires the construction of protective devices that would substantially alter natural landforms. Therefore, adherence to the recommendations and requirements, to the extent that they are consistent with the conditions imposed by the Commission, is necessary to ensure that the developments are consistent with Section 30253 of the Coastal Act.

Special Condition Four requires the applicants to conform to the geological recommendations in Report No. 4705-00, the geotechnical requirements and recommendations in Report No. 1601C-070 and the recommendations in the wave impact report prepared for the site. According to Special Condition Four, the applicants shall also comply with the recommendations and requirements of the City of Torrance Department of Building and Safety that are not in conflict with this permit and the Commission's conditions.

Wave Impact Report

Section 30253 (1) states that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard. Since coastal bluffs may be subject to flooding and wave attack, the Commission requires wave impact studies for blufftop development to assess the potential hazard from wave attack, flooding and erosion. The wave runup, flooding, and erosion hazard analyses should anticipate wave and sea level conditions (and associated wave runup, flooding, and erosion hazards) through the life of the development. For a 100 year structural life, that would be taking the 1982/83 storm conditions (or 1988 conditions) and adding in 2 to 3 feet of sea level rise. The purpose of this analysis is to determine how high any future storm damage may be so the hazards can be anticipated and so that mitigation measures can be incorporated into the project design.

The applicants have provided a Wave Runup Study for the subject property, as is consistently required by the Commission for shoreline development in southern Los Angeles County and Orange County. The Wave Impact Study for the subject property was prepared by Skelly Engineering and is dated March 2001.

According to the consultant, the site is on coastal bluff located at the southern terminus of the Santa Monica Littoral Cell. The Wave Runup Study states:

> *"The net sand movement along this section of shoreline is to the north towards King Harbor. A groin is located about 1.5 miles to the north of the site and the Malaga Cove headland (Flat Rock Point) is located immediately to the south of the site. A review of aerial photographs shows little if any overall shoreline retreat. The shoreline is stabilized by the natural headland to the south, and the groin and harbor to the north. For the purpose of this analysis a very conservative estimate of the shoreline retreat rate is 0.5 feet per year"* (Exhibit #6, p.1).

The Wave Impact Study concludes that the proposed development and the base of the bluff will not be subject to hazards from flooding and wave runup during the life of the development (Exhibit #6, p.2). According to the report, the approximately 200-foot wide sandy beach provides adequate protection for the base of the bluff at the seaward property line of the site (Exhibit #6, p.1). The report states:

> *"Over the vast majority of time wave runup will not reach the base of the bluff and will absolutely not reach the improvements on the property over the next 100 years...In conclusion, wave runup will not impact this property over the life of the proposed improvement. The proposed development will neither create nor*

contribute to erosion, geologic instability, or destruction of the site or adjacent area. There are no recommendations necessary for wave runup protection. The proposed project minimizes risks from flooding" (Exhibit #6, pp.1-2).

The Commission's senior geologist reviewed the report and does not expect that wave impact would result in erosion at the toe of the bluff to an extent that would put the development at risk during its lifetime (75 years). Although the toe of the bluff is not expected to be subject to wave damage, the Commission finds that it cannot approve a seaward extension of a home however slight if its future safety will require the installation of a protective seawall or revetment.

No Future Protective Device

The Coastal Act limits construction of protective devices because they increase beach erosion and negatively affect views. Under Coastal Act Section 30235, a protective device, such as a cliff retaining wall or seawall, must be approved if: (1) there is an existing principal structure in imminent danger from erosion; (2) shoreline altering construction is required to protect the existing threatened structure; and (3) the required protection is designed to eliminate or mitigate the adverse impacts on shoreline sand supply.

The Commission has generally interpreted Section 30235 to require the Commission to approve protection of development only for existing principal structures. The construction of a protective device to protect new development would not be required by Section 30235 of the Coastal Act. The proposed project involves the construction of a new living room and family room addition, patio area, spa, retaining walls, stairs and wood deck. These are all new development. In addition, allowing the construction of a protective device to protect new development would conflict with Section 30253 of the Coastal Act, which states that permitted development shall not require the construction of protective devices that would substantially alter natural landforms along bluffs.

The applicants do not propose the construction of any protective device to protect the proposed development. The applicants propose three retaining walls as part of the design of the project as foundations for the elements of the proposed development, and to allow the creation of a flat are for the construction of the spa. Although the proposed retaining walls are not protective devices, the Commission conditions the project to remove them because the are located seaward of the historic top of bluff.

It is not possible to completely predict what conditions the proposed structure may be subject to in the future. The proposed development could require a protective device as a result of increased erosion of the bluff face or by continued leakage from the existing storm drain. Consequently, it is conceivable the proposed structure may be subject to erosion hazards that could lead to a request for a protective device, such as a retaining wall, to support the development. The Commission conditions the project to remove proposed retaining walls and other development that is located seaward of the historic top of buff. The construction of such devices would represent a conflict with Section 30251, which protect the integrity of natural landforms.

The development is not subject to wave runup and flooding. Based on the information provided by the applicants, no mitigation measures, such as a seawall, are anticipated to be

needed in the future. The coastal processes and physical conditions are such at this site that the project is not expected to engender the need for a seawall to protect the proposed development. There currently is a wide sandy beach in front of the proposed development that provides substantial protection of the toe of the bluff from wave activity. The proposed development would be located on top of the approximately 115-foot high bluff and would not be subject to wave runup or flooding hazards.

To further ensure that the proposed project is consistent with Sections 30251 and 30253 of the Coastal Act, and to ensure that the proposed project does not result in future increased bluff erosion and adverse effects to coastal processes, the Commission imposes Special Condition Three. Special Condition Three requires the applicants to record a lease restriction that would prohibit the applicants, or future landowner, from constructing a protective device for the purpose of protecting any of the development approved as part of this application. This condition is necessary because it is impossible to completely predict what conditions the proposed structure may be subject to in the future.

By requiring recordation of a lease restriction agreeing that no protective devices, including retaining walls, shall ever be constructed to protect the development approved by this permit, the Commission makes it clear that it's approval is based on the understanding the proposed development will be safe from potential erosion and wave runup damage. Based on Special Condition Three, the Commission also requires that the applicants remove the structures if any government agency orders that the structures be removed due to erosion, wave runup or other hazards.

Seawalls have impacts on the sand supply of beaches, exacerbating erosional situations by increasing the rate of sand loss. Only as conditioned to require that no future protective devices will be installed can the Commission find that the development is consistent with Section 30253 of the Coastal Act. As conditioned, the Commission finds that the proposed project is consistent with Section 30251 of the Coastal Act, which requires that permitted development shall minimize the alteration of natural landforms, and Section 30253, which requires that geologic and flood hazards be minimized, and that stability and structural integrity be assured.

Conclusion

Only as conditioned to: (1) revise the plans such that only development inland of the top of bluff is permitted; (2) submit evidence that the applicants have recorded assumption of risk lease restriction on the development; (3) submit evidence that the applicants have recorded a no future protective devices lease restriction on the development; and (4) incorporate the recommendations by Keith W. Ehlert, Consulting Engineering Geologist, Coastline Geotechnical Consultants, Inc., and Skelly Engineering and an requirements of the City of Torrance Department of Building and Safety that are not in conflict with the conditions of this permit, can the Commission find that the proposed development is consistent with Sections 30240, 30251 and 30253 of the Coastal Act.

D. Previous Commission Actions in Project Area

The applicant asserts that the Commission's practice over the last 25 years has been to allow development along the Torrance Bluffs to extend to the lower bench. The record is a little more complex. It is clear that since 1976, the Commission has imposed conditions limiting the seaward extent of development on this bluff, and attempting, however it was defined, to assure stability and to keep development off the bluff face. In some instances the Commission has approved extensive grading either in after the fact situations or in situations where unrestricted drainage had damaged the bluff. In recent permits where the bluff was affected, the Commission quite commonly required revegetation of El Segundo blue habitat.

The Commission has approved 17 coastal development permits (including amendments) for residential development on 10 of the 27 bluff lots on Paseo de la Playa in Torrance (Exhibits #2 & #8). The Commission approved three rear yard pools. Of the 10 lots, 5 are located north of (near Redondo Beach) and 5 are located south of (near Palos Verdes Peninsula) the subject site. The development included remodels of and additions to existing houses, construction of decks, swimming pools, spas, jacuzzis and retaining walls, and implementation of landscape, irrigation, erosion control and habitat restoration plans. In evaluating the previously issued permits, staff noted that some of the developments in the rear yards extended seaward of the top of bluff and some even extended seaward of the lower edge of cut slope. The Commission has allowed development down the bluff face to the beach in one case (5-90-107(Wright), however, the majority of the bluff face development has been between the top of bluff and the lower edge of cut slope. These developments resulted in cumulative impacts to the bluff, especially to the upper portion. In at least two cases [Coastal Development Permits 5-83-618 (Fire) and 5-90-868 (Schreiber)], extensive grading was proposed to stabilize the bluff. The owners of the 17 other blufftop lots have not proposed development seaward of their existing houses so the Commission has not addressed the location of the top of bluff or the developable area on these lots.

The Commission approved coastal development permits for development on 5 lots north of the subject site. The Commission approved development of a Jacuzzi with a waterfall and landscaped area at 417 Paseo de la Playa (9 lots north of the subject site) under Coastal Development Permit 5-97-050 (Kreag). In the case of Kreag, the applicant provided drawings indicating the a flat pad existed 2 or 3 feet below the house, and that the pad was elevated ten inches below the existing rear patio. Below the patio pad, the applicant showed a 2:1 slope and then an "existing 3 foot retaining wall." The Commission approved this extension seaward of the house along with conditions to protect the El Segundo blue butterfly found on the lower potions of the property, refrain for installation of invasive plants, an assumption of risk, and a future improvement condition. In that case, beyond observing that the area near the house was relatively flat and investigation the safety of the development, the Commission allowed some development seaward of the top of the bluff. It is not possible to ascertain whether the "lower bench" identified by the present applicant was at the bottom or the top of the "2:1 slope" identified by the applicant. The Commission approved three Coastal Development Permits at 429 Paseo de la Playa (6 lots north of the subject site): 5-84-187 (Briles), 5-84-187-A and 5-85-755, for construction of a new single family residence, amendment of the lower portion of the landscape plan and development of a landscape plan revegetation for the area below the 50-foot contour line.

The Commission approved Coastal Development Permit 5-90-1041 and four amendments to this permit for development at 433 Paseo de la Playa (5 lots north of the subject site). The Commission approved Coastal Development Permit 5-90-1041 (Stamegna) at 433 Paseo de la Playa, for development of a new single family residence. The Commission then amended that permit in 1993 (5-90-1041-A1) to decrease the footprint of the residence, increase the rear building setback by 3 feet and add 400 square feet in the remaining footprint. In 1996, the Commission issued after the fact Coastal Development Permit Amendments 5-90-1041-A2 (Hawthorne/Campbell) and 5-90-1041-A3 (Campbell) at 433 Paseo de la Playa, north of the subject lot, for installation of a drainline, steps, fence and irrigation system, grading, and implementation of an erosion control plan. Coastal Development Permit Amendment 5-90-1041-A2 also included habitat planting and Amendment 5-90-1041-A3 included a pool and retaining wall, as well. The Commission issued Coastal Development Permit Amendment 5-90-1041-A4 (Campbell) in 1996 also to change the previously proposed direction of the swimming pool, add retaining walls and move the steps 10 feet further to the west. The Commission approved Coastal Development Permit P-4-20-77-716 (Warren) at 441 Paseo de la Playa, to relocate a single-family residence and add a breezeway (3 lots north of the subject site). On 1990 the Commission approved and after-the fact permit, Coastal Development Permit 5-90-868 at 449 Paseo de la Playa, the lot immediately north of the subject site for "reconstruction of the bluff face, reduction in size of the lower pad and revegetation of the bluff face with native plant materials". See exhibits 2 and 8 for location of the approved development projects.

The Commission also approved coastal development permits for development on 5 lots south of the subject site. The area south of the site has a steeper bluff, and is in more natural condition. The Commission approved Coastal Development Permit 5-85-183 (Hall) at 511 Paseo de la Playa (3 lots south of the subject site), for an addition to the existing single family residence and a deck at the rear of the house. Hall was allowed to extend the deck to the edge of a "safe building line" that is about six feet above and inland of the upper bench where the present applicant proposes to development (Exhibit 16). The Commission approved Coastal Development Permit 5-90-1079 (Wright) at 515 Paseo de la Playa (4 lots south of the subject site). for construction of a path to the beach utilizing the existing slopes and contours and placement of 4-inch by 6-inch beams to stop erosion on the bluff. The Commission also approved Coastal Development Permit 5-91-697 (Wright) at 51 Paseo de la Playa the same address, for a remodel of the existing single family residence, enclosure of a balcony and enlargement of the first floor den. The Commission approved Coastal Development Permit A-79-4879 (McGraw) at 517 Paseo de la Playa (5 lots south of the subject site) for the replacement of an aluminum awning with a wooden sunscreen and a two-level wooden deck with a jacuzzi on the lower level. The Commission approved Coastal Development Permit 5-83-618 (Fire) at 623 Paseo de la Playa (16 lots south of the subject site) for the correction of an earth slump condition on the bluff. The Commission approved Coastal Development Permit 5-96-167 (Lichter) at 631 Paseo de la Playa (18 lots south of the subject site) for the remodel and addition to an existing single family residence and construction of a deck and swimming pool in the "rear yard."

There is a history of development on the bluff face of nearby lots on Paseo de la Playa. However, the Commission cannot approve development on the bluff face in this situation simply because of this history. The Commission is not obligated to perpetuate development on coastal bluff faces in light of information that indicates that this is unwise. The Commission

must analyze development according to its consistency with the Chapter 3 policies of the Coastal Act. The proposed development, even about two feet of the proposed the addition to the house and the most seaward of the home foundations would be located seaward of the present top of bluff on the bluff face. As indicated, the previous edge of the bluff was located at the same elevation of the present top of the bluff but 10 to 1 5 feet seaward of the present bluff edge. The old edge was apparently removed to install a sewer, leaving a bench where the applicant proposes a deck, and moving the top inland. However, the seaward edge of the proposed house addition, the decks, the spa and the lower deck, that is, all the proposed development on the bluff face would be inconsistent with Section 30251 of the Coastal Act, which requires minimization of the alteration of natural landforms.

Development of the sunscreen, deck and Jacuzzi at 517 Paseo de la Playa complied with a stringline measured from the seaward side of the nearest adjacent corners of developments on the neighboring lots. The Commission approved Coastal Development Permit 5-90-1041 (Stamegna) at 433 Paseo de la Playa, north of the subject property, for construction of a single family residence and deck with a condition that the ground level deck be relocated to a location inland of a stringline drawn between the nearest adjacent corners of the decks on the adjacent residences.

The Commission has also conditioned some projects on these bluff lots to require the recordation of documents stating that future development on the sites would require coastal development permits. Those projects include Coastal Development Permit 5-90-1079 for construction of a path down the slope to the beach, Coastal Development Permit 5-96-167 for a remodel of and addition to the existing residence and construction of a deck and pool, and Coastal Development Permit 5-97-050 for a jacuzzi with a waterfall and adjacent landscaping.

In Coastal Development Permit 5-85-183, the top of bluff was determined to be the lower edge of cut slope. This determination is inconsistent with the top of bluff determination on this project. The Commission's senior geologist determined the top of bluff on the subject lot to be approximately 9 feet 6 inches seaward of the rear side of the existing house (at the seaward extent of the existing concrete patio pad). As described in the project description, the rear yard area was graded prior to enactment of the Coastal Act. The grading resulted in a 2:1 slope descending from the back of the house and a flat area seaward of the manufactured slope. The point where the relatively flat area meets the naturally descending bluff slope is considered to be the top of the lower edge of cut slope. Although this point is referred to as the lower edge of cut slope, it is not the top of bluff. The top of bluff remains at the higher elevation located at the back of the existing house.

E. Public Access and Recreation

Section 30604(c) of the Coastal Act requires that every coastal development permit issued for any development between the nearest public road and the sea include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter 3. The proposed development is located between the sea and the nearest public road.

Section 30212 of the Coastal Act states, in relevant part:

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:

(2) adequate access exists nearby.

The proposed development is located within an existing fully developed residential community partially located between the sea and the first public road paralleling the sea. Public access through the privately owned residential lots in this community does not currently exist. However, adequate public access to Torrance Beach is available via public parking lots and footpaths at Redondo Beach located approximately one-half mile north of the project site. The proposed development will not result in any adverse impacts to existing public access or recreation in the area. Therefore, the Commission finds that the project is consistent with the public access and recreation policies of the Coastal Act.

F. Local Coastal Program

Section 30604(a) of the Coastal Act provides that the Commission shall issue a coastal development permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act:

(a) *Prior to certification of the Local Coastal Program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200). A denial of a Coastal Development Permit on grounds it would prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200) shall be accompanied by a specific finding which sets forth the basis for such conclusion.*

On June 18, 1981, the Commission approved with suggested modifications the City of Torrance Land Use Plan (LUP). The City did not accept the modifications and the certified LUP, which was valid for six months, has lapsed. The major issues raised in the LUP were affordable housing, blufftop development and beach parking.

Based upon the findings presented in the preceding section, the Commission finds that the proposed development, as conditioned, will not create adverse impacts on coastal resources and is therefore consistent with applicable policies contained in the City of Torrance LUP. In addition, the Commission finds that approval of the proposed project will not prejudice the City's ability to prepare a Local Coastal Program consistent with the Chapter 3 policies of the Coastal Act, as required by Section 30604(a).

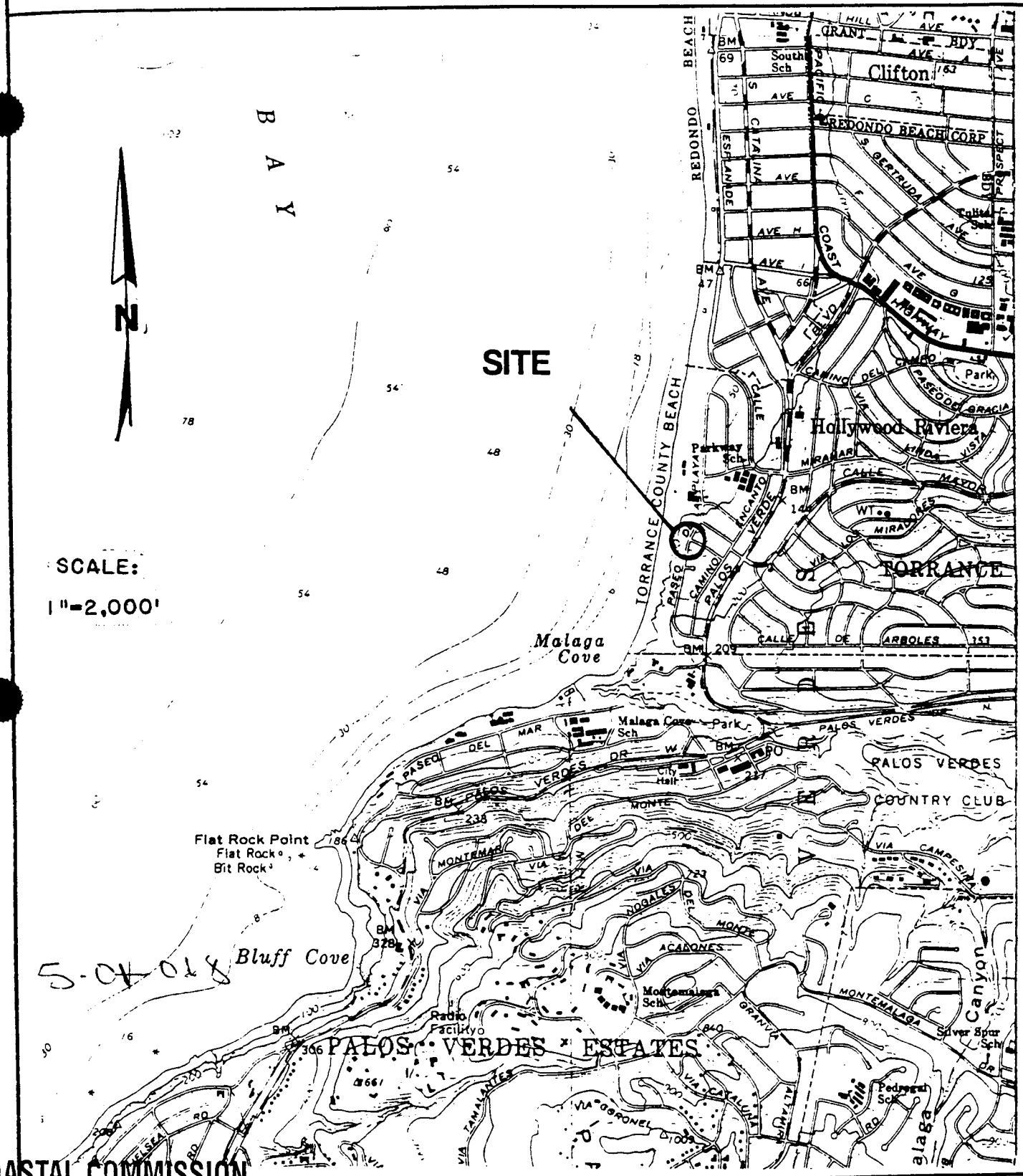
G. California Environmental Quality Act

Section 13096 Title 14 of the California Code of Regulations requires Commission approval of a coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect that the activity may have on the environment.

The project, as conditioned, minimizes impacts to the bluff top and removes potential negative impacts to the bluff face that would have been associated with development seaward of the top of bluff. The project, as conditioned, allows the development proposed inland of the top of bluff, which consists of the living room and family room addition only. The Commission would consider alternative or additional development inland of the top of bluff to meet the intent of some of the other proposed developments if the applicants chose to apply for such development. For example, the Commission would consider approving development of a roof deck above the proposed 12.5 foot high addition if it were located inland of the top of bluff, would not create or contribute to geologic instability and would not have negative visual impacts due to its height below the height of the front of the house.

The proposed project, as conditioned, has been found consistent with the visual resource, environmentally sensitive habitat and natural hazard policies of Chapter 3 of the Coastal Act. All adverse impacts have been minimized and there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project can be found consistent with the requirements of the Coastal Act to conform to CEQA.

VICINITY MAP



COASTAL COMMISSION

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EXHIBIT # 1

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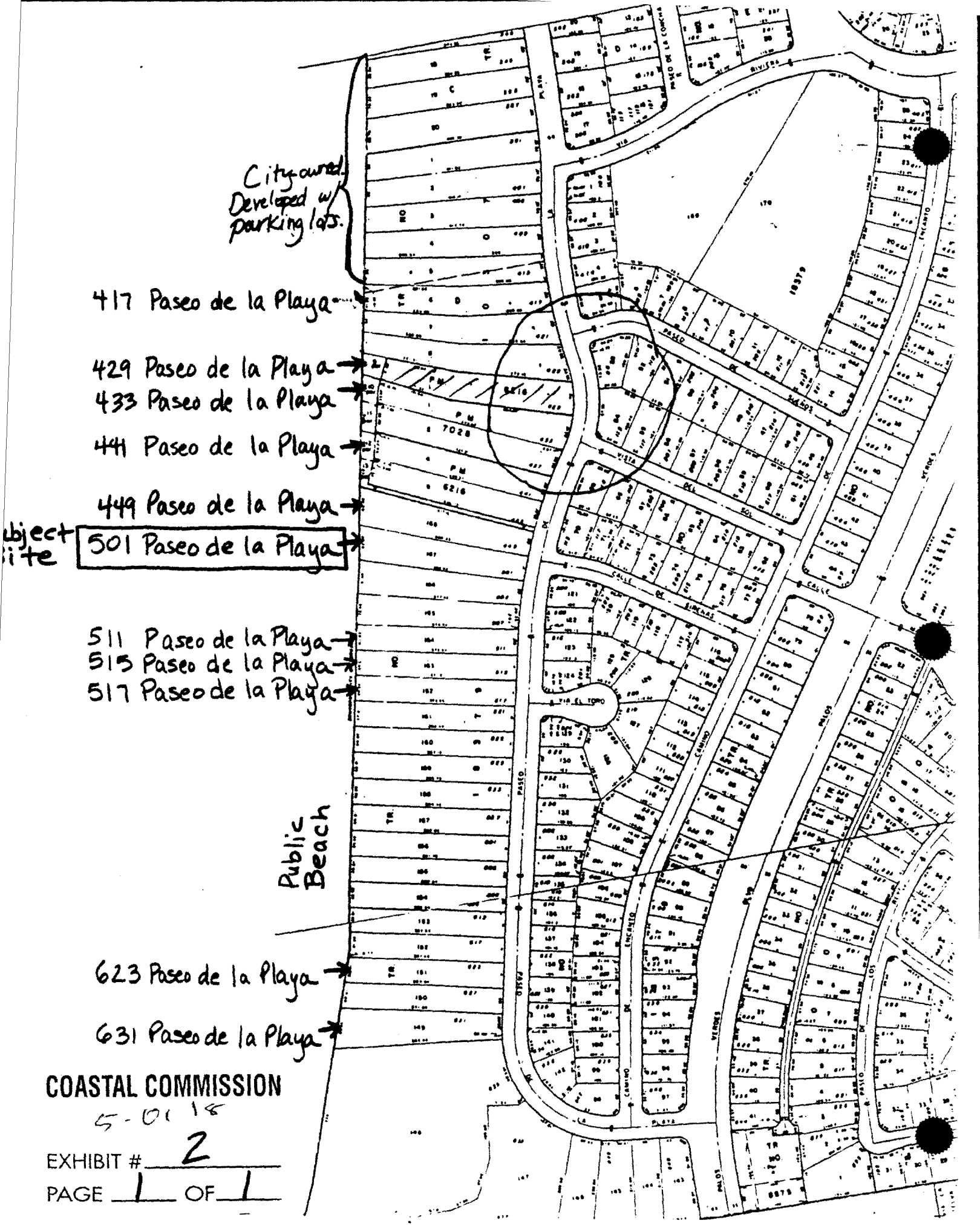
501 Paseo de la Playa,
Torrance, California

PROJ # 1601C-070

PLATE 1

COASTLINE GEOTECHNICAL CONSULTANTS



COASTAL COMMISSION

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EXHIBIT # 2

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South Coast Region

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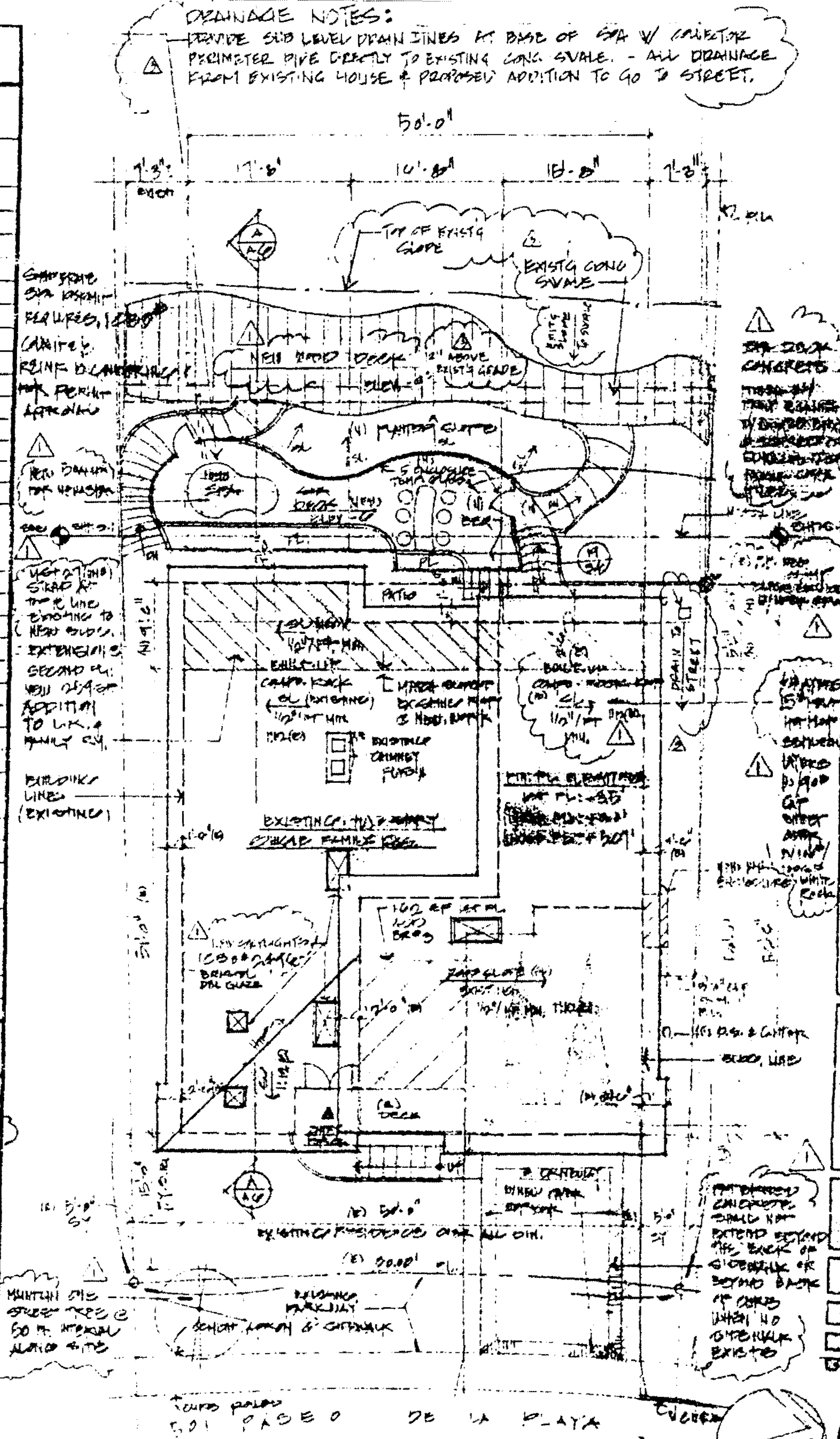
CALIFORNIA
COASTAL COMMISSION

ELECTRICAL

NG SUMMARY



SITE PLAN / ROOF PLAN

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

NOTES

COASTAL COMMISSION

EXHIBIT # 3

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ISSUANCE

REVISION

SITE PLAN / GENERAL NOTES - DRAINAGE

CONGER RESIDENCE

GERALD W. COMPTON

GWC ARCHITECTS

A-1

COASTAL COMMISSION
5-01-015
EXHIBIT # 3
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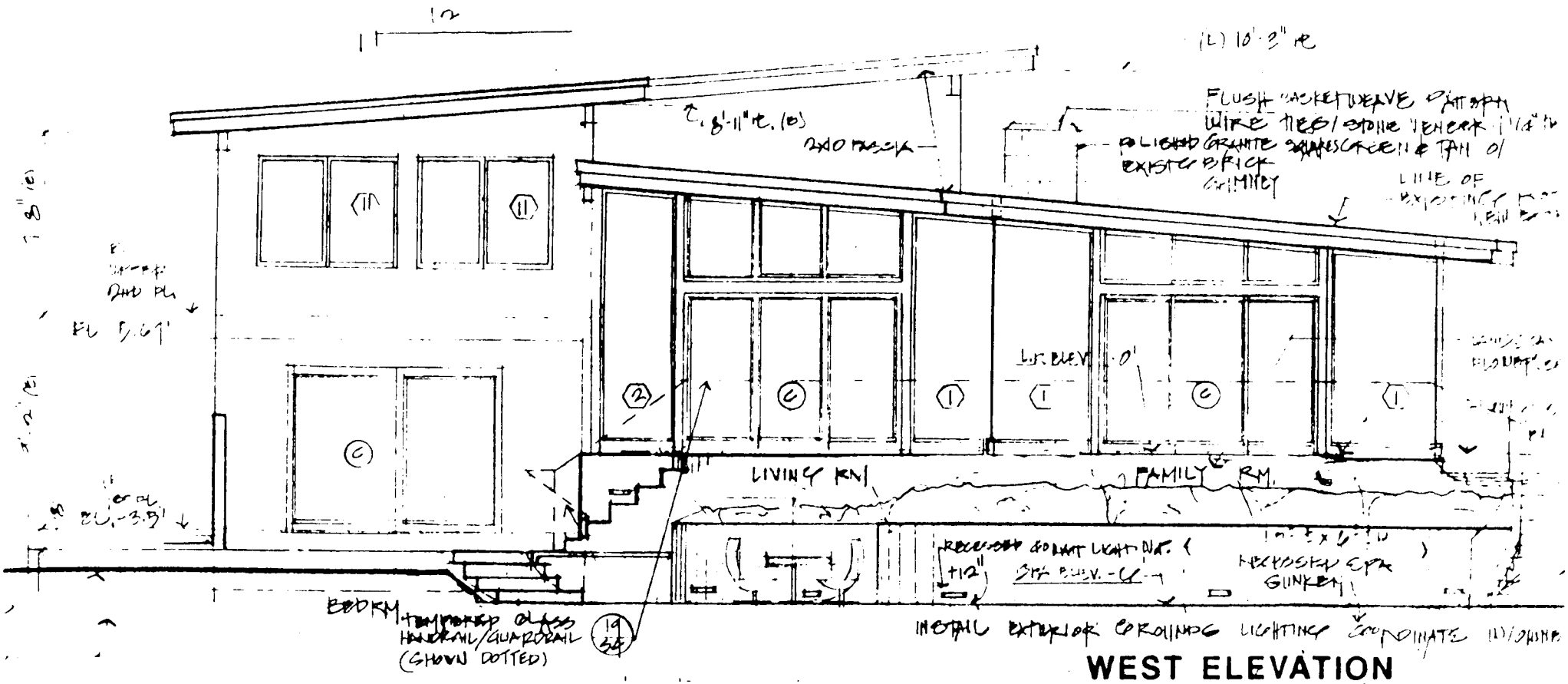

WEST ELEVATION

COASTAL COMMISSION

5-01-018

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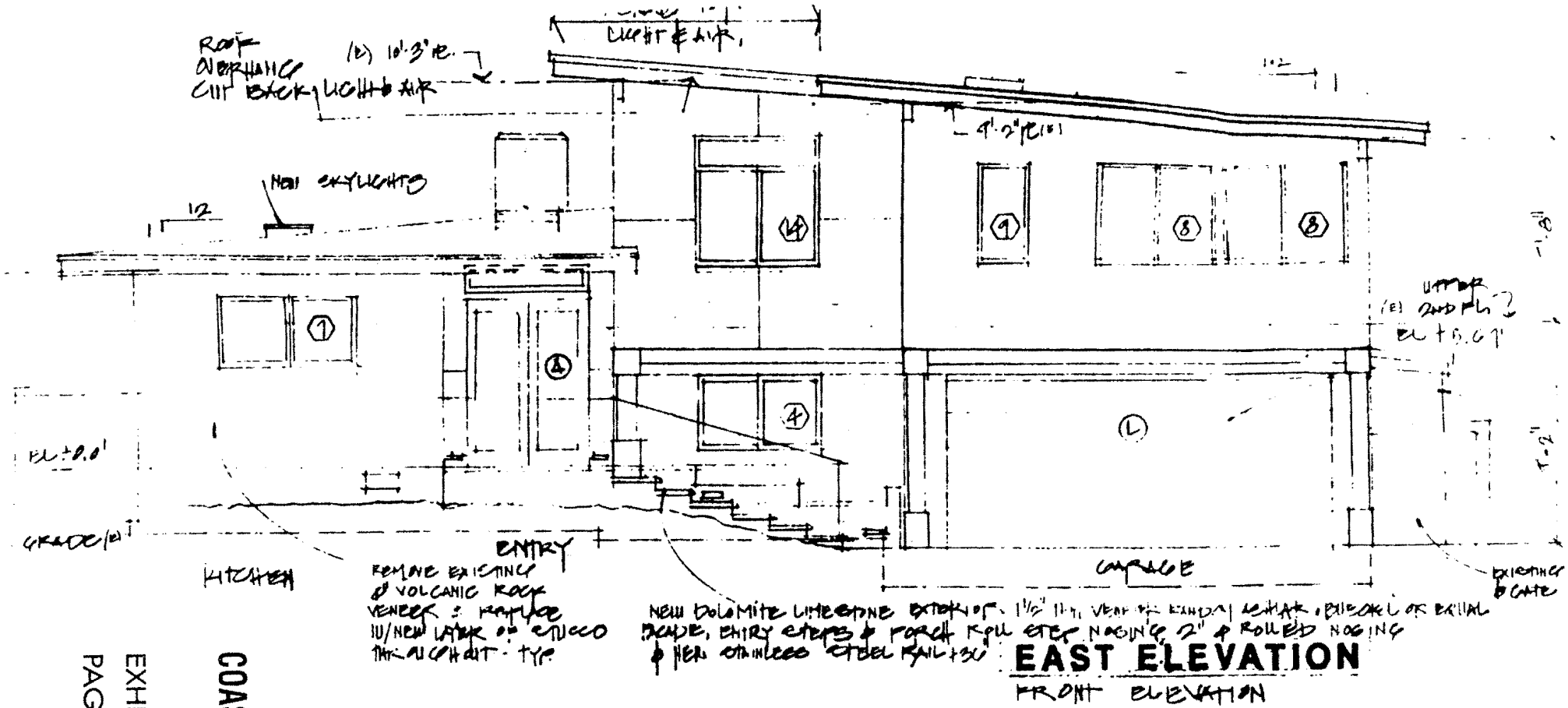

EAST ELEVATION

FRONT ELEVATION

COASTAL COMMISSION

5-13-08

EXHIBIT # 3

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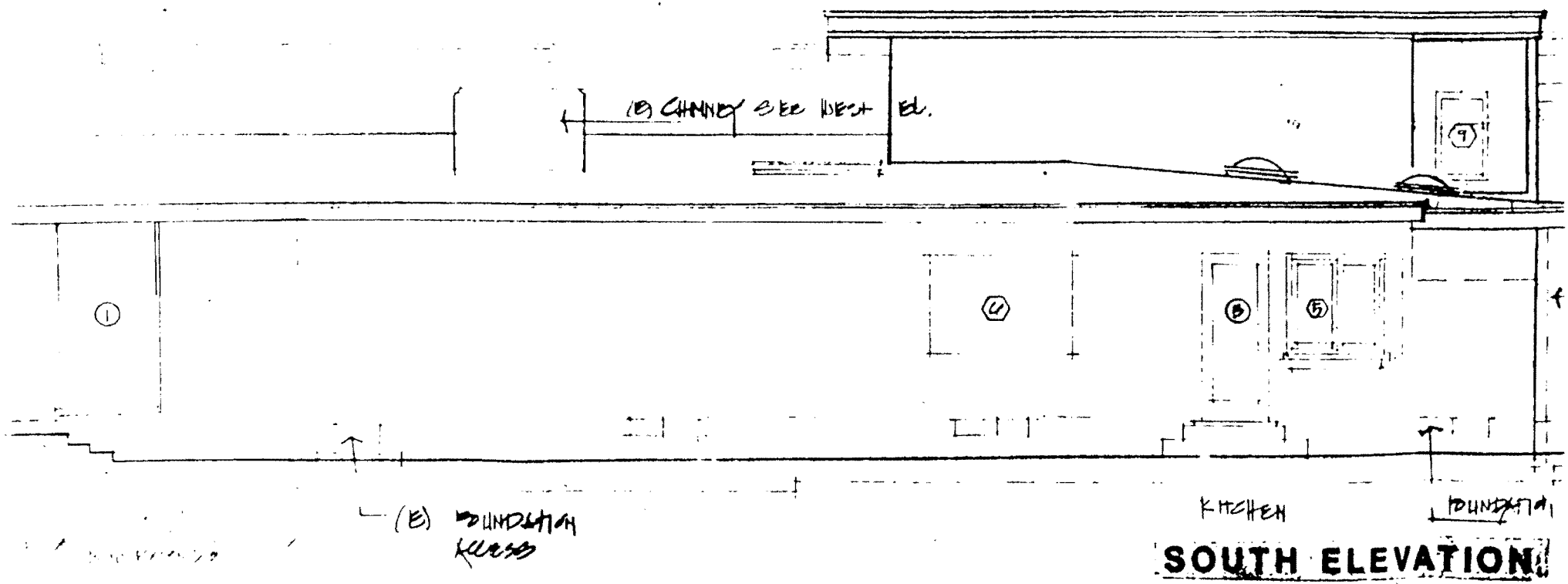
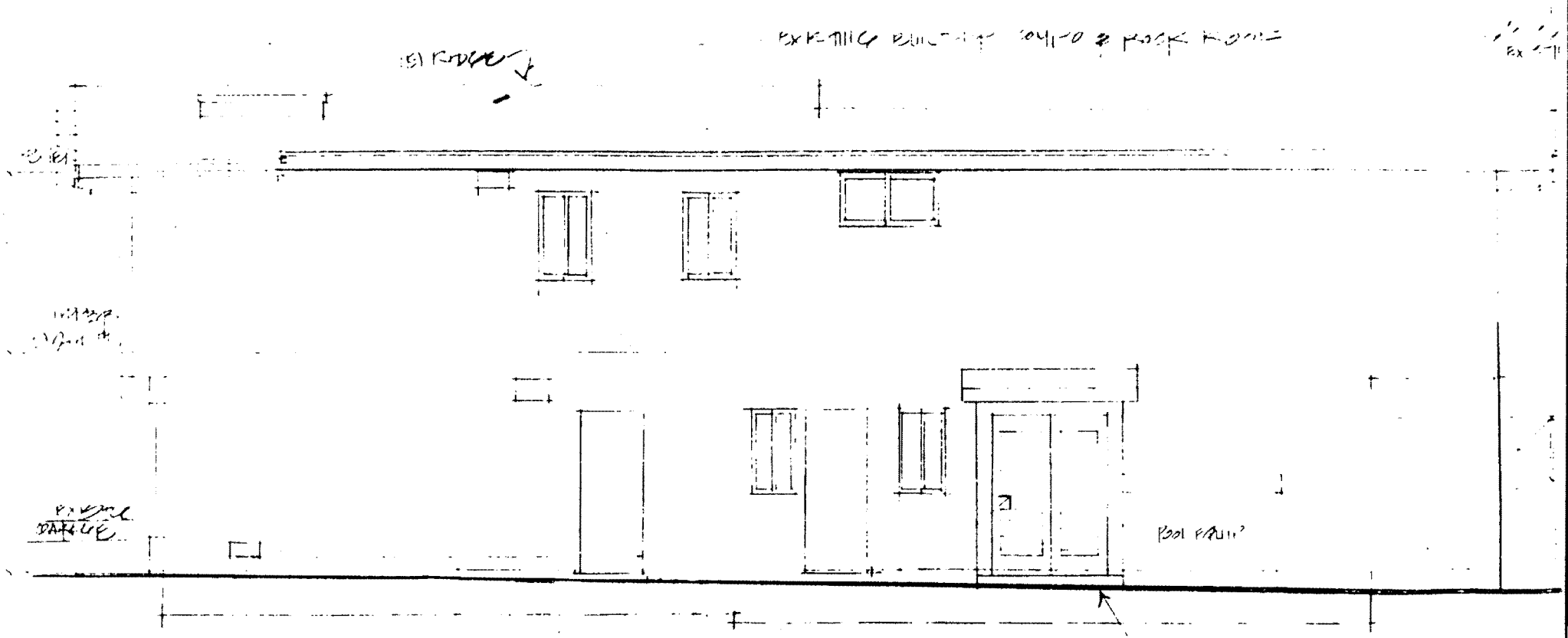


SOUTH ELEVATION

LEFT SIDE



NORTH ELEVATION

1/4" = 1'-0"

1 R-19 ROOF INSULATION

SEE SITE PLAN SHT A-1

COASTAL COMMISSION
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5-08-09

COASTLINE GEOTECHNICAL CONSULTANTS, INC.
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GARDENA, CALIFORNIA 90248-3202
Tel. (310) 217-1504
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August 8, 2000

Project No. 1601C-070

Mr. and Mrs. Robert Conger
501 Paseo de la Playa
Redondo Beach, CA 90277

Project Reference: Geotechnical Engineering Investigation
Proposed Spa, Deck and Exterior of House
501 Paseo de la Playa
Redondo Beach, California

X Reference: Geological Investigation for
Proposed Residential Improvements
501 Paseo de la Playa
Torrance, California
prepared by Keith W. Ehlert
dated July 11, 2000

Dear Mr. and Mrs. Conger:

Submitted herewith is a report of a geotechnical engineering investigation for the referenced project. This investigation was made for the purpose of obtaining information on subsurface soils and bedrock on which to base recommendations for a suitable foundation design for the proposed spa, deck and exterior of the house. This investigation was coordinated with a geologic investigation by Keith Ehlert, consulting engineering geologist.

Location of the site, relative to general topography, streets, and landmarks, is shown on the attached Vicinity Map, Plate 1.

As outlined in the proposal of March 30, 2000, our work consisted of geotechnical observations, subsurface explorations and sampling, field and laboratory testing, calculations and analyses, and the preparation of this report.

Surficial Stability Analysis

Surficial stability analysis was performed on the steepest slope found on the property. The result of the analysis, as shown on Plate 15, indicates the factor of safety is in excess of the normally accepted minimum for stable slopes.

DISCUSSION AND GENERAL COMMENTS

Development of the property, as contemplated, is believed feasible from the soils engineering standpoint, provided adherence is given to the recommendations of this report, and provided that the designs, construction, and grading are adequately and properly executed.

CONCLUSIONS AND RECOMMENDATIONS

The foundation slope setback, required by the City of Torrance, is for the placement of buildings and structures on, or adjacent to, slopes steeper than 3:1 (horizontal to vertical) to provide protection from water, mudflow, loose slope debris, and shallow slope failures. This setback, shown on Plate A, is the horizontal clearance from the face of the foundations to the slope face.

Liquefaction Potential

During earthquakes, major damage of various types of structures have occurred due to the creation of fissures, abnormal and/or unequal movement, and loss of strength or stiffness of ground. The loss of strength or stiffness of the ground results in the settlement of buildings, failure of earth dams, landslides and other hazards. The process by which soil looses strength is called liquefaction. The phenomenon of soil liquefaction is primarily associated with medium to fine grained, saturated cohesionless soil (sand and silts).

The State of California, Division of Mines and Geology, have prepared "Reconnaissance Seismic Hazard" maps, dated March 25, 1999, which indicates the site is not in an area that may contain liquefiable materials. Due to the depth of groundwater being in excess of 50 feet, liquefaction is considered unlikely.

Foundations on Terrace Deposits

An allowable bearing value of 2000 pounds per square foot, for square footings, and 2000 pounds per square foot for continuous footings, is recommended for foundations placed at a depth of at least 24 inches below the lowest adjacent final grade (top of slab subgrade for interior footings) bearing 12 inches into the Terrace deposits. This value may be increased

SLOPE SETBACK - Sec. 1806.4

FOUNDATIONS ON OR ADJACENT TO SLOPES

1. SCOPE (1806.4.1) - The placement of buildings and structures on or adjacent to slopes steeper than 3 horizontal to 1 vertical (33.3% slope) shall be in accordance with this section. The provisions are intended to provide protection to the building from water from natural sources, mudflow, loose slope debris, shallow slope failures, and foundation movement.

2. BUILDING CLEARANCE FROM ASCENDING SLOPES (1806.4.2) - In general, buildings below slopes shall be set a sufficient distance from the slope to provide protection from slope drainage, erosion, and shallow failures. Except as provided for in this section, the following criteria will be assumed to provide this protection. Buildings shall be set back from the toe of slopes a distance equal to one-half the vertical height of the slope above the top of the foundation with a minimum clearance of 3 feet and a maximum clearance of 15 feet. A detached one-story accessory building not used for living purposes which does not exceed 600 square feet in area may extend to within 3 feet of the toe of a slope. Where the existing slope is steeper than one horizontal to one vertical, the toe of the slope shall be assumed to be at the intersection of a horizontal plane drawn from the top of the foundation and a plane drown tangent to the slope to an angle of 45 degrees to the horizontal. where a retaining wall is constructed at the toe of the slope, the height of the slope shall be measured from the top of the wall to the top of the slope.

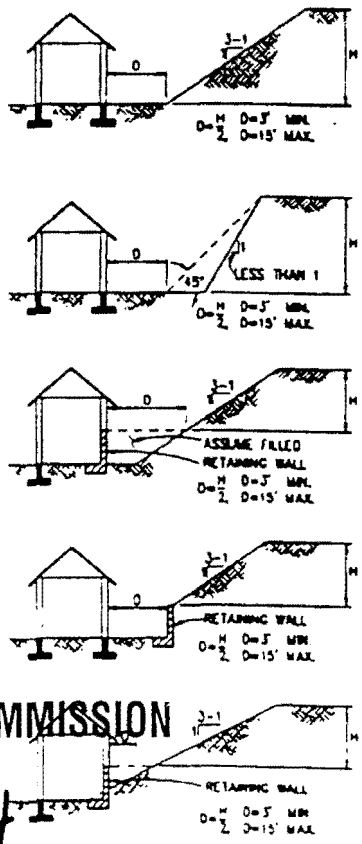
* 3. FOOTING SETBACK FROM DESCENDING SLOPE SURFACE (1806.4.3) - Footing on or adjacent to slope surfaces shall be founded in firm material with an embedment and setback from the slope surface sufficient to provide vertical and lateral support for the footing without detrimental settlement. Except as provided for in this section, the following setback is deemed adequate to meet the criteria. Footings shall be placed into firm material and located a distance of one-third the vertical height of the slope with a minimum of 5 feet and a maximum of 40 feet measured horizontally from the slope surface to the lower edge of the footing. Where the slope is steeper than one vertical to one horizontal, the required setback shall be measured from an imaginary plane 45 degrees to the horizontal, projected upward from the toe of the slope.

* 4. POOLS (1806.4.4) - The setback between pools regulated by this Code and slopes shall be equal to one-half the building footing setback distance required by this section. That portion of the pool wall within a horizontal distance of 7 feet from the top of the slope shall be capable of supporting the water in the pool without soil support.

5. FOUNDATION ELEVATION (1806.4.5) - On graded sites, the top of any exterior foundation shall extend above the elevation of the street gutter at point of discharge or the inlet of on approved drainage device a minimum of 12 inches plus 2 percent of the distance from the foundation to the gutter or drainage device. The building official may approve alternate elevations providing it can be demonstrated that required drainage to the point of discharge and away from the structure is provided at all locations on the site.

6. ALTERNATE SETBACK AND CLEARANCE (1806.4.6) - The building official may approve alternate setbacks and clearances when the intent of this section is demonstrated by on investigation and recommendations of a soil engineer and/or an engineering geologist. Such an investigation shall include consideration of type of material, height of slope, slope-gradient, load intensity, and erosion characteristics of slope material. Where adverse geological soil and drainage conditions exist, the building official may require increased setbacks and clearances.

Sec. 1806.4.2



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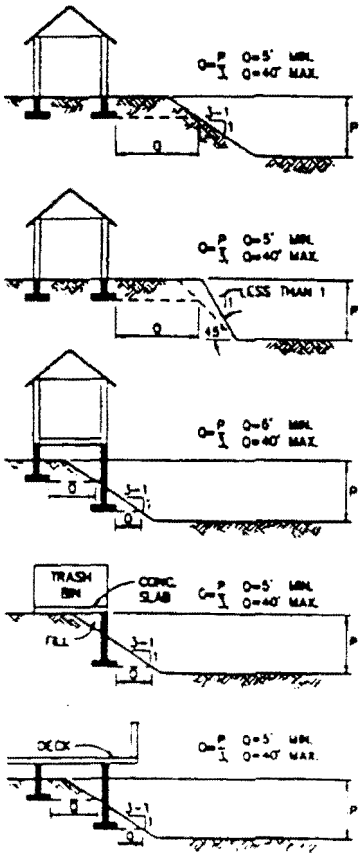
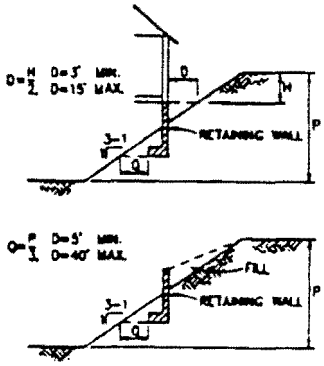
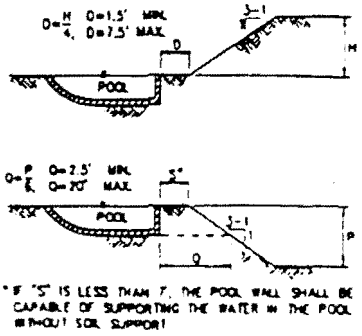


Sec. 1806.4.2, .3



Sec. 1806.4.4



by 500 pounds per square foot, for each additional foot in depth over 2 feet, and 250 pounds per square foot for each additional foot in width over 1 foot, to a maximum of 4000 pounds per square foot. For detailed calculations of these recommended bearing values see Plate 17.

All foundation excavations shall be formed to prevent caving which is expected to occur in the present on-site soils.

Settlement of footings up to 2.5 feet wide continuous and 5 feet square is not expected to exceed 1/2 inch under the recommended fully applied bearing pressure. Differential settlement between footings is expected to be on the order of 1/4 inch.

The bearing capacities given are net allowable bearing values, and the weight of the concrete foundations can be ignored. The bearing value is for dead plus live load, and may be increased by one third for momentary wind or seismic loads.

The maximum edge pressure of any eccentrically loaded footing should not exceed the values recommended for either permanent or momentary loads.

Lateral Loads - Spread Footings

An allowable lateral bearing value against the sides of footings of 250 pounds per square foot, per foot of depth, to a maximum of 3000 pounds per square foot may be used, provided there is positive contact between the vertical bearing surface and the Terrace deposit. Friction between the base of the footings and/or floor slabs and the underlying material may be assumed as 0.4 times the dead load. Friction and lateral pressure may be combined, provided either value is limited to two-thirds of the allowable. The above values may be increased by one-third for short durations of seismic and wind forces.

Cast-in-Place Friction Piles

Recommended bearing and uplift capacities for drilled, cast-in-place piles are given on Plate B. It is recommended that the minimum depth of penetration below the present ground surface into firm Terrace deposits be at least 10 feet. The existing fill and porous portion of the residual soils shall not be used for any foundation support. The weight of the concrete in the piles may be neglected in considering bearing pressure.

Drilling holes should be filled with concrete as soon as possible after excavation. All pile excavations should be inspected and approved by the foundation engineer.

Settlement of single piles, or groups of up to 3 piles, is estimated to be less than 1/2 inch. Most of the estimated settlement will take place rapidly with the first application of load.

Lateral Loads - Piles

An allowable lateral bearing value against the sides of isolated piles (poles) of 500 pounds per square foot, per foot of depth, to a maximum of 5000 pounds per square foot may be used, provided there is positive contact between the vertical bearing surface and the Terrace deposit.

Creep

Piers or piles placed on a slope steeper than 5:1 (horizontal to vertical), in contact with Terrace deposits, shall be designed for creep loads. For design purposes, the lateral creep pressures may e assumed as one kip per foot of depth, to a depth of four (4) feet, for foundations in contact with the creeping soils.

Retaining Walls

Walls retaining drained earth may be designed for the following:

Surface Slope of Retained Material Horizontal to Vertical	Equivalent Fluid Pressure Pounds per Cubic Foot
Level	30
5 to 1	32
4 to 1	35
3 to 1	38
2 to 1	43

Backfill should consist of clean sand and gravel. While all backfills should be compacted to the required degree, extra care should be taken working close to walls to prevent excessive pressure.

A proper drainage system should be utilized to prevent hydrostatic pressures behind the retaining wall. It is therefore recommended that either weep holes or a drainage pipe be installed. A four inch perforated pipe (holes down) surrounded by at least 12 inches of 3/4 inch gravel enveloped in a drainage fabric, such as Mirafi 140N or equivalent, should be placed at the base of the footing at the wall. If weep holes are chosen, these openings should be four feet on center, and also situated at the base of the wall with a gravel and drainage fabric backdrain.

Temporary Excavation Slopes

Temporary excavation slopes in the existing surface soil may be made vertical for cuts of less than five (5) feet. For deeper cuts, temporary excavation slopes shall be made no steeper than 1:1 (horizontal to vertical). In areas where soils with little or no binder are encountered, shoring or flatter excavation slopes shall be made.

Your attention is directed to the fact that caving was encountered in the test excavations and it is likely that a trench or excavation will react in a similar manner.

All excavations shall be made in accordance with the regulations of the State of California, Division of Industrial Safety. These recommended temporary excavation slopes do not preclude local raveling and sloughing.

Drainage

Site drainage should be dispersed by non-erosive devices in accordance with the grading regulations of controlling agencies to preclude concentrated run-off and erosion over the site. In no case shall water be allowed to pond or drain down the slope in a concentrated and uncontrolled manner. Water shall be conducted to Paseo de la Playa.

Floor Slabs-on-Grade

The surface soils are granular in nature and non-expansive. Slabs-on-grade may be used without special design consideration for expansive soils.

A moisture barrier beneath the slabs-on-grade, preferably consisting of at least four inches of rock, with a waterproof vapor barrier, such as a plastic membrane of at least six mils in thickness, covered with two inches of clean sand, is recommended in areas where slab moisture would be detrimental.

Grading

The following general specifications are recommended:

1. Areas to be graded or paved shall be grubbed and stripped of all vegetation, debris and other deleterious material. All loose soil disturbed by the removal of trees, and existing fill shall be removed.

2. In all cases where the ground slope is steeper than 5 (horizontal) to 1 (vertical), the existing ground shall be benched, as the fill thereon is brought up in layers.

existing ground which slopes flatter than 5 to 1 may also require benching, if the foundation engineer considers such to be necessary.

3. All new fill shall be brought to near optimum moisture content, placed in layers not exceeding six (6) inches thick and compacted to at least 90 percent.

4. The existing subgrade loose soils within the building and paved areas shall be compacted prior to construction of floor slabs and paving to secure uniform support and to minimize differential settlement. It is recommended the degree of compaction within the upper 8 inches be at least 90 percent.

5. All other fills and backfills shall be compacted to at least 90 percent.

6. The compaction characteristics of all fill soils shall be determined by ASTM D-1557-97. The field density and degree of compaction shall be determined by ASTM D-1556, or by other acceptable ASTM standard methods which are acceptable to the governing public agency.

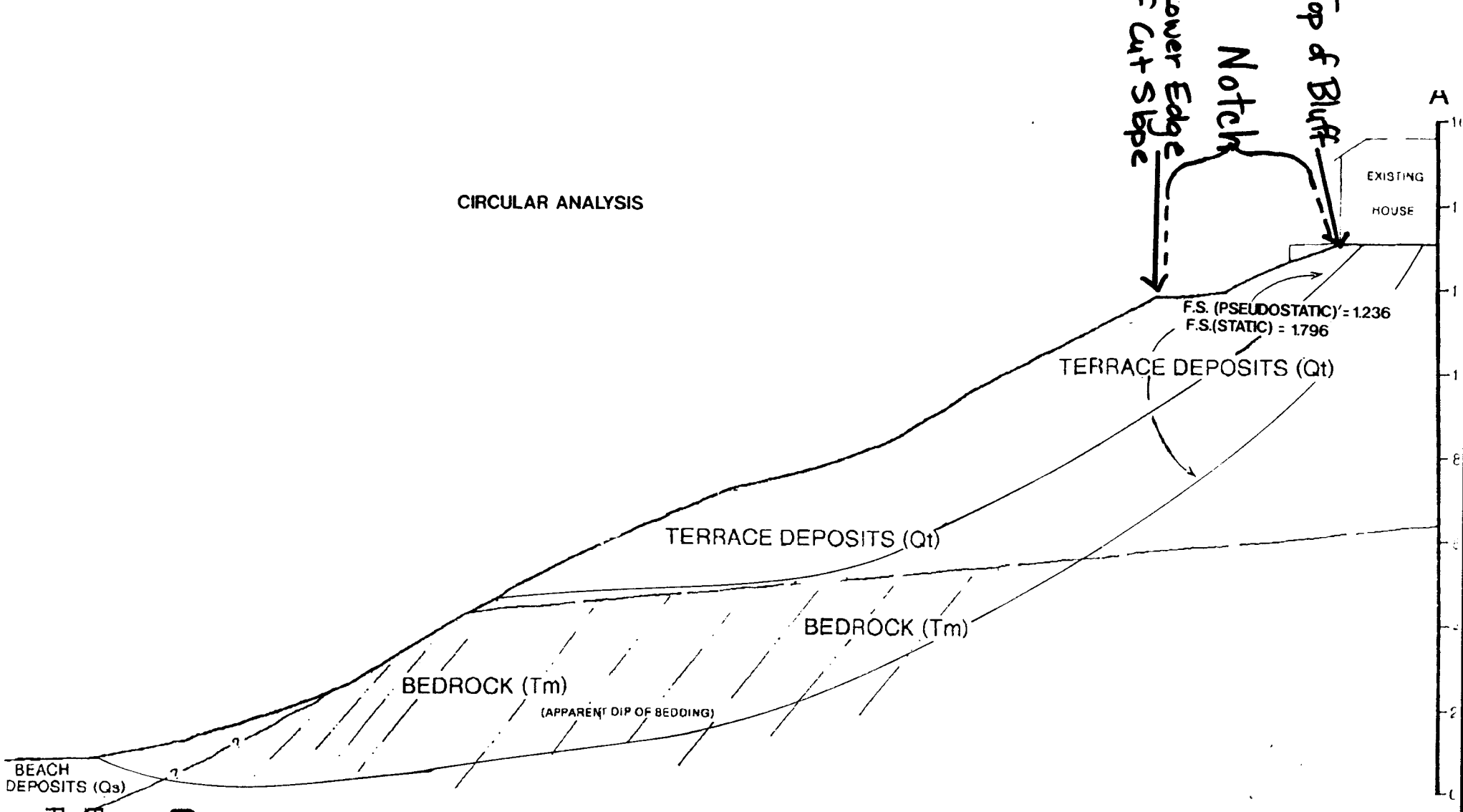
7. All new fill shall consist of clean, granular, non-expansive soil, free of vegetation and other debris, and shall be placed in layers not exceeding six (6) inches at near optimum moisture content. No rocks over three (3) inches in greatest dimension shall be used. No soil shall be imported to the site without prior approval by the geotechnical engineer. The surface soils found on the project would be suitable for use in compacted fills.

8. No jetting or water tamping of fill soils shall be permitted.

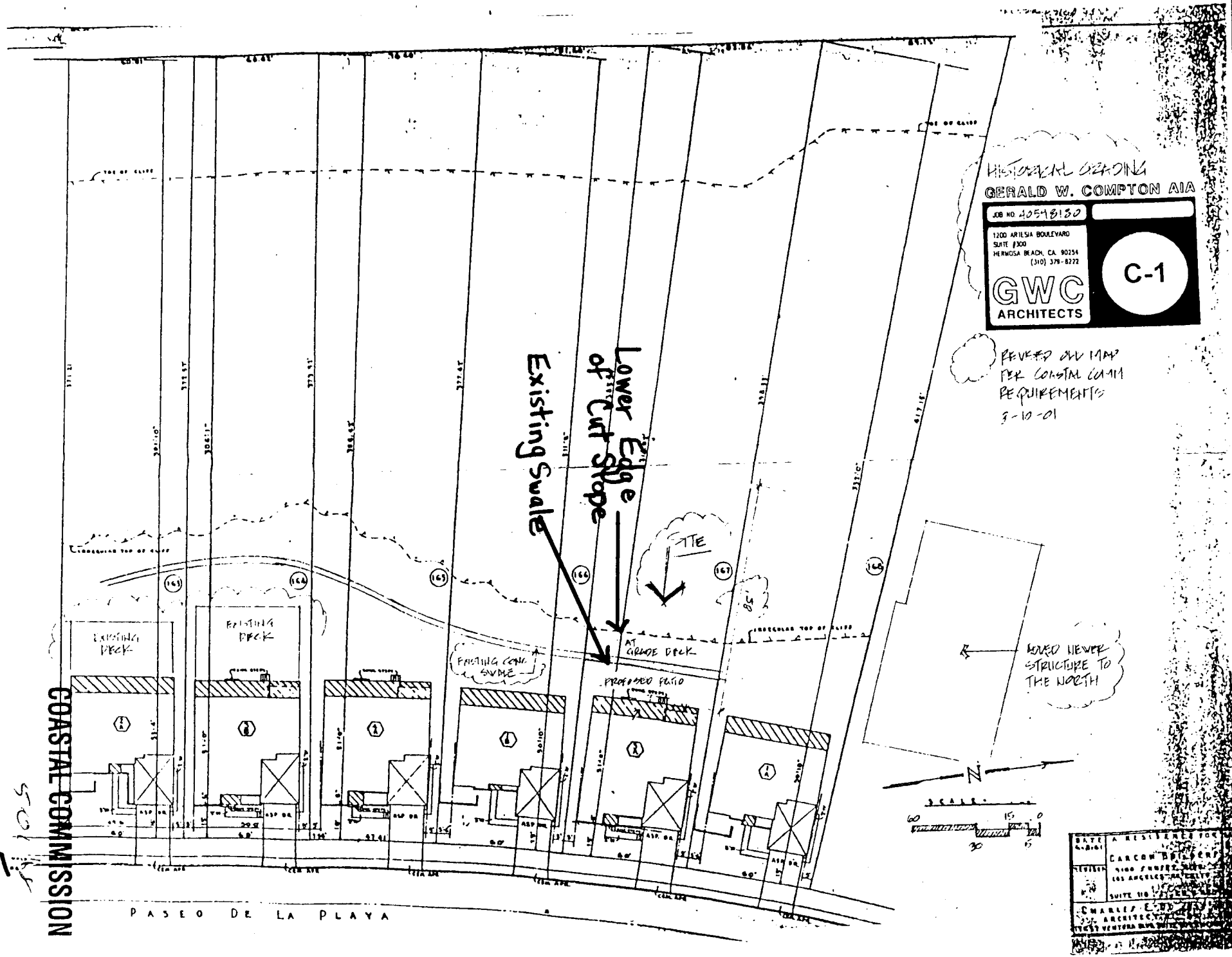
9. Care shall be exercised during rough grading so that areas involved will drain properly. Water shall be prevented from running over slopes by temporary berms.

10. At all times, the contractor shall have a responsible field superintendent on the project, in full charge of the work, with authority to make decisions. He shall cooperate fully with the foundation engineer in carrying out the work.

11. No fill shall be placed, spread or rolled during unfavorable weather. When the work is interrupted by rain, operations shall not be resumed until field tests by the foundation engineer indicate that conditions will permit satisfactory results.



SLOPE STABILITY ANALYSIS 501 PASEO DE LA PLAYA, TORRANCE, CA		
SCALE: 1" = 20'	APPROVED BY:	DRAWN BY AFD
DATE: JULY 00		REVISED
COASTLINE GEOTECHNICAL CONSULTANTS		
PROJECT NO. 1601C-070		DRAWING NUMBER 16



COASTAL COMMISSION

EXHIBIT # 5

PAGE 1 OF 1

I. INTRODUCTION

The purpose of this wave runup study is to determine if the proposed development will be subject to wave runup or wave attack over the typical life (100 years) of the development. If the property will be subject to wave runup or wave attack the analysis will discuss how frequently it will occur, what the predicted water volume and water height will be on the property, and how, if necessary, to manage the overtopping waters. The analysis will also determine if the property will be subject to direct wave attack of the project life. If the property is subject to wave attack then the analysis will include design parameters for wave forces. The analysis uses design storm conditions typical of the January 1988 and winter of 1982-83 type storm waves and beach conditions.

The subject property, 501 Paseo de la Playa, is an approximately rectangular lot 50' to 86' wide by 385' to 398' long. The lot varies in elevation from +125' MSL to about +10' MSL and is fronted by a sandy beach (approximately 200 feet wide) and the Pacific Ocean. This shoreline is located at the southern end of the Santa Monica Littoral Cell. A littoral cell is a coastal compartment that contains a complete cycle of littoral sedimentation including sources, transport pathways and sediment sinks. The Santa Monica Littoral Cell extends from Point Dume to Palos Verdes Point, a distance of 40 miles. Most of the shoreline in this littoral cell has been essentially stabilized by man. The local beaches were primarily made by man through nourishment as a result of major shoreline civil works projects (Hyperion Treatment Plant, Marina Del Rey, King Harbor, etc.). The up-coast and down-coast movement of sand along the shoreline is mostly controlled by groins, breakwaters, and jetties and is generally to the south. A major sink for the beach sands is the Redondo Submarine Canyon located at the entrance to King Harbor.

The subject site is located at the southern terminus of the Santa Monica Littoral Cell. The net sand movement along this section of shoreline is to the north towards King Harbor. A groin is located about 1.5 miles to the north of the site and the Malaga Cove headland (Flat Rock Point) is located immediately to the south of the site. A review of aerial photographs shows little if any overall shoreline retreat. The shoreline is stabilized by the natural headland to the south, and the groin and harbor to the north. For the purpose of this analysis a very conservative estimate of the shoreline retreat rate is 0.5 feet per year. The wide sandy beach in front of the site is normally 200 feet wide and provides adequate protection for the base of the bluff at the seaward property line of the site. Over the vast majority of time wave runup will not reach the base of the bluff and will absolutely not reach the improvements on the property over the next 100 years. However, the beach in this area is subject to seasonal erosion due to extreme event storm events which may erode the beach back to near the bluff base within the 100 year lifetime of the new development.

619 S. VULCAN AVE, #214B ENCINITAS CA 92024 PHONE 760 942-8379 Fax 942-3686

VI. CONCLUSIONS AND RECOMMENDATIONS

Prediction of runup on a beach and bluff during extreme storm events is a very complex problem. The calculations made herein use state of the art methods, yet they are based on several simplifying assumptions (see Chapter 7 of SPM). There are several facts that indicate that wave runup will not reach the property or adversely impact the property over the life of the structure.

- There is a relatively stable beach sandy beach in front of the property 99.9% of the time. The conservative (extreme) erosion rate is small (0.5 ft/yr) and would only reduce the beach width about 50 feet in 100 years.
- A review of aerial photographs over the last four decades shows little overall shoreline retreat in general and a sand beach even at times when the beach is seasonally at its narrowest.
- The base of the bluff is a bedrock material, Miocene Monterey Formation, which is resistant to erosion. Using a extreme bluff erosion rate of 0.5 ft/year, the bluff would retreat only 50 feet. The structure is over 280 feet from the bluff toe.
- The property has not been subject to wave runup attack in the past.
- The runup analysis shows that the 100 year wave runup event will not reach the improvements on the property.

In conclusion, wave runup will not impact this property over the life of the proposed improvement. The proposed development will neither create nor contribute to erosion, geologic instability, or destruction of the site or adjacent area. There are no recommendations necessary for wave runup protection. The proposed project minimizes risks from flooding.

VII. CERTIFICATION

This report is prepared in accordance with accepted standards of engineering practice, based on the site conditions, the materials observed and historical data reported. No warranty is expressed or implied.

VIII. REFERENCES

Coastal Construction Manual, 1986 FEMA (Federal Emergency Management Agency) Ref

619 S. VULCAN AVE, #214B ENCINITAS CA 92024 PHONE 760 942-8379 Fax 942-3686

INTRODUCTION

PURPOSE AND PROPOSED IMPROVEMENTS

The purpose of this investigation was to obtain sufficient information to evaluate geologic conditions within the site with respect to construction of additions to the rear portion of the existing house.

REFERENCES

Items utilized during preparation of this geologic report include the following:

- Geology of Southern California: California Division of Mines and Geology Bulletin 170, 1954.
- Geology and Paleontology of the Palos Verdes Hills, California, by W. P. Woodring, M. N. Bramlette, and W. S. W. Kew, 1946, U.S.G.S. Professional Paper 207.
- Geologic Map of the Palos Verdes Peninsula, by Thomas W. Dibblee, dated May 1999.

SCOPE OF WORK

The scope of work performed for this investigation included the following items:

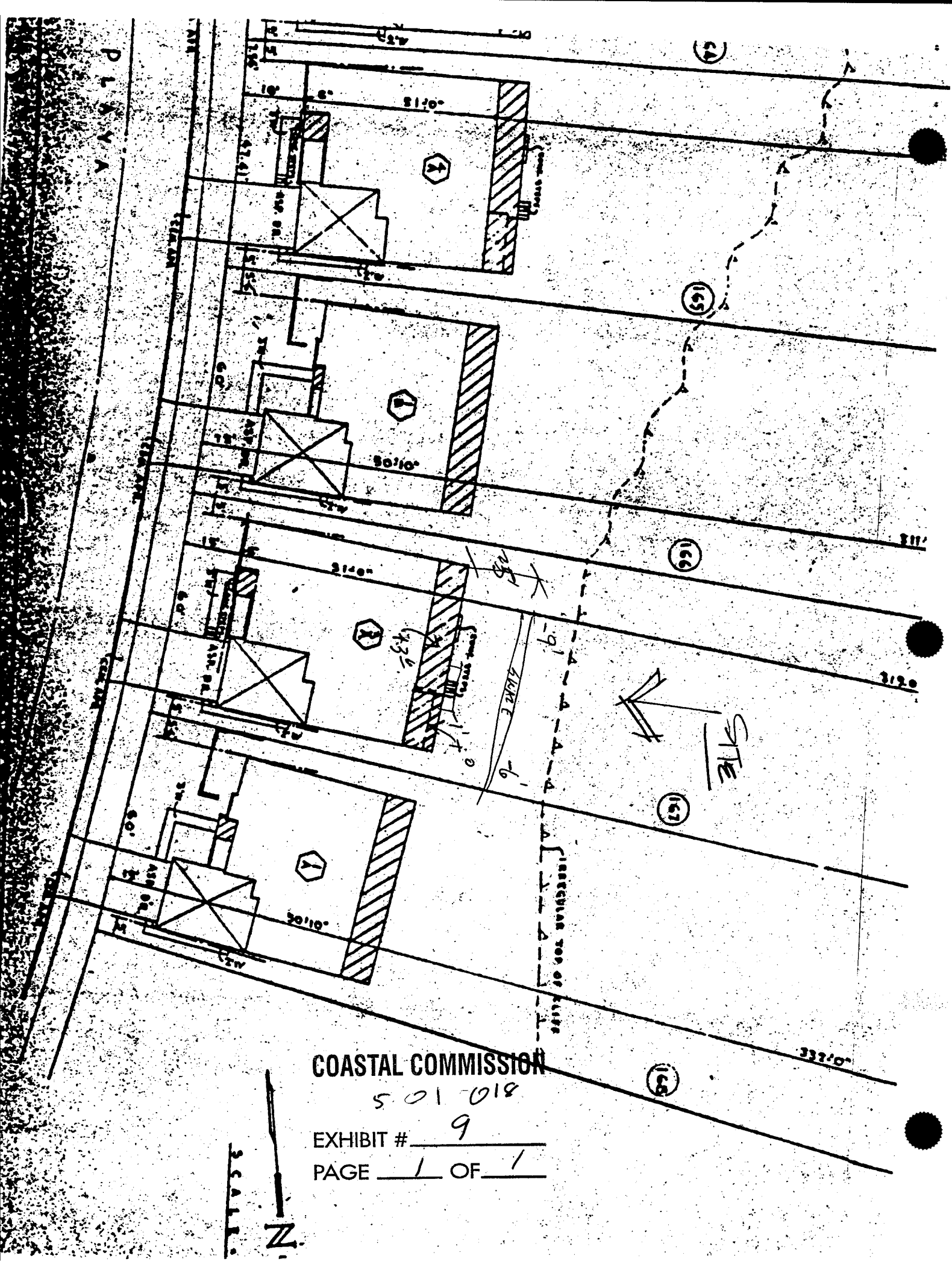
- Gathering and review of published and unpublished reports and maps pertaining to the geologic conditions on the site and in the surrounding area.
- Review of aerial photographs of the site area.
- Geologic mapping in the site area and on the bluff below the site.
- Analysis and evaluation of data.
- Preparation of this report with map, and other graphics to present the findings and recommendations.

PROJECTS NORTH OF THE SUBJECT SITE

Address	CDP	Applicant	Project Description	Result	Other
417	5-97-050	Kreag	build a gunite jacuzzi w/ waterfall & landscaped area	Approved w/ conditions	future development & assumption of risk
429	5-84-187	Briles	SFR		
	5-84-187-A	Briles	amend lower portion of landscape plan		
	5-85-755	Briles	landscape plan for below 50' contour line		
433	5-90-1041	Stamegna	SFR	Approved w/ conditions	stringline for deck future development & assumption of risk
	5-90-1041-A1	Stamegna	decrease footprint, increase rear building setback by 3', add 400 sf in remaining footprint	Issued April 19, 1993	
	5-90-1041-A2	Hawthorne/ Campbell	install drainline, steps & fence; grading, irrigation system, erosion control planning & habitat planning	Issued April 29, 1996	assumption of risk
	5-90-1041-A3	Campbell	install drainline, steps & fence; grading, irrigation system, erosion control, pool, retaining wall	Issued April 29, 1996	
	5-90-1041-A4	Campbell	change direction of swimming pool, add retaining walls, move steps 10' further west	Issued April 29, 1996	
441	P-4-20-77-716	Warren	relocate SFR* & add breezeway		
449	5-90-868	Schreiber	grade bluff, restore & revegetate bluff	Approved w/ conditions	

PROJECTS SOUTH OF THE SUBJECT SITE

Address	CDP	Applicant	Project Description	Result	Other
511	5-85-183	Hall	addition to SFR to include a deck at rear	Administrative	top of bluff determination
515	5-90-1079	Wright	path to beach-utilizing existing slopes & contours; place 4"x6" beams to stop erosion	Approved w/ conditions	future development
	5-91-697	Wright	remodel SFR, enclose balcony & enlarge 1st floor den	Waiver 11/21/91	
517	A-79-4879	McGraw	remodel sunscreen & 2nd level deck & spa		stringline
523	5-83-618	Fire	correct an earth slump condition on bluff top		
5-96-167	631	Lichter	remodel & add.; deck & swimming pool (inland of swale)	Approved w/ conditions	future development & assumption of risk



COASTAL COMMISSION

5-01-018

EXHIBIT # 9

PAGE 1 OF 1

Robert and Nancy Conger
501 Paseo de la Playa
Redondo Beach, CA 90277
(310) 373-9867

June 7, 2001

California Coastal Commission
South Coast Area
200 Oceangate, 10th Floor
Long Beach, CA 90802
Tel: (562) 590-5071
Fax: (562) 590-5084

Permit Number: 5-01-018

Attention: Karen Terry,

As we discussed on June 6, 2001, I am sending you a copy of the house plans and plot from the records at the Building Department. These seem to be the only records of this entire project of 20 homes built in the mid 1960s. As noted, the original and still existing "top of cliff" is 30 feet seaward of our house. Except for the grading done on the property immediately north of us and the newer home north of that property, the top of cliff is easily seen running south of our property. The swale had been added to provide runoff from the grading and fill that our house and others sit on.

As I indicated, the Torrance Building Department has a designated "build line" on the properties south of us, starting three properties further south. According to the city, there is no build line on our property and none continuing northward.

Our proposed project is modest in all regards, and significantly less than adjacent hillside properties. The project offers no damage to the hillside and does provide substantially improved use of the property. The retaining walls and deck actually will improve the current fill slope eastward of the swale that we have not changed, while not imposing any impact to the hillside seaward of the existing irregular cliff that descends to the beach.

The following photos show the views of the subject property and adjacent properties relative to this project. Photo 1 shows a property two lots North of this property. As can be seen that property projects significantly further out and down the hillside. Photo 2 shows a very recent addition of a glassed-in area again projecting significantly out on what is a graded lot but in proximity of their top of cliff. You will also note the adjacent property to our immediate north had been graded to remove the hillside edge, so the natural top of cliff is no longer evident.

Photo 3 shows our project facing seaward (west) with the current flat area seaward of the swale and the slope that then descends on down the hillside to the beach. Photo 4 shows the project and associated slope to the southwest and the adjacent property.

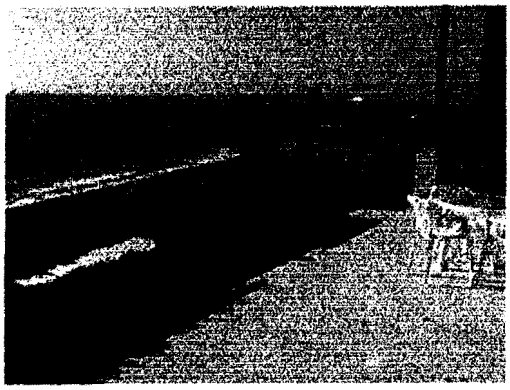


Photo 1 Property North-west

Photo 2 recent addition on hillside

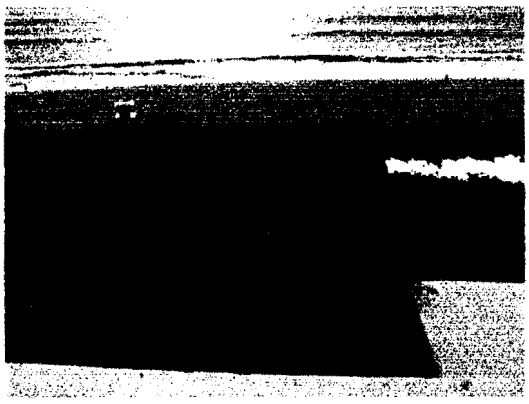


Photo 3 Property west

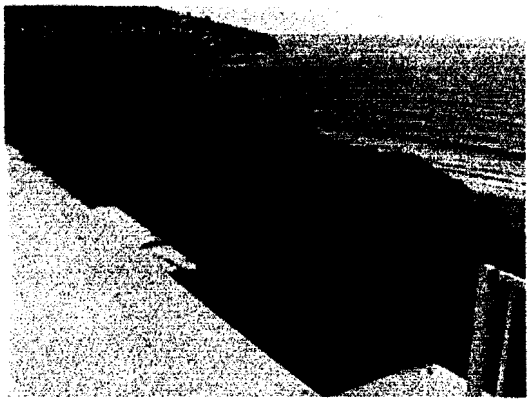


Photo 4 Property viewed southwest

Photos 5 and 6 below show the current slope from the existing porch to swale and portable wood platform on the flat land adjacent to the swale. The proposed project places a retaining wall spa and patio on the initial slope then places a useable wood deck on the flat area leaving the existing swale as is. This provides for useful yet protected area. The natural top of cliff per the old 1961 drawings can be seen running south and gradually elevates until the cliff becomes very evident with a much more defined drop-off.

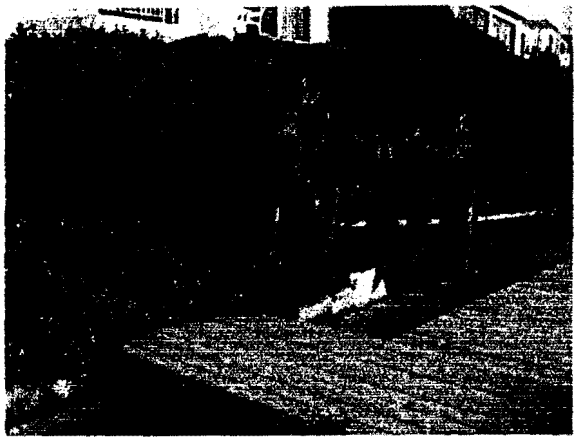


Photo 5 Portable wood platform and upper bank Photo 6 Existing swale and flat area

I should also point out that from a "view" standpoint standing on the beach, all that can be seen looking up is the current lower "top of cliff", as pointed our on the drawing, the "irregular top of cliff" and the upper portion of our house.

I will appreciate your rapid review and recommendation as the project is proposed. We unfortunately have now been in this process for two years. I believe as we have discussed complied with every request and requirement, including a very expensive "Wave Impact Report" that even the provider could not understand why is was requested since it had nothing to do with the project.

Please let me know if there are any other items we can provide or if there are any issues to be discussed other than the positive recommendation of the project as we have requested.

Sincerely,

Robert Conger

COASTAL COMMISSION

EXHIBIT # 10

PAGE 3 OF 3

FAX TRANSMITTAL

- **Date : June 8, 2000**
- **To: Reference Num. – Application # 5-01-018**
- **Fax#:** (562) 590-5084

From: Dr. Robert Conger
501 Paseo de la Playa
Redondo Beach, CA 90277

FAX #: (310) 375-0245
Tel # : (310) 373-9867
Office #: (310) 726-4100

Pages including this cover page: 8

Comments:

Pam,

I have reviewed my prior communications/letters and have attached another letter with associated documents re-confirming my comments on our project.

Regards,

Bob

COASTAL COMMISSION

EXHIBIT # 11

PAGE 1 OF 1

Robert and Nancy Conger
501 Paseo de la Playa
Redondo Beach, CA 90277
(310) 373-9867
Office: (310) 726-4100

June 30, 2001

California Coastal Commission
South Coast Area
200 Oceangate, 10th Floor
Long Beach, CA 90802
Tel: (562) 590-5071
Fax: (562) 590-5084

Permit Number: 5-01-018

Attention: Pam Emerson
Chuck Posner

As we discussed on June 29, 2001, I am re-confirming my discussions with Karen and you relative to the modification to the rear of our house and yard. As stated in the various engineering studies required by the Coast Commission and approval of our plans by the City of Torrance Building Department, there are no construction problems. The plans do call out a new concrete retaining wall. Without the required retaining wall, the project can not be constructed.

I am sending you a copy of a portion of the house that reflects this requirement. Also attached, the covers of the engineering investigations previously submitted to your organization and a copy of the Topo showing relative elevation and placement. As you can see the studies were completed and submitted almost a year ago. Our architect, submitted additional information as requested in February of this year. Then a "Wave Impact Study" was required, that was totally uncalled for as indicated in the study, but submitted in March. Previous discussions and site visit with your staff almost two years ago indicated no concerns, subject to approved engineering conditions. This is a very minor project with no objections by neighbors, city or community. There are no impacts on the cliff/hillside or views from the beach.

Please let me know if there are any other items I need to provide, or if there are any issues to be discussed other than the positive recommendation of the project as requested.

Sincerely,

Robert Conger

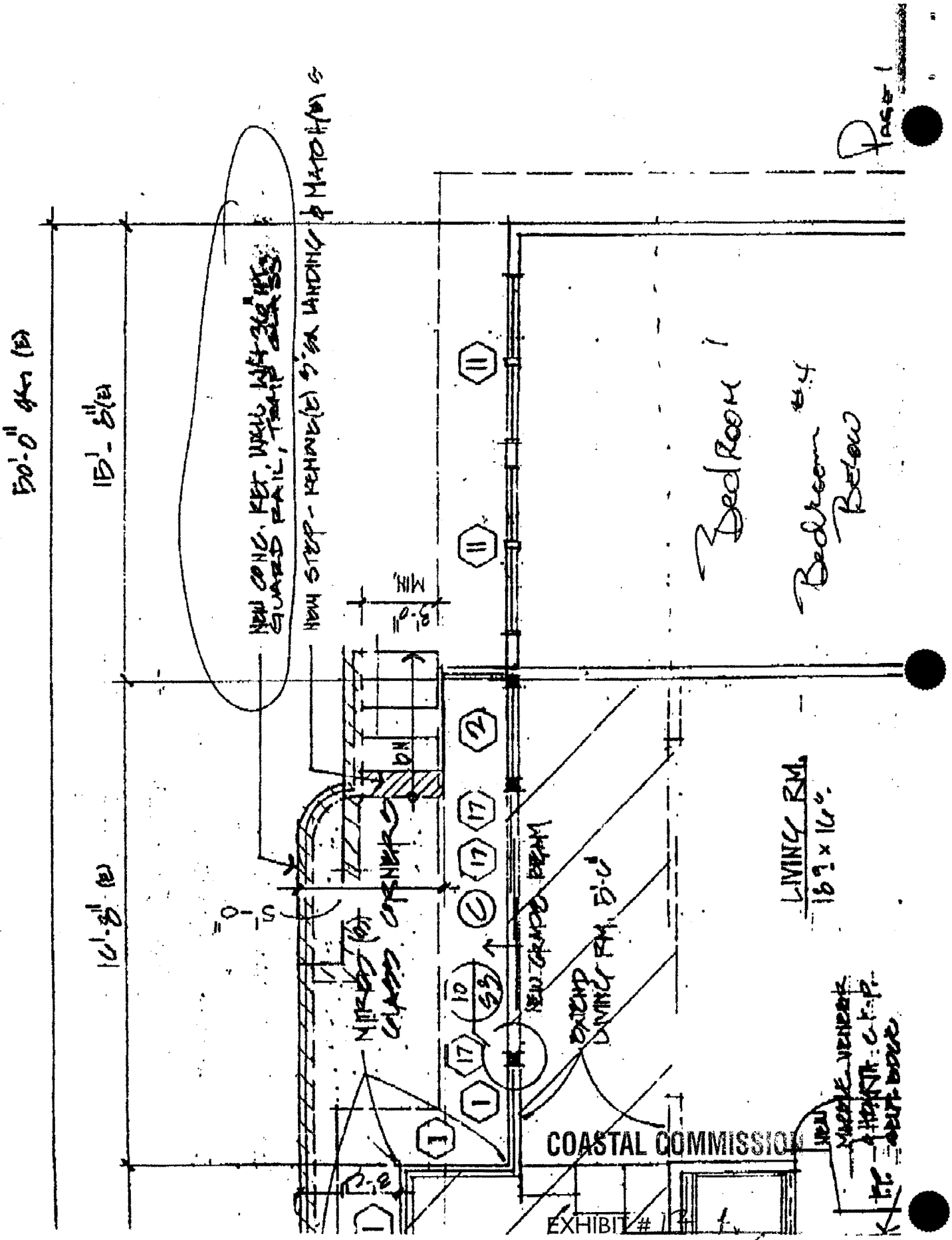


EXHIBIT # 1
PAGE 2 OF 6

5-01-18

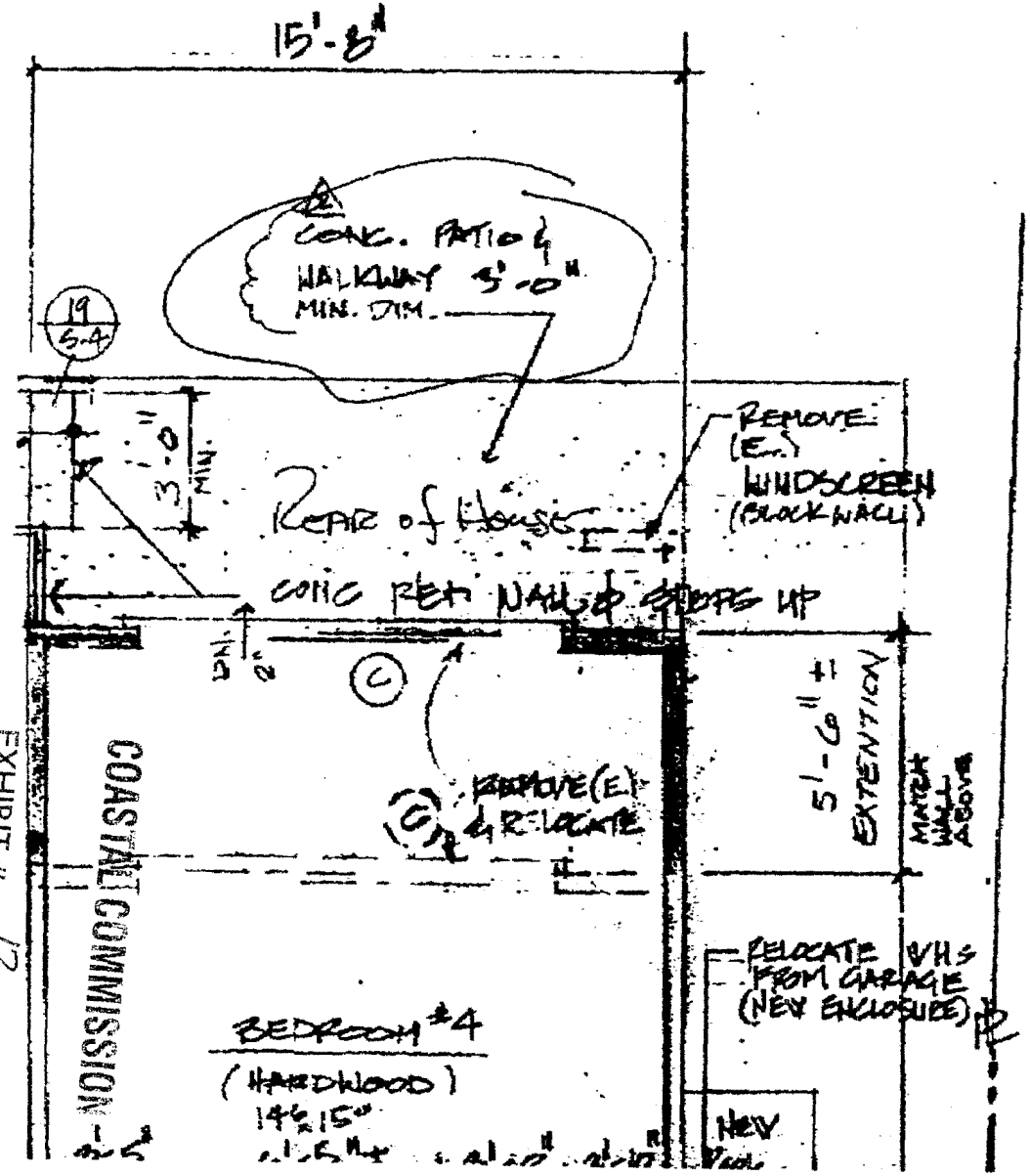


EXHIBIT # 12
PAGE 3 OF 6

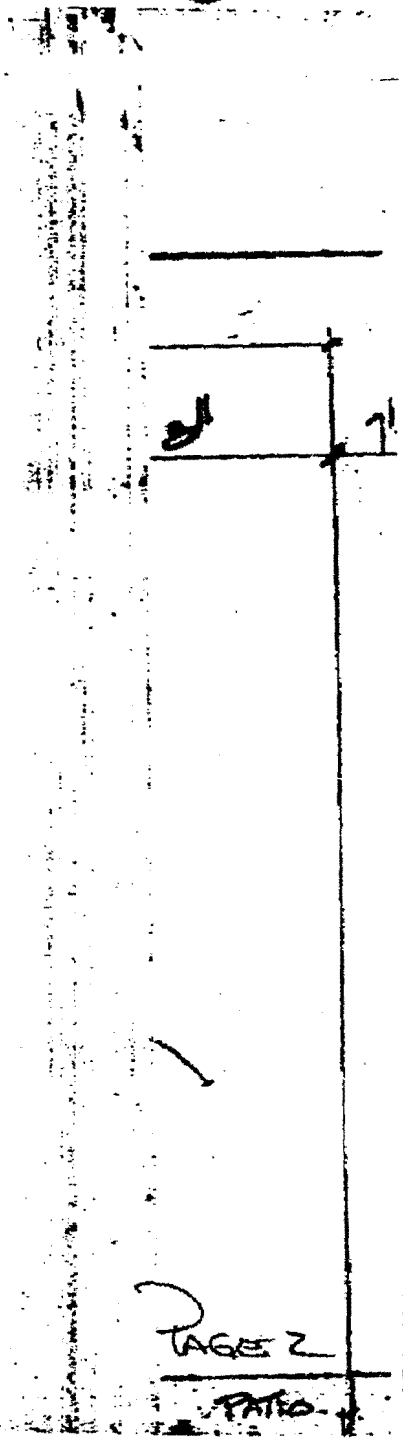
ISSUANCE

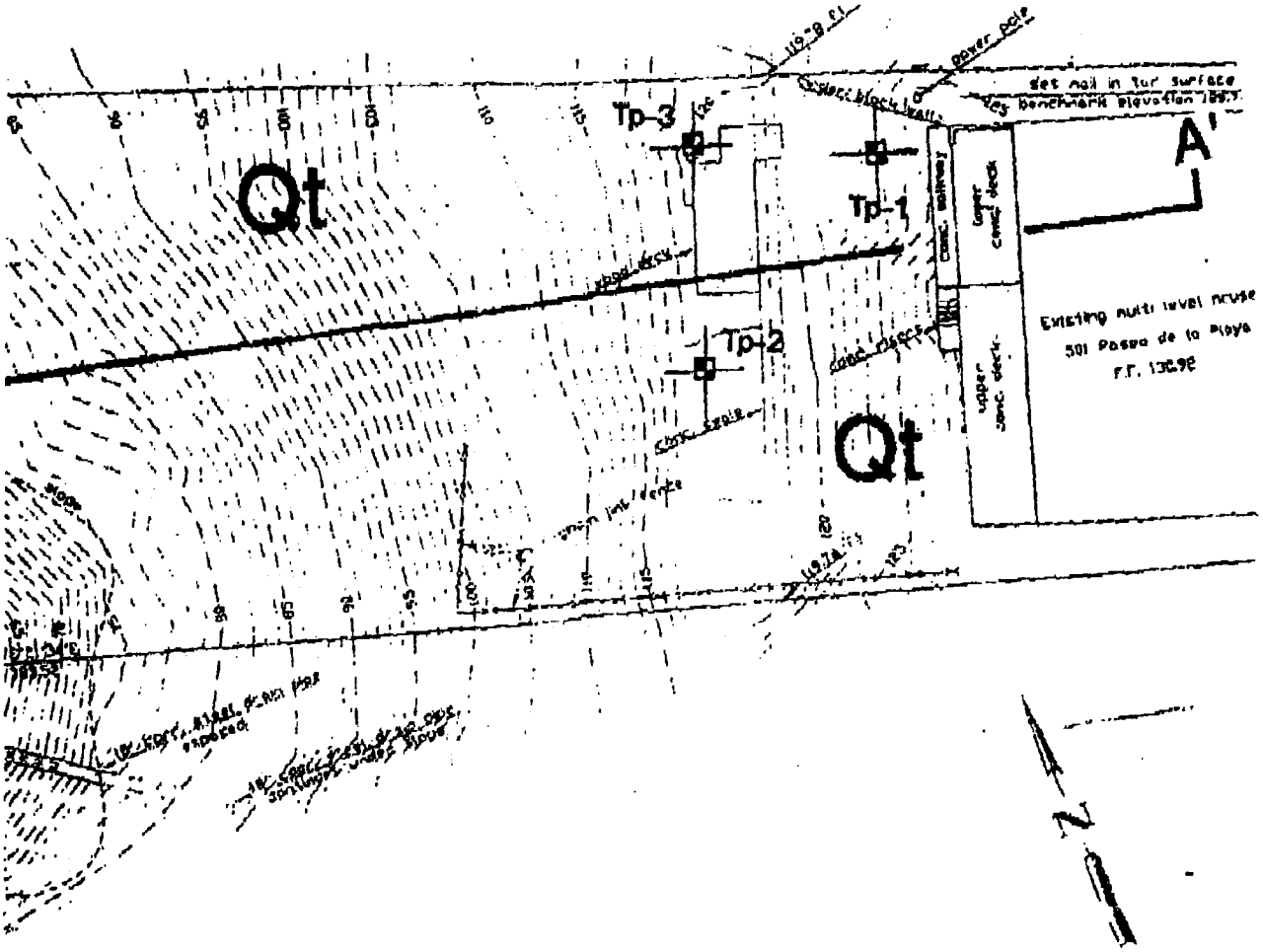
REVISION

1 P/C

PC COMM 11-20-00

PC 12-5-00





SOILS INVESTIGATION 501 PASEO DE LA PLAYA, TORRANCE, CA		
SCALE: 1" = 20'	APPROVED BY:	DRAWN BY AFD
DATE: JUL 00		REVISED
COASTLINE GEOTECHNICAL CONSULTANTS		
PROJECT NO. 1601C-070		DRAWING NUMBER 2

EXHIBIT # 12

PAGE 4 OF 6

5-01-15

KEITH W. EHLERT
Consulting Engineering Geologist

July 11, 2000 Project No. 4705-00

Coastline Geotechnical
1446 W. 178th Street
Gardena, CA 90248

SUBJECT: GEOLOGICAL INVESTIGATION FOR PROPOSED RESIDENTIAL IMPROVEMENTS
501 Paseo De La Playa
Torrance, California

Pursuant to your request, the accompanying report has been prepared for the purpose of providing geologic information pertaining to proposed residential improvements.

This report should be used in conjunction with a geotechnical engineering report by Coastline Geotechnical.

If you have any questions regarding the information presented in this report, please contact our office.

Respectfully submitted,

Keith W. Ehlert
C.E.G. 1242

REGISTERED GEOLOGIST
KEITH W. EHLERT
No. 1242
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

COASTAL COMMISSION

EXHIBIT # 12
PAGE 5 OF 6

927 Deep Valley Drive, #215 • Rolling Hills Estates, CA 90274
(310) 544-7686 • Fax (310) 544-9332

5-01-018

GEOTECHNICAL ENGINEERING INVESTIGATION REPORT PROPOSED SPA, DECK AND EXTERIOR OF HOUSE 501 PASEO DE LA PLAYA REDONDO BEACH, CALIFORNIA

PREPARED FOR

MR. AND MRS. ROBERT CONGER

PROJECT NO. 1601C-070

AUGUST 8, 2000

COASTLINE GEOTECHNICAL CONSULTANTS, INC.

SKELLY ENGINEERING

WAVE IMPACT STUDY

501 PASEO DE LA PLAYA
TORRANCE, CA

MARCH 2001

Prepared For
GWC Architects

619 South Vulcan Avenue, Suite 214B Encinitas, CA 92024 Phone (760)942-8379 Fax 942-3686

STATE OF CALIFORNIA—THE RESOURCES AGENCY GRAY DAVIS, GOVERNOR

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE AND TDD (415) 904- 5200
FAX (415) 904- 5400

12 July 2001

GEOLOGIC REVIEW MEMORANDUM

To: Pam Emerson, Los Angeles Area Supervisor
From: Mark Johnsson, Senior Geologist
Re: Conger CDP application (5-01-018)

In reference to the above application I have reviewed the following documents:

1) Charles E. DuBois 1961, "A residence for Carcon Builders", 5 p. architectural drawings dated 8 June 1961 and signed by C. E. DuBois.

2) GWC Architects undated, "Site plan, Conger Residence, 501 Paseo de la Playa, Torrance, California", 6 p. undated architectural drawings signed by G. W. Compton.

3) Bolton Engineering Corporation 2000, "Topographic survey, Lot 167, Tract No. 18379, M.B. 563-9-14", 1 p. topographic map dated 24 May 2000 and signed by R. N. Bolton (PE 26120).

4) Keith W. Ehlert 2000, "Geological investigation for proposed residential improvements, 501 Paseo de la Playa, Torrance, California", 9 p. geologic report dated 11 July 2000 and signed by K. W. Ehlert (CEG 1242).

5) Coastline Geotechnical Consultants 2000, "Geotechnical engineering investigation report, proposed spa, deck and exterior of house, 501 Paseo de la Playa, Redondo Beach, California", 11 p. geotechnical engineering report dated 8 August 2000 and signed by A. F. Dia and R. A. Martin (GE 563).

6) Skelly Engineering 2001, "Wave impact study, 501 Paseo de la Playa, Torrance, California", p. wave impact study dated March 2001 and signed by D. W. Skelley (RCE 47857).

In addition, I have viewed the coastal bluff at the site from the beach during a visit to Torrance on 5 July 2001.

The proposed development, which consists of two decks connected by staircases, a spa, and windscreens, would cascade down a cut slope in the upper portion of the coastal bluff at the site to a bench cut into the bluff.

Reference (6) addresses the issue of wave runup at the subject property, primarily through aerial photograph analysis. The photos span the interval from the early 1960's to 1999, a time span that includes the severe El Nino winters of 1982-83 and 1997-98. The report concludes that there is very little if any overall shoreline retreat over this interval, and that over the vast majority of time wave runup will not reach the base of the bluff. I concur with this assessment, and with the conclusion that the beach may erode over the useful economic lifespan of the development (generally assumed by the Commission to be 75 years for remodels of single family homes), but that the development, to be situated above approximately 115 feet elevation, will not be subject to wave runup.

References (4) and (5) together address other geologic hazards at the site, as well as provide criteria for foundation design. The lower slope is underlain by the Monterey Formation, which is known to be subject to landsliding, but in this area the bedding dips to the north, nearly at right angles to the trend of the bluff, so bedding planes are not exposed on the bluff face. The upper slope is underlain by marine terrace deposits. A quantitative slope stability analysis in reference (5) demonstrates that the slope is globally stable (factor of safety of 1.8 static, 1.2 pseudostatic) with respect to sliding. The report does not show the location of the hypothetical failure surface corresponding to this factor of safety, so there is no way of identifying the way to establish setbacks behind a line corresponding to a particular factor of safety. Reference (5) also reports a 1.6 factor of safety against surficial sliding, using the method of infinite slopes. Nevertheless, it is acknowledged that slope is "partially unstable," and is subject to creep. Significant erosion is occurring on the lower third of the slope due to leakage from a corroding storm water drain. I concur with the assessments of references (4) and (5) that the slope is currently grossly stable, but that continued surficial creep, slumps, and gulleying are to be expected. Instability could increase markedly if the erosion caused by the defective storm water drain is not repaired.

Due to its proximity to several active faults, including the Newport-Inglewood fault and the Palos Verdes Fault, the site can be expected to experience severe ground shaking during the economic life of the development. The slope stability analyses indicate, however, that the slope will be grossly stable even during such shaking. Nevertheless, minor surficial slumps or ground cracking may occur. Due to its elevation above the presumed ground water table, and the density and grain size of the terrace deposits directly underlying the proposed development, the liquefaction hazard is low.

As indicated in reference (2), the proposed development is to occur on the face of a coastal bluff. I understand that the applicant disagrees with this assessment. The applicant maintains that the upper portion of the slope, which extends to the very edge of the principal residence on the site, is a cut slope which modified the natural bluff. The cut slope is approximately 12 feet in height, as indicated on the topographic survey (reference 3), and descends to a sloping bench approximately ten feet wide, which contains a concrete-lined swale for drainage purposes. A wooden deck currently occupies part of this bench. Below the bench, the slope descends to the beach. One intervening bench occurs at approximately mid-slope, also containing a concrete-lined swale.

The applicant has submitted a set of architectural drawings dated 1961 (reference 1) that shows a line labeled "irregular top of cliff" that is approximately 30 feet seaward (measure horizontally)

of the residence at the site. The applicant feels that any setbacks from the top of bluff should use this line as point of reference, as the top of the slope cut into the top of the bluff is not a natural feature. There are no topographic data on reference (1) with which to evaluate whether this was an accurate bluff edge determination at the time; it is my opinion that it is certainly not an accurate depiction of the current bluff edge.

In order to determine the location of the current bluff edge, I have reviewed the topographic map in reference (3) and the cross-sections provided in reference (6) against the standard set forth in §13577, paragraph (h), of Title 14 of the California Code of Regulations, in which the top of bluff is defined. It provides in relevant part:

> Bluff line or edge shall be defined as the upper termination of a bluff, cliff, or seacliff. In cases where the top edge of the cliff is rounded away from the face of the cliff as a result of erosional processes related to the presence of the steep cliff, the bluff line or edge shall be defined as that point nearest the cliff beyond which the downward gradient of the surface increases more or less continuously until it reaches the general gradient of the cliff. In a case where there is a steplike feature at the top of the cliff face, the landward edge of the topmost riser shall be taken to be the cliff edge.

Nothing in the Coastal Act or its regulations stipulates that a coastal bluff need be unmodified by human activities to preserve its status as a coastal bluff. If the morphology of a bluff has been changed by prior grading, the only standard by which to establish the current bluff edge is as defined in the regulation. By this definition, the bluff edge (in this case, the landward edge of the topmost riser) is approximately at the edge of the residence itself. Any development seaward of the edge of the house would be on the bluff face.

The Commission has denied applications for bluff face development in the past due to, among other things, problems associated with geologic instability. In so doing, the Commission has relied on § 30253 of the Coastal Act. In this case, the proposed development does raise geological stability issues. Ongoing erosion associated with a corroded storm water discharge pipe is occurring and increasingly places development on the bluff face at risk. However, even if this pipe were repaired, the bluff would continue to be subject to shallow failures and to creep, as acknowledged in references (5) and (6). Indeed, because of the uncertainty associated with predicting geologic processes into the future, I would recommend that development be set back from the bluff edge to assure stability. Accordingly, I recommend that the Commission find that the proposed development on the bluff face does not assure stability, and is therefore not consistent with the requirements of section 30253 of the Coastal Act.

I hope that this review has been helpful. Please do not hesitate to contact me with any further questions.

Sincerely,

Mark Johnsson
Senior Geologist

STATE OF CALIFORNIA -- THE RESOURCES AGENCY GRAY DAVIS, *Governor*

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 641 - 0142

Memorandum

To: Pam Emerson

From: Jon Allen, Staff Ecologist

Subject: El Segundo Blue Butterflies on Conger Property

Date: 7/23/2001

To follow up on our site visit to the Conger Property at Torrance Beach, I am sending a picture of *Eriogonum parvifolium*, dune buckwheat, the host plant of the El Segundo blue butterfly (ESB), *Euphilotes battoides allyni*. There are two fairly good pictures of the butterfly itself (on the Conger property), one on the invasive iceplant, *Carpobrotis edulis* and one on its normal host plant, *Eriogonum parvifolium* (Figure 1). The El Segundo blue butterfly is in the family Lycaenidae and has been listed as federally endangered since 1976. The ESB is restricted to the sand dune habitat in the Los Angeles metropolitan area where urbanization has destroyed approximately 99% of its required sand dune habitat (Arnold and Goins 1987). The ESB is univoltine (i.e. has one generation per year) and the adult butterflies emerge at the time of flowering of its dune buckwheat host plant (June to September). In many lepidopterous species, the adult butterflies will feed on nectar from many different kinds of flowers even though the larvae may require a particular host plant, but in the ESB both the larvae and the adults are obligate on *Eriogonum parvifolium*, dune buckwheat. This makes the ESB particularly sensitive to disruption of its host plant since both adults and larvae require it. The more common *Eriogonum fasiculatum*, (California buckwheat) is not a suitable host for ESB, and in fact supports numerous competing Lepidopterous species (Longcore et al 1997). We are grateful to Travis Longcore for this information and for pointing out the ESB and its host plant at the site in accordance with our request.

The ESB apparently requires a distribution of age classes of its buckwheat host plant. Juveniles and older plants do not produce as many flowers as middle-aged plants. Field observations suggest that buckwheat plants less than about five years of age do not produce enough flowers for ESB larvae to effectively utilize them (Arnold 1983). So survival of ESB is dependent upon 'middle-aged' buckwheat plants plus steady recruitment of younger plants into the middle age group as they senesce. This continual 'conveyor belt' of dune buckwheat age groups is indicative of a healthy dune ecosystem, and hence the butterfly is good indicator species for the health of this system.

According to Arnold and Goins (1987) dune buckwheat is very susceptible to displacement by non-native invasive species that have invaded its dune habitat (e.g. *Carpobrotus* (ice plant) and non-native grasses). In the presence of invasive competitors, recruitment of juveniles is greatly reduced and the age distribution

buckwheat shifts to older plants which do not produce enough flowers to adequately support ESB. Therefore any attempts at restoration should have elimination of non-natives as a first priority.

In summary it is my opinion that the *Eriogonum parvifolium* at the Conger property is both rare and performing an important ecological function (supporting a population of federally endangered El Segundo blue butterflies). It is easily disturbed by human activities, and because of this it fits the definition of environmentally sensitive habitat under the Coastal Act, Section 30107.5 and must be protected under Section 30240.

References:

Arnold, R.A., 1983. Ecological studies of six endangered butterflies (Lepidoptera: Lycaenidae): Island biogeography, patch dynamics, and design of habitat preserves. University of California Publications in Entomology 99: 1-161.

Arnold, R. A, and A. E. Goins. 1987. Habitat enhancement techniques for the El Segundo blue butterfly: An urban endangered species. (p. 173-181) *In*: Integrating Man and Nature in the Metropolitan Environment, Proc. Natl. Symp. On Urban Wildlife, Chevy Chase, MD., Novermber 1986, L. W. Adams and D. L. Leedy, eds. Published by Natl. Inst. For Urban Wildl., 10921 Trotting Ridge Way, Columbia, MD. 21044.

Longcore, T., R. Mattoni, G. Pratt and C. Rich. 1997. On the perils of ecological restoration: Lessons from the El Segundo blue butterfly. 2nd Interface Between Ecology and Development in California. J. E. Keeley, Coordinator. Occidental College April 18-19, 1997.

COASTAL PLANNING ISSUES

As defined in the Coastal Act of 1976, any existing or potential development that is inconsistent with the policies of the Act constitutes a coastal planning issue. A major objective of the LCP, in turn, is to resolve such issues.

During early 1977, the City conducted a series of public participation workshops to identify those issues that should be addressed in preparing the Torrance LCP. Following Planning Commission and City Council review of the identified issues, the State Coastal Commission included the investigation of the following issues in their approved work program for the Torrance LCP:

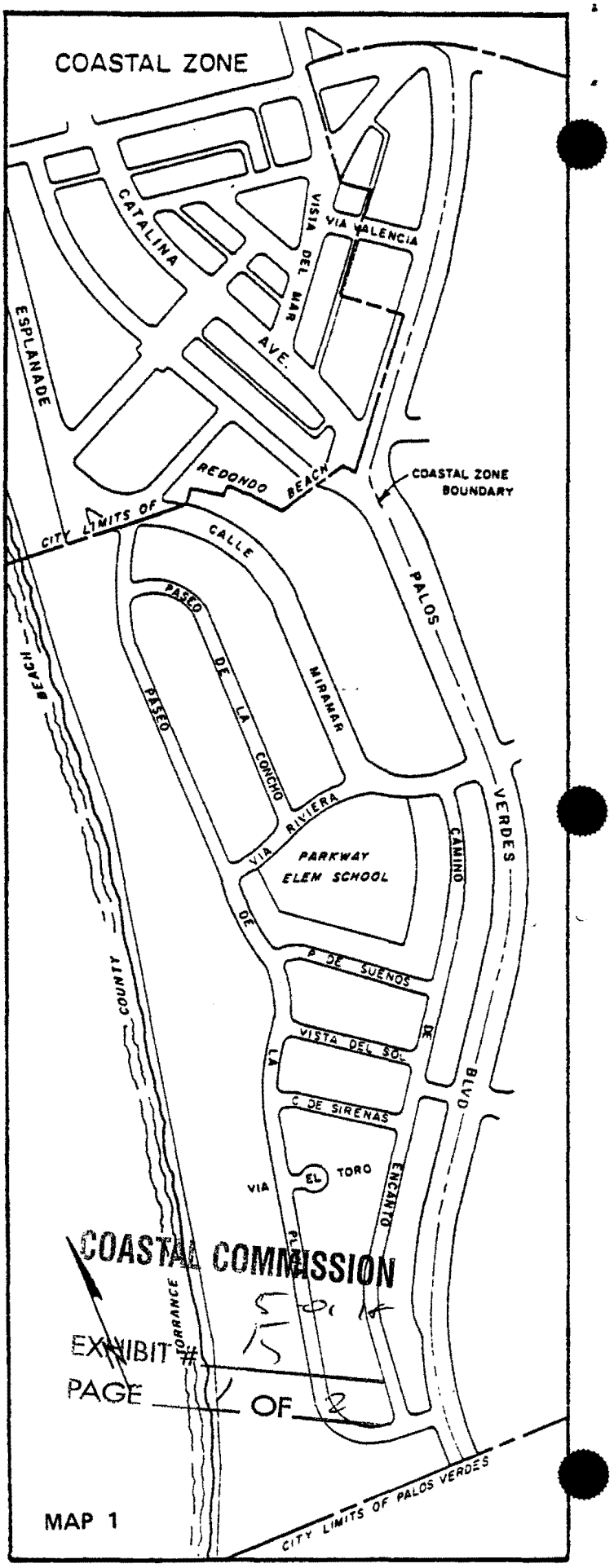
- Effects of shoreline access on the neighborhood
- Maintenance and enhancement of the beach
- Alternative future uses of the Parkway School site
- Existence of moderate income housing
- Bluff erosion and geologic stability conditions
- Beach erosion
- Circulation and parking problems
- Non-auto alternatives to beach access
- Public works improvements
- Land use and zoning inconsistencies
- Adequacy of codes and standards to protect area over the long term

Area Description

The coastal zone of the City of Torrance is in the southwest corner of the City west of Palos Verdes Boulevard. The area is bounded on the north by the City of Redondo Beach and on the south by the City of Palos Verdes Estates.

The area is approximately 104.25 acres and almost totally developed residential with a small light commercial center. This small inland commercial section abuts and is part of a larger commercial area in the City of Redondo Beach.

A special City census conducted in February 1978, reported a population of 1760 persons residing in the coastal area, which is approximately 17 people per acre. The majority of the residences are 25 to 29 years of age.



LUP

SHORELINE ACCESS

Existing Conditions

A sandy beach extends the one mile length of the Torrance coastal zone. Public access to the northern section is provided at several points from a public parking lot (Map 2).

It also is possible to reach the southern end of the sand area below the bluffs by using a pathway in Palos Verdes Estates, just south of the southern border of the City of Torrance. Access to Torrance beach is also provided from Redondo Beach by way of improved pedestrian paths and bikeways. The bluff top lands south of Calle de Sirenas to the end of Paseo de la Playa are totally developed with single-family homes and cooperative developments. There is no direct public access to the beach through this section nor is it feasible at this time to provide any. The bluff top area extending south from the beach parking lot to Calle de Sirenas contains eight existing single-family residence parcels, three of which are vacant. The dedication of a ten foot wide vertical public accessway was required by an Agreement between the property owners and the City of Torrance, and by the Regional Coastal Commission as a condition to issuing permits for the development of this property.

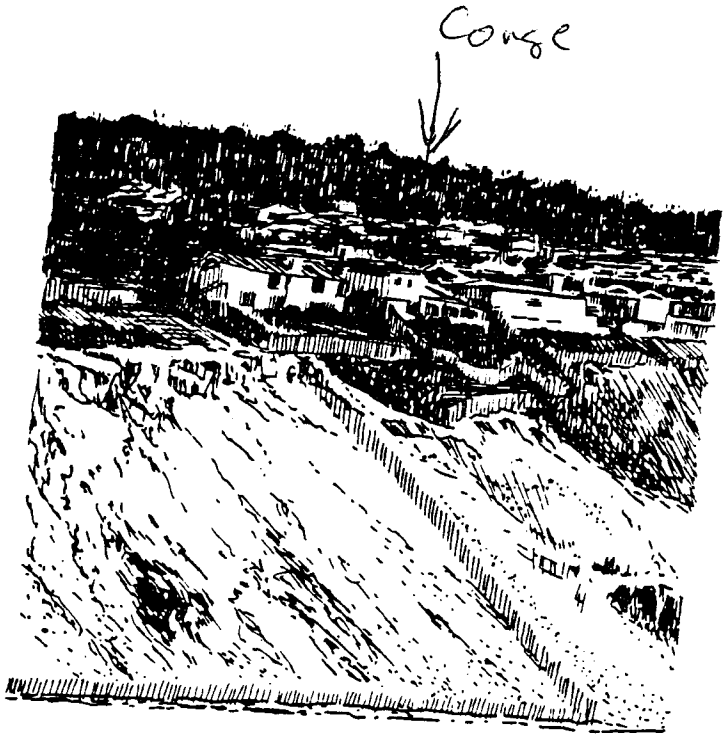
During the Phase I issue identification process, two access related issues were identified: 1) the disposition of the undeveloped accessway; 2) full public usage of Torrance Beach. Each of these issues is discussed in the Vertical Access subsection which follows.

Vertical Access

The Agreement between the property owners and the City grants a ten foot wide accessway to the City as Trustee for the People of the State of California. The Agreement, which was made in settlement of public implied dedication rights in the area, also provides that the City must exercise it's option to build the accessway by October 12, 1983. However, prior to selling the property or abandoning the accessway, the City shall notify the State of California. The State shall have ninety days thereafter to either exercise the option of developing the accessway or to have the property conveyed to the State; otherwise it will be disposed of as stipulated in the Agreement. Proceeds of the sale will be disbursed among the owners of the five lots that originally granted the accessway. The Agreement under which this accessway was granted also requires that if developed, an eight foot wall be constructed along the walkway from Paseo de la Playa to

be erected westward to the beach. (
Furthermore, the top of the walkway m
covered to prevent entry onto adjacent propert
the throwing of trash.

The construction of the walkway and the wal
tween Paseo de la Playa and the top of the b
would not be difficult. The bluff, however, falls s
112 feet in a horizontal run of 165 feet. This i
average slope of 35% with portions ranging from 2
to 60%. This is a steep slope in comparison to
walkways from the Torrance Beach parking lot to
beach.



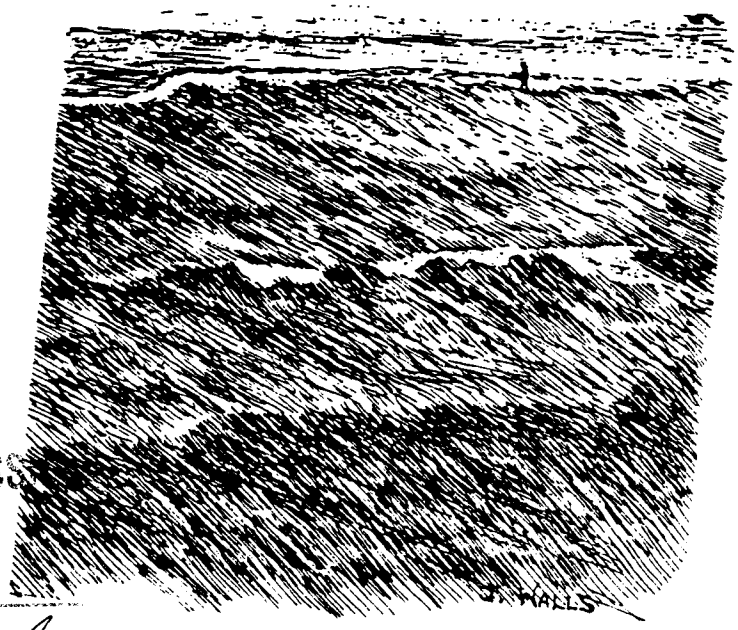


EXHIBIT # 4

PAGE 2 OF 2

5-01-18

EXECUTIVE DIRECTOR'S DETERMINATION (continued):

The applicant proposes a seaward extension to include a first floor addition and deck to an existing three-level single family residence on an ocean-fronting blufftop lot adjacent to the Torrance Beach. (See Exhibit A & B.) On March 2, 1981, the South Coast Regional Coastal Commission approved the City of Torrance Land Use Plan (LUP) with suggested modifications which are still pending compliance. The City's adopted LUP states, in part, the following regarding development on blufftop lots:

> No improvements will be allowed west of the safe building line established by the Department of Building and Safety (See Map 9), no construction will be allowed between the safe building line and the west side of Paseo de la Playa or on any lots north of Lot 164 without a soils and geologic investigation. This will be enforced through provisions of the Hillside Overlay Zone (See Appendix G).

Staff has enclosed as Exhibit C a map indicating the limits of the City's "safe building line" (blufftop setback). A small portion (+ 98 sq. ft.) of the applicant's proposed deck extends seaward of the City's "safe building line" (See Exhibit D). Staff has recommended a condition to assure that the proposed blufftop development is consistent with the City's adopted LUP policy regarding blufftop setbacks. Therefore, the Executive Director has determined that approval of the subject development, as conditioned, will not prejudice the ability of the City of Torrance to prepare the necessary ordinances and implementing actions to adequately carry out the City's adopted Land Use Plan.

SPECIAL CONDITIONS:

Prior to transmittal of permit, the applicant shall submit evidence to indicate that the proposed blufftop development is consistent with the "safe building line" (blufftop setback) as defined in the City of Torrance adopted Land Use Plan.

COASTAL COMMISSION
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EXHIBIT # 16
PAGE 1 OF 5

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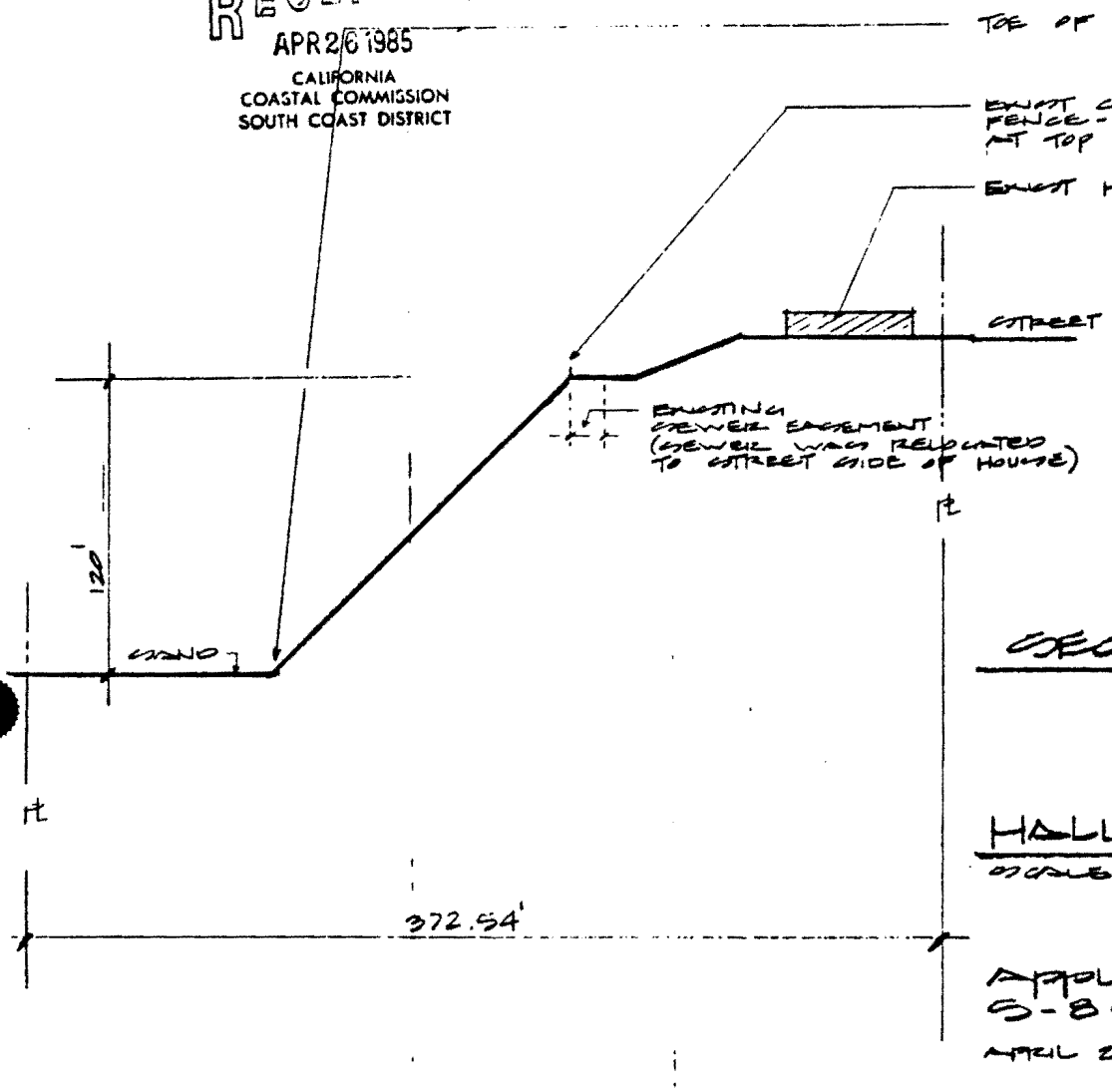


SECTION A

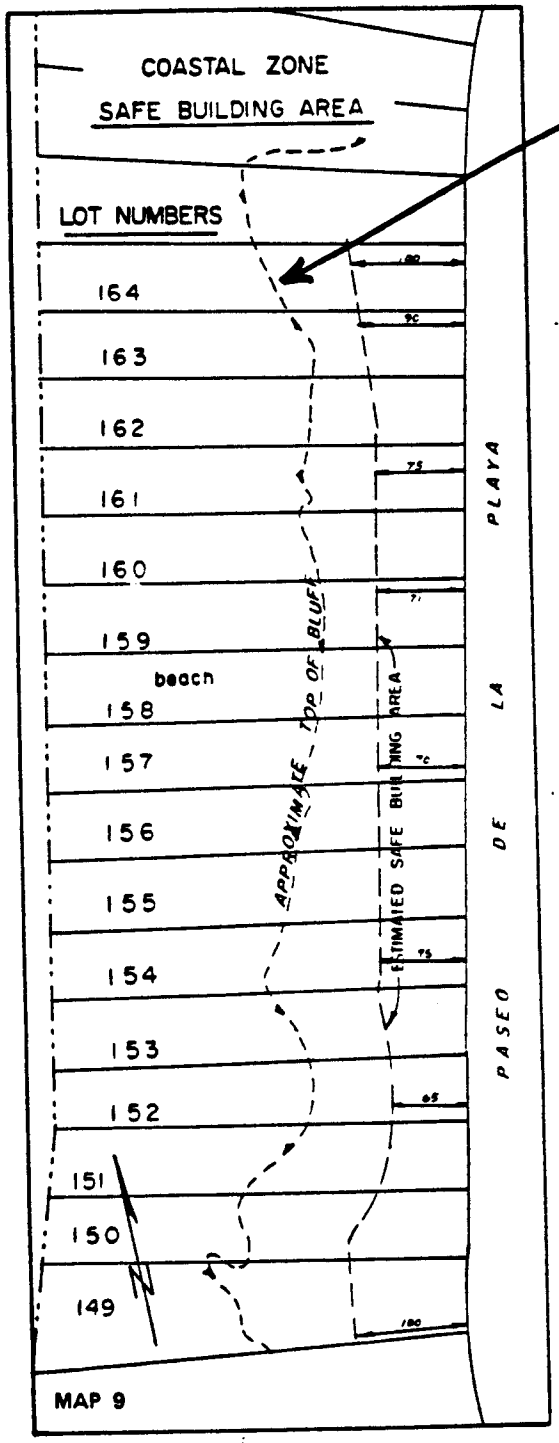
HALL RESIDENCE

SCALE 1" = 60'

APPLICATION NO.
5-85-183

APRIL 25, 1985

Exhibit B
5-85-183

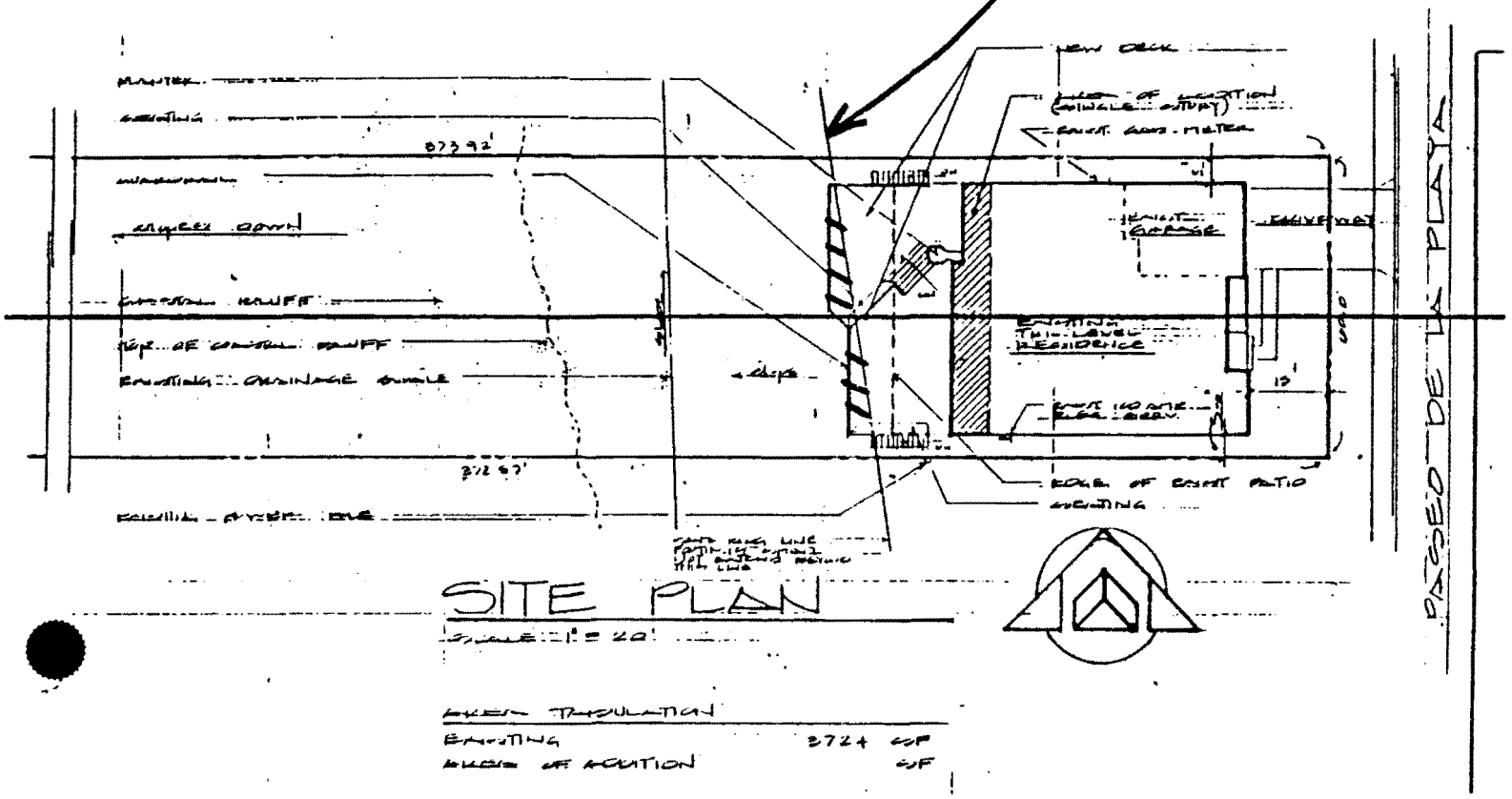


Subject Lot
5-85-183

Map Indicating "Safe Building Area"

Exhibit C
5-85-183

"Safe Building Line"



Area Calculations

Site

Existing

Lot

COASTAL COMMISSION

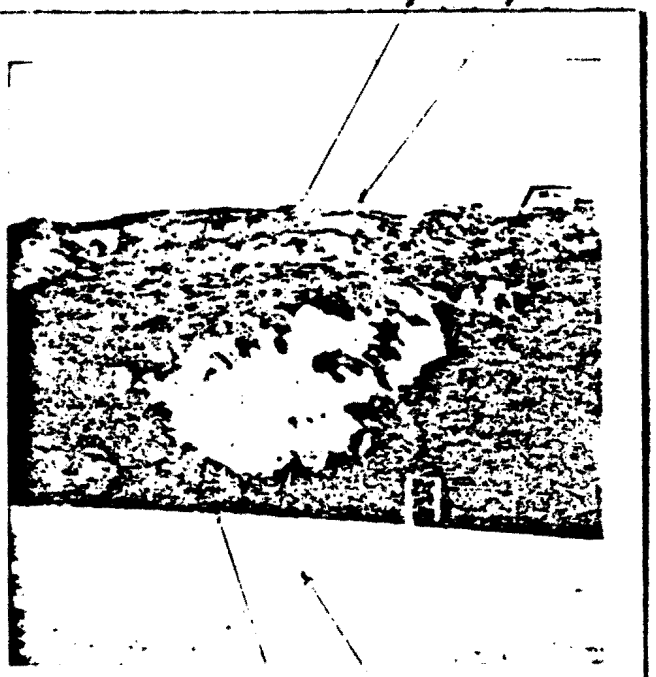
EXHIBIT # 16

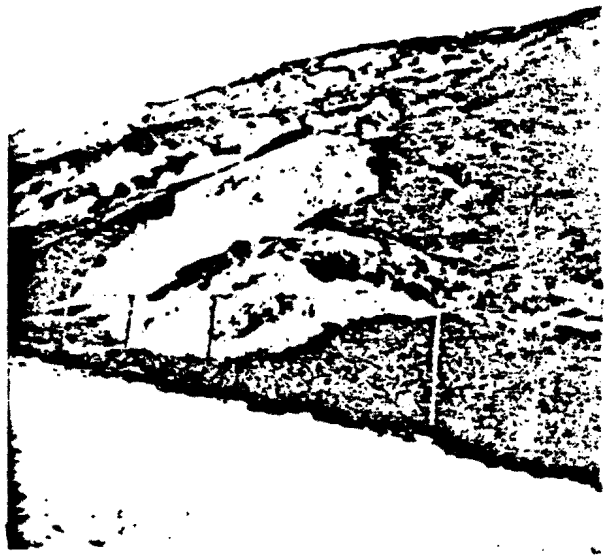
PAGE 4 OF 5

Exhibit D
5-85-183

EXSTING RESIDENCE

EXST. CHAIN LINK FENCE (TOP OF COASTAL BLUFF)





SAND (BEACH)

TOE OF COASTAL BLUFF

APPLICATION # 5-85-183

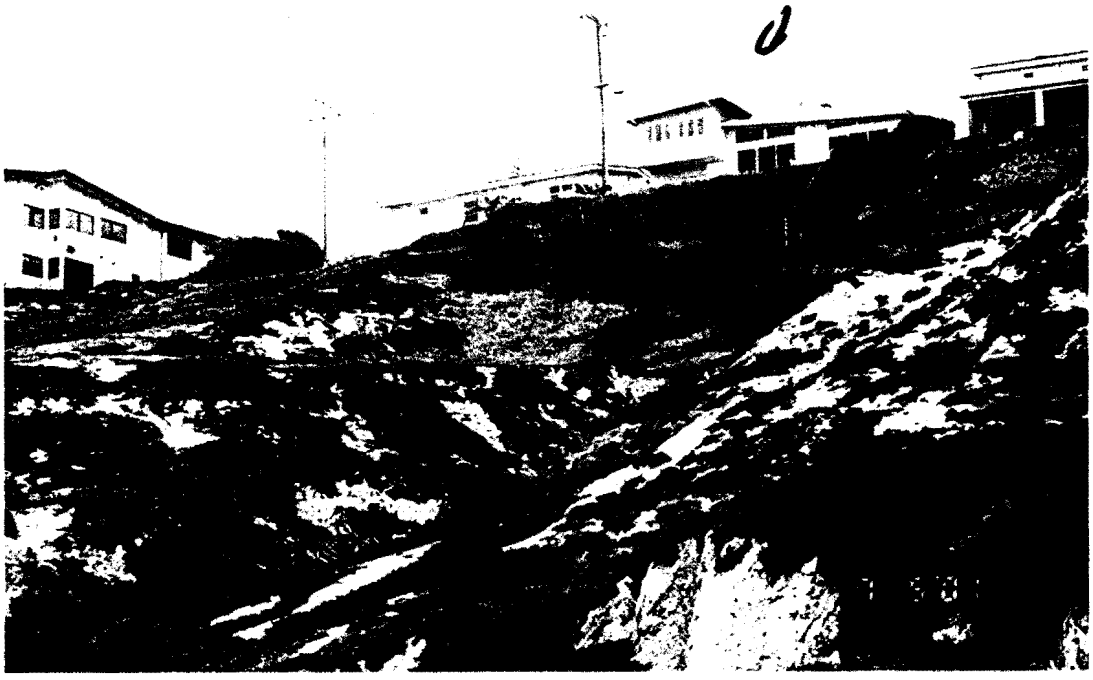
Exhibit E

511 PASEO DE LA PLAYA, TORRANCE

Figure 1. Top: El Segundo blue butterfly (ESB) on iceplant (*Carpobrotis edulis*). Bottom: ESB on its host plant *Eriogonum parvifolium*, dune buckwheat. Both pictures taken on the Conger property.

5.01 018
Exh. 12

Exhibit Conger bluff face



5.01 OLF
Exhibit 18

5-01-018 (Conger) Exhibit looking north at bluff face.

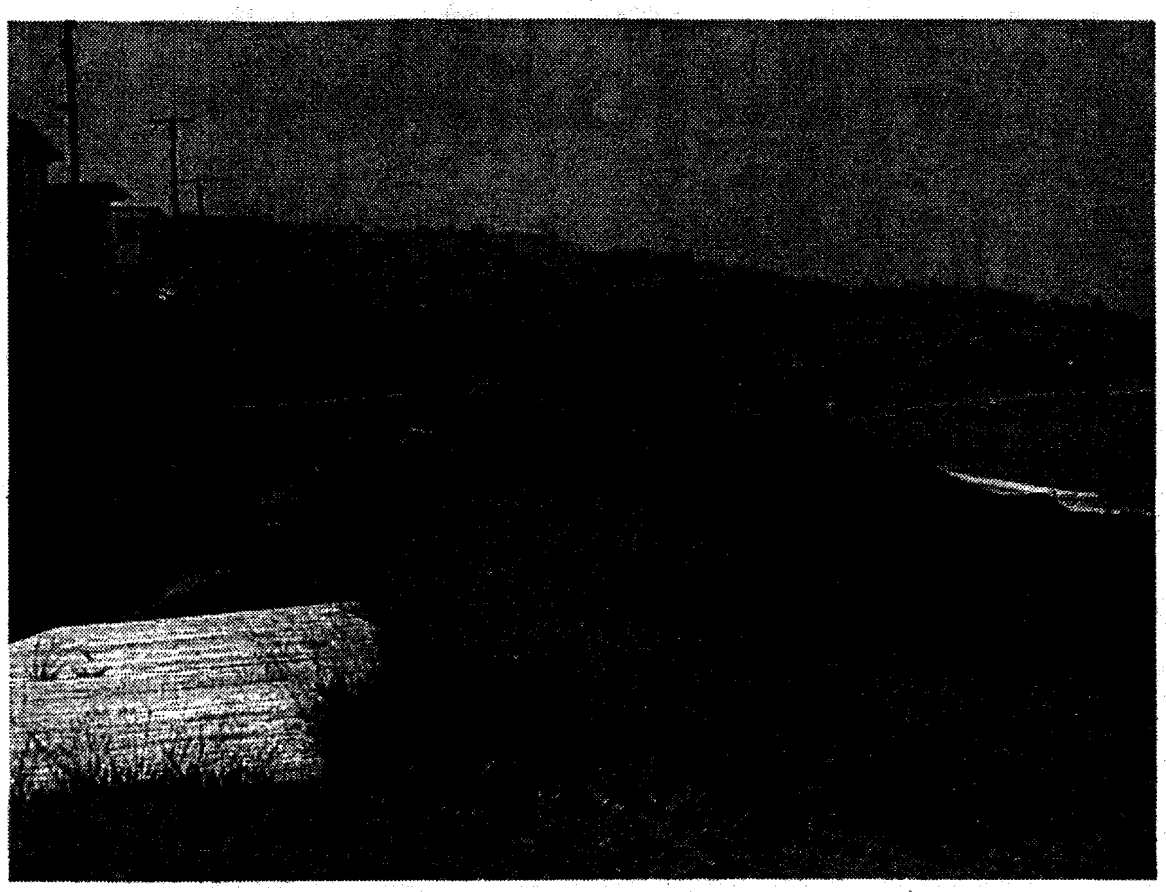
COASTAL COMMISSION

EXHIBIT # 19

PAGE _____ OF _____

5-01-018

5-01-018 Conger Exhibit view along graded bench, swale visible, looking south



COASTAL COMMISSION

EXHIBIT # 20

PAGE ____ OF ____

5-01-018