

## CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA

\* 7575 METROPOLITAN DRIVE, SUITE 103

SAN DIEGO, CA 92108-4402

767-2370



# Fri 16e

## RECORD PACKET COPY

Filed: July 19, 2001  
 49th Day: September 6, 2001  
 180th Day: January 15, 2002  
 Staff: EL-SD  
 Staff Report: October 23, 2001  
 Hearing Date: November 13-17, 2001

REGULAR CALENDAR  
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-01-112

Applicant: Pacific View Estates, LLC

Agent: Dave Lyon

Description: Reconfiguration/consolidation of seven existing vacant legal lots, totaling approximately 5.5 acres, into four new lots, with the following gross acreages: Lot 1 = 107,318 sq.ft. (2.5 acres); Lot 2 = 52,885 sq.ft. (1.2 acres); Lot 3 = 54,332 sq.ft. (1.2 acres); Lot 4 = 27,531 sq.ft. (.6 acres). Also, construction of a two-story, five-bedroom, 21,403 sq.ft. single-family residence (including attached three-car garage), with associated pool, spa, drainage and landscaping improvements on Lot 1.

Lot Area (Lot 1)	107,318 sq. ft (2.5 acres)
Building Coverage	15,095 sq. ft. (14%)
Pavement Coverage	26,200 sq. ft. (25%)
Landscape Coverage	37,695 sq. ft. (35%)
Unimproved Area	28,328 sq. ft. (26%)
Parking Spaces	7
Zoning	R1-14
Plan Designation	Modified Low Density Residential
Project Density	.41 DUA
Ht abv fin grade	20 feet

Site: Southwest quadrant of Camino del Mar/Border Avenue intersection, Del Mar, San Diego County. APNs 298-241-20, 21, 22, and 23

STAFF NOTES:

Summary of Staff's Preliminary Recommendation:

Staff recommends approval of the lot reconfiguration /consolidation, and construction of a home on one of the lots, with conditions addressing the lot consolidation, site hazards and future development. Potential issues include geologic safety, protection of the bluff face, water quality and visual resources. With the special conditions, all potential issues

have been addressed and the project complies with all applicable provisions of the City's certified Local Coastal Program.

---

Substantive File Documents: Certified City of Del Mar LCP; Del Mar Bluffs  
Geotechnical Study (January, 2001); CCC File #6-94-027 and 6-97-021  
(staff reports only)

---

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

**MOTION:** *I move that the Commission approve Coastal Development Permit No. 6-01-112 pursuant to the staff recommendation.*

**STAFF RECOMMENDATION OF APPROVAL:**

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

**RESOLUTION TO APPROVE THE PERMIT:**

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the certified Local Coastal Program. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions.

See attached page.

III. Special Conditions.

The permit is subject to the following conditions:

1. Open Space Deed Restriction. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall record a restriction against the subject property, free of all prior liens and encumbrances, except for tax liens, and binding on the permittee's successors in interest and any subsequent purchasers of any

portion of the real property. The restriction shall prohibit any development, including but not limited to, alteration of landforms, removal of vegetation or the erection of structures of any type, in the area shown on the attached Exhibit "4" and generally described as the face of the bluff on Lots 1 and 2. The recording document shall include legal descriptions of both the applicant's entire parcel(s) and the restricted area, and shall be in a form and content acceptable to the Executive Director. Evidence of recordation of such restriction shall be subject to the review and written approval of the Executive Director.

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. This deed restriction supercedes and replaces any previously recorded restrictions or offers to dedicate over this geographic area required in past Coastal Commission actions.

## 2. Future Development Deed Restriction.

A. This permit is only for the development described in coastal development permit No. 6-01-112. Pursuant to the Coastal Development Permit Regulations of the certified LCP, the exemptions otherwise provided in that ordinance shall not apply. Accordingly, any future improvements to the single family residence and accessory structures authorized by coastal development permit No. 6-01-112, including but not limited to repair and maintenance identified as requiring a permit, shall require an amendment to permit No. 6-01-112 from the California Coastal Commission or shall require an additional coastal development permit from the California Coastal Commission or from the applicable certified local government.

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, reflecting the above restrictions on development. The deed restriction shall include legal descriptions of the applicant's entire parcel(s). 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.

## 3. Assumption of Risk.

A. By acceptance of this permit, the applicant, on behalf of itself and its successors and assigns, acknowledges and agrees (i) that the site may be subject to hazards from bluff collapse and erosion; (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.

4. Final Plans. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit to the Executive Director for review and written approval, final site plans, building plans, elevations, drainage and landscaping plans for Lot 1, approved by the City of Del Mar, which shall be in substantial conformance with the preliminary plans submitted by the applicant, titled "Pacific View Estates, LLC," by Ronchetti Design, last revised on April 18, 2001.

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

5. Lot Configuration/Consolidation. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicants shall submit to the Executive Director for review and written approval, a copy of the final plat map/boundary adjustment, approved by the City of Del Mar, which shall be in substantial conformance with the lot dimensions shown on the site plan (page 2) of the preliminary plans submitted by the applicant, titled "Pacific View Estates, LLC," by Ronchetti Design, last revised on April 18, 2001. Any changes to lot configuration, size or number may require an amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

6. No Future Shoreline Protective Device

A(1). By acceptance of this permit, the applicant agrees, on behalf of him/herself and all other successors and assigns, that no shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to Coastal Development Permit No. 6-01-112 including future improvements, in the event that the property is threatened with damage or destruction from bluff collapse, waves, erosion, storm conditions or other natural hazards in the future. By acceptance of this permit, the applicant hereby waives, on behalf of him/herself and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235.

A(2). By acceptance of this permit, the applicant further agrees, on behalf of him/herself and all successors and assigns, that the landowner shall remove the development authorized by this permit, including the single-family residence and all accessory structures, if any government agency has ordered that the structure is not to be occupied due to any of the hazards identified above. In the event that any portion of the development is destroyed, the permittee shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.

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, which reflects the above restriction on development. 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.

#### IV. Findings and Declarations.

The Commission finds and declares as follows:

1. Detailed Project Description and Site History. The applicant is proposing to reconfigure and consolidate seven existing vacant legal lots into four legal lots. The whole property totals approximately 5.5 acres; the four new lots will have the following gross acreages: Lot 1 = 107,318 sq.ft. (2.5 acres); Lot 2 = 52,885 sq.ft. (1.2 acres); Lot 3 = 54,332 sq.ft. (1.2 acres); Lot 4 = 27,531 sq.ft. (.6 acres). The application also proposes construction of a two-story (including semi-subterranean level), five-bedroom, 21,403 sq.ft. single-family residence, with an attached three-car garage on Lot 1. Associated pool, spa, drainage, hardscape and landscape improvements are also proposed. Approximately 9,300 cu.yds. of material will be excavated for the proposed semi-subterranean level, and 8,750 cu.yds. of the excavated material will be disposed of at an approved site outside the coastal zone.

The Commission has acted on a number of previous permits at this site, dating back to 1979 when the Commission approved Coastal Development Permit (CDP) #F8590 for demolition of an existing house and construction of a new house, two guest houses and numerous accessory structures. The then-owner complied with the special conditions, including the recordation of an Offer to Dedicate over both the beach and bluff face portions of the property, which extends to the mean high tide line. Demolition of the older house occurred, but the new construction authorized in that CDP did not happen. Some years later, in 1982, the Commission approved CDP #6-82-256, which proposed perimeter fencing around the vacant site, which had experienced some vandalism. That permit included a condition requiring dedication of a public accessway from the streetends of Border Avenue and Sierra to a blufftop overlook offering panoramic views

of the coastline; this offer was subsequently picked up by the City of Del Mar and the permit was vested with construction of the fence.

More recently, the Commission approved two permits for reconfiguration of the pre-existing seven legal lots on the property (CDPs #6-94-027 and #6-97-021). Both of these permits expired without the conditions of approval being met or the permits issued. In early 2000, the former owners submitted CDP application #6-00-004 for site improvements (driveways, utilities, etc.) on the seven lots, as proposed for reconfiguration in the two referenced permits. The County had recorded the reconfigured map without the CDP having been issued. Thus, the City, which accepted the new recorded map, and the Coastal Commission, which does not, both recognize the existence of seven legal lots on the site, but are reviewing different configurations of those seven lots in the processing of local discretionary actions at the City and the subject CDP with the Commission.

The current application will resolve this issue permanently through the proposed lot reconfiguration/consolidation. New owners have proposed to reduce the number of lots from seven to four and construct an estate-style home on the largest of the four new lots. In CDP application #6-01-113, being processed concurrently, the applicants are also proposing construction of a second single-family residence on another of the lots, intended primarily as a guesthouse for the subject development. No development is proposed on the other two lots at this time, and future permits for building on those lots will be processed by the City of Del Mar.

This site is located in an area now under the jurisdiction of the certified City of Del Mar Local Coastal Program. However, the application was filed and in process prior to September 26, 2001, the date the City assumed coastal development permit issuing authority. Thus, the subject permit is being processed by the Coastal Commission, with the certified LCP as the legal standard of review.

2. Hazards/Blufftop Development. The City of Del Mar certified LCP includes the following policies and regulations addressing development of blufftop properties and state, in part:

Chapter III-C of the Land Use Plan

A minimum setback of 40 feet from the edge of the coastal bluff top shall be provided in the construction of all principal structures and all accessory structures, such as, but not limited to: pools, spas, storage sheds, gazebos and above grade decks or patios....

A lesser setback of a minimum 10 feet from the edge of the coastal bluff top shall be allowed for associated improvements such as fences, windscreen and benches, provided such improvements are constructed above grade with the use of light weight materials and without the use of grading and/or continuous foundation components.

No grading shall be allowed within a minimum setback of 40 feet from the top edge of the coastal bluff top....

In addition, the Coastal Bluff Overlay Zone in the Implementation Program(IP) includes all the same parameters to regulate blufftop development. In addition, the last sentence of Section 30.55.090.B. states:

In addition, for new development, the applicant shall acknowledge a waiver of all rights to future protective devices for the new development.

This area of coastline has a history of bluff instability, with numerous landslides and failures on both this property and properties to the north. Therefore, a setback greater than forty feet is appropriate for structures at this site. In this particular case, the tip of the proposed swimming pool is right at the forty-foot setback line, but the house itself is setback nearly 100 feet from the bluff edge. Other proposed improvements seaward of the house, but forty feet or more from the bluff edge, include a spa, a firepit, and a patio with an underground vault to store pool equipment. The proposed setbacks for the various improvements are supported by the submitted geotechnical report. This data has been reviewed by the staff geologist, and his comments are attached as Exhibit #5. To briefly summarize, the staff geologist concurs with the applicant's geologist that the project, as currently designed, should be safe from coastal erosion processes for its economic life (75 years) and no shoreline protective devices will be required at this site within that timeframe. Special Condition #6 requires a formal waiver of the rights to any future seawall, which is consistent with the Coastal Bluff Overlay regulations in the certified LCP.

In summary, the project includes adequate setbacks for all proposed structural improvements. The design has incorporated the recommendations of the geotechnical report. Because the lots are subject to coastal bluff erosion, Special Conditions #1, 2 and 3 are also added to address retaining the actual bluff face in permanent open space, an acknowledgement by the applicant of the hazards inherent on this site, and provide that any future additions to structures or modifications to the site require further review by the Coastal Commission. As conditioned, the Commission finds the proposed development is consistent with the cited hazard policies of the certified LCP.

3. Public Access/Community Character/Visual Resources. The following LCP policies and ordinances address physical and visual public access concerns related to the proposed development. They state, in part:

Chapter IV.B.IV-3 of the LUP:

Lateral and vertical accessways to and along the shoreline shall be located where they can safely accommodate public use, and shall be distributed throughout the City as much as possible to prevent overcrowding or degradation of resources, minimize parking and traffic congestion, and the misuse of coastal resources....

Chapter IV.B /GOAL IV-C of the LUP:

Preserve existing views and view corridors from public vantage points to the maximum extent possible without preventing reasonable use of private property.

Again, the Del Mar IP contains regulations implementing these goals and policies.

The project site is located at the northwestern corner of Del Mar, with an existing public view corridor in City ownership forming its northern border and the Pacific Ocean its western one. Camino del Mar runs along the eastern edge of the property, and other residentially-zoned private land lies to the south. The proposed lot consolidation will result in lot sizes similar to those of neighboring properties to the south. The total size of the proposed single-family residence is somewhat out of scale with the majority of Del Mar, but not inconsistent with other estate developments nearby. In addition, the semi-subterranean basement is on the bluff side of the house, such that, from the streets, the home appears to have just one story. Moreover, Camino del Mar, the major north-south coastal access route in this area, is separated from the home by a large vacant lot, further reducing any perception of bulk, and, as designed, the proposed structural setbacks will result in little, if any, of the home being visible from the beach.

The only potential visual impact of the development would be to users of the blufftop viewing area just north of the site. The access consists of a long, narrow, unimproved, steep, dirt pathway running west from the terminus of Border Avenue, and a level observation area somewhat lower than the actual top of the bluff (i.e., on a ledge about fifteen feet below the subject building site). From the actual viewing site, little of the proposed site improvements will be visible, but the home itself, and some accessory uses, could be rather prominent at about mid-point when walking along the path towards the viewpoint. One might not see the ocean from this approach for a couple seconds longer than with the site undeveloped, but there is already an existing chain link fence immediately adjacent to the path that partially obscures ocean views. That fence, which forms the only privacy barrier between the public path and the subject site, will remain, and is proposed to be repaired in conjunction with the subject project.

The bluff is approximately 60 feet high in this location and is nearly vertical. The area of sandy beach at the toe of the bluff is very small, and not accessible from adjacent beaches during all tidal regimes. The City has, in the past, considered the feasibility of constructing a public access stairway down the bluffs in this location to address the accessibility concern. However, it has determined that the instability of the bluffs in this location makes such a proposal infeasible. In addition, there is existing public beach access available approximately one block to the north, in the community of Solana Beach, and a couple blocks to the south at the San Dieguito rivermouth. The Commission concurs that this is not an appropriate location for a vertical accessway to the beach, and acknowledges that adequate beach access exists nearby.



The City found it appropriate to require a lateral access offer to dedicate across the sandy beach itself. Because the proposed development does not appear to have any direct impacts on lateral movement along the shoreline, the Commission has not added its own lateral access condition language. As previously described in this finding, the Commission, therefore finds the proposed development, as conditioned to address other concerns, is consistent with the certified Del Mar LCP.

4. Site Drainage/Water Quality. The certified LCP includes many goals, policies and regulations that address drainage and water quality. The LCP provisions most applicable to the subject situation state, in part:

LUP Chapter III.C., Policy III-9.d.

In order to protect coastal bluffs from erosion and degradation, all drainage from the impervious surfaces of the site shall be collected and appropriately discharged in a manner which will prevent drainage and/or erosion related damage to the coastal bluff or any other properties or improvements. Drainage facilities shall be designed and constructed as necessary to convey all drainage away from any coastal bluff face and, where available, into an existing developed storm system...

IP Section 30.55.100.A.7.

All permits shall be subject to the submittal of a polluted runoff control plan. The required plan shall incorporate the use of structural and non-structural Best Management Practices (BMPs), to the extent necessary, to minimize the discharge of pollutants carried by runoff from urban development into surface water drainage, and to maintain post-development peak runoff rate and average volume at levels similar to pre-development levels. The plan shall include, but not be limited to, the following Best Management Practices (BMPs), as applicable: silt traps, catch basins, oil/grit separators, street sweeping and cleaning program, low-maintenance landscape and pesticide management plan, solid waste management and public education program. Post-construction structural BMPs (or suites of BMPs) should be designed to treat, infiltrate or filter stormwater runoff from each storm, up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate safety factor, for flow-based BMPs. The plan shall include a monitoring component to ensure long-term maintenance of BMPs as relevant, and to allow for continued evaluation of the effectiveness of the polluted runoff control plan in meeting the goals of the LUP regarding the protection and enhancement of sensitive resources.

The proposed development meets the above-stated requirements. Submitted drainage plans clearly indicate that the site will be recontoured to direct surface flows and future runoff from impervious surfaces into the existing municipal storm drain system in Camino del Mar. Moreover, all new storm drain inlets shall be equipped with filtration devices to remove pollutants before the discharge enters the public storm drain. The

Commission finds the proposed development, as conditioned to address other concerns, fully consistent with the cited LCP provisions.

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 in an area now under the jurisdiction of the certified City of Del Mar Local Coastal Program. However, the application was filed and in process prior to September 26, 2001, the date the City assumed coastal development permit issuing authority. Thus, the subject permit is being processed by the Coastal Commission, but the certified LCP is the legal standard of review. As noted in previous findings, the proposed lot reconfiguration/consolidation and single-family home development, as conditioned, are fully consistent with the certified LCP. This area is zoned R1-14 and designated for Modified Low Density Residential development. This means any lot with a minimum of 14,000 sq.ft. can be developed with one single-family residence. All four of the reconfigured/consolidated lots contain more than 14,000 sq.ft. of area; thus, the proposed density of development is also consistent with the certified LCP. Therefore, the Commission finds that approval of the project, as conditioned, will not prejudice the ability of the City of Del Mar to implement its effectively-certified LCP.

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 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.

As discussed herein, the proposed project, as conditioned, will not cause significant adverse impacts to the environment. Specifically, the project has been found consistent with the Coastal Bluff Overlay and public access provisions of the LCP. Moreover, a mitigated negative declaration has been certified for this development. There are no feasible alternatives or mitigation measures available which would substantially lessen any significant adverse impact which the activity might have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

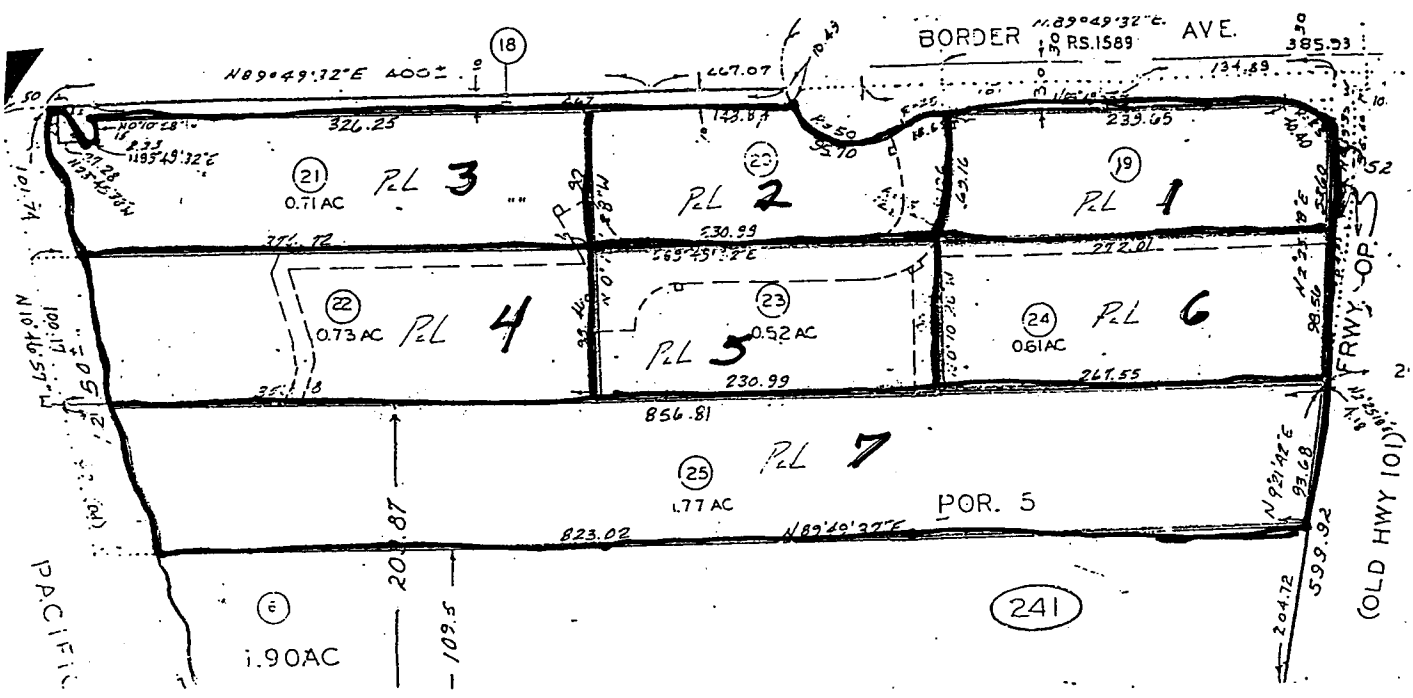
STANDARD CONDITIONS:

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. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.



6-01-112

# Lot Configuration per City



# Lot Configuration per CCC

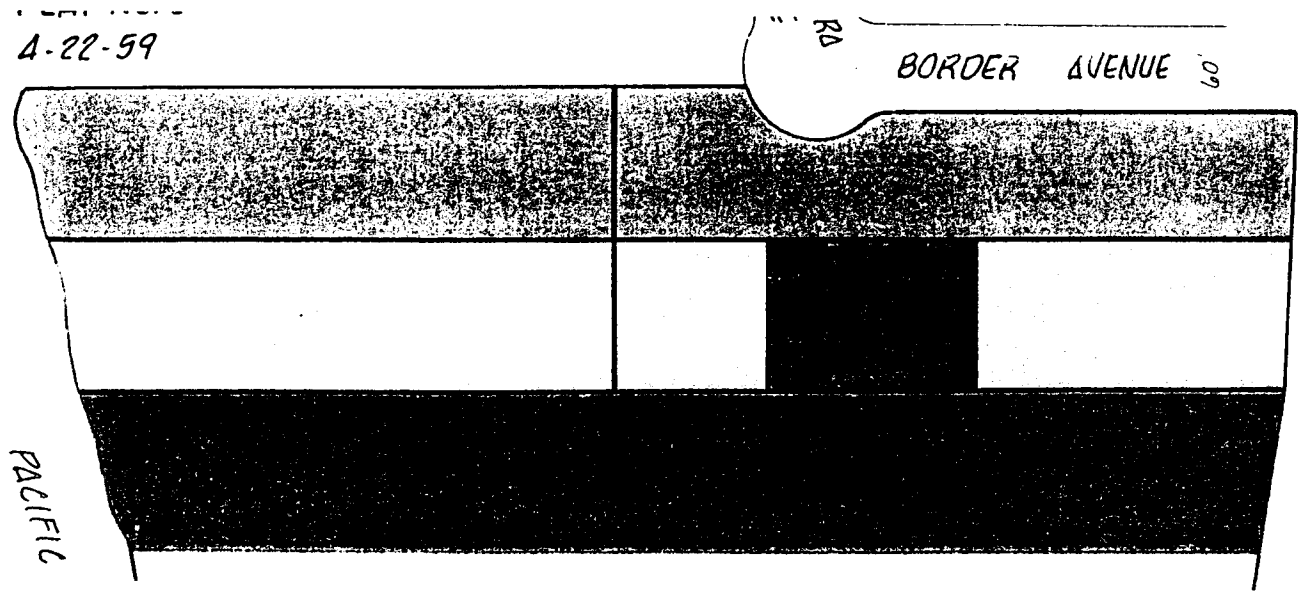


EXHIBIT NO. 2
APPLICATION NO.
<b>6-01-112</b>
Comparison of Seven
Legal Lots
Page 1 of 1
California Coastal Commission

6-01-112

Open Space Area

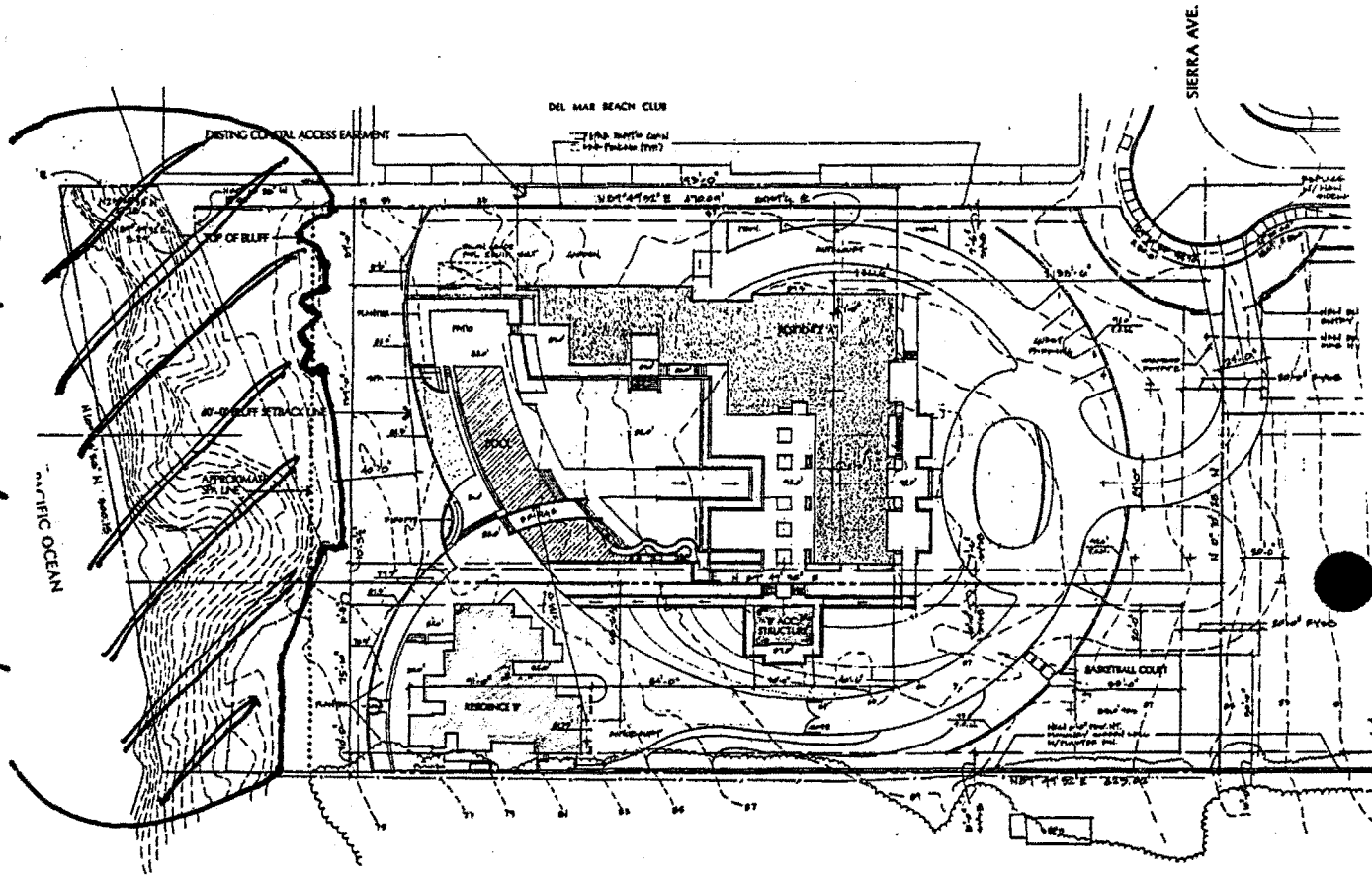


EXHIBIT NO. 3
APPLICATION NO.
<b>6-01-112</b>
Bluff Face Open Space
<i>Lots 1 + 2</i>
California Coastal Commission



## CALIFORNIA COASTAL COMMISSION

FREMONT, SUITE 2000  
 SAN FRANCISCO, CA 94105-2219  
 TELEPHONE AND TDD (415) 904-5200  
 FACSIMILE (415) 904-5400



24 October 2001

## GEOTECHNICAL REVIEW MEMORANDUM

To: Ellen Lirley, Coastal Program Analyst  
 From: Mark Johnsson, Senior Geologist  
 Re: Pacific View Estates (6-01-112) / 6-01-113)

In reference to the above applications, I have reviewed the following geotechnical reports:

- 1) Southern California Soil and Testing, Inc. 2001, "Update report, Pacific View Estates, Border and Sierra Avenues, Del Mar, California", 7 p. supplemental geologic report dated 22 January 2001 and signed by D. B. Adler (RCE 36037) and M. P. Farr (CEG 1938).
- 2) Southern California Soil and Testing, Inc. 1997, "Report of geotechnical investigation, proposed Goth residence, Border and Sierra Avenues, Del Mar, California", 20 p. geotechnical report dated 22 October 1997 and signed by D. B. Adler (RCE 36037) and M. P. Farr (CEG 1938).

Although I have not visited the site, I have been to the site immediately to the north.

The topography of the bluff top is complex, making the correct delineation of the bluff edge somewhat difficult. The line labeled "bluff line per US 861 & R of S 2972" on Plates 1 and 2 of reference (2) does not mark the top of bluff as it would be defined under the Coastal Act, CCR Title 14, §13577 (h) (2). According to the definition contained therein, in a situation where, as at the subject site, "there is a steplike feature at the top of the cliff face, the landward edge of the topmost riser shall be taken to be the cliff edge." Similarly, the line marked "Shore Protection Line" is only an approximation of the bluff edge line. The actual bluff edge per the definition cited in CCR Title 14, §13577 (h) (2) would be a meandering line landward of either of these lines. This line is not marked on Plates 1 and 2 of reference (2), but a 40-foot setback line is marked. That line is correctly located approximately 40 feet landward of the true bluff edge. Accordingly, it can be concluded that the bluff edge was properly located in reference (2).

As detailed in reference (2), the coastal bluff at the site is in an unstable condition. Shallow slumping, deeper-seated landslides, and cliff undercutting—including the creation of several large sea caves—are occurring at the site. Slope stability analyses indicate that the face of the bluff is unstable or marginally stable, depending on location. Further, reference (1) reports on a substantial amount of erosion that occurred during the El Niño winter of 1997-1998. Coastal bluff retreat rates have been accurately measured here by Moore et al. (1999) and Benumof and Griggs (1999). This work, which

Exhibit #5



represents the current state of the art, indicated that annual bluff retreat rates in this area have historically ranged from average values (1932-1994) ranging from a low of 4 cm/yr to a high of 14 cm/yr, depending on location. In reference (2), a figure of 0.5 foot per year is reported. Although this figure is not well-supported in reference (2), it is consistent with the high end of the Moore et al. and Benumof and Griggs values. Accordingly, I concur with using this value in establishing setbacks.

Reference (2) demonstrates that a 1.5 factor of safety for deep-seated failure can be assured with a 40 foot structural setback from the bluff top. Using Moore, Benumof and Grigg's "high" bluff retreat rate values, the bluff can be expected to retreat approximately 34 feet in a 75-year "useful economic life" of the development. To this should be added a 10 foot buffer to account for uncertainty in these measurements, accelerated erosion due to sea level rise, and to ensure that foundation elements are not actually undermined at the end of the 75-year period, for a total setback of 44 feet. It is my understanding that the proposed development is to be set back a minimum of 68 feet from the bluff edge. Accordingly, it should be safe from coastal erosion processes for its useful economic life.

To ensure that the development is carried out in conformance with the recommendations of the geotechnical consultants, I recommend adding a special condition requiring conformance to the geotechnical reports cited above.

I hope that this review has been helpful. Please do not hesitate to contact me if you have further questions.

Sincerely,

Mark Johnsson, Ph.D., CEG

