STATE OF CALIFORNIA - THE RESOURCES AGENCY

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PETE WILSON, *Governor*

CALIFORNIA COASTAL COMMISSION

South Coast Area Office
200 Oceangate, 10th Floor
Long Beach, CA 90802-4302
(562) 590-5071

Filed: 08-01-97
49th Day: 09-19-97
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Staff: RMR-LB RMR
Staff Report: 09-17-97
Hearing Date: October 7-10, 1997
Commission Action:

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 5-97-107

APPLICANT: Ed Spruill AGENT: Ultimo Construction

PROJECT LOCATION: 1203 Buena Vista, San Clemente, Orange County

PROJECT DESCRIPTION: The bluff stabilization project consists of the drilling of thirty (30) twelve (12) inch in diameter holes through the concrete slab adjacent to the seaward perimeter foundation of the residence and in a planter box and installation of thirty (30) two (2) inch in diameter (minimum) steel rod anchors. The anchors will be installed seven feet into bedrock (approximately 35 feet from the surface) and will be encased in grout. A 36 inch steel reinforced concrete haunch shall underpin the residence foundation. The project also consists of the placement of 136+ cubic yards of grout under the foundation and patio slab.

Lot area:	32,700 sq. ft.
Building coverage:	NA
Pavement coverage:	NA
Landscape coverage:	NA
Parking spaces:	NA
Zoning:	R1
Plan designation:	RM (15.0 units/gross ac.)
Project density:	NA
Ht abv fin grade:	NA

LOCAL APPROVALS RECEIVED: Approval in Concept from the City of San Clemente Community Development Department

SUBSTANTIVE FILE DOCUMENTS: City of San Clemente certified Land Use Plan, Geotechnical Report by Lotus Consulting Engineers, Inc. March 5, 1997, Emergency Permit 5-97-107G

SUMMARY OF UNRESOLVED ISSUES:

Staff has attempted to contact the applicant to determine if the applicant agrees or disagrees with the special conditions of this permit, particularly the assumption of risk deed restriction. This question aside, there are no known unresolved issues with respect to this coastal development permit.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends the Commission approve the proposed project with special conditions regarding assumption of risk, future improvement and conformance with geotechnical recommendations.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

I. Approval with Conditions.

The Commission hereby grants a permit for the proposed development on the grounds that the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, 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, is located between the sea and the first public road nearest the shoreline and in in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

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. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

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

5. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.

6. 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.

7. 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. Assumption of Risk

Prior to the issuance of the coastal development permit, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which shall provide: (a) that the applicant understands that the site may be subject to extraordinary hazard from landslide and soil erosion, and the applicant assumes the liability from such hazards and (b) the applicant unconditionally waives any claim of liability on the part of the Commission and agrees to indemnify and hold harmless the Commission, its offices, agents and employees for damages arising from the Commission's approval of the project. The document shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens.

2. Future Improvement

This coastal development permit 5-97-107 approves the project as described herein. Any future development, as defined in Section 30106 of the Coastal Act, shall require an amendment to this permit or a new coastal development permit from the Coastal Commission or its successor agency unless such development is exempt from permit requirements pursuant to the Coastal Act and implementing regulations.

3. Conformance with Geologic Recommendations

Prior to the issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, project plans signed by the geotechnical consultants. These plans shall include a signed statement by the geotechnical consultant certifying that these plans incorporate the recommendations contained in the geotechnical investigation prepared by Lotus Consulting Engineers, Inc. dated March 5, 1997, which state that "...the design, construction and follow-up maintenance conform to all recommendations and [sic] verified by the geotechnical consultants in the field."

The project shall be constructed in conformance with the plans approved by the Commission. Any deviation from the plans approved by the Commission shall be submitted to the Executive Director for a determination as to whether the changes are substantial. Any substantial deviations shall require an amendment to this permit or a new coastal development permit.

IV. Findings and Declarations.

The Commission hereby finds and declares:

A. Project Description

The development consists of the drilling of thirty (30) twelve (12) inch in diameter holes through the concrete slab adjacent to the seaward perimeter foundation of the residence and installation of thirty (30) two (2) inch in diameter (minimum) steel rod anchors (see Exhibits 2, 3 and 5). Nine of the thirty anchors will be drilled and injected through a planter box at the bluff edge. The anchors will be installed seven feet into bedrock (approximately 35 feet from the surface) and will be encased in grout (see Exhibit 4). A 36

inch steel reinforced concrete haunch shall underpin the ocean-fronting portion of the residence foundation (see Exhibit 6).

In addition, the project description of coastal development permit 5-97-107 also includes work conducted without a coastal development permit in May of 1996. This development consisted of the drilling of 11 three inch holes and injecting a total of 136.5 cubic yards of grout under the residence.

Coastal development permit 5-97-107 is the follow-up permit to Emergency Permit 5-97-107G, which was issued on April 22, 1997. The project description in the emergency permit called for 20 anchors, however the plans submitted by the applicant show that 30 anchors were installed with the emergency permit. Other than this discrepancy and the addition of the 1996 unpermitted work, the development proposed in this permit is the same as that approved by the issuance of the emergency permit. The development has been completed.

The project site is located on an eroding coastal bluff in the City of San Clemente. The existing structure is protected by shotcrete on the bluff face and by five concrete caissons on the bluff face. The site is subject to movement caused by sub-surface water eroding the soils from under the structure's foundation and patio area. The coastal bluffs in San Clemente are separated from the beach by railroad tracks, and therefore are not subject to wave attack. The single-family residence on the site was constructed in 1951. The bluff at the rear of the residence has been substantially altered prior to the passage of the Coastal Act and is covered with a gunite and caisson system.

The site is bordered by an apartment building and a vacant lot.

B. Geologic Safety

Section 30253 of the Coastal Act states in part:

> New development shall:
>
> (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
>
> (2) 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.

The proposed development is located on a coastal bluff which is subject to erosion and landsliding. Bluff erosion is caused by environmental factors and impacts by man. Environmental factors include seismicity, wave attack, drying and wetting of bluff face soils, wind erosion, salt spray erosion, rodent burrowing and piping, percolation of rain water, poorly structured bedding, surface water runoff and poorly consolidated soils. Factors attributed to man include bluff oversteepening from cutting roads and railroad tracks, improper irrigation practices, building too close to the bluff edge, improper site drainage, use of impermeable surfaces to increase runoff, use of water-dependent vegetation, pedestrian or vehicular movement across the bluff top and toe, and breaks in water or sewer lines. In addition to runoff percolating through the bluff top, increased residential development inland

leads to increased water percolating beneath the surface and outletting on the bluff face, forming a potential slide plane.

In a 1991 article entitled "Mass Movement and Sea Retreat along the Southern California Coast" published in the Bulletin of the Southern Academy of Science, Antony Orme writes:

> Seacliff retreat is a natural process which, if unheeded, threatens human life and livelihood, and which can be aggravated by human activity. It will continue to occur and therefore responsible coastal management must require that human activity be set back an appropriate distance from cliff tops and diverted from unstable and potentially unstable terrain.

In San Clemente the coastal bluffs are not subject to wave attack. However, the bluffs were oversteepened due to the construction of the AT&SF railroad tracks at the base of the bluffs. There are several instances of massive bluff restructuring in the City of San Clemente, i.e., the La Ventana landslide, the Marblehead bluffs, and the Colony Cove bluff restructuring. In both the La Ventana and Colony Cove instances houses were either completely ruined or partially destroyed. There are numerous other instances where homeowners have installed caisson and grade beam systems to protect an existing residence (5-93-181, 5-93-307, and 5-93-143) from shallow slope failures.

In this instance the coastal bluff face has already been substantially altered prior to passage of the Coastal Act. The geologic reports do not indicate the reason for the previous bluff protection. However, one can reasonably conclude that the conditions which are causing problems today are the conditions which created the necessity for the original bluff face protection.

The applicant has submitted a geotechnical report dated March 5, 1997 by Lotus Consulting Engineers, Inc. The report states that the coastal bluff at the rear of the residence consists of a 30 foot vertical shotcrete-covered bluff face, a ledge, and then a 40 foot slope at a gradient of 1.5:1. At the toe of the bluff is the road right-of-way and then the beach and ocean.

The vertical portion of the bluff adjacent to and below the building pad has been gunited/shotcreted and has five 24 inch diameter poured in place caissons at the southern end of the lot. Figure 3 shows a cross-section of the residence and the various structural elements, including a double thick concrete deck slab, the concrete caissons, the gunited bluff face, and the remaining natural slope. Exhibit 5 is a site plan showing the various structural elements, including the injection anchors (piles), the rock ledge and pathway, and the five concrete caissons on the bluff face.

Exhibit 6 shows the details of the concrete underpinning (concrete haunch) of the foundation at the rear of the residence. The concrete underpinning is 36 inches at its widest and 51 inches deep. The existing perimeter footing extends 24 inches under the residence. Concrete for the continuous foundation underpinning is placed adjacent to the footing and wraps around under the footing for another 12 inches. The concrete beneath the footing is supported by two rows of 33 inch long #4 rebar. Encased in the concrete are the injection anchors (piles) which extend approximately seven feet into bedrock.

Nine injection anchors were installed through the planter box into bedrock. The planter box is located at the most seaward portion of the rear patio. Another 17 injection anchors were located every five feet adjacent to the seaward portion of the existing foundation footing and another four injection anchors were installed on the sides (see Exhibit 2).

The applicant was granted an emergency permit (5-97-107G) on April 22, 1997 to install 20 two inch in diameter steel rod anchors around the perimeter of the residence, as well as the foundation underpinning. The plans submitted with this application call for 30 anchors not 20. The project description for permit 5-97-107 is the same as for 5-97-107G, with the exception that grout which was injected under the residence in 1996 is included with this permit. In their request for an emergency permit, the applicant's agent stated that the work was necessary to stabilize the building foundation and protect the existing structure. The agent wrote a letter to Commission staff on April 15, 1997 stating:

> We have reason to be concerned because the owner has monitored the hardscape and building, revealing that recent movement has occurred. Furthermore, there is evidence of voids and flowing water behind the gunite slope protection.

The March 5 geotechnical report confirms movement:

> Floor slab movement of up to 1" high and patio slab movement of up to 0.35" high were documented during the grouting operations [1996 construction]. A total quantity of 136.5 cubic feet was utilized in the grouting operations (excluding grout quantity used to fill voids). It is our understanding that the residence and patio slabs continue to show lateral and vertical movements even after grouting completed last year.

The geotechnical report stated that work was previously done at the site in 1996 by Denver Grouting services. This work consisted of the injection of 136.5+ cubic yards of grout at two points beneath the living room. The 1996 work was not approved by the Coastal Commission and therefore is included with this coastal development permit.

It is evident from the geotechnical report that despite the extraordinary bluff face protection measures which have been in place for as much as 30 years, continuing measures need to be taken to protect the existing structure. The geotechnical report states that, in all probability, subsurface water flowing under the residence causes erosion to occur under the residence foundation, the patio concrete slab and behind the shotcrete bluff face, creating voids or empty spaces under the residence. In 1996 several hundred cubic yards of grout were injected under the patio slab and foundation to fill voids, yet the foundation and patio slab continued to show lateral and vertical movement.

Erosion under the residence is an ongoing situation and one which is not solved by the measures taken to support the existing residence foundation. The shotcrete facing and caissons are supported vertically and are not tied back or anchored inland of the bluff face. The shotcrete bluff facing adjacent to the five caissons is placed over wooden planks supported by rebar. The bluff face to the north and south are unprotected and unsupported.

The residence is supported by conventional shallow footings. The house is a minimum of 8 feet from the bluff top and a maximum of 12 feet from the bluff top. Although the consulting geotechnical engineers did not observe major distress in the shotcrete and caisson-supported bluff face, they did observe cracks at the top of the caissons and on the shotcreted bluff face.

The consulting engineers offer no guarantee of site stability and state in their report:

> The site's surface and subsurface features (i.e., proximity of improvements to the top of bluff, bluff steepness and height, subsurface erosion and subgrade soil loss including possibly behind the shotcreted face of the bluff) has affected and will continue to affect the site and its stability.

In this case there is clearly an underlying hazard and bluff stability problem, that of water percolating under the residence and eroding away supporting soils. The protective measures taken in this permit will address the symptoms but not the underlying cause. Therefore, the potential for some kind of bluff failure which would affect the residence remains. The geotechnical report states that the bluff protective measures have held up but that:

> How many more years the bluff protection will last is difficult to estimate.

Section 30253 of the Coastal Act states that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard, and 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 (emphasis added).

In this case the protective devices, the shotcrete face and concrete caissons, are already in place. The proposed development consists of measures to support the foundation, stabilize the patio and residence and prevent further movement. The nature of the existing protective structures and the necessity for continuing measures to reinforce the bluff protective structures illustrate the instability of the site. In approving this permit the Commission, in its findings, is acknowledging that there is some risk to this development. However, the range of alternatives is limited by the nature of the existing development. Therefore, in these situations the Commission routinely requires the applicant to record a deed restriction stating that the applicant or successors understands that the site may be subject to extraordinary hazard, and acknowledges that the Commission is not liable for damages that might occur as a result of construction of the proposed development. In addition, because the applicant seeks to proceed with the project despite the risks, the applicant must indemnify the Commission against claims of damage brought by other parties.

In order to ensure that the specific recommendations of the consulting geotechnical experts are adhered to, the Commission requires that the applicant submit site plans signed and stamped by the geotechnical experts, along with an acknowledgement that the construction has been carried out in conformance with geotechnical recommendations.

Finally, development has taken place on the site without benefit of a coastal development permit. Because of the location of the site and the potential hazards involved in developing on a coastal bluff, the Commission finds that any future development on the site shall require a coastal development permit.

Only as conditioned does the Coastal Commission find that the proposed development conforms with Section 30253 of the Coastal Act.

C. 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.

The Commission certified the Land Use Plan for the City of San Clemente on May 11, 1988, and certified an amendment approved in October 1995. As conditioned, the proposed development is consistent with the policies contained in the certified Land Use Plan. Therefore, approval of the proposed development will not prejudice the City's ability to prepare a Local Coastal Program for San Clemente that is consistent with the Chapter 3 policies of the Coastal Act as required by Section 30604(a).

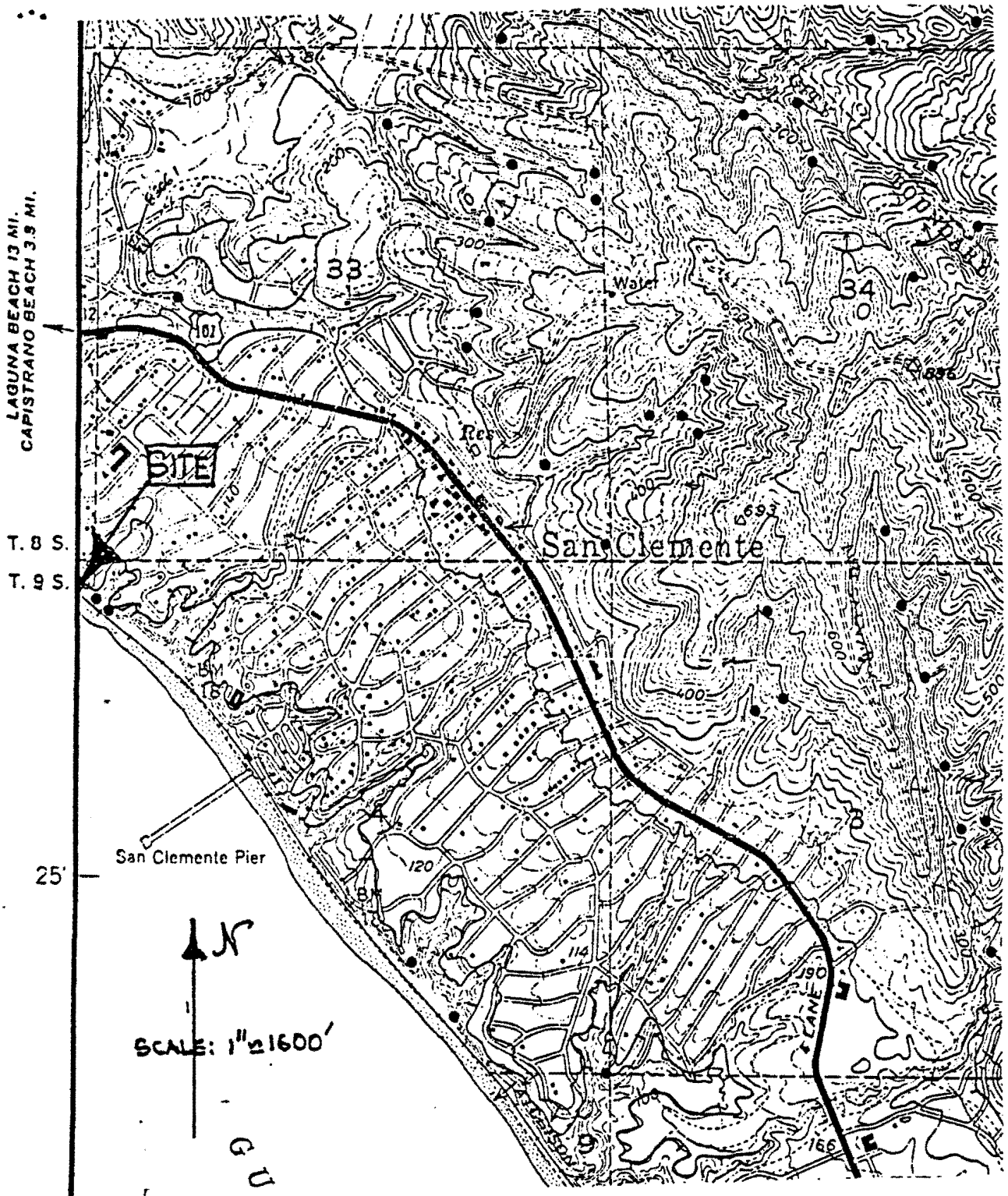
D. Consistency with the California Environmental Quality Act (CEQA)

Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(i) 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 impact which the activity may have on the environment.

The proposed project has been conditioned in order to be found consistent with section 30253 of the Coastal Act. Mitigation measures requiring the applicant to submit a deed restrictionn, conform to geotechnical recommendations and comply with a future improvement special condition will minimize all adverse impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which 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.

E. Unpermitted Development

Although development has taken place prior to submission of this permit application, consideration of the application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Approval of the permit does not constitute a waiver of any legal action with regard to the alleged violation nor does it constitute an admission as to the legality of any development undertaken on the subject site without a Coastal permit.



GEOLOGIC VICINITY MAP

REF: CDMG, SR 98, 1968

LOTUS Consulting Engineers, Inc.

APPLIED EARTH SCIENCES
FOUNDATION ENGINEERING
ENGINEERING GEOLOGY
CIVIL ENGINEERING

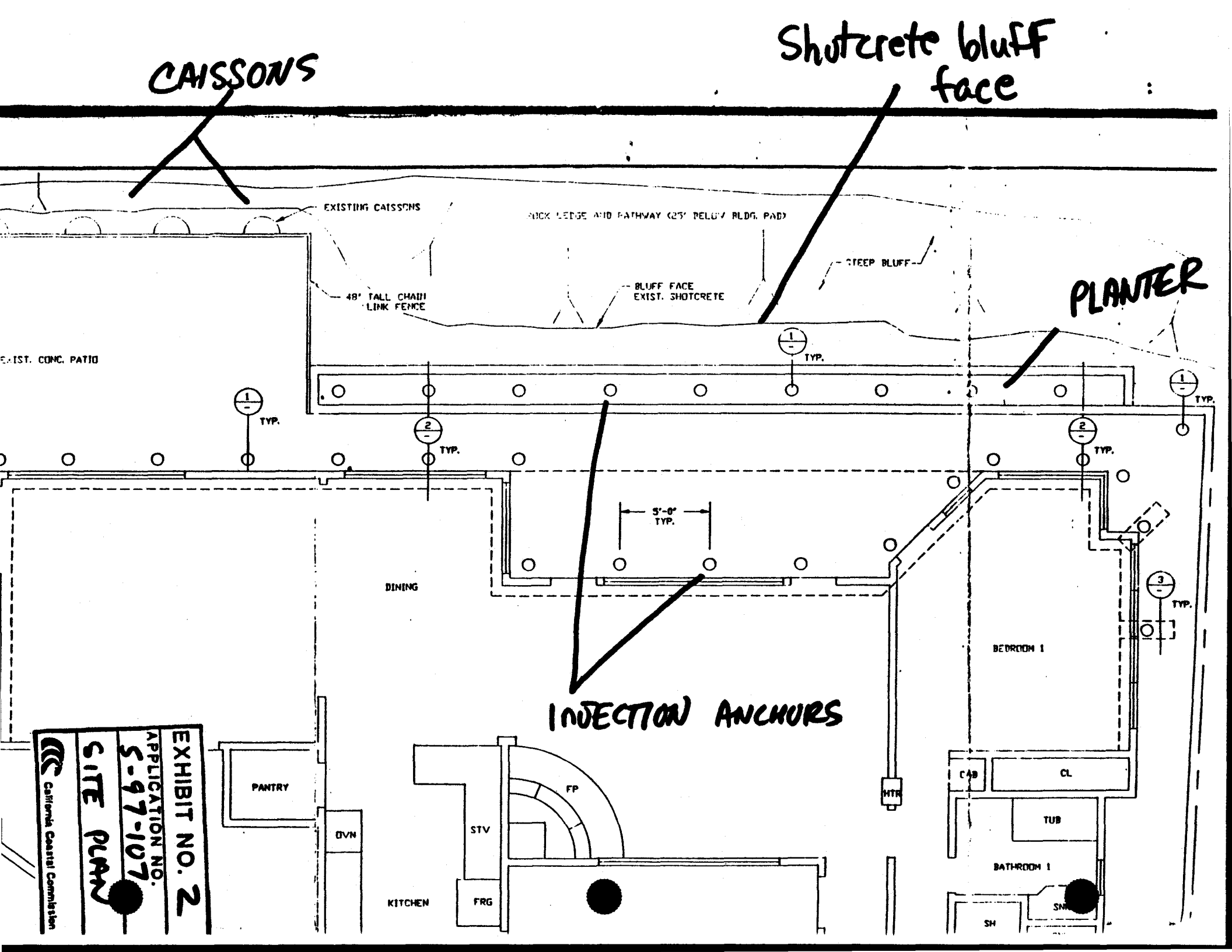
23112 ALCALDE DRIVE, SUITE C, LAGUNA HILLS, CA 92653 (714) 768-4486

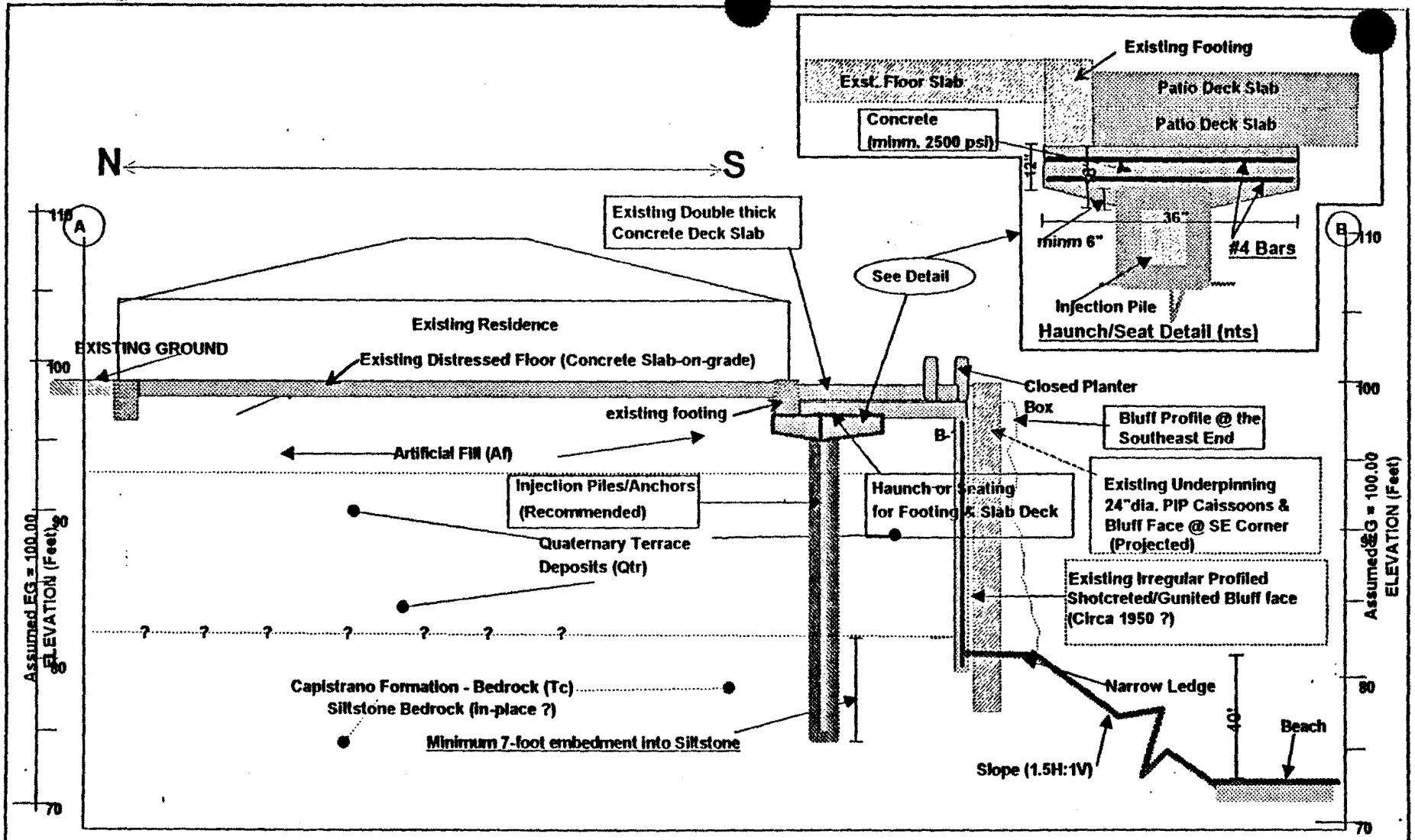
LIMITED GT EVALUATION
EXISTING SPRUILL RESIDENCE
1203 BUENA VISTA, SAN CLEMENTE, C

EXHIBIT NO. 1
APPLICATION NO. 5-97-107
VICINITY

California Coastal Commission

1353350

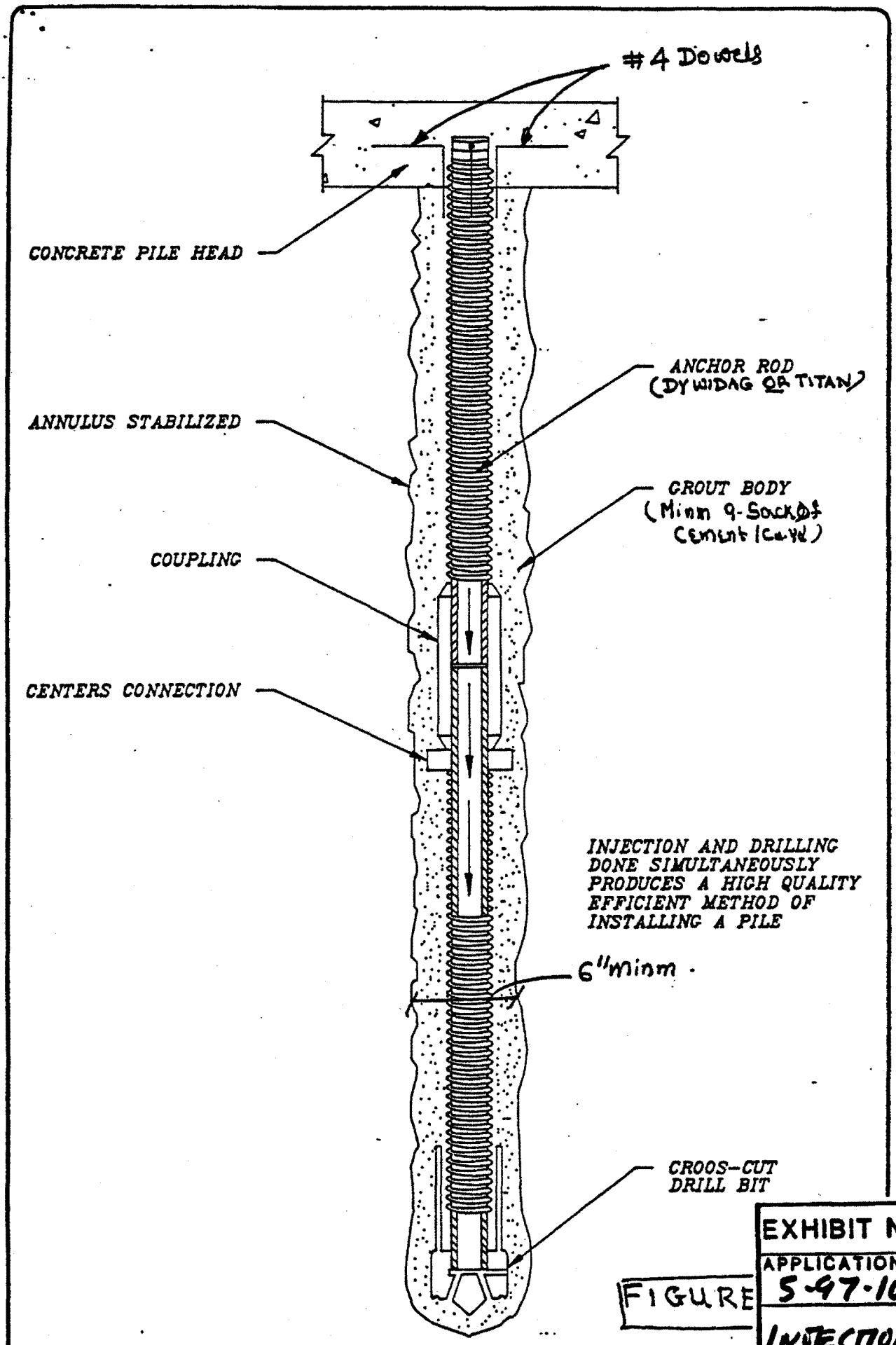

CAISSONS
Shotcrete bluff face
EXISTING CAISSONS
ROCK LEDGE AND PATHWAY (25' BELOW BLDG. PAD)
STEEP BLUFF
48" TALL CHAIN LINK FENCE
BLUFF FACE EXIST. SHOTCRETE
PLANTER
EXIST. CONC. PATIO
1/- TYP.
2/- TYP.
5'-0" TYP.
DINING
3/- TYP.
BEDROOM 1
INJECTION ANCHORS
PANTRY
OVN
STV
FP
KITCHEN
FRG
HTR
CAB
CL
TUB
BATHROOM 1
SH
EXHIBIT NO. 2
APPLICATION NO. 5-97-107
SITE PLAN
California Coastal Commission



CONCEPTUAL GEOTECHNICAL SECTION A- B WITH INJECTION PILE SUPPORT

[Not To Scale]

sulting Engrs. Inc. lde Dr., Suite D lls, California	Phone: 714-768-4466 Fax: 714-768-0735	Foundation/Rear Yard Distress Spruill Residence 1203 Buena Vista, San Clemente	Project: 97708 Figure: 3



REVISIONS

ULTIMO - GEOTECHNICAL
CONSTRUCTION AND ENGINEERING
PHONE 1-714-496-7245 FAX 1-714-496-7060

INJ. ANCH'S
MCRO PILES

DRAWN BY:
DAVE

EXHIBIT NO. 4

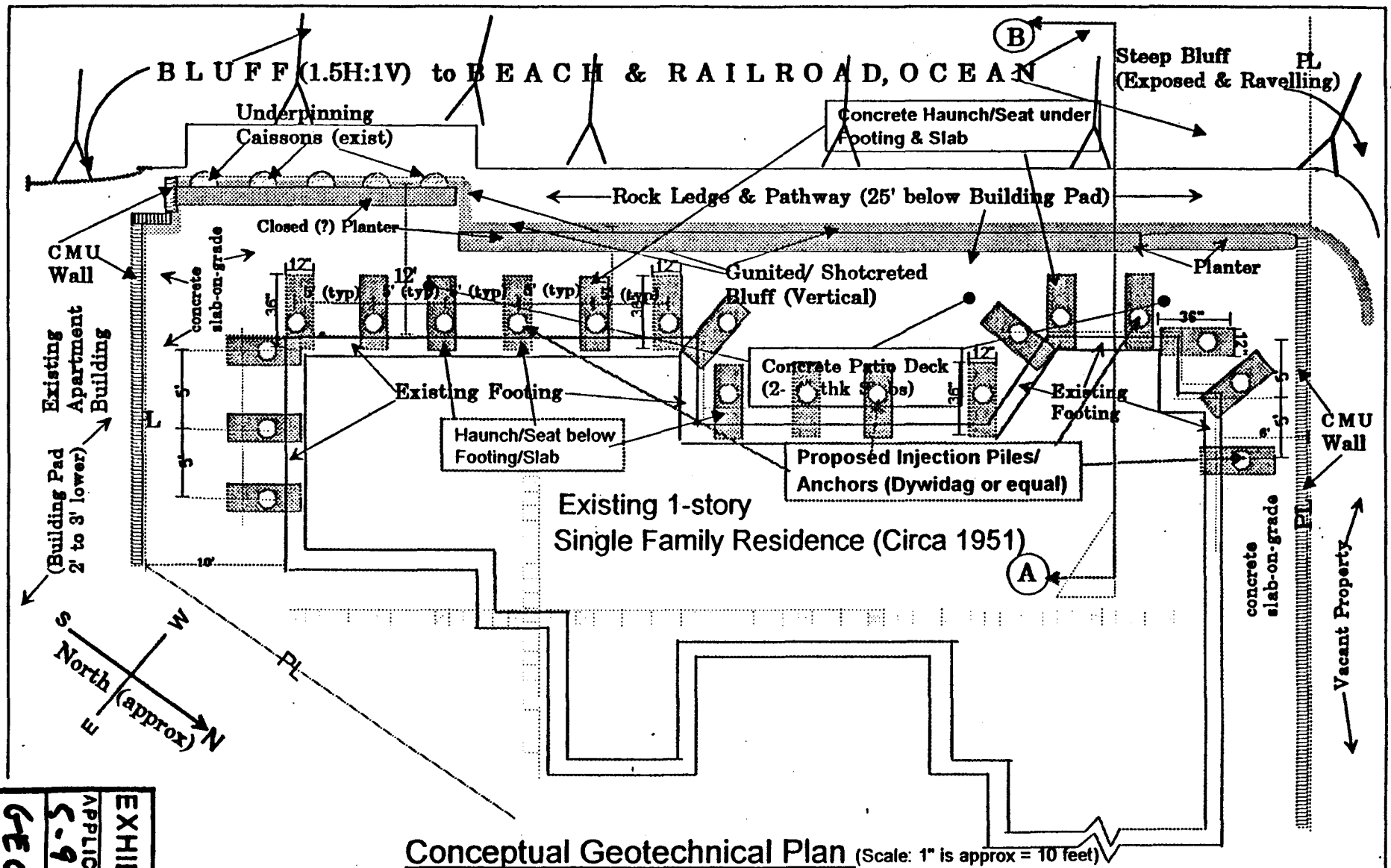
APPLICATION NO.
5-97-107

INJECTION PILE

California Coastal Commission

FIGURE

INJECTION PILE W/DRI

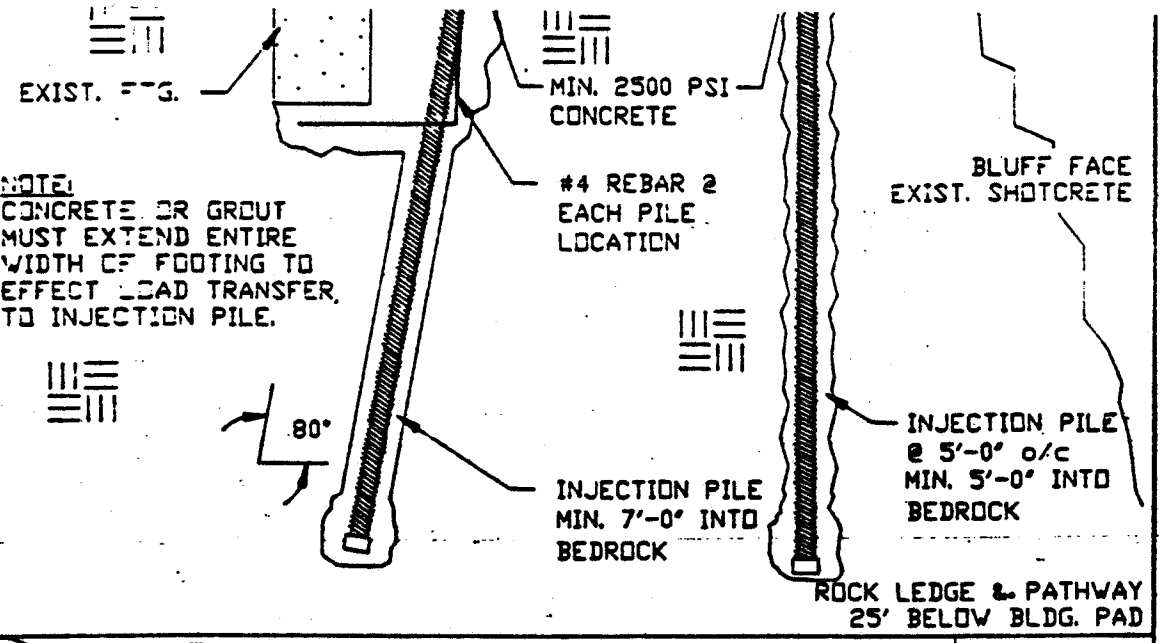


Conceptual Geotechnical Plan (Scale: 1" is approx = 10 feet)

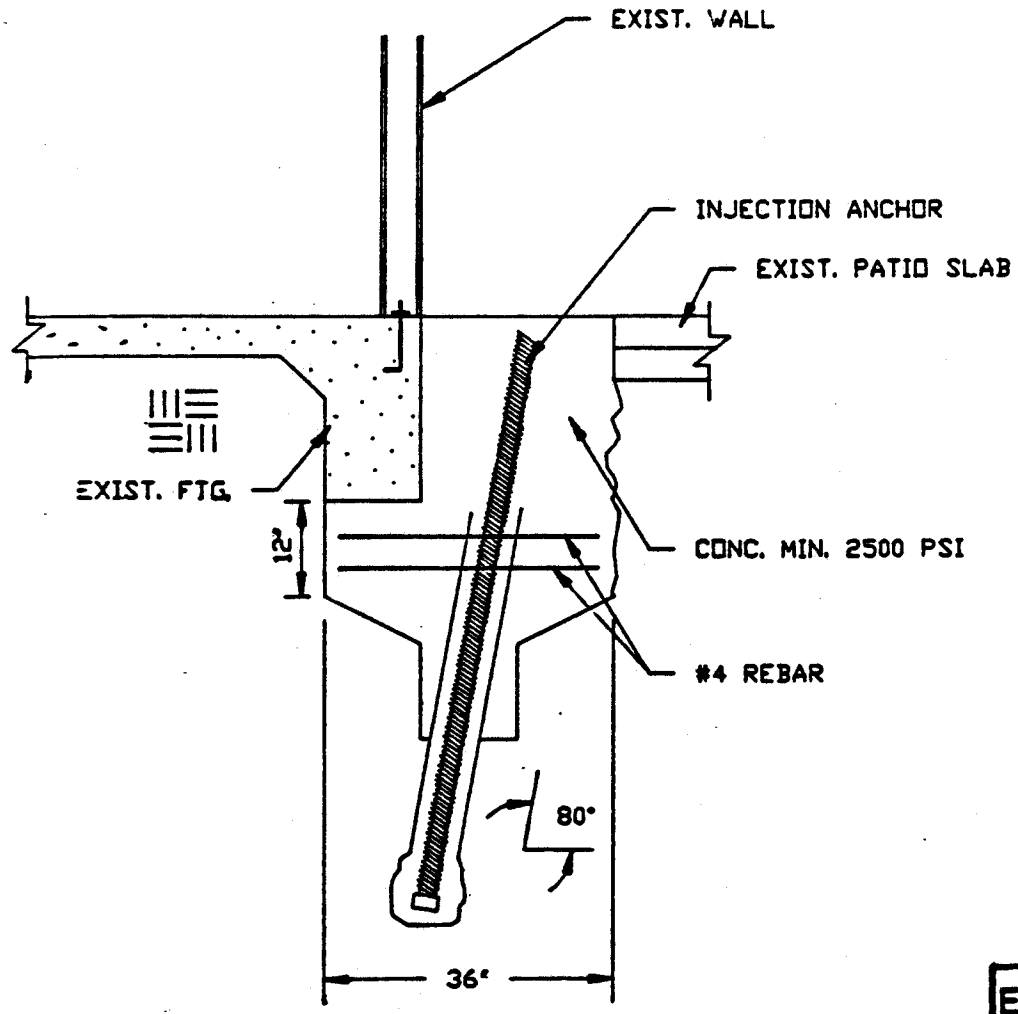
sulting Engrs. Inc. alde Dr., Suite D ills, California	Phone: 714-768-4466 Fax: 714-768-0735	Foundation/Rear Yard Distress Spruill Residence 1203 Buena Vista, San Clemente	Project: 97708 Figure: 2

EXHIBIT NO. 5
APPLICATION NO.
5-97-107
GEO PLAN

California Coastal Commission



2 REAR YARD PROFILE OF INJECTION PILE INSTALATION — N.T.S.



3 HAUNCH SEAT DETAIL — N.

EXHIBIT NO. [redacted]
APPLICATION NO. 5-97-107
UNDERPINNING

STATE OF CALIFORNIA—THE RESOURCES AGENCY PETE WILSON, Governor

CALIFORNIA COASTAL COMMISSION
SOUTH COAST AREA
245 W. BROADWAY, STE. 380
P.O. BOX 1450
LONG BEACH, CA 90802-4416
(310) 590-5071

EMERGENCY PERMIT

TO: Mr. Edward Spruill
6704 West Ocean Front
Newport Beach, CA 92663

April 22, 1997
Date

5-97-107-G
(Emergency Permit No.)

1203 Buena Vista, San Clemente, Orange County
Location of Emergency Work

Drilling of twenty (20) twelve (12) inch in diameter holes through the concrete slab adjacent to the seaward perimeter foundation of the residence and installation of twenty (20) two (2) inch in diameter (minimum) steel rod anchors. The anchors shall be installed seven feet into bedrock (approximately 35 feet from the surface) and shall be encased in grout. A 36 inch steel reinforced concrete haunch shall underpin the residence foundation.
Work Proposed

This letter constitutes approval of the emergency work you or your representative has requested to be done at the location listed above. I understand from your information and our site inspection that an unexpected occurrence in the form of cracking and settlement requires immediate action to prevent or mitigate loss or damage to life, health, property or essential public services. 14 Cal. Admin. Code Section 13009. The Executive Director hereby finds that:

(a) An emergency exists which requires action more quickly than permitted by the procedures for administrative or ordinary permits and the development can and will be completed within 30 days unless otherwise specified by the terms of the permit;

(b) Public comment on the proposed emergency action has been reviewed if time allows; and

(c) As conditioned the work proposed would be consistent with the requirements of the California Coastal Act of 1976.

The work is hereby approved, subject to the conditions listed on the reverse.

Very Truly Yours,

Peter M. Douglas
Executive Director

By: Teresa Henry

Title: District Director

EXHIBIT NO. 7
APPLICATION NO. 5-97-107
Emergency Permit

CONDITIONS OF APPROVAL:

1. The enclosed form must be signed by the property owner and returned to our office within 15 days.

2. Only that work specifically described above and for the specific property listed above is authorized. Any additional work requires separate authorization from the Executive Director.

3. The work authorized by this permit must be completed within 30 days of the date of this permit.

4. Within 60 days of the date of this permit, the permittee shall apply for a regular Coastal Permit to have the emergency work be considered permanent. If no such application is received, the emergency work shall be removed in its entirety within 150 days of the date of this permit unless waived by the Director.

   The application for a coastal development permit shall include grout injection work which was conducted at the rear of the site in 1996.

5. In exercising this permit the applicant agrees to hold the California Coastal Commission harmless from any liabilities for damage to public or private properties or personal injury that may result from the project.

6. This permit does not obviate the need to obtain necessary authorizations and/or permits from other agencies.

Condition #4 indicates that the emergency work is considered to be temporary work done in an emergency situation. If the property owner wishes to have the emergency work become a permanent development, a Coastal permit must be obtained. A regular permit would be subject to all of the provisions of the California Coastal Act and may be conditioned accordingly. These conditions may include provisions for public access (such as an offer to dedicate an easement) and/or a requirement that a deed restriction be placed on the property assuming liability for damages incurred from geologic hazards.

If you have any questions about the provisions of this emergency permit, please call the Commission Area office.

Enclosures: 1) Acceptance Form; 2) Regular Permit Application Form

cc: Local Planning Department

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