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STATE OF CALIFORNIA - THE RESOURCES AGENCY

GRAY DAVIS, Governor

## CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA  
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Staff: J Johnson  
Staff Report: 11/18/99  
Hearing Date: 12/9/99



### STAFF REPORT: REGULAR CALENDAR

**APPLICATION NO:** 4-98-060

**APPLICANT:** Nann Von Oppenheim

**AGENT:** Lynn Heacox

**PROJECT LOCATION:** 20726 & 20732 Pacific Coast Highway, City of Malibu, Los Angeles County

**PROJECT DESCRIPTION:** Construct two three-story single family residences with attached two car garages, two bottomless sand filter sewage disposal systems, and one vertical concrete seawall/bulkhead. One residence and garage will be 3,732 sq. ft and the other 3,866 sq. ft. in size. Approximately 1,329 sq. ft. of decks are proposed for each residence. The project also consists of a lot line adjustment between two parcels and grading of a total of 55 cubic yards of cut and 260 cubic yards of fill. The applicant has offered to dedicate a lateral public access easement on these two beachfront lots.

	20726 PCH	20732 PCH
<b>Lot line adjustment</b>		
Existing lot area:	6,429 sq. ft.	8,731 sq. ft.
Proposed lot area:	7,085 sq. ft.	8,075 sq. ft.
<b>Proposed Residences</b>		
Building coverage:	1,900 sq. ft.	2,000 sq. ft.
Pavement coverage:	300 sq. ft.	300 sq. ft.
Landscape coverage:	0 sq. ft.	0 sq. ft.
Parking spaces:	3 spaces	3 spaces
Ht abv fin grade:	34 ft.	34 ft.

#### SUMMARY OF STAFF RECOMMENDATION

Staff recommends approval of the proposed project with Special Conditions which will bring the project into conformance with the Coastal Act: applicant's assumption of risk, implementation of the applicant's offer to dedicate lateral public access, future improvements to seawall, conformance with geologic recommendations, construction responsibilities, sign restrictions, revised project plans, public view corridor, and public sidewalk. The proposed residence and decks will be located within the stringline of adjacent structures and decks. The project site is located on Big Rock Beach between Las Flores Canyon Road and Big Rock Drive where one residence was destroyed by winter storms in February 1980, the other in 1988. These sites

have remained vacant since. Only as conditioned to record an assumption of risk deed restriction, to conform with the geotechnical consultant's recommendations, and to remove all construction debris will the proposed project minimize risks to life and property, consistent with §30253. The project, as conditioned to implement the applicant's offer to dedicate lateral public access, to require permits for future signs to require revised project plans, public view corridors and a public sidewalk, will minimize impacts to public views and access, consistent with §30210, §30211, §30212, §30220, and 30251 of the Coastal Act.

**STAFF NOTE:**

**This application must be acted on by the Commission at the January 11 - 14, 2000 Commission meeting to meet the requirements of the Permit Streamlining Act. This time limit already includes an additional 90 days granted by the applicant to allow additional time for the Commission to consider this application. Staff recommends that the Commission act on this application on at the December 7 - 10, 1999 meeting, by approving this application with conditions and adopting the findings in this report.**

**LOCAL APPROVALS RECEIVED:** City of Malibu Approval in Concept dated 3/13/99, Environmental Health Department In-Concept Approval dated April 16, 1999, and City of Malibu Geologic Review Sheet, dated 1/2/98

**SUBSTANTIVE FILE DOCUMENTS:** State Lands Commission Determination dated July 9, 1998; Updated Soils and Engineering Geologic Investigation by Geosystems, dated July 11, 1997; Coastal Engineering Report dated July 20, 1998 and Proposed Single Family Dwellings, dated January 9, 1999, both prepared by David Weiss, Structural Engineer & Associates; Coastal Permit No. 4-99-075, Bomel; Coastal Permit No. 4-99-086, Greene; Coastal Permit No. 4-97-191, Kim; Coastal Permit No. 4-99-146, Saban.

**I. STAFF RECOMMENDATION:**

Staff recommends that the Commission **APPROVE** the permit application with special conditions.

**Motion:**

Staff recommends a **YES** vote on the following motion and adoption of the following resolution and findings.

**I move that the Commission approve with special conditions Coastal Development Permit Number 4-99-060 per the staff recommendation as set forth below.**

A majority of the Commissioners present is required to pass the motion.

### Resolution

#### Approval with Conditions

The Commission hereby grants, subject to the conditions below, a permit for the proposed development on the grounds that the development, as conditioned, 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 is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse effects 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 on which the Commission voted on the application. 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 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 development during construction, 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. Applicant's Assumption of Risk**

- A. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from landslides, storm waves, erosion, flooding, or wildfire; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; 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 applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed 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 deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

#### **2. Offer to Dedicate Lateral Public Access**

In order to implement the applicant's proposal of an offer to dedicate an easement for lateral public access and passive recreational use along the shoreline as part of this project, the applicant agrees to complete the following prior to issuance of the permit: the landowner shall execute and record a document, in a form and content acceptable to the Executive Director, irrevocably offering to dedicate to a public agency or private association approved by the Executive Director an easement for lateral public access and passive recreational use along the shoreline. The document shall provide that the offer of dedication shall not be used or construed to allow anyone, prior to acceptance of the offer, to interfere with any rights of public access acquired through use which may exist on the property. Such easement shall be located along the entire width of the property from the mean high tide line landward to the dripline of the approved decks as illustrated on the site plan prepared pursuant this Special Condition (Exhibit 13), and approved by the Executive Director.

The document shall contain the following language:

Privacy Buffer

The area ten (10) feet seaward from the dripline of the approved decks as illustrated on the project plans in Exhibit 13 shall be identified as a privacy buffer. The privacy buffer shall be applicable only if and when it is located landward of the mean high tide line and shall be restricted to pass and repass only, and shall be available only when no other dry beach areas are available for lateral public access. The privacy buffer does not affect public access should the mean high tide line move within the buffer area.

Passive Recreational Use

The remaining area shall be available for passive recreational use.

The document shall be recorded free of prior liens which the Executive Director determines may affect the interest being conveyed, and free of any other encumbrances which may affect said interest. The offer shall run with the land in favor of the People of the State of California, binding all successors and assignees, and shall be irrevocable for a period of 21 years, such period running from the date of recording. The recording document shall include legal descriptions of both the applicant's entire parcel and the easement area. This deed restriction shall not be removed or changed without a Coastal Commission-approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**3. Seawall Installation: Future Limitations**

Prior to the issuance of Coastal Development Permit 4-98-060, the applicant as landowner shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which states that no future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective device approved pursuant to this permit shall be undertaken if such activity extends the seaward footprint of the subject shoreline protective device. The deed restriction shall include a legal description of the applicant's entire two parcels and the following Exhibits, including both full-sized and 8-1/2 by 11-inch reductions, prepared to the satisfaction of the Executive Director: (a) a site plan mapping to scale the applicant's parcels in accordance with the legal description, including the development approved pursuant to this permit and (b) a cross section view of item (a). Both Exhibits shall identify and map the exact distance between the seaward most component of the shoreline protective device and a fixed, baseline monument or landmark landward of the subject device found acceptable by the Executive Director. The deed 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 deed restriction shall not be removed or changed without a Coastal Commission approved amendment to this coastal development permit.

**4. Sign Restriction**

No signs shall be posted on the property subject to this permit which (a) explicitly or implicitly indicate that the portion of the beach on the subject sites (Assessor's Parcel Numbers 4450-7-35 and 4450-7-36), located seaward of the residence, deck, or the seawall permitted in this application 4-98-060 is private or (b) contain similar messages that attempt to prohibit public use of this portion of the beach. In no instance shall signs be posted which read "*Private Beach*" or "*Private Property*." In order to effectuate the above prohibitions, the permittee/landowner is required to submit to the Executive Director for review and approval prior to posting the content of any proposed signs.

**5. Plans Conforming to Geology and Engineering Report Recommendations**

All recommendations contained in the Coastal Engineering Report dated July 20, 1998 and Proposed Single Family Dwellings Report dated January 9, 1999 by David Weiss, Structural Engineer & Associates, and Updated Soils and Engineering Geological Investigation, dated July 11, 1997 by Geosystems, and Information Pertaining to Septic Systems for CDP No. 4-98-060, dated August 13, 1999 by Bedrock Engineering, shall be incorporated into all final design and construction including recommendations concerning foundations, lateral design, temporary excavation slopes, retaining walls, foundation and building setback, drainage protection, and septic systems, and all plans must be reviewed and approved by the consultants prior to commencement of development. Prior to issuance of the coastal development permit, the applicant shall submit evidence to the Executive Director of the consultants' review and approval of all final design and construction plans.

The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission relative to construction, grading and drainage. Any substantial changes in the proposed development approved by the Commission which may be required by the consultant shall require an amendment to the permit or a new coastal permit. The Executive Director shall determine whether required changes are "substantial".

**6. Construction Responsibilities and Debris Removal**

The applicant shall, by accepting this permit, agree: a) that no stockpiling of dirt shall occur on the beach; b) that all grading shall be properly covered, sand-bagged, and ditched to prevent runoff and siltation; and, c) that measures to control erosion must be implemented at the end of each day's work. In addition, no machinery will be allowed in the intertidal zone at any time. The permittee shall remove from the beach and seawall area any and all debris that result from the construction period.

**7. Revised Plans**

Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, revised project plans which show that:

- (a) As consistent with Special Condition Eight (8), proposed development (including a portion of the proposed residences and decks), located within the view corridors, as designated in Exhibit 13, is deleted to create a total of 20 % street frontage view corridors or a total of 21.6 feet completely open areas without structures, decks, or roof overhangs . Fencing consisting of visually permeable designs and materials (e.g. wrought iron or non-tinted glass material) and low-lying vegetation may be allowed with a future coastal development permit or amendment. No fencing or vegetation is proposed by the applicant in this application.

**8. Public View Corridor**

Prior to the issuance of the coastal development permit, the applicant shall execute and record a document, in a form and content acceptable to the Executive Director, which provides that:

- a. No less than 20% of the lineal street frontage of the project site shall be maintained as public view corridors from Pacific Coast Highway to the Pacific Ocean.
- b. As consistent with Special Condition Seven (7), no structures, vegetation, or obstacles which result in an obstruction of public views of the ocean from Pacific Coast Highway shall be permitted within the public view corridors as shown on Exhibit 13.
- c. Fencing within the public view corridor shall be limited to visually permeable designs and materials (e.g. wrought iron or non-tinted glass materials).
- d. Vegetation within the public view corridor shall be limited and maintained to be low-lying vegetation of no more than 2 ft. in height.

The document shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

**9. Construction of Sidewalk**

Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, revised project plans which show that:

The applicant will construct a 5 ft. wide public sidewalk between the proposed development and Pacific Coast Highway, the applicant agrees that prior to the issuance of the coastal development permit, the applicant shall submit revised plans for the construction of a five (5) ft. wide sidewalk between Pacific Coast Highway and the proposed development. The applicant shall construct the sidewalk improvements no later than 60 days after the issuance of the certificate of occupancy. No encroachments, such as planters, vegetation, vehicles, or other structures or obstacles, that would affect the public's ability to use the entire sidewalk area shall be constructed or placed.

#### **IV. Findings and Declarations**

The Commission hereby finds and declares:

##### **A. Project Description and Background.**

The applicant proposes to construct two, three story existing single family residences with attached two car garages, two bottomless sand filter sewage disposal systems, and one vertical seawall. One residence and garage will be 3,732 sq. ft and the other 3,866 sq. ft. in size. Approximately 1,329 sq. ft. of decks are proposed for each residence. The project also consists of a lot line adjustment between two parcels and grading of a total of 55 cubic yards of cut and 260 cubic yards of fill. One lot at 20726 will be increased in size from 6,429 sq. ft. to 7,085 sq. ft. in size. The second lot at 20732 Pacific Coast Highway will be decreased in size from 8,731 sq. ft. to 8,075 sq. ft. in size. The applicant has offered to dedicate a lateral public access easement on these two beachfront lots. The project site is located on Big Rock Beach between Las Flores Canyon Road and Big Rock Drive, within the City of Malibu (Exhibits 1- 13).

Two previous residences were destroyed by winter storms in February 1980, the other in 1988. The applicant has stated that these prior residences were destroyed by ocean storms and uncontrolled runoff from Caltrans property and were partially washed out to sea. These sites have remained vacant since. The applicant proposes to construct the residences on separate caisson and grade beam foundations protected by a seawall consisting of concrete caissons sheeted with a reinforced concrete face. The seawall is about 112 feet long and is proposed to be connected to the existing bulkhead to the west. The seawall is proposed to be connected to the existing bulkhead on the east with an approximate 14 foot long end wall. A retaining wall is proposed along the landward side of the residences with a level backfill at the same level as Pacific Coast Highway to provide for a level driveway and entrance to the garage and residence.

At the request of Commission staff, the consulting engineer, Mark Wilson, Bedrock Engineering determined that the seawall/bulkhead could be located more landward as compared to the original design. Mr. Wilson states:

The septic system was re-designed to include a bottomless sand filter design. This re-design permitted the seawall to be located 11.5' more landward than the original design. ... In my opinion the design of the system is located in the most landward position feasible under the proposed circumstances.

The proposed project includes the construction of two alternative private sewage disposal systems to serve the wastewater disposal needs of each proposed residence. Each of these systems includes a 1,500-gallon septic tank, a 1,500-gallon dosing tank, and an active drainfield of approximately 460 sq. ft. (20726 PCH) and of approximately 563 sq. ft. (20732 PCH) as a bottomless sand filter. The applicant submitted a revised City of Malibu, Environmental Health "In-Concept Approval" dated April 16, 1999 noting that the City has approved the proposed revised septic system.

#### **B. Shoreline Protective Devices.**

The applicant proposes to construct two new residences on caisson and grade beam foundation with one vertical concrete seawall/bulkhead located beneath the residences. The proposed seawall/bulkhead would extend across the width of the two subject parcels approximately 112 feet, with an approximate 14 foot long end wall on the downcoast property line and connected directly into the existing wall on the upcoast property. The location of the proposed bulkhead is shown on Exhibit 3. The applicant's wave uprush report identifies that the wave uprush zone on this beach would extend up to a line approximately 10 feet landward of boundary between the subject property and Pacific Coast Highway.

The proposed project consists of two residences with three levels, a beach level below Pacific Coast Highway, a street level adjacent to Pacific Coast Highway, a partial upper level with a large deck over street level (These cross sections are in Exhibits 11 and 12). The applicant indicates that the proposed building coverages are approximately 1,900 sq. ft. (20726 PCH) and 2,000 sq. ft. (20732 PCH).

In response to recent Commission actions on shoreline development as well as staff's concerns, the applicant's consultants considered alternative designs for the proposed project to avoid or minimize impacts to shoreline processes and public access. One alternative was to re-locate the proposed septic system as far landward as feasible. The applicant's consultants also considered alternative technology for the septic system. The alternative system was selected because with this technology, a smaller field may be provided at beach level. In this case, bottomless sand filters measuring 460 and 563 sq. ft. are necessary to serve the proposed residences. The septic system plan is shown on Exhibit 13. This occupies about half of the area of a leach field sized

for the same development. Since the bottomless sand filter system alternative would occupy less area, the shoreline protective device could be located further landward. In this case, the proposed bulkhead would be located approximately 11.5 feet further landward.

Because the wave uprush zone on the proposed project site extends to ten feet beyond the Pacific Coast Highway right of way, the proposed septic system, which includes a bottomless sand filter placed at beach level, would need to be protected from waves through the construction of a shoreline protective device. The applicant's coastal engineering consultant considered two alternative types of protective device, a rock revetment, and a vertical concrete seawall/bulkhead. According to the consultant, a rock revetment designed for this site would need to be approximately 20 feet wide at the base and would occupy a significant area of the beach, including area seaward of the proposed structure and decks. Alternatively, the vertical wall would be located beneath the proposed structure.

After identifying the applicable Coastal Act sections upon which the Commission relies as the standard of review of the proposed project, and the certified Malibu/Santa Monica Mountains Land Use Plan (LUP) policies upon which the Commission has relied as guidance in past permit decisions, the discussion of the impacts of the shoreline protective device will proceed in the following manner:

First, the staff report describes the physical characteristics of the Big Rock Beach shoreline; second the report analyzes the dynamics of the Big Rock Beach shoreline; and third, the report analyzes the location of the proposed shoreline protective device in relation to wave action. Finally, the report evaluates whether the proposed shoreline protective device is warranted, weighing the available evidence in light of the Coastal Act requirements and the past guidance of the LUP policies, and whether the proposed revetment will adversely impact the shoreline sand supply and shoreline processes.

Section 30235 of the Coastal Act states that:

**Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.**

Section 30250(a) states that:

**(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services**

and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

Section 30253 states that:

**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.**

Additionally, to assist in the determination of whether a project is consistent with sections 30235, 30250(a), and 30253 of the Coastal Act, the Commission has, in past Malibu coastal development permit actions, looked to the certified Malibu/Santa Monica Mountains Land Use Plan (LUP) for guidance. The Malibu LUP has been found consistent with the Coastal Act and provides specific standards for development along the Malibu coast. For example, policies 166 and 167 provide, in concert with Coastal Act section 30235, that revetments, seawalls, cliff retaining walls and other shoreline protective devices be permitted only when required to serve coastal-dependent uses, to protect existing structures or new structures which constitute infill development and only when such structures are designed and engineered to eliminate or mitigate the resultant adverse impacts on the shoreline sand supply. In addition, Policy 153 indicates that development of sites that are exposed to potentially heavy tidal and wave action shall require that development be set back a minimum of ten (10) feet landward from the mean high tide line.

#### **1. Site Shoreline Characteristics and Beach Erosion Pattern**

The City of Malibu includes a narrow strip of coast that is some 27 miles long, backed inland of Pacific Coast Highway and frontage streets by the Santa Monica Mountains. The applicants' proposed project is located on Big Rock Beach, a narrow sandy beach backed by bluffs inland of Pacific Coast Highway. The Big Rock Beach area is heavily developed, the parcels are small and generally built out with single family residences.

Having defined Big Rock Beach as a narrow, heavily developed beach, the next step is to consider the overall trend of sand supply on the beach. Evaluating whether or not a pattern of beach erosion exists is the key factor in determining the impact of the proposed seawall on the shoreline. Generally, beaches fit into one of three profile categories: 1) eroding; 2) equilibrium, or 3) accreting. The persistent analytical problem

in dealing with shore processes in California is distinguishing long-term trends in shoreline change from normal seasonal or cyclical variation.

The applicants have submitted a Coastal Engineering Report dated July 20, 1998, prepared by David Weiss, Structural Engineer and Associates. The applicant's consultant state that this beach is considered an oscillating beach. The U.S. Army Corps of Engineers, Los Angeles District, identifies the Malibu Creek to Big Rock Beach area as trending from stable to slowly eroding (Reconnaissance Study of the Malibu Coast, 1994). Furthermore, the Commission notes that many studies performed on both equilibrium and eroding beaches have concluded that loss of beach occurs on both types of beaches where a shoreline protective device is placed. Therefore, based on the preponderance of evidence of these studies, considered in conjunction with site-specific evidence of beach erosion and the total loss of the former single family residences, the Commission concludes that the site proposed for placement of a shoreline protective device is located on an eroding beach.

**2. Location of the Proposed Shoreline Protective Device in Relation to the Mean High Tide Line and Wave Action.**

The Commission notes that loss of beach is widely understood to occur when shoreline protective devices are placed on equilibrium or eroding beaches. To determine what the impacts of the proposed revetment on the shoreline are likely to be, the location of the proposed protective device in relationship to the expected wave runup as calculated by the Mean High Tide Line (MHTL) must be analyzed.

**a. Mean High Tide Line**

To avoid approving development that will encroach on public tidelands during any time of the year, the Commission, usually relying on information supplied by the State Lands Commission, will look to whether the project is located landward of the most landward known location of the mean high tide line. The applicant has submitted a site plan with information identifying the location of the proposed development in relation to documented locations of the Mean High Tide Line. A review of this site plan (Exhibit 3) identifies six Mean High Tide Lines surveyed between 1928 and 1969. The most landward line, surveyed in 1961, is located about 38 feet seaward of the closest portion of the deck on both properties. Further, the applicant has submitted a letter from the State Lands Commission (SLC) dated July 9, 1998 indicating that the State Lands Commission has reviewed the original proposed project, including the concrete seawall in the original location which was about 11.5 feet seaward of the current revised location. The revised location of the seawall is now about 11.5 feet further seaward than originally proposed by the applicant. The SLC presently does not assert a claim that the project intrudes onto sovereign lands or would lie in an area that is subject to the public easement in navigable waters. Therefore, the proposed project does not appear to be located seaward of the Mean High Tide Line.

**b. Wave Uprush**

The Coastal Engineering Report dated July 20, 1998, prepared by David Weiss and Associates Wave Uprush Study, referenced above, indicates that the maximum wave uprush at the subject site extends up to a line approximately 10 feet landward of boundary between the subject property and Pacific Coast Highway. As noted in this report, the proposed bulkhead is needed to protect the proposed septic systems, as these bottomless sand filter areas would be located within the wave uprush zone.

It is important to accurately calculate the potential of wave runup and wave energy to which the seawall will be subject. Dr. Douglas Inman, a widely recognized authority on Southern California shoreline processes, states that<sup>1</sup>:

**While natural sand beaches respond to wave forces by changing their configuration into a form that dissipates the energy of the waves forming them, seawalls are rigid and fixed, and at best can only be designed for a single wave condition. Thus, seawalls introduce a disequilibrium that usually results in the reflection of wave energy and increased erosion seaward of the wall. The degree of erosion caused by the seawall is mostly a function of its reflectivity, which depends upon its design and location.**

In past permit actions, the Commission has found that one of the most critical factors controlling the impact of a shoreline protective device on the beach is its position on the beach profile relative to the surf zone. All other things being equal, the further seaward the device is, the more often and more vigorously waves interact with it. The best place for a revetment or seawall, if one is necessary, is at the back of the beach where it provides protection against the largest of storms. By contrast, a shoreline protective device situated too close to the MHTL is likely to cause constant interference with normal shoreline processes, resulting in frontal and end scour of the beach adjacent to and seaward of the wall, in addition to upcoast sand impoundment.

Based on the above discussion, the Commission finds that the proposed concrete seawall/bulkhead, at its proposed location, has the potential to encroach into an area of the beach that is currently subject to wave action during storm and high tide events. As previously discussed, the Commission finds that Big Rock Beach is a narrow, eroding beach and that the proposed bulkhead will, at times, be subject to wave action during storm and/or high tide events. Therefore, the following section evaluates the impacts of the proposed bulkhead on the beach based on the above information that identified the specific structural design, the location of the structure, and the shoreline geomorphology.

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<sup>1</sup> Letter from Dr. Inman to Coastal Commission staff civil engineer Lesley Ewing dated February 25, 1991.

### 3. Effects of the Shoreline Protective Device on the Beach

As described above, the proposed bulkhead would be constructed beneath the proposed residence, 5 ft. seaward of the proposed bottomless sand filter component of the septic system. Due to the bluff supporting Pacific Coast Highway and the small size of the site, the proposed septic system cannot be constructed any further landward. As such, the bulkhead needed to protect the septic system is now proposed at the most landward location that is feasible. Nonetheless, the proposed bulkhead would be located within the wave uprush zone and as the result of wave interaction, would still have the potential to adversely impact the configuration of the shoreline and the beach profile.

Although the precise impact of a structure on the beach is a persistent subject of debate within the discipline of coastal engineering, and particularly between coastal engineers and marine geologists, it is generally agreed that a shoreline protective device will affect the configuration of the shoreline and beach profile. Adverse impacts upon the shoreline may accrue as the result of beach scour, end scour (undermining of the beach areas at the ends of the seawall), the retention of potential beach material behind the wall, the fixing of the back beach and the interruption of shoreline processes. To evaluate these potential impacts relative to the proposed structure and its location at Big Rock Beach, each of the identified effects will be evaluated below.

#### a. Beach Scour

Scour is the removal of beach material from the base of a cliff, seawall or revetment due to wave action. The scouring of beaches caused by seawalls and revetments is a frequently observed occurrence. When waves impact a hard surface such as a coastal bluff, rock revetment, or vertical bulkhead, some of the energy from the wave is absorbed, but much of the energy is reflected back seaward. This reflected wave energy in combination with the incoming wave energy, will disturb the material at the base of the seawall and cause erosion to occur in front and down coast of the hard structure. This phenomenon has been recognized for many years and the literature acknowledges that such shoreline protective devices do affect the supply of beach sand. The wave uprush study prepared by the applicants' coastal engineer notes that the maximum wave uprush applicable to the subject site, absent a seawall or other shoreline protective device, extends to past the subject property ten feet onto Pacific Coast Highway.

The Commission notes that the proposed concrete seawall is located seaward of the maximum wave uprush and will therefore be periodically acted upon by wave action. In past permit actions, the Commission has found that shoreline protective devices that are subject to wave action tend to exacerbate or increase beach erosion. The following quotation summarizes a generally accepted opinion within the discipline of coastal engineering that:

**These structures are fixed in space and represent considerable effort and expense to construct and maintain. They are designed for as long a life as possible and hence are not easily moved or replaced. They become permanent fixtures in our coastal scenery but their performance is poor in protecting community and municipalities from beach retreat and destruction. Even more damaging is the fact that these shoreline defense structures frequently enhance erosion by reducing beach width, steepening offshore gradients, and increasing wave heights. As a result, they seriously degrade the environment and eventually help to destroy the areas they were designed to protect.<sup>2</sup>**

The above 1981 statement signed by 94 coastal geologists indicates that sandy beach areas available for public use can be harmed through the introduction of shoreline protective devices. Thus, in evaluating an individual project, the Commission assumes that the principles reflected in that statement are applicable. To do otherwise would be inconsistent with the Commission's responsibilities under the Coastal Act to protect the public's interest in shoreline resources and to protect the public's access along the ocean and to the water, as discussed in more detail in the subsequent section concerning public coastal access.

The impact of shoreline protective devices as they are related to sand removal on the sandy beaches is further documented by the State Department of Boating and Waterways:

**While seawalls may protect the upland, they do not hold or protect the beach, which is the greatest asset of shorefront property. In some cases, the seawall may be detrimental to the beach in that the downward forces of water, created by the waves striking the wall rapidly remove sand from the beach.<sup>3</sup>**

Finally this observation was underscored more recently in 1987 by Robert G. Dean in "Coastal Sediment Processes: Toward Engineering Solutions":

**Armoring can cause localized additional storm scour, both in front of and at the ends of the armoring...Under normal wave and tide conditions, armoring can contribute to the downdrift deficit of sediment through decreasing the supply on an eroding coast and interruption of supply if the armoring projects into the active littoral zone.<sup>4</sup>**

Dr. Craig Everts found that on narrow beaches where the shoreline is not armored, the most important element of sustaining the beach width over a long period of time is the retreat of the back beach and the beach itself. He concludes that:

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<sup>2</sup> Saving the American Beach: A Position Paper by Concerned Coastal Geologists (March 1981, Skidaway Institute of Oceanography), pg. 4.

<sup>3</sup> State Department of Boating and Waterways (formerly called Navigation and Ocean Development), Shore Protection in California (1976), page 30.

<sup>4</sup> Coastal Sediments '87.

Seawalls inhibit erosion that naturally occurs and sustains the beach. The two most important aspects of beach behavior are changes in width and changes in the position of the beach. On narrow, natural beaches, the retreat of the back beach, and hence the beach itself, is the most important element in sustaining the width of the beach over a long time period. Narrow beaches, typical of most of the California coast, do not provide enough sacrificial sand during storms to provide protection against scour caused by breaking waves at the back beach line. This is the reason the back boundary of our beaches retreats during storms.<sup>5</sup>

Dr. Everts further concludes that armoring in the form of a seawall or revetment interrupts the natural process of beach retreat during a storm event and that:

...a beach with a fixed landward boundary is not maintained on a recessional coast because the beach can no longer retreat.<sup>6</sup>

The Commission has observed this phenomenon up and down California's coast where a seawall has successfully halted the retreat of the shoreline, but only at the cost of usurping the beach. For example, at La Conchita Beach in Ventura County, placement of a rock revetment to protect an existing roadway has caused narrowing of the existing beach. Likewise, at City of Encinitas beaches in San Diego County, construction of vertical seawalls along the base of the bluffs to protect existing residential development above has resulted in preventing the bluffs' contribution of sand to the beaches, resulting in narrowing.

As set forth in earlier discussion, Big Rock Beach is a narrow, oscillating to receding beach. The applicants' coastal engineering consultant has indicated that the bulkhead will be acted upon by waves during high tide and storm conditions. If a seasonal eroded beach condition occurs with greater frequency due to the placement of a bulkhead on the subject site, then the subject beach would also—at a minimum—accrete at a slower rate. The Commission notes that many studies performed on both eroding and oscillating beaches have concluded that loss of beach occurs on both types of beaches where a shoreline protective device exists. Therefore, the Commission notes that the proposed bulkhead, over time, will result in potential adverse impacts to the beach sand supply resulting in increased seasonal erosion of the beach and longer recovery periods.

The impacts of potential beach scour are important relative to beach use for two reasons. The first reason involves public access. The subject property is located approximately 600 feet east or downcoast of an existing vertical public accessway at 20300 Pacific Coast Highway. Additionally, there is an existing vertical accessway approximately 1 ½ miles east or downcoast of the site at Las Tunas State Beach along

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<sup>5</sup> Letter Report dated March 14, 1994 to Coastal Commission staff civil engineer Lesley Ewing from Dr. Craig Everts, Moffatt and Nichol Engineers.

<sup>6</sup> *ibid.*

Pacific Coast Highway. These vertical accessways are shown in relation to the proposed project site on Exhibit 2. Finally, there are several existing and potential lateral access easements across several properties near the proposed project site. If the beach scours at the base of the seawall, even minimal scouring in front of the seawall will translate into a loss of beach sand available (i.e., erosion) at an accelerated rate than would otherwise occur under a normal winter season if the beach were unaltered. The second impact relates to the potentially turbulent ocean conditions. Scour at the face of a seawall will result in greater interaction with the seawall and thus, make the ocean along Pacific Coast Highway Beach more turbulent than it would be along an unarmored beach area.

Thus, the Commission has ordinarily required that shoreline protection devices be located as far landward as possible to reduce adverse impacts from scour and erosion. The applicants relocated the seawall about 11.5 feet further landward and have provided evidence that the proposed seawall cannot be relocated further landward than is presently proposed because the bottomless sand filter component of the proposed septic system must be provided at beach level. The alternative technology proposed for the septic system would minimize the area devoted to the septic system, thus enabling the most landward position of the seawall feasible.

In past permit actions, the Commission has also required a lateral public access easement for new shoreline protection devices to mitigate adverse impacts to beach sand supply and public access. To ensure that any potential adverse effects of the proposed seawall are mitigated to the maximum extent feasible, the applicants have proposed to offer a dedication for a lateral public access easement along the beach. Special Condition Number two (2) has been included to implement the applicants' proposal of an offer to dedicate a new lateral public access easement. Therefore, as conditioned, the project will minimize the adverse impacts resulting from construction of the vertical seawall and is consistent with the applicable Coastal Act sections and with past Commission action. Public access is discussed in more detail below.

#### **b. End Effects**

End scour effects involve the changes to the beach profile adjacent to the shoreline protection device at either end. One of the more common end effects comes from the way reflection of waves off of the shoreline protection device in such a way that they add to the wave energy which is impacting the unprotected coastal areas on either end. Coastal engineers have compared the end effects impacts between revetments and bulkheads. In the case of a revetment, the many angles and small surfaces of the revetment material reflect wave energy in a number of directions, effectively absorbing much of the incoming wave rather than reflecting it. Because of the way revetments modify incoming wave energy, there is often less problem with end effects or overtopping than that which occurs with a vertical seawall. In the case of a vertical

seawall, return walls are typically constructed in concert with the seawall, and, thus, wave energy is also directed to the return walls causing end erosion effects.

In addition, the Commission notes that the literature on coastal engineering repeatedly warns that unprotected properties adjacent to any shoreline protective device may experience increased erosion. Field observations have validated this concern. Although it is difficult to quantify the exact loss of material due to end effects, Gerald G. Kuhn of the Scripps Institute of Oceanography concludes in a paper entitled, "Coastal Erosion along Oceanside Littoral Cell, San Diego County, California," (1981) that erosion on properties adjacent to a rock seawall is intensified when wave runup is high.

An extensive literature search on the interaction of seawalls and beaches was performed by Nicholas Kraus in which he found that seawalls have the same effects on narrow beaches or beaches eroded by storm activity as Dr. Kuhn observed in relation to rock seawalls. Dr Kraus' research indicated that the form of the erosional response to storms that occurs on beaches without seawalls that are adjacent to beaches with seawalls is manifested as more localized toe scour and end effects of flanking and impoundment at the seawall.<sup>7</sup> Dr. Kraus' concluded that seawalls were a likely cause of retained sediment, increased local erosion and increased end erosion. Dr. Kraus states:

**At the present time, three mechanisms can be firmly identified by which seawalls may contribute to erosion at the coast. The most obvious is retention of sediment behind the wall which would otherwise be released to the littoral system. The second mechanism, which would increase local erosion on downdrift beaches, is for the updrift side of the wall to act as a groin and impound sand. This effect appears to be primarily theoretical rather than actualized in the field, as a wall would probably fail if isolated in the surf zone. The third method is flanking, i.e. increased local erosion at the ends of walls. (underline added for emphasis)**

In addition, the results of other researchers investigating the length of shoreline affected by heightened erosion adjacent to seawalls concluded that:

**...erosion at the ends of seawalls increases as the structure length increases. It was observed in both the experimental results and the field data of Walton and Sensabaugh (1978) that the depth of excess erosion is approximately 10% of the seawall length. The laboratory data also revealed that the along-coast length of excess erosion at each end of the structure is approximately 70% of the structure length.<sup>8</sup>**

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<sup>7</sup> "Effects of Seawalls on the Beach", published in the Journal of Coastal Research, Special Issue #4, 1988.

<sup>8</sup> "Laboratory and Field Investigations of the Impact of Shoreline Stabilization Structures on Adjacent Properties" by W.G. McDougal, MA Sturtevant, and P.D. Komar in Coastal Sediments '87.

A more comprehensive study was performed over several years by Gary Griggs, which concluded that beach profiles at the end of a seawall are further landward than natural profiles.<sup>9</sup> This effect appears to extend for a distance of about 6/10 the length of the seawall and represents both a spatial and temporal loss of beach directly attributable to seawall construction.

The Commission notes that end effect erosion may be further minimized by locating a proposed shoreline protection device as landward as possible to reduce the frequency with which the seawall is subject to wave action. In the case of the proposed project, and as noted previously, the proposed seawall will be located as landward as feasible to protect the proposed septic system. The applicants have demonstrated that no feasible alternative location for the septic system exists at this time and therefore the seawall necessary to protect it cannot be located further landward than the proposed location.

The proposed seawall would be located approximately 12 feet landward of the wooden bulkhead beneath the existing deck on the property immediately upcoast or west of the project site and tied directly into this adjoining bulkhead. The proposed seawall would be located approximately 24 feet landward of the wooden bulkhead beneath the existing structure on the property immediately downcoast or east of the project site. The applicant proposes to tie into the east end of the seawall into the adjoining bulkhead with return wall of approximately 14 feet long landward to join the adjacent bulkhead.

### c. Retention of Potential Beach Material

A shoreline protective device's retention of potential beach material impacts shoreline processes simply by depriving beaches of nutrients that would normally be fed into the littoral cell and deposited on beaches through the actions of normal shoreline processes. A seawall prevents upland sediments from being carried to the beach by wave action and bluff retreat. In the case of Big Rock Beach, which is located in the Santa Monica Littoral Cell, the back of the beach is fixed at Pacific Coast Highway. One of the main sources of sediment for beaches are the bluffs themselves, as well as the material that has eroded from inland sources and is carried to the beach by coastal streams. The protective device may be linked to increased loss of material in front of the wall. The net effect is documented in "Responding to Changes in Sea Level, Engineering Implications" which provides:

**A common result of sea wall and bulkhead placement along the open coastline is the loss of beach fronting the structure. This phenomenon, however, is not well understood. It appears that during a storm the volume of sand eroded at the base of a sea wall is nearly equivalent to the volume of upland erosion prevented by the**

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<sup>9</sup> "the Interaction of Seawalls and Beaches: Seven Years of Field Monitoring, Monterey Bay, California" by G. Griggs, J. Tait, and W. Corona, in *Shore and Beach*, Vol. 62, No. 3, July 1994.

sea wall. Thus the offshore profile has a certain "demand" for sand and this is "satisfied" by erosion of the upland on a natural beach or as close as possible to the natural area of erosion on an armored shoreline...<sup>10</sup>

As explained, the proposed seawall would protect the applicant's septic system from wave damage. However, the result of this protection, particularly on a narrow beach, is a loss of sediment on the sandy beach area that fronts the seawall. Furthermore, as explained previously, this loss of sediment from the active beach leads to a lower beach profile, seaward of the protective device, where the seawall will have greater exposure to wave attack.

In past permit actions, the Commission has required a lateral public access easement for new shoreline protection devices to mitigate adverse impacts to beach sand supply and public access. In the case of this project, to mitigate any possible adverse effects upon public access along the beach, the applicants propose to dedicate a new public lateral access easement along the beach. Special Condition Number Two (2) has been included to implement the applicants' offer to dedicate a new lateral public access easement. Therefore, as conditioned, the project will minimize the adverse impacts resulting from construction of the seawall and is consistent with the applicable Coastal Act sections and with past Commission action.

#### **4. Past Commission Actions on Residential Shoreline Development**

Many portions of the Malibu coastline are intensely developed with single family residences. The eastern and central portion of the Malibu coastline, form an almost solid wall of residential development along a five mile stretch of the shoreline. Pacific Coast Highway along Las Flores and Big Rock Beaches are highly developed with few vacant lots. This residential development extends over the sandy and rocky beach in many areas and most of the residences have shoreline protective devices such as rock revetments and concrete or timber seawalls. This residential development and their associated protective devices prevent access to the coast, obscure the views to the beach and water from Pacific Coast Highway, interrupt shoreline processes and impact the fragile biological resources in these areas.

Given Malibu's close proximity to the Los Angeles metropolitan area it is understandable why the Malibu coastline has experienced such intensive development of its coastline over the past 50 years. The vast majority of this development took place prior to the passage of Proposition 20, which established the Coastal Commission and the 1976 Coastal Act. As previously stated, Section 30235 of the Coastal Act allows for the construction of protective devices only if the device serves to protect coastal dependent uses, or to protect existing structures or public beaches in danger from erosion. The construction of protective devices to protect new residential development

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<sup>10</sup> "Responding to Changes in Sea Level: Engineering Implications," National Academy of Sciences, National Academy Press, Washington, D.C., 1987 (at page 74).

is generally not allowed under this Coastal Act section. The majority of the residential development described above required some type of shoreline protective device in order to be developed. Therefore, it is safe to assume under this policy and the other resource protection policies of the Coastal Act that this type of development along Malibu's coastline would either not have been approved or would be developed in a much different configuration or design than it is today.

a. Infill Development

The Commission has previously permitted a number of new residential developments with protective devices on the Malibu coast, but only when that development was considered "infill" development. The developed portions of the Malibu coastline include a number of vacant parcels between existing structures. Typically, there is no more than one to two vacant lots between existing structures. Infill development can be characterized as the placement of one to two residential structures on one to two lots with protective structures provided those protective structures tie into adjacent protective structures.

The term "infill development," as applied by the Commission in past permit decisions, refers to a situation where construction of a single-family residence (and/or in limited situations a duplex) on a vacant lot or the demolition of an existing single-family residence (SFR) and construction of a new single-family residence is proposed in an existing geographically definable residential community which is largely developed or built out with similar structures. When applied to beachfront development, this situation typically is applied to an existing linear community of beach-fronting residences where the majority of lots are developed with SFRs and relatively few vacant lots exist. In other words, within the linear stretch of developed beachfront lots, there is an occasional undeveloped lot or two which can be expected to be developed in a similar fashion. By nature of this description, an "infill development" situation can occur only in instances where roads and other services are already existing and available within the developed community or stretch of beach. Typically, the term "infill development" would not be applied to a large or long stretch of undeveloped beach (i.e. several lots or a large lot which is not similar in size and character to developed lots in the community or areas which do not contain existing roads and infrastructure).

Another characteristic of largely developed beachfront communities is that many, but not all, existing SFRs have some form of shoreline protective device. In Malibu, all beachfront homes utilize a septic system which, when determined to be subject to wave uprush by a coastal engineer, are required to have a shoreline protective device to protect the system. This requirement of assessing wave uprush applies to all new development, extensive remodels, and/or reconstruction, as well as any changes to an existing septic system or when a new septic system is required or proposed.

In "infill development" situations only, as described above, the Commission has found in past permit actions in Malibu pursuant to Section 30235 of the Coastal Act, that seawalls, revetments, or other types of shoreline protective devices can be permitted to protect existing structures or new structures which constitute infill development and when designed and engineered to eliminate or mitigate adverse impacts on the shoreline (certified Malibu LUP Polices 166 and 167). The Commission has also found, in past permit actions in Malibu, that in beach areas largely committed to residential development having shoreline protective devices, the construction of shoreline protective devices should tie into adjacent seawalls where appropriate or possible (Malibu LUP Policy 251).

To the maximum extent feasible, protective structures are required to tie into adjacent protective structures. Depending on past development that has occurred on developed beaches, requiring seawalls to form one contiguous line is not always possible. In addition, many of the protective devices that were constructed on these beaches were built under emergency situations where it is difficult to place the seawall under an existing structure. Therefore, the majority of the developed beaches along the eastern end of Malibu, consist of a patchwork of protective devices ranging from wooden bulkheads, rock revetments, shotcrete or gunite walls, or a combination of a bulkhead with a revetment. Thus, the seawalls do not always tie into adjacent structures at every location on a developed beach.

The Commission recognized that the infilling of residential development between existing structures would not result in significant adverse impacts to coastal resources within these existing developed shoreline areas. The Commission also acknowledged that the gaps these vacant parcels created between protective devices focused wave energy between these structures resulting in erosion of the vacant property between the structures and potentially endangering infrastructure along Pacific Coast Highway or adjacent frontage roads and endangering adjacent structures. Faced with the prospect of denying beach front residential development with protective devices due to inconsistency with section 30235 of the Coastal Act, the Commission has approved "infill" development through permit actions on beach front development in Malibu. The Commission has found that infilling these gaps would prevent this type of focused shoreline erosion and would not significantly further impact shoreline processes or adversely impact other coastal resources given the prevailing development pattern along these sections of the Malibu coast, so long as shoreline protective devices are designed and located as far landward as possible to avoid or minimize impacts to access and shoreline processes.

The Commission notes that the area surrounding the subject site is characterized as a substantially developed beach. In the case of the proposed development, the replacement of two former residences and the construction of two single-family residences with a vertical concrete seawall and two septic systems can clearly be considered as infill development within an existing developed area.

b. Seaward Encroachment

In 1981 the Commission adopted the "District Interpretive Guidelines" for Malibu/Santa Monica Mountains area of the coastal zone. These guidelines established specific standards and criteria for shoreline development along the Malibu Coast. The guidelines included the "stringline" policy for the siting of infill development:

*In a developed area where new construction is generally infilling and is otherwise consistent with Coastal Act policies, no part of a proposed new structure, including decks and bulkheads, should be built further onto a beach than a line drawn between the nearest adjacent corner of the adjacent structures. Enclosed living space in the new unit should not extend farther seaward than a second line drawn between the most seaward portions of the nearest corner of the enclosed living space of the adjacent structure.*

In 1986 the Commission certified the Los Angeles County Malibu/Santa Monica Mountains Land Use Plan which also contains specific policies addressing infill shoreline development:

*Policy 153 ...In a developed area where new construction is generally considered infilling and is otherwise consistent with LCP policies the proposed new structure may extend to the stringline of the existing structures on each side.*

*Policy 166 ...Revetments and seawalls shall be permitted when required to serve coastal dependent uses or to protect existing structures or new structures which constitute infill development.*

The intent of the stringline policies was to limit infill development to only existing developed shoreline areas and limit the encroachment of new structures out onto the beach. In past permit actions in Malibu the Commission has typically limited infill development to the construction of one to two structures on one to two vacant parcels between existing structures.

In the case of the proposed project, the Commission notes that all proposed development will be located landward of the appropriate stringlines as drawn from the corners of the adjacent structures and decks. Therefore, the Commission finds that the proposed development, relative to seaward encroachment, is consistent with the relevant sections of the Coastal Act.

5. Conclusion

Coastal Act sections 30235, 30253 and 30250(a) set forth the Commission's mandate relative to permitting shoreline protective devices and beachfront development. In order for the Commission to permit the proposed project, which includes a vertical concrete seawall which is about 112 feet long and is proposed to be connected to the existing bulkhead to the west and is proposed to be connected to the existing bulkhead

on east with an approximate 14 foot long end wall, it must find the project consistent with the Chapter 3 policies of the Coastal Act.

Coastal Act section 30235, cited above, states that shoreline protective devices such as revetments, bulkheads, and other construction that would alter natural shoreline processes shall be permitted when those structures are necessary to serve coastal-dependent uses or to protect existing structures or to protect public beaches in danger from erosion and when they are designed to eliminate or mitigate adverse impacts on local shoreline sand supply. In addition to the consideration of Section 30235, the Commission has approved new development on the beach where such development is consistent with the Commission's treatment of "infill development" as described above in detail. In the case of this project, the proposed vertical seawall is necessary to protect the proposed two septic systems which would serve the proposed residences. The seawall is proposed to be located at the most landward location feasible. In addition, the proposed project meets the Commission's interpretation of infill development, as defined in past permit decisions. As designed, the proposed project would minimize adverse impacts on shoreline sand supply.

Coastal Act section 30253, (also cited above) mandates that new development neither create nor contribute significantly to erosion, or contribute to 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 or cliffs. In past permit actions, the Commission has required that new shoreline protection devices be located as landward as possible to reduce adverse impacts to sand supply and public access resulting from the development. In the case of this project, the seawall is proposed to be located at the most landward location feasible.

Further, in past permit actions, the Commission has also required a lateral public access easement for new shoreline protection devices to mitigate adverse impacts to beach sand supply and public access. In the case of this project, to mitigate any possible adverse impacts to public access along the beach that may be caused by the subject proposal, the applicants have offered to dedicate a new public lateral access easement along the beach. Special Condition Number two (2) has been included to implement the applicants' offer to dedicate a new lateral public access easement.

Section 30250(a) of the Coastal Act states, in part, that new development not adversely affect, either individually or cumulatively, coastal resources. As explained in the preceding section regarding past Commission action on residential development, the proposed project is located on a fully developed stretch of beach and is considered to be infill development. In addition, the project minimizes adverse impacts resulting from the construction of the proposed seawall bulkhead by ensuring that the structure is located as far landward as possible and by including an offer to dedicate lateral public access in the project description. The proposed lot line adjustment, adjusting the size of the two lots to be more equal in size within an existing developed area is found

consistent with Section 30250 of the Coastal Act. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30235, 30250, and 30253 of the Coastal Act.

### **C. Hazards and Geologic Stability**

Coastal Act Section 30253 states, in part, that:

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.

Section 30253 of the Coastal Act mandates that new development provide for geologic stability and integrity and minimize risks to life and property in areas of high geologic, flood, and fire hazard. The proposed development would be located in the Santa Monica Mountains, an area that is generally considered to be subject to an unusually high amount of natural hazards. Geologic hazards common to the Santa Monica Mountains include landslides, erosion, and flooding. In addition, fire is an inherent threat to the indigenous chaparral community of the coastal mountains. Even beachfront properties have been subject to wildfires. Finally, beachfront sites are subject to flooding and erosion from storm waves.

The applicant submitted an Updated Soils and Engineering Geologic Investigation, dated July 11, 1997, prepared by Geosystems Environmental and Geotechnical Consultants. The consulting geologist, engineer, and Geotechnical Engineer determined that the proposed project site is topographically situated on the south facing slope between Pacific Coast Highway and the Pacific Ocean. The slope descends 14 feet from the southern edge of the Highway to the beach at a gradient of 35 – 40 degrees. South of the toe of the slope a sandy beach descends towards the ocean at a gradient of about 5:1. The consultants encountered bedrock at a depth of 13 feet along Pacific Coast Highway. About 100 feet north of the building site, across Pacific Coast Highway, a steep coastal bluff ascends to the Big Rock Mesa area of the Santa Monica Mountains. The consultants did not identify any landslides on the property or records of debris or mud flow. The project site is located on the crest of a gently rise on Pacific Coast Highway between two well developed drainage courses that outlet onto the Highway. The applicant does propose the construction of the residence on a deepened friction pile foundation system into bedrock. The consultants conclude that the site will be stable and appropriate for the proposed development. The report states that:

Based on the findings of our investigation, the site is considered to be suitable from a soils and engineering geologic standpoint for construction of the proposed residences provided the recommendations included herein are followed and intergrated into the buildings plans.

The Engineering Geologic Investigation concludes that:

It is the finding of this firm that the proposed building and or grading will be safe and that the site will not be affected by any hazard from landslide, settlement or settlement or slippage and the completed work will not adversely affect adjacent property in compliance with the county code, provided our recommendations are followed.

Finally, as discussed above, the applicant has submitted a Coastal Engineering report, dated July 20, 1998, prepared by David Weiss, Structural Engineer & Associates, which addresses site conditions and design considerations. The applicant submitted a second report titled; Proposed Single Family Dwellings at 20726-32 Pacific Coast Highway, dated January 9, 1999 by also by David Weiss. The consultant determined that the maximum wave uprush at the subject site would extend to approximately 10 feet landward of the north property line at Pacific Coast Highway. The consultant makes recommendations regarding the proposed bulkhead (seawall), foundations of the residence, the finished floor elevation, and the septic system.

The applicant, at the request of staff, revised the location of initially proposed seawall to a more landward location with a bottomless sand filter septic system. Staff requested in a letter dated August 6, 1999 that the applicant provide a review of the revised plans as to whether or not the proposed septic system is located as far landward as feasible, as determined by an engineer. The applicant submitted a letter dated August 13, 1999 from Mark Wilson, a registered professional engineer, with Bedrock Engineering stating that the revised configuration of the bottomless sand filter design is the most landward feasible. Based on the recommendations of the consulting geologist, geotechnical engineer, and coastal engineer, the Commission finds that the proposed development will minimize risks from geologic hazards, consistent with Section 30253 of the Coastal Act so long as the consultants' recommendations are incorporated into the project plans. Therefore, the Commission finds it necessary to require the applicant to submit project plans that have been certified in writing by the consulting geologists as conforming to their recommendations. This is required by included as Special Condition No. five (5).

However, the Commission notes that the proposed development is located on two beachfront lots in the City of Malibu. The Malibu coast has historically been subject to substantial damage as the result of storm and flood occurrences--most recently, and

perhaps most dramatically, during the past 1997-1998 El Nino severe winter storm season.

The subject site is clearly susceptible to flooding and/or wave damage from storm waves, storm surges and high tides. Past occurrences have caused property damage resulting in public costs through emergency responses and low-interest, publicly subsidized reconstruction loans in the millions of dollars in Malibu area alone from last year's storms.

In the winter of 1977-1978, storm-triggered mudslides and landslides caused extensive damage along the Malibu coast. According to the National Research Council, damage to Malibu beaches, seawalls, and other structures during that season caused damages of as much as almost \$5 million to private property alone.

The El Nino storms recorded in 1982-1983 caused high tides of over 7 feet, which were combined with storm waves of up to 15 feet. These storms caused over \$12.8 million to structures in Los Angeles County, many located in Malibu. The severity of the 1982-1983 El Nino storm events are often used to illustrate the extreme storm event potential of the California, and in particular, Malibu coast. The 1998 El Nino storms also resulted in widespread damage to residences, public facilities and infrastructure along the Malibu Coast.

Thus, ample evidence exists that all beachfront development in the Malibu area is subject to an unusually high degree of risk due to storm waves and surges, high surf conditions, erosion, and flooding. The Coastal Act recognizes that development, such as the proposed residence, even as designed and constructed to incorporate all recommendations of the consulting coastal engineer, may still 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 the subject property.

Finally, due to the fact that the proposed project is located in an area subject to an extraordinary potential for damage or destruction from wild fire, the Commission will only approve the project if the applicant also agrees to indemnify the Commission from any liability associated with such risks.

The Commission finds that due to the possibility of liquefaction, storm waves, surges, erosion, flooding, and threat from wildfire, the applicant shall assume these risks as conditions of approval. Because this risk of harm cannot be completely eliminated, the Commission requires the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's assumption of risk, as required by Special Condition No. one (1), when executed and recorded on the property deed, will show that the applicant

is aware of and appreciates the nature of the hazards which exist on the site, and that may adversely affect the stability or safety of the proposed development.

The proposed development, with its excavation and construction staging on the sandy beach and the possible generation of debris and or presence of equipment and materials that could be subject to tidal action could pose hazards to beachgoers or swimmers if construction site materials were discharged into the marine environment or left inappropriately/unsafely exposed on the project site. In addition, such discharge to the marine environment could result in disturbance through increased turbidity caused by erosion and siltation of coastal waters. To ensure that effects to the marine environment are minimized and that the construction phase of the proposed project poses no hazards, Special Condition No. six (6), Construction Responsibilities and Debris Removal requires the applicant to agree that stockpiling of dirt or materials shall not occur on the beach, that all grading shall be properly covered, sand-bagged, and ditched to prevent runoff and siltation; and that measures to control erosion must be implemented at the end of each day's work. In addition, no machinery will be allowed in the intertidal zone at any time. The permittee shall remove from the beach and seawall area any and all debris that result from the construction period.

The Commission finds, for the reasons set forth above, that the proposed development, as conditioned to conform to geologic and engineering recommendations, to assume the risk of development, and to minimize impacts from construction debris, is consistent with Section 30253 of the Coastal Act.

#### **D. Public Access.**

The Coastal Act mandates the provision of maximum public access and recreational opportunities along the coast. The Coastal Act contains several policies which address the issues of public access and recreation along the coast.

Section 30210 of the Coastal Act states that:

**In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.**

Section 30211 of the Coastal Act states that:

**Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.**

Section 30212(a) of the Coastal Act provides that in new shoreline development projects, access to the shoreline and along the coast shall be provided except in specified circumstances, where:

- (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources.
- (2) adequate access exists nearby, or,
- (3) agriculture would be adversely affected. Dedicated access shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Section 30220 of the Coastal Act states that:

**Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such use.**

Coastal Act sections 30210 and 30211 mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Likewise, section 30212 of the Coastal Act requires that adequate public access to the sea be provided to allow use of dry sand and rocky coastal beaches.

The major access issue in this permit application is the occupation of sandy beach area by a structure and potential effects on shoreline sand supply and public access in contradiction of Coastal Act policies 30211 and 30221. As proposed, the bulkhead would be constructed on the sandy beach beneath the proposed residence as shown on Exhibit 3. As stated previously, the proposed project is located on Big Rock Beach, approximately 600 feet east (downcoast) of the nearest public vertical coastal accessway. Additionally, the site is located approximately one and one half miles west (upcoast) of another vertical accessway. These vertical accessways are shown in relation to the proposed project site on Exhibit 2. Further, there are several existing and potential lateral public access easements across several lots near the project site.

All projects requiring a coastal development permit must be reviewed for compliance with the public access and recreation provisions of Chapter 3 of the Coastal Act. Based on the access, recreation and development sections of the Coastal Act, the Commission has required public access to and along the shoreline in new development projects and has required design changes in other projects to reduce interference with access to and along the shoreline.

As noted above, interference by a shoreline protective device has a number of effects on the dynamic shoreline system and the public's beach ownership interests. First, changes in the shoreline profile, particularly changes in the slope of the profile, which

results from reduced beach width, alter the usable area under public ownership. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the actual area in which the public can pass on their own property. The second effect on access is through a progressive loss of sand as shore material is not available to nourish the bar. The lack of an effective bar can allow such high wave energy on the shoreline that materials may be lost far offshore where it is no longer available to nourish the beach. The effect of this on the public is again a loss of area between the mean high water line and the actual water. Third, shoreline protective devices such as revetments and bulkheads cumulatively affect public access by causing accelerated and increased erosion on adjacent public beaches. This effect may not become clear until such devices are constructed individually along a shoreline and they eventually affect the profile of a public beach. Fourth, if not sited landward in a location that insures that the revetment is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate the wave' energy. Finally, revetments and bulkheads interfere directly with public access by their occupation of beach area that will not only be unavailable during high tide and severe storm events but also potentially throughout the winter season.

Due to the aforementioned adverse impacts of shoreline protective structures on public access, the proposed shoreline protection device must be judged against the public access and recreation policies of the State Constitution, Sections 30210, 30220, and 30211 of the Coastal Act. Along the California coast, the line between land and ocean is complex and constantly moving.

The State owns tidelands, which are those lands below the Mean High Tide Line as it exists from time to time. By virtue of its admission into the Union, California became the owner of all tidelands and all lands lying beneath inland navigable waters. These lands are held in the State's sovereign capacity and are subject to the common law public trust. The public trust doctrine restricts uses of sovereign lands to public trust purposes, such as navigation, fisheries, commerce, public access, water oriented recreation, open space, and environmental protection. The public trust doctrine also severely limits the ability of the State to alienate these sovereign lands into private ownership and use free of the public trust. Consequently, the Commission must avoid decisions that improperly compromise public ownership and use of sovereign tidelands.

Where development is proposed that may impair public use and ownership of tidelands, the Commission must consider where the development will be located in relation to tidelands. The legal boundary between public tidelands and private uplands is relation to the ordinary high water mark. In California, where the shoreline has not been affected by fill or artificial accretion, the ordinary high water mark of tidelands is determined by locating the existing "mean high tide line." The mean high tide line is the intersection of the elevation of mean high tide with the shore profile. Where the shore

is composed of sandy beach whose profile changes as a result of wave action, the location at which the elevation of mean high tide line intersects the shore is subject to change. The result is that the mean high tide line (and therefore the boundary) is an "ambulatory" or moving line that moves seaward through the process known as accretion and landward through the process known as erosion.

Consequently, the position of the mean high tide line fluctuates seasonally as high wave energy (usually but not necessarily) in the winter months causes the mean high tide line to move landward through erosion, and as milder wave conditions (generally associated with the summer) cause the mean high tide line to move seaward through accretion. In addition to ordinary seasonal changes, the location of the mean high tide line is affected by long term changes such as sea level rise and diminution of sand supply.

The Commission must consider a project's direct and indirect impact on public tidelands. To protect public tidelands when beachfront development is proposed, the Commission must consider (1) whether the development or some portion of it will encroach on public tidelands (i.e., will the development be located below the mean high tide line as it may exist at some point throughout the year) and (2) if not located on tidelands, whether the development will indirectly affect tidelands by causing physical impacts to tidelands.

To avoid approving development that will encroach on public tidelands during any time of the year, the Commission, usually relying on information supplied by the State Lands Commission (SLC), will look to whether the project is located landward of the most landward known location of the mean high tide line. In this case, the State Lands Commission presently does not assert a claim that the project intrudes onto sovereign lands (SLC letter dated July 9, 1998).

Even structures located above the mean high tide line, however, may have an impact on shoreline processes as wave energy reflected by those structures contributes to erosion and steepening of the shore profile, and ultimately to the extent and availability of tidelands. That is why the Commission also must consider whether a project will have indirect impacts on public ownership and public use of shorelands. The applicant seeks Commission approval of a two new beachfront residences with a vertical concrete seawall. As discussed elsewhere in the Commission's findings, there is substantial evidence that this project will result in some indirect impacts on tidelands because the new proposed seawall is located in an area that is subject to wave attack and the effects of wave energy. The applicant has offered a lateral public access easement, however, to mitigate any adverse effects on coastal access or recreation that the subject revetment may have.

The Commission must also consider whether a project affects any public right to use shorelands that exist independently of the public's ownership of tidelands. In addition

to a development proposal's impact on tidelands and on public rights protected by the common law public trust doctrine, the Commission must consider whether the project will affect a public right to use beachfront property, independent of who owns the underlying land on which the public use takes place. Generally, there are three additional types of public uses identified as: (1) the public's recreational rights in navigable waters guaranteed to the public under the California Constitution and state common law, (2) any rights that the public might have acquired under the doctrine of implied dedication based on continuous public use over a five-year period; and (3) any additional rights that the public might have acquired through public purchase or offers to dedicate.

These use rights are implicated as the public walks the wet or dry sandy beach below the mean high tide plane. This area of use, in turn moves across the face of the beach as the beach changes in depth on a daily basis. The free movement of sand on the beach is an integral part of this process, and it is here that the effects of structures are of concern.

In this case, no evidence has been presented in connection with this application that the public may have acquired rights of use under the doctrine of implied dedication. Although the Commission notes that the subject seawall is located as far landward as feasible in relation to the proposed septic systems, there is still evidence that the seawall will be subject to wave uprush which may result in some potential adverse individual and cumulative impacts on sand supply, beach profile, and ultimately, public access as a result of localized beach scour, retention of beach material and interruption of the alongshore and onshore sand transport process.

The beaches of Malibu are extensively used by visitors of both local and regional origin and most planning studies indicate that attendance of recreational sites will continue to increase significantly over the coming years. The public has a right to use the shoreline under the public trust doctrine, the California Constitution and California common law. The Commission must protect those public rights by assuring that any proposed shoreline development does not interfere with or will only minimally interfere with those rights. In the case of the proposed project, the potential for the permanent loss of sandy beach as a result of the change in the beach profile or steepening from potential scour effects, as well as the presence of a residential structure out over the sandy beach does exist.

In past permit actions, the Commission has required that new shoreline protective devices be located as landward as feasible to reduce adverse impacts to the sand supply and public access resulting from development. In the case of the proposed project, the applicants have demonstrated that the proposed seawall is located as landward as feasible, as discussed in greater detail above.

In addition, in past permit actions, the Commission has also required a lateral public access easement for new shoreline protection devices to mitigate adverse impacts to beach sand supply and public access. In the case of this project, to conclude with absolute certainty what impacts the proposed development would cause on the shoreline processes and public access, a historical shoreline analysis based on site-specific studies would be necessary. Although this level of analysis has not been submitted by the applicants, the applicants have proposed to offer a dedication of a public lateral access easement along the beach to mitigate any possible adverse impacts the proposed revetment may have on public access. Because the applicants have proposed, as part of the project, an offer to dedicate a new lateral access easement along the width of the lot, it has not been necessary for Commission staff to engage in an extensive analysis of the potential adverse effects to public access resulting from the proposed project. As such, Special Condition Number (2) has been included to implement the applicants' offer to dedicate a new lateral public access easement prior to the issuance of the coastal development permit.

The Commission further notes that chronic unauthorized postings of signs illegally attempting to limit, or erroneously noticing restrictions on, public access have occurred on beachfront private properties in the Malibu area. These signs have a chilling effect on the legitimate, protected access of the public to public trust lands. The Commission has determined, therefore, that to ensure that such postings are clearly understood by the applicants to be off limits until or unless a coastal development permit is obtained for such signage, it is necessary to impose Special Condition Number four (4) to ensure that similar signs are not posted on or near the proposed seawall or the proposed residential structures. The Commission finds that if implemented, Special Condition Number four (4) will protect the public's right of access to the sandy beach below the MHTL.

In addition, the Commission notes that as proposed, the bulkhead would be located beneath the proposed structure. The proposed residence and decks would extend no further seaward than existing development on either side as defined by a stringline connecting adjacent development. As such, the Commission finds that the proposed project will not significantly affect public views of the coast from the sandy beach.

In past permit actions, the Commission has required that new shoreline protective devices be located as landward as possible to reduce adverse impacts to the sand supply and public access resulting from development. In the case of the proposed project, the applicant has demonstrated that the revised seawall is located as far landward as feasible, as discussed in greater detail above. In addition, to ensure that no future changes or improvements to the subject seawall result in seaward expansion of the seawall, the Commission finds it necessary to impose Special Condition Number three (3), which requires the applicant to record a deed restriction acknowledging that no future seaward expansion of the subject seawall will be authorized. If implemented, Special Condition Number three (3) ensures that the adverse impacts of the subject

shoreline protective device, considered herein by the Commission will be located as far landward as possible, are not compounded in the future by a seaward expansion of the seawall that undercuts the mitigation of the seawall's adverse effects on the shoreline achieved by ensuring that the seawall is constructed as far landward as possible.

The applicant has also included the construction of a 6 ft. wide public sidewalk between Pacific Coast Highway and the residence as part of the proposed project. The Commission notes that members of the public must utilize the shoulder areas of Pacific Coast Highway in order to reach many public vertical beach accessways. In past permit actions, the Commission has found that new residential development, fences, walls, and landscaping, in addition to use of the road shoulder for residential parking, results in potential adverse effects to public beach access when such development is located along the shoulder of Pacific Coast Highway in a manner which precludes a pedestrian's ability to utilize the road shoulder where no sidewalk is located. In the case of the proposed project, the applicant is proposing the construction of a public sidewalk between the residence and Pacific Coast Highway to mitigate any adverse effects to public access from the proposed development. As such, Special Condition Six (6) has been required in order to ensure that the applicant's offer to construct a 6 ft. wide public sidewalk between the proposed development and Pacific Coast Highway is implemented.

For all of these reasons, therefore, the Commission finds that as conditioned, the proposed project is consistent with Sections 30210, 30211, 30212, and 30220 of the Coastal Act.

### **E. Visual Resources**

Section 30251 of the Coastal Act states that:

**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 land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinated to the character of its setting.**

Coastal Act Section 30251 requires that visual qualities of coastal areas shall be considered and protected, landform alteration shall be minimized, and where feasible, degraded areas shall be enhanced and restored. In addition, to assist in the determination of whether a project is consistent with Section 30251 of the Coastal Act, the Commission has, in past Malibu coastal development permit actions, looked to the certified Malibu/Santa Monica Mountains Land Use Plan (LUP) for guidance. The LUP has been found to be consistent with the Coastal Act and provides specific standards

for development along the Malibu coast and within the Santa Monica Mountains. For instance, in concert with Section 30251 of the Coastal Act, Policy 138 of the LUP provides that "buildings located on the ocean side of and fronting Pacific Coast Highway shall occupy no more than 80% of the lineal frontage of the site. Policy 141 of the LUP provides that "fencing or walls to be erected on the property shall be designed and constructed to allow for view retention from scenic roadways."

The project site is located on Big Rock Beach, a built-out area of Malibu primarily consisting of residential development. The Commission notes that the visual quality of the Big Rock Beach area in relation to public views from Pacific Coast Highway have been significantly degraded from past residential development. Pacific Coast Highway is a major coastal access route, not only utilized by local residents, but also heavily used by tourists and visitors to access the several public beaches located in the surrounding area which are only accessible from Pacific Coast Highway. Public views of the beach and water from Pacific Coast Highway have been substantially reduced, or completely blocked, in many areas by the construction of single family residences, privacy walls, fencing, landscaping, and other residential related development between Pacific Coast Highway and the ocean. Specifically, the Commission notes that when residential structures are located immediately adjacent to each other, or when large individual residential structures are constructed across several contiguous lots, such development creates a wall-like effect when viewed from Pacific Coast Highway. This type of development limits the public's ability to view the coast or ocean to only those few parcels which have not yet been developed.

In this case, the proposed project will involve the construction of two large single family structures over two separate parcels. Currently these two parcels are vacant with the exception of a chain link fence. The Commission notes that the construction of large individual residences or other structures across multiple contiguous beach front lots serves to exacerbate the wall-like effect already created by the existing residential development located between Pacific Coast Highway and Carbon Beach. In addition, Staff notes that the construction of large individual residential structures extending across multiple beachfront parcels, similar to the proposed project, is becoming increasingly common in the Malibu area and that several applications for similar development have recently been submitted. As such, the Commission notes that such development, when viewed on a regional basis, will result in potential cumulative adverse effects to public views and to the visual quality of coastal areas. Thus, it is critical that an adverse precedent is not established by the subject proposal and that adverse effects to coastal views from public viewing areas, such as Pacific Coast Highway, are minimized.

As stated above, Coastal Act Section 30251 requires that new development be sited and designed to protect views to and along the ocean and scenic coastal areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. In past permit actions, in order to protect public views of the ocean from public viewing

areas and to enhance visual quality along the coast, the Commission has required that large residential projects, such as the proposed project, be designed to provide for public views of the ocean (Coastal Permit No. 4-99-146, Saban). The Commission notes that the construction of large structures that extends across adjoining parcels, such as the proposed project, will result in greater potential adverse effects to public views than the construction of one or more smaller one story structures located below the grade of the Highway on the same number of parcels due to the larger continuous frontage area along Pacific Coast Highway where public views of the coast will be blocked by development. The Commission further notes that the construction of large individual residences on adjoining lots also provides for the opportunity to enhance public views, where such views have been significantly degraded by past development, through the creation and maintenance of public view corridors, consistent with Section 30251 of the Coastal Act.

The Commission notes that Policy 138 of the LUP, as consistent with Section 30251 of the Coastal Act, provides that new development on a beachfront property located on the seaward side of Pacific Coast Highway, such as the subject site, should reserve 20% of the linear frontage of the lot as visually open area to provide and maintain adequate public coastal views. In the case of this project, the Commission notes that the proposed residential structures will occupy about 87% of the lineal frontage of the lots, including roof overhangs. View corridors proposed to be retained by the proposed project consists of only 13% or a total of only about 14 lineal feet of street frontage along a total of 108 lineal feet of street frontage (Exhibit 13). An approximate site line analysis showing the view that will be available to the public if the project is constructed as originally proposed is included as Exhibit 13. The site line analysis indicates that three public view corridors will exist as proposed. With the roof overhang the five foot setbacks along each side yard will be reduced to three and one half feet on the west side of the proposed residence at 20732 Pacific Coast Highway and the same three and one half feet on the east side of 20726 Pacific Coast Highway. The view corridor is also proposed to be reduced in the same manner between the two residences to a total of seven feet due to the roof overhangs. The applicant is not proposing any fencing, gates, landscaping or other visual obstruction in the area in this application. If the residences are constructed as proposed the three public view corridors will not result in a 20% view corridor area along the street frontage, and thus, the public views will be reduced to about 14 % of the lineal street frontage.

Therefore, in order to provide for unobstructed public views of the ocean from the highway and to enhance visual quality in an area where coastal visual resources have been degraded from past development, Special Condition Number seven (7) requires the applicant to submit revised project plans which delete those portions of the proposed residence which are located within the three view corridors as designated on Exhibit 13. The Commission notes that this will still allow for the construction of two large single family residence, although reduced in total interior square footage from the proposed 3,443 and 3,317 square footage size. In addition, to ensure that public

coastal views will be protected, Special Condition Number Eight (8) requires the applicant to execute and record a deed restriction which provides that no less than 20% of the lineal frontage of the project site shall be maintained a public view corridor. Development within the public view corridor shall be limited to fencing of visually permeable designs and materials (e.g. wrought iron or non-tinted glass materials). Vegetation and landscaping within the public view corridor, as approved by a future Coastal Development Permit, shall be limited to low-lying vegetation of no more than 2 ft. in height.

Therefore, the Commission finds that the proposed project, as conditioned above, is consistent with Section 30251 of the Coastal Act.

#### **F. Septic System.**

The proposed development includes the installation of an on-site septic system to provide sewage disposal. The applicant is proposing to install a bottomless sand filter septic system which is designed to produce treated effluent with reduced levels of organics, biochemical oxygen demand (BOD) and total suspended solids (TSS) while occupying only 50 percent of the area required for a conventional septic system and leachfield. The Commission recognizes that the potential build-out of lots in the Santa Monica Mountains, and the resultant installation of septic systems, may contribute to adverse health effects and geologic hazards in the local area. Section 30231 of the Coastal Act states that:

**The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.**

In addition, the Malibu/Santa Monica Mountains Land Use Plan, which the Commission has relied upon for guidance in past decisions, contains the following policies concerning sewage disposal:

**P217 Wastewater management operations within the Malibu Coastal Zone shall not degrade streams or adjacent coastal waters or cause or aggravate public health problems.**

The proposed development includes the installation of a new on-site septic system to serve the proposed residence. The applicant has submitted evidence of the City of Malibu Environmental Health Department's in-concept approval of the proposed septic system. The City determined that the system meets the requirements of the plumbing

code. The Commission has found that conformance with the provisions of the plumbing code is protective of resources. Therefore, the Commission finds that the proposed septic system is consistent with Section 30231 of the Coastal Act.

**G. Local Coastal Program**

Section 30604 of the Coastal Act states that:

**(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 Chapter 3 (commencing with Section 30200) 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 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 Chapter 3 (commencing with Section 30200) shall be accompanied by a specific finding which sets forth the basis for that conclusion.**

Section 30604(a) of the Coastal Act provides that the Commission shall issue a Coastal 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 preceding sections provide findings that the proposed project will be in conformity with the provisions of Chapter 3 if certain conditions are incorporated into the project and accepted by the applicants. As conditioned, the proposed development will not create adverse impacts and is found to be consistent with the applicable policies contained in Chapter 3. Therefore, the Commission finds that approval of the proposed development, as conditioned, will not prejudice the City's ability to prepare a Local Coastal Program for Malibu which is also consistent with the policies of Chapter 3 of the Coastal Act as required by Section 30604 (a).

**H. CEQA**

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned, 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, which the activity would have on the environment.

The Commission finds that the proposed project, as conditioned, will not have any significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed project, as conditioned,

has been adequately mitigated and is consistent with CEQA and the policies of the Coastal Act.

498060vonoppenheimstaffreport

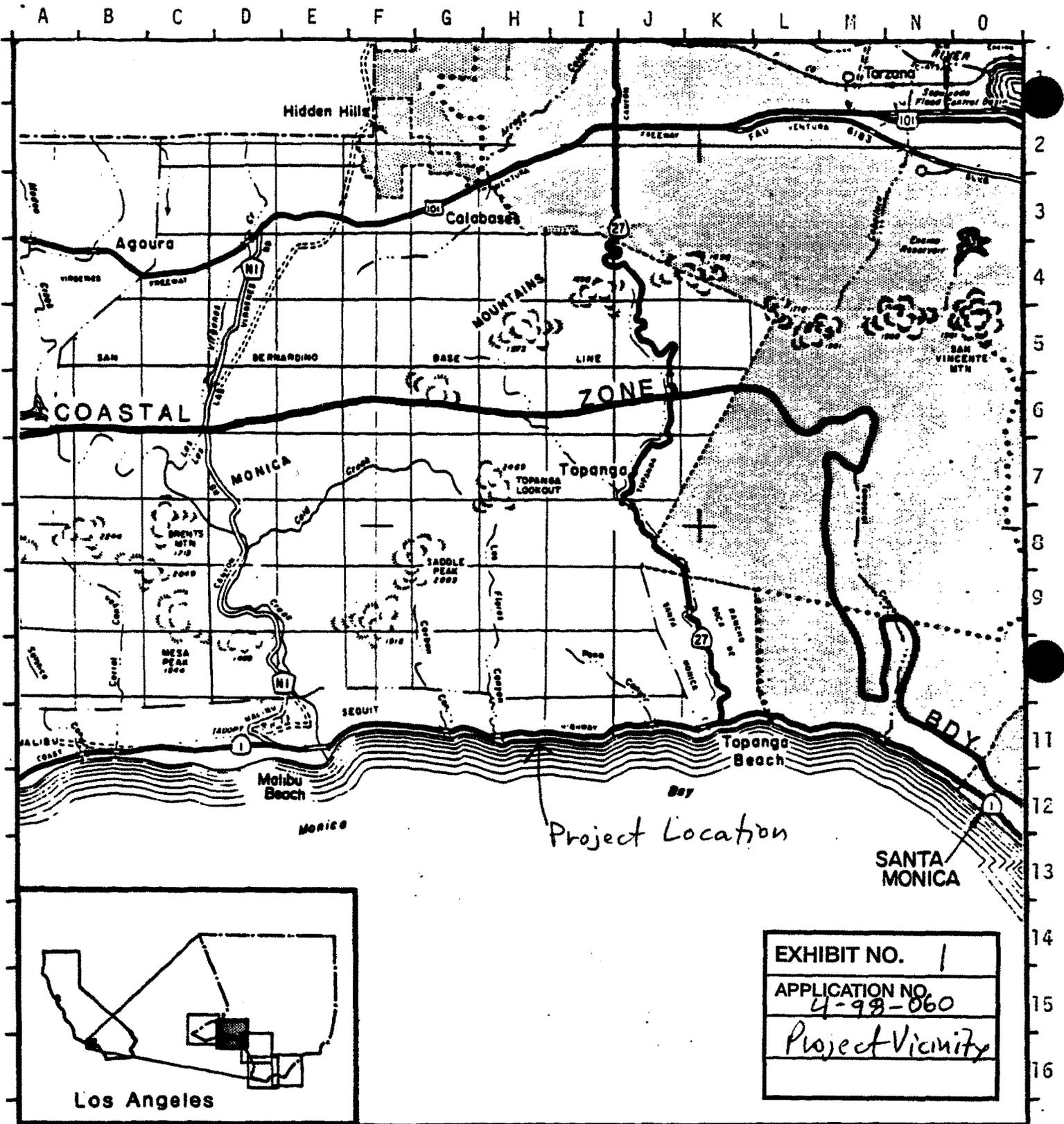
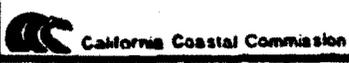


EXHIBIT NO.	1
APPLICATION NO.	4-98-060
Project Vicinity	



# LOCATION MAP



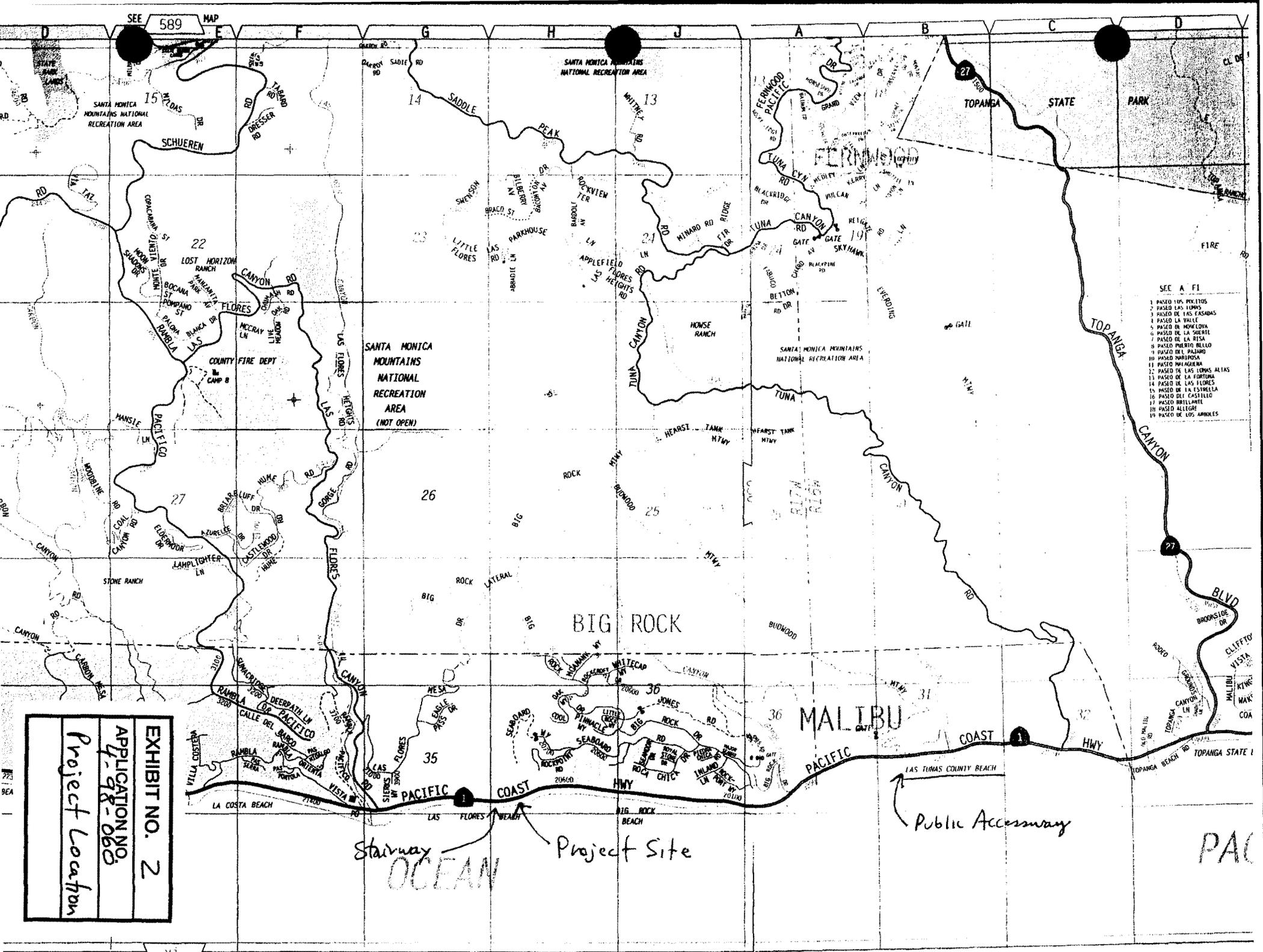


EXHIBIT NO. 2  
 APPLICATION NO.  
 4-98-060  
 Project Location

Stairway  
 OCEAN  
 Project Site

Public Accessway

PAC

	SHEET NO. 112 DRAWING FILE NO. 11222-10MG DATE: 5 AUG 87 JOB NO.: 112
	SHEET NO. 112 DRAWING FILE NO. 11222-10MG DATE: 5 AUG 87 JOB NO.: 112
RESIDENCES AT 20726 & 20732 PACIFIC COAST HWY., MALIBU, CALIFORNIA	Site Plan Seawall
SHEET NO. 112 DRAWING FILE NO. 11222-10MG DATE: 5 AUG 87 JOB NO.: 112	SHEET NO. 112 DRAWING FILE NO. 11222-10MG DATE: 5 AUG 87 JOB NO.: 112

SEAWALL REVISIONS BY  
 BECKCO ENGINEERING  
 DATED 6-22-89

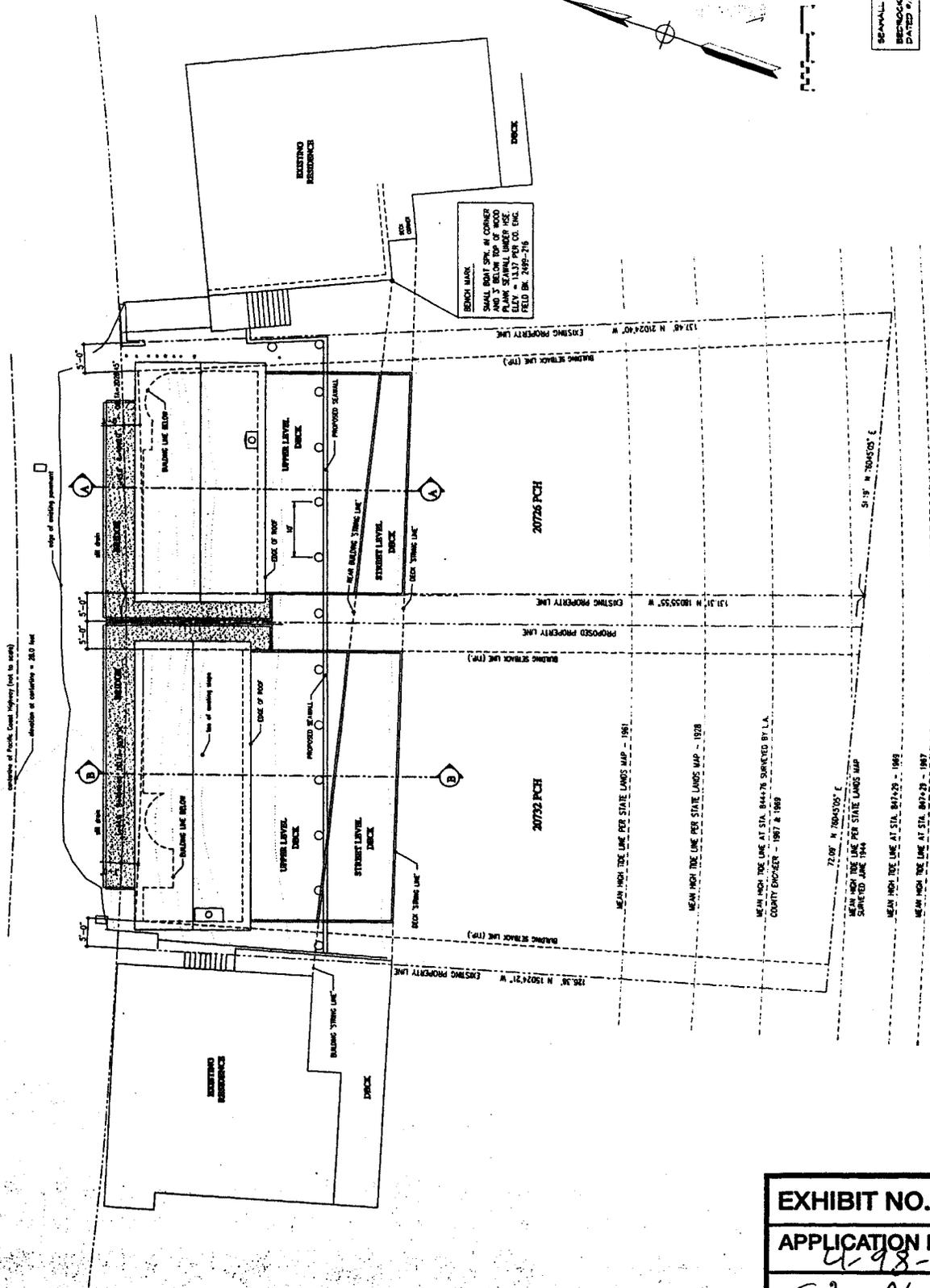
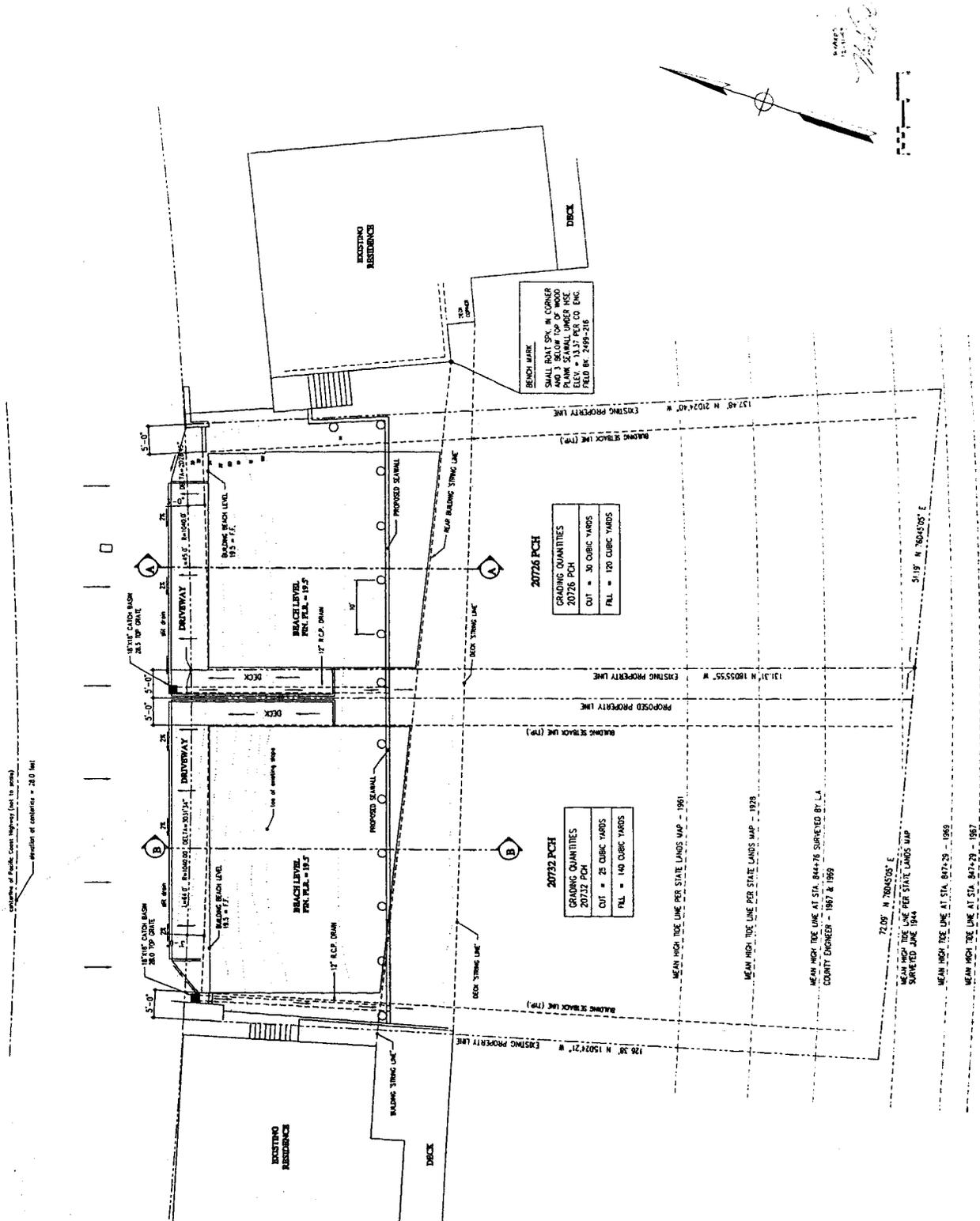


EXHIBIT NO. 3  
 APPLICATION NO. 4-98-060  
 Site Plan  
 Seawall

BEDROCK ENGINEERING 8241 GLADYS AVE. HUNTINGTON BEACH, CA (714) 375-0877	RESIDENCES AT 20728 & 20732 PACIFIC COAST HWY., Malibu, California	CONCEPTUAL GRADING PLAN		Sheet:
		24 of 36 Sheets	Station / Sheet 11+11.17 / 1-07	Station / Sheet 0+00 / 1-07
		Job No.: 98-130 Drawing File G1WALL.DWG		Sheet No.: <b>G-1</b>



**EXHIBIT NO. 4**

**APPLICATION NO.**  
 4-98-060

*Conceptual  
 Grading Plan*

RESIDENCES AT  
20732 & 20732  
PACIFIC COAST HWY.,  
Malibu, California

Sheet:  
20732 P.C.H.  
Floor Plans

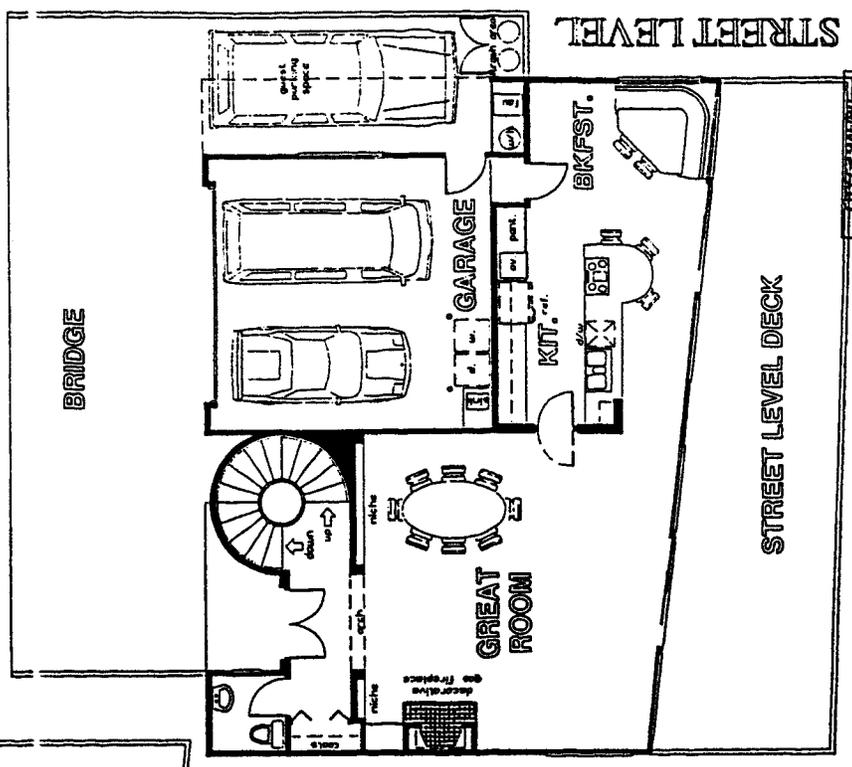
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Date: 13 May 73  
Rev. 30 May 73  
Arch. No. 70-112  
Drawing No. 112A-1-DRG  
Sheet No.:  
AA-1

not with part of  
shown in other  
plans on site  
shown as  
shown as  
shown as

APPROXIMATE BUILDING AREAS:

20732 PCH
UPPER LEVEL
STREET LEVEL
BEACH LEVEL
TOTAL LIVING SPACE
GARAGE
TOTAL ENCLOSED SPACE
UPPER LEVEL DECK
STREET LEVEL DECK
BEACH LEVEL DECK
TOTAL DECK AREA

756 S.F.  
1,094 S.F.  
3,503 S.F.  
4,213 S.F.  
3,044 S.F.  
808 S.F.  
951 S.F.  
573 S.F.  
1,895 S.F.



CITY OF MALIBU  
APPROVAL IN CONCEPT  
DATE: 11/15/73  
BY: [Signature]  
Title: [Title]  
Project: [Project Name]  
Sheet No.: [Sheet No.]

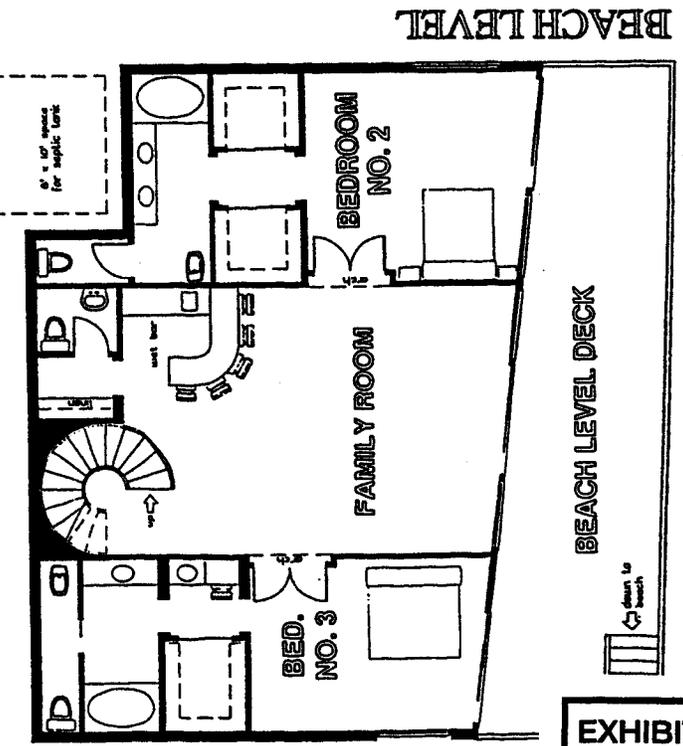
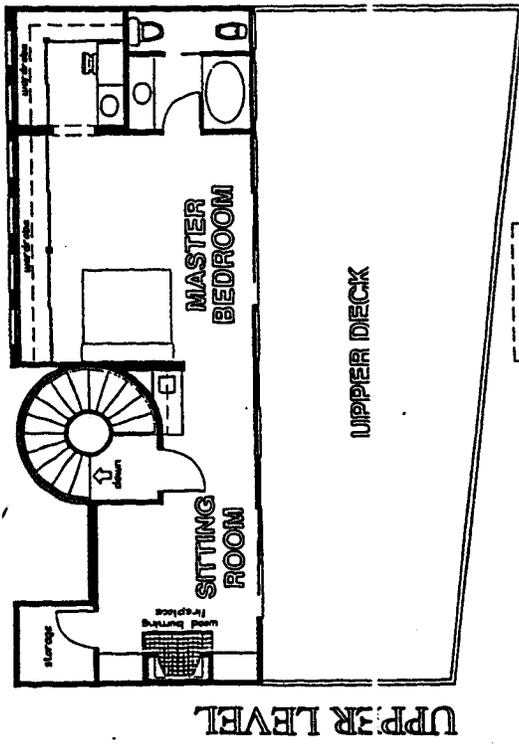
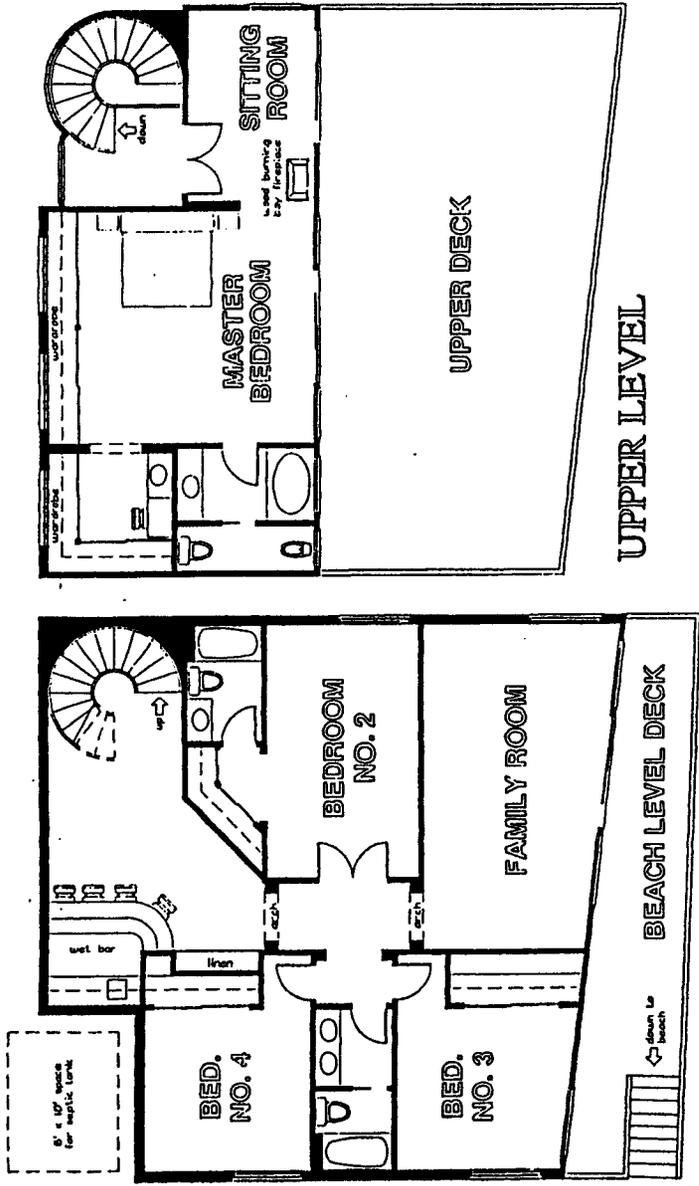


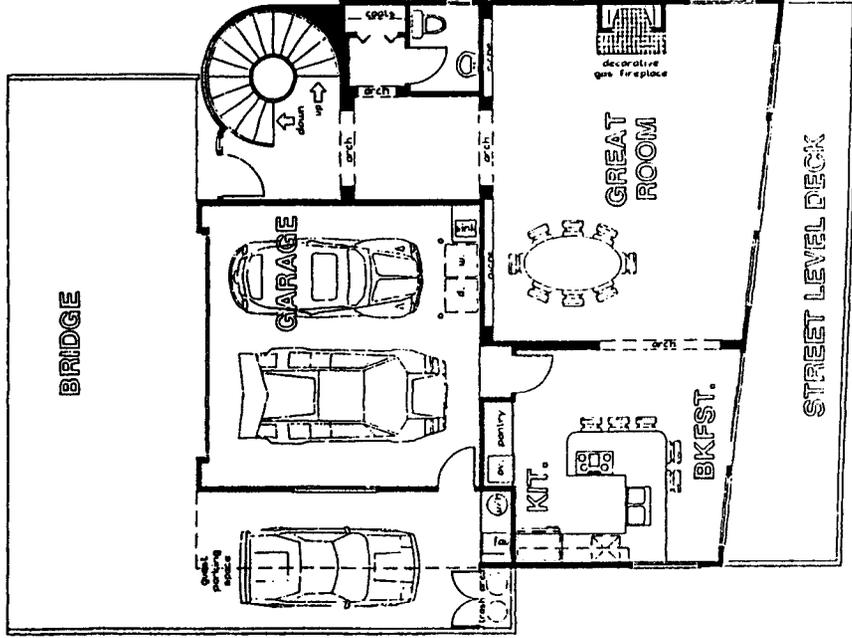
EXHIBIT NO. 5  
APPLICATION NO.  
4-98-060  
Floor Plans  
20732 PCH



BEACH LEVEL

UPPER LEVEL

EXHIBIT NO. 6  
 APPLICATION NO. 20726-0660  
 Floor Plans  
 20726 PCH



STREET LEVEL

APPROXIMATE BUILDING AREAS:	
UPPER LEVEL	712 S.F.
STREET LEVEL	1,072 S.F.
BEACH LEVEL	1,537 S.F.
TOTAL LIVING SPACE	3,321 S.F.
GARAGE	415 S.F.
TOTAL ENCLOSED SPACE	3,732 S.F.
UPPER LEVEL DECK	799 S.F.
STREET LEVEL DECK	710 S.F.
BEACH LEVEL DECK	710 S.F.
TOTAL DECK AREA	1,219 S.F.

CITY OF MALIBU  
 PLANNING DEPARTMENT  
 APPROVAL BY COMMISSIONER  
 DATE: 13 May '97  
 DRAWING NO. 1120A1-4.DWG  
 SHEET NO. BA-1

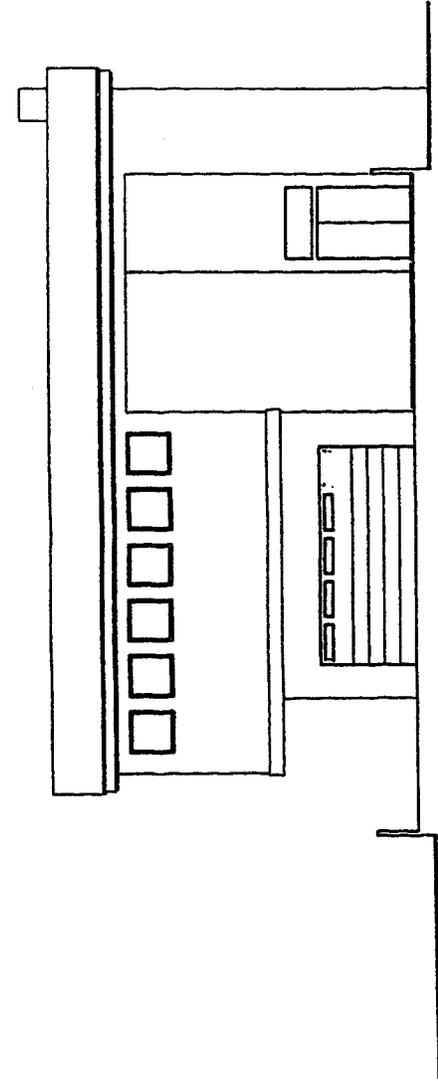
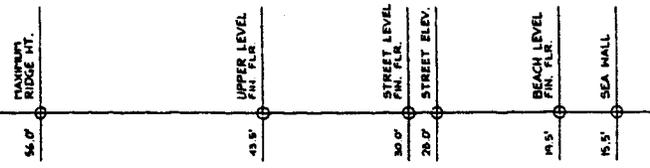
20726 P.C.H. Floor Plans

RESIDENCES AT 20726 & 20722 PACIFIC COAST HWY. Malibu, California

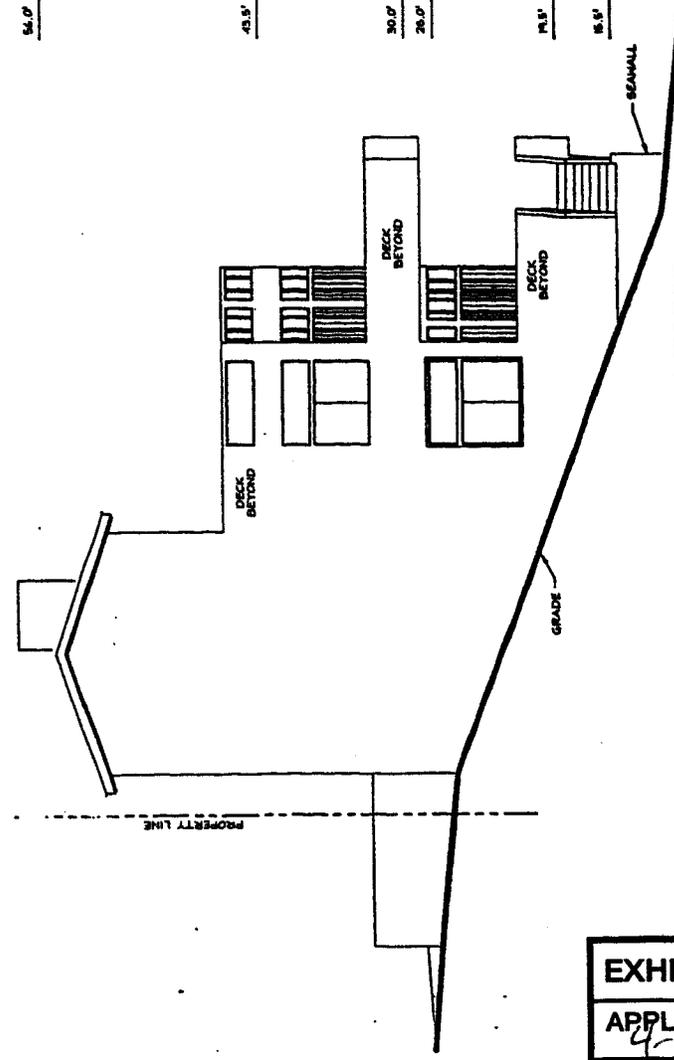
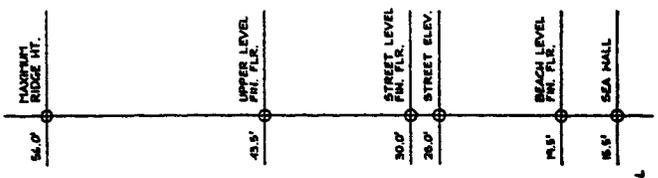
24"x36" Sheet Scale: 1/4"=1'-0"  
 11"x17" Sheet Scale: 1/8"=1'-0"  
 Date: 13 May '97  
 Rev. 30 May '97  
 Job No.: 112  
 Drawing File: 1120A1-4.DWG  
 Sheet No.: BA-1

	<b>RESIDENCES AT</b> <b>20732 &amp; 20732</b> <b>PACIFIC COAST HWY.</b> Malibu, California	Sheet:
		Exterior Elevations 20732 P.C.H.
Scale: 1/4" = 1'-0" 11" x 17" Sheet Date: 12 May '97 Rev: 5 Aug '97	Scale: 1/8" = 1'-0" 11" x 17" Sheet Date: 12 May '97	Sheet No.: AA-2

CITY OF MALIBU  
 PLANNING DEPARTMENT  
 APPROVAL IN CONCEPT  
 Date: 12/15/97  
 By: [Signature]  
 Title: [Title]  
 Project: 20732 P.C.H.  
 11300 S. CAROL  
 MALIBU, CA 90263  
 TEL: 310.317.1100  
 FAX: 310.317.1101

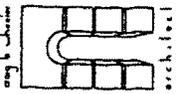


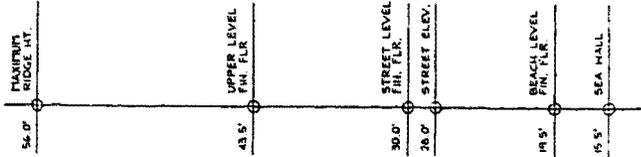
**FRONT ELEVATION**



**RIGHT ELEVATION**

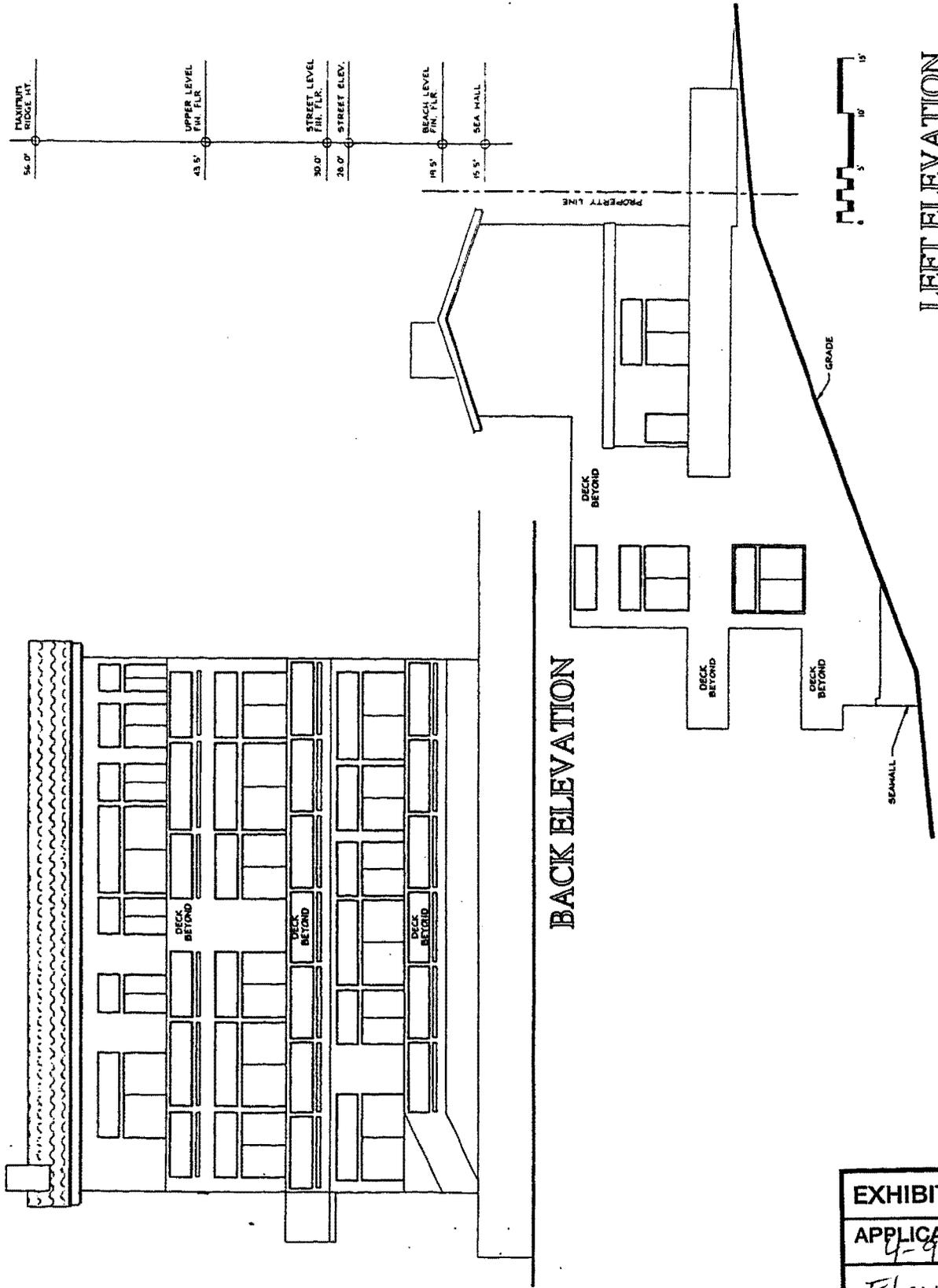
<b>EXHIBIT NO. 7</b>
<b>APPLICATION NO.</b> 4-98-060
Elevations
20732 PCH

	<b>RESIDENCES AT 20732 &amp; 20734 PACIFIC COAST HWY.</b> Malibu, California	<b>20732 P.C.H.</b> Exterior Elevations	Sheet:
			11'-0" x 17'-0" Sheet Scale: 1/4" = 1'-0" Date: 13 May '97 Rev: 3 Aug '97 App No.: 112 Drawing File: 112A31.dwg Sheet No.: <b>AA-3</b>



**LEFT ELEVATION**

CITY OF MALIBU  
PLANNING DEPARTMENT  
APPROVAL IN CONCEPT  
DATE: 10/15/97  
BY: [Signature]  
PROJECT NO.: 20732 PCH  
DRAWING NO.: 112A31.dwg



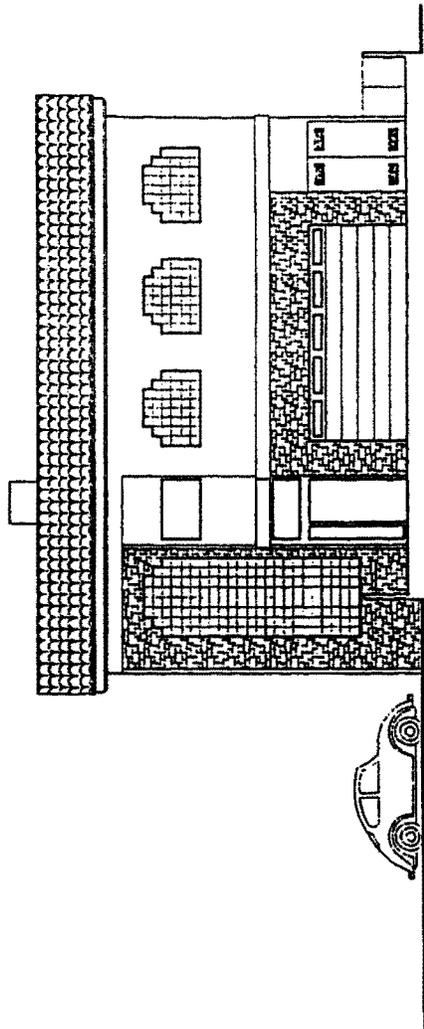
<b>EXHIBIT NO. 8</b>
<b>APPLICATION NO.</b> 4-98-060
<b>Elevations</b>
<b>20732 PCH</b>

RESIDENCES AT  
20726 & 20722  
PACIFIC COAST HWY.  
Malibu, California

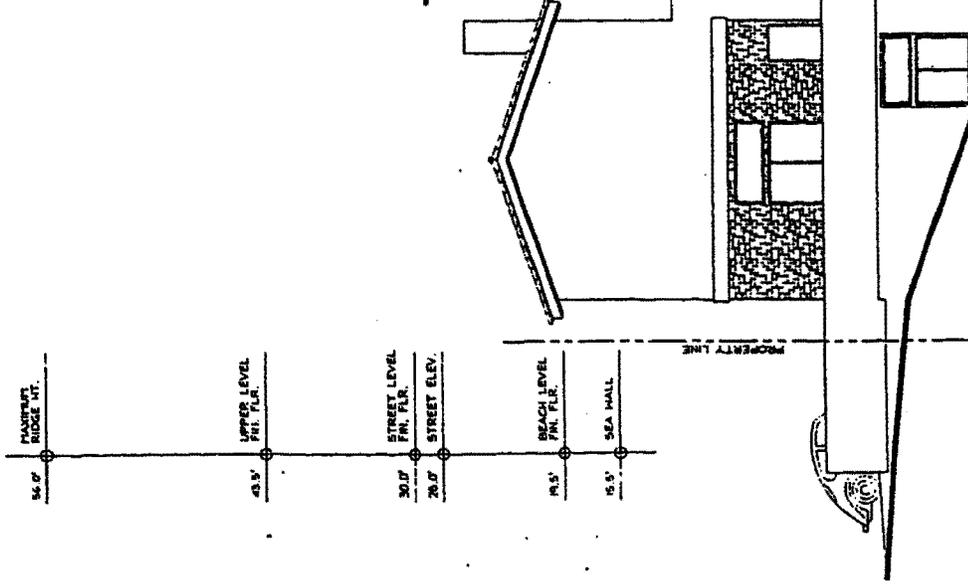
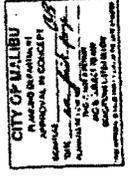
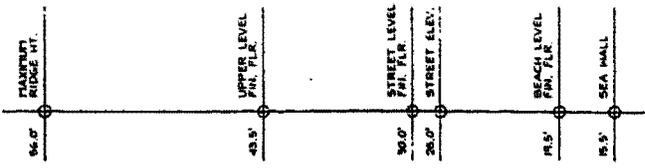
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Exterior Elevations  
20726 P.C.H.

24" x 36" Sheet  
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11" x 17" Sheet  
Scale: 1/8" = 1'-0"  
Date: 13 May 97  
Rev: 3 Aug 97  
Job No.: 112  
Drawing No.: 112B-1-10-02  
Sheet No.: BA-2

and techniques for  
used to create  
a high quality  
architectural  
drawing.



FRONT ELEVATION



RIGHT ELEVATION

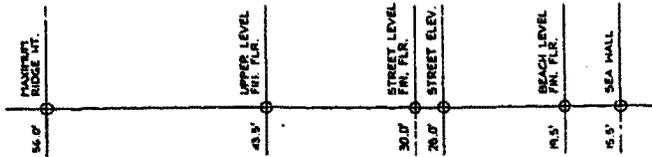


EXHIBIT NO. 9

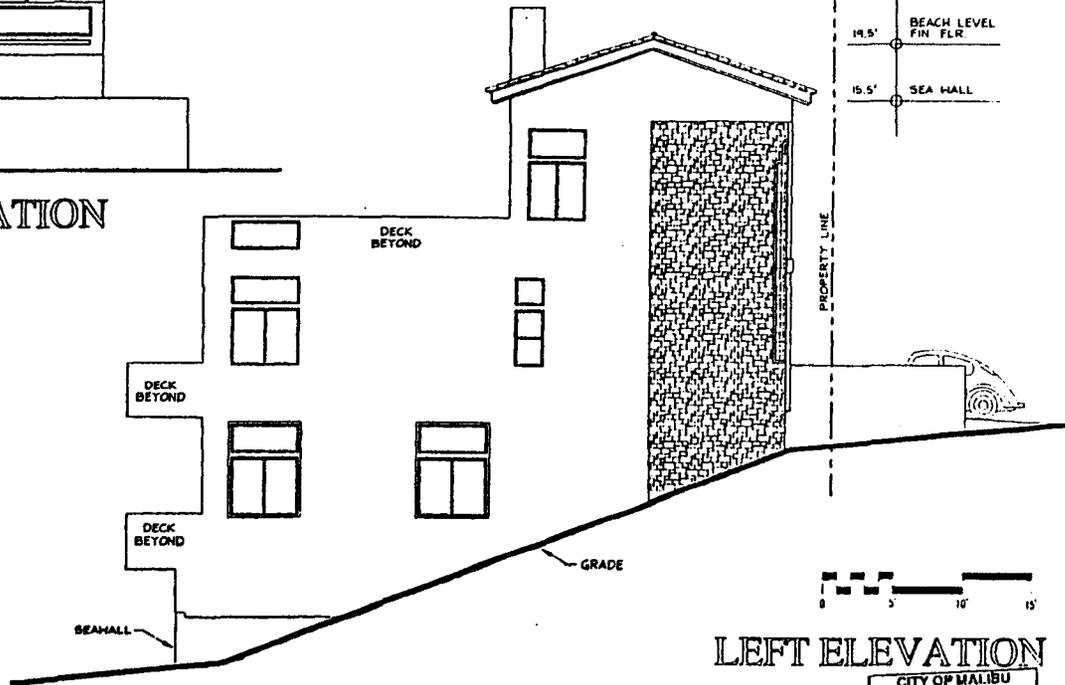
APPLICATION NO. 4-98-060

Elevations

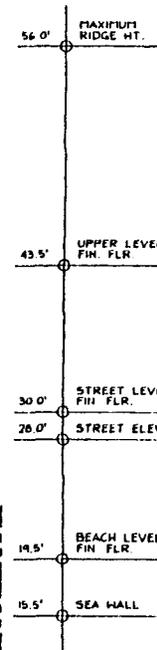
20726 PCH



BACK ELEVATION



LEFT ELEVATION



PROPERTY LINE



Craig Wheeler  
 architect  
 50 plaza square  
 studio g  
 orange ca 92666  
 714 260 4244 voice  
 714 260 4244 fax

**RESIDENCES AT  
 20726 & 20722  
 PACIFIC COAST HWY.**  
 Malibu, California

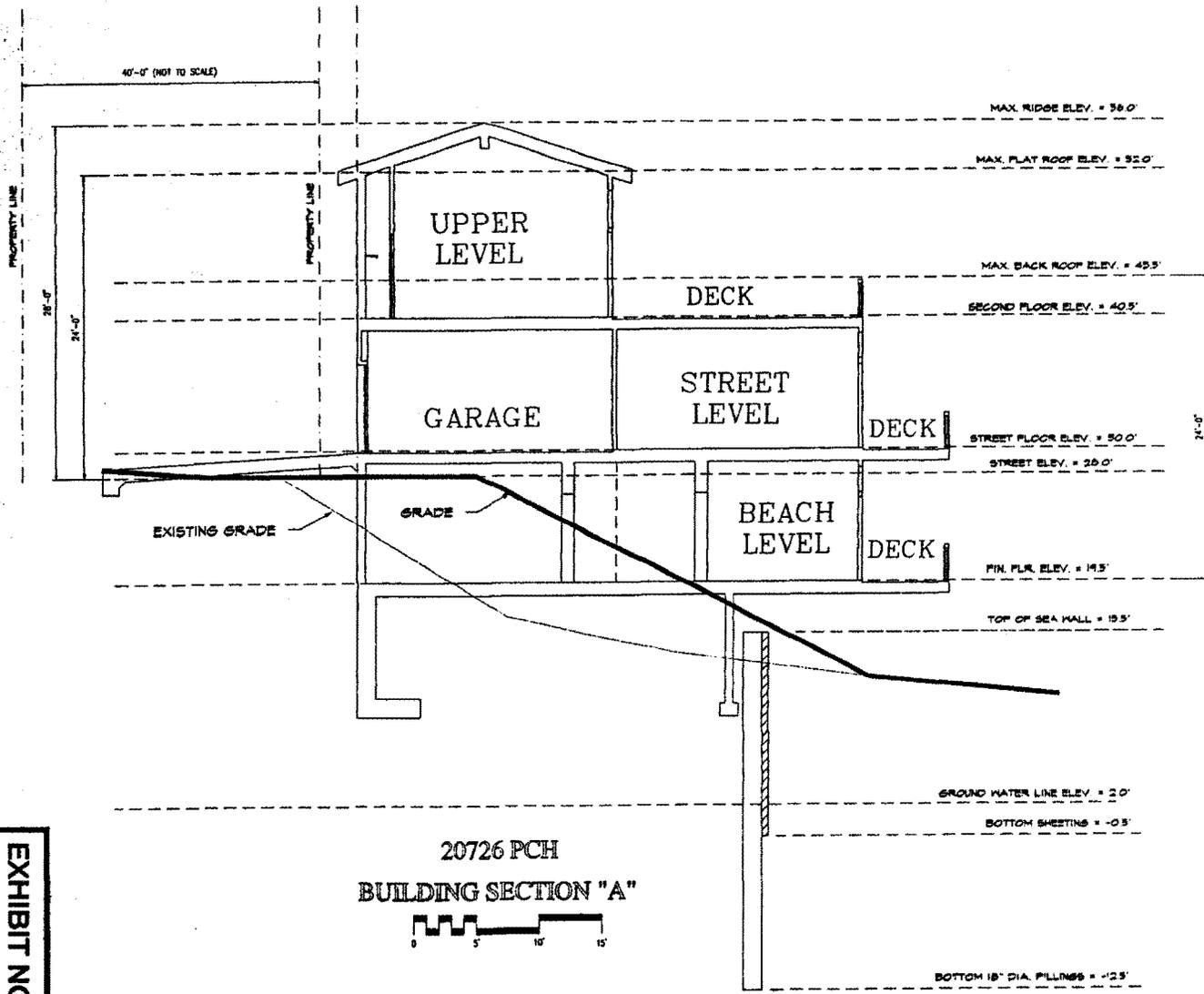
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 Exterior Elevations

24"x36" Sheet  
 Scale: 1/4"=1'-0"  
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 Scale: 1/8"=1'-0"  
 Date: 13 May '87  
 Rev. 5 Aug. '87  
 Job No.: 112  
 Drawing File  
 112BA3\_4.DWG  
 Sheet No.:  
 BA-3

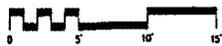
CITY OF MALIBU  
 PLANNING DEPARTMENT  
 APPROVAL IN CONCEPT  
 [Signature]  
 PLANNING DEPARTMENT  
 214 705 1000  
 214 705 1000  
 214 705 1000

EXHIBIT NO. 10  
 APPLICATION NO. 20726 PCH  
 Elevations

EXHIBIT NO. 11  
 APPLICATION NO. 9-98-060  
 Building 20726  
 Section - A



20726 PCH  
 BUILDING SECTION "A"



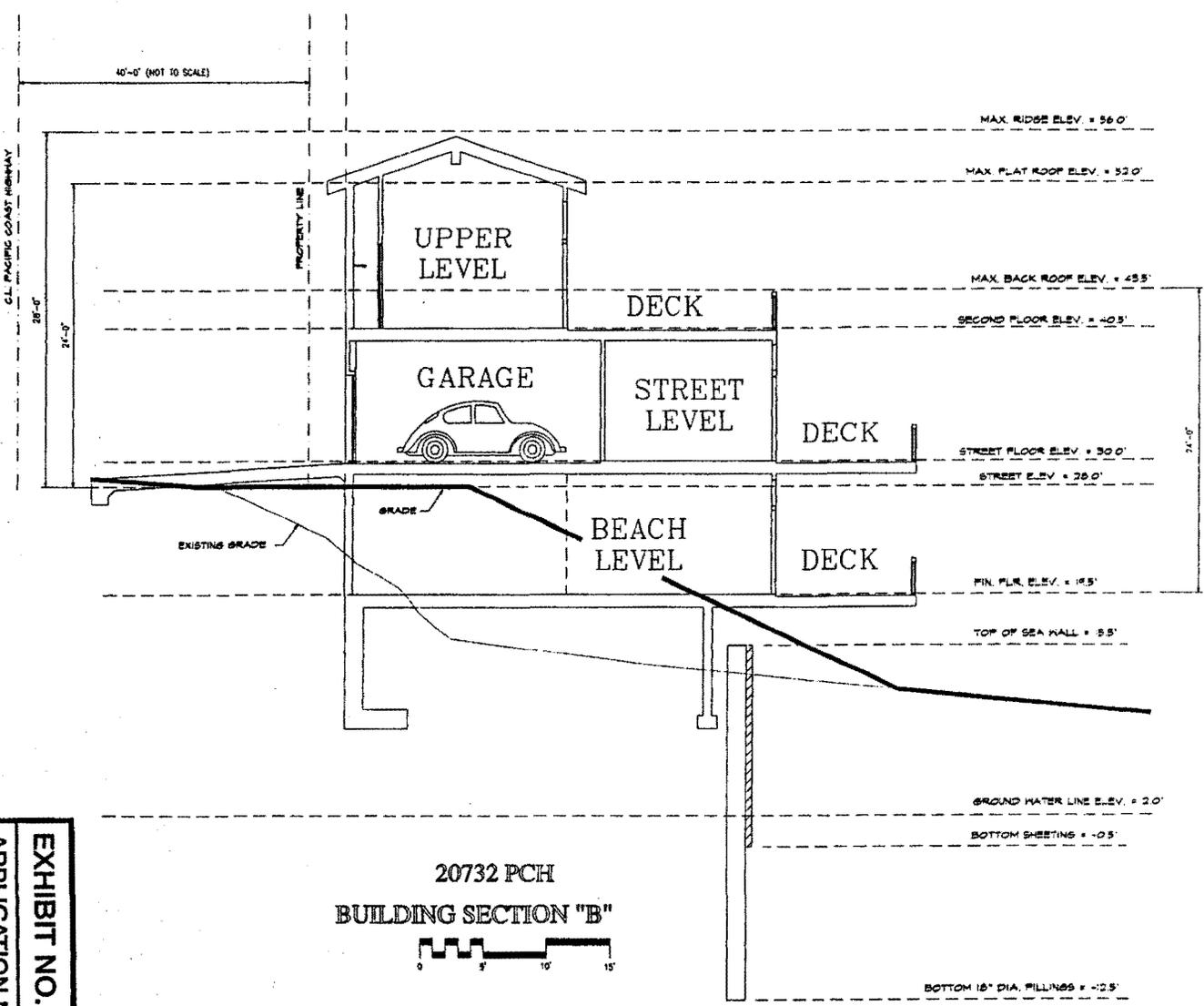
SEANALL REVISIONS BY:  
 BEDROCK ENGINEERING  
 DATED 4/22/98  
 MOVED SEANALL BACK 13  
 11/1/99

Seagull Wheeler  
 architect  
 50 plaza square  
 studio g  
 orange ca 92666  
 714 958 4848 voice  
 fax 714 958 0000 h/f

RESOURCES AT  
 20726 & 20723  
 PACIFIC COAST HWY.  
 Malibu, California

Sheet:  
 20726 P.C.H.  
 Building Section "A"

24"x36" Sheet  
 Scale 1/4"=1'-0"  
 11"x17" Sheet  
 Scale 1/8"=1'-0"  
 Date: 13 May '97  
 Rev. 30 June '97  
 Job No.: 112  
 Drawing File:  
 112BA4.dwg  
 Sheet No.:  
 BA-4



20732 PCH  
BUILDING SECTION "B"



EXHIBIT NO.	12
APPLICATION NO.	4-98-060
Building's 20732	
Section-B	

SEANALL REVISIONS BY:  
BEDROCK ENGINEERING  
DATED 4/22/98

MOVED SEANALL BACK 15'  
11/20/98

crig b wheeler  
architect

60 plaza square  
studio g  
orange ca 92666  
714 255 4544 voice  
714 255 4500 fax

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PERFORMANCES AT  
20732 & 20733  
PACIFIC COAST HWY.  
Malibu, California

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Sheet:  
20732 P.C.H.  
Building Section "B"

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24"x36" Sheet  
Scale: 1/4"=1'-0"

11"x17" Sheet  
Scale: 1/8"=1'-0"

Date: 13 May '97

Rev. 30 June '97

Job No.: 112

Drawing File  
112A44\_4.DWG

Sheet No.:  
AA-4

*View Corridors to be increased to 20% width of Street frontage*

centerline of Pacific Coast Highway (not to scale)

elevation of centerline = 28.0 feet

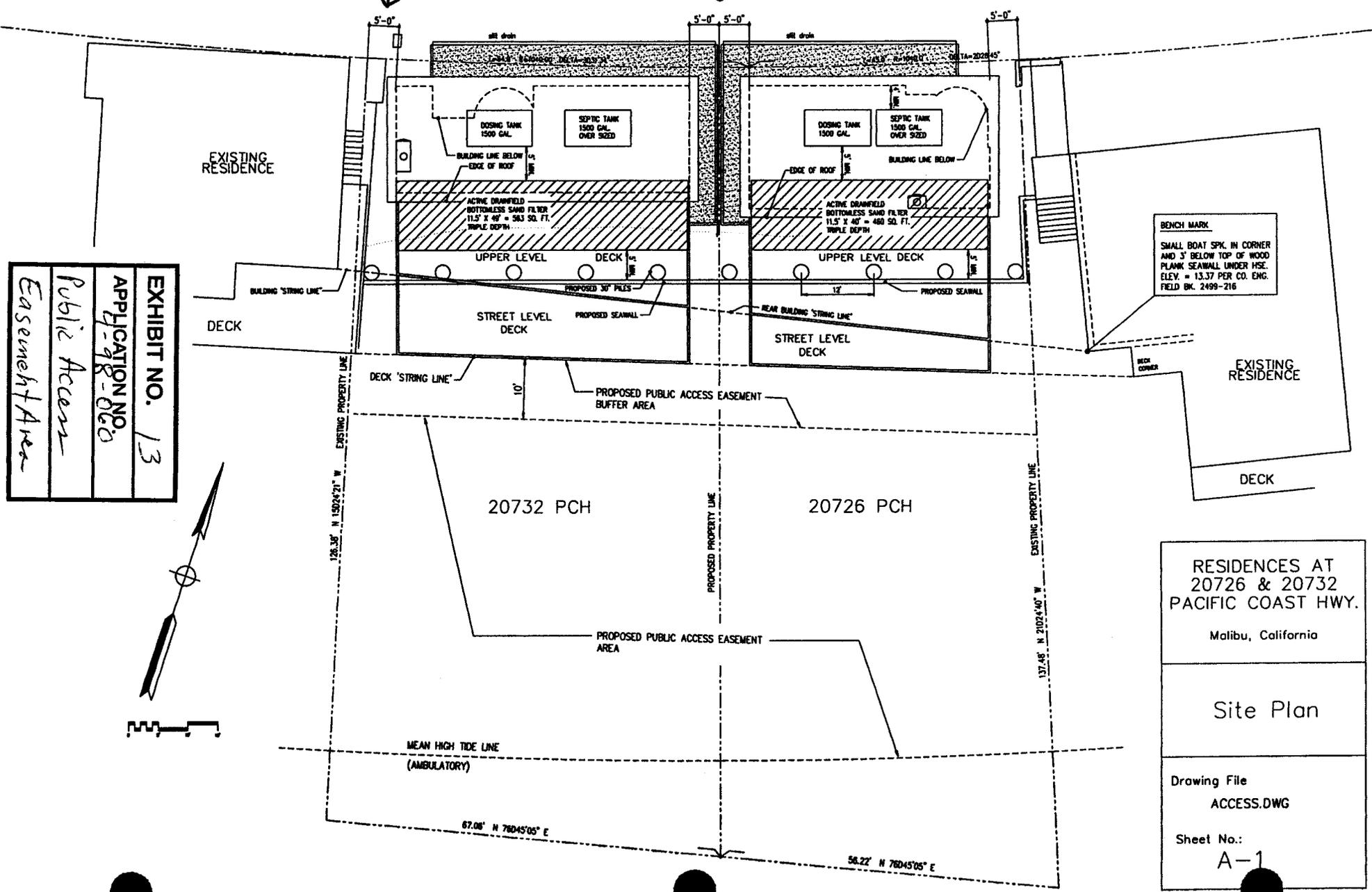


EXHIBIT NO. 13  
 APPLICATION NO. F-98-060  
*Public Access Easement Area*

BENCH MARK  
 SMALL BOAT SPK. IN CORNER AND 3' BELOW TOP OF WOOD PLANK SEAWALL UNDER MSE. ELEV. = 13.37 PER CO. ENG. FIELD BK. 2499-216

RESIDENCES AT  
 20726 & 20732  
 PACIFIC COAST HWY.  
 Malibu, California

Site Plan

Drawing File  
 ACCESS.DWG

Sheet No.:  
 A-1