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Action Deadline:	5/28/2013
90-Day Extension:	8/26/2013
Staff:	J.Manna - SF
Staff Report:	5/23/2013
Hearing Date:	6/14/2013

STAFF REPORT: CDP HEARING

Application Number: 3-12-030

Applicant: Pebble Beach Company

Project Location: Two bluff locations adjacent to the Pebble Beach Golf Links 18th Hole: one along the 18th Fairway and a second fronting the Stillwater Cove Shoreline Overlook (at the Sloat Building). Both locations on the bluffs seaward of The Lodge at Pebble Beach complex off of 17-Mile Drive in the Pebble Beach portion of the unincorporated Del Monte Forest area of Monterey County.

Project Description: Remove approximately 150 linear feet of existing armoring (vertical seawall, rip-rap, concrete grouted rip-rap, and concrete) and construct approximately 350 linear feet of new armoring (contoured semi-vertical seawalls), including 200 linear feet at the 18th Fairway and 150 linear feet at the Stillwater Cove Shoreline Overlook.

Staff Recommendation: Approval with Conditions.

SUMMARY OF STAFF RECOMMENDATION

The Pebble Beach Company proposes to remove existing coastal armoring and to construct new armoring seaward of the Stillwater Cove Shoreline Overlook (at the Sloat Building) and seaward

of the 18th Fairway within the Pebble Beach Lodge complex located near the intersection of Cypress Drive and 17-Mile Drive, in the Pebble Beach area of the Del Monte Forest, Monterey County. The new armoring proposed would include a combination of contoured concrete retaining walls and semi-vertical seawalls fronting upper portions of the bluff and weak areas of bedrock, as well as contoured concrete rock buttresses/platforms on lower bluff areas. A 65-foot long grouted revetment would be removed from the 18th Fairway site and a 200-foot long semi-vertical seawall and contoured bedrock platform would be installed. At the Sloat Overlook site, 84 linear feet of vertical seawall, rip-rap, and concrete would be removed, and about 150 feet of 9-foot-high stone faced retaining wall would be installed on the upper part of the bluff, and a similar length of semi-vertical seawall/rock buttress would be constructed in the lower area. The seawalls are intended to protect existing structures including the Stillwater Cove Shoreline Overlook, a Commission-required public accessway that is located within about 5 feet of the blufftop edge, and portions of the 18th Fairway located within about 3 feet of the blufftop edge. Both sites are exposed to average annual bluff recession rates between 0.2 and 0.5 feet per year in addition to being at risk from larger episodic erosion events.

Other non-structural protection alternatives were considered, but were dismissed. Specifically, relocation of the Overlook would result in a loss of Commission-required public access to this area of Stillwater Cove, and relocation of the 18th Fairway would adversely affect playability and difficulty of the 18th Hole and the overall Pebble Beach Golf Links, one of the most famous and iconic golf courses, and golf course holes, in the world. The Commission has a history in the Del Monte Forest of considering golf course and armoring questions in terms of the effect on the hole in question and the overall course as an existing structure. The impacts to sand supply from the proposed seawall projects would equate to a loss to the sand supply system of approximately 6,456 cubic yards of sand over a coastal development permit (CDP) term of 20 years. To mitigate for these impacts, the Applicant would enhance public access facilities at nearby Bird Rock and Seal Beach (including new and enhanced public access pathways, stairways, and signage along the California Coastal Trail). Staff proposes conditioning the CDP with a 20-year approval and required monitoring and maintenance of the seawalls to ensure long-term structural stability. Therefore, the proposed project would protect existing structures in danger from erosion, mitigate for impacts to sand supply, and ensure long-term stability consistent with shoreline protection and hazards policies of the Coastal Act.

The proposed seawalls would support public access and recreation along Stillwater Cove by ensuring the stability and longevity of the Stillwater Cove Shoreline Overlook and the quality and functionality of the 18th Hole of the Pebble Beach Golf Links (open to the general public), and the mitigation proposed for the seawalls will provide additional public access amenities and enhancements in the Del Monte Forest area, which is a primary visitor destination. Because the project would remove rip-rap and rubble from the intertidal area and construct coastal protection that blends with the natural landscape, the public viewshed would be improved. Temporary construction activities, including removal of existing rip-rap and rubble, would occur within State Lands, the Monterey Bay National Marine Sanctuary, and the Carmel Bay State Marine Conservation Area. As such, staff proposes conditioning the CDP to obtain authorization from all the requisite agencies prior to construction. Staff is also recommending conditions to require construction best management practices and mitigation measures that would minimize impacts to marine resources and public access. Finally, as there are a number of archeological sites in the

surrounding area, staff also recommends conditions to implement reasonable mitigation measures in the event that archeological resources are unearthed during construction. Therefore, as conditioned, the project is consistent with Coastal Act, and staff recommends **approval** of the CDP. The motion is found on page 4 below.

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I. MOTION AND RESOLUTION

Staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development. To implement this recommendation, staff recommends a **YES** vote on the following motion. Passage of this motion will result in approval of the CDP as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Motion: *I move that the Commission approve Coastal Development Permit Number 3-12-030 pursuant to the staff recommendation, and I recommend a yes vote.*

Resolution to Approve CDP: *The Commission hereby approves Coastal Development Permit Number 3-12-030 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.*

II. STANDARD CONDITIONS

This permit is granted subject to the following 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 of 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.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Revised Final Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit two sets of Revised Final Plans to the Executive Director for review and approval. The Revised Final Plans shall be substantially in conformance with the plans submitted to the Coastal Commission, but shall show the following changes and clarifications to the project:

   (a) Concrete Surfacing. All seawalls (including upper and lower tier) shall be faced with a sculpted concrete surface that mimics natural undulating bluff landforms in the vicinity in terms of integral mottled color, texture, and undulation. The seawall shall be set constructed as close to the natural bluff topography as possible to maximize the appearance of a continuous coastal bluff along the site. Surfaces shall be of similar or better visual quality in this respect to the best examples in the project area (e.g., at the 5th green). The color, texture, and undulations of the seawall surface shall be maintained throughout the life of the structure. PRIOR TO COMMENCEMENT OF FINISH CONCRETE SURFACING, the Permittee shall submit to the Executive Director for review and approval the qualifications of the contractor who will perform the finish concrete work, including photos of similar completed projects. Finish concrete work shall not commence until the Executive Director has approved of the finish concrete contractor. The Permittee shall undertake development in accordance with the approved plan.

   (b) Recurves. All recurve elements shall be designed and contoured with variation in elevation and appearance, including with random articulation and indentations, to more adequately resemble a natural bluff landform.

   (c) Drainage. All drainage and related elements within the sculpted concrete shall be camouflaged (e.g., randomly spaced, hidden with overhanging or otherwise protruding sculpted concrete, etc.) so as to be hidden from view and/or inconspicuous as seen from the top of the bluffs and the beach.

   (d) Landscaping. All landscaping in the project area shall be non-invasive native (to the Stillwater Cove bluff area) species, where bluff species capable of trailing vegetation that can screen the top of the seawall (e.g., Carmel creeper, *Ceanothus griseus* var. *horizontalis*) shall be included to provide as much screening as possible. All invasive and non-native species in the project area, including iceplant, shall be removed and shall not be allowed to persist. The plans shall include certification from a licensed landscape professional experienced with native species indicating that all plant species to be used are native and non-invasive. A permanent irrigation system shall be included. All plants shall be replaced as necessary to maintain the approved vegetation over the life of the project. The landscaping plan shall be implemented immediately following completion of the seawall, and all plantings shall be kept in good growing condition and replaced as necessary to maintain some visual screening of the wall over the life of the project.

All requirements above and all requirements of the approved Revised Final Plans shall be enforceable components of this coastal development permit. The Permittee shall undertake development in accordance with the approved Revised Final Plans.

2. **Public Access Improvement Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit two sets of a Public Access Improvement Plan to the Executive Director for review and approval. The Public Access Improvement Plan shall be substantially consistent with the submitted Public Access plans (dated May 17, 2013 and dated received in the Coastal Commission's San Francisco Office on May 17, 2013), and shall provide for trail, stairway, and sign installation at the Bird Rock and Seal Beach public coastal access sites. All improvements shall be sited and designed to maximize through views and minimize visual intrusion, and to use materials appropriate to the shoreline context that blend with the natural environment and existing improvements in the area. The Permittee shall maintain all such improvements in their approved state, including replacing any improvements that are damaged or destroyed by natural or man-made causes.

   Within 90 days of Executive Director approval of the Public Access Improvement Plan, the Permittee shall submit evidence to the Executive Director for review and written approval that the public recreational access improvements have been installed and are available for general public use. The Permittee shall provide and maintain the public recreational access improvements consistent with the approved Public Access Improvement Plan. Any proposed changes to the approved Public Access Improvement Plan shall be reported to the Executive Director. No changes to the approved Public Access Improvement Plan shall occur without an amendment to this CDP unless the Executive Director determines that no amendment is required.

3. **Construction Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT the Permittee shall submit two sets of a Construction Plan to the Executive Director for review and approval. The Construction Plan shall, at a minimum, include the following:

   (a) Construction Areas. The Construction Plan shall identify the specific location of all construction areas, all staging areas, all storage areas, all construction access corridors (to the construction site and staging areas), and all public pedestrian access corridors. All such areas within which construction activities and/or staging are to take place shall be minimized in order to minimize construction encroachment on all publicly available pathways, beach, and beach access points, to have the least impact on public access.

   (b) Construction Methods and Timing. The Construction Plan shall specify the construction methods to be used, including all methods to be used to keep the construction areas separated from public recreational use areas (including using the space available on the blufftop portions of the Permittee's properties for staging, storage, and construction activities to the maximum extent feasible, and including using unobtrusive fencing (or equivalent measures) to delineate construction areas), and including all methods to be used to protect Stillwater Cove. All erosion control/water quality best management practices to be implemented during construction and their location shall be noted.

(c) Construction Requirements. The Construction Plan shall include the following construction requirements specified by written notes on the Construction Plan. Minor adjustments to the following construction requirements may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.

- All work shall take place during daylight hours, and lighting of the beach area is prohibited.
- Construction work or equipment operations shall not be conducted below the mean high tide line unless tidal waters have receded from the authorized work areas.
- Grading of intertidal areas is prohibited, except removal of existing concrete, rip-rap, and rubble is allowed in these areas.
- Only rubber-tired construction vehicles are allowed on the intertidal area, except track vehicles may be used if the Executive Director determines that they are required to safely carry out construction. When transiting on the intertidal area, all such vehicles shall remain as close to the bluff edge as possible and avoid contact with ocean waters.
- All construction materials and equipment placed seaward of the bluffs during daylight construction hours shall be stored beyond the reach of tidal waters. All construction materials and equipment shall be removed in their entirety from these areas by sunset each day that work occurs, except for erosion and sediment controls and/or construction area boundary fencing where such controls and/or fencing are placed as close to the toe of the seawall/bluff as possible, and are minimized in their extent.
- Construction (including but not limited to construction activities, and materials and/or equipment storage) is prohibited outside of the defined construction, staging, and storage areas.
- No work shall occur during weekends and/or the summer peak months (i.e., from the Saturday of Memorial Day weekend through Labor Day, inclusive) unless, due to extenuating circumstances (such as tidal issues or other environmental concerns), the Executive Director authorizes such work.
- Equipment washing, servicing, and refueling shall not take place on the beach, and shall only be allowed at a designated inland location as noted on the Plan. Appropriate best management practices shall be used to ensure that no spills of petroleum products or other chemicals take place during these activities.
- The construction site shall maintain good construction site housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain, including covering exposed piles of soil and wastes; dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the beach; etc.).

- All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each workday. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction-related runoff and/or sediment from entering into Stillwater Cove.
- All public recreational use areas and all beach access points impacted by construction activities shall be restored to their pre-construction condition or better within three days of completion of construction. Any native materials impacted shall be filtered as necessary to remove all construction debris.
- The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office at least three working days in advance of commencement of construction or maintenance activities, and immediately upon completion of construction or maintenance activities.

All requirements above and all requirements of the approved Construction Plan shall be enforceable components of this coastal development permit. The Permittee shall undertake development in accordance with the approved Construction Plan.

4. **Construction Site Documents & Construction Coordinator.** DURING ALL CONSTRUCTION:

   (a) Construction Site Documents. Copies of the signed coastal development permit and the approved Construction Plan shall be maintained in a conspicuous location at the construction job site at all times, and such copies shall be available for public review on request. All persons involved with the construction shall be briefed on the content and meaning of the coastal development permit and the approved Construction Plan, and the public review requirements applicable to them, prior to commencement of construction.

   (b) Construction Coordinator. A construction coordinator shall be designated to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies), and the coordinator's contact information (i.e., address, phone numbers, etc.) including, at a minimum, a telephone number that will be made available 24 hours a day for the duration of construction, shall be conspicuously posted at the job site where such contact information is readily visible from public viewing areas, along with an indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The construction coordinator shall record the name, phone number, and nature of all complaints received regarding the construction, and shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry.

5. **Twenty-Year Approval.** This coastal development permit authorizes the approved project for twenty years from the date of approval (i.e., until June 14, 2033). If the Permittee intends to keep the approved project in place after June 14, 2033, then the Permittee shall apply for a new coastal permit authorization to allow the approved project (including, as applicable, any potential modifications to it desired by the Permittee). Provided the application is received

before the twenty-year permit expiration, the expiration date shall be automatically extended until the time the Commission acts on the application.

6. **Other Agency Approval.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit to the Executive Director for review a copy of the Monterey Bay National Marine Sanctuary (MBNMS), State Lands Commission (SLC), and Fish and Game Commission/California Department of Fish and Wildlife (FGC/CDFW) authorizations for the approved project, or evidence that no MBNMS/SLC/FGC authorizations are necessary. Any changes to the approved project required by the MBNMS, SLC, or FGC/CDFW shall be reported to the Executive Director. No changes to the approved project shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

7. **As-Built Plans.** WITHIN 90 DAYS OF COMPLETION OF CONSTRUCTION, or within such additional time as the Executive Director may grant for good cause, the Permittee shall submit two copies of As-Built Plans for Executive Director review and approval showing all development authorized by this CDP in relation to existing development located within 50 feet of the bluff edge extending from the upcoast edge of the Stillwater Cove Shoreline Overlook to the downcoast edge of the 18th Tee Box . The As-Built Plans shall be substantially consistent with the submitted project plans (dated May 9, 2013 and dated received in the Coastal Commission's San Francisco Office on May 14, 2013). The As-Built Plans shall include a graphic scale and all elevation(s) shall be described in relation to National Geodetic Vertical Datum (NGVD). The As-Built Plans shall include color photographs (in hard copy and jpg format) that clearly show the as-built project and the area between the Overlook and the 18th Tee, and that are accompanied by a site plan that notes the location of each photographic viewpoint and the date and time of each photograph. At a minimum, the photographs shall be from a sufficient number of upcoast, downcoast, inland and seaward viewpoints as to provide complete photographic coverage of the permitted armoring at this location.

8. **Monitoring and Reporting.** The Permittee shall ensure that the condition and performance of the approved as-built project is regularly monitored, including that the seawalls and all related components must be regularly monitored by a licensed civil engineer with experience in coastal structures and processes. Such monitoring evaluation shall at a minimum address whether any significant weathering or damage has occurred that would adversely impact future performance, and identify any structural damage requiring repair to maintain the approved as-built project in its approved and/or required state. Monitoring reports prepared by a licensed civil engineer with experience in coastal structures and processes, and covering the above-described evaluations, shall be submitted to the Executive Director for review and approval at five year intervals by May 1st of each fifth year (with the first report due May 1, 2018, and subsequent reports due May 1, 2023, May 1, 2028, May 1, 2033, and longer, if the CDP expiration date is extended) for as long as the approved project exists at these locations. The reports shall identify the existing configuration and condition of the seawalls and all related components, shall recommend actions necessary to maintain these projects in their approved and/or required state, and shall include photographs taken from each of the same vantage points required in the As-Built Plans with the date and time of the photographs and the location of each photographic viewpoint noted on a site plan. Actions necessary to

maintain the approved project in a structurally sound manner and its approved state shall be implemented within 30 days of Executive Director approval, unless a different time frame for implementation is identified by the Executive Director.

9. Future Maintenance Authorized. This coastal development permit authorizes future seawall maintenance and repair subject to the following:

(a) Maintenance. "Maintenance," as it is understood in this special condition, means development that would otherwise require a coastal development permit whose purpose is to maintain the seawalls and all related components in their approved state.

(b) Other Agency Approvals. The Permittee acknowledges that this maintenance condition does not obviate the need to obtain permits from other agencies for any future maintenance and/or repair episodes.

(c) Maintenance Notification. At least 30 days prior to commencing any maintenance event, the Permittee shall notify, in writing, planning staff of the Coastal Commission's Central Coast District Office. The notification shall include: a detailed description of the maintenance event proposed; any plans, engineering and/or geology reports describing the event; a construction plan that complies with all aspects of the approved construction plan as described above; identification of a construction coordinator and his/her contact information (i.e., address, phone numbers, etc.) as described above; other agency authorizations; and any other supporting documentation (as necessary) describing the maintenance event. The maintenance event shall not commence until the Permittee has been informed by planning staff of the Coastal Commission's Central Coast District Office that the maintenance event complies with this CDP. If the Permittee has not been given a verbal response or sent a written response within 30 days of the notification being received in the Central Coast District Office, the maintenance event shall be authorized as if planning staff affirmatively indicated that the event complies with this CDP. The notification shall clearly indicate that the maintenance event is proposed pursuant to this CDP, and that the lack of a response to the notification within 30 days constitutes approval of it as specified in the permit. In the event of an emergency requiring immediate maintenance, the notification of such emergency episode shall be made as soon as possible, and shall (in addition to the foregoing information) clearly describe the nature of the emergency.

(d) Maintenance Coordination. Maintenance events shall, to the degree feasible, be coordinated with other maintenance events proposed in the immediate vicinity with the goal being to limit coastal resource impacts, including the length of time that construction occurs in and around the beach and bluff area and beach access points. As such, the Permittee shall make reasonable efforts to coordinate the Permittee's maintenance events with other adjacent events, including adjusting maintenance event scheduling as directed by planning staff of the Coastal Commission's Central Coast District Office.

(e) Construction Site Documents and Construction Coordinator. All requirements set forth in **Special Condition 4** above ("Construction Site Documents & Construction Coordinator") shall apply to any maintenance event.

(f) Restoration. The Permittee shall restore all beach and rocky shore platform areas and all access points impacted by maintenance activities to their pre-construction condition or better. Any native materials impacted shall be filtered as necessary to remove all construction debris from the area within three days of completion of construction. The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office upon completion of restoration activities to arrange for a site visit to verify that all restoration activities are complete. If planning staff identifies additional reasonable measures necessary to restore the affected area, such measures shall be implemented as quickly as reasonably possible.

(g) Noncompliance with CDPs. If the Permittee is not in compliance with the terms and conditions of any Coastal Commission coastal development permits or other coastal authorizations that apply to the subject properties at the time that a maintenance event is proposed, then the maintenance event that might otherwise be allowed by the terms of this future maintenance condition shall not be allowed by this condition until the Permittee is in full compliance with those terms and conditions.

(h) Emergency. In addition to the emergency provisions set forth in subsection (c) above, nothing in this condition shall serve to waive any Permittee rights that may exist in cases of emergency pursuant to Coastal Act Section 30611, Coastal Act Section 30624, and Subchapter 4 of Chapter 5 of Title 14, Division 5.5, of the California Code of Regulations (Permits for Approval of Emergency Work).

(i) Duration of Covered Maintenance. Future maintenance under this CDP is allowed subject to the above terms until June 14, 2033. The Permittee shall maintain the permitted armoring in its approved state. No expansion or enlargement of the permitted armoring is allowed.

10. Assumption of Risk, Waiver of Liability and Indemnity. By acceptance of this permit, the Permittee acknowledges and agrees, on behalf of itself and all successors and assigns: (i) that the site is subject to hazards from episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, tsunami, tidal scour, coastal flooding, 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; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

11. Archaeology. SHOULD ARCHAEOLOGICAL RESOURCES BE ENCOUNTERED DURING ANY CONSTRUCTION, all activity that could damage or destroy these resources shall be temporarily suspended until a qualified archaeologist has examined the site and mitigation measures have been developed that address and proportionately offset the impacts of the project on archaeological resources.

12. Deed Restriction. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit for Executive Director review and approval documentation demonstrating that the Permittee has executed and recorded against the subject properties governed by this permit (i.e., APN 008-411-020 and APN 008-411-018) 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 and graphic description of the 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.

IV. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION

Project Location

The two proposed project sites are located near the intersection of Cypress Drive and 17-Mile Drive within the Pebble Beach Lodge Complex, in the Pebble Beach area of the Del Monte Forest, Monterey County **(Exhibit 1).**

Sloat Seawall: The Sloat Seawall project site is located along the coastal bluff seaward of the Sloat Building at the end of Casitas Avenue within the Pebble Beach Lodge Complex. Existing structural elements located between the Sloat Building and the edge of the coastal bluff include a parking area, the Pebble Beach Community Services District (PBCSD) gravity sewer main, the Stillwater Cove Shoreline Overlook (composed of a wooden platform, railings and benches), handicap vehicle and bicycle parking, and underground utilities that serve Pebble Beach Golf Links (PBGL). In addition, this area also provides access to the 18th Fairway of the PBGL and is used as a staging and access area to bring in equipment during PBGL events. The coastal bluff at the project site is approximately 24-feet high, 156-feet long, and is comprised of 9-10 feet of easily erodible terrace deposits on top of sandstone bedrock. Coastal protection structures installed prior to the 1972's Prop 20 ("The Coastal Initiative") and 1976's Coastal Act currently exist at the site. These protective structures include a 42-foot-long deteriorated rip-rap and concrete coastal protective device and a 42-foot-long undermined vertical seawall (total length of 84 feet).

Historically, the area seaward of the Sloat Building was a private parking lot and private access for the Applicant related to golf course and Lodge activities. As a condition of the Casa Palmero CDP (A-3-MCO-97-037) the public was allowed vertical access to the area, although there were no defined areas for public access or public access amenities. As a condition to CDP 3-09-025, approved by the Commission in August 2010, Pebble Beach Company was required to provide a formal public access path from other established public trails in the Pebble Beach Lodge area to the overlook area, and to construct a developed shoreline overlook with public access amenities between the Sloat Building and the ocean. Thus, the area now contains a demarcated path to the overlook, handicap vehicle and bicycle parking, and a wooden overlook platform with guardrails and built-in seating, all of are popular amenities and currently used by the public. The Stillwater Cove Shoreline Overlook is one of only two locations between the City of Carmel (downcoast) and Pescadero Point (upcoast), a distance of over two miles, where vertical access to this portion of the Del Monte Forest Shoreline is available to the general public.

18th Fairway Seawall: The 18th Fairway Seawall project site is located along a 200-foot long section of coastal bluff seaward of the 18th Fairway of the PBGL. An existing vertical seawall is upcoast of the project site and natural bedrock formations are downcoast of the project site. The coastal bluff at the project site from bottom to top is composed of 9.5-foot high bedrock, 2-foot high deeply weathered bedrock, and 4.5-foot high terrace deposits. A grouted rip-rap revetment structure of about 63 feet in length was constructed at the project site in 1983 after the 1983 El Niño coastal storms under CDP 3-83-197-A2. A portion of this revetment is still attached to the bluff, while the other portion (approximately 35-40-feet) mobilized and migrated seaward in 2005 as a result of undercutting by wave action and reactivation of a block landslide, exposing a vertical scarp and bedrock plane. In response to this revetment failure, the Commission issued an emergency permit (CDP 3-05-003-G) to the Applicant to install a temporary vertical seawall constructed of colored and textured plywood sheeting to replace the failed revetment, which also still exists at the site. The emergency area would be incorporated into the new proposed seawall.

The area landward of the project site is a primary landing area of the 18th Fairway for golf shots played from the 18th tee complex. This area also includes irrigation piping, electrical wiring, drainage systems, and rough (areas on a golf course outside of the fairways that feature higher, thicker grass or naturally growing vegetation designed to assist players who miss the fairways) all within 3 feet of the bluff edge. The design of the PBGL, including the Par 5 18th hole, is century old and iconic in the world of golf and has been in use since 1919.

Project Description

The proposed project would replace and expand the existing shoreline protection structures at both project sites and restore the beach area seaward of those structures.

Sloat Seawall: The new coastal protection structures installed at the Sloat site would include a roughly 150-foot-long, 9-foot-high stone faced retaining wall on the upper part of the bluff to reduce erosion of the terrace deposits. Artificial rock faced coastal protection structures would also be placed in three places along the lower bluff totaling around the same length, including sections of 7-foot, 11-foot, and 14-foot semi-vertical seawalls/concrete buttresses **(Exhibit 2).**

18th Fairway: The new coastal protection structures installed at the 18th Fairway site would include an approximately 200-foot long, 10-foot high vertical reinforced concrete seawall covered with artificial rock fascia to reduce erosion of the upper bluff and a 200-foot long 10-foot high artificial bedrock platform in front the vertical wall to reduce wave run-up and over-topping to prevent undermining of the vertical wall. The coastal protection would connect upcoast to the existing concrete vertical seawall and downcoast to a naturally resistant endpoint in the bedrock. The bedrock platform would be keyed into the underlying sandstone materials to protect the wall from wave undercutting and mitigate any landslide potential **(Exhibit 3).**

B. STANDARD OF REVIEW

The proposed project is located within the Commission's retained CDP jurisdiction and thus the standard of review is the Coastal Act. As relevant, the Monterey County certified LCP can provide non-binding guidance. However, the LCP and Coastal Act policies are very similar in regards to allowing shoreline armoring and eliminating or mitigating for its impacts. Thus, the LCP policies do not provide significantly different policy direction in this case.

C. GEOLOGICAL CONDITIONS AND HAZARDS

Coastal Act Section 30235 addresses the use of shoreline protective devices:

> ***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.*

Coastal Act Section 30253 addresses the need to ensure long-term structural integrity, minimize future risk, and to avoid landform altering protective measures in the future. Section 30253 provides, in part:

> ***Section 30253.*** *New development shall do all of the following:*
>
> *(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.*

Consistency Analysis

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" methods designed to forestall erosion also alter natural landforms and natural shoreline processes. Accordingly, with the exception of coastal-dependent uses, Section 30235 limits the construction of shoreline protective works to those required to

protect existing structures or public beaches in danger from erosion. The Coastal Act provides these limitations because shoreline structures can have a variety of negative impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beaches.

Under Coastal Act Section 30235, a shoreline structure must be approved if: (1) there is an existing structure; (2) the existing structure is in danger from erosion; (3) shoreline-altering construction is required to protect the existing threatened structure; and (4) the required protection is designed to eliminate or mitigate its adverse impacts on shoreline sand supply. The first three questions relate to whether the proposed armoring is necessary, while the fourth question applies to mitigating some of the impacts from it.

Existing Structure to be Protected

For the purposes of shoreline protective structures, the Coastal Act distinguishes between development that is allowed shoreline armoring, and development that is not. Under Section 30253, new development is to be designed, sited, and built to allow the natural process of erosion to occur without creating a need for a shoreline protective device. Coastal development permittees for new shorefront development are thus 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, offshore recreational access, sand supply, visual resources, and natural landforms, and that the public will not be held responsible for any future stability problems.

In addition, the Commission has generally interpreted Section 30235 to apply only to existing principal structures. The Commission must always consider the specifics of each individual project, but has generally found that accessory structures (such as patios, decks, gazebos, stairways, etc.) are not required to be protected under Section 30235, or can be protected from erosion by relocation or other means that do not involve shoreline armoring. The Commission has generally historically permitted at grade structures within geologic setback areas recognizing that they are expendable and capable of being removed rather than requiring a protective device that would alter natural landforms and processes along bluffs, cliffs, and beaches.

In this case, the Sloat Seawall is proposed to protect the public handicap vehicle parking area, the PBCSD gravity sewer main, the Stillwater Cove Shoreline Overlook, the access route to the 18th Green of the Pebble Beach Golf Links (PBGL), underground utilities that serve PBGL, and the Sloat building farther landward. The 18th Fairway Seawall is proposed to protect the 18th hole fairway, rough, irrigation piping, electrical wiring, and drainage systems. All of the development listed above was constructed or in use prior to CDP requirements in 1972 and 1976, except the Stillwater Cove Shoreline Overlook which was installed in 2012 as a condition to CDP 3-09-025.

The PBGL course is one of the most famous golf courses in the world, and the 18th Hole is perhaps the most famous finishing hole in golf. PBGL is an iconic and historic golf course with numerous structural and non-structural components. The course includes substantial development and structural elements such as the pro shop/clubhouse, snack building, restrooms, roads, cart paths, walkways, and under- and aboveground infrastructure and utilities for the

various tees and greens (including drainage and irrigation improvements, tee boxes, and retaining walls). The course also includes significant landscaping and turf areas.

The 18th Fairway Seawall is being proposed to halt shoreline erosion that threatens the 18th Fairway. The 18th Fairway includes irrigation piping, electrical wiring, and drainage systems, as well as turfed areas atop that. The Applicant indicates that the area of the 18th Fairway at risk from coastal erosion is critical to golf play, as it is the primary landing areas for golf shots played from the 18th tee complex on this Par 5 hole. The Commission has a history in the Del Monte Forest of considering golf course and armoring questions in terms of the effect on the hole in question and the overall course as an existing structure.

The existing structures landward of the proposed Sloat Seawall include the Sloat Building, which is a principle structure on the property constructed prior to the Coastal Act, and the Stillwater Cove Shoreline Overlook, which was permitted under CDP 3-09-025. The overlook provides a significant public access and recreation amenity for this otherwise restricted area of the coastline. Prior to the installation of the Stillwater Cove Shoreline Overlook improvements, only one improved vertical accessway for the general public existed between Carmel and Pescadero Point, an area of over 2 miles. The overlook and pathway to the overlook provide access to the shoreline, and because of its west-facing orientation, the Overlook provides the public with sweeping views of Stillwater Cove **(Exhibit 4).**

Danger from Erosion

The Coastal Act allows shoreline armoring to protect existing structures in danger from erosion, but it does not define the term "in danger." There is a certain amount of risk involved in maintaining development along a California coastline that is actively eroding and can be directly subject to violent storms, large waves, flooding, earthquakes, and other geologic hazards. These risks can be exacerbated by such factors as sea level rise and localized geography that can focus storm energy at particular stretches of coastline. As a result, some would say that all development along the immediate California coastline is in a certain amount of "danger." It is a matter of the degree of threat that distinguishes between danger that represents an ordinary and acceptable risk, and danger that requires shoreline armoring per 30235. Lacking Coastal Act definition, the Commission's long practice has been to evaluate the immediacy of any threat in order to make a determination as to whether an existing structure is "in danger." While each case is evaluated based upon its own particular set of facts, the Commission has generally interpreted "in danger" to mean that an existing structure would be unsafe to occupy within the next two or three storm season cycles (generally, the next few years) if nothing were to be done (i.e., in the no project alternative).

The terrace deposits on the upper bluff at the Sloat Seawall project site are primarily made up of clayey sand and are easily eroded when exposed to wave impact. The sandstone bedrock supporting the terrace deposits is jointed and weathered and is undercut at the base from abrasion and wave impact. Historical evidence shows a reduction in width of the beach at Stillwater Cove since the 1940s of about 33 feet in 41 years (0.8 feet per year) (Source: *Sediment distribution and transport along a rocky embayed coast; Monterey Peninsula and Carmel Bay, California* by Curt Storlazzi and Mike Field, dated 2000). Analyses performed by the Applicant's consultant (Haro, Kasunich and Associates, Inc.) indicate that the average long term coastal bluff recession

rate at the Sloat Seawall project site to be approximately 0.3 feet per year with some portions eroding faster at a rate of 0.5 feet per year. It is also important to note that the erosion at the Sloat Seawall project site is more a result of episodic events rather than steady erosion. The Applicant's consultant estimates that 25 feet of bluff recession could occur within 50 years, with a likely increase in this rate due to sea level rise.

Quarrystones, concrete blocks, and grouted rip-rap have been historically placed at the Sloat blufftop within the eroded channels to slow recession and prevent undermining of the existing blufftop improvements. However, the existing grouted rip-rap is deteriorating and being undermined at the toe, failing to protect against erosion. The middle section of the bluff is weakened by natural joints in the bedrock and is facing accelerated erosion. The existing vertical seawall has been undermined and outflanked by bedrock erosion at the base of the bluff. Finally, the upper terrace is over steepened and will continue to recede as the bedrock below is undermined. As indicated, the Stillwater Cove Shoreline Overlook and path is located within 5 feet of the bluff edge **(Exhibit 2)**. With continued erosion, the overlook and public access amenities would eventually be unsafe and unusable due to their close proximity to the bluff edge, resulting in a loss of this significant public access to Stillwater Cove.

The coastal bluff at the 18th Fairway project site is composed, on average, of 9.5-foot high bedrock, 2-foot high deeply weathered bedrock and 4.5-foot high terrace deposits. The bluff has a vertical section and a gently sloping bedrock platform which leads into the low elevation sand and pebble beach areas that are often covered with wave swash. At the 18th Fairway project site, average long term bedrock erosion rates were estimated at 0.2 feet per year, and average long term bluff recession rates were estimated at 0.4 feet per year. Short term bluff recession rates appear to be the most significant geological hazard at the this site, since the terrace deposits are at a low elevation and are often exposed to wave runup. 15-feet of bluff recession has been observed in a single winter at the 18th Fairway project site.

Grouted rip-rap and vertical seawalls have been historically placed along sections of the bluff edge at the 18th Fairway project site to protect the bluff from wave runup and prevent further erosion of the bluff. However, the existing vertical seawall that was constructed under emergency permit CDP 3-05-003-G was never permanently authorized, and the existing grouted rip-rap has become undercut and undermined, resulting in a portion migrating onto the sandy beach.

Without protection, wave runup will continue to hit the upper bluff, and further erosion of unstable materials will occur, causing bluff recession into the 18th Fairway. The edge of the 18th Fairway is within 3 feet of the bluff edge (**Exhibit 5**). Currently, there is a drainage outlet at the project site that is protruding from the bluff face. Further recession of the bluff will result in narrowing of the 18th Fairway at a critical location for golf play, damages to the existing infrastructure underlying the turfed area, and outflanking of the upcoast seawall that protects the 18th green. An analysis by the Applicant illustrates that compared to other par 4 and par 5 ocean front golf holes, the 18th hole's primary landing area is critically narrow (**Exhibit 6**). Narrowing of the Fairway in this location would significantly impact the functionality and quality of the 18th hole complex.

The Commission has generally interpreted "in danger" to mean that an existing structure would be unsafe to occupy within the next two or three storm season cycles (generally, the next few years) if nothing were to be done. In this case, the Stillwater Cove Shoreline Overlook is in danger because, as previously discussed, it is within 5 feet of the bluff edge, and subject to ongoing erosion that is episodic in nature. At the 18th Fairway site, the underlying infrastructure and the most narrow section of the 18th fairway critical to golf play are in danger. The Commission's geologist evaluated the two seawall projects and the project's underlying threat evaluation, and concluded that the existing overlook and the 18th Fairway site are "in danger" as that term is understood in a Coastal Act context. Therefore, the Commission concludes that the Stillwater Cove Shoreline Overlook and the 18th Fairway area are existing structures in danger from erosion for purposes of Section 30235.

Feasible Protection Alternatives to a Shoreline Structure

The third Section 30235 test that must be met is that the proposed armoring must be "required" to protect the existing threatened structure. In other words, shoreline armoring can be permitted if it is the only feasible alternative capable of protecting the structure.[1] When read in tandem with other applicable Coastal Act policies cited in these findings, this Coastal Act Section 30235 evaluation is often conceptualized as a search for the least environmentally damaging feasible alternative that can serve to protect existing endangered structures. Other alternatives typically considered include: the "no project" alternative; abandonment of threatened structures; relocation of threatened structures; sand replenishment programs; drainage and vegetation measures on the blufftop; and combinations of each.

An alternatives analysis was conducted for the both seawalls. The following alternatives for the Sloat Seawall were examined:

- *No Action:* If no action is taken at the Sloat site, the existing coastal protection structures would continue to deteriorate and eventually would fail, resulting in continued erosion, weakening, and undermining of the bedrock. In addition, the terrace deposits would continue to erode, undermining the existing development. The overlook and public access amenities would become unsafe and unsuable, resulting in a loss of public access to this portion of the golf course and the Stillwater Cove Shoreline Overlook. The loss of these public access amenities would be inconsistent with other Coastal Act policies and would fail to comply with conditions set forth in CDP 3-09-025.

- *Relocation***:** The Applicant claims that relocation of the existing elements is infeasible due to physical limitations and property line constraints as the area is surrounded by private property, Stillwater Cove, and the 18th Green. The location of the overlook offers free access to the coast in an otherwise restricted area. Relocating the overlook would result in a loss of access to this area of Stillwater Cove and shifting the overlook inland would result in a loss of the sweeping views which makes this public access area unique. The loss of these public access amenities would be inconsistent with other Coastal Act

[1] Coastal Act Section 30108 defines feasibility as follows: "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

policies and would fail to comply with conditions set forth in CDP 3-09-025.

- *Beach Nourishment:* The Applicant's geotechnical engineers indicate that the substantial natural onshore/offshore sand and pebble mobility in Stillwater Cover, coupled with seasonal beach scour, would reduce the effectiveness of any nourishment. The intertidal and nearshore sub-tidal zones in Stillwater Cove also have a rocky substrate with diverse biological marine life, which could be negatively impacted by beach nourishment. In addition, sand in Stillwater Cove is of a unique granodiorite and carmeliorite composition found only at Stillwater Cove, and cannot be easily replaced by sands mined elsewhere without degrading the unique qualities of the existing beach sand. Lastly, although beach nourishment might slow erosion at the base of the coastal bluff, it would not reduce the instability of the upper terrace deposits. Therefore, the effectiveness of beach nourishment would be limited due to the site conditions, could potentially result in adverse impacts to marine resources, and would not adequately address the threat of upper bluff erosion.

- *Modify irrigation patterns, surface drainage patterns or subsurface drainage patterns:* This would not alter erosion patterns as irrigation rates are monitored and applied as needed to replenish moisture levels in the root zone only for optimum turf conditions. Surface and subsurface drainage does not play a significant role in bluff landslide and erosion at the project site.

- *Construct rip-rap revetment:* While rip-rap would reduce wave run-up it would result in greater impacts to the intertidal area, as it would extends far out onto the beach/intertidal and can drift seaward. Rip-rap at the lower portion of the bluff would not stabilize the upper portion. In this case, rip-rap would not stabilize the upper bluff and could potentially result in adverse impacts to marine resources.

- *Construction retaining walls only along upper bluff:* This can only be used in combination with other retaining structures since the base of the bluff is eroding as well.

The following alternatives for the 18th Fairway Seawall were examined:

- *No Action:* As required through emergency permit CDP 3-05-003-G, the coastal protection that exists at the site would be removed. After removal, wave runup, storms and rainfall would continue to erode the upper bluff, resulting in substantial bluff recession into the 18th Fairway. This recession would result in narrowing of the Fairway at a critical location to golf play. Bluff recession would also result in outflanking of the upcoast seawall that protects the 18th green. An analysis by the Applicant illustrates that compared to other par 4 and par 5 ocean front golf holes, the 18th hole primary landing area is critically narrow. Narrowing of the hole would destroy its functionality and quality with potential impacts to recreation in this area.

- *Relocation/Reconfigure:* Relocation of the 18th Fairway inland is not feasible, due to the presence of the golf cart/public access path, private homes and other structures. The 18th Fairway is directly adjacent to the golf cart/public access path and is bound to the north and northeast by privately owned residential property. Reconfiguring the fairway to address erosion danger would lead to a loss of fairway area through reducing the size of

the fairway and adjacent rough areas. The effect would be to shift the fairway inland and narrow it. Such reconfiguration would force golfers to aim more directly towards the golf cart/public access path and residential properties, causing a safety concern. The design of the golf course is a century old and is iconic in the world of golf. Relocating or removing critical components of the hole would affect playability and the difficulty rating of the hole. The Applicant states that the 18th hole is "vital to the integrity, functionality, strategy and excellence of the golf course as a whole." Thus, relocation/realignment of the 18th Fairway would adversely impact this unique recreational resource, as well as the golf cart/public access path that is available to the general public.

- *Modify irrigation patterns, surface drainage patterns or subsurface drainage patterns:* Modification of irrigation patterns as discussed above, would not alter erosion patterns at this site because the surface drainage at this site that flows over the bluff is negligible compared to the severe wave impact and runup due to the bluffs' low elevation. The proposed 18th Fairway seawall includes backdrains and weepholes to extract and convey water through the wall, accounting for the subsurface drainage patterns.

- *Use vegetation to stabilize the bluff***:** Due to the low elevation and extreme exposure to wave impact, vegetation would become uprooted or washed off the edge of the bluff.

- *Contract upper bluff retaining wall and shorter artificial bedrock platform:* A shorter platform would not be effective at reducing wave runup. The platform also needs to be designed so that it can be founded at a depth that will allow it to not be susceptible to dip-slope landslide induced failures in the bedrock.

As discussed above, these alternative options are not feasible nor preferred under the Coastal Act, and the proposed seawalls are "required" to protect the existing structures that support public access and recreation at the project sites. Thus, the project meets the third test of Section 30235 of the Coastal Act.

Sand Supply Impacts

The fourth test of Section 30235 that must be met in order to allow Commission approval is that shoreline structures must be designed to eliminate or mitigate adverse impacts to local shoreline sand supply.

Shoreline Processes

Beach sand material comes to the shoreline from inland areas, carried by rivers and streams; from offshore deposits, carried by waves; and from coastal dunes and bluffs, becoming beach material when the bluffs or dunes lose material due to wave attack, landslides, surface erosion, gullying, et cetera. Coastal dunes are almost entirely beach sand, and wind and wave action often provide an ongoing mix and exchange of material between beaches and dunes. Many coastal bluffs are marine terraces – ancient beaches which formed when land and sea levels differed from current conditions. Since the marine terraces were once beaches, much of the material in the terraces is often beach-quality sand or cobble, and is a valuable contribution to the littoral system when it is added to the beach. While beaches can become marine terraces over geologic time, the normal exchange of material between beaches and bluffs is for bluff erosion to provide beach material. Bluff retreat and erosion is a natural process resulting from many different

factors such as erosion by wave action causing cave formation, enlargement and eventual collapse of caves, saturation of the bluff soil from groundwater causing the bluff to slough off, and natural bluff deterioration. When the back-beach or bluff is protected by a shoreline protective device, the natural exchange of material either between the beach and dune or from the bluff to the beach will be interrupted and, if the shoreline is eroding, there will be a measurable loss of material to the beach. Since sand and larger grain material are the most important components of most beaches, only the sand portion of the bluff or dune material is quantified as sandy beach material.

These natural shoreline processes affecting the formation and retention of sandy beaches can be significantly altered by the construction of shoreline armoring structures because bluff retreat is one of several ways that beach quality sand is added to the shoreline, and is also one of the critical factors associated with beach creation/retention. Bluff retreat and erosion are natural processes that result from the many different factors described above. Shoreline armoring directly impedes these natural processes.

The Stillwater Cove bluffs are comprised of three geologic formations. The bluffs along the western portion of Stillwater Cove (from Pescadero Point to the upcoast end of the Beach Club) are comprised of a resistant, not easily eroded granodiorite. The bluffs from the Beach Club to approximately the 5th green (which is also the sandy beach area of the cove) are comprised of the easily eroded Carmelo formation (largely sandstone), and the bluffs from the 5th green to Arrowhead Point are comprised of tertiary volcanics of the Carmeloit formation which are resistant to erosion.[2] The source of sediment in Stillwater Cove appears to be both the granodiorite and the Carmelo formation along the shoreline, with the largest percentage being the Carmelo formation sandstone, as well as granodiorite-derived sediment from streams that drain the southern part of the Monterey peninsula. Sediment samples show that beach sediment in Stillwater Cove is significantly different than that found in other nearby areas of the Monterey Peninsula, including Carmel Beach, which is immediately downcoast from Arrowhead Point. Arrowhead Point appears to be an effective barrier to southward sediment transport out of Stillwater Cove, and littoral sediment is probably transported offshore and ultimately into the Carmel submarine canyon.[3] Therefore, unlike beaches located in the middle of a littoral cell, where longshore currents may also provide significant amounts of sand from upcoast sources, the system at this location is fairly 'closed', and thus certain impacts (such as retention of bluff material by shoreline protective devices) are magnified at this location.

Some of the effects of engineered armoring structures on the beach (such as scour, end effects and modification to the beach profile) are temporary or are difficult to distinguish from all the other actions that modify the shoreline. Others are more qualitative (e.g., impacts to the character of the shoreline and visual quality). Some of the effects that a shoreline structure may have on natural shoreline processes can be quantified, however, including: (1) the loss of the beach area on which the structure is located; (2) the long-term loss of beach that will result when the back-beach location is fixed on an eroding shoreline; and (3) the amount of material that would have

[2] Storlazzi, C.D., and Field, M.E. 2000. *Sediment distribution and transport along a rocky embayed coast: Monterey Peninsula and Carmel Bay, California.* Marine Geology: V170 (2000) pp. 289-316.

[3] Id (Storlazzi and Field 2000).

been supplied to the beach if the back-beach or bluff were to erode naturally.[4]

Encroachment on the Beach

Shoreline protective devices are all physical structures that occupy space. When a shoreline protective device is placed on a beach area, the underlying beach area cannot be used as beach. This generally results in a loss of public access as well as a loss of sand and/or areas from which sand generating materials can be derived. The area where the structure is placed will be altered from the time the protective device is constructed, and the extent or area occupied by the device will remain the same over time, until the structure is removed or moved from its initial location, or in the case of a revetment, as it spreads seaward over time. The beach area located beneath a shoreline protective device, referred to as the encroachment area, is the area of the structure's footprint.

Using the Commission's long-standing methodology, the proposed project would cover an area of sandstone and beach area that would otherwise contribute to the local sand supply, and/or that would otherwise be occupied by sand part of the year. In this case, at the Sloat site, the proposed shoreline protection would cover approximately 1,400 square feet of sandy area. At the 18th Fairway site, the proposed shoreline protection would cover approximately 3,687 square feet of sandy area.[5]

The loss of a square-foot of beach area can be roughly converted to the volume of sand that would be required to nourish an equivalent area of beach. There is a rough rule of thumb that it takes between 1 to 1.5 cubic yards of sand to establish 1 square foot of dry beach through nourishment.[6] The Commission has not been able to establish an actual conversion factor for the Stillwater Cove vicinity. If a 1.0 conversion factor is used that assumes that the active range of sand transport is at the lower limit of the expected range (i.e., the low end of the spectrum of values typically assumed by coastal engineers), a conservative estimate of the cubic yard equivalent of 1,400 square feet of coverage for the Sloat site and 3,687 square feet of coverage for the 18th Fairway site can be calculated. However, at both sites a very narrow wedge of sand is present. Estimating that the shore face height at the sites is about 20 feet, the Applicant's consultants calculated that 0.75 cubic yards of sand nourishment per lineal foot would be needed to widen the beach by a foot at these locations. Using this conversion factor, the sand volume equivalent for the direct loss of beach due to encroachment by both seawall projects would be 3,815 cubic yards of sand (1,050 cubic yards of sand for the Sloat site and 2,765 cubic yards of

[4] The sand supply impact refers to the way in which the project impacts creation and maintenance of beach sand. Although this ultimately translates into beach impacts in this case, the discussion here is focused on the first part of the equation and the way in which the proposed project would impact sand supply processes.

[5] The wall would be 200 feet long, with an average width of 18.4 feet.

[6] This conversion value is based on the regional beach and nearshore profiles, and overall characteristics. When there is not regional data to better quantify this value, it is often assumed to be between 1 and 1.5, the basis being that to build a beach seaward one foot, there must be enough sand to provide a one-foot wedge of sand through the entire region of onshore-offshore transport. If the range of reversible sediment movement is from -30 feet msl to +10 feet msl, then a one-foot beach addition must be added for the full range from -30 to +10 feet, or 40 feet total. This 40-foot by 1-foot square parallelogram could be built with 1.5 cubic yards of sand (40 cubic feet divided by 27 cubic feet per cubic yard). If the range of reversible sediment transport is 27 feet, it will take 1 cubic yard of sand to rebuild one square foot of beach; if the range of reversible sediment transport is larger than 40 feet, it will take more than 1.5 cubic yards of sand to rebuild one square-foot of beach.

sand for the 18th Fairway site).

Fixing the back beach

Experts generally agree that where the shoreline is eroding and armoring is installed, the armoring will eventually define the boundary between the sea and the upland. On an eroding shoreline, a beach will exist between the shoreline/waterline and the bluff as long as sand is available to form a beach. As bluff erosion proceeds, the profile of the beach also retreats and the beach area migrates inland with the bluff. This process stops, however, when the backshore is fronted by a hard protective structure such as a revetment or a seawall. While the shoreline on either side of the armor continues to retreat, shoreline in front of the armor eventually stops at the armoring. The beach area will narrow, being squeezed between the moving shoreline and the fixed backshore. Eventually, there will be no available dry beach area and the shoreline will be fixed at the base of the structure. In the case of an eroding shoreline, this represents the loss of a beach as a direct result of the armor.

In addition, sea level has been rising slightly for many years. There is a growing body of evidence that there has been an increase in global temperature and that acceleration in the rate of sea level rise can be expected to accompany this increase in temperature (some shoreline experts have indicated that sea level could rise 4.5 to 6 feet by the year 2100[7]). Mean water level affects shoreline erosion several ways, and an increase in the average sea level will exacerbate all these conditions. On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore. This, too, leads to loss of the beach as a direct result of the armor as the beach is squeezed between the landward migrating ocean and the fixed backshore.

Such passive erosion impacts can be calculated over the time the proposed armoring is expected to last. In this case, the Applicant indicates that the proposed seawall project will have a 50-year lifetime over which time such impacts will be in effect. However, it has been the Commission's experience that the accurate expected lifespan of shoreline armoring projects is often substantially less than 50 years due to the need for major maintenance or modifications, or entire redevelopment of an armoring structure within a much shorter timeframe. In this case, the proposed seawalls can be expected to be subject to heavy wave and storm action on a fairly regular basis. This wave action can only be expected to be exacerbated by sea level rise over time, with resultant impacts to the strength and integrity of the seawall. In other words, despite the Applicant's 50-year projection, it has been Commission's experience that shoreline armoring tends to be augmented, replaced, and/or substantially changed within about twenty years. This assumption is especially relevant at the proposed project sites which have historical structures that have been in place for fewer than fifty years including the grouted rip-rap at the 18th Fairway installed in 1983 which needing emergency replacement after 22 years that currently require removal and replacement.

[7] The California Climate Action Team has evaluated possible sea level rise for the California coast and, based on several of the Intergovernmental Panel on Climate Change (IPCC) scenarios, projected sea level rise up to 1.4 meters (4.5 feet) by 2100. These projections are in line with 2007 projections by Stefan Rahmstorf ("A Semi-Empirical Approach to Projecting Future Sea-Level Rise", *Science*; Vol 315, 368 – 370. Research by Pfeffer et al. ("Kinematic Constraints on Glacier Contributions to 21st-Century Sea-Level Rise", *Science*, Vol, 321, 1340 – 1343) projects up to 2 meters of sea level rise by 2100.

The other factor that is appropriate to consider when identifying a particular horizon for a seawall in an approval is the changing and somewhat uncertain nature of the context affecting coastal development decisions regarding armoring (including due to legislative change, judicial determinations, etc.). A twenty-year period better responds to such potential changes and uncertainties. For these reasons, the Commission uses a design life of 20 years for the proposed seawall in these findings, and implements the 20-year period through **Special Condition 5**.

The Commission has established a methodology for calculating passive erosion, or the long-term loss of beach due to fixing the back beach. This impact is equivalent to the footprint of the bluff area that would have become beach due to erosion and is equal to the long-term erosion rate multiplied by the width of property that has been fixed by a resistant shoreline protective device.[8] In this case, the proposed seawalls will extend out over Carmelo sandstone bedrock as well as sandy beach. For purposes of determining the impacts from fixing the back beach, it is assumed that new beach area would result from landward retreat of the bluff. The area affected by passive erosion at the Sloat site can be approximated as a 150-foot-long bluff and as a 200-foot-long curvilinear bluff at the 18th Fairway site. The Applicant's geotechnical consultant estimated the average bluff recession for the Sloat site at 0.3 feet per year and 0.5 feet per year for the 18th Fairway site. Therefore the impacts from fixing the back beach will be the annual loss of 45 square feet per year of beach at the Sloat site and 100 square feet of beach at the 18th Fairway site. Over the 20-year permit horizon, this would result in a loss of 2,900 square feet of beach (900 square feet for the Sloat site and 2,000 square feet for the 19th Fairway site) that would have been created from both project sites if the back beach had not been fixed by the proposed seawalls. Using the beach-area to beach-volume conversion discussed above, this would be equivalent to a loss over twenty years of 2,175 cubic yards of beach quality sand (675 cubic yards of sand for the Sloat site and 1,500 cubic yards of sand for the 18th Fairway site) at the project sites that can be attributed to fixing of the back beach.

Retention of Potential Beach Material

If natural erosion were allowed to continue (absent the proposed armoring), some amount of beach material would be added from the bluffs to the beach at this location, as well as the larger Stillwater Cove sand supply system. The volume of total material that would have gone into the sand supply system over the lifetime of the shoreline structure would be the volume of material between (a) the likely future bluff face location with shoreline protection; and (b) the likely future bluff location without shoreline protection. Since the main concern is with the sand component of this bluff material, the total material lost must be multiplied by the percentage of bluff material which is beach sand, giving the total amount of sand which would have been supplied to the littoral system for beach deposition if the proposed device were not installed. The Commission has established a methodology for identifying this impact.[9] The Applicant's

[8] The area of beach lost due to long-term erosion (Aw) is equal to the long-term average annual erosion rate (R) times the number of years that the back-beach or bluff will be fixed (L) times the width of the property that will be protected (W). This can be expressed by the following equation: Aw = R x L x W. The annual loss of beach area can be expressed as Aw' = R x W.

[9] The equation is Vb = (S x W x L) x [(R x hs) + (1/2hu x (R + (Rcu - Rcs)))]/27. Where: Vb is the volume of beach material that would have been supplied to the beach if natural erosion continued (this is equivalent to the long-term reduction in the supply of bluff material to the beach resulting from the structure); S is the fraction of beach quality material in the bluff material; W is the width of property to be armored; L is the design life of structure (50 years

consultants conducted analyses on the composition of bluff material and concluded that at the Sloat site about 3.5% of the bedrock and 48% of the terrace deposits would weather to sediment with a grain size above 0.18 mm, remaining in the littoral cell while at the 18th Fairway site less than 1% of the bedrock and 58% of the terrace deposits would weathers to sediment with a grain size above 0.18 mm, remaining in the littoral cell. Using these approximations, the amount of beach quality sand retained in the seawalls over a 20-year horizon is 466 cubic yards of sand (262 cubic yards of sand at the Sloat site and 204 cubic yards of sand at the 18th Fairway site).

Beach and Sand Supply Impacts Conclusion

The proposed project would result in quantifiable shoreline sand supply impacts. There would be beach sand loss due to: 1) placement of a seawall onto approximately 5,087 square feet of sandy area (equating to 3,815 cubic yards when converted for volume); 2) fixing of the back beach location, resulting in the loss of 2,900 square feet of sandy beach (900 square feet/ 20 years for Sloat and 2,000 square feet/20 years for the 18th Fairway) that would have been created over the 20-year life of the structure (equating to 2,175 cubic yards per 20 years when converted for volume), and; 3) retention of 466 cubic yards of sand over the 20-year life of the proposed project (262 cubic yards of sand/20 years for Sloat and 204 cubic yards/20 years for the 18th Fairway). The total cubic yard calculation is 6,456. If these impacts were to be mitigated through a beach nourishment effort, the impacts would be comparable to the deposition of 3,815 cubic yards of beach quality sand at the start of the project, and about 132 cubic yards of beach-quality sand yearly. Over twenty years, these impacts would equate to a total of approximately 6,456 cubic yards of sand.

It has proven difficult to identify appropriate mitigation for such impacts. Partly this is because creating an offsetting beach area is not an easy task, and finding appropriate properties that could be set aside to become beach area over time (through natural processes, including erosion) is difficult both due to a lack of such readily available properties and the cost of such coastal real estate more broadly. As a proxy, other types of mitigation typically required by the Commission for such direct sand supply impacts have been in-lieu fees and/or beach nourishment, and in some cases compensatory beach access improvements. With regards to beach nourishment, a formal sand replenishment strategy can introduce an equivalent amount of sandy material back into the system over time to mitigate the loss of sand that would be caused by a protective device over its lifetime. Obviously, such an introduction of sand, if properly planned, can feed into the Stillwater Cove system to mitigate the impact of the project. However, as opposed to other areas with established programs (e.g., SANDAG in San Diego) there are not currently any existing beach nourishment programs directed at this beach area. Absent a comprehensive program that

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assumed per ACOE, though its lifetime can also be considered indefinite) or, if assumed a value of 1, an annual amount is calculated; R is the long term average annual erosion rate; hs is the height of the shoreline structure; hu is the height of the unprotected upper bluff; Rcu is the predicted rate of retreat of the crest of the bluff during the period that the shoreline structure would be in place, assuming no seawall were installed (this value can be assumed to be the same as R unless the Applicant provides site-specific geotechnical information supporting a different value); Rcs is the predicted rate of retreat of the crest of the bluff, during the period that the seawall would be in place, assuming the seawall has been installed (this value will be assumed to be zero unless the Applicant provides site-specific geotechnical information supporting a different value); and divide by 27 (since the dimensions and retreat rates are given in feet and volume of sand is usually given in cubic yards, the total volume of sand must be divided by 27 to provide this volume in cubic yards, rather than cubic feet).

provides a means to coordinate and maximize the benefits of mitigation efforts in the area now and in the future, the success of piecemeal mitigation efforts, such as an Applicant-only project to drop equivalent amounts of sand over time at this location, is questionable. In addition, as described previously, because of continued sea level rise and potential impacts to sensitive marine habitats immediately offshore, as well as the unique mineralogical composition and 'closed system' attributes of Stillwater Cove sand and uncertainty about the effectiveness and availability of appropriate sand sources, beach nourishment at Stillwater Cove is not considered to be a feasible mitigation measure at this time.

As an alternative mitigation mechanism, the Commission oftentimes uses an in-lieu fee when in-kind mitigation of impacts is not available.[10] In situations where ongoing sand replenishment or other appropriate mitigation programs are not yet in place, the in-lieu mitigation fee is deposited into an account until such time as an appropriate program is developed, and the fees can then be used to offset the designated impacts. When mitigation funds are pooled in this way for multiple projects in a certain area, the cumulative impacts can also be better addressed inasmuch as the pooled resources can sometimes provide for a greater mitigation impact than a series of smaller mitigations based on individual impacts and fees. Based on an estimated range of costs for Stillwater Cove beach quality sand ranging from $50 to $100 per cubic yard delivered (or possibly more, including if an appropriate sand source can even be identified), an in-lieu fee in this case would range from about $322,800 to $645,600.[11]

With respect to using beach access improvements to offset impacts, such mitigation is typically applied by the Commission to public agencies that manage beaches.[12] Although the Pebble Beach Company is not a public agency, they manage all of the beaches and shoreline public access points in the Del Monte Forest, and opportunities exist within their landholdings to develop new public access improvements.

The project's shoreline sand supply impacts translate directly into degradation of public access to and along the beach, particularly in relation to the manner in which project area materials affect nourishment of the beach at Stillwater Cove. As such, shoreline sand supply mitigation targeted toward these access impacts is appropriate in this case. And fortunately, there is an opportunity in this case to offset such impacts through nearby public access improvements.

The Applicant proposes to mitigate for the impacts to sand supply from the proposed project by enhancing public access and visitor-serving facilities at the Bird Rock visitors area, an area upcoast of the project site, which would in turn enhance access of the adjacent Seal Beach sandy beach area. Currently, the Bird Rock visitor's area has visitor/bus parking, public restrooms, educational signage, public viewing platforms/telescopes, and a formal picnic area. There is also an unimproved trail that stretches from the picnic area downcoast to Seal Beach with two

[10] See, for example, CDP A-3-SCO-06-006 (Willmott), CDP A-3-SLO-01-040 (Brett), CDP 3-98-102 (Panattoni) and CDP 3-97-065 (Motroni-Bardwell).

[11] Based on 6,456 cubic yards of such sand purchased today for $50 per cubic yard ($322,800) or $100 per cubic yard ($645,600).

[12] For example, as recently required with respect to recreational access improvements along the Pleasure Point shoreline area of Santa Cruz County as part of the Commission's approval of a seawall fronting East Cliff Drive (CDPs A-3-SCO-07-015 and 3-07-019, approved December 13, 2007).

informal staircases to Seal Beach. The staircases consist of 2 by 8 foot planks backfilled with dirt and no handrails. The Seal Beach parking lot is small in size and does not offer the same amount of parking or public facilities as the Bird Rock area. Visitors often park informally along 17-Mile Drive to gain access to Seal Beach when the lot is full.

The Applicants would enhance access to this portion of the coastline by widening and leveling the natural trail surface from the picnic area at Bird Rock to Seal Beach, installing "Beach Access" signage on 17-Mile Drive and in the Bird Rock visitors area alerting visitors to the trail to Seal Beach, installing trail safety delineators in the form of bollards and cables in areas requiring the protection of visitors from coastal bluff areas, and construction of two new beach staircases with platforms and handrails at the upcoast end of Seal Beach and at the Seal Beach turnout/picnic area. At some points throughout the year, Seal Beach would be cut off from the trail and staircase at the upcoast end of Seal Beach due to a drainage which flows inland west to the ocean. To mitigate for access lost during these times of the year, the Applicant would put up signage redirecting visitors down the trail to the new formal staircase installed at the Seal Beach turnout/picnic area. These improvements would create formal, safe, continuous access ways between Bird Rock and Seal Beach, making these areas more easily accessible and user friendly. These improvements would also increase and expand the potential use of Seal Beach by providing connectivity with the larger parking lot at Bird Rock. Thus, this approval is conditioned to enhance public access at the Bird Rock visitor's area and Seal Beach as described above (see **Special Condition 2**).

Taken together, the removal of rip-rap and materials to free publicly available beach space and the enhancement of public access facilities at Bird Rock and Seal Beach would adequately mitigate for the sand supply impacts of the proposed project (see also Public Access and Recreation finding below for further discussion).

Thus, as conditioned, the project satisfies the Coastal Act Section 30235 requirements regarding mitigation for sand supply impacts, and thus also meets all Section 30235 tests for allowing such armoring.

Long-Term Stability, Maintenance, and Risk

Coastal Act Section 30253 requires the project to assure long-term stability and structural integrity, minimize future risk, and avoid additional, more substantial protective measures in the future. For the proposed project, the main Section 30253 concern is assuring long-term stability. This is particularly critical given the dynamic shoreline environment within which the proposed project would be placed. Also critical to the task of ensuring long-term stability, as required by Section 30253, is a formal long-term monitoring and maintenance program. If the seawalls were damaged in the future (e.g. as a result of flooding, landsliding, wave action, storms, etc.) they would lead to a degraded public access condition. In addition, such damages could adversely affect nearby beaches by resulting in debris on the beaches and/or creating a hazard to the public using the beaches. Therefore, in order to find the proposed project consistent with Coastal Act Section 30253, the proposed project must be maintained in its approved state. Further, in order to ensure that the Applicant and the Commission know when repairs or maintenance are required, the Applicant must regularly monitor the condition of the subject armoring, particularly after major storm events. Such monitoring will ensure that the Permittee and the Commission are aware of any damage to or weathering of the armoring and can determine whether repairs or

other actions are necessary to maintain the seawall structure in its approved state before such repairs or actions are undertaken. To assist in such an effort, monitoring plans should provide vertical and horizontal reference distances from armoring structures to surveyed benchmarks for use in future monitoring efforts.

To ensure that the proposed project is installed in compliance with the proposed plans and properly maintained to ensure its long-term structural stability, **Special Conditions 7 and 8** require the submission of as-built plans and a monitoring and maintenance program. Such a program shall provide for evaluation of the condition and performance of the proposed project and overall bluff stability, and shall provide for necessary maintenance, repair, changes or modifications. **Special Condition 9** allows the Applicant to maintain the project in its approved state, subject to the terms and conditions identified by the special conditions. Such future monitoring and maintenance activities will be understood in relation to clear as-built plans as submitted by the Applicant (**Exhibit 2 and 3**).

In terms of recognizing and assuming the hazard risks for shoreline development, the Commission's experience in evaluating proposed developments in areas subject to hazards has been that development has continued to occur despite periodic episodes of heavy storm damage and 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 for damages onto the people of the State of California, Applicants are regularly required to acknowledge site hazards and agree to waive any claims of liability on the part of the Commission for allowing the development to proceed. Accordingly, this approval is conditioned for the Applicant to assume all risks for developing at this location (**see Special Condition 10**).

To ensure that this project does not prejudice future shoreline planning options, including with respect to changing and uncertain circumstances that may ultimately change policy and other coastal development decisions (including not only climate change and sea level rise, but also due to legislative change, judicial determinations, etc.), this approval is conditioned for a twenty-year period. It has been the Commission's experience that shoreline armoring, particularly in such a high-hazard area as this project, tends to be augmented, replaced, and/or substantially changed within about twenty years. The intent of the twenty-year authorization is to recognize this time-frame reality, and also to allow for an appropriate reassessment of continued armoring at that time in light of what may be differing circumstances than are present today. Of course it is possible that physical circumstances as well as local and/or statewide policies and priorities regarding shoreline armoring are significantly unchanged from today, in which case the Applicant would likely have the same right to the seawalls that it has today. If, however, the baseline context for considering armoring is different in 20 years – much as the Commission's direction on armoring has changed over the past twenty years as more information and better understanding has been gained regarding such projects – the twenty year authorization will allow the Commission to assess alternatives to these seawalls in 20 years. To ensure that existing and future property owners are properly informed regarding the terms and conditions of this approval, this approval is also conditioned for a deed restriction to be recorded against the properties involved in the application (**see Special Condition 12**).

Geologic Conditions and Hazards Conclusion

The existing Stillwater Cove Shoreline Overlook and 18th Fairway are in danger from erosion, and require hard armoring to be protected. Conditions are included to ensure that the project will appropriately offset its sand supply impact, and to ensure long term stability. As conditioned, the Commission finds the project consistent with Coastal Act Sections 30235 and 30253.

D. PUBLIC ACCESS AND RECREATION

Coastal Act Section 30604(c) requires that every coastal development permit issued for any development between the nearest public road and the sea "shall include a specific finding that the development is in conformity with the public access and public recreation policies of [Coastal Act] Chapter 3." The proposed project is located seaward of the first through public road (Highway 1/68). Coastal Act Sections 30210 through 30213, 30221 and 30223 specifically protect public access and recreation. 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.*
>
> ***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.*

These overlapping policies clearly protect access to and along the shoreline and to offshore waters for public access and recreation purposes, particularly free and low cost access. The Del Monte Forest area provides numerous public access and recreational opportunities of regional and statewide significance. Within Del Monte Forest, Pebble Beach is the main commercial enclave with shops, restaurants, and other amenities available to the general public and casual visitor (i.e., non-resort guest). The Equestrian Center is located here, as is the 9-hole Peter Hay Golf Course that provides lower cost golfing use for the general public (approximately $30 per round).

The Pebble Beach Golf Links (PBGL), which is rated one of the top publicly available courses in the world, provides for public recreational use along much of the Pebble Beach coastal area. However, current rates for daily use of the course are about $500, so access in these areas is limited to those able to afford such prices. The Applicant does allow public pedestrian access on cart paths (at walkers' own risk of getting hit by a golf ball), but such access can be dangerous, and such access has historically been somewhat limited. The Stillwater Cove Shoreline Overlook is available for public use once an entry fee of $9.50 is paid for vehicular entry on 17-Mile Drive (pedestrian and bicycle access on 17-Mile Drive is free). Access to 17-Mile Drive, and thus to the overlook, is also sometimes restricted during large temporary events (e.g., during the AT&T Golf Tournament) as is allowed under the LCP. Public access to the shoreline at Stillwater Cove, as well as much of the low-cost coastal access in Del Monte Forest, was originally formalized through the Coastal Commission's approval of the Spanish Bay Resort (CDP 3-84-226; approved March 1985).[13]

The proposed seawalls would support public access and recreation along Stillwater Cove by ensuring the stability and longevity of the Stillwater Cove Shoreline Overlook and associated public access amenities and the quality and functionality of the 18th hole of the PBGL. The proposed Sloat seawall would maintain the vantage point to Stillwater Cove and the Pebble Beach Golf Links (including the world-famous 18th green) that was historically less than optimum for public use. The overlook and associated access path connect a shoreline access gap that previously existed between the improved access points at Pescadero Point and Stillwater Cove (Exhibit 4). In addition, the 18th Fairway seawall would protect the existing recreational use along the 18th Fairway, including the golf cart/public access path.

However, as discussed in the finding above, shoreline structures can have a variety of negative impacts on coastal resources including adverse effects on beaches and sand supply, which ultimately result in the loss of the beach and associated impacts to public access. The proposed project's impact to sand supply, and ultimately to public access, would result in a deficit of some 6,456 cubic yards of sand. The beach areas at both project sites are extremely narrow and discontiguous, and exposed to impact by waves, and they provide almost no area within which to recreate. These areas are essentially inaccessible as beach access areas, when beach area even exists here, and are not used in that way currently. Therefore the direct impacts to beach area loss at the project sites themselves are not as significant as the indirect impacts (e.g., loss of sand to the system overall, loss of beach ambience, and loss of natural aesthetics). In fact, perhaps the primary way in which the project affects beach access is the way in which the retained materials would have contributed to beach formation at Stillwater Cove beach just downcoast. If the proposed project is to be approved, mitigation for these impacts is necessary.

One alternative to address such impacts would be to obtain access to some currently inaccessible or under-utilized beach area within the vicinity of the project. However, no currently unavailable beach areas exist in the vicinity of the project that could be opened to the public. Therefore,

[13] The Commission also required public access enhancement at Stillwater Cove and the surrounding Lodge area (via a public lodge area path and parking system) in its approval of the Casa Palmero project in 1997 (CDP A-3-MCO-97-037) and the Beach Club seawall in 2010 (CDP 3-09-025). More recently, the Commission approved an update to the Del Monte Forest segment LCP in 2012 that provided for significant public access improvements throughout the Forest, all building upon the original improvements associated with the Spanish Bay CDP.

offsite recreational land (i.e., not in the immediate project vicinity) would be used to mitigate for the public access impacts associated with this project.

As discussed, the Applicants propose to enhance public access and visitor-serving facilities at the Bird Rock visitors area by installing signage on 17-Mile Drive and in the Bird Rock visitors area, widening and leveling the natural trail surface, installing trail safety delineators, and constructing two new beach staircases with handrails at the upcoast end of Seal Beach and at the Seal Beach turnout/picnic area (**Special Condition 2**). These improvements would make these areas more easily accessible and user friendly, increasing and expanding the potential use of these popular visitor serving destinations. The connectivity with the larger Bird Rock parking lot would allow visitors to park cars and large busses along the coast and gain safe and easy access to Seal Beach, while reducing the need for informal, unsafe parking currently occurring along the coast in this area.

In addition, as detailed in the preceding finding, this approval is valid for 20-years, and this time frame ensures that the public access context, including potential changes and uncertainties associated with it over time, can be appropriately reassessed at that time (**see Special Condition 5).**

Finally, with respect to construction impacts, this project will: require the movement of large equipment, workers, materials, and supplies in and around the shoreline area and public access points; include large equipment operations in these areas; result in the loss of public access use areas to a construction zone; encroach on State Lands, Sanctuary waters, and marine protected areas; and generally intrude and negatively impact the aesthetics, ambiance, serenity, and safety of the recreational experience at these locations. These public recreational use impacts have been (through the Applicant's proposed BMPs, which are extensive) and can be (by condition to implement the Applicant's BMPs and include those typically applied by the Commission in the manner the Commission typically applies them to cases like this one) contained through construction parameters that limit the area of construction, limit the times when work can take place (to avoid both weekends and peak summer use months when recreational use is highest), clearly fence off the minimum construction area necessary, keep equipment out of coastal waters, require off-beach equipment and material storage during non-construction times, clearly delineate and avoid to the maximum extent feasible public use areas, and restore all affected public access areas at the conclusion of construction.

A construction plan is required for this purpose (s**ee Special Condition 3**). In addition, to provide maximum information to the beach-going public during all construction, the Applicant must maintain copies of the CDP and approved plans available for public review at the construction sites, as well as provide a construction coordinator whose contact information is posted at the sites to respond to any problems and/or inquiries that might arise (**see Special Condition 4**).

In conclusion, provided the new public access enhancements are appropriately installed and maintained in their approved state and made available for maximum public access (including through directive signage, etc.), the current access is maintained at the overlook and golf course, and the approval includes a twenty-year horizon, these mitigations can appropriately offset the public recreational access impacts associated with the proposed project. As conditioned, the project is consistent with the Coastal Act access and recreation policies cited above.

E. VISUAL RESOURCES

Coastal Act Section 30251 states:

> ***Section 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.*

Stillwater Cove contains a mix of armored and unarmored bluffs. The armored portions include a range of shoreline protection types of varying ages, including grouted rip-rap, stucco stone-faced walls, faux rock walls, and old rock and mortar walls. The eastern end of the cove, from the eastern end of the beach to Arrowhead Point, is the largest unarmored portion. The proposed removal of existing grouted rip-rap and concrete rubble on the project sites would be a visual improvement at the project sites and in the public viewshed **(Exhibit 7).** The proposed lower tier walls would include texturing, contouring, and coloring to mimic a natural bluff face. In addition, as proposed, the upper tier wall at the 18th Fairway site would be constructed with the same faux bluff treatment as the lower tier in order for the structure to adequately mimic the surrounding bluffs and minimize the seawall's visual impact to the maximum degree feasible. However, the proposed Sloat seawall includes a stucco stone faced upper wall, which would not mimic the surrounding bluffs, nor blend with the surrounding environment to minimize visual impacts, as required by Coastal Act visual resource protection policies. Therefore, to further minimize visual impacts of the Sloat seawall the project is conditioned to submit revised project plans for that would include faux bluff treatment on the upper tier wall at the Sloat site (see **Special Condition 1**). Further, to ensure the shoreline protection is constructed in a way that mimics the natural bluffs, Special Condition 1 specifies that the entire seaward face of the proposed project must be sculpted, colored, and textured to approximate natural bluffs, including to mimic the sandstone bedrock, the marine terrace deposits, and the topsoil of the adjacent bluffs (see **Special Condition 1**).

The walls also include drain pipes, or weep holes, through which water collected in the area behind the seawall would drain. These drain outlets are shown in the project plans in several linear lines along the face of the wall. Even in successfully camouflaged walls, drain pipes and weep holes detract from the illusion and lessen the value of the camouflage mitigation. In addition, over time, as drainage from the weep holes begins to stain the concrete at the outlets in a similar equidistant pattern, such unnatural appearance is only heightened. Such impacts would be inconsistent with the Coastal Act visual resource policies cited above. However, there are several ways of addressing these issues that could be used to achieve Coastal Act consistency. Special Condition 1 requires that the weep holes be randomly placed, and the weep holes and drain pipe outlets camouflaged to offset their visual impact.

Landscaping designed to cascade over the top of the seawall, which would screen the top of the seawall at least partially from view and provide a more natural edge to the top of the wall as seen

from above and below, can also help to camouflage the wall and soften its appearance (**Special Condition 1**).

Overall, as conditioned, the proposed project would improve the public viewshed as seen from the ocean, from Stillwater Cove Shoreline Overlook, and from where it is visible on the Pebble Beach Golf Links. As conditioned, the Commission finds the project consistent with the above-cited Coastal Act public viewshed policies.

F. MARINE RESOURCES

The Coastal Act protects the marine resources and habitat offshore of this site. 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.*

The State Lands Commission has jurisdiction over all ungranted tidelands (lands between the MHTL and mean low tide line) and submerged lands (lands seaward of the mean low tide line) in California. The project is also within Monterey Bay National Marine Sanctuary (MBNMS) boundaries which extend about 30 miles off-coast of Stillwater Cove with a landward boundary of the MHTL. Therefore, the Applicant would need to obtain temporary use permits from the SLC and the MBNMS for the temporary demolition and construction activities. The Sloat Seawall plans were sent to the SLC and MBNMS on September 25, 2009 and the 18th Fairway plans will be sent as well for temporary construction leases. The project is conditioned to require review and approval (if necessary) from the SLC and the MBNMS (**Special Condition 6**).

The project sites are also within the Carmel Bay State Marine Conservation Area (CBSMCA) which extends off-coast with a landward boundary of the MHTL. The CBSMCA is part of a network of marine protected areas off the coast of California which are managed by the Department of Fish and Wildlife (CDFW). The State Fish and Game Commission (FGC) provides oversight to the Department of Fish and Wildlife and would be the designated decision making body to carry out allowance of activities within marine protected areas. Therefore, authorization, or a letter stating that no authorization is needed, from the FGC/CDFW is required as a condition of approval for the proposed project **(Special Condition 6**).

The removal of the existing rip-rap and concrete rubble and construction of the keyways would occur during very low tide conditions. In addition, the proposed project plans and the special conditions include construction methods typically required by the Commission to protect water quality and marine resources during seawall construction, including maintaining good construction site housekeeping controls and procedures, the use of appropriate erosion and sediment controls, a prohibition on equipment washing, refueling, or servicing on the beach, etc. **(Special Condition 3).** To further protect marine resources and offshore habitat, **Special Condition 4** requires construction documents to be kept at the site for inspection, and also requires a construction coordinator to be available to respond to any inquiries that arise during construction. As conditioned, the project is consistent with Coastal Act Sections 30230 and 30231 regarding protection of marine resources and offshore habitat.

G. ARCHEOLOGICAL RESOURCES

Coastal Act Section 30244 protects sensitive archeological resources and states:

> *Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

Background research performed by a qualified professional discovered twelve recorded prehistoric archaeological sites located within one kilometer of the project area with one recorded on the Sloat project parcel (CA-MNT-172), although the exact location is unknown. Field reconnaissance of the project sites revealed no evidence of archaeological resources in or near the project sites. Although there are no known archeological resources in the area where the proposed ground disturbance would occur, there are a number of sites in the surrounding area. Therefore, the Commission imposes **Special Condition 11** to ensure that reasonable mitigation measures are in place in the event that archeological resources are unearthed during completion of the permitted development. As conditioned, the proposed project would protect any sensitive archeological resources that may exist at the project site consistent with Section 30244 of the Coastal Act.

H. UNPERMITTED DEVELOPMENT

An emergency permit (CDP 3-05-003-G) was issued to the Applicant in 2005 to install a temporary vertical seawall at the 18th Fairway project site. This seawall was to protect an area that had become exposed after a portion of rock revetment approved through CDP 3-83-197-A2 failed and migrated onto the beach. Through this emergency permit, the Applicant was required to remove the emergency wall and the failed revetment by October 15, 2005, unless extended for good cause by the Executive Director. The temporary seawall and failed revetment currently still exist at the site, however, so they are considered to be unpermitted. Although unpermitted development exists on this site, consideration of the application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Action by the Commission on the CDP does not constitute a waiver of any legal action with regard to the alleged violation nor does

it constitute an admission as to the legality of any development undertaken on the subject site without a coastal development permit.

I. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

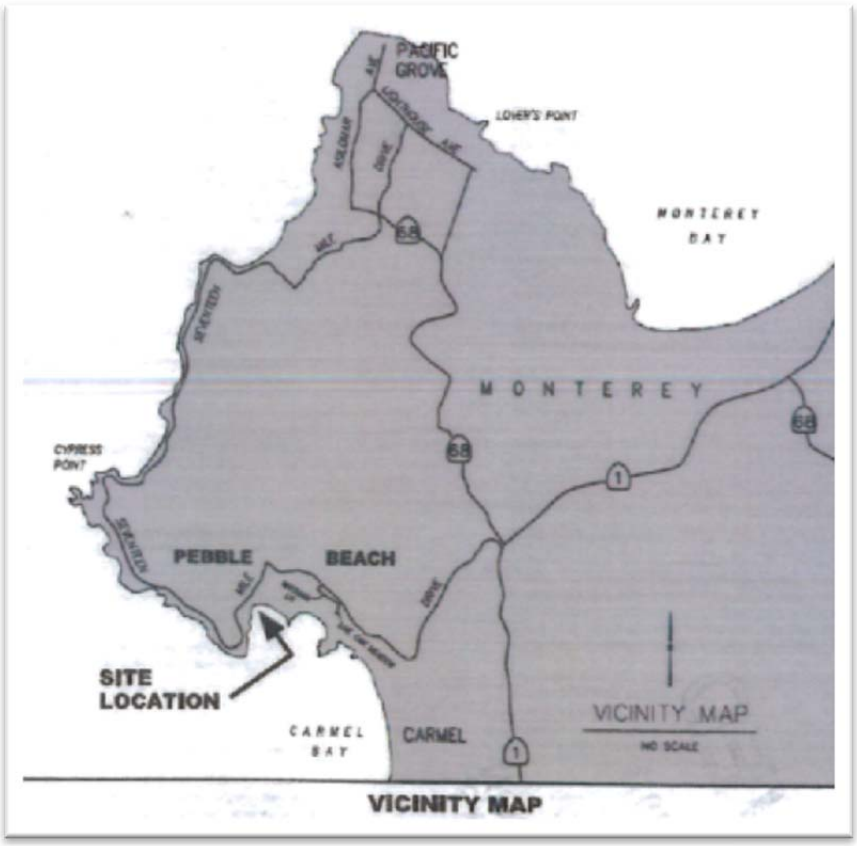
Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

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. The preceding coastal development permit findings discuss the relevant coastal resource issues with the proposal, and the permit conditions identify appropriate 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, which are incorporated herein in their entirety by reference.

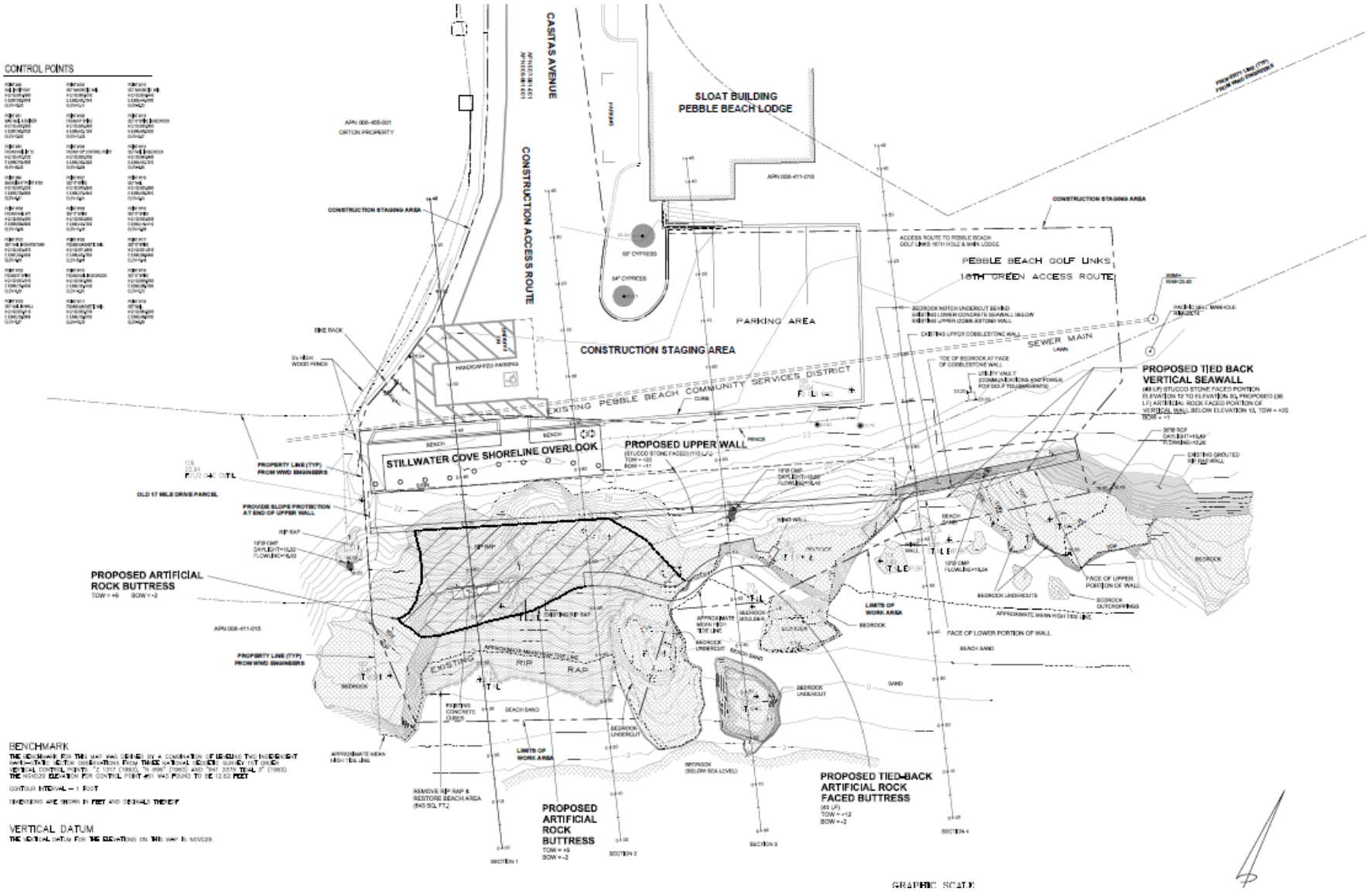
As such, there are no additional feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse environmental effects which approval of the proposed project, as conditioned, would have on the environment within the meaning of CEQA. Thus, if so conditioned, 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)

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

1. *Sand Loss Estimates, Pebble Beach Lodge Sloat Building Seawall Reconstruction, Extension and Bluff Stabilization*, Haro, Kasunich and Associates, Inc. May 2013
2. *18th Fairway Bluff Stabilization Sand Loss Study Pebble Beach Golf Links*, Haro, Kasunich, and Associates, Inc. May 2013
3. *18th Fairway Seawall Repair at Pebble Beach*, Archaeological Consulting, July 2005
4. *Sloat Building Seawall Reconstruction and Extension,* Archaeological Consulting, July 2012
5. *Geotechnical, Geologic, and Coastal Engineering Investigation Sloat Building Seawall reconstruction, Extension and Bluff Stabilization*, Haro, Kasunich and Associates, Inc., May 2009
6. *Geotechnical and Coastal Engineering Design Criteria 18th Fairway*, Haro, Kasunich and Associates, Inc., May 2005
7. *Response to September 29, 2006 Letter from Steve Monowitz*, Haro, Kasunich and Associates, Inc., January 2013
8. *Response to CCC Letter Dated 8-12-2012,* Haro, Kasunich and Associates, Inc., October 2012
9. *Response to California Coastal Commission*, Haro, Kasunich and Associates, Inc., November 2005
10. *Biological Resource Assessment, Seawall Repair*, Zander Associates, September 2005


PACIFIC GROVE
LOVER'S POINT
MONTEREY BAY
MONTEREY
CYPRESS POINT
PEBBLE BEACH
SITE LOCATION
CARMEL BAY
CARMEL
VICINITY MAP
NO SCALE
VICINITY MAP


42
43
40
45
411
SITE LOCATION
PACIFIC
OCEAN



3-12-030
Exhibit 2
Page 1of 2

SECTION 2

REVISED 5-2013

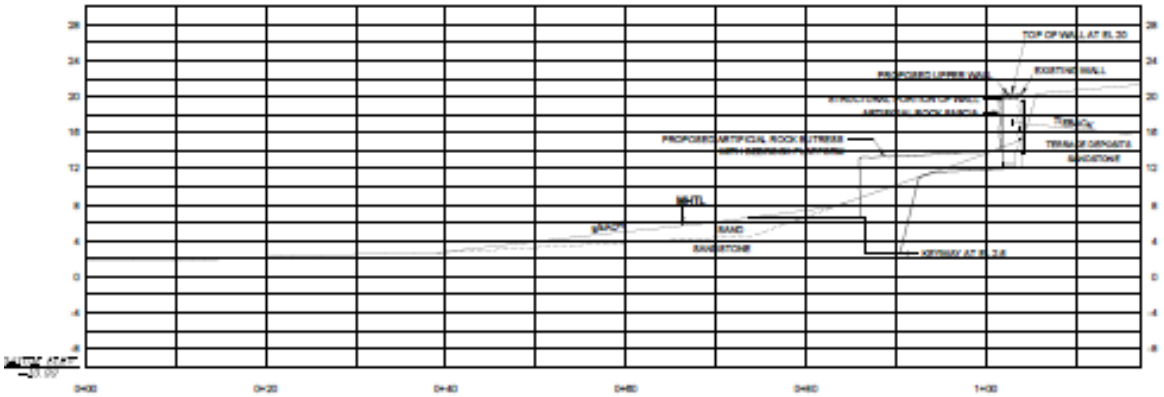
SECTION 1

REVISED 5-2013

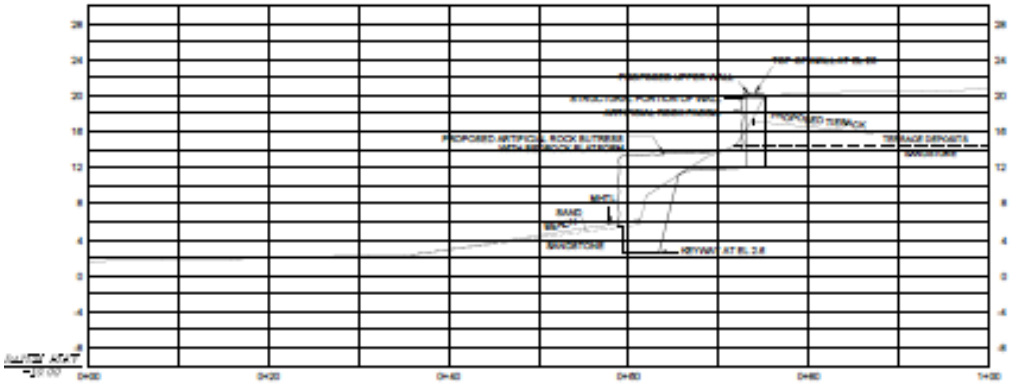
SECTION 4

SECTION 3

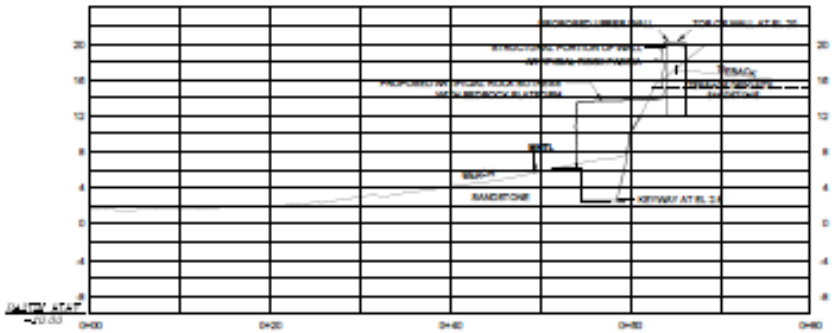
BENCHMARK
CONTOUR INTERVAL = 1 FOOT
PEBBLE BEACH GOLF LINKS
18TH FAIRWAY
STILLWATER COVE
SECTION 0
SECTION 1
SECTION 2
SECTION 3
SECTION 4
SECTION 5
FACE OF PROPOSED WALL
FACE OF PROPOSED KEYWAY
LANDWARD EDGE OF PROPOSED KEYWAY
RIP RAP INSTALLED UNDER 1983 PERMIT (62 LF)
NATURAL BEDROCK SURFACE
APPROXIMATE MEAN HIGH TIDE LINE
EXISTING EIGHTEENTH GREEN SEAWALL
EXISTING EIGHTEENTH GREEN ARTIFICIAL BEDROCK PLATFORM



1/5 SECTION 3
SCALE : 1" = 10'-0" H=V



2/5 SECTION 4
SCALE : 1" = 10'-0" H=V



3/5 SECTION 5
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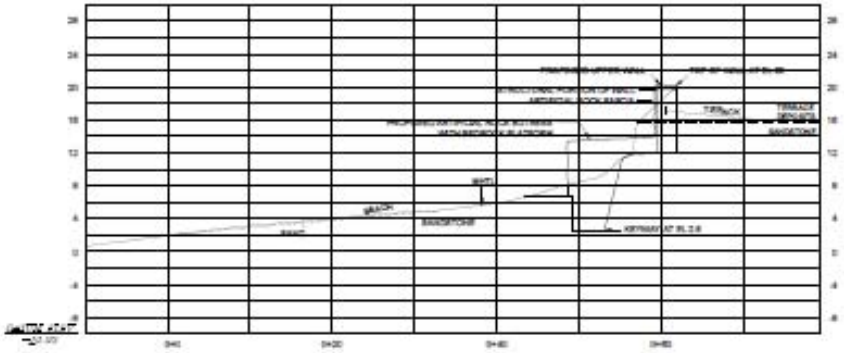
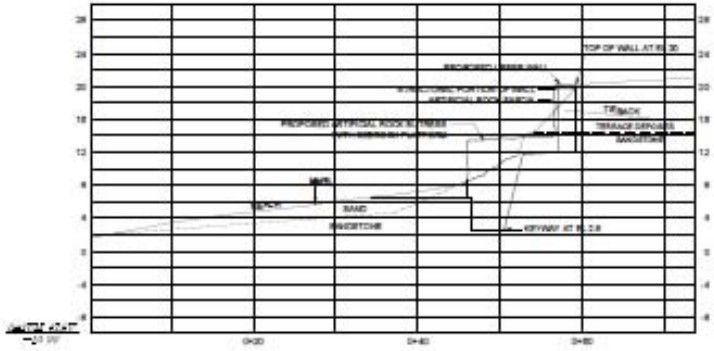


1/4 SECTION 0
SCALE : 1" = 10'-0" H=V



2/4 SECTION 1
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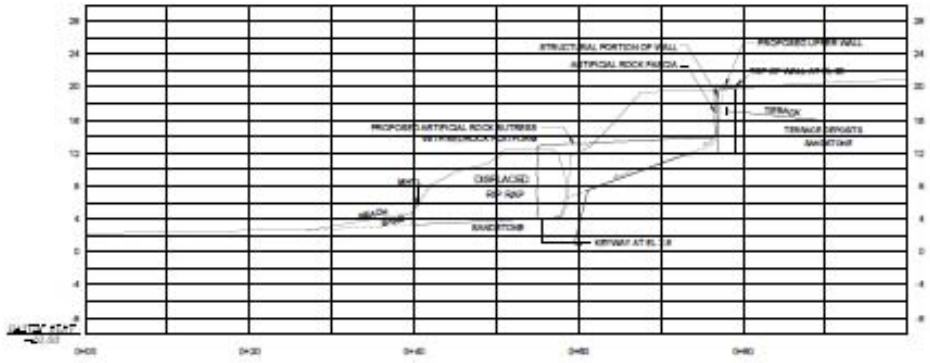
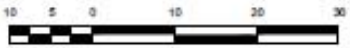
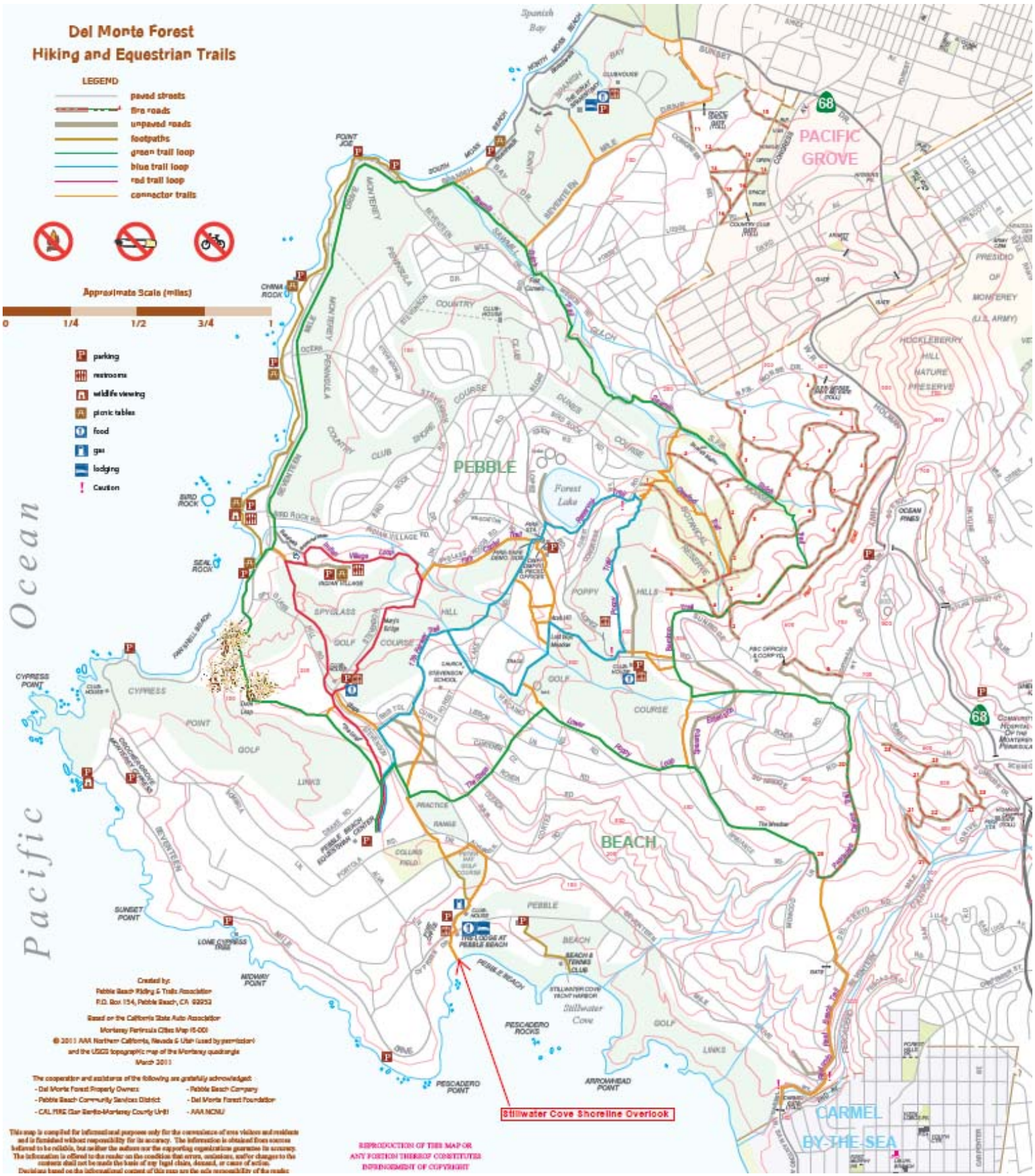


3/4 SECTION 2
SCALE : 1" = 10'-0" H=V



SCALE: 1 INCH = 10 FEET H=V


Del Monte Forest
Hiking and Equestrian Trails
LEGEND
paved streets
fire roads
unpaved roads
footpaths
green trail loop
blue trail loop
red trail loop
connector trails
Approximate Scale (miles)
0
1/4
1/2
3/4
1
parking
restrooms
wildlife viewing
picnic tables
food
gas
lodging
Caution
Pacific Ocean
PACIFIC GROVE
PEBBLE BEACH
CARMEL BY-THE-SEA
Stillwater Cove Shoreline Overlook
Created by:
Pebble Beach Riding & Trails Association
P.O. Box 154, Pebble Beach, CA 93953
Based on the California State Auto Association
Monterey Peninsula Cities Map #5-001
© 2011 AAA Northern California, Nevada & Utah (used by permission)
and the USGS topographic map of the Monterey quadrangle
March 2011
The cooperation and assistance of the following are gratefully acknowledged:
- Del Monte Forest Property Owners
- Pebble Beach Company
- Pebble Beach Community Services District
- Del Monte Forest Foundation
- CAL FIRE (San Benito-Monterey County Unit)
- AAA NCNU
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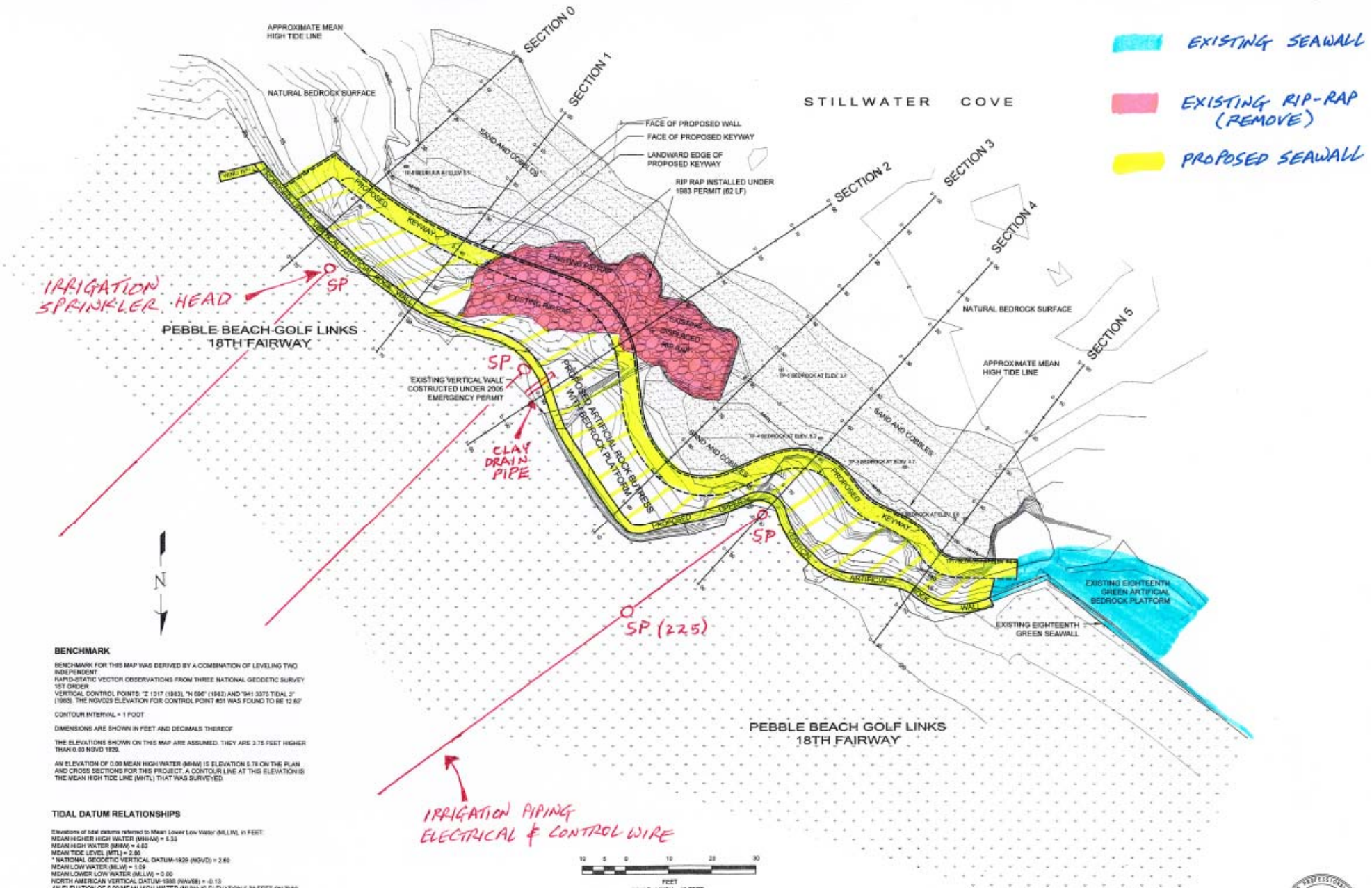


BENCHMARK

BENCHMARK FOR THIS MAP WAS DERIVED BY A COMBINATION OF LEVELING TWO INDEPENDENT RAPID-STATIC VECTOR OBSERVATIONS FROM THREE NATIONAL GEODETIC SURVEY 1ST ORDER VERTICAL CONTROL POINTS: "Z 1317 (1983), "N 696" (1982) AND "941 3375 TIDAL 3" (1983). THE NGVD29 ELEVATION FOR CONTROL POINT #51 WAS FOUND TO BE 12.62'

CONTOUR INTERVAL = 1 FOOT

DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF

THE ELEVATIONS SHOWN ON THIS MAP ARE ASSUMED. THEY ARE 3.75 FEET HIGHER THAN 0.00 NGVD 1929.

AN ELEVATION OF 0.00 MEAN HIGH WATER (MHW) IS ELEVATION 5.78 ON THE PLAN AND CROSS SECTIONS FOR THIS PROJECT. A CONTOUR LINE AT THIS ELEVATION IS THE MEAN HIGH TIDE LINE (MHTL) THAT WAS SURVEYED.

TIDAL DATUM RELATIONSHIPS

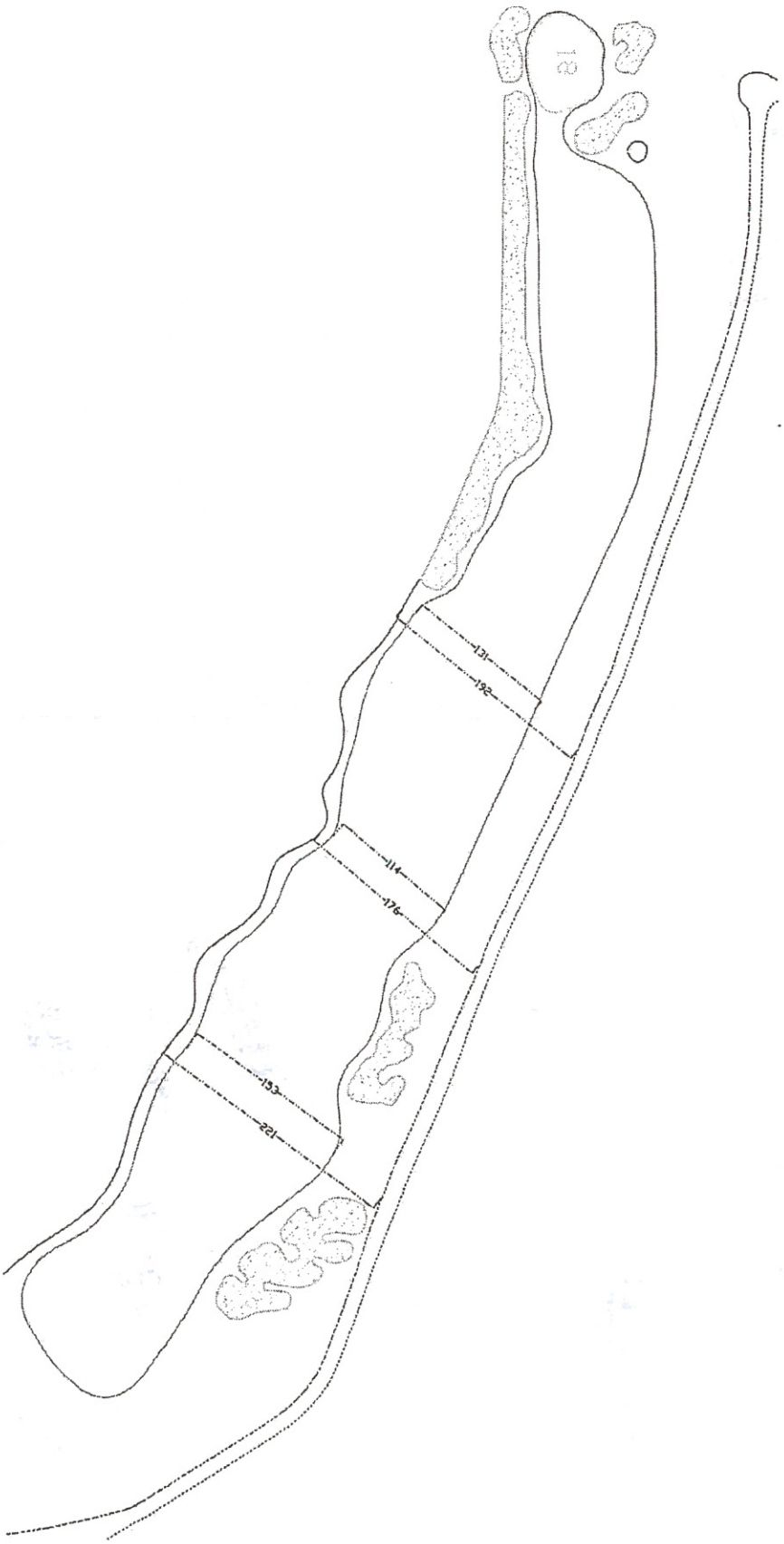
Elevations of tidal datums referred to Mean Lower Low Water (MLLW), in FEET:
MEAN HIGHER HIGH WATER (MHHW) = 5.33
MEAN HIGH WATER (MHW) = 4.63
MEAN TIDE LEVEL (MTL) = 2.80
* NATIONAL GEODETIC VERTICAL DATUM-1929 (NGVD) = 2.88
MEAN LOW WATER (MLW) = 1.09
MEAN LOWER LOW WATER (MLLW) = 0.00
NORTH AMERICAN VERTICAL DATUM-1988 (NAVD88) = -0.13

PEBBLE BEACH GOLF LINKS
FAIRWAY PRIMARY LANDING AREA ANALYSIS

HOLE#	PAR	WIDTH OF FAIRWAY AT PRIMARY LANDING AREA (ft)	DISTANCE FROM BLUFF EDGE TO CART PATH (ft)
4	4	178	225
6	5	180	209
8	4	210	295
9	4	131	286
10	4	158	228
18	5	114	176

Average width of fairway at primary landing area (ocean-front holes #4, 6, 8, 9, and 10)= **171.4 feet**

Average distance from edge of coastal bluff to cart path at primary landing area (ocean-front holes #4, 6, 8, 9, and 10) = **248.6 feet**



#18

18th Fairway Project Site Grouted Rip-Rap

Sloat Project Site Concrete Rubble