CALIFORNIA COASTAL COMMISSION
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180th Day: November 16, 1998
Staff: DL-SD
Staff Report: October 21, 1998
Hearing Date: November 3-6, 1998

REGULAR CALENDAR
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-98-39

Applicant: Stanley Cantor & Paul Denver Agent: Robert Campbell

Description: Construction of a 13 ft. high, approximately 80 ft. long seawall at the base of a coastal bluff fronting two properties, each containing a single-family residence.

Site: On public beach fronting 164 and 172 Neptune Avenue, Encinitas, San Diego County.

STAFF NOTES:

Summary of Staff's Preliminary Recommendation:

The Commission has denied the proposed seawall three times in the past finding the seawall was not required to protect existing residential structures which are in danger from erosion. Since October 1997, the applicant has had the current site conditions and previous analyses of the site and proposed project reviewed by an independent third party, which has produced a report which contains new evidence of existing tension cracks in the rearyard structures, which the report concludes to be evidence the bluff is in the process of failing. Therefore, staff concurs the Commission is required to approve a protective device, in this particular case, to protect the residences which are in danger from erosion. However, because the coastal bluffs and beach on which the seawall is proposed are owned by the City of Encinitas, staff is recommending approval with a number of conditions designed to address the project's direct impact on scenic quality, public access and recreational opportunities and shoreline sand supply. The conditions require a deed restriction acknowledging that alternative measures must be implemented on the applicants blufftop property in the future, should additional stabilization be required, which would avoid additional alteration of the natural landform of the public beach or coastal bluffs, but would stablilize the principle residential structures and provide reasonable use of the property. The recommended conditions also require the applicant to pay a beach sand mitigation fee, in-lieu of placing sand on the beach, to mitigate the direct and long-term impacts on shoreline sand supply.

PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

I. Approval with Conditions.

The Commission hereby grants a permit for the proposed development, subject to the conditions below, on the grounds that the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

II. Standard Conditions.

See attached page.

III. Special Conditions.

The permit is subject to the following conditions:

1. Final Plans. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for review and written approval of the Executive Director, final seawall, site, landscape, irrigation and drainage plans that include the following measures to mitigate the impacts of the seawall and address overall site stability. Said plans shall first be approved by the City of Encinitas and include the following:

a. Sufficient detail regarding the construction method and technology utilized for texturing and coloring the seawall. Said plans shall confirm, and be of sufficient detail to verify, that the seawall color and texture closely matches the adjacent natural bluffs, including provision of a color board indicating the color of the fill material.

b. The seawall shall conform as closely as possible to the natural contour of the bluff.

c. Any existing permanent irrigation system located within the geologic setback area (40 feet from the bluff edge) shall be removed or capped.

d. All runoff from impervious surfaces on the site shall be collected and directed away from the bluff edge towards the street and shall avoid ponding of the pad area.

b. Measurements of the distance between each residence and the bluff edge (as defined by Section 13577 of the California Code of Regulations) taken at 6 or more locations. The locations for these measurements shall be the same as those identified on the as-built plans required in Special Condition #7 of this permit, and identified through permanent markers, benchmarks, survey position, written description, etc. so that annual measurements can be taken at the same bluff location and comparisons between years can provide information on bluff retreat.

c. Measurements of any differential retreat between the natural bluff face and the seawall face, at both ends of the seawall and at 20-foot intervals (maximum) along the top of the seawall face/bluff face intersection. The program shall describe the method by which such measurements shall be taken.

d. Provisions for submittal of a report to the Executive Director of the Coastal Commission on May 1 of each year (beginning the first year after construction of the project is completed), for the life of the project. Each report shall be prepared by a licensed geologist or geotechnical engineer. The report shall contain the measurements and evaluation required in sections a, b, and c above. The report shall also summarize all measurements and provide some analysis of trends, annual retreat or rate of retreat, and the stability of the overall bluff face, including the upper bluff area, and the impact of the seawall on the bluffs to either side of the wall, which do not include the construction of structures on the face of the bluff. In addition, each report shall contain recommendations, if any, for necessary maintenance, repair, changes or modifications to the project.

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

4. Future Response to Erosion. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall execute and record a deed restriction against the two blufftop parcels in a form and content acceptable to the Executive Director, which shall provide that no additional bluff or shoreline protective devices shall be constructed on the adjacent public bluff face or beach unless the alternatives required below are demonstrated to be infeasible. In the event any bluff or additional shoreline protective work is considered on public property in the future, the applicants acknowledge that as a condition of filing an application for a coastal development permit, the applicants must provide the Commission and the City of Encinitas with sufficient evidence enabling it to consider all alternatives to bluff or shoreline protective works that will eliminate additional impacts to public resources, including, but not limited to, removal of accessory structures (patios, decks, etc.), installation of a below-grade retention system seaward of the residential structures on the applicant's property, underpinning of the residential structures, relocation of portions of the residences that are

In addition, within 60 days following completion of the project, the permittee shall submit certification by a registered civil engineer, acceptable to the Executive Director, verifying the seawall has been constructed in conformance with the approved plans for the project.

8. Staging Areas/Access Corridors/Timing of Construction. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, final plans indicating the location and access corridors to the construction site and staging areas. The final plans shall indicate that:

a. No staging of equipment or materials shall occur on sandy beach or public parking areas. During both the construction and the removal stages of the project, the permittee shall not store any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion. In addition, no machinery shall be placed, stored or otherwise located in the intertidal zone at any time.

b. Access corridors shall be located in a manner that has the least impact on public access to and along the shoreline.

c. No work shall occur on the beach between Memorial Day weekend and Labor Day of any year.

d. The applicant shall submit evidence that the approved plans/notes have been incorporated into construction bid documents. The staging site shall be removed and/or restored immediately following completion of the development.

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

9. U.S. Army Corps of Engineers Permit. Prior to commencement of construction, the permittee shall provide to the Executive Director a copy of a U.S. Army Corps of Engineers permit, or letter of permission, or evidence that no Corps permit is necessary. Any mitigation measures or other changes to the project required through said permit shall be reported to the Executive Director and shall become part of the project. Such modifications, if any, may require an amendment to this permit or a separate coastal development permit.

10. Future Maintenance/Debris Removal. The permittee shall remove all debris deposited on the beach or in the water during and after construction of the shoreline protective devices or resulting from failure or damage of the shoreline protective device. In addition, the permittee shall maintain the permitted seawall in its approved state except

Subsequently, in January of 1987, an amendment to this permit was approved reducing the size of the residence to 3,137 sq. ft. and only two-levels. Again, the Commission did not require or receive "as-built" plans showing exactly how far from the bluff edge the home was constructed.

On August 11, 1994, the Commission denied a permit request to construct the same seawall as proposed in this application (ref. CDP #6-93-135 Denver/Canter). On December 11, 1996, the Commission again denied a permit request for the same seawall (ref. CDP #6-96-138 Denver/Canter). The Commission denied a permit request for the same seawall a third time on October 8, 1997 (ref. CDP #6-97-90). The Commission denied all three permit requests because a need for the seawall to protect the existing structures had not been documented and geologic stability on adjacent properties had not been assured.

Although the City of Encinitas has a certified LCP and has been issuing coastal development permits since May of 1995, the proposed development is located within the Commission's area of original jurisdiction where permit jurisdiction is not delegated to the local government. As such, the standard of review is Chapter 3 policies of the Coastal Act, with the certified LCP used as guidance.

2. Geologic Conditions and Hazards. Section 30235 of the Coastal Act states, in part:

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.

In addition, Section 30253 of the Coastal Act states, in part:

New development shall:

(l) 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...

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" solutions alter natural shoreline processes. Thus, such devices are required to be approved only when necessary to protect existing structures. The Coastal Act does not require the Commission to approve shoreline altering devices to protect vacant land or in connection with construction of new

feet to provide a greater factor of safety for the residence. The geotechnical reports submitted with the applications for seawalls did not address this factor. Therefore, the Commission found that the reports did not substantiate that bluff failures would undermine the foundations for the residential structures or threaten the existing homes on top of the bluff should they occur, and thus, construction of a seawall was not required.

The applicants have not submitted a completely new geotechnical report to support the need for the proposed seawall beyond that submitted with the previous permit request in 1997. However, there are two new documents which have been submitted. Earlier this year, the applicant's geotechnical engineer submitted a revised stability analysis using the same soils and cross section information as previously submitted, but using a different stability analysis program. The resulting plots show the most critical failure surface as intersecting the bluff underneath the houses. In addition, the applicants have submitted a report by GeoSoils, Inc., October 1, 1998, which includes a review and evaluation of the past geotechnical reports and studies performed on the site, and a review of existing conditions on the property.

This report was suggested by Commission staff as necessary to provide an objective third-party review of the current site conditions and previous analyses. The GeoSoils, Inc. report states that a field review of the site found patched vertical-oriented bluff-parallel cracks in the masonry walls on both the north and south, east-west trending property lines of 172 Neptune that have widened and re-opened, and localized cracks in the brick decking that generally run north-south. The report states that "the opening of the patched cracks (tensional features, in GSI's opinion, related to tension cracks), and the cracked brick indicate that the bluff is in the process of failing" (emphasis in original). The report concludes that the existing homes are now in danger from erosion, and that the proposed seawall design will improve overall bluff stability.

In previous reviews of the proposed seawall, because the applicants had not submitted any new geotechnical information, the Commission had to rely on visual observations by staff to determine what changes had occurred since the previous application was denied. These previous site inspections had not shown any visible changes or evidence of major sloughages or erosion of the bluff. Similarly, recent site inspections of the property by Commission staff have also not revealed any evidence of slope failure, noticeable bluff erosion, or any changes in the bluff profile since the previous denial. However, the evidence of tension cracks reported by GeoSoils, Inc. is new information which was not noted or analyzed in any of the previous geotechnical reports. This new evidence, combined with the revised slope stability analysis showing the failure surface intersecting the bluff underneath the houses, and the third party review of this and past analyses, constitutes evidence that the despite the 25-foot setback, the existing residential structures are in danger from erosion. The GeoSoils, Inc. report also reviewed alternatives to shoreline protection, and determined that extending caissons beneath the homes would not increase bluff stability. In addition, the report found that while sand replenishment would contribute to bluff stability, in order for replenishment to be effective, it would have to occur on such a regional extent that sand replenishment cannot

the life the structure, and of the cost to purchase an equivalent amount of beach quality material and to deliver this material to beaches in the project vicinity.

The following is a description of the methodology. The actual calculations which utilize values that are applicable to the subject sites, and were used as the basis for calculating the estimated range of the mitigation fee, are attached as Exhibit A to this report.

Fee = (Volume of sand for mitigation) x (unit cost to buy and deliver sand)

$\mathbf{M = V_t \times C}$

where

M = Mitigation Fee

$\mathbf{V_t}$ = Total volume of sand required to replace losses due to the structure, through reduction in material from the bluff, reduction in nearshore area and loss of available beach area (cubic yards). Derived from calculations provided below.

C = Cost, per cubic yard of sand, of purchasing and transporting beach quality material to the project vicinity ($ per cubic yard). Derived from the average of three written estimates from sand supply companies within the project vicinity that would be capable of transporting beach quality material to the subject beach, and placing it on the beach or in the near shore area.

$\mathbf{V_t = V_b + V_w + V_e}$

where

$\mathbf{V_b}$ = Volume of beach material that would have been supplied to the beach if natural erosion continued, based on the long-term regional bluff retreat rate, design life of the structure, percent of beach quality material in the bluff, and bluff geometry (cubic yards). This is equivalent to the long-term reduction in the supply of bluff material to the beach resulting from the structure.

$\mathbf{V_w}$ = Volume of sand necessary to replace the beach area that would have been created by the natural landward migration of the beach profile without the seawall, based on the long-term regional bluff retreat rate, and beach and nearshore profiles (cubic yards)

the applicant provides site-specific geotechnical information supporting a different value.

R_{CS} = Predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming the seawall has been installed (ft/yr). This value will be assumed to be zero unless the applicant provides site-specific geotechnical information supporting a different value.

NOTE: For conditions where the upper bluff retreat will closely follow the lower bluff, this volume will approach a volume of material equal to the height of the total bluff, the width of the property and a thickness equal to the total bluff retreat that would have occurred if the seawall had not been constructed. For conditions where the upper bluff has retreated significantly and would not be expected to retreat further during the time that the seawall is in place, this volume would approach the volume of material immediately behind the seawall, with a thickness equal to the total bluff retreat that would have occurred if the seawall had not been constructed.

$\mathbf{V_W = R \times L \times v \times W}$

where

R = Long-term regional bluff retreat rate (ft./yr.), based on historic erosion, erosion trends, aerial photographs, land surveys, or other accepted techniques. For the Encinitas area, this regional retreat has been estimated to be 0.2 ft./year. This value may be used without further documentation. Alternative retreat rates must be documented by the applicant and should be the same as the predicted retreat rate used to estimate the need for shoreline armoring.

L = Design life of armoring without maintenance (yr.) If maintenance is proposed and extends the life of the seawall beyond the initial estimated design life, a revised fee shall be determined through the coastal development permit process.

v = Volume of material required, per unit width of beach, to replace or reestablish one foot of beach seaward of the seawall; based on the vertical distance from the top of the beach berm to the seaward limit of reversible sediment movement (cubic yards/ft of width and ft. of retreat). The value of v is often taken to be 1 cubic yard per square foot of beach. In

suitable for replenishing the region's beaches. The purpose of the account is to aid in the restoration of the beaches within San Diego County. One means to do this would be to provide funds necessary to get such "opportunistic" sources of sand to the shoreline.

The applicant is being required to pay a fee in-lieu of directly depositing the sand on the beach, because the benefit/cost ratio of such an approach would be too low. Larger projects can take advantage of the economies of scale and result in quantities of sand at appropriate locations to benefit both the local jurisdiction where the fees were derived, and the entire littoral cell in which it is located. The funds will be used only to implement projects which benefit the area where the fee was derived, and provide sand to the region's beaches, not to fund operations, maintenance or planning studies. Such a fund will aid in the long-term goal of increasing the sand supply and thereby reduce the need for additional armoring of the shoreline in the future. The fund also will insure available sandy beach for recreational uses. The methodology, as proposed, is not attempting to address any impacts to shoreline processes other than those directly attributable to the proposed seawall on the subject properties. The methodology provides a means to quantify the sand and beach area that would be available for public use, were it not for the presence of the seawall.

The above described impacts on the beach and sand supply have previously been found to result from seawalls in other areas of Encinitas. In March of 1993, the Commission approved CDP #6-93-85/Auerbach, et al for the construction of a seawall fronting six non-continuous properties located approximately 900 ft. north of the subject site. In its finding for approval, the Commission found the proposed shoreline protection would have specific adverse impacts on the beach and sand supply and required mitigation for such impacts as a condition of approval. The Commission made a similar finding for several other seawall developments located several blocks north of the subject site (ref. CDP Nos. 6-93-36-G/Clayton, 6-93-131/Richards, et al, 6-93-136/Favero, and 6-95-66/Hann).

In addition to the adverse impacts the seawall will have on the beach as detailed above, the Commission finds that the proposed seawall could also have adverse impacts on adjacent unprotected properties caused by wave reflection, which leads to accelerated erosion. Numerous studies have indicated that when continuous protection is not provided, unprotected adjacent properties experience a greater retreat rate than would occur if the protective device were not present. This is due primarily to wave reflection off the protective structure and from increased turbulence at the terminus of the seawall. According to James F. Tait and Gary B. Griggs in Beach Response to the Presence of a Seawall (A Comparison of Field Observations) "[t]he most prominent example of lasting impacts of seawalls on the shore is the creation of end scour via updrift sand impoundment and downdrift wave reflection. Such end scour exposes the back beach, bluff, or dune areas to higher swash energies and wave erosion." As such, as the base of the bluff continues to erode on the unprotected adjacent properties, failure of the bluff is likely. Thus, future failures could "spill over" onto other adjacent unprotected properties, prompting requests for much more substantial and environmentally damaging seawalls to

Special Condition #1 requires the applicants to submit final plans for the project indicating that the seawall conforms to the bluff contours and to demonstrate that existing irrigation systems within the geologic setback area have been removed, as these would impact the ability of the seawall to adequately stabilize the site. The final plans and Special Conditions #5, which requires an analysis of ground water conditions, are designed to ensure that overall site conditions which could adversely impact the stability of the bluff have been addressed.

Special Condition #10 notifies the applicants that they are responsible for maintenance of the herein approved shore and bluff protection to include removal of debris deposited on the beach during and after construction of the structures. The condition also indicates that, should it be determined that maintenance of the seawall is required in the future, the applicant shall contact the Commission office to determine if permits are required.

To assure the proposed shore/bluff protection has been constructed properly, Special Condition #7 has been proposed. This condition requires that, within 60 days of completion of the project, as built-plans and certification by a registered civil engineer be submitted that verifies the proposed seawall has been constructed in accordance with the approved plans.

Also, due to the inherent risk of shoreline development and the Commission's mandate to minimize risk, Special Condition #6 for a waiver of liability has been attached. By this means, the applicant is notified of the risk and the Commission is relieved of liability in permitting the development. Pursuant to Section 13166(a)(1) of the Commission's regulations, an application may be filed to remove Special Condition #6 from this permit if the applicant presents newly discovered material or information regarding the existence of any hazardous condition which was the basis for the condition, if they could not with reasonable diligence have discovered and produced such information before the permit was granted. Only as conditioned can the proposed project be found consistent with Sections 30235 and 30253 of the Coastal Act.

In summary, the applicants have documented that the existing bluff top primary structures are in danger from erosion and subsequent bluff failure. Thus, the Commission is required to approve the proposed protection. There are no other less damaging alternatives available to reduce the risk from bluff erosion. Since the proposed seawall will contribute to erosion and geologic instability over time on adjacent unprotected properties and also deplete sand supply, occupy public beach and fix the back of the beach, Special Conditions require the applicant to require pay an in-lieu mitigation fee to offset this impact. Therefore, as conditioned, the Commission finds that the proposed seawall is consistent with Sections 30210, 30211, 30212, 30235, 30240, 30250, 30251 and 30253 of the Coastal Act.

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

(l) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,

(2) adequate access exists nearby....

Additionally, Section 30220 of the Coastal Act provides:

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

The project site is located on a public beach utilized by local residents and visitors for a variety of recreational activities. The site is located several blocks north of the City of Encinitas' Moonlight State Beach. The proposed seawall will be constructed on sandy beach area that is currently available to the public. The project will have several adverse impacts on public access:

a. Direct Interference with Public Access Along the Beach. The proposed seawall, although minimally designed, will project approximately two ft. seaward of the toe of the bluff. Although the seaward encroachment of the wall is minimal, the beach along this area of the coast is narrow and at high tides and winter beach profiles, the public may be forced to walk virtually at the toe of the bluff or the area would be impassable. As such, any encroachment of structures, no matter how minimal, onto the sandy beach, reduces the beach area available for public use. This is particularly true given the existing beach profiles and relatively narrow beach.

b. Indirect Effects of Shoreline Structures. In addition to the above described direct interference with public access by the proposed seawall, there are a number of indirect effects as well. Shoreline processes, and supply and beach erosion rates are affected by shoreline structures and thus alter public access and recreational opportunities.

The precise impact of shoreline structures on the beach is a persistent subject of controversy within the discipline of coastal engineering. However, the Commission is led to the conclusion that if a seawall works effectively on a retreating shoreline, it results in impacts on the beach. As discussed previously, the construction of a shore/bluff protective structure has a number of quantifiable and not so quantifiable impacts on the local sand supply on the adjacent sandy beach. Briefly stated, the seawall will halt natural bluff retreat, preventing bluff material from becoming part of the sand supply; will physically occupy beach area, displacing recreational use of a public beach, thereby creating a burden on the public; will halt the landward migration of the beach; and, the vertical seawall can cause increased turbulence, accelerating the pace of sand scour, steepening the beach profile and causing the beach to become narrower and eventually disappear. Additionally, seawalls can lead to accelerated erosion of the adjacent unprotected bluff due to wave reflection.

of the seawall and that should any work be necessary, they should contact the Commission office to determine permit requirements. In addition, the condition requires the applicants to be responsible for removal of debris deposited on the beach during and after construction of the project.

In addition, the use of the beach or public parking areas for staging of construction materials and equipment can also impact the public's ability to gain access to the beach. As such, Special Condition #8 has been proposed to require that a staging area plan be submitted that indicates the beach will not be used for storage of materials and equipment and that construction be prohibited on the sandy beach during the summer months of Memorial Day to Labor Day of any year. Thus, as conditioned, the Commission finds the project consistent with the public access and recreation policies of the Coastal Act.

5. Local Coastal Planning. Section 30604 (a) also requires that a coastal development permit shall be issued only if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act. In this case, such a finding can be made.

The subject site is located on the beach within the City of Encinitas. In November of 1994, the Commission approved, with suggested modifications, the City of Encinitas Local Coastal Program (LCP). Subsequently, on May 15, 1995, coastal development permit authority was transferred to the City. Although the site is within the City of Encinitas, it is within the Commission's area of original jurisdiction. As such, the standard of review is Chapter 3 policies of the Coastal Act, with the City's LCP used as guidance.

As shoreline erosion along the coast rarely affects just one individual property, it is imperative that a regional wide solution to the shoreline erosion problem be addressed and solutions developed to protect the beaches. Combined with the decrease of sandy supply from coastal rivers and creeks and armoring of the coast, beaches will continue to erode without being replenished. This will, in turn, decrease the public's ability to access and recreate on the shoreline.

Based on specific policy and ordinance language requirements placed in the LCP by the Commission, the City of Encinitas is in the process of developing a comprehensive program addressing the shoreline erosion problem in the City. The intent of the plan is to look at the shoreline issues facing the City and to establish goals, policies, standards and strategies to comprehensively address the identified issues. To date, the City has conducted several public workshops and meetings on the comprehensive plan to identify issues and present draft plans for comment. However, based on recent discussions with City Planning Staff, it is uncertain when the plan will come before the Commission as an LCP amendment or when it will be scheduled for local review by the Encinitas City Council.

has been documented and its adverse impacts on beach sand supply and on adjacent unprotected properties will be mitigated. Therefore, the Commission finds that approval of the proposed seawall development will not prejudice the ability of the City of Encinitas to prepare a comprehensive plan addressing the City's coastline as required in the certified LCP and consistent with Chapter 3 policies.

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

The proposed project has been conditioned in order to be found consistent with the public access policies of the Coastal Act. Mitigation measures, including conditions addressing construction techniques consistent with the geotechnical report and color of construction materials, will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally-damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

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.

EXHIBIT A

Beach Sand Replenishment
In-lieu Fee Worksheet
164/172 Neptune Avenue
CDP #6-98-39

V_e = Volume of sand to rebuild the area of beach lost due to encroachment by the seawall; based on the seawall design and beach and nearshore profiles (cubic yards)

$V_e = A_e \times v$

A_e = The encroachment area which is equal to the width of the properties which are being protected (W) times the seaward e encroachment of the protection (E)

$A_e = W \times E$

W = Width of property to be armored (ft.)

E = Encroachment by seawall, measured from the toe of the bluff or back beach to the seaward limit of the protection (ft.)

v = Volume of material required, per unit width of beach, to replace or reestablish one foot of beach seaward of the seawall; based on the vertical distance from the top of the beach berm to the seaward limit of reversible sediment movement (cubic yards/ft. of width and ft. of retreat). The value of v is often taken to be 1 cubic yard per square ft. of beach. If a vertical distance of 40 feet is used for the range of reversible sediment movement, v would have a value of 1.5 cubic yards/square ft. (40 feet x 1 foot x 1 foot/27 cubic feet per cubic yard). If the vertical distance for a reversible sand movement is less than 40 feet, the value of v would be less than 1.5 cubic yards per square foot. The value of v would be less that 1.5 cubic yards per square foot. The value of v will vary from one coastal region to an another. A value of 0.9 cubic yards per square foot has been suggested for the Oceanside Littoral Cell (Oceanside Littoral Cell Preliminary Sediment Budget Report, December 1997, prepared as part of the Coast of California Storm and Tide Wave Study)

R_{cu} = Predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming no seawall were installed (ft./yr.). This value can be assumed to be the same as R unless the applicant provides site specific geotechnical information supporting a different value

R_{cs} = Predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming the seawall has been installed (ft./yr.). This value will be assumed to be zero unless the applicant provides site specific geotechnical information supporting a different value

$\mathbf{V_t}$ = Total volume of sand required to replace losses due to the structure, through reduction in material from the bluff, reduction in nearshore area and loss of available beach area (cubic yards). Derived from calculations provided above

$\mathbf{V_t} = V_b + V_w + V_e$

$\mathbf{M} = V_t \times C$

C = Cost, per cubic yard of sand, of purchasing and transporting beach quality material to the project vicinity ($ per cubic yard). Derived from the average of three written estimates from sand supply companies within the project vicinity that would be capable of transporting beach quality material to the subject beach, and placing it on the beach or in the near shore area

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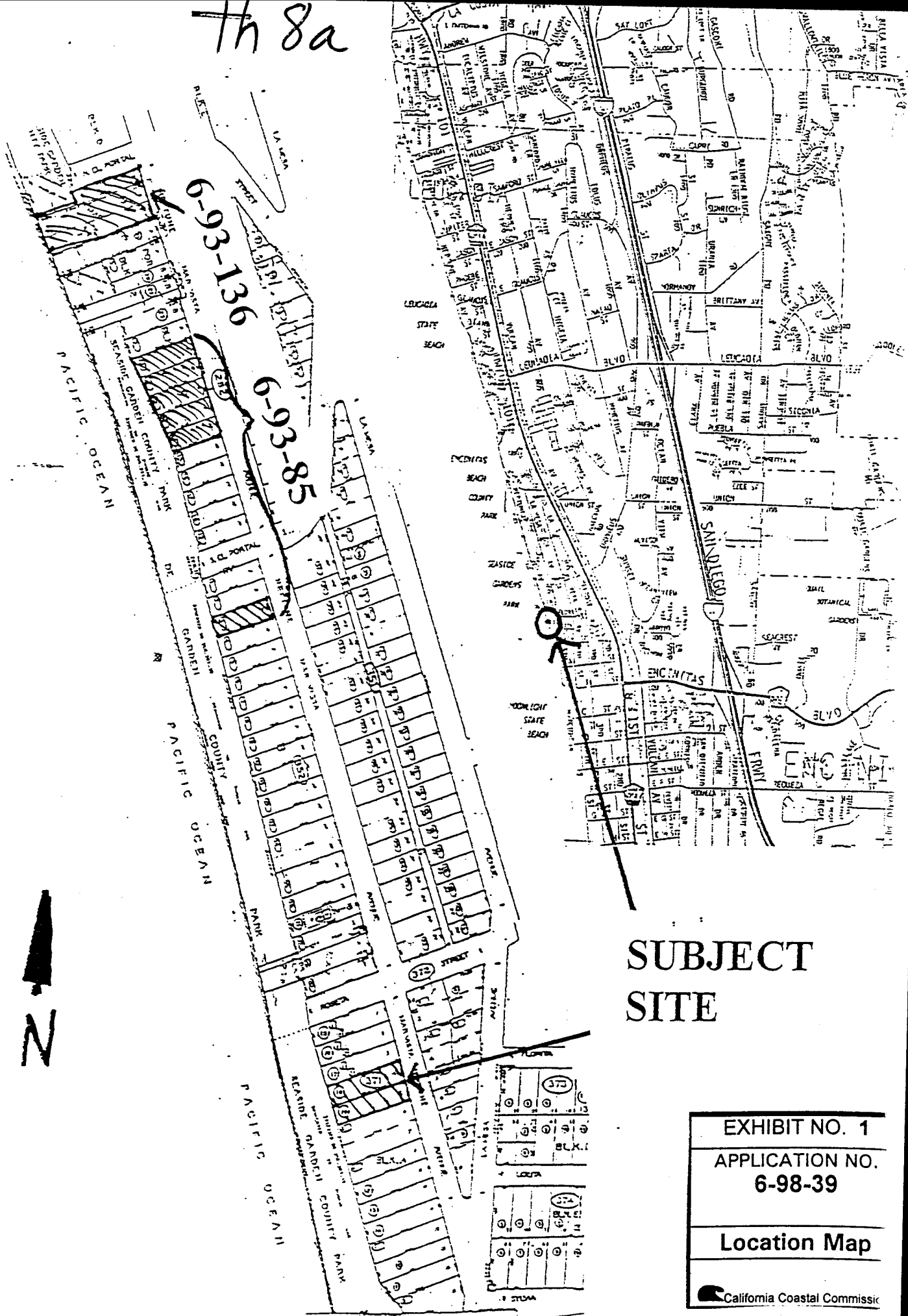

EXHIBIT NO. 1

APPLICATION NO. 6-98-39

Location Map

California Coastal Commissio