

CALIFORNIA COASTAL COMMISSION

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W13c**RECORD PACKET COPY**

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COASTAL DEVELOPMENT PERMIT APPLICATION

Application number3-01-111, Pelican Point Riverwall

Applicant.....Pelican Point Homeowners Association

Project location.....*Zmudowski State Beach* at the mouth of the Pajaro River, at the downcoast end of the Pajaro Dunes residential community located at the confluence of the Pajaro River, Watsonville Slough, and the Monterey Bay in the southernmost reach of unincorporated Santa Cruz County.

Project descriptionInstall a driven sheet-pile metal wall along roughly 715 linear feet of the Pajaro River and Watsonville Slough sides of the Pelican Point condominium portion of the Pajaro Dunes residential development.

File documents.....Coastal Commission Coastal Development Permit (CDP) Files 3-81-105 and A-3-SCO-84-059, and Emergency Permit File 3-91-028-G; Santa Cruz County CDP Files 87-0644 and 99-0620; Santa Cruz County Certified Local Coastal Program (LCP); California Coastal Commission Monterey Bay ReCAP.

Staff recommendation ...Approval with Conditions

Staff Note: This application was previously scheduled for a June 13, 2002 hearing. However, at the June 13, 2002 hearing, partly due to the fact that a staff report addendum was issued on June 11th, the Applicant requested that the hearing be postponed to a future date. The Applicant is allowed one such postponement as a matter of right (pursuant to California Code of Regulations Section 13073); future requests for postponement can be granted at the discretion of the Commission. Staff subsequently rescheduled the application for the August Commission meeting in San Luis Obispo and informed the Applicant of this scheduling in June. As the August meeting approached, the Applicant then requested that this matter be postponed to the September hearing in Los Angeles to allow them additional time with which to address the feasibility of the proposed project with the California State Lands Commission (SLC) and the California Department of Parks and Recreation (DPR) (i.e., the underlying land owner and manager for the majority of the area in which the project is proposed). The item was subsequently postponed, with the understanding that any future postponement would be granted only at the discretion of the Commission (see Exhibit J).

**California Coastal Commission****September Meeting in Los Angeles**Staff: D.Carl Approved by: **DSL**

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Staff Report Summary

The Pelican Point condominiums represent the southernmost portion of the larger Pajaro Dunes residential community that is a pre-Proposition 20/Coastal Act development constructed on a former sand spit dune located between the Watsonville Slough, the Pajaro River, and the Monterey Bay in south Santa Cruz County. These large 3 and 4 story condominium structures are supported on piles embedded in the former dune sands and are separated from the river/slough areas by an existing wooden pile and lagging wall (also pre-dating coastal permit requirements) that is located along the Applicant's property line. The existing wooden wall has been supplemented over the years with rip-rap and sandbags for which CDPs have not been identified. The urbanized back beach shoreline development at Pajaro Dunes/Pelican Point is an anomaly inasmuch as surrounding land use in this area of the coastal zone consists entirely of coastal agricultural fields with minimal structures extending miles in all directions.

The Applicant proposes to install a driven sheet pile wall to prevent river erosion and scour, to retain inland fill, and ultimately to protect the Pelican Point condominium structures from potential river/ocean storm scour events. The proposed sheet pile wall would be installed on the river/slough side of the existing wooden wall, which was not constructed to adequate depth to prevent against extreme scour events. The proposed sheet pile wall construction area is entirely within an environmentally sensitive habitat area (ESHA) as defined by the Coastal Act, and is also located within a significant public access, recreation, and viewshed area; the majority of the project site is located in an area designated as a Natural Preserve within the *Zmudowski State Beach* unit of the California State Park system, and is otherwise located within a natural area where the Watsonville Slough meets the Pajaro River rivermouth sand spit. The project would also be constructed on public lands, and requires the consent of both State Parks and the State Lands Commission.

The Pajaro Dunes Geological Hazards Abatement District certified a mitigated negative declaration supplemented by additional alternatives and impact analysis per CEQA. Commission staff provided early feedback on the first CEQA document (June 2001) including the recommendation to pursue the all-inland wall alternative if it were feasible (as is being recommended for approval here). Such recommendation built upon similar advice provided to the Applicant's then representatives during their initial project development stage, and prior to the preparation of the first CEQA documents in early 2001 (roughly 1½ years ago). The CEQA mitigation measures identified in the certified negative declaration are included as part of the proposed project description.

The project as proposed would both temporarily (i.e., during construction and its aftermath) and permanently displace and otherwise disrupt significant ESHA and public access within *Zmudowski State Beach*, the Pajaro River and Watsonville Slough. It would also have long term adverse impacts on the public viewshed and on shoreline sand supply dynamics. It is also not clearly understood or stated in the project submittal that the Pelican Point Homeowners are responsible for managing and assuming the risks to existing development at this dynamic River/Slough/Ocean interface. The project as proposed is inconsistent with the resource protective policies of the Coastal Act.

Because of its fundamental inconsistencies with the Act, Staff considered recommending denial of the



proposed project altogether. However, based on the fact that the pre-Proposition 20/Coastal Act wooden wall has effectively hardened the shoreline edge at this location, and to avoid future episodes of more substantial, and potentially emergency, armoring at this location, Staff believes that the best public policy and planning approach at the current juncture is to provide for a replacement wall project in lieu of a series of piecemeal and/or emergency projects (and in lieu of potentially more substantial armoring in the future as a result) provided that Coastal Act inconsistencies can be avoided to the maximum extent feasible.

Towards this end, Staff has explored various alternatives with the Applicant to address the Coastal Act inconsistencies with the project as proposed. Three basic alternatives have emanated from this process. The Applicant's preferred alternative is their proposed project, which is not consistent with the Coastal Act. In particular, this project would involve development in ESHA and on State Parks public lands. The Applicant has also identified as feasible an alternative where portions of the replacement wall would be constructed on the river side of the existing wood wall location, and portions would be constructed on the inland side (i.e., the wall would "undulate" on either side of the current alignment). The third alternative would require the replacement wall to be constructed all on the condominium side of the existing wooden wall. Both of the latter alternatives would include removal of the rip-rap and existing wooden wall elements on the river side on the replacement wall location with associated restoration in this area.

The construction feasibility for each of the alternatives is made difficult (to lesser and greater degrees with respect to the alternatives) because the condominium units were constructed on a sand spit with an inadequate setback (in places) of roughly 10 feet from the property line (and the Pajaro River), and because the Applicant has placed large amounts of rip-rap on both sides of the existing wall, apparently without Coastal Development Permits. Because of this, the area on the river side of the condos is both constricted (between the condos and the existing wooden wall) in places, and occupied in large measure by rip-rap nearest to, and on both sides of, the existing wooden wall. And while the rip-rap was placed in specific locations, and has likely been retained to some degree in the upper sand horizon nearest to the top of the existing wall (where the lagging exists), the rip-rap is likely to have migrated to some degree underground between and below the existing piles in the soft sand slurry (due to the fact that the whole area is a sand dune) creating a rip-rap "minefield" of sorts in the overall project area. Nevertheless, the Commission's senior coastal engineer indicates that there are engineering measures that can be applied during construction to address such construction difficulties and that **all 3 of the replacement wall alternatives could, from a technical standpoint, feasibly be constructed.**

Since sheetpiles cannot be driven through rip-rap, rip-rap must first be removed from any replacement wall alignment. The Applicant's preferred alternative would require that all of the rip-rap on the river side of the existing wall (roughly 500 cubic yards estimated) and about 50 feet of the existing wall itself be removed. The other two alternatives would require removal of most (for the undulating wall alternative) to nearly all (for the all inland alternative) of the existing wall (a total length in the project area of about 550 feet) and rip-rap (estimated at roughly 1,500 cubic yards of rip-rap existing; 1,000 of that estimated on the inland side of the existing wall).



To minimize impacts to listed species in the project area, and based on the requirements of the applicable Federal and State resource agencies, the Applicant has a narrow 3 month window (from mid-September to mid-December) within which to construct the wall.

Estimates for how long any of the project alternatives would take to complete are fraught with uncertainty for several reasons: the dynamics of construction in a constantly changing river/slough environment; the uncertainty of late fall/early winter weather and storm events; the vagaries of the locations of existing rip-rap (and the difficulty in locating, avoiding, and removing same); the types of measures that may be necessary to protect the existing condos during construction; the 3 month maximum construction season; and, of course, the interaction and interplay of each of these. The Applicant's consulting engineers estimate that the Applicant's preferred alternative project could likely be constructed within one construction season, and that the other alternatives may take 2 or more construction seasons.

The Applicant's preferred alternative (i.e., the proposed project) would result in the largest permanent loss of ESHA, but it is estimated that it could be constructed in the shortest amount of time for the lowest cost. The other two alternative wall projects would result in less permanent ESHA loss (up to complete avoidance of permanent ESHA loss with the "all inland" alternative), but would take longer to construct (more than one construction season) and cost perhaps twice as much (for the all inland alternative). The Applicant's all river alternative proposed would retain the existing wooden retaining wall, while the other two alternatives would partially to totally remove the existing wall. None of the alternatives considered (nor the existing wooden wall itself) are designed to protect the site against seismic events. Rather, the purpose of the replacement wall (as well as the existing wall) is to retain the inland sand fill of the condominium site, and to protect the site against extreme river scour events.

Ultimately, an evaluation of the 3 alternative replacement wall projects focuses on the balance between the amount of permanent ESHA loss (for areas where any of the alternatives would cover ESHA permanently), the significance of the temporary ESHA impacts due to construction of the project, and the extremely important principle of avoiding the construction (and associated negative resource impacts) of private shoreline structures on public lands.

Staff has concluded that the most Coastal Act consistent feasible project would be one that provides for a sheetpile wall that is constructed all inland of the existing wooden wall. Such a project has the same set of significant temporary resource impacts as the proposed project, and potentially more should construction difficulties dictate multiple construction seasons, but it eliminates any permanent loss of ESHA that would occur with placement of a wall on the river side of the project. **This is the only alternative that avoids the permanent loss of ESHA as directed by the Act. This is also the only alternative that avoids permanent loss of public lands for purposes of private development.** To mitigate for project impacts, all areas on the river/slough side of the replacement wall, and an area of the Applicant's property immediately north of the subject site containing Watsonville Slough uplands, would be protected by easements and/or other dedications and restored to high quality habitat. In this way, the sheetpile wall project can be considered a repair/restoration project inasmuch as it would be correcting a pre-Coastal Act anomaly to the degree feasible, reclaiming a portion of the former sand spit



dune area currently devoted to urban uses, while at the same time providing for modifications to the existing wall concept to correct design inadequacies relating to actual scour events at this dynamic location, thus simultaneously meeting the Applicant's project objectives. Other requirements are designed to ensure that adequate long term screening, monitoring, and maintenance are included, and that the Applicant assumes all risks for developing in light of the known hazards present at this precarious location, including a prohibition on any future expansion of structures toward the river/slough.

As so conditioned, Staff recommends approval.

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I. Staff Recommendation on CDP Application

The staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development subject to the standard and special conditions below.

Motion. I move that the Commission approve Coastal Development Permit Number 3-01-111 pursuant to the staff recommendation.

Staff Recommendation of Approval. Staff recommends a **YES** vote. Passage of this motion will result in approval of the coastal development 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 a Coastal Development Permit. The Commission hereby approves the coastal development permit on the grounds that the development as conditioned, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the coastal development 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 feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the development on the environment.

II. Conditions of Approval

A. 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.

B. Special Conditions

1. **Revised Sheetpile Wall Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit Revised Sheetpile Wall Plans to the Executive Director for review and approval. The Revised Sheetpile Wall Plans shall be substantially in conformance with the plans submitted to the Coastal Commission (*Pelican Riverwall Repair Plan* by Haro, Kasunich and Associates Inc. dated received in the Coastal Commission's Central Coast District Office January 25, 2002) but shall show the following changes to the project:
- (a) **Undulating Wall.** The sheetpile wall shall be located in the alignment identified on page 1 of exhibit E with the exception that the wall location shall be shifted north (toward the condominium buildings) in those locations noted as "Building B realignment inland" and "Building C realignment inland" on page 1 of Exhibit E so that no portion of the sheetpile wall is constructed on the Pajaro River side of the existing wood pier and lagging wall footing location.
 - (b) **Removal of Structures on the Pajaro River/Watsonville Slough Side of the Undulating Wall.** The Revised Sheetpile Wall Plans shall provide for the removal of the existing wood pier and lagging wall, and the removal of all rip-rap, sand bags, and other associated structures from the Pajaro River/Watsonville Slough side of the undulating sheetpile wall location. The Revised Sheetpile Wall Plans shall indicate that rip-rap and sand bags may be used to back fill on the inland (condominium) side of the sheetpile wall, but that all other structures removed, including any rip-rap or sand bags not used for back fill purposes, shall be removed off-site and appropriately disposed of.
 - (c) **Construction Time Frame.** The Revised Sheetpile Wall Plans shall indicate that construction staging and preparation may commence on the inland (condominium) side of the existing wood pier and lagging wall in the locations identified as necessary, but that construction activities on the river/slough side of the existing wood pier and lagging wall shall be limited to between September 15th and December 15th inclusive. All construction debris and materials shall be removed in their entirety from the river/slough side the existing wood pier and lagging wall and/or the sheetpile wall by December 15th.
 - (d) **Notification.** The Revised Sheetpile Wall Plans shall indicate that the Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least 3 days prior to commencement of any construction activities on the river/slough side of the existing wood pier and lagging wall, and immediately after all construction debris and materials have been removed in their entirety from the beach (on or before December 15th).
 - (e) **Construction Methods and Schedule.** The Revised Sheetpile Wall Plans shall specify all



construction schedules, all phasing, and all construction methods to be used, including but not limited to all methods to be used to stabilize condominium buildings B and C during construction, and all methods to be used to close down the construction site should construction span multiple construction seasons.

The Permittee shall undertake development in accordance with the approved Revised Sheetpile Wall Plans. Any proposed changes to the approved Revised Sheetpile Wall Plans shall be reported to the Executive Director. No changes to the approved Revised Sheetpile Wall Plans shall occur without a Commission amendment to coastal development permit 3-01-111 unless the Executive Director determines that no amendment is necessary.

2. **Revised Restoration Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit a Revised Restoration Plan to the Executive Director for review and approval. The Revised Restoration Plan shall be substantially in conformance with the revegetation plans submitted to the Coastal Commission (*Revegetation Plan for the Pelican Riverwall Repair Project* by Elkhorn Native Plant Nursery dated January 11, 2002) but shall show the following changes to the Plan:
 - (a) **Expanded Restoration Area Adjacent to Sheetpile Wall.** The Revised Restoration Plan shall provide for high quality dune and slough restoration of all areas located on the Pajaro River/Watsonville Slough side of the revised undulating sheetpile wall location (identified in the approved Revised Sheetpile Wall Plans per Special Condition 1 above); see page 2 of exhibit E for graphic depiction of this area.
 - (b) **Expanded Restoration Area Adjacent to Watsonville Slough.** The Revised Restoration Plan shall provide for high quality wetland/upland restoration and habitat enhancement in the area north of the sheetpile wall as shown on page 2 of exhibit E. All invasive non-natives shall be removed from this area, and significant trees shall be retained.
 - (c) **Coastal Strand.** The Coastal Strand restoration planting shall be planted as plugs, and not with a seed mix to ensure a higher level of success for this restoration component.
 - (d) **Cascading Vegetation.** The planter box plant species mix previously specified for the upper planted box area (and intended to cascade over the top of the wall towards the river/slough) shall be supplemented with appropriate native species endemic to the Pajaro River Lagoon area and that are known to provide trailing vegetation capable of cascading a minimum of five feet on the river/slough side of the sheetpile wall. Such plantings shall be kept in good growing condition and replaced as necessary to maintain the minimum five feet of screening over the life of the project.
 - (e) **Reference Plots.** High quality reference plots shall be identified, and baseline conditions within them provided, for each of the different type of plant communities being restored pursuant to the plan. The reference plots shall then be used as the control for the success criteria established.



- (f) **Interim Success Criteria.** Interim success criteria for years 1 through 4 shall be established based upon making appropriate progress towards achieving the year 5 success criteria already identified. Years, as used in this context, shall be measured from the date that initial planting is completed.
- (g) **Signage and Trails.** The Plan shall provide for the placement of informative signage inland of the restoration areas (i.e., on the condominium side of the restoration areas) that identify the restoration areas, provide information about the restoration areas, prohibit domestic animals, and minimize pedestrian access through the restoration areas. Any pedestrian access trails shall be identified in the Plan and shall be: limited to the area north of the sheetpile wall (and prohibited otherwise); limited to those absolutely necessary for providing necessary through access; minimized in width and length; and sensitively designed (i.e., boardwalks).
- (h) **Monitoring.** The monitoring section of the Plan shall be supplemented to indicate as follows:

All restoration planting areas shall be monitored and maintained by a qualified coastal dune/wetland biologist to achieve the required minimum performance standards. Monitoring of the restoration shall include both quantitative and qualitative evaluation. At the least, quantitative assessment shall record plant density and relative composition, native plant cover percentages, and the general amount of exotic vegetation remaining. At the least, qualitative assessment shall describe the general health and vitality of the restored vegetation.

On a quarterly basis (as calculated from the initial planting complete date), all restoration areas shall be inspected and monitored by a qualified coastal dune/wetland biologist. Such quarterly monitoring is meant to be an overview of site restoration conditions within which any minor remedial maintenance actions are to be initiated as necessary to achieve required minimum performance standards. All quarterly monitoring observations and maintenance actions shall be recorded. Photo documentation shall be provided.

On an annual basis (as calculated from the initial planting complete date), the site shall be rigorously inspected and monitored by a qualified coastal biologist. Such annual monitoring meant to provide an exacting basis for measuring compliance with the required minimum performance standards, and implementing appropriate maintenance response as necessary. Monitoring results shall be compared against the identified reference plots to measure success.

- (i) **Monitoring Reports.** The reporting section of the Plan shall be supplemented to indicate as follows:

Reports of all restoration monitoring (that clearly describe all quarterly and annual monitoring, maintenance, and remedial activities and observations) shall be prepared annually by a qualified coastal dune/wetland biologist. The annual reports shall be submitted no later than September 15th of each year for the review and approval of the Executive Director. The annual reports shall be submitted until it has been confirmed in writing by of the Executive Director that all success



criteria have been achieved; at a minimum, at least five such annual reports shall be submitted.

If any annual report should identify a failure to meet any of the minimum success criteria, or a failure to meet any other standards consistent with current professional dune and slough restoration standards, the report shall include appropriate recommendations for remedial measures for achieving these minimum standards. Each approved monitoring report shall provide for a list of the remedial measures, if any, that are to be implemented and a timeline for their implementation. Such remedial measures shall be undertaken as directed by the approved monitoring report. All reports shall be signed and dated.

- (j) **Maintenance.** The Plan shall make clear that all maintenance shall be conducted by a qualified coastal dune/wetland restoration specialist.
- (k) **Timing and Phasing.** The Plan may provide for phased restoration as different components of the sheetpile wall are installed. Such phasing shall follow the order in which the wall is to be installed (i.e., working from the Watsonville Slough area towards the Monterey Bay). In addition, restoration of the area adjacent to Watsonville Slough north of the construction area (as identified above in this condition), can commence concurrently with construction of the sheetpile wall because it is located out of the limits of work for the sheetpile wall. At a minimum, the restoration of the area adjacent to Watsonville Slough north of the construction area shall be initially planted prior to December 15, 2003. At a minimum, any area for which the sheetpile wall has been installed by December 15, 2003 shall have both the area on the river/slough side of such completed sheetpile wall section initially planted prior to December 15, 2003, and the area in the planter boxes initially planted prior to December 15, 2003.
- (l) **As-Built Restoration Plans and Planting Complete Date.** The Plan shall indicate that As-Built Restoration Plans, describing all initial restoration planting measures undertaken and their location, shall be submitted for the Executive Director's review and written approval within three (3) months of completion of the approved Sheetpile Wall. The As-Built Restoration Plans shall identify the date when all such plantings were completed ("initial planting complete date"); said date to be used to determine time-frames for the required monitoring, maintenance and reporting parameters

The Permittee shall undertake development in accordance with the approved Revised Restoration Plan. Any proposed changes to the approved Revised Restoration Plan shall be reported to the Executive Director. No changes to the approved Revised Restoration Plan shall occur without a Commission amendment to coastal development permit 3-01-111 unless the Executive Director determines that no amendment is necessary.

- 3. **Conservation Easement.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall execute and record a document, in a form and content acceptable to the Executive Director, irrevocably offering to dedicate an easement to a political subdivision, public agency or private association approved by the Executive Director for the protection of



environmentally sensitive Pajaro River and Watsonville Slough habitat (Conservation Easement). The Conservation Easement shall apply to that area identified on page 3 of exhibit E as the "Conservation Easement/Ownership Area." At the discretion of the Applicant, the Conservation Easement may alternatively provide for the outright dedication of fee ownership for the Conservation Easement/Ownership Area, either in whole or in part (e.g., an easement over the land north of the sheetpile wall within the Conservation Easement/Ownership Area, and a direct dedication of fee title for the remainder of the areas within the Conservation Easement/Ownership Area). The recorded document shall include a legal description and a site plan of: (a) the Conservation Easement/Ownership Area, with any sub-areas within this larger area designated for easement versus outright dedication likewise identified; and (b) the Permittee's parcels involved (APNs 052-343-10, 052-344-10, 052-345-05, 052-342-05, and 052-331-07). The recorded document shall indicate that no development, as defined in Section 30106 ("Development") of the Coastal Act, shall occur in the Conservation Easement or ownership area except for habitat enhancement, restoration, and maintenance activities specified in the restoration plan approved pursuant to coastal development permit 3-01-111 (see Special Condition 2) and/or future restoration plans that may be approved by the Coastal Commission through amendment to coastal development permit 3-01-111 or by separate coastal development permit.

The offer to dedicate a Conservation Easement shall be recorded free of prior liens and encumbrances which the Executive Director determines may affect the interest being conveyed. 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.

4. **As-Built Revetment Plans.** WITHIN THREE (3) MONTHS OF COMPLETION OF SHEETPILE WALL CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval As-Built Plans of the sheetpile wall structure that include permanent surveyed benchmarks for use in future monitoring efforts described in relation to the National Geodetic Vertical Datum (NGVD) as follows: (a) one or more benchmarks shall be located inland of the as-built sheetpile wall; and (b) benchmarks shall be located on the river/slough edge of the top of the as-built sheetpile wall at each location where the wall changes direction in site plan view and at either end of the wall. The As-Built Plans shall identify the extent of the as-built sheetpile wall structure in site plan and cross-section views, and shall identify all condominium, path and road structures within the immediate vicinity (i.e., roughly within 150 yards of the sheetpile wall). The As-Built Plans shall indicate vertical and horizontal reference distances from the inland benchmark(s) to the as-built sheetpile wall benchmarks. The survey points shall be identified through permanent markers, benchmarks, survey position, written description, et cetera to allow measurements to be taken at the same location in order to compare information between years.

The As-Built Plans shall be submitted with certification by a licensed geotechnical engineer, acceptable to the Executive Director, verifying that the sheetpile wall structure has been constructed in conformance with the approved Revised Sheetpile Wall Plans described by special condition 1



above.

5. **Monitoring.** The Permittee shall ensure that the condition and performance of the as-built sheetpile wall is regularly monitored by a licensed geotechnical engineer. Such monitoring evaluation shall at a minimum address whether any significant weathering or damage has occurred that would adversely impact its future performance, and identify any structural damage requiring repair to maintain the as-built sheetpile wall profile. At a minimum, the Permittee shall submit to the Executive Director for review and approval a monitoring report once every five years by May 1st (with the first report due May 1, 2008) for as long as the sheetpile wall exists at this site. Each such report shall be prepared by a licensed geotechnical engineer and shall cover the monitoring evaluation described in this condition above. Each report shall contain recommendations, if any, for necessary maintenance, repair, changes or modifications to the as-built sheetpile wall.
6. **Shoreline Development Stipulations.** By acceptance of this permit, the Permittee acknowledges and agrees, on behalf of itself and all successors and assigns that:
 - (a) **No Further Encroachment.** Any future response to coastal hazards (including but not limited to coastal hazards associated with shoreline erosion, river erosion and scour, wave attack, etc.) requiring the placement of any type of protective structure, including, but not limited to, modifications to the as-built sheetpile wall, shall be constructed inland (i.e., on the condominium side) of the river/slough edge of the as-built sheetpile wall. An As-Built Sheetpile Wall Plan has been approved pursuant to coastal development permit 3-01-111 that defines the river/slough edge of the as-built sheetpile wall.
 - (b) **Sheetpile Wall Screening.** That portion of the sheetpile wall that is exposed above sand/slough levels on the river/slough side of the sheetpile wall shall be screened from view (as seen from the river/slough side) by a dense cascading screen of native vegetation. At a minimum, such screening shall cover the top five feet of the sheetpile wall. A Restoration Plan has been approved pursuant to coastal development permit 3-01-111 that specifies the native planting palette and the required vegetation maintenance parameters. All native plantings shall be maintained in good growing conditions and shall be replaced as necessary to maintain the required screen over the life of the project.
 - (c) **Sheetpile Wall Maintenance.** It is the Permittee's responsibility to maintain the as-built sheetpile wall and vegetative screening in a structurally sound manner and its approved state. An As-Built Sheetpile Wall Plan has been approved pursuant to coastal development permit 3-01-111 that defines the profile of the as-built sheetpile wall. The approval of coastal development permit 3-01-111 does not obviate the need to obtain future permits for any future maintenance and/or repair episodes. The Permittee agrees to apply for a coastal development permit, and any and all other permits required, for any proposed future maintenance and/or repair episodes.
 - (d) **Restoration Area Maintenance.** A Restoration Plan has been approved pursuant to coastal development permit 3-01-111 that includes measurable minimum success criteria for restoration



areas (located on both sides of the sheetpile wall, and an area north of the sheetpile wall), and it is the Permittee's responsibility to maintain the restoration areas pursuant to the minimum success criteria identified in the Restoration Plan over the life of the residential project.

(e) **Debris Removal.** The Permittee shall immediately remove all debris that may fall from the area inland (i.e., on the condominium side) of the sheetpile wall into the area on the river/slough side of the sheetpile wall.

(f) **Assumption of Risk, Waiver of Liability and Indemnity Agreement.** The Permittee acknowledges and agrees, on behalf of itself and all successors and assigns: (i) that the site is subject to hazards from coastal erosion, river erosion and scour, slough erosion and scour, wave and storm events, dune and other geologic instability, and the interaction of same; (ii) to assume the risks to the Permittee 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; (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; and (v) that any adverse effects to property caused by the permitted project shall be fully the responsibility of the landowner.

7. **Other Agency Review.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the project as approved by coastal development permit 3-01-111 have been granted by both the underlying land owner (i.e., the California State Lands Commission) and land manager (i.e., the California Department of Parks and Recreation) of the Pajaro River/Watsonville Slough area involved in the project.
8. **Public Rights.** The Coastal Commission's approval of this permit shall not constitute a waiver of any public rights which may exist on the property. The Permittee shall not use this permit as evidence of a waiver of any public rights which may exist on the property.
9. **Project Completion.** The approved sheetpile wall (pursuant to Special Condition 1 above) and all required restoration (pursuant to Special Condition 2 above) shall be completely installed by December 15, 2005. Any deviation from the December 15, 2005 completion deadline thus established shall require an amendment to coastal development permit 3-01-111 unless the Executive Director determines that no amendment is necessary.
10. **Deed Restriction.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating



that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

III. Findings and Declarations

The Commission finds and declares as follows:

A. Project Location and Background

The proposed project is located in southern Santa Cruz County where the Pajaro River meets the Monterey Bay. The upcoast edge of the Pajaro River rivermouth was artificially fixed at this location by the construction of the Pelican Point portion of the larger Pajaro Dunes residential development prior to the coastal development permitting requirements of Proposition 20 (the Coastal Initiative) and the Coastal Act. The Pajaro Dunes/Pelican Point residential development occupies the former sand spit area located between Watsonville Slough (running parallel to the ocean) and the Monterey Bay, with the Pelican Point condominiums themselves defined by a series of 3 and 4 story buildings supported on piles at the River's edge (see photos in exhibit A). The residential development is isolated from other more inland urban development (the nearest being the City of Watsonville roughly 3 miles inland) and is surrounded inland as well as up and downcoast by miles of agricultural fields.

The project would take place in the sandy Pajaro River rivermouth area (running perpendicular from the Monterey Bay back inland to Watsonville Slough) and Watsonville Slough proper (where it enters the Pajaro River). Other than a small portion of the proposed project area (where Watsonville Slough meets the Pajaro River) the majority of the project would take place on lands owned by the California State Lands Commission within the *Zmudowski State Beach* State Park's unit. See exhibit A for project location.

The boundary between the Pelican Point condominiums and the Pajaro River proper is demarcated by an existing wooden pile and lagging wall that was initially installed when the condominium structures were constructed in the late 1960s and early 1970s. This existing wooden pile wall extends inland perpendicular to the Bay from the Pajaro Dunes revetment (a large revetment that runs along the shoreline length of the Pajaro Dunes development for roughly 1 mile, terminating at the mouth of the River) to a point roughly 650 feet inland with a return extending back upcoast along the edge of Watsonville Slough. The wooden pile wall includes tie backs to "dead man" pilings located under the



condominium buildings themselves. The existing wooden pile wall is located along the Pelican Point property boundary. See exhibits A and B for location of the existing pile wall.

The Applicant indicates that a small amount of rip-rap was placed along the full linear extent of the inland side of the existing wooden pile, and along roughly 100 feet of the "headland" of the wall along Watsonville Slough when the wall was initially constructed. Since that time, the existing wall has been damaged repeatedly due to river/wave scour and due to the 1989 Loma Prieta earthquake. The Applicant indicates that additional rip-rap and sandbags (roughly 1,300 additional cubic yards) have been placed on multiple occasions, including at least five times since 1982, on both the river and inland sides of the wall in response to such events (see the Applicant's estimates of rock/sand bag locations in exhibit D). The Commission has been unable to locate coastal development permits authorizing such placement.¹ In addition to the rock placed, a concrete whaler beam was installed following the Loma Prieta earthquake, with the original tie backs attached to the whaler beam and repaired as necessary, under emergency permit 3-91-028-G; this temporary emergency work was never recognized by the required follow-up CDP.

Thus, due to pre-Proposition 20/Coastal Act development (i.e., the condominiums, wooden pile wall, and related inland development), and due to shoreline armoring that appears to have been placed without required CDPs, the existing conditions at the site are as follows:

- There exists a wooden pile and lagging wall with a reinforced concrete whaler beam extending inland from an ocean-fronting revetment (not the subject of this application) perpendicular to the Monterey Bay to the Watsonville Slough (with a wall "return" extending back upcoast along the slough itself). The existing wall includes tiebacks that are connected inland to deadman piles that are located under the inland condominium units. The existing wall is supplemented by rip-rap and sandbags along both its inland and river sides. The existing wall is located along the Applicant's property line and is the dividing point between the inland urban development and Pajaro River/*Zmudowski State Beach*. According to the Applicant's geotechnical reports, the original purpose of the existing wall was to prevent the Pajaro River from eroding into the building area, and to support the fill that defines the inland condominium development area.
- There exists a large condominium development with 87 units spread over seven separate 3 and 4 story structures. These condominium units are at the downcoast end of the overall larger Pajaro Dunes residential area that extends roughly a mile upcoast from the Pajaro River between the Monterey Bay and Watsonville Slough. The condominium structures are supported atop pilings resting in the beach sands. According to the Applicant's geotechnical reports, the pilings on which the condominiums are supported are meant to function independent of the wooden pile and lagging wall running along the river.

See exhibit A for photos of the project area.

¹ See "Alleged Violation" finding below.



B. Project Description

The Applicant proposes to install a driven sheetpile wall supported by steel I-beam "king piles" on the river side of the existing wooden wall. The 3-foot wide I-beams would be driven approximately 65 feet below existing grade (roughly -53 feet NGVD), at a 6-foot on center spacing, with 2-foot wide interlocking and angled sheetpiles driven roughly 35 feet below existing grade (or roughly -23 NGVD). The face of the sheetpile wall would be roughly 5 feet further into the rivermouth/sandy beach area than the existing wooden pile and lagging wall. The wall would run linearly roughly 715 feet, with roughly 85 feet of that for a new return section extending upcoast along the Watsonville Slough "headland" where the Slough meets the River. The top of the proposed sheetpile wall would be slightly higher (about a foot or so on average) than the existing wooden wall. The existing wall would remain in place and would be covered with backfill. All existing rip-rap materials on the riverside of the existing wood wall (estimated at 500 cubic yards) would be removed and either used for back fill purposes inland of the sheetpile wall and/or removed off site. See exhibit C for proposed sheet-pile project plans.

The proposed project also includes the following elements:

- Construction would be limited to a 3 month period (between September 15th and December 15th) to avoid snowy plover breeding and steelhead migration periods.
- Construction areas would be limited to the roughly 40 foot area riverward of the existing wall, with a narrower area of construction footprint adjacent to Watsonville Slough. All construction areas would be restored with native wetland and coastal strand dune species (as applicable) following project completion.
- Construction BMPs are required to minimize and/or eliminate impacts to the Pajaro River and Watsonville Slough, and pre-construction surveys for listed species are required.
- Areas inland of the constructed sheetpile wall between the condominium buildings would be revegetated with native dune species, and cascading plants would be established at the river edge of the sheetpile wall to provide viewshed screening. The sheetpiles themselves would be coated with a sandy beach color epoxy.
- The Applicant would deed roughly 4,500 square feet of beach lands in their fee-title ownership located on the river side of the sheetpile wall to an appropriate resource management entity, and would offer a conservation easement over about an acre of their property extending upcoast along Watsonville Slough.

The Applicant's proposed project (as summarized by excerpted sections of their CEQA documents and CEQA mitigation measures) is attached as exhibit B.

The Applicant's proposed project has been reviewed and signed-off (with mitigations incorporated into the project as generally described above) by the California Department of Fish and Game (CDFG), the United State Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), the



Regional Water Quality Control Board (RWQCB), the Army Corps of Engineers (ACOE), and Santa Cruz County.

As of the date of this staff report, however, the land owner (the California State Lands Commission (SLC)) and the land manager (the California Department of Parks and Recreation (DPR)) of the area in which the majority of the project would take place have not consented to the Applicant's proposed project. In fact, DPR indicates that if it is feasible to construct a replacement wall inland of the existing wall location, then the wall should be constructed off of State Parks land, and that development on public lands should be prohibited. SLC has indicated a reluctance to entertain a land swap (such as that proposed as part of the project by the Applicant) if DPR is not interested in managing the swapped land; DPR has indicated that they are not interested in managing the swapped land. Thus, the positions of the land owner and manager of the project area do not support the project as proposed. Should SLC not agree to allow a wall to be constructed on State-owned lands, then the Applicant's proposed project could not be constructed.

C. Coastal Development Permit Determination

1. Applicable Policies

Wetland and Other Environmentally Sensitive Habitat Areas (ESHAs)

The Coastal Act is very protective of sensitive resource systems such as wetlands, dunes and other environmentally sensitive habitat areas (ESHAs). The Coastal Act defines environmentally sensitive areas as follows:

Section 30107.5. "Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Almost all development within ESHAs is prohibited, and adjacent development must be sited and designed so as to maintain the productivity of such natural systems. In particular, Coastal Act Section 30240 states:

Section 30240(a). Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

Section 30240(b). Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Article 4 of Chapter 3 of the Coastal Act also describes protective policies for the marine environment



and specifically calls out wetland resources. Coastal Act Sections 30230 and 30231 provide:

Section 30230. *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231. *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, Coastal Act Section 30233(a), 30233(c) and 30233(d) specifically address protection of resources like Pajaro River and Watsonville Slough. In particular, Coastal Act Section 30233 limits development in wetlands to a few limited categories where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects:

Section 30233(a). *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
- (3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.*
- (4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational*



piers that provide public access and recreational opportunities.

- (5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
- (6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
- (7) Restoration purposes.*
- (8) Nature study, aquaculture, or similar resource dependent activities.*

Section 30233(c). *In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division....*

Section 30233(d). *Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.*

Section 30236 specifically describes the limited uses for which stream alteration is allowed. Section 30236 states:

Section 30236. *Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.*

Public Access, Recreation, and Views

Coastal Act Sections 30210 through 30214 and 30220 through 30224 specifically protect public access and recreation. This includes protecting public visual access as well. In particular:

30210. *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.

30211. 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.

30212(a): Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except 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 accessway 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.

30213. Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. ...

30221. Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

30223. Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

Coastal Act Section 30240(b) also protects parks and recreation areas such as the beach and surfing area seaward of the site. Section 30240(b) states:

30240(b). Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Coastal Act Section 30251 details specific public viewshed protections. Section 30251 states:

30251. 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 subordinate to the character of its setting.



Shoreline protective devices

Section 30235 of the Coastal Act:

30235. 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.

Long term stability

Section 30253 of the Coastal Act also addresses the need to ensure long-term structural integrity, minimize future risk, and avoid additional, more substantial protective measures in the future:

30253. 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. ...*

Policy Summary

In sum, the Coastal Act requires protection and preservation of significant resources, public access and recreation, and viewshed areas such as exist at the project site. The Act also allows for shoreline structures to protect existing endangered development, and allows flood control projects in rivers under certain criteria. Non-resource development within ESHAs is prohibited, and any development authorized must be mindful of the policies protecting the general rivermouth environs and its inhabitants.

2. Consistency Analysis**Project Area Coastal Resources**

The majority of the project would take place in the Pajaro River rivermouth area, with a smaller portion taking place within Watsonville Slough (where it outlets into the Pajaro). The rivermouth area in question is infrequently and seasonally covered by Pajaro River waters. As of the date of this staff report, the typical sand spit dune berm is in place and the Pajaro meanders towards an entry point at the Monterey Bay roughly a quarter-mile downcoast from the project site. A summer lagoon generally forms in this area during the summer months and is generally seasonally breached (both naturally and artificially in the past) in late fall or early winter.

The project area provides known habitat for such listed species as Tidewater goby, Steelhead trout, Snowy plover, Brown pelican, legless lizards, Western pond turtles, Santa Cruz long-toed salamanders, and Monterey spineflower. These species are either federally and/or state-listed as endangered (Brown



pelican and long-toed salamander), threatened (goby, steelhead, snowy plover, brown pelican (State), and spineflower), or either a candidate for listing or a species of special concern (pond turtle and legless lizard). The Pajaro River and its associated estuary and lagoon are Federally-designated critical habitat for steelhead. Watsonville Slough is the namesake branch of the larger Watsonville Slough System, previously recognized by the Commission as probably the largest and most significant wetland habitat between Pescadero Marsh (in San Mateo County) to the north and Elkhorn Slough (in Monterey County) to the south. The entire Watsonville Slough System has been designated by CDFG as an "Area of Special Biological Importance." *Zmudowski State Beach*, the rivermouth/dune area within which the project would be installed, is one of 28 critical habitat areas for snowy plover designated along the west coast. The project area is designated by State Parks in the *Zmudowski State Beach* general plan as a Natural Preserve; a designation within which development, other than habitat-related and/or passive recreational development, is essentially prohibited. The proposed project area represents a significant and prolific natural resource providing biologically productive habitats for listed and non-listed plant, aquatic, and land species, including important foraging, roosting, breeding and rearing habitat. Accordingly, the entire project area constitutes ESHA within the meaning of the Coastal Act.

In addition, when dry, the sand dune area (that is sometimes inundated with wave wash and/or river waters) provides for low intensity recreational public access to the general rivermouth environs. Because the intervening Pajaro Dunes/Pelican Point development blocks public access to the mile of shoreline upcoast of this site (with the primary vertical access provided at the Palm Beach unit of State Parks just north of the Pajaro Dunes revetment and its related inland development), and because of the natural river and slough barriers to easy (dry) access, public access to this area is limited by its remoteness. Given the sand-swept and remote nature of this portion of *Zmudowski State Beach*, and given the significant resource values here, such low intensity level of recreational access is probably appropriate. That said, these same factors that limit access make this an especially good example of a high resource value area, appropriate for low intensity public access. Remaining opportunities for access such as this, in reach of more urbanized/populated areas are relatively few, and public access to areas like the Pajaro Rivermouth should be maximized consistent with its carrying capacity for such use.

In addition, partly because of its remote nature, and partly because the general lack of surrounding development (with the obvious exception of the Pajaro Dunes/Pelican Point development), the project area also represents a significant public viewshed. See Exhibit A for photos of the area.

Thus, the project area is all ESHA and a significant public recreational access and viewshed area.

Project As Proposed Inconsistent with the Coastal Act

As proposed, the project would permanently displace a portion of the dune rivermouth area (roughly 3,000 square feet) and would permanently displace a portion of the wetland of Watsonville Slough (roughly 450 square feet). Together, nearly 3,500 square feet of ESHA would be lost permanently, the majority of which is located within the State Lands owned/DPR managed *Zmudowski State Beach* unit. It is not clear that such a project is allowed pursuant to DPR's Natural Preserve designation for the project area, and DPR has not consented to the project as proposed by the Applicant (see Exhibit G, p.



1). In other words, publicly owned, managed, and preserved ESHA would be displaced to allow for a sheetpile wall to be installed for the private benefit of the inland landowners. Such development within ESHA and wetland is inconsistent with Coastal Act Section 30240 and 30233, which provide for a very limited subset of development types within these natural resource areas.

In terms of public access and recreation, the project as proposed would also forever remove an area of State Beach to replace it with private development. Although the immediate area lost provides limited access in and of itself, the overall area available for public access would be reduced in size. As discussed above, a primary reason this resource area is conducive to providing public access is its windswept remoteness; a quality that is enhanced by the overall size of the area in question. Although the Applicant proposes to offset this area lost by giving title to the portion of the beach sandspit/slough owned by the Applicant in fee title (roughly 4,500 square feet),² the area owned in fee title by the Applicant is already de facto part of the existing natural resource and access area, and it cannot be distinguished from the surrounding beach/slough areas. In other words, deeding fee title helps in perfecting a public legal ownership of the resource area in question, but does little to offset the permanent loss of dune/slough real estate associated with the proposed structure. Moreover, given its characteristics and location, it is possible that the area in question is already public trust and became State lands when California became a state (i.e., because it likely was part of the river/slough at that time as well).³ The permanent loss of public access and recreation area is inconsistent with Coastal Act Sections 30210, 30211, 30213, 30221, 30223, and 30240(b).

In addition, as described above, the access point to the affected stretch of beach is limited to the Palm Beach State Park unit access roughly one mile upcoast of the proposed project site. Palm Beach is located at the terminus of Beach Drive where it meets the shoreline, and fronts the private entrance to the Pajaro Dunes/Pelican Point residential development. This private entrance is blocked by an electronic gate and a guard house, and the general public is not allowed through. Because the intervening Pajaro Dunes/Pelican Point development is located along the former sand spit located between Watsonville Slough, the Pajaro River and the Monterey Bay, public access to the project site area is made by accessing the sandy beach at Palm Beach, and navigating along the narrow beach occupied in large measure by the existing mile long revetment fronting Pajaro Dunes/Pelican Point; access along the beach is oftentimes blocked when the Bay reaches the rip-rap. Although several stairways exist along the existing wooden wall providing access to the subject sandy rivermouth area in question, the general public is prohibited from both entering the Pajaro Dunes/Pelican Point development at the Beach Road entrance and making use of the developed road and parking areas therein, and prohibited from using the stairways themselves. Because adequate access does not exist nearby, and because the Applicant has not proposed providing public access through to the subject sandy rivermouth area, the project as proposed is inconsistent with Coastal Act Section 30212.

In terms of public viewshed impacts, the proposed project would be slightly taller (above grade) than the

² This 4,500 square foot area is located on the portion of the Applicant's parcel that is on the river side of the existing wooden wall at the headland where the Watsonville Slough meets the Pajaro River (see exhibits A and E).

³ A formal SLC determination on this point has not yet occurred.



existing wood lagging wall. It would also replace the existing wood lagging facade of the existing wall with a metal wall composed of panels with rigid and uniform angles. Although the existing wooden pile wall with a large concrete whaler beam at its crest is hardly "natural," the aged wood materials are more sensitive to the beach area public viewshed aesthetic than would be the metal wall proposed. Due to the change in materials in tandem with the increased mass in the viewshed, the public viewshed would be negatively impacted by the wall proposed. The Applicant proposes to offset the impacts from the metal wall proposed by colorizing the wall a sandy color to match the beach, by replanting dune strand and wetland plants (as appropriate) in the construction area fronting the wall, and by installing planter boxes atop the wall to allow for cascading vegetation to camouflage the wall as seen from *Zmudowski State Beach*. These mitigations are appropriate. However, the species, densities, and locations of vegetation proposed to screen the wall are inadequate with which to provide effective screening, particularly the cascading plant species identified inasmuch as they are not species expected to effectively cascade. As such, the project as proposed is inconsistent with Coastal Act Sections 30251 and 30240(b).

In addition to the permanent loss of ESHA and sandy beach area, the proposed project would result in temporary negative impacts to surrounding ESHA and beach from the estimated three months of construction. The construction zone would occupy nearly an acre of the rivermouth/slough area. Temporary dewatering of a portion of Watsonville Slough would be required. The Applicant proposes to restore the area affected by construction. However, cleaning up the mess made by construction does not mitigate for the roughly three months of construction activities during which time the affected area will be off-limits to access and within which resource values will be effectively eliminated for that time. Furthermore, as described above, the site area is part of a fairly remote natural resource area. Three months of construction noise, lights, vibration (from the driving of substantial piles), and overall construction activities and human presence will also be expected to adversely affect listed (e.g., steelhead) and unlisted species and their habitat outside of the construction zone established (and in the surrounding biologically significant Watsonville Slough, Pajaro River, and River Lagoon/Estuary areas). For example, although the literature appears to be sparse on the potential impact of sheet pile driving on salmonids, it appears that the shock waves generated by pile driving can potentially disrupt foraging behavior, delay migratory progress, and disguise the sound of approaching predators (and/or cause the fish to become accustomed to the sound so that they don't hear the approach of a predator). Recent news reports indicate that in some cases, sheetpile driving actually caused popping of the swim bladders of fish in nearby waters.⁴ It seems clear, in any case, that any snowy plovers wintering at the mouth of the Pajaro River (up to 40 have been documented wintering in the past),⁵ will be displaced due to sheetpile driving.

Furthermore, although the direct construction impacts themselves would be expected to end when the construction activities themselves ended, the effect of such construction in and adjacent to significant

⁴ San Francisco Chronicle reports on repair work associated with the Benicia-Martinez Bridge, and Commission staff personal communication with Becky Ota, CDFG. Unlike the proposed project, however, the pile driving in the Benicia-Martinez Bridge project occurred directly in the water. In the Pelican Point case, the intervening sand would be expected to attenuate such impacts somewhat, but the degree to which they would be lessened is unclear.

⁵ Commission staff personal communication with Carleton Eyster from the Point Reyes Bird Observatory (PRBO).



ESHA on the short-term productivity of the affected habitat areas could be felt for many years. In other words, the reduced habitat area productivity during the construction period would not be expected to correct itself instantaneously when construction ended, and its effects may linger for some time, affecting habitat values until previous productivity levels have been reestablished. In addition, the amount of time necessary for such a reestablishment of habitat value also represents lost productivity in and of itself (because this time period when the habitat areas might otherwise be thriving would not be available as a foundation for encouraging habitat values here). Thus, not only will there be the construction period direct and indirect affects, but a "hangover" period of reduced habitat productivity as the habitat recovers over time.

The project includes a series of construction BMPs and restricted timing provisions to help lessen these negative impacts, but they cannot be eliminated. As partial mitigation for this and other impacts of the project, the Applicant proposes a conservation easement over a portion of land owned in fee title by the Applicant but occupied by the Watsonville Slough and its related uplands (to the northwest of the proposed project site area). However, as with the deeding of the beach area proposed, this area is already Slough. And while perfecting an easement applicable to this resource area is beneficial, absent associated restoration (none is proposed), its utility as a mitigation tool is limited.

As a result of these temporary and indirect ESHA and wetland impacts, the project as proposed is inconsistent with Coastal Act Sections 30230, 30231, 30240 and, because there is a less environmentally damaging feasible alternative (see below), 30236.

The project includes a new portion of wall extending upcoast along the Watsonville Slough. This new portion of wall is roughly 85 feet in length. Although such wall can feasibly be considered a return to correct against end effects based on the scope of the project and the specific circumstances of this case, it would lead to additional armoring that would block the transport of sand generating sediments into the shoreline sand supply system. The Applicant's engineer estimates that the proposed return portion of the wall would retain roughly 12 cubic yards of sand per year. The project as proposed does not include mitigation for this loss of sand to the shoreline sand supply. As such, the proposed project is inconsistent with Coastal Act Section 30235.

Pursuant to Coastal Act Section 30253, development is to be designed, sited, and built to allow for natural shoreline processes to occur without creating a need for additional more substantive armoring. Coastal development permittees for new shorefront development thus are essentially making a commitment to the public (through the approved action of the Commission, and its local government counterparts) that, in return for building their project, the public will not lose public beach access, sand supply, visual resources, and natural landforms, and that the public will not be held responsible for any future stability problems. Coastal Act Section 30253 requires that the proposed project assure structural stability without the need for additional armoring. Although it is likely that additional armoring will not be necessary in the future should the proposed project be installed, the project as proposed does not include a corresponding implementing mechanism to ensure that this is the case. As such, the proposed project raises questions of consistency with Coastal Act Section 30253.



Finally, the experience of the Commission in evaluating the consistency of proposed developments with Coastal Act policies regarding development in areas subject to problems associated with geologic instability, flood, wave, river, and/or erosion hazard, has been that development has continued to occur despite periodic episodes of heavy storm damage, landslides, or other such occurrences. Development in such dynamic environments is susceptible to damage due to such long-term and episodic processes. Past occurrences statewide have resulted in public costs (through low interest loans, grants, subsidies, direct assistance, etc.) in the millions of dollars. As a means of allowing continued development in areas subject to these hazards while avoiding placing the economic burden on the people of the State for damages, applicants are regularly required to acknowledge site geologic risks and agree to waive any claims of liability on the part of the Commission for allowing the development to proceed. The project as proposed does not include any such assumption of risk. As such, the proposed project again raises questions of consistency with Coastal Act Section 30253.

In sum, the project as proposed raises core Coastal Act inconsistencies relating to ESHA, wetlands protection, public access and recreation, the public viewshed, shoreline processes, and long-term structural stability.

Alternatives Considered

In light of the various Coastal Act inconsistencies of the proposed project, one option considered was denial of the proposed project. However, this may not be the best policy and planning option overall. First, the existing wood and lagging wall and condominium structures pre-date Proposition 20 and the Coastal Act permitting requirements, and they have established a hardened edge (both in the proposed project area and along the seaward frontage where the existing revetment lies). Second, if a replacement project was not approved, additional piece-meal armoring efforts meant to retain development at this precarious location are likely to continue unabated in the future (as evidenced by the fact that repairs have taken place and additional armor stones have been placed almost continuously over the years to retain the fill below the Pelican Point condominiums). Third, the existing wood lagging wall does not extend below the established scour levels for this part of the Pajaro River. Finally, the existing condominium structures were installed on piles embedded in dune sands that appear to be inadequate of themselves to protect against the erosion threat present here. Thus, provided that the serious Coastal Act inconsistencies can be avoided, particularly the proposed incursions onto public land, a replacement shoreline protection project is appropriate to avoid future erosion problems and potential substantial armoring in the future as a result.

Construction of a replacement wall project in this location, however, is made difficult by the existing physical conditions in two main subject areas: (1) the existing condominium units are, in two locations, located within 10 feet of the existing wooden wall, and the removal of the existing wall and related rip-rap in this area and/or the installation of the sheetpile wall at these locations could lead to damage and/or loss of the subject condominium structures themselves; and (2) the existing wood lagging wall is surrounded (inland, riverward, and likely below the pilings themselves) with rip-rap, some of which may be difficult to remove (due to its depth and location adjacent to the condominiums), and that would



prevent piles from being driven where the rip-rap could not be entirely removed.⁶ Because of this, the area on the inland side of the existing wall is both constricted (between the condos and the existing wooden wall) in places, and occupied in large measure by rip-rap nearest to, and on both sides of, the existing wooden wall. And while the rip-rap was placed in specific locations, and has likely been retained to some degree in the upper sand horizon nearest to the top of the existing wall (where the existing wood lagging exists), the rip-rap is likely to have migrated to some degree underground between and below the existing piles in the soft sand slurry (due to the fact that the whole area is a sand dune) creating a rip-rap "minefield" of sorts in the overall project area. Thus, because the condominium units were constructed on a sand spit with an inadequate setback of roughly 10 feet from the property line (and the Pajaro River), and because the Applicant has placed large amounts of rip-rap, apparently without proper Coastal Development Permits, that may have migrated through the project area, options for constructing a replacement wall are more difficult and costly.

There appear to be two basic alternatives to the proposed project that would reduce the amount of ESHA and wetland fill.⁷

The first alternative would be to construct the proposed replacement sheetpile wall all on the inland side of the existing wood and lagging wall (all-inland alternative). Such placement could be located entirely on private lands, and, while it would not prevent the temporary construction impacts of a project of this type and magnitude, it would prevent the permanent loss of ESHA, wetland, and public beach area. By removing the existing wall and restoring in the area that would be seaward of the new sheetpile wall, some portion of the negative impacts from such a project could be mitigated. Again, there would be no permanent loss of ESHA or incursion onto public lands with this alternative wall project.

The second alternative, developed by the Applicant's engineers, that attempts to address both the Coastal Act inconsistencies with the project as proposed and the construction feasibility issues at the site, would be to construct a replacement sheetpile wall that would be located primarily inland of the existing wood wall location, but would be located abutting the river side of the wooden wall in the two locations where the existing condominium buildings were located within ten feet or so of the existing wall (see exhibit D). In other words, the wall would undulate into and out of the river area (hybrid alternative). As the Applicant indicates, areas seaward of the sheetpile wall location could be restored to sandy beach/dune river mouth for a habitat gain. Permanent loss of ESHA would be limited to roughly 1,000 square feet of river mouth lands with this alternative wall project.⁸ Like the Applicant's proposed project, though, this alternative is not consistent with Coastal Act section 30240, since it would require development in

⁶ As described earlier, the Commission has been unable to locate CDPs authorizing the placement of rip-rap in these areas. See "Alleged Violation" finding below.

⁷ The Commission's Senior Coastal Engineer has evaluated the alternative projects and concluded that there are any number of potential engineering measures that can be applied during construction that address the identified construction difficulties (see exhibit F for a memo from the Commission's senior coastal engineer on this topic). While it is clear that there are some difficulties in construction due to the presence of rip-rap and the proximity of buildings to the River's edge, these difficulties are not insurmountable.

⁸ The two areas where the undulating alternative wall would be on the river side of the existing wall location represent approximately 200 linear feet. With a footprint width (into the river from the existing wall face) of roughly 5 feet, a total of 1,000 square feet would be so occupied.



ESHA.

The rip-rap in the project area presents difficulties for all alternatives, *including the Applicant's proposed project*. Since sheetpiles cannot be driven through rip-rap, rip-rap must first be removed from any replacement wall alignment. The two alternative wall locations would require removal of all of the rip-rap and wall elements for that portion of the project nearest to buildings B and C. Where the new wall was located more inland of the existing rip-rap and wall areas (i.e., where it undulates inland), it would largely avoid areas of concentrated rip-rap and it appears likely that the sheetpiles could be driven in these more inland areas without focused rip-rap removal (see page 3 of exhibit D). That said, restoration of the areas riverward would require removal of the rip-rap and wall in these areas. Thus, the two alternatives would ultimately (if the area riverward were restored) require removal of most (for the undulating wall alternative) to nearly all (for the all inland alternative) of the existing wall (a total length in the project area of about 550 feet) and rip-rap (estimated at roughly 1,500 cubic yards of rip-rap existing; 1,000 of that estimated on the inland side of the existing wall). In comparison, the Applicant's proposed project would require about 50 feet of the existing wall itself to be removed and all of the rip-rap on the river side of the existing wall (roughly 500 cubic yards estimated) to be removed; the remaining wall and rip-rap would remain in place as proposed by the Applicant.

The main resource concern with the two alternatives to the Applicant's proposed project is that both the all-inland and hybrid alternatives may require more time to construct than would the proposed project (estimated at 3 months for the proposed project, 5 months for the hybrid alternative, and 4-6 months for the all inland alternative).⁹ With a limited construction window of September 15th through December 15th due to snowy plover and steelhead issues, such additional construction time may spread construction over two seasons with both the hybrid and all-inland alternatives. However, actual construction duration is difficult to predict given the range of unknown factors (including weather and species issues); this is particularly the case for the hybrid and all-inland alternative projects given the uncertainty with the removal and crossing components. Also, the construction estimates were based upon a Monday through Friday work schedule, where only 22 work days are available in a month (thus 3 months translates into 66 work days, and 5 months translates into 110 work days). None of the estimates include allotting time for the restoration component.

In any case, it seems that if a 7 day work week were used (to take full advantage of the limited window available within which to construct), and in light of the uncertainty and delay associated with winter storms and site conditions, it seems reasonable that any of the options may feasibly be constructed within the 3 month window. It may also be necessary, in any case, to spread construction over two

⁹ There has been some confusion as to the origin of the construction estimates. It is noted that the Applicant's CEQA alternatives analysis (dated October 17, 2001) estimates that the all-inland alternative would cost \$3 million, and would require two, 2-3 month construction seasons (i.e., 4-6 months total). The Applicant's consulting engineer letter report (dated March 22, 2002) refers to the CEQA alternatives analysis estimates for the all-inland alternative, and estimates \$1.5 million/3 months for the proposed project, and \$2 million/5 months for the undulating hybrid alternative. In any case, and as discussed, these estimates must be understood within the context of an overall level of uncertainty as regards construction issues in a dynamic habitat and shoreline environment. The most recent submittal by the applicant estimates \$1.2 million for the proposed project, and 3-4 construction seasons for the all-inland alternative.



seasons, depending on actual construction issues. Ultimately, estimates for how long the any of the project alternatives would take to complete are fraught with uncertainty for several reasons: the dynamics of construction in a constantly changing river/slough environment; the uncertainty of late fall/early winter weather and storm events; the vagaries of the locations of existing rip-rap (and the difficulty in locating, avoiding, and removing same); the types of measures that may be necessary to protect the existing condos during construction; the 3 month maximum construction season (to address species concerns); and, of course, the interaction and interplay of each of these. Given the level of uncertainty, the Commission finds that multiple seasons of construction (if absolutely necessary), and the temporary impacts associated with same, is preferable to the permanent displacement of ESHA.

The Applicant prefers their proposed project to the hybrid and all-inland alternatives primarily because their estimates¹⁰ indicate that it would be less expensive (\$1.5 million versus \$2 million (hybrid) and \$3 million (all inland) estimated), quicker to construct (3 months compared to up to 6 months estimated), would result in less turbulence and scour were it constructed along a straight line rather than an undulating line (as would be the case with both the hybrid and all-inland alternatives), and that some amount of additional seismic protection would be provided by leaving the existing wood wall and tie backs entirely in place inland of the existing wall (as opposed to severing such tiebacks where the alternative wall extends inland of the existing all location). Regarding the straight line versus undulating line, it is unlikely that the eddying and potential scour that would be engendered by a curvilinear wall alignment would be substantial given the minimal curving identified. Moreover, any such minimal scouring would be expected to be of insignificant consequence given the extreme depth of the piles that would be installed in this case well below identified scour levels for this section of the Pajaro River (i.e., ACOE has designated a scour level of -6 NGVD, and the king and sheet piles would be installed to roughly -53 and -23 feet NGVD, respectively; roughly 47 and 17 feet below expected scour). In addition, a curvilinear wall is more respectful of, and consistent with, a natural River environment within which straight line edges are atypical.

Regarding the Applicant's seismic protection argument, it is instructive to note that the proposed wall is specifically not meant to function for seismic protection, nor was the existing wood lagging wall. As the Applicant's consulting engineer states, "the primary purpose of the riverwall is to prevent erosion of the referenced site from the Pajaro River flood waters, not to support the condominium buildings. The existing condominium buildings are supported on piles independent of the riverwall." In fact, the Applicant's engineer indicates that to protect the Pelican Point condominiums from seismic factors, the entire development would need to be surrounded by a continuous, deep-rooted containment wall cross-tied together; an enormous project multiple degrees of magnitude larger than that proposed. The Applicant specifically directed the consulting engineering team that the proposed project not be designed for seismic conditions. Thus, it is not accurate to argue that one alternative provides for some additional margin of seismic protection when none of the alternatives are designed to either address seismic risks, nor to ultimately prevent damage due to seismic events; to do so would require a much larger project, different in its design and scope than that proposed or considered here.

¹⁰ Ibid.



Ultimately, evaluation of the proposed project versus the two alternative replacement wall projects focuses on the balance between the amount of permanent ESHA and public lands lost (for areas where any of the alternatives would cover ESHA and State Lands permanently) versus the amount of temporary ESHA impact (due to the length of construction time of the project). The Applicant's preferred alternative (i.e., the proposed project) would result in the largest permanent loss of ESHA, but it is estimated that it could be constructed in the shortest amount of time. The other two alternative wall projects would result in less permanent ESHA and public land loss (up to complete avoidance of permanent ESHA loss with the all inland alternative), but would take longer to construct (for the all inland alternative).

Approvable Project

Because it is feasible to construct a replacement wall on the Applicant's property, the Commission finds that the Coastal Act prohibits permanent encroachment into the Pajaro River/Watsonville Slough ESHA, and further requires restoration of the area on the habitat side of the new wall. Such a project is best accomplished by slightly modifying the location of the undulating hybrid wall alternative developed by the Applicant to ensure that those portions of it identified on the river side of the existing wood and lagging wall are instead located on the condominium side of the existing wall. This revised wall location avoids the majority of the known rip-rap between buildings B and C, and between buildings C and D (since the location is inland of the rip-rap placement areas), thus limiting the more difficult construction areas to those locations where buildings B and C are closest to the River. This option also allows for the largest area available for restoration on the river/slough side of the sheetpile wall thus established.

This revised alternative still raises the same temporary impact and Coastal Act issues identified above for the proposed project, but it eliminates any permanent coverage of ESHA and State Parks land on the river/slough side of the existing wall, consistent with the Coastal Act. Thus, this approval is conditioned for revised final plans for the undulating wall alternative as modified to move the wall inland at the two locations where the Applicant's undulating wall concept plans show it riverward (see exhibit E for approval details in site plan view). Such plans must minimize any necessary construction impact areas on the river side of the existing wall to the absolute minimum necessary. See special condition 1.

Even with a revised project, there remain impacts and Coastal Act policy inconsistencies to address (as detailed more specifically in the findings above), including negative impacts on ESHA, ESHA biotic receptors (including Federal and State listed species), and public resource recreational areas during construction; the related short-term and long-term negative effects on habitat productivity due to habitat recovery and normalization needs caused by construction; the loss of 12 cubic yards of sand per year to the shoreline sand supply system; the lack of adequate access to the shoreline; the overall increased artificial massing in the public viewshed; and the lack of assured long-term structural stability and assumption of risk. In order to address the coastal resource impacts and policy inconsistencies, impacts that are reduced in some cases with the revised alternative project (e.g., the area of land given over to wall placement) but otherwise the same or potentially increased (e.g., construction impacts), a roughly proportional mitigation package is necessary. The site issues, in tandem with the mitigations proposed as part of the project, provide a substantial basis from which to develop such a package. Many of the



measures already proposed need only slight adjustment to respond to the alternative project and the range of impacts, but are fundamentally sound in their basis. Thus, a mitigation package that provides for high quality restoration on the undeveloped side of the sheetpile wall; compensatory restoration immediately north of the project site within the Watsonville Slough uplands; adequate long term screening, monitoring, and maintenance; assumption of risk and prohibition on riverward/sloughward expansion, is required as follows.

The Applicant has proposed deeding a portion of the land on the river side of the existing wall held by the Applicant in fee title to an appropriate management entity. The Applicant has likewise proposed to offer a conservation easement over an area of land north of the project site within the Watsonville Slough System. These proposed measures need to be implemented consistent with the Commission's standard form and content for such legal documents, and need to be augmented to protect the habitat restoration area (see below). In addition, since a management agency to which to dedicate land has not been positively identified, the outright dedication should be in the form of an offer to dedicate either the fee or an easement. In addition, all areas on the river side of the undulating wall within the Applicant's property boundaries must be placed under a conservation easement subject to the same or similar legal instrument. See legal instrument detail in exhibit E for depiction of the easement area. See special condition 3.

All areas on the river/slough side of the sheetpile wall within the construction zone must be restored to provide high quality habitat (see restoration area detail in exhibit E). The Applicant will need to submit a revised restoration plan for this purpose consistent with the Commission's generally accepted parameters for such plans. See special condition 2.

The area north of the project site on the Applicant's property between the waters of Watsonville Slough and the paved roadway area (i.e., the general area for which the Applicant has proposed a conservation easement) must be restored to provide high quality slough habitat. The revised restoration plan must be extended to cover this area as well (see restoration area detail in exhibit E). See special condition 2.

To limit habitat impacts, in particular snowy plover and steelhead impacts, a limited construction period has been established (through the CEQA and agency review process) that limits construction activities to September 15th through December 15th. This construction window is based upon CDFG's stream alteration agreement (September 4 through December 20), and the USFWS and NMFS consultations (that describe a mid-September to mid-December construction period). The Applicant, understandably concerned about such a limited construction window, has indicated that a September 4th through December 31st construction window is more desirable. The Applicant has additionally argued that since the work would commence at the slough side and work towards the ocean, the construction window for work on the river side could be more flexible. However, the Commission notes that the December 15th end date already extends into a "buffer" time within which Federal resource agencies rarely allow such construction near steelhead rivers (such as the Pajaro). In fact, NMFS indicates that they typically recommend that work cease by October 15th in or near steelhead rivers, that the December 15th date in this case already liberally stretches the allowable construction time frame, and that a later end date in this



specific case is unacceptable.¹¹ Further, USFWS and Point Reyes Bird Observatory (PRBO) indicate that October 1st is typically the first date when construction is allowable in and around plover habitat such as is present at this location.¹² PRBO has also documented up to 40 plovers wintering at the mouth of the river; any additional pile work (such as pile driving past December 15th) would be expected to even further displace such plover wintering. Also, as described earlier, there are indications that pile driving in and of itself has adverse consequences even were different construction windows to be deemed appropriate for different "sides" (i.e., slough versus river) of the project area. In other words, the September 15th to December 15th start and end dates represent an already very liberal construction time frame for which deviation is inappropriate given the potential for listed species impacts. USFWS has indicated that work outside of the identified construction window will require a formal consultation pursuant to Section 10 of the Federal Endangered Species Act.¹³ Although some amount of site preparation inland of the existing wall (provided there is no incursion of materials, equipment, and/or activity on the river side of the existing wall) outside of this window is allowable (and may be preferable depending on the engineering approach taken – see exhibit F), this project is conditioned for a September 15th to December 15th construction window on the river/slough side of the project (see special condition 1).

With the limited construction window, the construction uncertainties, the weather and storm variables, , the river alignment uncertainties, as well as the interplay of these together, the overall length of time required to complete the project and the required restoration is uncertain. Based upon available estimates and technical review, it appears that the project approved by the Commission is likely to require two construction seasons to complete; three if there are unusual circumstances. The project plans must include a description of any phasing and all construction measures to be used (see Special Condition 1). If, for whatever reason, the approved wall cannot be constructed within 3 construction seasons, the Commission may need to reevaluate the project. Therefore, this approval is conditioned for a completion date of December 15, 2005 (see special condition 9). If for whatever reason, this completion date must be altered, the Applicant will need to amend this coastal development permit.

Given that the project may take two construction seasons, the restoration may need to be phased as well. In any case, any completed wall components need to be accompanied by the required restoration at those segments. Since the schedule is to begin construction along the Watsonville Slough side and work toward the Monterey Bay, such phasing should allow for construction and restoration in the critical slough area in the first construction season. See special conditions 1 and 2.

Adequate screening of the sheetpile wall over the life of the structure must be maintained. The proposed cascading species must be revised and supplemented to ensure that such camouflaging effectively screens the metallic angled wall as seen from public view areas. Moreover, long-term maintenance of the screening element, and performance standards for it, are required to ensure that the screen is effective

¹¹ Commission staff personal communication with Jonathon Ambrose, NMFS.

¹² USFWS's Western Snowy Plover Pacific Coast Population Draft Recovery Plan, and Commission staff personal communications with Amelia Orton-Palmer (USFWS) and Gary Page (PRBO).

¹³ Commission staff personal communication with Amelia Orton-Palmer, USFWS.



over the life of the project. Typical exposed wall heights (i.e., above grade) have been estimated by the Applicant's CEQA document to range from 5 feet in summer to 8 feet in winter; of course, a large storm event and/or maximum river scour event would lead to much higher levels of exposure, if only for brief periods of time. Therefore, the cascading screening must at a minimum camouflage the upper 5 feet of the sheetpile wall, with the goal being to screen the entire wall exposed above grade as seen for the river/slough side of the wall. See special conditions 2, 6, and 10.

To protect the resource area on the river/slough side of the sheetpile wall consistent with the Coastal Act, and in order to find this project consistent with Coastal Act Section 30253 requiring that development not require additional armoring in the future, no further encroachment on the river/slough side of the sheetpile wall is allowed in the future; as-built plans provide a basis for assuring that this is the case, and property restrictions can implement these requirement. See special conditions 4, 5, 6, and 10. In addition, further assurance of the required long-term stability requires regular monitoring and maintenance. All monitoring and maintenance commitments must be recorded as property restrictions to ensure long-term compliance, and to ensure that any future landowners are clearly notified of these commitments. See special conditions 6 and 10.

There are inherent risks associated with development in this dynamic coastal environment; this applies to the sheetpile wall as well as for the development inland of the wall itself. The project site, and all development on it, is likely to be affected by coastal hazard processes in the future. Although the Commission has sought to minimize the risks associated with the development proposed in this application, the risks cannot be eliminated entirely. Given that the Applicant has chosen to pursue the development despite these risks, the Applicant must assume these risks. Accordingly, this approval is conditioned for the Applicant to assume all risks for developing at this location (see special conditions 6 and 10).

The underlying land owner (SLC) and property manager (DPR) must provide their consent and approval for the project as approved. Since the approvable project does not result in permanent encroachment on State-owned lands and *Zmudowski State Beach*, it now is consistent with DPR's recommendations (unlike the Applicant's proposed project) and will require only temporary construction access approvals from SLC and DPR as opposed to a State Lands lease or transfer of property. See special condition 7.

Finally, although access to the shoreline from the nearest public road (i.e., Beach Road roughly one mile upcoast) is not provided with the project, this public access impact of the project as approved and conditioned herein is insufficient of itself to require the provision of access through the Pajaro Dunes/Pelican Point development from Beach Road to the project site. That is not to say that there is no such public access impact, but rather that this impact of itself appears to be insufficient to require direct access in this case. That said, this public access impact, and the others identified, can effectively be mitigated by the increased public access area that will be made available by the approved project due to the restoration of the river side of the undulating wall (a net gain of roughly 1,000 square feet) from what exists today. Nonetheless, this approval does not in any way not constitute a waiver of any public rights which may exist on the Pajaro Dunes/Pelican Point property. See special condition 8.



So as to assist in implementing the terms and conditions of this approval, and to ensure that all future landowners are notified of same, special condition 10 requires all of the Special Conditions of this approval to be recorded against the deed to the Applicant's property as covenants, conditions and restrictions on the use and enjoyment of that property.

By conditioning the approved project in this way, the sheetpile wall project can be considered a repair/restoration project inasmuch as it would be correcting a pre-Coastal Act anomaly to the degree feasible, reclaiming a portion of the former sand spit dune area currently devoted to urban development, while at the same time providing for modifications to the existing wall concept to correct design inadequacies relating to actual scour events at this dynamic location. Restoration of the construction area and offsite compensatory restoration adjacent to the work site (extending along the Watsonville Slough uplands) along with legal instruments to protect restoration and access areas effectively round out the mitigation package. As such, the approved project simultaneously meets the Applicant's project objectives and addresses Coastal Act policy requirements to the degree feasible.

Alleged Violation

The existing wooden pier and lagging wall at the project location was installed prior to the coastal permitting requirements of Proposition 20 and the Coastal Act. The Applicant indicates that a small amount of rip-rap was placed along the full linear extent of the inland side of the existing wooden wall, and along roughly 100 feet of the "headland" of the wall along Watsonville Slough when the wall was initially constructed. Since that time, the existing wall has been damaged repeatedly due to river/wave scour and due to the 1989 Loma Prieta earthquake. The Applicant indicates that additional rip-rap and sandbags (roughly 1,300 additional cubic yards) have been placed on multiple occasions, including at least five times since 1982, on both the river and inland sides of the wall in response to such events (see the Applicant's estimates of rock/sand bag locations in exhibit D). The Commission has been unable to locate coastal development permits authorizing such placement and has opened a violation case file (V-3-02-026) and is investigating the alleged violation. In addition to the rock placed, a concrete whaler beam was installed following the Loma Prieta earthquake, with the original tie backs attached to the whaler beam and repaired as necessary, under emergency permit 3-91-028-G; this temporary emergency work was never recognized by the required follow-up CDP.

The proposed project, and the approvable alternative, have been evaluated based upon acknowledged existence of the rip-rap in the project area, and of the concrete whaler beam installed under emergency authorization in 1991. In fact, the approvable project alternative was shaped in part by the need to address rip-rap concentration areas near the existing condominium buildings that would preclude sheet pile driving if not properly removed, and partly by the dimensions of the concrete whaler that dictate the location of any wall alternative on the river side of the existing wall. Although this application has been considered based upon the policies of Chapter 3 of the Coastal Act, consideration of this application does not constitute an admission as to the legality of any development undertaken on the subject site without benefit of a coastal development permit and shall be without prejudice to the California Coastal Commission's ability to pursue any legal remedy available under Chapter 9 of the Coastal Act.



3. California Environmental Quality Act (CEQA)

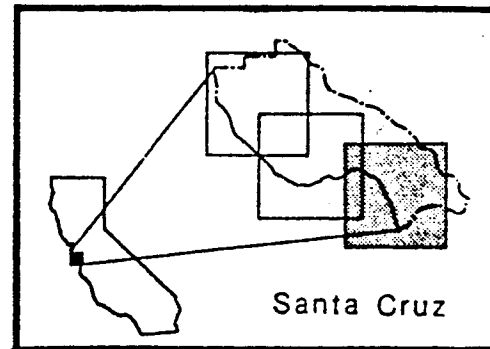
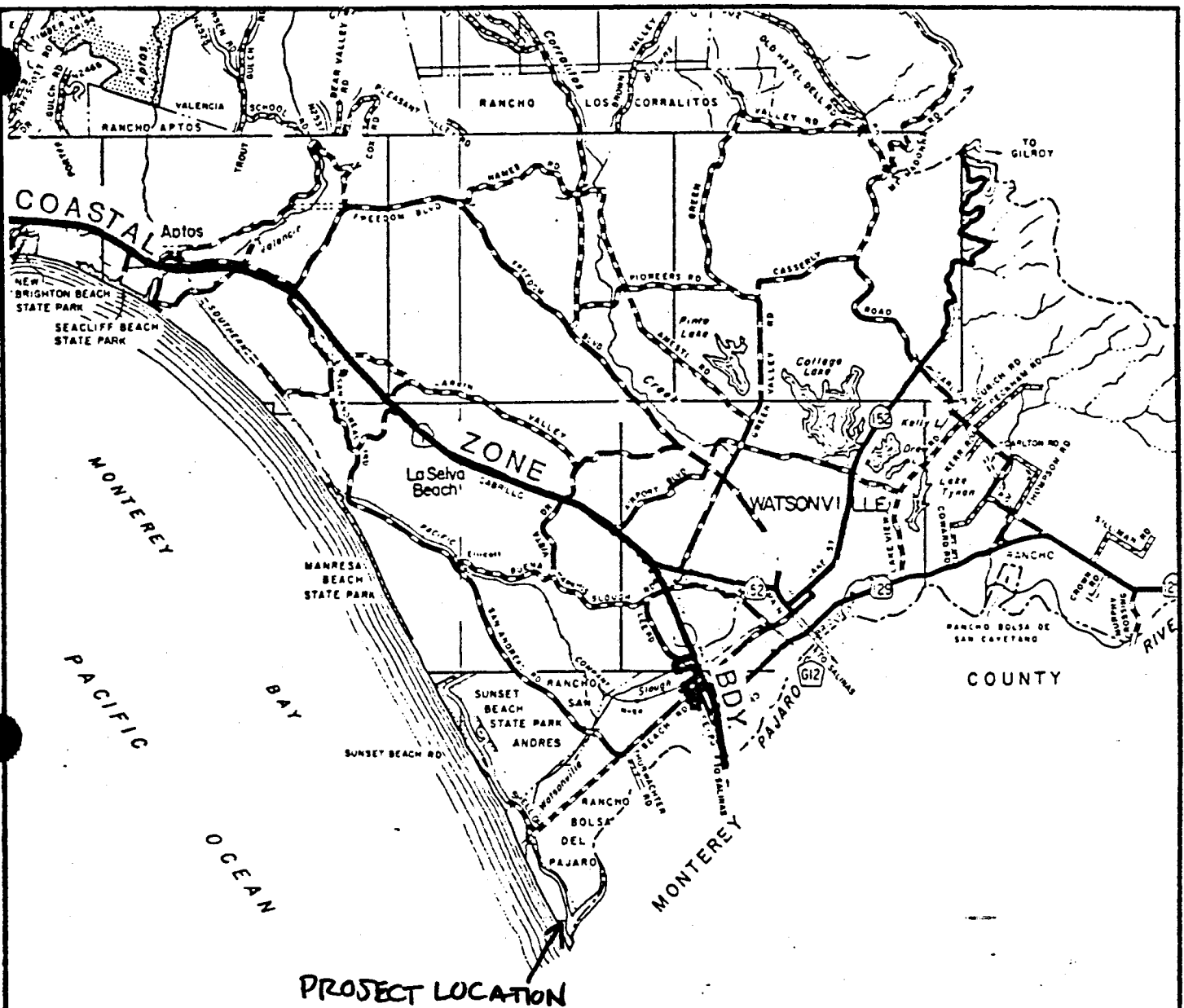
Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development 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 Pajaro Dunes Geological Hazards Abatement District certified a mitigated negative declaration supplemented by additional alternatives and impact analysis per CEQA. Commission staff provided early feedback on the first CEQA document (June 2001) including the recommendation to pursue the all-inland wall alternative if it were feasible (as is being recommended for approval here). Such recommendation built upon similar advice provided to the Applicant's then representatives during their initial project development stage, and prior to the preparation of the first CEQA documents in early 2001 (roughly 1½ years ago). The CEQA mitigation measures identified in the certified negative declaration are included as part of the proposed project description.

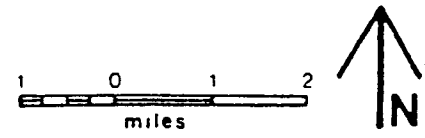
The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This staff report has discussed the relevant coastal resource issues with the proposal, and has recommended appropriate suggested modifications to avoid and/or lessen any potential for adverse impacts to said resources. All public comments received to date have been addressed in the findings above. All above Coastal Act findings are incorporated herein in their entirety by reference.

As such, there are no additional feasible alternatives nor feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. Thus, if so modified, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).





LOCATION MAP



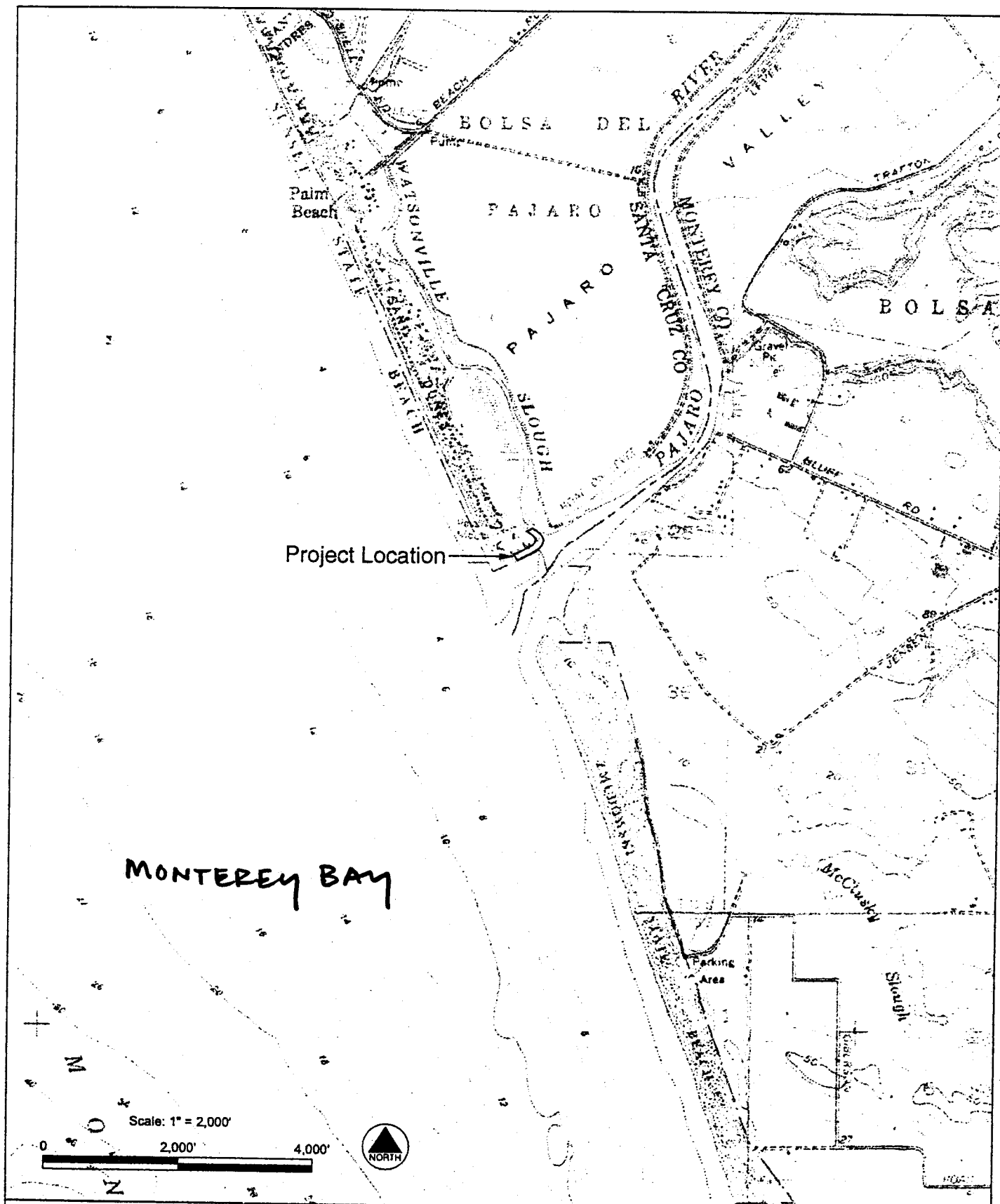
County of Santa Cruz

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(page 1 of 5 pages)

Sheet 3 of 3



California Coastal Commission



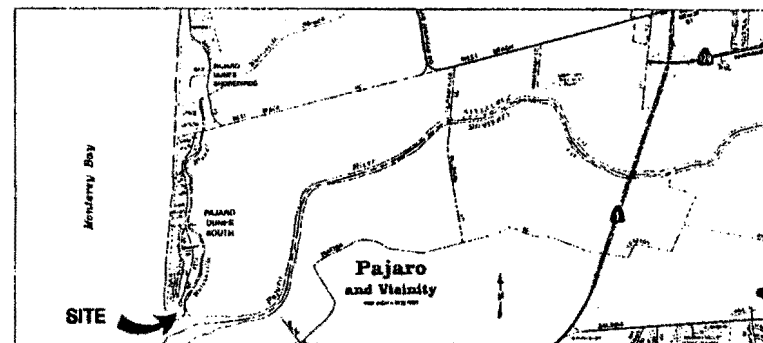
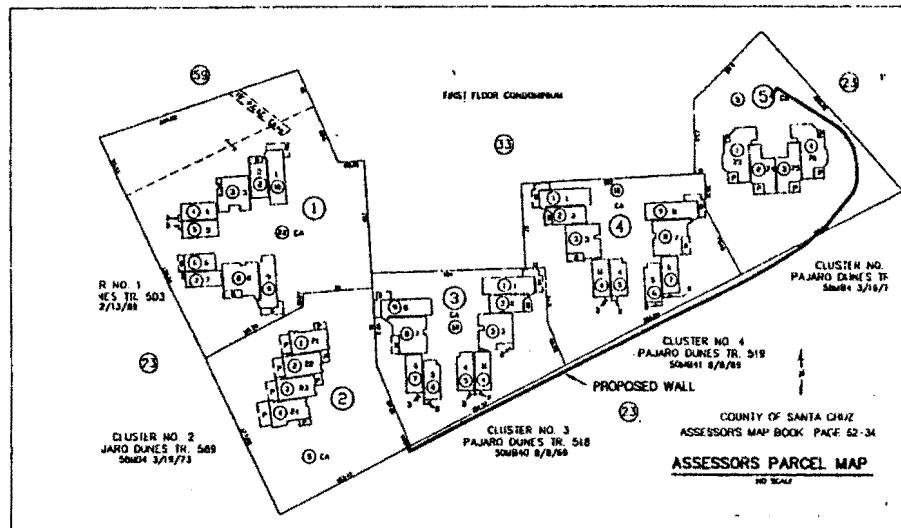
Biotic Resources Group

Post Office Box 14 ♦ Santa Cruz, California 95063
 (831) 476-4803 ♦ Fax (831) 476-8038

Pelican Point Riverwall Repair Project

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 (page 2 of 5 pages)

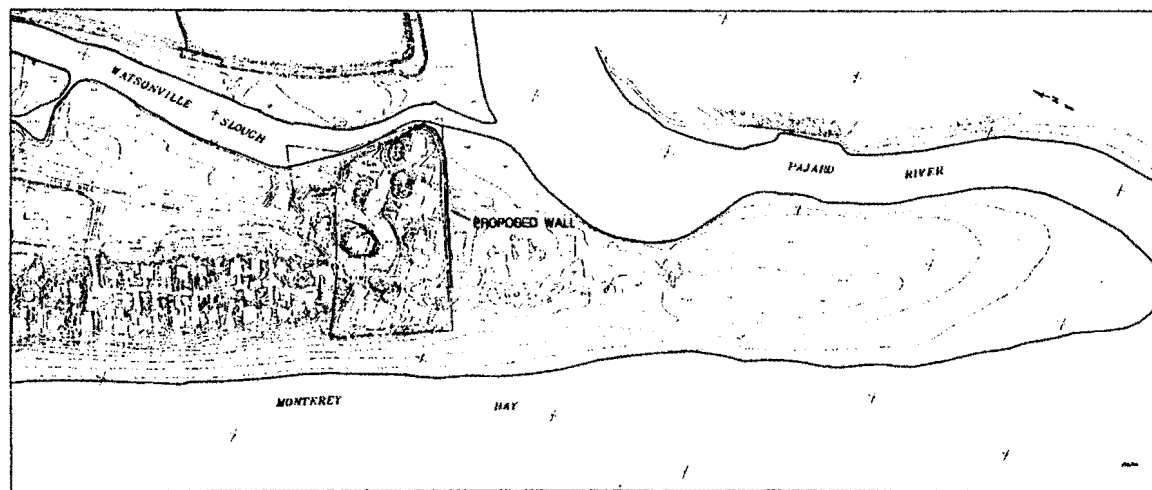
Figure 1
 10/01
 318-01



VICINITY MAP
NO SCALE

SHEET INDEX

SHEET 1 -TITLE SHEET
SHEET 2 -PELICAN RIVERWALL REPAIR PLAN
SHEET 3 -DETAILS
SHEET 4 -GENERAL NOTES



REGIONAL TOPOGRAPHIC MAP

PROPERTIES:

Pelican Point Condominiums
Common Area
Santa Cruz County APN 52-343-10,
52-344-10 & 52-345-5
California State Lands Commission
Pajaro River Mouth
Santa Cruz County APN 52-231-18

OWNERS:

Pelican Point Homeowners Association
2661 Beach Road
Watsonville, CA 95076
California State Lands Commission
1415 9th St., Room 1147
Sacramento, CA 95814

PROJECT STRUCTURAL ENGINEER:

Joe Mako, S.E. 1487
HOWARD CARTER ASSOCIATES, INC.
Structural Engineers
9600 Blue Larkspur Lane
Monterey, CA 93940
(831)373-3119 FAX (831)373-5872

EARTHWORK QUANTITIES:

Replacement wall structural backfill.....300 cubic yards
Fill landward of wall.....0 cubic yards
Rip rap & sandbags
placed in 1998.....74 cubic yards
Fugitive Rip-rap to be
excavated during this project
and buried landward of wall.....300 cubic yards

PLAN PREPARERS:

John Kasunich, G.E. 455
Mark Fox, C.E.G. 1493
HARO, KASUNICH & ASSOCIATES, INC.
116 East Lake
Watsonville, CA 95076
(831)722-4175
(831)722-3202 FAX

J. Darby Howard, P.E.
JOH CORROSION CONSULTANTS, INC
45 Quak Court, Suite 204
Walnut Creek, CA 94596
(925) 927-6630
(925) 927-6634 FAX

PROJECT SURVEYORS:

DUNBAR & CRAIG
1011 Cedar St.
Santa Cruz, CA 95060
(831) 426-7533

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(page 2 of 5 pages)
PELICAN RIVERWALL REPAIR

REVISIONS	BY
10/18/01	HKA
07/15/02	HKA

HARO, KASUNICH AND ASSOCIATES, INC.
 CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERS
 118 EAST LAKE AVE., WATSONVILLE, CA 95076 (831) 722-4175

Date	4/11/01
Scale	NONE
Drawn	MF
Job	SC 6137
Sheet	1 of 4 Sheets

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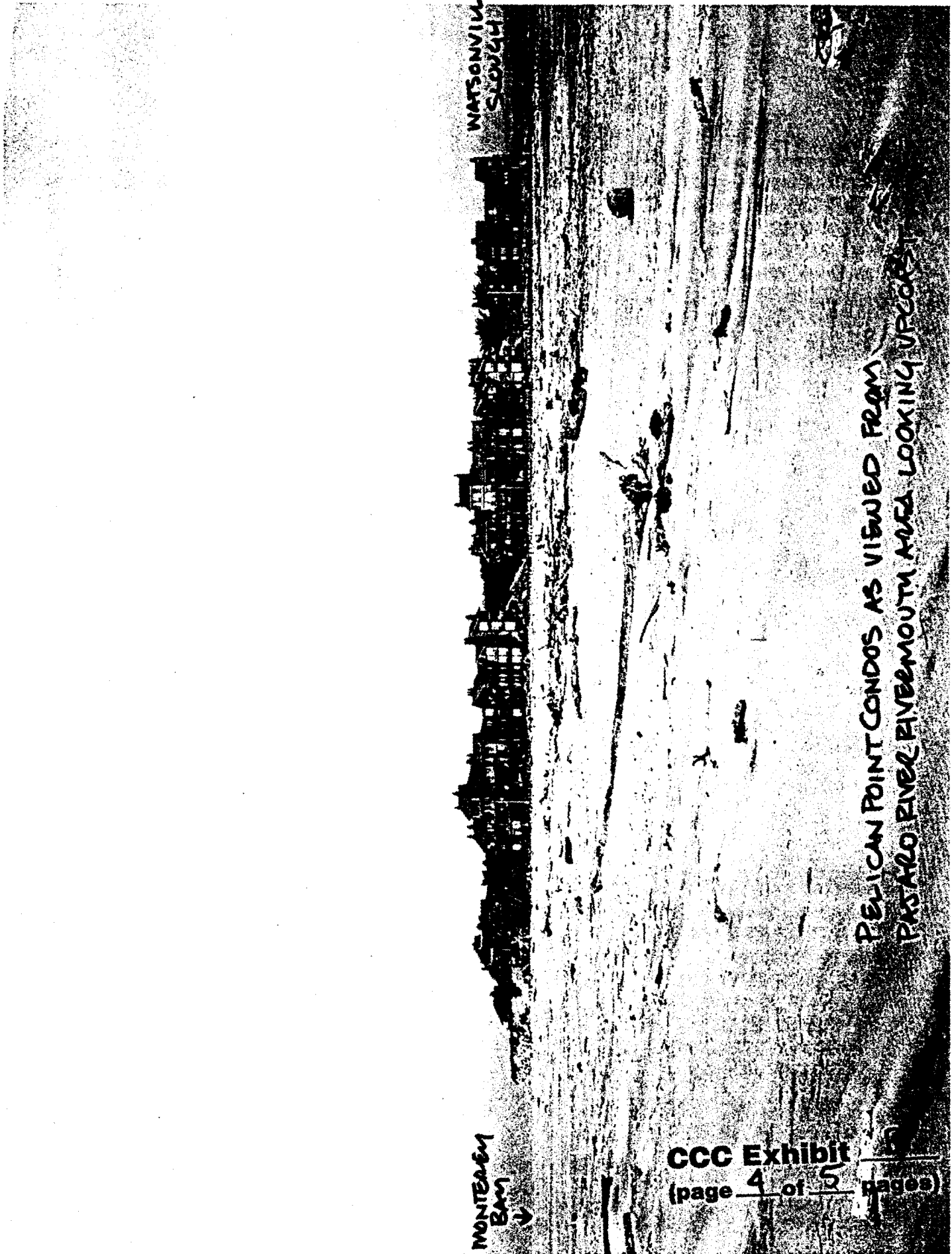
CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

MONTESUM
BAY
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WATSONVILLE
SLOUGH

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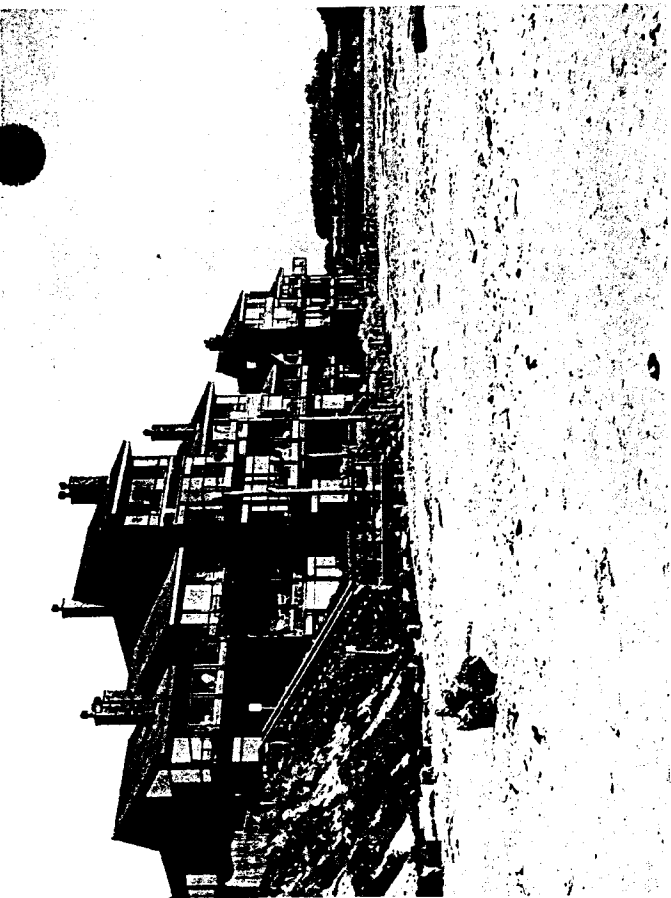
PELICAN POINT CONDOS AS VIEWED FROM
PASARCO RIVER RIVERMOUTH AREA LOOKING UPSTREAM





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VIEW FROM WATSONVILLE SLOUGH ALONG EXISTING WOOD
WAY, TOWARDS MONTEREY BAY



VIEW OF PROJECT SITE LOOKING INLAND AND UP
PASARO RIVER



VIEW OF WEST END OF PROJECT SITE



"HEADLAND" WHERE WATSONVILLE SLOUGH MEETS THE
PASARO RIVER

SECTION 2. PROPOSED PROJECT DESCRIPTION

PROJECT LOCATION

The project site is situated along the north bank of the Pajaro River mouth, at its' confluence with the Watsonville Slough and the Monterey Bay in southern Santa Cruz County. Pajaro River forms the county line between Santa Cruz and Monterey Counties. The site is located on the beach adjacent to the existing 87-unit Pelican Point condominium development that is part of the Pajaro Dunes development. The beach adjacent to the project site is generally flat with a gentle slope south towards the mouth of the Pajaro River and west towards Monterey Bay. The beach area is managed by the California Department of Parks and Recreation under a lease with the State Lands Commission. The site is located on properties owned by the Pelican Point Condominiums (APN 52-343-10, 52-344-10, 52-345-5, 52-342-5) and the California State Lands Commission (APN 52-231-18).

PROJECT DESCRIPTION

Project Characteristics

The existing riverwall will remain in place and a new driven sheet pile retaining wall system will be installed adjacent to the outboard side of the existing riverwall. The face of the new sheet pile wall will be a maximum of 5 feet from the outboard edge of the existing concrete waler along the timber pile wall. The total replacement wall alignment is approximately 715 feet long, including approximately 165 feet of the sheet pile wall placed along the west bank of Watsonville Slough, of which approximately 85 feet are an extension from the existing wall.

The wall will be constructed by driving sheet piles to depths of -18.0 to -23.5 feet NGVD and driving king piles to depths of -49.0 to -52.5 feet NGVD, which represents maximum depths of approximately 34 and 65 feet below existing grade, respectively. The top of the new wall will range between 10.5 and 12.0 feet, NGVD, about the same height as the old wall. As determined by the Army Corps, the design scour depth along the base of the wall is -6 feet NGVD. The replacement wall is to be designed for a non-seismic, flood condition, with flood waters trapped behind the wall to 10 feet NGVD and a low tide condition along the outboard perimeter at -3 feet NGVD. This worst-case static, design condition could result in an 18 foot high wall for short periods of time. Typically the wall height will be about 8 feet during the winter and 5 feet during the summer above existing grade.

In order to construct the new wall, existing piles will be removed along an approximate 40-foot section that does not have a concrete waler beam. The area between the new wall and existing wall will be backfilled with engineered fill according to plan specifications.

Description of Construction Activities

Construction is planned for the fall of 2002 sometime between October 1 and early December for a total of approximately 2-3 months. The project plans prohibit work on the river side of the wall between March 1 and September 30 in order to protect the snowy plover nesting habitat. The limits of the work area extend approximately 45 feet from the edge of the existing wall. The plans indicate that there will be no disturbance of beach areas beyond the limits of this work area. The active work area will be fenced using 3-foot high wooden stakes and continuous yellow caution tape.

Equipment to be used includes a crane-mounted pile driver, excavator and loader. Prior to driving the sheet and king piles, the entire alignment will be pre-dug to depths of approximately -6 NGVD feet using an excavator to remove any quarrrystones/debris present along the base of the wall. The retrieved quarrrystones/debris will be removed from the beach site and stored inboard of the replacement wall. The sheet and king steel piles will be transported to the site, hoisted by crane into position, and then driven into the ground. A crane mounted pile driver will be placed perpendicular to the wall alignment. At the slough end of the replacement wall, the pile driver may be placed upon the asphalt parking area to finish off the wall.

Construction staging will be from the asphalt parking area fronting Buildings C and D. Construction access to the project site will be between Buildings C and D. The pile driver will be stored on the beach within a designated area totaling approximately 1,350 square feet. Equipment will be required to be parked in a designated area, which will be lined and used as a containment area to prevent spills or fuel leaks from entering the beach. The storage area will be constructed with an impervious liner, a berm surrounding the perimeter liner and a sump to allow collection and disposal of any fuel or lubricants. The pile driver is to be fueled and serviced within this designated parking area only.

The disturbed areas landward of the riverwall shall be planted with native species and straw mulched as necessary to prevent erosion.

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SECTION 3. SUMMARY OF ENVIRONMENTAL IMPACTS/ISSUES

The Initial Study prepared for the proposed project evaluated significant impacts and identified mitigation measures/recommendations to prevent or minimize identified impacts. The proposed project will not result in permanent impacts to sensitive habitat areas or special status species. However, construction practices, if not properly managed, could result in potentially significant water quality impacts to Watsonville Slough and indirect impacts to aquatic species, including listed species (Impact #1 and 4). Construction will be conducted outside the snowy plover breeding season (Impact #2), and pre-construction surveys will be required for legless lizards, a California species of special concern with relocation if found onsite.

The Initial Study found that significant impacts could be reduced to a less-than-significant level with implementation of mitigation measures. Mitigation Measures # 1, 3, 6 and 6A provide construction controls to prevent water quality degradation and indirect impacts to special status species. Mitigation Measures #2, 4 and 5 provide construction scheduling restrictions and pre-construction species surveys. Identified significant and less-than-significant impacts are summarized below.

SIGNIFICANT IMPACTS

Biotic Resources

- **Indirect Impacts to Special Status Species During Construction.** The proposed project will not result in direct removal of critical habitat or permanently alter flows within Watsonville Slough or Pajaro River that could potentially affect listed species (tidewater gobies or steelhead in Pajaro River or Watsonville Slough or nesting snowy plovers on the beach). The project will be scheduled to avoid the nesting season of the snowy plover. However, indirect impacts could result from construction activities, if not properly controlled, as discussed below.
- **Impact #1:** The proposed riverwall project will not result in habitat removal or direct impacts to fishery and aquatic species, but construction of the riverwall could temporarily affect flows and water quality within the Watsonville Slough channel, thus indirectly impacting tidewater gobies and steelhead, if present.

Project construction is planned outside the juvenile steelhead out-migration season (generally April through May) and outside the adult upstream migration. The construction area is located outside of the flowing Pajaro River channel. However, installation of the riverwall adjacent to the Watsonville Slough channel may occur during periods of high water levels in which waters may encroach into the project work site. If water is present, it may be necessary to dewater the site and provide a system to bypass flows around the construction site. Construction activities may result in indirect, short-term adverse impacts to fish related to water quality degradation and potential increased turbidity if construction

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activities are not controlled to prevent inadvertent discharge of sediments from excavation or other construction materials into the slough channel or river. Construction equipment will be stored and serviced in a designated area, and will be lined and used as a containment area to prevent any accidental spills from leaving the containment area. The containment pad will consist of an impervious surface covering the entire area with a berm and sump to collect any spilled fuels or lubricants.

MITIGATION MEASURE #1: Contain the work area adjacent to the Watsonville Slough channel if water is present in order to isolate the work area from slough waters and to prevent sediments or other construction materials from entering the channel through use of straw bales, sandbags or other suitable material. If water is present at the time of construction, diversion structures will need to be installed to isolate the work area, consisting of fully protected material such as straw bales, sandbags, bladder dam, or other structure/material in order to isolate the work site from wet areas of the Watsonville Slough channel and to provide bypass flows around the work site. This will also prevent construction materials from inadvertently entering the river channel. All temporary diversion structures shall be removed upon completion of construction and flows shall be restored in a manner that minimizes erosion.

MITIGATION MEASURE #2: Prohibit construction activities in or adjacent to Watsonville Slough between December 1 and mid-June outside steelhead migration seasons.

MITIGATION MEASURE #3: Prohibit fueling, cleaning or maintenance of equipment in any area other than the designated area shown on the site plans. Prohibit onsite washing of equipment. As a precaution, require contractor to maintain adequate materials onsite for containment and clean-up of any spills, which shall be implemented immediately. Require preparation of a contingency plan to describe methods and materials to be used and stored onsite for use in the event of an emergency situation.

- **Impact #2:** The proposed riverwall project will not result in habitat removal or direct impacts to nesting birds due to prohibition of work during the nesting season. The temporary construction period is scheduled outside the nesting season for snowy plovers and other waterfowl species that utilize the Pajaro River mouth. Should construction scheduling change, any activities on the beach during the nesting season would be disruptive to nesting birds that are present and in violation of federal laws.

MITIGATION MEASURE #4: Prohibit construction between March 1 and August 31, as planned, to ensure protection of the nesting area of the endangered snowy plover. (NOTE: Based on follow-up discussions with staff from the U.S. Fish and Wildlife

Service, the breeding period during which construction would be restricted is March 1 through September 30.)

- **Impact #3:** Excavation and construction activities could result in adverse effects on individual legless lizards, if present in the work area. There is a low potential for these species to occur in the work area based on habitat requirements for the species, although legless lizards have been reported in iceplant areas with moist soils in the project vicinity. The species is not federally or state listed as endangered, but is considered sensitive species as both are identified as California Species of Special Concern.

MITIGATION MEASURE #5: Conduct a pre-construction survey to determine whether legless lizards are present on the site, and/or require a qualified professional biologist monitor to be present during initial construction activities (removal of old pilings, vegetation) to monitor activities and potential sitings of legless lizards. If observed, lizards shall be relocated as may be required, in consultation with appropriate agencies.

Hydrology and Water Quality

- **Water Quality.** The project work site will occur within a designated area along the beach and a minor area along Watsonville Slough. Given the location and limited size of the work area and temporary construction duration, impacts to adjacent water bodies are not expected to result in significant impacts. However, due to proximity to the Watsonville Slough and Pajaro River channels that support a listed endangered species, any water quality impacts could be considered significant.
- **Impact #4:** Construction of the proposed riverwall could temporarily affect water quality within the Watsonville Slough channel due to inadvertent transport of excavated soils or removed materials or equipment fuel spills into nearby water bodies. This could indirectly impact tidewater gobies and steelhead, if present, if construction activities are not properly controlled.

As discussed above under Biological Resources, construction could temporarily impact water quality in Watsonville Slough. The construction area is located outside the flowing Pajaro River channel. However, installation of the portion of the riverwall adjacent to Watsonville Slough may occur during period of high water levels, thus requiring dewatering of the work site and installation of dams/barriers to isolate the work area and divert flows around the work site. Mitigation Measure #1 sets forth measures to protect water flows and water quality. There is a potential for increased turbidity when diversion structures are installed and removed. This is minimized with careful removal of materials and use of materials that don't result in excessive sedimentation.

Mitigation #3 sets forth additional measures to insure that construction equipment is properly stored and serviced to prevent fuel or oil spills. If any excavated, removed or drilled materials are not properly stored or contained, there could be inadvertent transport of materials into the Pajaro River or Watsonville Slough channels. (Approximately 1,100 cubic yards of engineered fill will be used to backfill the area behind the constructed wall.) The project plans identify the designated work area and indicate that any removed material will be transferred away from the beach.

MITIGATION MEASURE #6: Identify a location on the Pelican Point property where excavated soils or removed materials will be stored, and site the location at least 100 feet from Watsonville Slough and Pajaro River. Require that the construction area and designated materials storage area be contained with use of silt fencing to prevent inadvertent transport of materials off the site. Keep stockpiled soils covering during periods of rain. Remove stored materials prior to the onset of the rainy season or protect with silt fences and covering to prevent erosion into adjacent water bodies.

MITIGATION MEASURE #6A: Require that the staging area be covered with absorbent material wherever fueling, cleaning or maintenance is conducted.

LESS-THAN-SIGNIFICANT IMPACTS

Aesthetics

The existing project area is visually characterized by prominent views of the ocean, Monterey Bay, the Pajaro River and the existing Pajaro Dunes development. The beach adjacent to the project side is relatively wide (approximately 300 feet). For beach users, views are oriented toward the ocean, Monterey Bay and Pajaro River. The Pajaro Dunes development is an existing structural feature of the surrounding viewshed, of which the existing riverwall is a minor component compared to the two and three-story residential structures.

Alteration of Visual Character of Surrounding Area. The proposed project will result in construction of a new sheet metal riverwall adjacent and parallel to the existing wood timber river wall. The new wall will be of a different type and material than currently exists, but is not expected to substantially degrade the existing visual character of the surrounding area as views in the area are primarily oriented to the existing natural features, most prominently the beach and ocean. The impact was found to be less-than-significant, but design recommendations were presented regarding use of a muted color and landscaping to soften the visual appearance of the structure. The project has been modified to use a sand color finish on the sheetpile wall. A revised photo simulation has been provided and is shown on Figure 1. The change in color further reduces the visual appearance of the wall.

RECOMMENDED CONSTRUCTION SPECIFICATION: Require landscaping within the backfill area of the riverwall and utilize appropriate coastal species, with an emphasis on native species, selected in part to create a cascading effect, if possible, over the riverwall to help soften its appearance.

RECOMMENDATION: Require that the wall front facing the beach be epoxyed or painted a sand color or similar light color in order to provide less contrast with adjacent lands and to better blend into the existing landscape.

Biotic Resources

- **Sensitive Habitat Areas.** The project site is located adjacent to the lower Pajaro River where Watsonville Slough joins the river, both of which are considered sensitive habitat areas. The beach adjacent to the project site is owned by the California State Lands Commission and is managed by the California Department of Parks and Recreation as a snowy plover breeding habitat. As discussed below, the project will not result in significant impacts to sensitive habitat areas, and potential indirect significant impacts to special status species during construction can be mitigated to a less-than-significant level with implementation of mitigation measures and best management practices during construction as discussed above.

Aquatic and Wetland Habitat Areas. A sand bar seasonally forms across the mouth of the Pajaro River in the summer and remains until late fall or early winter until storm flows break through. The resulting ponded area behind the sand bar, known as the "Pajaro River Lagoon," and Watsonville Slough provide important foraging habitat, while adjacent land areas provide roosting and breeding habitat for many waterbird species. The Pajaro River Lagoon also supports steelhead, tidewater goby and other native fish species. The Watsonville Slough System is another significant wildlife habitat area that provides important foraging, roosting and breeding habitat for many waterbird species, including migratory, water and resident waterfowl.

The proposed riverwall project will not result in direct habitat removal or effects upon Pajaro River Lagoon. The proposed project includes installation of piles and riverwall for a distance of approximately 165 feet along the lower channel of Watsonville Slough, which may be subject to permits from the U.S. Army Corps of Engineers.

Vegetation adjacent to Watsonville Slough consists of primarily iceplant with pockets of saltgrass and pickleweed. Vegetative cover in this area is variable due to changes in water levels of the adjacent slough and Pajaro River. According to preliminary results of a wetland delineation that is currently being prepared, it is estimated that the project will result in the no permanent fill of jurisdictional wetlands and will temporarily impact 0.03 acre of jurisdictional

wetland during construction.¹ This small amount is considered less-than-significant, and would have no significant adverse effects on the habitat functions of the slough. Vegetation temporarily impacted would be expected to reestablish as currently exists with seasonal fluctuations in water levels. Construction would result in temporary fill and access, although some work may be conducted from the adjacent condominium parking lot. Mitigation Measures #1 and 2 will contain the work area and prevent adverse effects to the channel, water quality or species present.

Beach Habitat. Vegetation in the project vicinity is limited to non-native horticultural landscaping between the existing riverwall and the development. Vegetative cover on the beach is variable. There was little or no vegetation observed in February-March 2001 when the Initial Study was prepared. A site visit in October 2001 revealed areas of vegetation, consisting of a mix of native and non-native species. Figure 2 compares the adjacent beach area at different times of the year.

The project would encroach up to 5 feet onto the sandy beach area (a total of approximately 2,915 square feet) and would permanently remove any vegetation present in this area and would temporarily impact other existing vegetation within the 40-foot construction zone. Given the expansive beach coverage in this area, this would not significantly affect habitat values. Vegetation growing in the area is subject to seasonal and cyclical removal due to river and ocean processes and regrowth. Any vegetation permanently removed by the riverwall construction would be a minor amount (estimated as 1,500 square feet or less), and due to the small area in comparison to the remaining undisturbed beach area would not result in significant disruption of habitat use or degradation of habitat. Any vegetation removed as result of the riverwall siting could be compensated within the planned revegetation plans for the area between the riverwall and existing buildings.

Geology and Soils

- **Seismic Hazards.** The project area is located in a seismically active region of California. Liquefaction, lateral displacement, ground cracking and differential settlement are high hazards at the site (Foxy, Nielsen & Associates, April 1999). The liquefaction hazard zone encompasses all of Pelican Point, and liquefiable soils are very deep (Ibid.). The vicinity is subject to tectonic subsidence; approximately 5 inches of subsidence (relative to sea level) has been reported as a result of the 1989 earthquake (Ibid.). Bedrock is not present within 100 feet of the ground surface, and most of the soils within 60 feet of the ground surface are susceptible to liquefaction (Ibid.).

¹Kathy Lyons, Biotic Resources Group, personal communication, October 17, 2001.

FIGURE 1: VIEWS OF MODIFIED RIVERWALL DESIGN



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FIGURE 2: VIEWS OF BEACH AREA



Photo
Taken
February
2001



Photo
Taken
October
2001

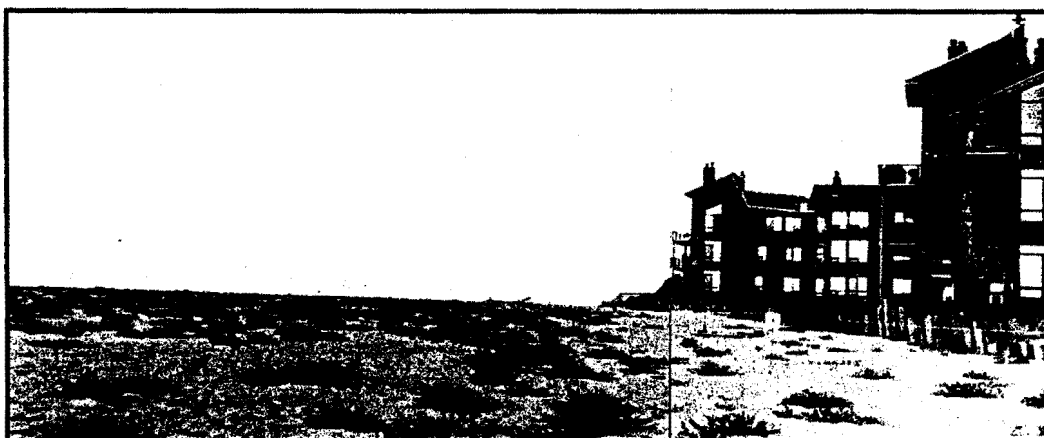


Photo
Taken
October
2001

During the 1989 Loma Prieta earthquake, a portion of the adjacent Pelican Point Condominiums experienced extensive structural damage due to strong seismic shaking and liquefaction, to include damage to Units C, the paved parking area in front of Units C and D. Approximately 220 feet of the existing riverwall also was damaged. A new waler beam was constructed in 1990 and all of the anchor tendons were inspected (Haro, Kasunich and Associates, Inc., December 2000).

The proposed riverwall is not designed to meet seismic standards with regards to liquefaction protection. In order to prevent liquefaction and lateral spreading, dynamic deep compaction, compaction grouting, chemical grouting or a continuous cellular sheet pile wall system that surrounds the developed area would be required (Haro, Kasunich and Associates, Inc., December 2000). Due to expense, these options were eliminated from further consideration by the Pelican Point Homeowners Association.

The proposed wall represents a repair of an existing structure, which also was not designed to current seismic standards. The existing riverwall was constructed to prevent the Pajaro River from eroding into the building area of the adjacent condominiums and to channel the river around the development to the ocean (Haro, Kasunich and Associates, Inc., December 2000). The purpose of the wall is to protect against coastal and river erosion. The wall serves no function in protecting the existing development from seismic hazards. While the wall may fail or be damaged during a seismic event, it will not affect the condominium project nor result in greater exposure to seismic hazards than already exists. The Pelican Point Condominium buildings are supported on wood pile foundation systems driven into the ground 10-25+ feet that were designed to function independent of the riverwall (Haro, Kasunich and Associates, Inc., December 2000). Liquefaction potential within subsoils at the referenced site extends to depths of 40 to 60 feet. Both the repaired riverwall and the condominium buildings could suffer damage as a result of liquefaction or lateral spreading.

Furthermore, the proposed project design provides a margin of increased safety due to the fact that the piles will be deeper than the existing riverwall piles. The existing riverwall design consists of driven wood piles at 3½ foot on center spacing driven to a depth of approximately 25 to 35 feet below the top of the riverwall (Haro, Kasunich and Associates, Inc., December 2000). The top of the riverwall timber piles varies in elevation from 9.5 to 13 feet NGVD. The proposed wall will be constructed by driving sheet piles to depths of -18.0 feet to -23.5 feet NGVD and driving king piles to depths of -49.0 to -52.5 feet NGVD, which represents maximum depths of approximately 34 and 65 feet below existing grade, respectively.

Although the proposed riverwall may fail or be damaged during an earthquake because it is not designed to seismic standards, the structure does not increase exposure to seismic hazards. The wall is a repair/replacement to an existing wall, whose purpose is to protect the Pelican Point Condominiums from coastal and river erosion. The wall functions independent of the

adjacent development. The Pajaro Dunes GHAD Plan of Control and Emergency Response Plan identify measures for inspection, maintenance and emergency repairs in the event of damage until permanent repairs can be made. Nonetheless, the following recommendation is made to provide full disclosure to the property owners.

RECOMMENDATION: Require full disclosure of project design to the Pelican Point Homeowners Association regarding the project not being designed to meet seismic standards and the need for potential future repairs.

- **Erosion.** The project area is subject to fluctuations in ground surface elevations on a seasonal, annual and episodic basis. In general, wintertime high river flows erode away the soils on the river side of the wall, and an onshore ocean driven transport of sand plugs the river mouth in the summer (Foxy, Nielsen & Associates, April 1999). Persistent winds cause dune sands to sometimes accumulate along the riverwall, and severe ocean storms erode the beaches and river mouth area (Ibid.). During these conditions, the Pajaro River flows along the face of the wall. At the north end of the wall along Watsonville Slough, high tides and peak discharges in the river waters are causing floodwaters to erode deck foundations (P. Williams and Associates, January 2001).

A combination of ocean swell orientation, local wind and sea directions and river flood flows appear to result in extreme scour along the riverwall (Ibid.). The original riverwall scour design was -6 NGVD, although the wall lagging and rip rap scour protection was extended only to depths of about +3.7 and -0.3 NGVD, respectively (Ibid.). A minimum design scour level of -6 NGVD has been recommended in any riverwall repair or replacement (Ibid.), to which the project has been designed.

The proposed project will provide increased protection against river erosion, coastal erosion and coastal flooding hazards over what currently exists, consistent with provisions and goals of the GHAD "Plan of Control." The proposed sheet pile wall design provides much greater erosion protection than the existing timber pile wood lagging system. The proposed wall will provide a continuous floodwater barrier between the top of the wall, 10.5 to 12.0 feet NGVD, and the projected scour line at -6 feet NGVD. As outlined on the 1969 Santa Cruz County Department of Public Works Construction Details for the existing wall, the wood lagging system originally extended from 9.0 feet to 3.7 feet with a quarystone plug between the piles below the lagging. The proposed sheetpile wall will provide a slight or small increase in the level of protection by being slightly higher than the existing lagging height and by closing the gaps in the wall due to deterioration or debris impact.

Hydrology

- **Groundwater.** The proposed project activities do not entail the withdrawal of groundwater, interception of an aquifer, or changes to groundwater recharge capability.

A review of the effects of the sheetpile wall on groundwater conducted by Weber, Hayes & Associates indicates that the proposed sheet pile wall will be a partial barrier to shallow groundwater flow, but it will not prevent shallow groundwater flow in the project area due to leakage (seepage) known to occur at sheet pile connections and due to expected groundwater underflow through sediments beneath the base of the sheet piles (Weber, Hayes and Associates, July 2001). Because the sheetpiles (with a maximum depth of about 35 feet) will not be keyed into a bedrock layer, groundwater flow beneath the wall can occur in either direction, in response to fluctuating water elevations. No measurable reduction in groundwater recharge flow to the Watsonville Slough and Pajaro River is likely because of the limited surface area behind the riverwall in comparison to the total area bordering the lagoon and due to the remaining routes for groundwater flow if the wall is built. Likewise, the length of the wall along the river and river lagoon is slight compared to the riverbank area on both sides where groundwater flow into the lagoon can occur. Therefore, the proposed project is not expected to change the groundwater flow directions, water chemistry or have a significant impact on groundwater quality in the Watsonville Slough or Pajaro River Lagoon.

Flood Hazards. The Pelican Point Condominiums are located within a flood zone of the Pajaro River; the riverwall appears to be the boundary of the Pajaro River flood zone (Foxy, Nielsen & Associates, April 1999). The Pajaro River floodway is within the flood zone. The area also is identified as V zone, which is subject to ocean wave impact and inundation (Ibid.). The proposed project will not result in construction of permanent habitable structures or development and will not place housing or expose people or structures to flood hazards. However, the proposed project with extension of the riverwall approximately 85 feet along Watsonville Slough will encroach upon the FEMA floodway. The 1986 Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS) for Santa Cruz County and the associated FIRM and floodway maps, indicate that the alignment of the existing riverwall lies within the FEMA floodway fringe and possibly forms the floodway boundary along Pajaro River (P. Williams and Associates, January 2001). In accordance with the National Flood Insurance Program (NFIP) regulations, development that encroaches into the regulatory floodway will be prohibited if it results in an increase in flood levels during the occurrence of the base (100-year) flood event (Ibid.).

A hydraulic analysis conducted by Philip Williams and Associates (January 2001) consisted of modeling to determine the effect of the riverwall upon Pajaro River and Watsonville Slough flood elevations. The results of the study found that the net effect of the inclusion of new survey data and existing wall cause the water surface elevations of the backwater profile to decrease for both the floodplain and floodway profiles (P. Williams and Associates, Ltd, January 2001). Thus, the proposed design for the replacement wall along the Pajaro River will result in no increase in the water surface elevations for the 100-year flood event, in both the floodplain and the floodway profiles, which accounts for construction at a 5-foot offset from the existing wall (Ibid.).

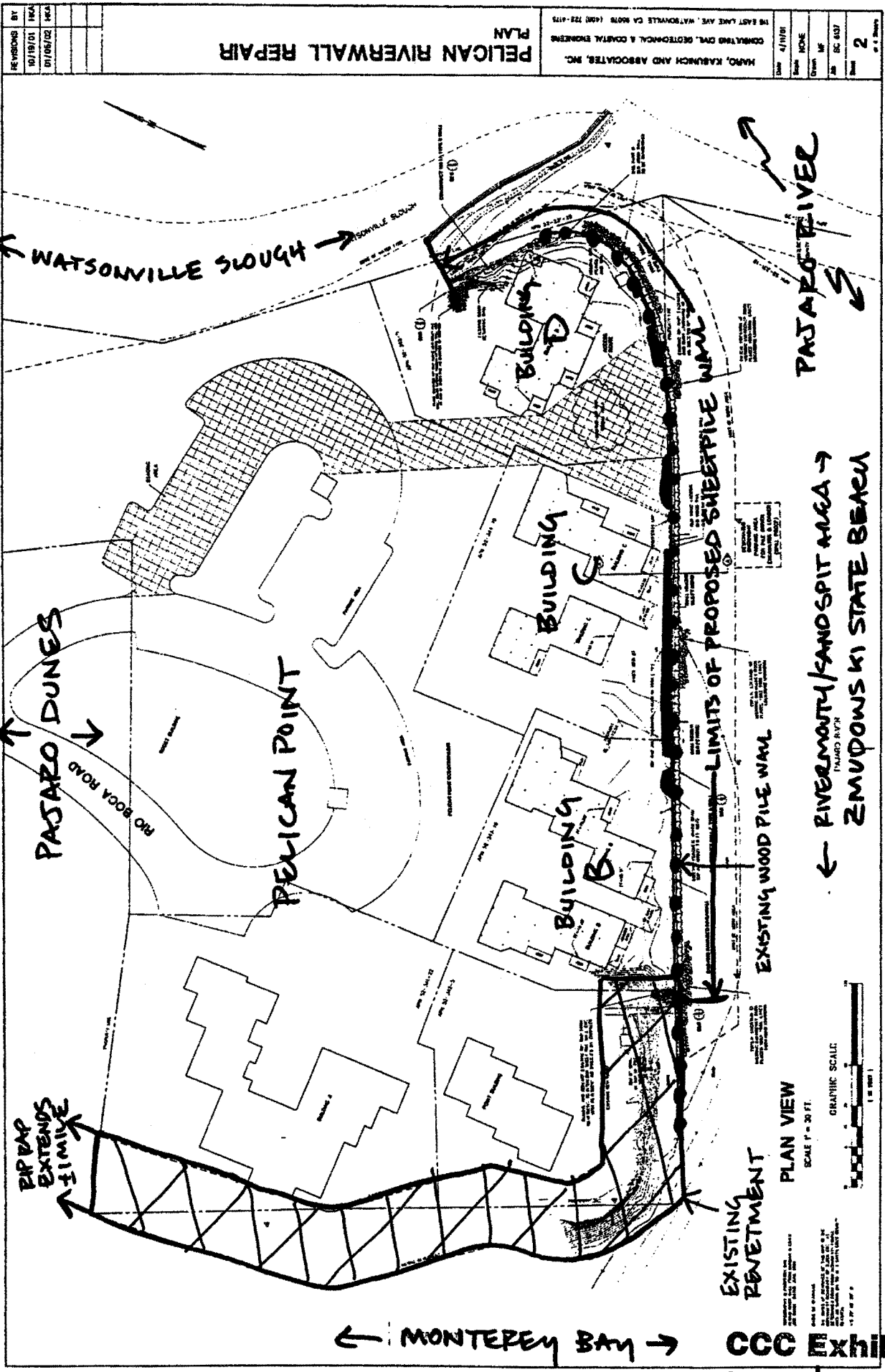
The proposed riverwall along Watsonville Slough will not meet the FEMA zero-rise criteria if constructed on a 5-foot offset as planned for the remainder of the wall. However, the riverwall was found to have no net increases in flood elevations in the Watsonville Slough with placement of the riverwall approximately 15 feet inside the property boundary (Ibid). The proposed riverwall has been designed in accordance with this recommendation.

Construction Impacts

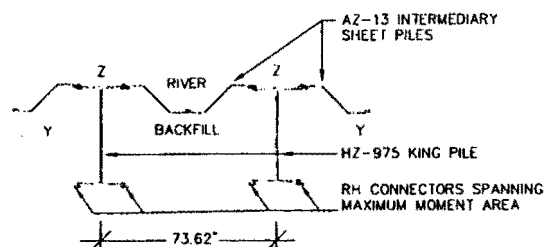
- **Exposure to Construction Noise.** The proposed project will result in short-term, temporary increases in noise levels due to construction and use of pile drivers and other equipment, but will not result in a permanent increase in noise levels once the riverwall has been completed. Construction activities will result in intermittent high noise levels and vibrations throughout the day, resulting in temporary noise increases to residents and visitors of the adjacent Pelican Point Condominiums and beach users, although the planned construction period (October to early December) is a low-occupancy period at the adjacent condominiums.

Although some of the nearby residents and recreational users may be aware of construction-related noise during the daytime, the impact is not considered significant due to the limited level and duration of exposure during the workday caused by construction and the short-term duration of the activity (2-3 months). Construction will not occur during weekends or evening. However, it is recommended that residents and visitors be forewarned of the construction period.

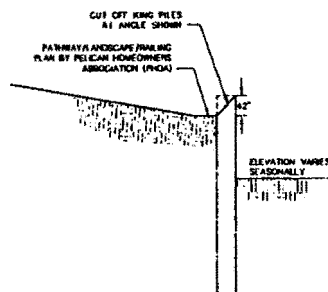
RECOMMENDATION: Require Pajaro Dunes Association to provide advance notice to residents and visitors of the planned construction schedule, and noise sources, that may result in temporary inconveniences.



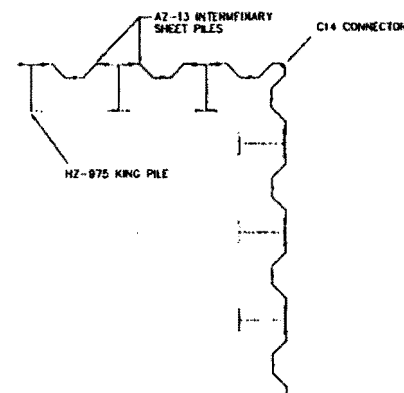
STEEL SHEET PILING SHALL CONFORM TO "PROFIL ARBED" WALL SYSTEM, USING ASTM A572 GRADE 60 STEEL. FOR COATING SEE SPECIFICATIONS. DRIVING EQUIPMENT AND INSTALLATION SHALL BE ACCORDING TO MANUFACTURER'S SPECIFICATIONS FOR COMBINED HZ WALLS.



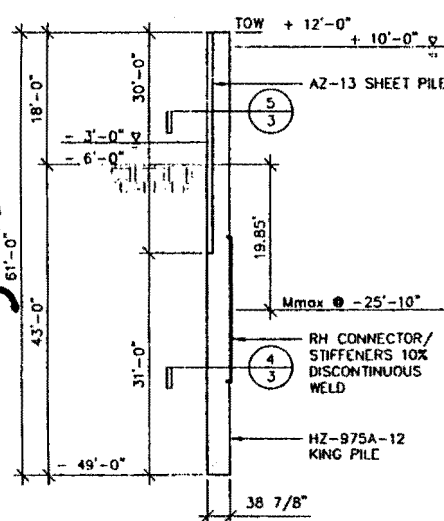
4 KING PILE SECTION
SCALE: 1/4" = 1'-0"



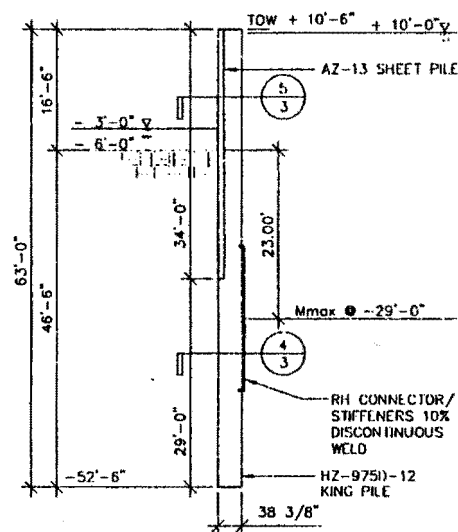
5 TOP DETAIL
3 SCALE: 1" = 10' 0"



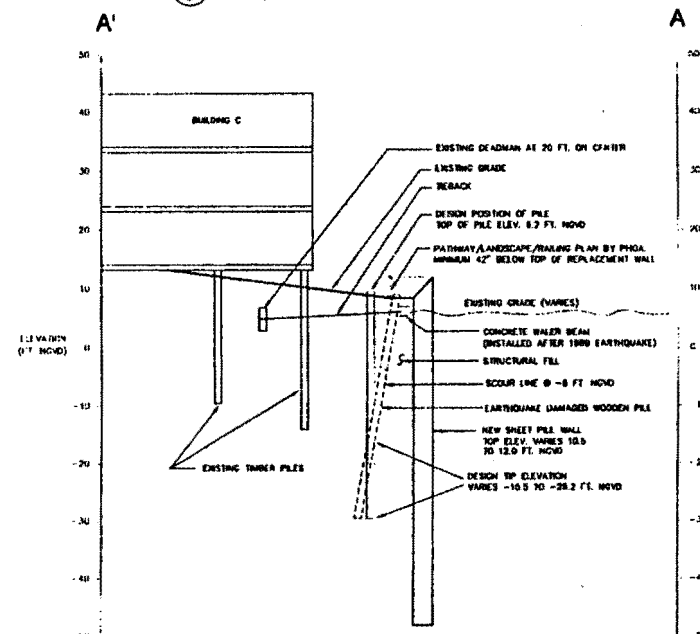
CORNER SECTION
SCALE: 1/4" = 1'-0"



1
3 WALL SECTION - TYPE A
SCALE 1/8" = 1' 0"



2 WALL SECTION - TYPE B
3 SCALE: 1/8" = 1'-0"



SECTION A'-A
SCALE 1" = 10'-0"

Date	4/11/01
Scale	NONE
Drawn	MJF
Job	SC 6137
Sheet	3

HARD, KARBUNICH AND ASSOCIATES, INC.
CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERING
198 EAST LAKE AVE., WATSONVILLE, CA 95076 (408) 722-4715

PELICAN RIVERWALL REPAIR DETAILS

REVISIONS	BY
10/18/01	HKCA
1/15/02	HKCA

**PELICAN RIVERWALL REPAIR
DETAILS**

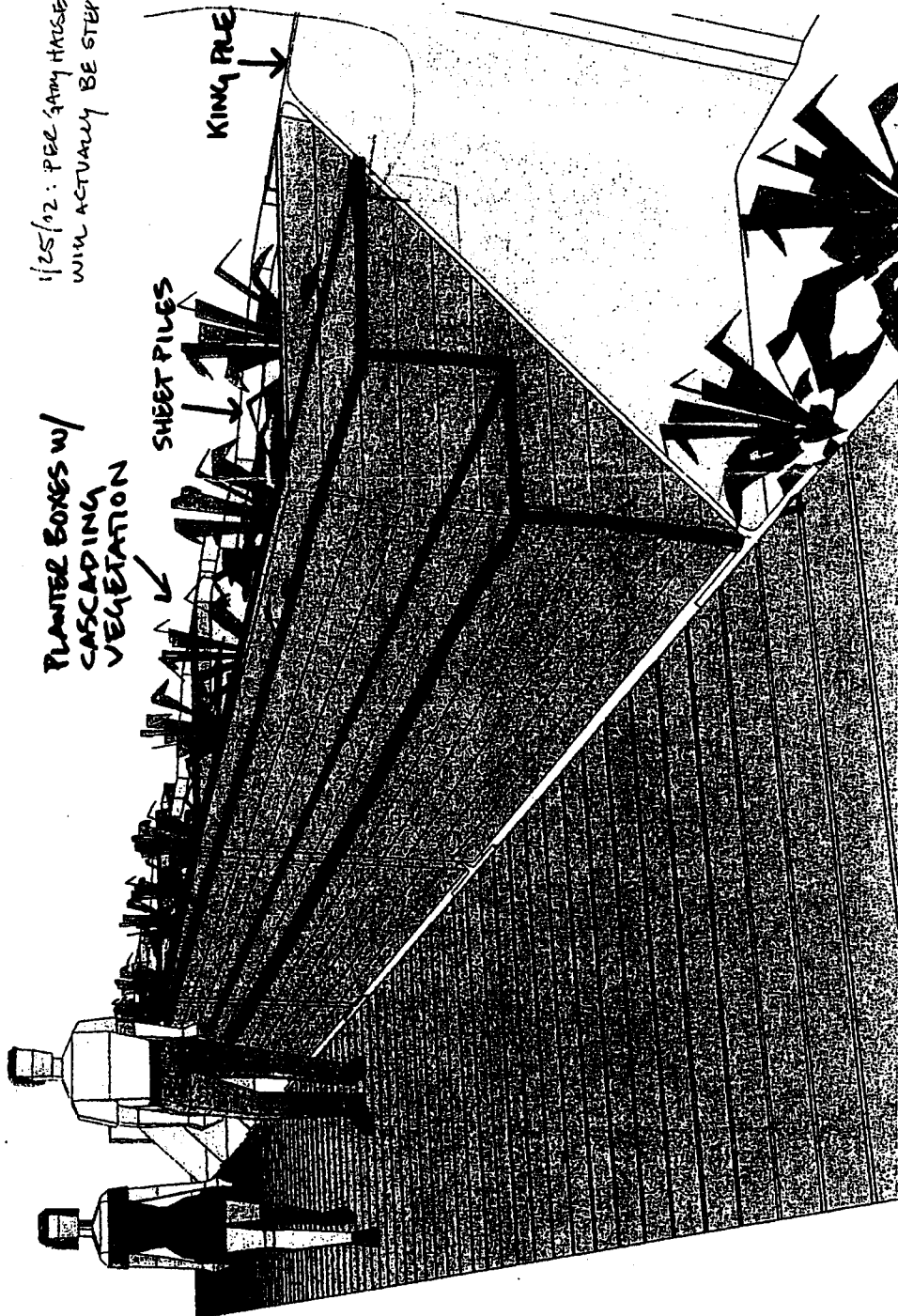
HARO, KASUBICH AND ASSOCIATES, INC.

CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERING

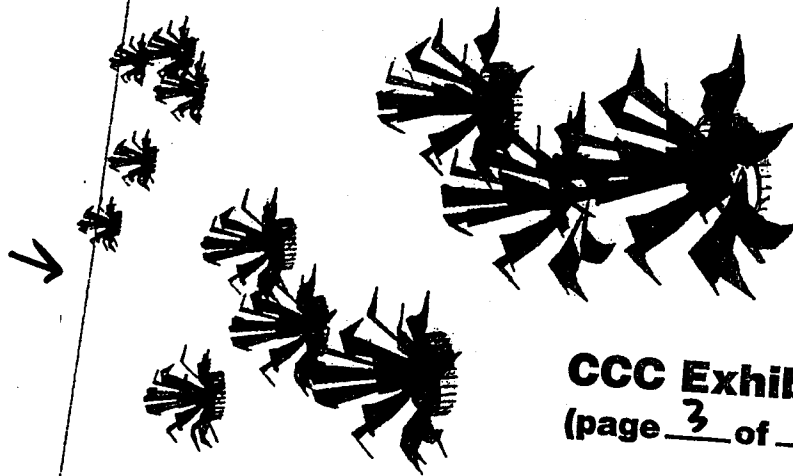
Date	4/11/01
Scale	NONE
Drawn	MF
Job	SC 6137
Sheet	3

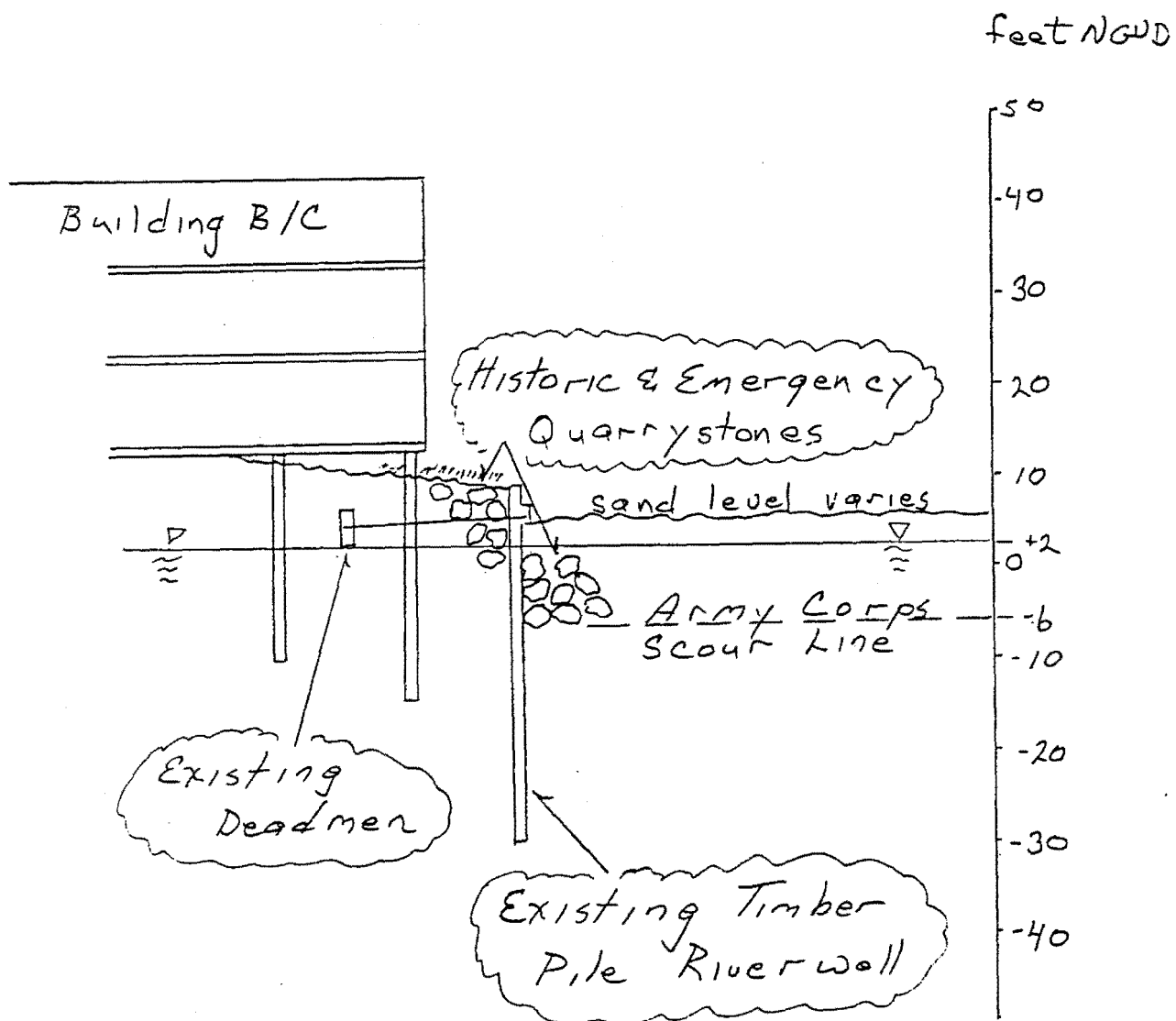
RIVER/SLOUGH
SIDE OF
SHEETPILE WALL

1/25/12: PER GARY HATSEY,
WILL ACTUALLY BE STEPPED



CONDOMINIUM SIDE
OF SHEETPILE WALL





CCC Exhibit D
 (page 1 of 3 pages)

PROJECT No: SC 6137

DATE: 21 March 02

SCALE: 1 inch = 20 feet

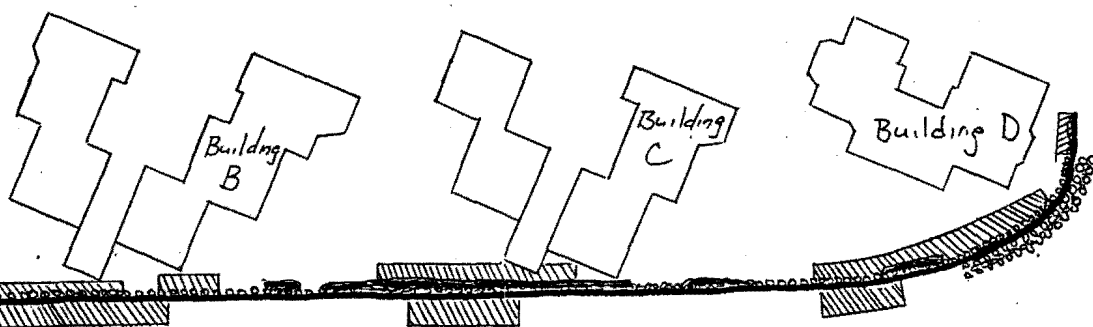
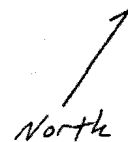
DRAWN BY: RP


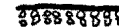

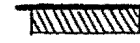

Buildings B/C with
 Timber Pile Wall and
 Buried Rock

D

Existing
Riverwall

Pelican Point Condominiums



-  1969 Project Plans - Bank run quarrystones along interior - 615 ft x $\frac{1}{3}$ yd³/ft = 185 yd³
-  1969 Project Plans - 1 to 3 ton quarrystones along exterior - 80 ft x 1 yd³/ft = 80 yd³
-  1998 Emergency Repair - 28 yd³ quarrystones & 46 yd³ sand bags
-  1983-1996 Historic emergency quarrystones along exterior - 190 ft x 2.2 yd³/ft = 418 yd³
-  1983-1996 Historic emergency quarrystones along interior - 340 ft x 2.4 yd³/ft = 816 yd³

Total import quarry stone estimate = 1,530 yd³
Total sand bags along interior = 46 yd³

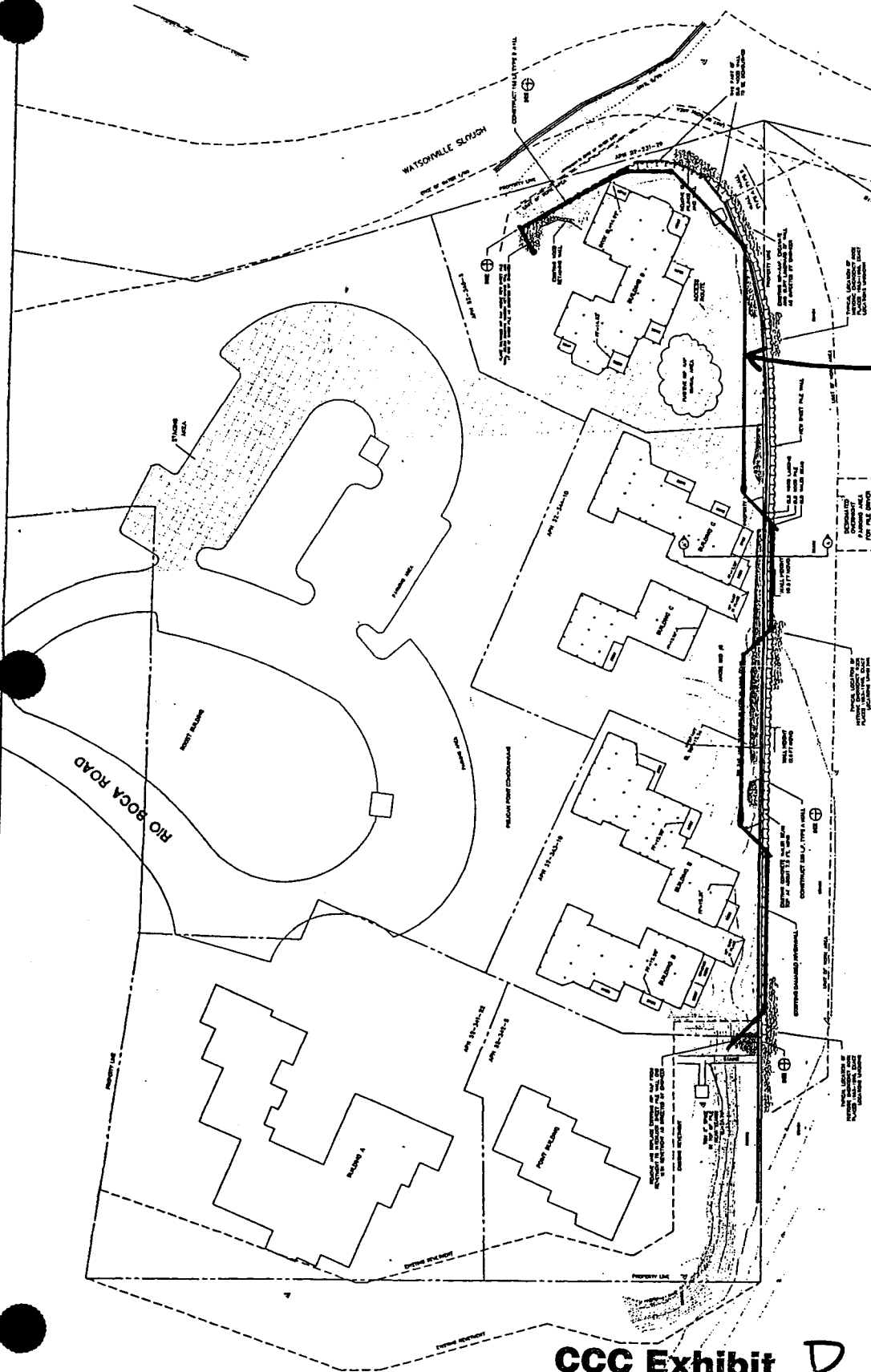
PROJECT NO: SC6137	Pelican Point Riverwall
DATE: 28 Feb 02	Import Quarrystone Estimates
SCALE: 1 inch = 60 feet	Santa Cruz County CA
DRAWN BY: RP	
HARO, KASUNICH & ASSOCIATES	FIGURE NO. 3

REVISIONS	BY
10/19/01	HKA
07/05/02	HKA

PLAN PELICAN RIVERWALL REPAIR

HARO, KASUNICH AND ASSOCIATES, INC.
CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERS
118 EAST LAKE AVE., WATSONVILLE, CA 95076 (408) 722-4175

Date	4/11/01
Scale	NCNE
Drawn	MF
App	SC 6137
Sheet	2
of 1 Sheets	



Undulating Wall Concept
21 March 2002

1 inch = 57 feet

PLAN VIEW
SCALE 1" = 50 FT.

GRAPHIC SCALE
(1" = 50 FT.)



APPROVED UNDULATING WAVE ALTERNATIVE

REVISIONS	BY
10/19/01	HKA
01/25/02	HKA

PLAN
PELICAN RIVERWALL REPAIR

HARO, KASINICH AND ASSOCIATES, INC.
CONSULTING CIVIL, GEOTECHNICAL & COASTAL ENGINEERS
EAST LAKE AVE., WATSONVILLE, CA 95076 (408) 722-4175

RESTORATION AREA
ON RIVER/SLOUGH
SIDE OF WATER AND
CONDOS

EXTENDS TO NORTHERN
BOUNDARY OF
APN 052-331-07

FOLLOWS EDGE OF
WATER ALONG
WATSONVILLE
SLOUGH

FOLLOWS INLAND EDGE OF
CONSERVATION EASEMENT AREA

Undulating Wall Concept
21 March 2002

1 inch = 57 feet

PALUZO RIVER

PLAN VIEW

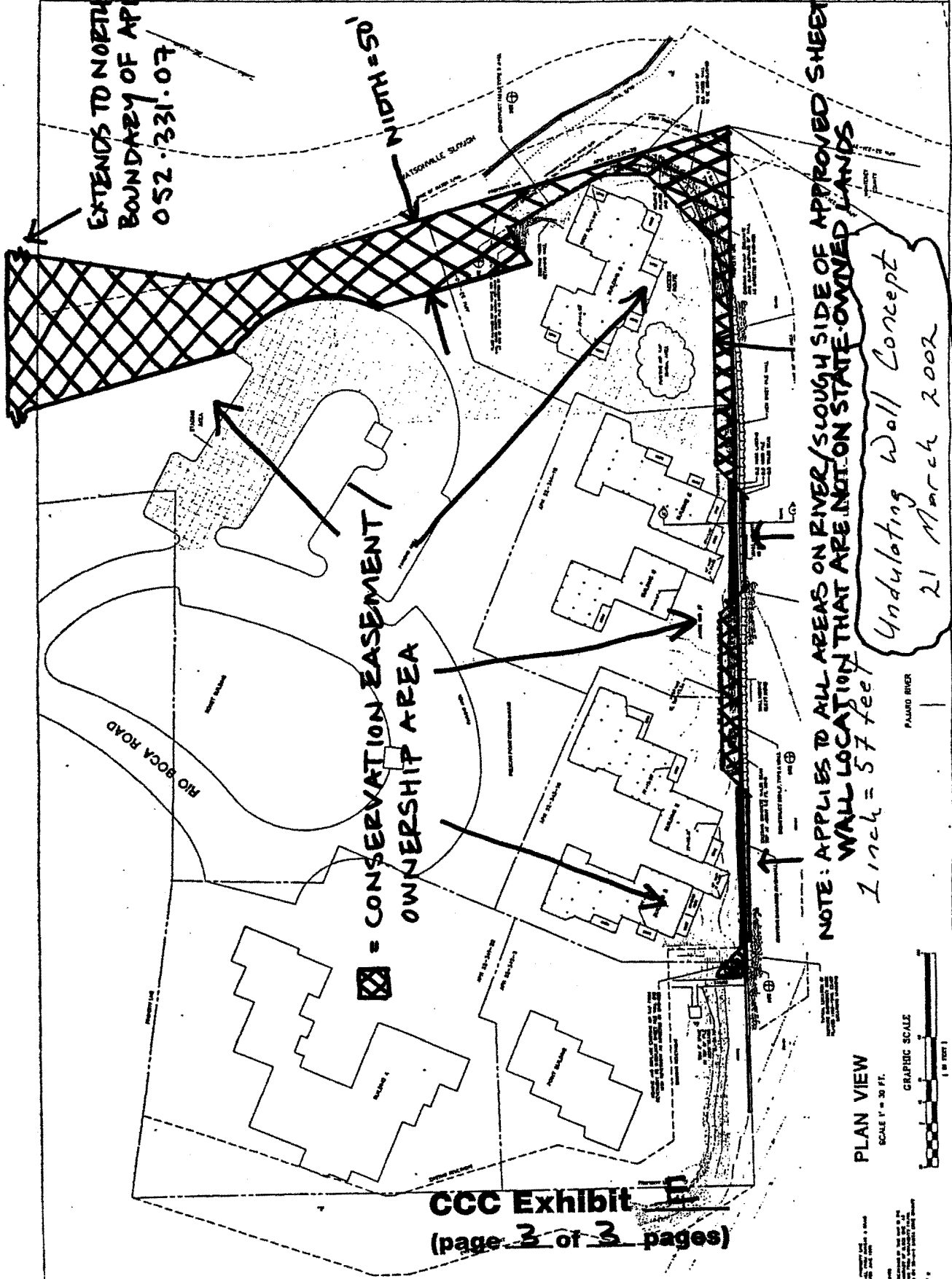
SCALE 1" = 50 FT.

GRAPHIC SCALE



CCC Exhibit E
(page 2 of 3 pages)

RESTORATION AREA DETAIL



LEGAL INSTRUMENT DETAIL

CALIFORNIA COASTAL COMMISSION

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



June 10, 2002

TO: Charles Lester, Santa Cruz Office, Coastal Program Manager
Dan Carl, Coastal Program Analyst

FROM: Lesley Ewing, Sr. Coastal Engineer

SUBJECT: FEASIBILITY FOR A NEW WALL LANDWARD OF THE EXISTING WALL
AT PELICAN POINT

Following phone conversations with staff from the California Department of Parks and Recreation and the Coastal Commission it has become clear that further discussion is needed concerning the feasibility of constructing the entire Pelican Point wall landward of or at the same location as the existing wall. It is technically possible to build the entire wall inland or at the same location as the existing wall. I do not think the technical feasibility has been at question, but rather whether the added cost and added construction time could be feasible. During earlier review of this project, I had reached the conclusion that the additional steps for this action could double the cost and expand the construction time to three construction periods. My comment that the complete inland alignment for this wall would be infeasible was based on my judgment that these time and financial constraints would make the technically feasible alignment infeasible.

The seaward or undulating alignments both depend upon the land seaward of the wall being available for construction of the new wall. This land will only be available if the State Lands Commission and the Department of Parks and Recreation will agree to some type of land swap or acquisition. The conversation with staff from Parks and Recreation made it clear that the land seaward of the existing wall may not be available. If the applicant will not be allowed to move any part of the wall further seaward that it is located today, then there are technical options for constructing a new wall completely inland or at the same alignment of the existing wall. The prior expected availability of this land was a component in my prior determination of feasible.

The rest of this memo outlines the constraints at Pelican Point that I think would make this no-further-seaward alignment difficult. I have also attempted to identify possible solutions to each of these constraints; however, there are likely many more ways than what I have presented.

The Pelican Point site presents a number of construction constraints. The site is a river spit and all the existing buildings and the existing seawall are founded in sand. The existing seawall is supported on pilings, with a fronting concrete waler and with tiebacks that go to inland deadmen or to piles that support the condominiums. Over the years, the applicant also has added rock on both the inland and riverside of the wall, and now is not certain exactly where this rock is, or to

CCC Exhibit F
(page 1 of 4 pages)

what depth it has migrated. The wall, the yard and the condominium development are close to sea level and almost any excavation work will encounter water unless cofferdams are also constructed. Portions of the existing wall are exposed during various times of the year to both wave attack and river scour. In addition the area adjacent to the development is a sensitive ecological habitat and a state park.

The first issue that should be considered is whether or not the wall is needed at all. All of this development is on the end of a dynamic river spit. The wall was part of the initial development and the wall regularly demarcates the boundary between the developed land and the water. If the wall is removed and is not replaced, the river or ocean will eventually destroy this development. The development may be safe for a few months, or a few years, but it will eventually be inundated, the building foundations will be undermined or rammed, the roads will be washed out and the development will be destroyed by river and wave attack. To prevent this from occurring, some barrier between the ocean, the river and the sand spit is needed. The existing wall now provides that barrier.

The existing wall provides effective protection for the inland development for many storm and river flooding events. However, several sections have failed, and there are other areas that would be expected to fail in the future. As discussed in the staff report, one alternative to the proposed project is to continue to do piece-meal repairs and maintenance on the existing wall. That is still a viable option for this site.

If a new wall is installed and if it must be no further waterward than the current wall, it could either be at the location of the existing wall or inland of that location. Anything that is constructed on this sand spit must be founded deeply into the sand. It may be possible to drive some foundation support into bedrock; however existing probes and surveys of the site have not located any near-surface material into which a foundation could be set. Soil borings indicate mostly sand, clay and some lenses of gravel down 50 feet below the surface and cone penetration tests indicate that there is a high potential for liquefaction down to -70 feet. If a deeper bedrock layer could be found and if piles could be driven deeply enough to reach bedrock, the final wall design may be able to have greater resistance to liquefaction than the proposed wall. However, there is no indication that a stable bedrock layer exists within the reach of any foundation piles, there would not be any "off the shelf" piles that could be used for this foundation. Custom piles would have to be fabricated on site to provide this deep foundation, a new wall design would be needed to prevent the support pilings from buckling and these changes, if possible at all, would provide only small improvements in the static performance of the wall and marginal improvements in the wall during earthquake events. The proposed use of deep piles, driven into sand rather than into bedrock, is a sound engineering option for the conditions at this site.

It is not now possible to drive sheet pile through riprap. When these piles hit solid riprap rock, the pile will bend. In addition, the rock will be pushed laterally or down further. The sheet pile cannot penetrate into the riprap rock: one object or the other will move. For this reason, the applicant needs to remove as much of the inland rock as possible before driving new sheet pile. It will be difficult to remove all the inland riprap rock since the rock will be below the water table and the search for rock will be done by probing a slurry of sand. One analogy could be

bobbing for apples while wearing a blindfold. They could probe the area and dig for any rocks that they hit, possibly jet under the rock to help remove it, probe some again, evacuate more, and continue this until they can probe repeatedly without hitting anything. Ground penetration sonar could be used as a final check to determine that all the rock has been removed. This effort would give the applicant some assurance that that they should not hit much rock while installing the piles. Depending on the amount of rock that was placed, how deeply it has moved, and how effective the contractor is at retrieving rock, this operation would take several months to complete.

It would be advisable, but not essential that the existing wall stay in place during this time. The wall would help to contain the riprap rock on the inland side of the wall and minimize migration into or below the river channel. And, since there may be small construction windows for this site, it could be damaging to the inland properties if the wall were to be removed and nothing could be installed in its place within the allowed building period.

The applicant is concerned that this open pit excavation would go deep enough to destabilize the foundation of the condominium buildings. A deep excavation could destabilize the foundation and this was one of the other reasons that the complete excavation of the rip rap rock and location of the wall on the inland side was not previously considered feasible. The applicant may want to install temporary reinforcing for the foundation to compensate for this possible destabilization from the excavation. One method could be to drive new pilings around much of the condominium building and transfer some of the building load onto these new temporary pilings. Staff from Department of Parks and Recreation was recommending a buried concrete grade beam as a second alternative, and that too could be a method that the applicant could consider. There also may be some mixtures that could be added to the sand to make the material stiffer and maintain more support for the building foundation. Such soil admixtures would help with stability of the foundation, but could be an impediment to the excavation effort. Certainly, the applicant could replace any excavated rock with an equivalent volume of sand to maintain a dense fluid within the pit. This will reduce the excavation efficiency, but will help maintain building stability. The protection of the building during the excavation would be an aspect that the applicant would have to consider and incorporate into the excavation effort.

Even with foundation stabilization, it is likely that there will be some cracking of walls or windows in the condominium during this all this construction activity. The applicant would likely need to do repairs and maintenance on these buildings after the wall in finished, regardless of wall location. The inland wall location may increase cosmetic damage to these buildings, but some damage could occur under all options.

Since sheet pile gets its stability from the interlocking of the individual units, once a pile is bent, it will not be effective in supporting the wall. Depending upon the depth of the bend, it may be possible to cut the pile at the bend, remove the pile, remove the cut end and drive it again. If that is not possible, several piles may have to be removed to separate the bent pile from the rest of the wall. If any riprap rock is encountered during installation of the new wall, the pile would be bent, the wall installation would be halted and the area again excavated and probed to retrieve the rock that was not retrieved previously. This would increase the time it will take to install the

wall, but the time increase should compare inversely with how thoroughly the area is probed, excavated and tested for rock prior to sheet pile installation.

Overall, this all inland alignment could require added support for the existing building foundations, at least for the excavation period, extensive excavation lasting up to one full construction period, spot excavation during the second construction period, prior to initial wall installation, one or two construction seasons for installation of the wall, with possible halts to wall construction if more rock is encountered. The difficulty posed by the rock will depend upon how much rock overall has been added to the site since the wall was installed. There are very likely other engineering solutions to this problem of constructing an inland alignment. The applicant's engineers can and should develop their own process. This memo is attempting only to outline both that such an alignment is technically feasible, and that it poses a number of legitimate technical constraints.



Santa Cruz District
600 Ocean Street
Santa Cruz, CA 95060
(831) 429-2851 fax (831) 429-2876

RECEIVED

JUN 12 2002

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

June 12, 2002

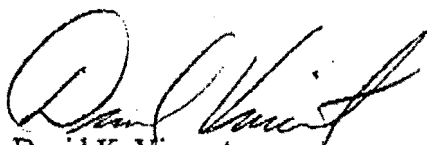
To: Chairperson Wan and Coastal Commissioners

From: David Vincent, District Superintendent
Santa Cruz District, California State Parks

Subject: Pelican Point Homeowners Association Sheetpile Riverwall

Initially the California Department of Parks and Recreation (CDPR), as the manager of Zmudski State Beach, gave preliminary conditional approval to encroach on public lands for the above project based on construction feasibility issues. It is now our understanding that, upon further review by the Commission's senior coastal engineer, that it is feasible to construct the sheetpile riverwall entirely on the Applicant's property. Based on this new information, CDPR wants to go on record supporting the recommendations of the Commission's Staff Report Addendum for item Th10e which calls for the project to be constructed entirely on the Applicant's property.

California State Parks concurs that the property in question is environmentally sensitive and should receive a high level of protection. Now that a feasible alternative has been found there should be no development on public lands.


David K. Vincent
District Superintendent

Assembly
California Legislature

FRED KEELEY
Speaker pro Tem



RECEIVED

JUN 13 2002

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

June 11, 2002

Mr. Dave Potter, Commissioner
California Coastal Commission
1200 Aguajito Road, Suite 001
Monterey, CA 93940

Dear Commissioner Potter:

I am writing in regard to the Pelican Point Riverwall, located at Zmudowski State Beach at the mouth of the Pajaro River in the City of Watsonville, that protects the homes that border the Pajaro River.

Both the 1989 Loma Prieta earthquake and the 1998 El Niño storms have damaged the Pelican Point Riverwall; its current structural integrity and ability to protect the residences from major storms and high tides is unreliable. Residents of the Pajaro River development have worked for over three years with the necessary agencies to develop a viable solution to fix the riverwall, and I believe their straight-line riverwall proposal is fair and appropriate.

Should you have any questions, please feel free to call me at (831) 425-1503.

Sincerely,

FRED KEELEY
Speaker pro Tem of the Assembly

FK:jbt

CCC Exhibit 6
(page 2 of 24 pages)

DISTRICT OFFICE
SANTA CRUZ COUNTY
701 OCEAN STREET
SUITE # 318-B
SANTA CRUZ, CA 95063
PHONE: (831) 425-1503
FAX: (831) 425-2570

CAPITOL OFFICE
STATE CAPITOL, P.O. BOX 942843
SACRAMENTO, CA 95834-2843
PHONE: (916) 319-6227
FAX: (916) 319-2127

<http://www.assembly.ca.gov/crmweb/main313327/>

Advocates for Wild, Healthy Oceans

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JUN 04 2002

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

Delivered by fax to: 427-4877

Santa Cruz Field Office
55 C Municipal Wharf
Santa Cruz, CA 95060831.425.1363 Telephone
831.425.5604 Facsimile
www.oceanconservancy.orgFormerly the Center for
Marine Conservation

June 4, 2002

Chair Sarah Wan and
Members of the California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105
The Ocean
Conservancy**RE: Thursday, June 13, 2002, Long Beach. Pelican Point Riverwall, 3-01-111.****Opposition to Approval of Shoreline Protection Device to Perpetuate
Development that Significantly Conflicts with Multiple Coastal Act
Policies.**

Dear Chair Wan and Members of the Commission:

Please accept the following comments on behalf of The Ocean Conservancy and our 24,000 California members. The Ocean Conservancy has been involved in coastal erosion and seawall issues for many years, and we submitted testimony in May 2001 on the California Resources Agency Draft Policy on Coastal Erosion Planning. The Ocean Conservancy is extremely concerned with the rate at which California communities are allowing construction of shoreline protection devices in a poorly planned, environmentally harmful, and ultimately ineffective, effort to stop shoreline erosion. The proposed Pelican Point Riverwall project is precisely the type of project that demonstrates our State's need for a rational policy of planned retreat for river/shoreline development located in inappropriate and environmentally unsafe locations.

Our letter raises the following issues:

- (1) The Proposed Pelican Point Riverwall would result in significant unavoidable and permanent adverse impacts to Environmentally Sensitive Habitat Areas (ESHA), State and Federally listed species, recreational access, and public resources;
- (2) The project is fundamentally inconsistent with numerous Coastal Act provisions;
- (3) The project must therefore be denied and threatened portions of the Pelican Point development should be removed or relocated away from coastal and riverine hazards.

The Ocean Conservancy strives to be the world's foremost advocate for the oceans. Through science-based advocacy, research, and public education, we inform, inspire and empower people to speak and act for the oceans.

CCC Exhibit 4
(page 3 of 24 pages)

Printed using 100% recycled ink on recycled paper

The Ocean Conservancy re: Pelican Point Riverwall
June 4, 2002
Page 2

(1) The project would result in significant unavoidable and permanent adverse impacts to Environmentally Sensitive Habitat Areas, State and Federally listed species, recreational access, and public resources.

The Pelican Point development in Pajaro Dunes is surrounded on three sides by important coastal habitat including the Watsonville Slough, the Pajaro River and the Monterey Bay. The gated Pajaro Dunes community is surrounded for many miles by agricultural land. The Pelican Point development is essentially located on a sandspit between the Watsonville Slough and the Monterey Bay. It is difficult to imagine a less appropriate site for coastal development from an environmental or land-use planning perspective.

The Pelican Point development is a case study in where and how not to build on the California coast - the development is subject to a virtual smorgasbord of natural hazards: including riverine, slough/wetland and coastal scour, erosion, and flooding. Permitting and perpetuating development in such inappropriate areas not only presents safety risks to the development and residents, it also unavoidably results in significant environmental harm to sensitive species and habitats.

The ocean side of the Pelican Point development has already been fortified behind a massive rip-rap wall that completely supplants the beach and dunes destroying habitat and severely reducing public access. The riverside of the development is currently behind a pre-Coastal Act wooden pile and lagging wall supplemented by numerous additions of rip-rap and sandbags that appear to have been installed over several years, all without permits from the Commission. It is clear that the existing development has already had an extremely adverse impact on the adjacent sensitive habitats. The issue before the Commission now is whether it will allow this harm to continue and to affect an even larger area of ESHA and public trust land.

According to the staff report, the Pelican Point project area provides known habitat for State and Federally listed species including: Tidewater goby, Steelhead trout, Snowy plover, Brown pelican, legless lizards, Western pond turtles, Santa Cruz long-toed salamanders, and Monterey spineflower. The Pajaro River is Federally designated critical habitat for steelhead trout. The Zmudowski State Beach rivermouth/dune area is one of only 28 critical habitat areas designated for the snowy plover along the entire West Coast. The area has also been designated by the California Department of Fish and Game as an Area of Special Biological Significance. Finally, the entire area constitutes Environmentally Significant Habitat Area under the Coastal Act.

Incredibly, the applicant proposes a project that would locate 715 feet, or one quarter of a mile, of sheetpile metal wall actually within ESHA; mostly on land owned by the California State Lands Commission and held in trust for the public. As

The Ocean Conservancy re: Pelican Point Riverwall
June 4, 2002
Page 3

proposed by the applicant, the project would permanently displace 3,000 square feet of dune rivermouth habitat and 450 square feet of Watsonville Slough wetland.

(2) The Pelican Point Riverwall Project is fundamentally inconsistent with numerous Coastal Act provisions.

The Pelican Point condominium development is precisely the type of ill conceived, inappropriately located coastal development that inspired passage of the Coastal Act. Although the existing development pre-dates the Coastal Act, it conflicts with virtually every provision of the Act. Any new projects associated with the development, such as the proposed riverwall, are certainly subject to the Coastal Act. The applicant's proposed river/shoreline protection project violates at least sixteen major Coastal Act provisions: Sections 30240 (a), 30240 (b), 30230, 30231, 30233 (a), 30233(c), 30210, 30211, 30213, 30221, 30223, 30235, 30240(b), 30251, and 30253. Approval of the project as proposed would make a mockery of the Act and set a troubling precedent for future shoreline protection requests.

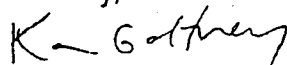
(3) The Project must be denied and threatened portions of the Pelican Point development should be removed or relocated away from coastal and riverine hazards.

The Ocean Conservancy urges the Commission to reject any further shoreline protection for the Pelican Point development. Instead we urge you to commence enforcement actions for any rip-rap and sand bags placed without a permit, to require removal of any and all structures located in ESHA, and to pursue a policy of managed retreat and relocation for any portions of this development that are threatened by coastal processes such as flooding and erosion.

The Pelican Point development was allowed to be built much too close to wetland, active rivermouth, and eroding beachfront areas. Over the years, efforts to shore up the development have failed to provide adequate protection and have come at a high cost to public lands, EHSA, special status species, the viewshed and coastal access. It is time to stop making the situation worse. Instead, we urge the Commission to pursue a long- term solution by denying any further river/shoreline protection at this site and requiring a plan for eventual managed retreat.

Thank you for your consideration of these comments.

Sincerely,



Kaitilin Gaffney
California Central Coast Program Manager



**SIERRA
CLUB**
FOUNDED 1892

Santa Cruz County Group of the Ventana Chapter

P.O. Box 604, Santa Cruz, California 95061 phone: (831) 426-4453

FAX (831) 426-5323

www.ventura.org

e-mail: scscrg@cruzio.com

June 10, 2002

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JUN 11 2002

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

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JUN 10 2002

CALIFORNIA
COASTAL COMMISSION

Chair Sarah Wan and
Members of the California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

RE: Thursday, June 13, 2002, Long Beach. Pelican Point Riverwall, 3-01-111.

The Sierra Club Opposes Approval of Shoreline Protection Device Which Would Perpetuate Development that Significantly Conflicts with Multiple Coastal Act Policies.

Dear Chair Wan and Members of the Commission:

The following comments are submitted on behalf of the Sierra Club and our 100,000 members in California. The Sierra Club has been involved in coastal erosion and seawall issues for many years and is extremely concerned with the rate at which California communities are allowing construction of shoreline protection devices in a poorly planned, environmentally harmful and ultimately futile effort to stop shoreline erosion. The proposed Pelican Point Riverwall project is precisely the type of project that demonstrates California's need for a rational policy of planned retreat for river/shoreline development located in inappropriate and environmentally unsafe locations.

Our letter raises the following issues:

- (1) *The Proposed Pelican Point Riverwall would result in significant unavoidable and permanent adverse impacts to Environmentally Sensitive Habitat Areas (ESHA), State and Federally listed species, recreational access, and public resources.*
- (2) *The project is fundamentally inconsistent with numerous Coastal Act provisions.*
- (3) *The project must therefore be denied and threatened portions of the Pelican Point development should be removed or relocated away from coastal and riverine hazards.*

-
- (1) *The Proposed Pelican Point Riverwall would result in significant unavoidable and permanent adverse impacts to Environmentally Sensitive Habitat Areas (ESHA), State and Federally listed species, recreational access, and public resources.*

The Pelican Point development in Pajaro Dunes is surrounded on three sides by important coastal habitat including the Watsonville Slough, the Pajaro River and the Monterey Bay. The gated Pajaro Dunes community is surrounded for many miles by agricultural land. The Pelican Point development is essentially located on a sandpit between the Watsonville Slough and the Monterey Bay. It is difficult to imagine a less appropriate site for coastal development from an environmental or land-use planning perspective.

The Pelican Point development is a case study in where and how not to build on the California coast - the development is subject to a virtual smorgasbord of natural hazards: including riverine, slough/wetland and coastal scour, erosion, and flooding. Permitting and perpetuating development in such inappropriate areas not only presents safety risks to the development and residents; it also unavoidably results in significant environmental harm to sensitive species and habitats.

The ocean side of the Pelican Point development has already been fortified behind a massive riprap wall that completely supplants the beach and dunes, destroying habitat and severely reducing public access. The river side of the development is currently behind a pre-Coastal Act wooden pile-and-lagging wall supplemented by numerous additions of rip-rap and sandbags that appear to have been installed over several years, all without permits from the Commission. It is clear that the existing development has already had an extremely adverse impact on the adjacent sensitive habitats. The issue before the Commission now is whether it will allow this harm to continue and to affect an even larger area of ESHA and public trust land.

CCC Exhibit 4
(page 6 of 24 pages)

According to the staff report, the Pelican Point project area provides known habitat for State and Federally listed species including: Tidewater goby, Steelhead trout, Snowy plover, Brown pelican, legless lizards, Western pond turtles, Santa Cruz long-toed salamanders, and Monterey spineflower. The Pajaro River is Federally designated critical habitat for Steelhead trout.

The Zmudowski State Beach rivermouth/dune area is one of only 28 critical habitat areas designated for the snowy plover along the entire West Coast. The area has also been designated by the California Department of Fish and Game as an Area of Special Biological Significance. Finally, the entire area constitutes Environmentally Significant Habitat Area under the Coastal Act.

Incredibly, the applicant proposes a project that would locate 715 feet of sheetpile metal wall actually within ESHA, mostly on land owned by the California State Lands Commission and held in trust for the public. As proposed by the applicant, the project would permanently displace 3,000 square feet of dune rivermouth habitat and 450 square feet of Watsonville Slough wetland.

(2) *The Pelican Point Riverwall Project is fundamentally inconsistent with numerous Coastal Act provisions.*

The Pelican Point condominium development is precisely the type of ill conceived, inappropriately located coastal development that inspired passage of the Coastal Act. Although the existing development pre-dates the Coastal Act, it conflicts with virtually every provision of the Act. Any new projects associated with the development, such as the proposed riverwall, are certainly subject to the Coastal Act. The applicant's proposed river/shoreline protection project violates at least sixteen major Coastal Act provisions:

Sections 30240 (a), 30240 (b), 30230, 30231, 30233 (a), 30233(c), 30210, 30211, 30213, 30221, 30223, 30235, 30240(b), 30251, and 30253. Approval of the project as proposed would make a mockery of the Act and set a troubling precedent for future shoreline protection requests.

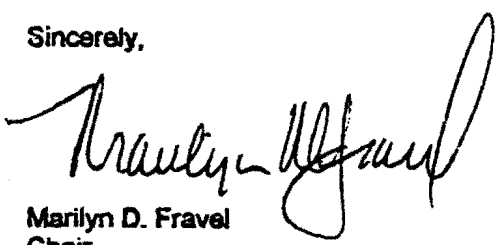
(3) *The Project must be denied and threatened portions of the Pelican Point development should be removed or relocated away from coastal and riverine hazards.*

Sierra Club urges the Commission to reject any further shoreline protection for the Pelican Point development and urge you to commence enforcement actions for any rip-rap and sand bags placed without a permit, to require removal of any and all structures located in ESHA, and to pursue a policy of managed retreat and relocation for any portions of this development that are threatened by coastal processes such as flooding and erosion.

The Pelican Point development was allowed to be built much too close to wetland, active rivermouth and eroding beachfront areas. Over the years, efforts to shore up the development have failed to provide adequate protection and have come at a high cost to public lands, ESHA, special status species, the viewshed and coastal access. It is time to stop making the situation worse. We urge the Commission to pursue a long-term solution by denying any further river/shoreline protection at this site and requiring a plan for eventual managed retreat.

Thank you for your consideration of these comments.

Sincerely,


Marilyn D. Fravel
Chair
Conservation Steering Committee
Santa Cruz Regional Group

CCC Exhibit 6
(page 7 of 24 pages)

"...to explore, enjoy and protect the wild places of the earth."



Agenda #: Th 10e
Permit #: 3-01-111

Surfers' Environmental Alliance, SEA
OPPOSITION TO THE PERMIT APP.

Sent via Fax on June 8, 2002 to 831-427-4877

RECEIVED

JUN 10 2002

Chair Sarah Wan and
Members of the California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

Dear Ms. Wan and Members of the California Coastal Commission:

On behalf of the Surfers' Environmental Alliance (SEA) accept this letter in opposition to the permit application number 3-01-111. SEA is an organization of several hundred surfers and 3000 members, all of whom are actively concerned with the coastal environment. We strongly object to the proposal for a sheet-pile wall as proposed in this project, or any armoring of the river or coastal region in this area. We endorse and support every word of the opposition letter written by Kaitilin Gaffney of the Ocean Conservancy which we hereby include as our opposition statement to the proposed project.

Respectfully submitted:

Douglas Ardley
Member, Board of Directors
Surfers' Environmental Alliance

Chair Sarah Wan and
Members of the California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

RE: Thursday, June 13, 2002, Long Beach. Pelican Point Riverwall, 3-01-111.

Opposition to Approval of Shoreline Protection Device to Perpetuate Development that Significantly Conflicts with Multiple Coastal Act Policies.

P.O. Box 3578

Santa Cruz, CA 95063

Phone 408-429-2217

Fax 408-469-0188

Dear Chair Wan and Members of the Commission:

CCC Exhibit 4
(page 8 of 24 pages)

The Ocean Conservancy re: Pelican Point Riverwall
June 4, 2002
Page 2

Please accept the following comments on behalf of The Ocean Conservancy and our 24,000 California members. The Ocean Conservancy has been involved in coastal erosion and seawall issues for many years, and we submitted testimony in May 2001 on the California Resources Agency Draft Policy on Coastal Erosion Planning. The Ocean Conservancy is extremely concerned with the rate at which California communities are allowing construction of shoreline protection devices in a poorly planned, environmentally harmful, and ultimately ineffective, effort to stop shoreline erosion. The proposed Pelican Point Riverwall project is precisely the type of project that demonstrates our State's need for a rational policy of planned retreat for river/shoreline development located in inappropriate and environmentally unsafe locations.

Our letter raises the following issues:

- (1) The Proposed Pelican Point Riverwall would result in significant unavoidable and permanent adverse impacts to Environmentally Sensitive Habitat Areas (ESHA), State and Federally listed species, recreational access, and public resources;
 - (2) The project is fundamentally inconsistent with numerous Coastal Act provisions;
 - (3) The project must therefore be denied and threatened portions of the Pelican Point development should be removed or relocated away from coastal and riverine hazards.
- (1) The project would result in significant unavoidable and permanent adverse impacts to Environmentally Sensitive Habitat Areas, State and Federally listed species, recreational access, and public resources.**

The Pelican Point development in Pajaro Dunes is surrounded on three sides by important coastal habitat including the Watsonville Slough, the Pajaro River and the Monterey Bay. The gated Pajaro Dunes community is surrounded for many miles by agricultural land. The Pelican Point development is essentially located on a sandspit between the Watsonville Slough and the Monterey Bay. It is difficult to imagine a less appropriate site for coastal development from an environmental or land-use planning perspective.

The Pelican Point development is a case study in where and how not to build on the California coast - the development is subject to a virtual smorgasbord of natural hazards: including riverine, slough/wetland and coastal scour, erosion, and flooding.

Permitting and perpetuating development in such inappropriate areas not only presents safety risks to the development and residents, it also unavoidably results in significant environmental harm to sensitive species and habitats.

The ocean side of the Pelican Point development has already been fortified behind a massive rip-rap wall that completely supplants the beach and dunes

The Ocean Conservancy re: Pelican Point Riverwall
June 4, 2002
Page 3

destroying habitat and severely reducing public access. The riverside of the development is currently behind a pre-Coastal Act wooden pile and lagging wall supplemented by numerous additions of rip-rap and sandbags that appear to have been installed over several years, all without permits from the Commission. It is clear that the existing development has already had an extremely adverse impact on the adjacent sensitive habitats. The issue before the Commission now is whether it will allow this harm to continue and to affect an even larger area of ESHA and public trust land.

According to the staff report, the Pelican Point project area provides known habitat for State and Federally listed species including: Tidewater goby, Steelhead trout, Snowy plover, Brown pelican, legless lizards, Western pond turtles, Santa Cruz long-toed salamanders, and Monterey spineflower. The Pajaro River is Federally designated critical habitat for steelhead trout. The Zmudowski State Beach rivermouth/dune area is one of only 28 critical habitat areas designated for the snowy plover along the entire West Coast. The area has also been designated by the California Department of Fish and Game as an Area of Special Biological Significance. Finally, the entire area constitutes Environmentally Significant Habitat Area under the Coastal Act.

Incredibly, the applicant proposes a project that would locate 715 feet, or one quarter of a mile, of sheetpile metal wall actually within ESHA; mostly on land owned by the California State Lands Commission and held in trust for the public. As proposed by the applicant, the project would permanently displace 3,000 square feet of dune rivermouth habitat and 450 square feet of Watsonville Slough wetland.

(2) The Pelican Point Riverwall Project is fundamentally inconsistent with numerous Coastal Act provisions.

The Pelican Point condominium development is precisely the type of ill conceived, inappropriately located coastal development that inspired passage of the Coastal Act. Although the existing development pre-dates the Coastal Act, it conflicts with virtually every provision of the Act. Any new projects associated with the development, such as the proposed riverwall, are certainly subject to the Coastal Act. The applicant's proposed river/shoreline protection project violates at least sixteen major Coastal Act provisions: Sections 30240 (a), 30240 (b), 30230, 30231, 30233 (a), 30233(c), 30210, 30211, 30213, 30221, 30223, 30235, 30240(b), 30251, and 30253. Approval of the project as proposed would make a mockery of the Act and set a troubling precedent for future shoreline protection requests.

(3) The Project must be denied and threatened portions of the Pelican Point development should be removed or relocated away from coastal and riverine hazards.

The Ocean Conservancy re: Pelican Point Riverwall
June 4, 2002
Page 4

The Ocean Conservancy urges the Commission to reject any further shoreline protection for the Pelican Point development. Instead we urge you to commence enforcement actions for any rip-rap and sand bags placed without a permit, to require removal of any and all structures located in ESHA, and to pursue a policy of managed retreat and relocation for any portions of this development that are threatened by coastal processes such as flooding and erosion.

The Pelican Point development was allowed to be built much too close to wetland, active rivermouth, and eroding beachfront areas. Over the years, efforts to shore up the development have failed to provide adequate protection and have come at a high cost to public lands, EHSA, special status species, the viewshed and coastal access. It is time to stop making the situation worse. Instead, we urge the Commission to pursue a long-term solution by denying any further river/shoreline protection at this site and requiring a plan for eventual managed retreat.

Thank you for your consideration of these comments.

Sincerely,

Kaitilin Gaffney
California Central Coast Program Manager

DC

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MAY 29 2002

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

D. J. Riesenhuber
237 Mistletoe Road
Los Gatos, CA 95032
del@bardel.com

Item Number: Th10e
Hearing Date: 6/13/2002
Application Number: 3-01-111
Pelican Point Riverwall

Opposed to this project

May 28, 2002

California Coastal Commission
Central Coast District Office
725 Front Street, Suite 300
Santa Cruz, CA 95060

I am opposed to this project in its present configuration for the following reasons:

1. The height of the proposed riverwall is several feet higher than the present wall. It is not "slightly" higher as stated: (*page 13., Item B. Project Description*). In front of building C the proposed wall is several feet higher than the existing wall. This increased wall height will have a negative impact upon the view of the beach from units in the C building on the ground floor that sit back from the riverwall. (From Pelican 50 and 51 the lost view is severe.)
2. Because the height of the wall will limit the beach view from the condominium side of the wall, it will cause small children who play upon the beach to be invisible to their parents (or grandparents) from behind the wall. This situation creates a life threatening condition to the children.
3. The plan as presented does not appear to address pedestrian access to the beach area on the south side of the wall. At present our children can easily cross the wall at almost any point and safely play upon the beach. The proposed wall appears to ignore this very critical beach access.
4. Pelican Point condominiums are used almost exclusively by those who are there to use and enjoy the beach. The proposed riverwall will deny a significant aspect of that enjoyment..

Proposed changes to the riverwall that would overcome my objections:

1. Reduce the height of the wall in front of the C building to be no higher than the existing wall. In my observations the wall height should be reduced a minimum of 2 feet at this location.

CCC Exhibit 6
(page 12 of 24 pages)

2. Provide numerous pedestrian access stairs over the wall. At present there are only 2 access stairways crossing the existing wall, but this is unimportant since the wall can be crossed at any point since it is approximately level with the sand. The proposed new wall will not afford this access, thus requiring a minimum of 6 access stairways spaced at approximately equal distances along the wall.

I strongly believe that repairs to the existing wall are required, and while the proposed sheet pile wall may be the best answer, the environmental impact has not been adequately addressed as noted above. I have voiced these concerns to the board's of directors of both the Pelican Point Homeowners Association and the GHAD at many meetings. I have also raised these concerns with several members of the Santa Cruz County Board of Supervisors. Apparently, they all have chosen to ignore my concerns.

I urge the Coastal Commission to take this matter under serious consideration and act to protect the interests of all who will benefit or suffer from this proposed project.

Regards,



Del Riesenhuber
Owner of Pelican 51

PDGHAD

PÁJARO DUNES GEOLOGIC HAZARD ABATEMENT DISTRICT

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JUN 11 2002

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

June 6, 2002

California Coastal Commission
45 Fremont St. Suite 2000
San Francisco, CA 94105-2219

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JUN 10 2002

CALIFORNIA
COASTAL COMMISSION

Re: CDP 3-01-111

Dear Sirs:

As Chairman of the Pajaro Dunes Geologic Hazard Abatement District (GHAD), I write this letter in support of the Pelican Homeowner's Association's (PHOA) application for the approval of their requested straight-line riverwall repair design. The PHOA design is much sounder environmentally than the CCC's staff recommendation of an undulating wall. The straight-line wall requires only half the construction footprint of the undulating wall, it can be constructed in one construction season, (rather than two construction seasons), and it will cause much less turbulence than the undulating wall. It also retains the seismic protection originally included, rather than losing it with the State's proposed design.

PHOA has faithfully designed the repair project with great concern for this sensitive environment and for the past three years, and has done so, based on an agreement with the State Lands Commission that the needed 2800 S.F. would be either leased to PHOA or traded for the same kind of beach property that PHOA has available. In fact the land PHOA has to trade is more sensitive environmentally and could be almost one and a half times the size of the land PHOA needs. Additionally, PHOA has offered some 11,000 S.F. of land for a conservation easement.

The Coastal Commission Staff's decision in May to cause the redesign of this wall, after two and a half years of planning, and expenditure of nearly \$500,000.00, would postpone this project at least another year and require two construction seasons. The existing wall, as stated by the Santa Cruz County Geologist, is weak and could not stand another series of heavy winter storms.

The GHAD will be maintaining the repaired riverwall and it is critical that the repair design be able to withhold all the current wood pilings and rip-rap inside the wall and not allow migration on the State Beach.

CCC Exhibit 9

(page 14 of 24 pages)

As Chairman of the Pajaro Dunes Geologic Hazard Abatement District, I strongly urge the Commissioners to approve the better version and more environmentally sound repair project which is the straight-line wall proposed by the PHOA. Thank you for the privilege of expressing the GHAD preference to the repair design of this important project.

Sincerely,



John Lundell
Chairman
Pajaro Dunes Geologic Hazard Abatement District

CC: Dan Carl
California Coastal Comm.
725 Front St. Suite 300
Santa Cruz, CA 95060

CCC Exhibit 6
(page 15 of 24 pages)

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JUN 10 2002

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

June 7, 2002

California Coastal Commission
45 Fremont St. ASuite 2000
San Francisco, CA94105-2219

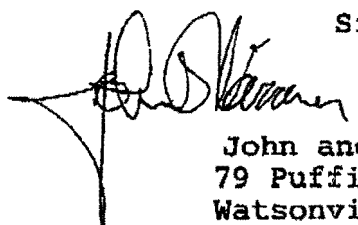
Gentlemen,

Since 1977 we have lived at Pajaro Dunes and have been part of the Point Reyes Bird Observatory's Snowy Plover Project. We have monitored and studied the Monterey Bay population during that 25 years and are federally permitted to do so for this threatened species. We have worked in close cooperation with USF&W and with the California Dept. of Parks and Recreation. We are well known as experts on this bird.

We are writing to urge you to adopt the plan of the Pelican Point Homeowners to improve the seawall in front of their property. The straight line seawall is environmentally preferable to the undulating seawall suggested by your staff, would look better and take less time to construct and have less impact on the birdlife on the Pajaro spit. In either event we believe there will be no impact on our resident flock of Snowy Plovers.

For the last several years a large portion of the Pajaro Spit has been fenced off for Snowy Plovers during the nesting seasons. The Pelican owners have been very cooperative and have actively protected the area and prevented children and others from violating the area. We are all here because we value this special place and care for our environment. The Pelican owners deserve to be able to protect their property in the most appropriate way, namely their straight wall seawall.

Sincerely,

 & Jane C. Warriner
John and Jane Warriner
79 Puffin Lane
Watsonville, CA95076CCC Exhibit 6
(page 16 of 24 pages)

LEO W. RUTH, C.E., Arch.
101 Shell Drive
Watsonville, CA - 95076-9605

RECEIVED

June 7th, 2002

JUN 10 2002

California Coastal Commission
45 Fremont St., 20th Flr.
San Francisco, CA - 94105-2219

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

Re: PHOA repair/replacement river wall (CDP#3-01-111)

Dear Commissioners:

I respectfully urge you to approve the PHOA's submitted plan for the repair/replacement of the existing river wall at the junction of the Watsonville Slough, Pajaro River and Monterey Bay.

I am a retired civil engineer/architect and have been a permanent resident of Pajaro Dunes since 1979. The high tides of 1983 with dune erosion and then the flooding of subsequent years are all very realistic to me. I recently completed a four year term on the Santa Cruz County Planning Commission and so am acutely aware of the problems we have in Santa Cruz County protecting our coast line.

Over the past several years the PHOA has made extraordinary efforts retaining engineering and environmental consultants, negotiating with various governmental agencies including the State Lands Commission and has prepared a plan which is feasible and practical with minimum impact to the wetlands and the community. Variations in the wall alignment have been suggested but in my opinion this would create an undesirable flow condition, lengthen the construction period and be more expensive.

Thank you for your anticipated approval PHOA's plan as submitted.

Very truly yours,



Leo W. Ruth

xc: Dan Carl

CCC Exhibit 6
(page 17 of 24 pages)

June 11, 2002

Don Carl
Coastal Planner

California Coastal Commission
Central Coast District Office
725 Front Street, Suite 300
Santa Cruz, CA 95060

FAX: (831) 427-4877

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JUN 11 2002

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

**RE: Pajaro Dunes Riverwall Project
Public Hearing June 13, 2002**

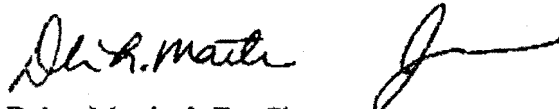
Dear Mr. Carl,

We are writing in regard to the upcoming hearing, June 13, 2002, addressing the Pajaro Dunes Riverwall project. We are Pelican Point Homeowners (unit #82). We are VERY much in favor of proceeding with the project as outlined in the current project plan submitted by Pajaro Dunes Homeowners Association.

We are directly impacted by your decision and are very much concerned about any further delays in this project or any additional assessment costs to homeowners. The plan as it currently stands has been thoroughly reviewed to ensure that it is environmentally a solid plan and we are fully in support of it. As Homeowners, we love the beach and want to protect the environment as much as we can and we feel this plan serves the entire community well.

We urge you to adopt the plan as it is currently being proposed by the Homeowners Association (without the undulating wall) with no further delays.

Regards,



Debra Martin & Jim Clayton
Pelican #82

Cc: Fred Hodder - Pelican Homeowners Association Representative

CCC Exhibit 6
(page 18 of 24 pages)

2504 East Birch Avenue

Carmel, CA 95011

June 11, 2002

California Coastal Commission
Central Coast District Office
725 Front Street, Suite 300
Santa Cruz, CA 95060

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JUN 12 2002

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

Dear Members of the Coastal Commission,

I am sorry that I have misplaced the proper document with the necessary information for this project. In my haste, I could not find the letter I held in my hand yesterday.

After 4 1/2 years of effort directed to getting the riverwall repaired, we shall be seeking Coastal Development Permits as required.

We hope that the Pelican proposed project, which is acceptable both environmentally and cost-wise, in regard to construction time, will be accepted. It will be a much more cost effective project of the riverwall's repair. If it is disapproved, we may lose our property, which we love, with respect to the fees incurred in this project. We would not be able to sustain the increased fees involved in a costly construction.

Please give us due consideration, as well as all homeowners of Pelican Point at Pajaro Dunes. Thank you for your assistance.

Sincerely,



Dennis and Winnie Nishimine
Pelican Point Homeowners

Dan Carl

E-mail received

From: Winnie Nishimine
Sent: Saturday, June 08, 2002 9:36 PM
To:
Subject: Pelican Proposed Project

Dear Mr. Carl,

After 4 1/2 years of effort directed to getting the riverwall repaired, we shall be seeking Coastal Development Permits as required.

We hope that the Pelican proposed project, which is acceptable both environmentally and cost-wise, in regard to construction time, will be accepted. It will be a much more cost effective project of the riverwall's repair. If it is disapproved, we may lose our property, which we love, with respect to the fees incurred in this project. We would not be able to sustain the increased fees involved in a costly construction.

I am sorry that I do not have Coastal Commission's Executive Director, Paul Thayer's email address. Please forward this message to him. Thank you for your assistance.

Sincerely,
Dennis and Winnie Nishimine
Pelican Point Homeowners

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>.

CCC Exhibit 6
(page 20 of 24 pages)

✓
Dan Carl

From: E-mail received
Sent: Monday, June 10, 2002 4:23 PM
To:
Cc:
Subject: Pajaro Dunes riverwall project

This is in regard to the June 13, 2002 hearing on the Pajaro Dunes Pelican Point riverwall project proposal. I am a Pelican Point Homeowner's Association member , Pelican #55, and so I will be directly affected by the decision.

I want to point out that in all the developmental stages of the Association's plan the overriding concern was protecting the environment. The homeowners as a group want to maintain the pristine beauty of the area. Some work directly with State Rangers in protecting nesting birds, some are active in reintroducing native plants to the area and some do simple tasks such as carrying trash bags on their walks so they can pick up any litter they may encounter.

I urge you to approve the Pelican Point Homeowners Association's proposed project plan for the Pajaro River wall repair over the plan suggested by the Commission's staff. The Homeowners plan is superior in all respects. It is environmentally sound, cost effective and will take the least amount of construction time.

Marlene & Jim Grass
Pelican #55

CCC Exhibit 6
(page 21 of 24 pages)

Dan Carl

E-mail received

Sent: Friday, June 07, 2002 10:03 PM

To:

Subject: river wall

6/7/02

Paul Thayer

California Coastal Commission

Dear Mr. Thayer,

I urge you to accept the current plan for construction of a river wall at Pelican, Beach Road, in Watsonville. The current plan is environmentally safe and protective for the units present. The alternative plan is too costly for the small number of home owners to bear without special governmental subsidies. I will be forced to sell my unit if the alternative plan is enforced by your commission. Please consider the existing proposal in its entirety.

Sincerely yours,

Andrew Stein M.D.

owner of Pelican 26, Pajaro Dunes

CCC Exhibit 6
(page 22 of 24 pages)

6/10/2002

Dan Carl

From: Pat Flynn [pat@declan.com]
Sent: Tuesday, June 11, 2002 11:54 AM
To: dcarl@coastal.ca.gov
Subject: Pajaro Dunes riverwall

Dear Paul Thayer,

I am writing to express my support for the Pelican Homeowners proposal for repair of the existing riverwall at Pajaro Dunes as environmentally cost and time efficient. My husband, Michael and I are homeowners at Pelican 14.

Patricia Flynn

CCC Exhibit 6
(page 23 of 24 pages)

Dan Carl

From: bj sharkey [bjsharkeyiii@yahoo.com]
Sent: Wednesday, June 12, 2002 11:26 AM
To: dcarl@coastal.ca.gov
Subject: Pelcian Riverwall

Dear Mr. Carl,

We are emailing you for your support of the Pelican Homeowners Riverwall proposal. Our proposal is environmentally sound, cost effective. All the information is outlined in the proposal that has been sent to the Coastal Commission. The staff proposal seems counterproductive in numerous ways.

Since we are new to the world of computers, we have not been able to find the names of the commissioners or the email addresses. Would you see that our message gets to them, please? Is there any other plea that we as homeowners (Pelican 79) that we can make?

We appreciate your co-operation.

Sincerely,

Bill and Jeanne Sharkey

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CCC Exhibit 4
(page 24 of 24 pages)

6/12/2002

Th 10e

**Denise Duffy & Associates, Inc.**

PLANNING AND ENVIRONMENTAL CONSULTING

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June 11, 2002

JUN 12 2002

Chair Sarah Wan and
Members of the Coastal Commission
45 Fremont street, suite 2000
San Francisco, CA 94105

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

Subj: Pelican Riverwall Repair/Replacement Project, CDP # 3-01-111, Item Th 10e

Dear Chair Wan and Commission Members:

This letter is in response to comments on behalf of the Ocean Conservancy by Kaitilin Gaffney, Central Coast program manager. The Pelican Homeowners Association (PHOA) and its consultants, including John Kasunich of Haro Kasunich and Associates, Jean Ferreira of Elkhorn Native Plant Nursery and myself do not agree that the Pelican Riverwall is a "poorly planned, environmentally harmful and ultimately ineffective effort to stop shoreline erosion". The Pelican Riverwall project is a repair/replacement of an existing structure that will retain all rip rap from migrating onto the beach and avoid the need for additional emergency rock placement. The new sheetpile wall reduces "safety risks to the development and residents" and the design provides long-term stability to 100 year scour potential with minimal maintenance. The proposed straight line wall was determined to have no significant adverse impacts after mitigation under CEQA and all other resource agencies (Corps, USFWS, NMFS, CDFG, RWQCB) determined that the project as planned had no adverse effects on special status species, habitats, hydrology or water quality and issued appropriate permits, concurrence letters, agreements and certifications.

The PHOA Board and homeowners have had the best interests of Watsonville Slough, the Pajaro River and Monterey Bay environments as guiding principles for the design and construction of the riverwall. The wall has been designed to minimize the construction footprint and duration and require the smallest temporary access easement necessary. PHOA has recommended and been committed to substantial native habitat restoration of large areas currently dominated by non-natives, the trading of a larger area of more environmentally sensitive PHOA land for minor encroachment onto the State Beach and the establishment of a conservation easement along the west bank of Watsonville Slough for the length of their property.

PHOA shares the Ocean Conservancy's concern about special status species. However, black legless lizards, western pond turtles, Santa Cruz long-toed salamander and Monterey spineflower are not present in or adjacent to the site. The construction window (September 3 - December 20) avoids impacts to snowy plover and brown pelicans and is the least sensitive time for steelhead and tidewater goby. The very small area of Watsonville Slough (conservatively <450 SF and probably closer to 200 SF) that would be temporarily dewatered for 1-2 weeks will be performed in a manner recommended by PHOA and concurred by CDFG, NMFS and USFWS to have no adverse effect on steelhead and goby.

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947 Cass Street, Suite 5
Monterey, CA 93940

CCC Exhibit H
(page 1 of 14 pages)

The Zmudowski State Beach river mouth/dune area southwest of the construction zone that supports nesting plovers is one of 28 designated critical habitat areas in substantial part because of its relative isolation and the monitoring efforts of Pelican residents. The sheetpile wall repair/replacement will not affect existing access for the public or homeowners and will maintain the windswept beauty and sense of wildness. John and Jane Warriner, PHOA homeowners, have been monitoring plovers for 25 years in cooperation with USFWS and State Parks and they and other homeowners have watched fenced off nesting sites and actively protected them from harassment.

Oceans Conservancy states that "one quarter of a mile of sheetpile wall [would be] actually within ESHA". The proposed sheetpile wall would encroach upon State land for only 0.1 mile and occupy conservatively 2800 SF. Since the encroachment starts and ends at 0' in width, the actual encroachment may be considerably less. The majority of the straight line wall is still on PHOA property. The area of encroachment is a narrow strip of unvegetated sand adjacent the existing development that is of comparatively low habitat value. The project would not displace 450 SF of Watsonville Slough wetland, an area smaller than this will only be temporarily dewatered.

PHOA is negotiating with SLC to trade their beach land of higher environmental value located near the confluence of Watsonville Slough and the Pajaro River at 1 to 1.5 to 1. PHOA has also agreed to also record a conservation easement on the west bank of Watsonville Slough for the entire length of their property. This would put all lands outside of the riverwall and along Watsonville slough under public agency ownership or oversight. Sarah Bhaki and other Pelican homeowners are experienced restoration volunteers who are committed to restoring the coastal strand, native dunes between the buildings and wall and wetland/upland habitat along the west bank of Watsonville Slough for a substantial net gain in habitat value. This land trade, conservation easement and restoration more than offsets for a <0.06 acre strip of encroachment onto State land.

The Ocean Conservancy has indicated that the Pelican Riverwall project is inconsistent with numerous Coastal Act provisions, without supplying the rationale. We refer you to PHOA's detailed comments to the Commission staff report that were provided to each Commissioner, which address these Coastal Act sections. As stated above, the project has no significant impact on special status species, habitats, hydrology and water quality. The land trade, conservation easement and restoration more than offset encroachment onto low value designated ESHA and State land. The wall will be aesthetically more attractive than the existing pile and wood lagging wall because it will be solid (no horizontal artificial lines), painted a sand color to blend in with the beach and have native dune plants cascading over the top to break up the line and blend with the dune restoration behind it. Public access will remain unaffected from existing conditions.

The Ocean Conservancy also believes the project "must be denied and threatened portions [buildings] of the development should be removed or relocated away from coastal and riverine hazards...and pursue a policy of managed retreat and relocation. Coastal Act Sections 30235 and 30253 allow for walls to protect existing development and to minimize risk of life or property in areas of high geologic or flood hazard. The proposed straight line Pelican Riverwall does "stop making the situation worse". It makes the situation better for the following reasons:

CCC Exhibit H.
(page 2 of 14 pages)

- land trades and easements consolidate most sensitive habitat into public ownership/oversight
- less short-term environmental impact because of much smaller footprint and construction duration which can fit into one construction season
- restoration of dunes, slough and coastal strand results in net native habitat gain
- aesthetically is more attractive than the existing wall
- maintains public access while protecting remoteness and habitat value for birdlife
- protects Pelican Point homes from flooding, scour and erosion
- rectifies need for emergency rip rap or migration of rip rap onto the beach
- engineered design has a long life and is easily maintained
- can be constructed this year to avoid the potential damage to homes or need for additional placement of emergency rock protection.

Therefore, we request that the Commissioners carefully consider the net benefits of the PHOA proposed Pelican Riverwall Repair/Replacement project relative to the existing conditions, benefits which we believe are consistent with the provisions of the Coastal Act. PHOA homeowners share The Ocean Conservancy's concern for Monterey Bay, Watsonville Slough and the Pajaro River and are committed to be good stewards of their land and the adjacent beach and slough. On behalf of the PHOA as their authorized representative, I urge you to approve the proposed Pelican Riverwall Project.

Sincerely,

Gary Halsey

Gary Halsey

Principal Environmental Scientist/Planner

DENISE DUFFY & ASSOCIATES

HARO, KASUNICH AND ASSOCIATES, INC.

CONSULTING GEOTECHNICAL &

5 June 2002

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JUN 05 2002

Dan Carl, Staff Planner
 California Coastal Commission
 Central Coast District Office
 725 Front Street, Suite 300
 Santa Cruz, California 95060

CALIFORNIA
 COASTAL COMMISSION
 CENTRAL COAST AREA

Subject: **Comments on the Staff Report for the Pelican Point Riverwall
 Repair/Replacement Project (CDP#3-01-111, Agenda Item Th10e)**

Dear Dan and Coastal Commissioners:

The Pelican Homeowners Association (PHOA), as the applicant, wishes to thank you for preparing a very detailed staff report on the proposed project in time for this project to make the June 13 agenda of the California Coastal Commission Hearing. It is critical that the project be approved in June so that the steel can be ordered in time for the fall construction window this year to avoid sensitive species and so that the badly damaged existing wall can be repaired/replaced and future continued emergency placement of rip rap can be avoided.

The following comments were consolidated from the PHOA board, individual members (coordinated by Fred Hodder as PHOA representative for the project); the applicant's environmental and permitting representative (Gary Halsey of Denise Duffy & Associates); and the project engineer (John Kasunich of Haro, Kasunich and Associates). Consolidation of all the comments from the applicant into one package is intended to provide one coordinated response to the staff report for the benefit of Coastal Commission Staff and Commissioners. An original copy of these comments has been sent to you at the Santa Cruz office and copies have been sent directly to the Commissioners and Alternates.

PHOA has summarized its reasons for requesting Commission approval of the straight line wall as proposed over the staff recommended undulating wall on one cover page to our comments titled **Major Points in Favor of a Straight Line Wall**. Following this summary page is eight pages of specific comments on the 28 page staff report, hearing notice and exhibits, titled **Page by Page Comments on the Staff Report by PHOA and its Representatives**. In general, PHOA accepts most of the conditions recommended in the staff report (the majority of which were proposed by us), but with some refinement to the conditions of the Restoration Plan to make it more practicable and achievable. We believe that the same mitigation measures that make the undulating wall consistent with the Coastal Act would also make the proposed straight line wall consistent.

The primary basis for the staff report finding in favor of the undulating wall is the reduction in the minor amount of encroachment (<2,800 SF or 0.06 ac) onto a thin strip of mostly bare State Beach adjacent the homes. The staff report does not weigh this against the many other environmental, engineering, constructability and economic advantages of the

CCC Exhibit H
(page 4 of 14 pages)

Mr. Dan Carl
Pelican Point Riverwall Repair/Replacement Project
5 June 2002
Page 2

proposed straight line wall. The proposed straight line wall is easier, faster and less expensive to construct; removes all rip rap from visibility or retains it from entering the beach; results in less short-term environmental impacts due to its small construction footprint and duration; provides land trades and conservation easements to more than offset minor encroachment; and provides an appreciable net gain in restored native habitats.

On behalf of the Pelican Homeowners Association, we urge the Commissioners to support the proposed (straight line) Pelican Riverwall Repair/Replacement project. PHOA wants to assure the Commission that after the wall and restoration are completed that the area will be more attractive, provide better habitat and avoid the need for future emergency repairs, while protecting our homes from ocean and river scour and erosion.

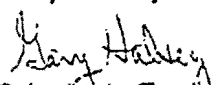
If you have any questions, need any additional information or wish to discuss these comments, please call Fred Hodder at (209) 667-8169, Gary Halsey at (831) 373-4041 or John Kasunich at (831) 722-4175.

Sincerely,

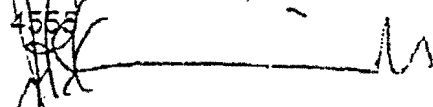
Fred Hodder


Pelican Homeowners
Association

Gary Halsey


Principal Environmental
Scientist/Planner
Denise Duffy &
Associates

John Kasunich, G.E.


Principal Engineer
Haro Kasunich and
Associates

31 May 2002

Coastal Development Permit (CDP) # 3-01-111 Agenda Item 10E
Pelican Point Riverwall Repair/ Replacement

Major Points in Favor of a Straight Line Wall

The 87 owners of the PHOA proposed a straight line wall which has several advantages over the staff recommended undulating wall.

- Half the construction foot print and almost one half the construction duration, (one construction season), removes less existing vegetation, thereby having less environmental impact.
- Will retain all of the existing pile and wood lagging wall and rip rap on the inboard side and prevent any of these materials from migrating onto the beach.
- The removal of the existing wall below -2 NGVD on the riverside of the undulating wall would be extremely difficult.
- Does not require crossing the existing wall in 5 locations where piles and rip rap are not easily removed and could affect constructability.
- The proposed revegetation plan provides for conversion of a substantial area of non-native habitat to attractive native dune, wetland and upland habitats along the wall and Watsonville Slough, resulting in a net gain of vegetated habitat.
- The proposed straight line wall in combination with preservation of the existing wood wall, tiebacks, waler and deadman anchors would retain the existing level of seismic protection and provide a greater level of additional protection than the undulating wall alone.
- The straight wall causes minimum turbulence, the undulating wall creates potential turbulence with deeper scour and more erosion, resulting in increased denudation of the re-vegetated beach.
- Requires less than 2,800 square feet of encroachment onto unvegetated State Beach for which PHOA can trade more than 1:1 with SLC for a net gain of State land, and further compensated with an over 11,000 square foot conservation easement along Watsonville Slough.
- Is, at a minimum, \$700,000 less expensive than undulating wall, excluding two potential construction mobilizations. Proposed wall costs each owner \$45,000 and the undulating wall will cost each owner over \$60,000. No public funds will be used.
- The proposed straight line wall is therefore easier, faster and less expensive to construct; retains all piles and rip rap from migrating on the beach; results in less short-term environmental impacts; provides greater seismic protection and less scour turbulence; offers land trades and conservation easements to offset minor encroachment; and provides an appreciable net gain in restored native habitats.

4 June 2002

Coastal Development Permit (CDP) # 3-01-111
Agenda Item No: Th 10E
Pelican Point Riverwall Repair/ Replacement Project

Page by Page Comments on the Staff Report by PHOA and its Representatives

Page 1 of Notice Applicant(s)

Pajaro Dunes Homeowners Association is not an applicant.

Page 1 of Notice and Page 1 of CDP Application Item No. 10E Project Description

Add to the project description "Repair an existing 630 linear feet wood pile and lagging wall by installing ..." to clarify the project is the repair/replacement of an existing wall.

CDP Application Item No. 10E, page 1 Summary

Pajaro Dunes/Pelican Point is not totally an urban anomaly because just north of Palm Beach State Park is the larger 309 unit Shorebird development.

Page 2 ¶ 2

Existing public access from Zmudowski State Beach would not be changed. The proposed project results in no significant impacts and is consistent with the policies of the Coastal Act, as further discussed in the following comments.

Page 2 ¶ 5

Both the undulating and the straight line wall alternatives would "be considered a repair/restoration project inasmuch as it would be correcting a pre-Coastal Act anomaly..."

The proposed project actually results in less impact than the undulating wall because it occupies one half the construction footprint and can be completed this year (in 2½ months). The proposed project is a repair/restoration project that will result in a substantial increase in native dune and wetland scrub habitat and includes conservation easements and other dedications for permanent protection of these resources.

page 5 Conditions of Approval, Special Conditions, (b) Removal of Structures

The contractor cannot physically remove all piles and rock below water level and the undulating sheet pile wall can not be driven through piles and rock that could remain.

(c) Construction Time Frame

All other permits would allow construction between 4 September and 31 December, (December 20 for Watsonville Slough); therefore, we request the same time frame in case of inclement weather or delays.

page 6 Revised Restoration Plan

Pelican Homeowners Association (PHOA) supports the intent of the Commission staff that restoration efforts result in the establishment of native dune, strand and wetland vegetation that provides both habitat and aesthetic values. However, we believe that some of the conditions are unnecessarily burdensome or, in some cases, inappropriate, based on the advice of our restoration experts.

(a). Expanded Restoration Area Adjacent Sheetpile Wall

The indicated areas on the outboard side of the undulating wall should not be restored as dune vegetation as they are river bar which would scour out every winter. This area should be restored as coastal strand only, and will always naturally be mostly devoid of vegetation.

(b). Expanded Restoration Area Adjacent to Watsonville Slough

PHOA has offered to remove non-native vegetation within the conservation easement along the west (right) back of Watsonville Slough and replant with native wetland shrubs and upland shrub-scrub vegetation as a condition of the proposed project.

(c). Coastal Strand

The Coastal strand vegetation within the construction work zone typically has <10 percent cover. The best way to restore this area is with native dune grass plugs in select mounds and broadcasting seeds of coastal dune shrubs over this wide area. The existing cover of adjacent coastal strand vegetation can easily be achieved in this way over a large area. Planting native shrubs by plugs would only be practicable if it was a smaller area and not subject to scour.

(d). Cascading Vegetation

No native dune plant species endemic to the area are known to trail or cascade an average of ≥ 5 feet ('). Beach bur will be added to the planter mix. An average cascade of >1' would more than offset the <1' increase height of the new wall.

(e). Reference Plots

There are no reference plots for cascading vegetation and probably no undisturbed sites for tidally influenced lower Watsonville Slough. Success criteria can be established for these areas without reference plots, if no suitable ones can be found.

(f). Interim Success Criteria

Interim success criteria for years 1, 2 and 3 are proposed (rather than every year). If the Restoration Plan's success criteria are met in year 5, then monitoring in years 7 and 10 can be used checks to assure the year 5 criteria are still being met. Because coastal strand vegetation at this site is typically scoured annually, there should be no requirement for maintenance of this habitat type.

(g). Signage and Trails

Agree with condition, but recommend roped off sand paths rather than boardwalks for unit access to the existing boardwalks between buildings and the new boardwalk behind the wall.

page 7 (h). Monitoring

See (f) above. PHOA recommends biannual monitoring year 1 and annual monitoring years 2, 3, 5, 7 and 10. If performance criteria are not being met, than monitoring could be increased to quarterly the first year and biannually in other years until performance criteria are being met. Quarterly monitoring for the life of the project is overkill.

(k). Timing and Phasing

The Watsonville Slough conservation easement can be restored concurrent with construction. Timing of restoration of the construction area and the dunes between buildings and the wall should be at the best planting time for survival within the year following construction.

page 8 (l) As-Built Plans and Planting Complete

To clarify, as-built restoration plans should identify each area planted by habitat type and the date planted, not by individual plantings. Minor changes to the revised restoration plan should be approved by the staff biologist/restoration specialist, and not require an amendment to the CDP.

Page 8 item 3 Conservation Easement

We plan to obtain the easement on or before 4 September and reserve the right to trade the PHOA owned beach point (southeast of the existing wall) with the State Lands Commission (SLC) at 1:1 or greater to offset the minimal encroachment onto State beach land.

Page 10 (b) Sheetpile Wall Screening

See comment on page 6 item 2(d). The new wall is <1 foot higher than the existing wood lagging and pile wall and is painted a sand color. Therefore, it would be less visible than the existing wall. As stated on comment to Item 2 (b) no native dune plants cascade ≥ 5 feet.

(c) Sheetpile Wall Maintenance

A CDP should not be required for routine inspection, painting, replanting and other maintenance that does not require the mobilization of heavy equipment on the beach or structural alteration of the wall.

Page 11 A. Project Location and Background

The staff report suggests that the Pelican Point/Pajaro Dunes residential development occupies the former (i.e. undeveloped) sand spit area between the Pajaro River and Watsonville Slough. The property has been actively used since the turn of the century, including a resort, casino, pier, race track and army training area.

Considerable trash and debris was cleaned up when the condominiums were built. Potential efforts to condition the project to give up private property with the undulating wall alternative because the original development is a pre-Proposition 20/pre-Coastal Act development and the area was believed to be natural prior to the development are therefore inappropriate.

page 12 ¶ 1

The staff report states that a majority of the proposed wall project will be on State land. A substantial portion of the west and east ends of the proposed wall are entirely on PHOA land.

page 12 ¶ 2

The tiebacks are to "deadman" anchors not the condominium pilings.

page 13 ¶ 3 Project Description

The 85' section along Watsonville Slough was required by FEMA in the "No-Rise" study to avoid any increase in the 100 year flood elevation. The existing wall would not be backfilled, it will be cut off at ground level and covered with a boardwalk.

page 13, first bullet

Construction is limited by resource agencies to September 4th to December 31st (December 20th for Watsonville Slough), not September 15th through December 15th.

page 14, first bullet

PHOA has been negotiating with the SLC with the intent of trading the estimated 2,800 square feet (SF) of encroachment on State land for wall completion with 2,800 SF or more of similar land owned by PHOA. In addition, PHOA, as part of its proposed project, offered approximately ¼ acre along the west bank of Watsonville Slough as a conservation easement. This staff report miscalculates this area as "over about an acre".

page 19 ¶ 2 Project Area Coastal Resources

Western pond turtles, Santa Cruz long-toed salamanders and Monterey spineflower are not present in or immediately adjacent to the site. Steelhead trout, snowy plover and brown pelican are only seasonally present adjacent the construction area. The 2,800 SF of coastal strand is essentially unvegetated and of limited habitat value due to its proximity to the condominiums. Project timing and mitigation measures avoid impacts to sensitive species and critical habitats. The project results in a net enhancement of native dune and Watsonville Slough wetland/upland habitat. CDFG, USFWS, NMFS, RWQCB and Corps have all concurred there would be no adverse effect and support the restoration plan. Since there is no significant impact and a net gain in habitat, the proposed project with restoration, land trade and easements is consistent with Coastal Act sections 30240 and 30253.

Page 19 ¶ 5 Project as Proposed Inconsistent with the Coastal Act

The proposed wall would only displace 2,800 SF (or less) of river mouth area (not

3,500 SF) that PHOA has agreed to trade 1:1 with SLC for the PHOA owned point. The 450 SF of wetland in Watsonville Slough would not be permanently displaced, it would only be temporarily dewatered for a few weeks.

Page 20 ¶2 Public Access

The overall reduction in State Beach is very minor (a thin linear 0.06 acre strip of the 12-15 acres north of the Pajaro River during low flows) and would have no noticeable effect on public access, use by wildlife, the feeling of windswept remoteness or overall size. The riverwall repair/replacement does not change the existing access conditions and therefore cannot be considered inconsistent with Coastal Act Section 30212.

Page 20 ¶4 and page 21 ¶1 Public Viewshed Impacts

See comments to Page 6 item (d) and Page 10 item B. The proposed wall averages less than 1' taller than the existing river wall, which is an obvious man-made feature with horizontal wood lagging. The proposed outboard sheet pile wall would be sand colored and less visible at a distance than the existing wall. Native dune plants would also trail or cascade over the top of the wall, breaking up the top line and blending with the dune plants behind them. Since the new wall would be less visible than the existing wall, the project would be consistent with Coastal Act Sections 30251 and 30240(b).

page 21 ¶2 Temporary Impacts/Conservation Easement

The proposed straight line river wall only take 2 to 3 months to construct and can be completed in one construction season during a much less sensitive construction window. Combined with construction BMP's the temporary impacts to biological resources and water quality are short-term and less than significant. The CCC staff proposed alternative would require twice the construction footprint and twice the duration (two construction seasons) and result in substantially more temporary impacts. PHOA is willing to voluntarily remove non-natives and restore with native wetland and upland plants their proposed Conservation Easement along the west bank of Watsonville Slough to offset effects of the proposed straight line riverwall.

Page 21 ¶3

The FEMA "No Rise" Study requires the construction of the 85' of new wall along Watsonville Slough to prevent any rise in the 100 year flood elevation. The new section of wall would also protect Building D and be built entirely upon PHOA property. The west bank of Watsonville Slough is probably finer grained than typical coarse beach sand, and probably contributes negligibly to beach sand nourishment.

Page 22 ¶1,2 and Page 25 ¶1 Assured Long-term Structural Stability and Liability

The proposed riverwall king piles would be driven about 60' deep and sheet piles over 30' deep. This is much more structurally stable than the existing wall with

pilings that average <30' deep and lagging about 10' deep. Therefore additional

armoring will not be necessary in the future. The proposed wall also corrects deficiencies in the existing wall that result in the emergency placement of rip rap and migration of this material onto the beach, as well as inadequate protection to existing residential development. Therefore the proposed wall is consistent with Coastal Act Section 30253.

PHOA recognizes the geologic risks of the site. They have formed a GHAD and are paying for the cost of the river wall at no public cost. PHOA agrees to waive any claims of liability on the part of the Commission to allow the river wall project to proceed and therefore no questions of consistency with Coastal Act Section 30253 are raised.

page 23 ¶3 Alternatives Considered

Regardless of whether the proposed straight line or the staff recommended undulating wall is approved, there will be a substantial net habitat gain, primarily because of the native restoration of the dunes between the buildings and the wall and the west bank of Watsonville slough. The revegetation of coastal strand outside of the wall would result in only about 10% seasonal vegetative cover of limited habitat value.

page 23 ¶4 Construction Season

Due to presence of fledgling snowy plover and other potential special status species, the earliest construction start up date is September 4th, not August 15th. The alternative undulating wall would take two construction seasons and occupy twice the footprint.

page 24 ¶2

The primary reasons PHOA and its engineer and environmental scientist representatives prefer the proposed straight line wall project are listed on the cover comment sheet (Major Points in Favor of a Straight Line Wall). Cost is an additional, but not the primary factor. The estimated cost for the proposed wall is \$2.1 million, not \$1.5 million and for the undulating wall \$2.8 million, not \$2 million. The increased cost of the undulating wall alternative is estimated at \$700,000, not \$500,000 or 33% more expensive (excluding the cost of a second mobilization). The cost of the proposed wall is \$45,000 per individual owner, and over \$60,000 per owner for the undulating wall. No public money would be used for this project.

page 24-25 ¶3 Approvable Project

The proposed straight line wall project results in 550 LF of encroachment onto State Beach vs. 200 LF with the undulating wall. Neither alternative encroaches permanently upon Watsonville Slough.

Page 26 ¶2,3

The proposed wall has been designed to assure no additional armoring will be

required in the future. PHOA also accepts liability and will monitor and maintain the proposed wall as needed (see comment on page 22 ¶1, 2 and page 25 ¶1). PHOA agrees to no further encroachment on the river/slough side of the proposed sheet pile wall, consistent with Coastal Act Section 30253.

Page 26 ¶4

PHOA is diligently pursuing a trade or lease agreement with SLC. DPR has given its consent and approval for the project subject to conditions that PHOA has agreed to meet and are contained in this and other permits.

Page 26 ¶5

The staff report suggests that the restoration of 1000 SF on the river side of the undulating wall alternative will mitigate for inadequate access due to the existing pre-Proposition 20/pre-Coastal Act (Pajaro Dunes) development. This project is not required to address pre-Coastal Act access issues. Restoration of 1000 SF of coastal strand will not change the existing limited public access from Beach Road. Both the proposed straight line wall and alternative undulating wall have no effect on existing public access (see comment on page 20 ¶2). In order to maintain the experience of wind swept remoteness and the habitat value of the Pajaro River mouth/lower Watsonville Slough area for many wildlife species, the existing public access should be maintained.

Page 27 ¶2, and Alleged Violation ¶3, 4

The proposed straight line wall is also a repair/restoration project which corrects for design inadequacies of the existing wall relating to scour. It also corrects for alleged violations due to emergency placement of rip rap with missing CDPs by preventing rip rap and pilings from migrating onto the State Beach, removing any old pilings and rip rap from sight and all rip rap on the outboard (beach) side of the wall, and eliminating the need for additional emergency placement of large rock. The proposed wall also restores coastal strand in the construction area on the river side of the wall, as well as coastal dune habitat between the buildings and the wall and wetland scrub/upland shrub habitat along the west bank of Watsonville Slough. [The net restoration area is the same, but the straight line wall provides for more densely vegetated coastal dune habitat that is not subject to scour, the undulating wall provides for slightly more mostly bare coastal strand subject to regular scour]. See also response to page 2 ¶5.

Page 28 CEQA

The staff report suggests that the proposed project has significant adverse environmental effects which the modified alternative would avoid. The Initial Study/Mitigated Negative Declaration found that all potential impacts of the proposed (straight line wall) project could be mitigated to less than a significant level, based on significance criteria applicable to CEQA. The Pelican Point Riverwall Repair Project Alternatives Analysis also ranked the proposed straight line wall project as the preferred project over the undulating wall alternative. While the undulating wall alternative reduced the minor amount of State Beach encroachment, the proposed

straight line wall had fewer construction environmental impacts, higher construction feasibility and reduced costs. Other impacts were ranked the same for the straight line and undulating wall alternatives.

In general, the staff report suggests that the proposed project with PHOA proposed mitigation measures is inconsistent with the Coastal Act, then uses the same mitigation measures to find that the undulating wall alternative is consistent with the Coastal Act. The primary basis for this finding appears to be the reduction in the minor amount of encroachment onto mostly bare State Beach. The staff report does not weigh this against the many other environmental, engineering, constructability and economic advantages of the proposed straight line wall.



RECEIVED

August 13, 2002

AUG 14 2002

Dr. Charles Lester, Acting Deputy Director
California Coastal Commission
Central Coast District Office
725 Front Street, Suite 300
Santa Cruz, California 95060

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

Subject: **Pelican Point Riverwall Repair/Replacement Project (CDP #3-01-111)**
Submittal Items for Pending Hearing

Dear Charles,

The Pelican Homeowners Association (PHOA), as the applicant, wishes to thank staff for the opportunity to prepare and submit updated technical studies concerning the riverwall repair/replacement project. The additional reports seek to identify and assess the environmental and construction feasibility issues associated with the project and give the Commission the utmost information possible before making a decision.

Included with this submittal package is a project comparison matrix highlighting the important issues associated with the project, a letter submitted by Granite Construction detailing the construction issues associated with the demolition of the existing wall, a construction feasibility report prepared by Project Engineer John Kasunich, and a report detailing an Emergency Preparation Plan for the unrepaired riverwall for the upcoming winter season. Also included are two letters of recommendation for the applicants proposed riverwall repair, one issued by County of Santa Cruz Supervisor Ellen Pirie, and the other from Fred Keeley, Speaker pro Tem of the Assembly.

If you have any questions, need any additional information or wish to discuss these comments, please call me at (949) 581-2888.

Sincerely,

David B. Neish
President

Exhibit I
Page 1 of 20

CDP 3-01-111 Riverwall Repair/Replacement Comparison Matrix

Proposed Wall	Construction Issues	Construction Time								
<p>Applicant (PHOA) Proposal</p> <p>The applicant proposes construction of a steel sheet pile wall located immediately outside the existing wall. The location of this wall would stabilize and reinforce the old wall and prevent any further encroachment onto State Beach.</p>	<ul style="list-style-type: none">• The applicant proposes to install a driven sheetpile wall supported by steel I-beam "king piles" on the river side of the existing wooden wall.• The wall would run linearly roughly 715 feet, with roughly 85 feet of that for a new return section extending upcoast along the Watsonville Slough.• The existing wall would remain in place and would be covered with backfill.• All existing rip-rap materials on the riverside of the existing wall would be removed and either used for backfill purposes inland of the sheetpile wall and/or removed off site.• The proposed sheet pile wall, in combination with the preservation of the existing wood wall, tiebacks, waler and deadman anchors would retain the existing level of seismic protection.• The applicants proposal will retain all of the existing pile and wood lagging wall and rip-rap on the inboard side and prevent any of these materials from migrating onto the beach.	<table><tr><td>1. Mobilize and Predig Alignment</td><td>2 weeks</td></tr><tr><td>2. Existing Pile Removal at Building D</td><td>1 week</td></tr><tr><td>3. Pile Driving – 715 @ 20 feet per day</td><td>7 weeks</td></tr><tr><td>4. Demobilize, repair damage to exposed coating and cutoff pile tops.</td><td>2 weeks</td></tr></table> <p>Total Time Estimate 12 Weeks/ 1 Construction Season</p>	1. Mobilize and Predig Alignment	2 weeks	2. Existing Pile Removal at Building D	1 week	3. Pile Driving – 715 @ 20 feet per day	7 weeks	4. Demobilize, repair damage to exposed coating and cutoff pile tops.	2 weeks
1. Mobilize and Predig Alignment	2 weeks									
2. Existing Pile Removal at Building D	1 week									
3. Pile Driving – 715 @ 20 feet per day	7 weeks									
4. Demobilize, repair damage to exposed coating and cutoff pile tops.	2 weeks									
<p>Coastal Staff Proposal</p> <p>Staff is recommending construction of a new wall located inland of the existing wall entirely on private land. The existing wall would be demolished and the condominiums would require underpinning before commencing construction.</p>	<ul style="list-style-type: none">• Construction of a replacement wall on the inland side of the existing riverwall will require the underpinning of the condominium structures to prevent loss of vertical and lateral support of the shallow timber pile foundation system of these buildings.• To underpin the riverward one third portion of each of the three condominium structures, installation of 34 drilled piers, 4 feet in diameter and 80 feet deep, would be required to stabilize the structures before construction.• Due to the large scale of the underpinning project, work on the structures during the snowy plover breeding season may not b permitted even though the physical work would be landward of the existing riverwall.• To construct a wall inland of the existing riverwall will necessitate the complete removal of the wood piles, tieback tendons, and rip-rap to achieve construction success. Granite Construction, the project engineer, and the senior coastal engineer have indicated that complete removal of the existing rip-rap and timber piles can not be guaranteed and construction time may increase due to the difficult removal of the existing structures.• Coordination of the demolition work with the pile driving contractor will reduce the construction rate from 20 feet per day to 8 feet per day, slowing the construction process and inflating the cost of the project.	<p>1. Underpin the condominium buildings in a zone 45 feet back from the existing timber pile wall. Thirty-four, 4 foot diameter drilled pier holes, 60 to 80 feet deep. Jacking the building and placing under the beams.</p> <p>Total time approximately 120 days (24 weeks) of construction or 1 extended construction season.</p> <p>2. Remove existing wood piles, concrete waler beam, tieback tendons and quarystone while constructing the driven king pile sheet wall to maintain protection of the Pelican Point property during the construction process.</p> <table><tr><td>a) Mobilization and demobilization including cleanup</td><td>2 weeks</td></tr><tr><td>b) 630 feet of demolition and new wall construction at 8 feet/day</td><td>16 weeks</td></tr><tr><td>c) 85 feet of new wall construction beyond existing timber piles at 20 feet/day</td><td>1 week</td></tr></table> <p>Total time approximately 19 weeks or two construction seasons due to limited construction window.</p> <p>Total Time Estimate for Construction 43 weeks/ 3-4 construction seasons</p>	a) Mobilization and demobilization including cleanup	2 weeks	b) 630 feet of demolition and new wall construction at 8 feet/day	16 weeks	c) 85 feet of new wall construction beyond existing timber piles at 20 feet/day	1 week		
a) Mobilization and demobilization including cleanup	2 weeks									
b) 630 feet of demolition and new wall construction at 8 feet/day	16 weeks									
c) 85 feet of new wall construction beyond existing timber piles at 20 feet/day	1 week									

Exhibit I

CDP 3-01-111 Riverwall Repair/Replacement Comparison Matrix

Cost	Important Mitigation	Environmental Impacts
<p>PHOA Proposal</p> <p>Total Cost: \$1.2 million</p>	<ul style="list-style-type: none"> Construction would be limited to a 3 month period (between September 15th and December 15th) to avoid snowy plover breeding and steelhead migration periods. Construction work areas would be limited to the roughly 40-foot area riverward of the existing wall, with a narrower area of construction footprint adjacent to Watsonville Slough. All construction areas would be restored with native wetland and coastal strand dune species following project completion. Construction BMPs to minimize and/or eliminate impacts to the Pajaro River and Watsonville Slough, and pre-construction surveys for listed species would be conducted. Areas inland of the constructed sheetpile wall between the condominium buildings would be revegetated with native dune species, and cascading plants would be established at the river edge of the sheetpile wall to provide viewshed screening. The sheetpiles themselves would be epoxy coated a sandy beach color. The applicant would deed roughly 4,000 square feet of beach lands in their fee-title ownership located on the river side of the sheetpile wall to an appropriate resource management entity, and would offer a conservation easement over approximately 11,000 square feet of their property extending upcoast along Watsonville Slough. 	<ul style="list-style-type: none"> The applicants proposal will retain all of the existing pile and wood lagging wall and rip-rap on the inboard side and prevent any of these materials from migrating onto state beach. The proposed revegetation plan provides for conversion of a substantial area of non-native habitat to attractive native dune, wetland and upland habitats along the wall and Watsonville Slough, resulting in a net gain of vegetated habitat. The proposed straight-line wall was determined to have no significant adverse impacts after mitigation under CEQA, and all other resource agencies (Army Corps, USFW, NMFS, CDFG, RWQCB) determined that the project as planned had no adverse effects on special status species, habitats, hydrology or water quality and issued permits, concurrence letters, agreements and certifications. The wall repair has been designed to minimize the construction footprint and duration and requires the smallest temporary access easement necessary. The proposed sheetpile wall would encroach upon State land for only .01 mile and occupy conservatively 2,800 SF. The majority of the straight line wall is still on PHOA property. The area of encroachment onto State land is a narrow strip of unvegetated sand adjacent to the existing development that is of comparatively low habitat value due to consistent scoring in this area. The wall will be aesthetically more attractive than the existing pile and wood lagging wall because it will be solid (no horizontal lines), painted a sand color to blend in with the beach, and have native dune plants cascading over the top to break up the line and blend with the dune restoration behind it.
<p>Coastal Staff Proposal</p> <p>Total Cost: \$2.5-\$3 million</p> <p>Underpinning of the condominiums, the extended construction schedule, and the cost of demolishing the existing structure make the inland wall project at least twice as expensive, and possibly more if problems are encountered.</p>	<ul style="list-style-type: none"> The above mentioned mitigation would be proposed along with additional special conditions. 	<ul style="list-style-type: none"> The opportunity to restore dune are between the buildings and the existing wall would be largely displaced by the inland replacement wall, resulting in a loss of potential habitat and aesthetic natural landscaping as viewed from the beach. It is not possible to remove all of the rip-rap to design depth (60' for king piles and 30' for sheet piles). Once below the water table at approximately +2' NGVD extraction of large boulders out of supersaturated sand is virtually impossible. The shoring and underpinning of the condominiums will require at least one full construction season and will create a much larger construction footprint. Demolition of the existing structure will sever the tieback and deadman system creating a loss of seismic protection. The inland wall will require at least 3 construction seasons to construct. The surrounding ESHA and sensitive species will be impacted for a much greater period than the outside wall, which can be constructed in one season.

HARO, KASUNICH AND ASSOCIATES, INC.

CONSULTING GEOTECHNICAL & COASTAL ENGINEERS

Project No. SC6137
8 August 2002CALIFORNIA COASTAL COMMISSION
Central Coast District Office
725 Front Street, Suite 300
Santa Cruz, California 95060

Attention: Dan Carl

Subject: Construction Feasibility

Reference: Replacement Riverwall
Pelican Point, Pajaro Dunes
Santa Cruz County, California

Dear Mr. Niesh:

This letter outlines the geotechnical engineering aspects regarding the construction feasibility of replacing the existing, distressed riverwall which is protecting the three condominium structures at the mouth of the Pajaro River in Santa Cruz County, California.

Specifically this letter addresses the following four issues:

- Part I - Replacement wall construction within current wall alignment
Removal of existing timber piles;
- Part II - Construction feasibility along existing alignment;
- Part III - Replacement wall construction inland of current wall alignment; and
- Part IV - Construction time frames estimates.

Replacement Wall Construction Within Current Wall Alignment - Removal of Existing Timber Piles

As relayed by Mr. Reg Whibley of Associated Pacific Constructors, three methods are available to remove existing timber piles. The methods are as follows:

1. Jetting alongside timber piles with high pressure water while pulling on pile top with crane;
2. Vibrate out with crane pulling simultaneously; and
3. Using a crane with clamshell bucket to dig and chew up piles to remove.

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Pelican Point Riverwall
8 August 2002
Page 2

Mr. Whibley outlined the following reasons not to use the aforementioned removal methods adjacent the condominium structures:

1. Jetting - the primary problem with jetting would be the creation of a cavity adjacent the timber pile being jetted. The contractor would have no control of the size/configuration of the jetted cavity with the potential of a "glory hole" developing adjacent the condominium shallow timber pile foundation system. The adjacent shallow building timber pile tips at elevation +2 to -5 feet NGVD, could translate toward the glory hole, compromising the integrity of the building support. Jetting would also produce large volumes of silt entrained water. Included with this letter are the pile driving logs for Building B and a Cross-Section showing the building piles in relation to the existing timber pile wall.
2. Vibration to remove the piles is normally the most efficient method for removal, but without temporary shoring to support the condominiums the vibration could induce the building support soils to migrate into the rock/timber pile excavation and compromise the integrity of the adjacent building foundations.
3. Dig and chew methodology mandates the excavation, to remove the piles and quarrystones would need to be shored on all sides with a cofferdam system in order to remove the entire pile using an excavator and a crane with clamshell bucket.

The most efficient way to build the replacement wall with regards to the existing timber piles and buried quarrystones is to use the existing wall as temporary shoring to dig out the rock along the outboard perimeter in order to construct the wall within the proposed alignment.

With respect to the shallow building piles, it is our geotechnical and civil engineering opinion that it is not feasible to construct the new wall in the same footprint or inland of the same footprint of the existing wood pole wall without underpinning and adding additional foundation support to the 1970's pole style building condominiums structures.

Part II. Construction Feasibility Within Existing Alignment

Construction of the proposed replacement wall within the existing timber pile riverwall alignment would raise the following concerns:

1. The maximum amount of rock would need to be removed;

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Page 3

2. The existing timber piles would need to be removed;
3. There is a high potential for existing rock to fall into the pile excavations beyond the technologically feasible retrieval depth. It would be necessary to utilize a cofferdam to keep the excavation open in order to use a crane with clamshell bucket to remove the rock;
4. It is not possible to drive either the sheetpiles or king piles through buried rock or timber piles without the potential for the new sheetpiles or king piles to be deflected. The proposed sheetpile wall system has a low tolerance for out of plumb construction.

The construction of the proposed sheetpile/king pile wall system will utilize a template frame to position the king piles during driving. The template frame will be approximately 26 feet long, 12 feet wide and 14 feet high. Five (5) king piles will be driven to the design depth through the template frame. The template frame is then removed and the pairs of intermediate steel sheetpiles are driven between the king piles. Maximum tolerance for vertical deviation per the manufacturer's specifications is 8 inches at the base of the intermediate sheetpiles (35 feet) or 4 inches horizontal deflection in 35 vertical feet of the king pile, about one half of one degree off vertical. This is a very close tolerance for driving a 65 foot long king pile weighing about 14 tons. Unrecovered debris could very easily deflect the king piles during driving making it impossible to install the intermediate steel sheetpiles.

Even with diligent, long duration effort, it is probably not possible to remove all of the timber piles and riprap along the existing alignment. With no limit on time or money, the contractor might get lucky and be able to remove all obstructions to driving along the existing alignment. It would be a very substantial gamble imposed upon the homeowners to depend upon that procedure to build a replacement wall.

Part III Replacement Wall Construction Inland of Current Wall Alignment

The primary concern regarding the feasibility of constructing the replacement wall on the inland side of the existing riverwall alignment is the close proximity of the three condominium structures to the existing wall. In order to remove the quarystone between the existing riverwall and the condominium buildings, it would be necessary to underpin the condominium structures to prevent loss of vertical and lateral support of the shallow timber pile foundation system.

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 Pelican Point Riverwall
 8 August 2002
 Page 4

Mr. George Stanton of Malcomn Drilling has estimated drilling costs for a 4 foot diameter boring to be at least \$200.00 per foot. Due to the loose sand and high groundwater, it will be necessary to use a biodegradable copolymer drilling mud to keep the pier excavations open. The depth of the underpinning piers could be as deep as 80 feet below existing grade to establish vertical bearing below the potentially liquefiable soil horizons at the project site (\$16,000 per hole to drill). The cost of concrete grout, steel reinforcement and the removal and disposal of the drilling mud is estimated to be at least \$200.00 per foot of pier depth in addition to the projected \$200.00 per foot to drill. To underpin the riverward, one third portion of each of the three condominium structures we estimate a total of 34 drilled piers placed at 16 feet on center would be needed. Due to the large scale of the underpinning project, we may not be permitted to work on the structures during the snowy plover breeding season even though the physical work would be landward of the existing riverwall. Once the underpinning piers are drilled and grouted, a series of large steel beams could be placed under the buildings, between the drilled piers. An attempt could then be made to remove all of the quarrystones and existing timber pile wall elements. To install 34 drilled piers, 4 feet in diameter and 80 feet deep, placed on 16 feet on center plus the underpinning steel or concrete beams we estimate the total cost would be at least \$1.2 million.

The preliminary demolition costs to remove the existing timber pile wall, concrete water beam and quarrystones without coordinating the work with the sheetpile construction was estimated by Granite Construction Co. to be \$245,000.00. Having to coordinate the demolition work with the pile driving contractor will reduce the construction rate from 20 feet per day to 8 feet per day and inflate the demolition cost proportionally. Therefore, the projected costs to underpin the buildings, remove the existing timberpile wall and quarystone and to redesign the inland wall will far exceed the construction costs of the straight line wall thereby more than doubling the current Pelican Point Riverwall project costs.

Part IV - Construction Time Frame Estimates

Proposed alignment Outside of Existing Timber Pile Riverwall

1.	Mobilize and Predig Alignment	2 weeks
2.	Existing Pile Removal at Building D	1 week
3.	Pile Driving - 715 feet @ 20 feet per day (5 day work week)	7 weeks (+)
4.	Demobilize, repair damage to exposed coating and cutoff pile tops	<u>2 weeks</u>
	Total Time Estimate	3 months

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 Pelican Point Riverwall
 8 August 2002
 Page 5

The above estimate is based upon 5 day work weeks. In the past, state parks has not permitted weekend work. We have also been restricted at other coastal construction sites by the Monterey Bay National Marine Sanctuary to working daylight hours only and limited to excavating no more than 50 cubic yards in a single 24 hour period in order to reduce the risks to intertidal and subtidal marine resources.

Alignment Inside of Existing Timber Pile Riverwall

We do not believe it will be possible to completely remove the rock and wood pilings even with the buildings underpinned. This will result in either an incomplected wall construction project or a serious compromise to the wall design by allowing less than adequate embedment depths. Nevertheless the following is a time frame estimate to construct the replacement wall, inland of the existing wall alignment:

1. Underpin the condominium buildings in a zone 45 feet back from the existing timber pile wall. Thirty-four, 4 foot diameter drilled pier holes, 60 to 80 feet deep. Jacking the building and placing the under beams. Total time approximately 120 days of construction or 1 complete construction season.
2. Remove existing wood piles, concrete waler beam, tieback tendons and quarrystone while constructing the driven king pile sheetpile wall to maintain protection of the Pelican Point property during the construction process.

a)	Mobilization and demobilization including clean up	2 weeks
b)	630 feet of demolition and new all construction at 8 feet/day	16 weeks
c)	85 feet of new wall construction beyond existing timber piles at 20 feet/day	<u>1 week</u>
Total		19 weeks

This project time frame does not take into account any problems encountered with removal of the wood piles and quarrystones. In our opinion, problems will occur as outlined in Lesley Ewing, 10 June 2002, letter report.

In the best of all worlds, it will take at least 3 full construction seasons to complete the inland wall alignment. With anticipated problems predicted by all engineers and contractors associated with this project, it will likely take four seasons to construct.

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As project geotechnical and civil engineers, we strongly advocate construction of the proposed replacement wall outboard of the existing timberpile wall. The proposed riverwall construction, outboard the existing wall will be difficult enough due to the requirement of removing quarrystones within the outboard alignment and driving the sheet piles/king piles in close proximity to the existing condominiums structures while utilizing the existing timberpile wall as a temporary shoring wall.

Attempting to build the replacement wall within the existing alignment or between the existing wall and the condominium structures would be an extremely risky proposition and an unfair burden upon the contractor, project engineer and condominium homeowners.

If you have any questions regarding this letter or the proposed project, please call our office.

Very truly yours,

HARO, KASUNICH AND ASSOCIATES, INC.

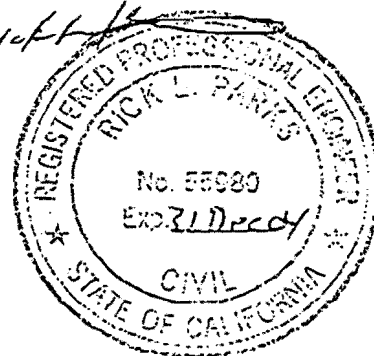
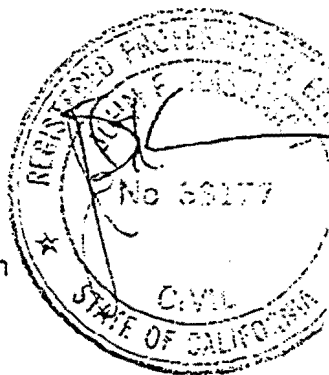
John E. Kasunich
G.E. 455

Rick L. Parks
C.E. 55980

RLP/dk

Attachments: Pile Driving Log
Cross-Section

Copies: 2 to Addressee
1 to Culbertson, Adams & Associates, Attn: David Niesh
1 to Fred Hodder
1 to California Coastal Commission, Attn: Ms. Lesley Ewing



HARO, KASUNICH AND ASSOCIATES, INC.

CONSULTING GEOTECHNICAL & COASTAL ENGINEERS

Project No. SC6137
7 August 2002PELICAN POINT HOMEOWNERS ASSOCIATION
2661 Beach Road
Watsonville, California 95076

Attention: Mr. Fred Hodder

Subject: Emergency Preparation Plan
Winter 2002-2003Reference: Existing Timber Pile Riverwall
Pelican Point, Pajaro Dunes South
Santa Cruz County, California

Dear Mr. Hodder:

This letter is written to address the concerns of Mr. Joe Hanna, Santa Cruz County Geologist and Ms. Ellen Pirie, Santa Cruz County Supervisor regarding the distressed condition of the Pelican Point Riverwall and the upcoming winter storm season.

Due to the ongoing permitting process with the California Coastal Commission, the riverwall will not be replaced before the upcoming winter season. Either coastal storm wave runup or river flooding could breach the dilapidated riverwall and jeopardize the condominium structures adjacent the riverwall.

We have recently obtained the pile driving records and "as built" plan for the Pelican Point Condominium Building "B" timber pile foundation system. As shown on the attached pile driving record, the building piles near the riverwall are situated between 8 to 15 feet below existing grade. Existing grade at Building "B" is about 10 feet NGVD. Projected scour along the riverwall is -6 feet NGVD. Based on the pile driving log, it is clear the condominium buildings were not designed to withstand the design flooding/scour projected by the Army Corps of Engineers without protection of a riverwall. The timber pile/wood lagging riverwall has deteriorated to a degree that it cannot offer the protection needed by the shallow (+2 to -5 feet, NGVD) wood pile building foundations, should serious erosion occur this winter.

The Pelican Point Homeowners Association is part of the Pajaro Dunes Geologic Hazards Abatement District (GHAD). A Plan of Control has been developed for the GHAD by our firm. A component of the Plan of Control is the Pelican Riverwall Emergency Response Scenarios outlining two emergency scenarios and associated responses to mitigate the emergency scenarios.

Exhibit I
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Page 2

The Plan of Control requires inspection, maintenance and repair of the riverwall. The goal of the Plan of Control and associated Emergency Response Plan is to outline possible design emergencies that would require quick response by capable engineering construction crews with appropriate equipment and material to minimize subsequent damage. The Emergency Response Plan also provides an outline to develop a mechanism to provide for timely repair and maintenance of the riverwall.

The existing dilapidated riverwall can be damaged by either: erosion and undermining of the lagging system caused by river scour from floodwaters generated by inland rainfall or coastal erosion due to a severe coastal storm or series of storms; (or overturning caused by liquefaction/lateral spreading induced by seismic shaking). Construction of a new riverwall will eliminate the potential for scour and subsequent undermining. An emergency response due to earthquake damage this winter is possible but not statistically likely. Damage of the existing timber pile/wood logging riverwall this winter due to high river flows or strong coastal wave action is very possible this winter and likely if an El Nino weather pattern continues to develop.

The scenario of potential damage to the riverwall due to river or ocean scour outlined by our firm is as follows:

The lagging on the existing riverwall (which extends down to about +2 feet NGVD) is undermined by scour and sinkholes develop on the landward side of the wall as occurred during February 1998. Sandbags and quarrystones are then required to plug the sinkholes to prevent loss of soil materials supporting the shallow condominium building piles. We estimate 100 tons (160 cubic yards) of 1 to 2 foot diameter (100 to 900 pound) quarrystones and about 5,000 sandbags (1/3 cubic foot each) would be needed to mitigate this scenario. We estimate the cost to procure, deliver, temporarily store and place when needed along the damaged riverwall to be at least \$12,500.00 for 100 tones of quarrystone repair.

In the Plan of Control, we recommend an emergency supply of quarrystones be obtained and stockpiled for the outlined emergency scenarios at the Pelican Point Riverwall. We have also recommended the GHAD obtain a commitment from an engineering contractor to provide resources to the GHAD during the outlined emergencies. Contractor mobilization should be within 8 hours of notification.

From an engineering perspective, there is no doubt in our minds the aforementioned emergency scenario can occur. If the riverwall is replaced, the potential for undermining of the riverwall due to scour can be eliminated. River flooding and subsequent scour is likely during El Nino years but is also possible

Pelican Point Homeowners Association
Project No. SC6137
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7 August 2002
Page 3

during non El Nino years such as occurred during the severe local flooding in 1996 caused by inland rainfall along the Pajaro River watershed.

If you have any questions regarding this letter, please call our office.

Very truly yours,

HARO, KASUNICH AND ASSOCIATES, INC.

John E. Kasunich
G.E. 455



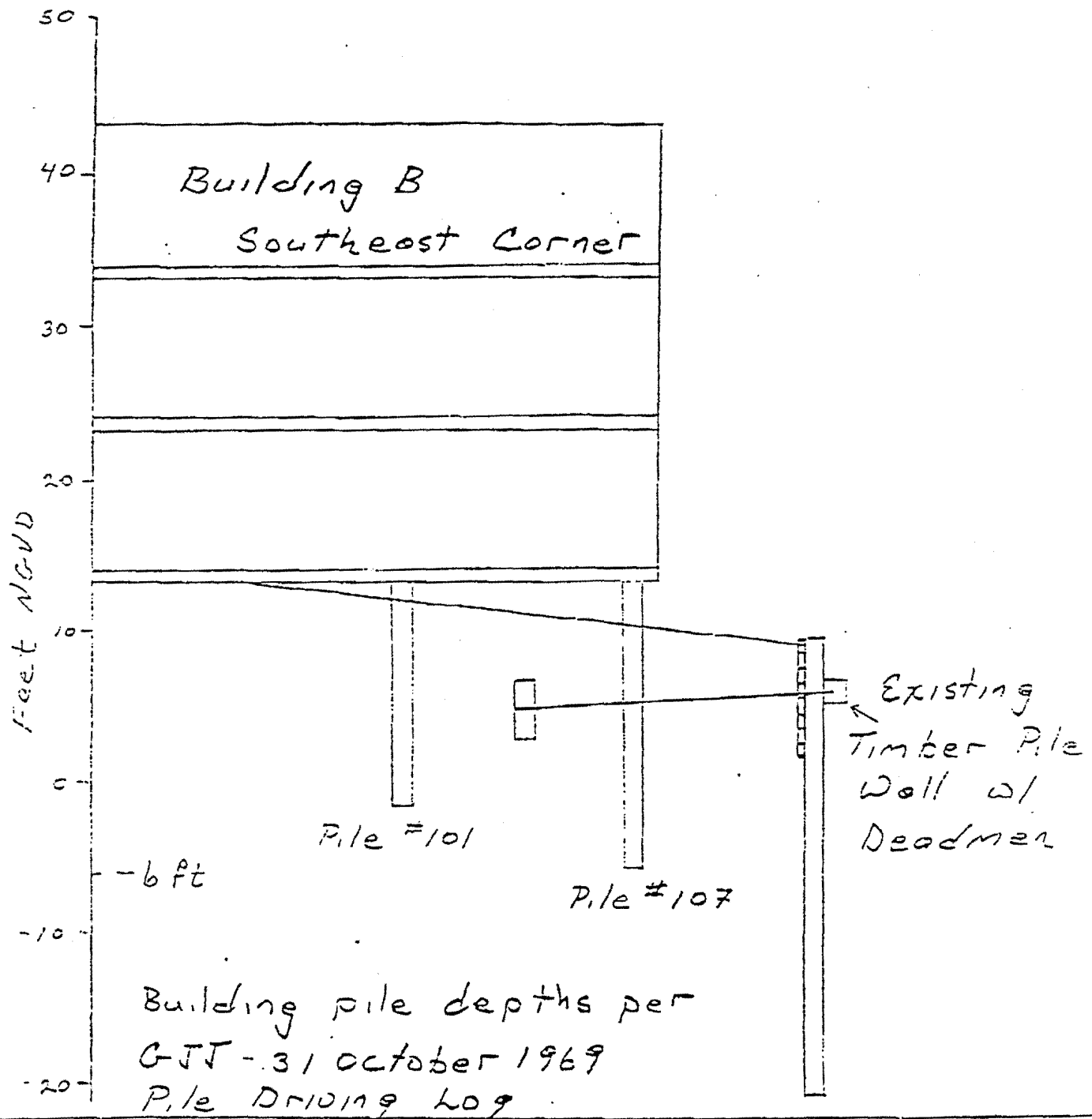
Rick L. Parks
C.E. 55980



RLP/dk

Copies:

- 1 to Addressee
- 1 to Joe Hanna, Santa Cruz County Planning
- 1 to Ellen Pirie, Santa Cruz County Supervisor
- 1 to Lesley Ewing, California Coastal Commission



PROJECT NO: SC 6137

DATE: 6 Aug 02

SCALE: 1 inch = 10 feet

DRAWN BY: RP

Pelican Point - Building B
"As-Built" Timber Pile
Foundation System Depths

HARO, KASUNICH & ASSOCIATES

Exhibit I

FIGURE NO. 1

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AUG-08-02 THU 17:17

P. 09



Gribaldo Jones and Associates
Consulting Engineers - Soil, Foundation and Geological Engineers
333 Fairchild Drive (P.O. Box 669), Mountain View, California 94040
(415) 969-2050 / (408) 738-4300
San Francisco / Oakland / Watsonville

File No. E7336-W3

31 October 1969

Hare, Brewer, and Kelley, Incorporated.

c/o Albert A. Hoover and Associates

701 Welch Road

Palo Alto, California 94304

cluster 3 =

Building E

Attention: Mr. Gordon McAdam

Subject: Pajaro Dunes Condominium Clusters 3 and 4

Santa Cruz County, California

PILE DRIVING

Gentlemen:

As requested by Mr. Rod Wheeler of Hare, Brewer, and Kelley, we provided pile inspection services during the driving of chemically treated wood piles for the foundation support of Condominium Clusters 3 and 4 in the Pajaro Dunes development. On 18 August 1969, we received a call from Mr. Wheeler indicating that pile driving on Cluster 4 had commenced on that day. By the time we arrived at the job site, eight piles had been driven.

Our original Soil Investigation for the project indicated that some very soft clay zones were present in the area of the Cluster 4

File No. E7336-W3

31 October 1969

Building B

TABLE VII (Concluded)

25-Ton Piles for Cluster 3

Pile No.	Depth Below Ground Surface	Pile No.	Depth Below Ground Surface
61	9'-6"	95	9'-0"
64	13'-0"	96	8'-0"
69	9'-0"	97	7'-6"
70	8'-0"	98	8'-0"
70A	10'-0"	99	11'-0"
71	9'-6"	100	12'-0"
72	8'-6"	101	13'-0"
73	9'-0"	102	8'-0"
74	9'-0"	103	8'-0"
75	9'-0"	104	9'-6"
76	9'-0"	105	8'-6"
79	8'-8"	106	11'-0"
80	9'-0"	107	15'-6"
81	8'-0"	108	10'-0"
83	9'-0"	109	10'-6"
84	9'-0"		
85	9'-6"		
86	8'-0"		
87	8'-0"		
90	9'-0"		
91	8'-0"		
92	8'-6"		
93	10'-0"		
94	8'-6"		

Assumed
be about
same as

3rd row

4th row

5th row

6th row

7th row

8th row

9th row

10th row

11th row

12th row

13th row

7 August 02

KA
HARO, KASUNICH AND ASSOCIATES, INC.
116 East Lake Avenue
Watsonville, California 95076

Attn: Mr. John Kasunich
Re: Pelican Point Homeowners Association Seawall Repair

John,

In our discussions regarding the above referenced project we have identified several key construction obstacles involving the actual construction logistics, the exposure of the existing building structure's foundation elements, the mandated construction time window, management of environmental issues, and of course the evaluation of the costs of this endeavor. We will attempt to address the construction logistics and time of construction issues.

Due to the nature of this work and the unique location equipment selected for this work must be of sufficient size and hydraulic capacity to manage the elements involved in the excavation, demolition and removal of the existing wall elements, the replacement of excavated native materials and the supply and placement of the proposed sheet pile wall. The site preparation for the mobilization and demobilization for this equipment we estimate to be a 1-2 week time frame for each. This will involve the preparation, construction and removal of a competent construction ingress/egress. This would not include any time for the underpinning or shoring efforts necessary to protect the existing building structures.

The use of a 100,000 lb hydraulic excavator, Caterpillar 345B L, has been chosen to perform the excavation and removal of the existing wall elements on this project. Please see the attachment for a typical cross section of the excavation operation we propose to employ to expose and access the existing wall. Also realize that the excavator will swing 90 -360 degrees during the operation of excavation, loading trucks with rock rip rap, concrete and wood piles that have been removed. The construction ingress/egress will require continual maintenance during this operation.

Should the wood piles have broken previously or during this operation or the rock rip rap have migrated below the reach of the excavator or below the water level we cannot estimate the time involved in repeated attempts in this retrieval process or that we can accomplish the task of 100% removal at all.

The backfill operations will require the utilization of a Crawler Dozer to push the excavated material back to the new wall face and support equipment to consolidate this material the required density.

The placement of the proposed sheet pile wall will follow the removal process as closely as feasible. The provisions made for construction access will require maintenance for this equipment also and the supply of steel sheets for ready access.

We have estimated that this construction process, should we not encounter any unforeseen obstacles, will require approximately 90 working days.

Due to the very narrow construction windows allowed for construction we can anticipate that this work will span two seasons. The additional mobilization, demobilization and access will generate considerable expense to the project.

It is our understanding that there are critical environmental concerns involving native plants and animals at this location. From our experience in this area we would strongly recommend that a mobilization/demobilization effort be exercised only once.

It has been confirmed by Rick Parks of your office (see attached 25 July 02 correspondence) that the existing building structures adjacent to the construction area are founded on shallow wood piles 8' to 15' below existing grade. The excavation required for the removal of the existing wall will surely jeopardize the structural integrity of these foundations depending on the horizontal distance between them and the excavation. Each location must be evaluated individually for the most effective method of temporarily shoring these structures during the construction operations. Some methods are cited below and can be evaluated as to their effectiveness, time involved in placement & removal and expense.

Sloping - This may be the most cost effective and expeditious method available but due to the 2:1 to 1 1/2:1 horizontal to vertical angle of repose of the native sandy material we are relatively certain that the excavation will expose the existing foundations. Should the toe of the sloped excavation be exposed to water (a very likely scenario) the excavation slope will degrade and further expose the foundations.

Steel soldier beam and wood lagging- This method may be the most cost effective and time friendly method of temporary shoring. However, design criteria will need to be established before the costs can be evaluated.

Steel sheet pile- We would not recommend this method due to the vibration or impact involved in the placement so close to the existing structures and the possibility of encountering unforeseen rock rip rap during the driving process.

Grout injection- The injection of grout in front of and below the foundation may be employed to hold the excavation face at or near vertical. Again design criteria will need to be established before these construction costs can be evaluated.

Should you have any questions or wish to discuss any of the topics we have discussed above please don't hesitate to call me at 763-5524.

Sincerely,
GRANITE CONSTRUCTION COMPANY

Nick Jouras

attachments

A:\pelicanpoint.doc



County of Santa Cruz

BOARD OF SUPERVISORS

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July 12, 2002

Paul Thayer, Executive Officer
State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, CA 95825

RE: PELICAN POINT RIVER WALL - SUPPORT

Dear Mr. Thayer:

As the Santa Cruz County Supervisor representing the Second District, I wish to affirm the County's strong support for the repair of the critically damaged river wall as proposed by the Pelican Point Homeowners Association. It is the County Geologist's opinion that the wall should be replaced as soon as possible. The current wall has suffered so much damage that it may not protect the nearby homes from stream erosion during the next intense river flow.

As proposed, this river wall would encroach on 2,800 square feet of land owned by the State Lands Commission and managed by the State Parks Department. The Pelican Homeowners Association proposes to dedicate 4,000 square feet of land in trade.

The homeowners have obtained all the public approvals and permits required, with the exception of the Coastal Development Permit from the Coastal Commission. Please join me in supporting the Pelican Point Homeowners' river wall proposal.

Sincerely yours,

ELLEN PIRIE, Supervisor
Second District

EP:ted

cc: Dwight Sanders, State Lands Commission
Dave Vincent, State Parks, Santa Cruz Office
Fred Hodder, Pelican Point Homeowners Association

Exhibit I
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1365K2

Assembly
California Legislature

FRED KEELEY
Speaker pro Tem



August 1, 2002

Mr. Paul Thayer, Executive Officer
CA State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

Ms. Ruth Coleman, Acting Director
CA Department of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296

Ms. Mary Nichols, Secretary
CA Resources Agency
1416 9th Street, Suite 1311
Sacramento, CA 95814

Dear Mr. Thayer, Ms. Coleman, and Ms. Nichols:

I am writing in regard to the Pelican Point Riverwall, located at Zmudowski State Beach at the mouth of the Pajaro River in the City of Watsonville, that protects the homes that border the Pajaro River.

Both the 1989 Loma Prieta earthquake and the 1998 El Niño storms have damaged the Pelican Point Riverwall; its current structural integrity and ability to protect the residences from major storms and high tides is unreliable. Residents of the Pajaro Dunes development have worked for over three years with the necessary agencies to develop a viable solution to fix the riverwall, and I believe their straight-line riverwall proposal is fair and appropriate.

The proposed riverwall would require 2,800 square feet of land owned by the State Lands Commission, and managed by the California Department of Parks and Recreation. Not only has the Pelican Point Homeowners Association been agreeable to the construction and environmental conditions set by state and federal agencies having permit justification in the construction area, they have also offered 4,000 square feet of their land in exchange for the state-owned 2,800 square feet. In addition, they have devised an

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DISTRICT OFFICE
MONTEREY COUNTY
CSU-MONTEREY BAY
100 CAMPUS CENTER, BLDG. 58
SEASIDE, CA 93955
PHONE: (831) 384-1980
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Exhibit I
Page 19 of 20

extensive mitigation plan that will result in a net gain of beach habitat for the state and the use of native plants where vegetation is needed. The straight-line riverwall will also cause fewer disturbances to the surrounding environment during construction.

I respectfully request that the State Lands Commission and the Department of Parks and Recreation reconsider the proposed straight-line riverwall. I believe that the structural engineering and design of the proposed straight-line riverwall will effectively provide protection against major storms, in addition to addressing environmental concerns. The proposed straight-line riverwall would also require the least amount of construction time, and is fiscally the best option.

Should you have any questions, please feel free to call me at (831) 425-1503. Thank you for your consideration.

Sincerely,



FRED KEELEY
Speaker pro Tem of the Assembly

FK:jbt

cc: Mr. Dwight Sanders, State Lands Commission
Mr. Dave Vincent, Department of Parks and Recreation
Mr. Mike Sweeney, Resources Agency
Mr. Fred Hodder, Pelican Point Homeowners Association

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
PHONE: (831) 427-4863
FAX: (831) 427-4877



July 23, 2002

David Neish
Representative for the Pelican Point Homeowners Association
D.B. Neish Inc.
85 Argonaut, Suite 220
Aliso Viejo, CA 95656

Subject: Application 3-01-111 (Pelican Point Sheetpile Wall) Request for Postponement

Dear Mr. Neish:

We received your July 18, 2002 request to postpone the hearing on your item from the August Coastal Commission agenda. This letter is to inform you that we have agreed to postpone the item until the September 2002 Commission meeting. We hope that this provides the applicant ample time to prepare for the Commission hearing. If there are any materials developed in the interim that you would like considered in the staff recommendation for the September hearing, please submit them by August 8, 2002.

That said, please note that it is our practice to schedule hearings as quickly as possible after applications are filed, and to schedule them at hearing sites as close to the development site as possible in order to maximize public participation. We always try to avoid postponements as a matter of good public policy because there is a significant expenditure of Commission resources necessary to bring an item to a hearing (from duplicating and mailing notices and recommendations, to travel expenses and coordinating letters and other feedback from the public) and because there is a significant commitment of time and energy on the applicant and interested public's part (to submit letters, make travel arrangements, attend meetings, give public testimony, etc.). When items are postponed, for whatever reason, we attempt to reschedule such hearings with these factors in mind.

In this case, we understand that the applicant is no longer pursuing construction this year. We had previously been prepared to present this item to the Commission at the June 13, 2002 hearing in order to meet the deadlines identified by the applicant that would allow the project to commence this year. When the hearing was postponed as a matter of right in Long Beach at your request, we subsequently rescheduled the item for a July hearing to ensure that the applicant was given a timely decision. At that time, Commission staff were informed by the applicant's then representative, Gary Halsey, that it was not necessary to quickly reschedule the item because the applicant had decided not to pursue construction in 2002; this was later verified by yourself. Because the applicant decided not to pursue the project this year, and to allow ample time for the applicant to respond to the June staff report and addendum, and in consultation with the applicant, we subsequently rescheduled the application for the August Commission meeting in San Luis Obispo. You have now asked for this most recent hearing to be postponed. Although we would have preferred the more local hearing in San Luis Obispo, we will honor your request

Exhibit J
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David Neish

Application 3-01-111 (Pelican Point Sheetpile Wall) Request for Postponement

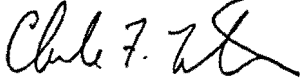
July 23, 2002

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at this time. Please note, though, that the June postponement was the applicant's one postponement that is afforded as a matter of right (pursuant to California Code of Regulations Section 13073); other than your current request, future requests for postponement will be granted only at the discretion of the Commission. We sincerely hope that we can bring this matter to resolution at the September hearing.

If you should have any questions or would like to discuss this matter further, please don't hesitate to contact me at the number and address above.

Sincerely,



Charles Lester
Acting Deputy Director

cc: Fred Hodder, Pelican Point Homeowner's Association (Applicant)