Carbon – La Costa Beach Acquisition
Initial Study/
Proposed Mitigated Negative Declaration

Prepared for:

California Coastal Conservancy
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October 2003

Jones & Stokes. 2003. Carbon – La Costa Beach Acquisition Initial Study/Proposed Mitigated Negative Declaration. October. (J&S 03437.) Irvine, CA. Prepared for California Coastal Conservancy, Oakland, CA.

Mitigated Negative Declaration

California State Coastal Conservancy
Carbon – La Costa Beach Acquisition

Introduction

The California Coastal Conservancy proposes to acquire a vacant parcel (herein referred to as the "acquisition parcel") located on the southside of PCH at the intersection of Carbon and La Costa Beaches in the City of Malibu for the purpose of scenic visual access, and develop and implement a conceptual site plan for the adjacent parcel (herein referred to as the "access parcel"), previously dedicated to the Coastal Conservancy as a condition of three separate Coastal Development Permits (CDPs) for the purpose of providing vertical coastal access. The proposed project is intended to implement the public access goals of the Coastal Zone Management Act of 1972, the Coastal Zone Protection Act of 1996, and the California Coastal Act. It would provide one of the proposed vertical accessways contained within the City of Malibu Local Coastal Program. Based on the assessment presented in the Initial Study, this Mitigated Negative Declaration has been prepared.

Project Description

The conceptual site plan contemplates managed public access through the development of minor public access improvements, including fencing, a gate, a viewing deck, an improved sidewalk, stairs, and on-site signage. No public access improvements are proposed to be constructed on the acquisition parcel; improvements on this parcel would be limited to new fencing, adjacent sidewalk improvements, stabilization of the existing rock materials on the site, and removal of trash and any hazards in the existing riprap boulders and concrete rubble.

The new stairway would take beachgoers from PCH down approximately eight steps to the top of the beach. The top of the stairway would be wheelchair accessible with a landing for viewing the ocean. The steepness of the slope and the limited size of the property would prevent inclusion of a wheelchair ramp at this location.

The stairway and landing would be held in place by 6-by-8-inch pressure-treated Douglas-fir timbers placed in cast concrete piles. The stairway would be composed of wood steps, with a metal railing. The landing at the top of the slope would be constructed of treated wood decking with a metal guardrail along the

ocean side. A trash can would also be located on the landing. Directional and interpretive signage would be provided. Potentially, a portable toilet facility could be provided.

A fence would be constructed along the top of the slope adjacent to an improved 4-foot-wide sidewalk. The existing chain link and metal fences would be replaced by a new 6-foot high wrought iron metal fence. A locking gate would be provided at the viewing deck and would be closed at night or when restricted access is required due to safety reasons such as storm damage, tsunamis, etc. Signage would be provided at the gate, explaining the rules of the beach, such as, "No dogs, firearms, fires, etc." A "Coastal Access" sign would be placed along PCH near the beach access location. Use of the site is expected to be similar to that currently provided for and allowed at nearby beach accessways managed by the Los Angeles County Department of Beaches and Harbors. No lifeguard would be on duty, and the hours of operation are expected to be sunrise to sunset.

A 4-foot-wide sidewalk would be constructed, leading from the existing curb location to the new fence line. The concrete sidewalk would cantilever, or hang over, the existing rock below (see "Section A" on Figure 2-8). The existing parking lane along the front of the project site would be improved by replacing the existing asphalt surface with structural concrete and a new curb. No additional parking would be provided. Beachgoers using the accessway would be able to use the existing on-street parking on the west side of PCH, as is done for the other beach accessways in the area.

Availability of Documents

Copies of the Initial Study for the proposed project are on file and available for review at the following address:

California State Coastal Conservancy
1330 Broadway, 11th Floor, Oakland, CA 94612

Malibu City Clerk's Office
23555 Civic Center Way, Malibu, CA 90265

Malibu Public Library
23519 Civic Center Way, Malibu, CA 90265

Los Angeles County Clerk's Office
12400 Imperial Highway, Norwalk, CA 90650

Environmental Determination

An Initial Study was prepared to identify the potential effects on the environment from the establishment of the proposed acquisition and accessway and to

evaluate the significance of these effects. Based on the Initial Study, the proposed project would have less-than-significant effects or no impacts related to the following issues:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

The environmental assessment presented in the Initial Study identifies a number of environmental impacts that require mitigation measures be incorporated into the project to effectively reduce potential impacts to less-than-significant levels or avoid the impacts. These are:

- Cultural Resources
- Geology and Soils
- Noise

Measures have been formulated to effectively mitigate all of the potentially significant environmental impacts identified in the Initial Study. Implementation of these mitigation measures would avoid potentially significant impacts identified in the Initial Study or reduce them to a less-than-significant level. The mitigation measures are presented below.

Mitigation Measures

Implementation of the following mitigation measures would avoid potential impacts identified in the Initial Study or reduce them to a less-than-significant level.

Discovery of Archaeological Resources or Human Remains During Construction

MMV-1. If buried cultural resources, such as chipped or ground stone, historic debris, building foundations, or human bone, are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the Coastal Conservancy.

If human remains of Native American origin are discovered during project construction, compliance with state laws, which fall within the jurisdiction of the Native American Heritage Commission (Public Resource Code Sec. 5097), relating to the disposition of Native American burials will be adhered to. If any human remains are discovered or recognized in any location other than a dedicated cemetery, excavation or disturbance of the site shall stop, including any nearby area reasonably suspected to overlie adjacent human remains, until:

a. The coroner of the county has been informed and has determined that no investigation of the cause of death is required; and

b. if the remains are of Native American origin,

1. The descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

2. The Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission.

According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100) and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission.

Impacts from Unstable Soil or Slope Failure

MMVI-1. A geological engineer shall be retained to review the proposed project plans and construction specifications and determine what measures are necessary, if any, to prevent the slope failures from being caused by the construction and use of the project accessway. All recommended measures shall be implemented during project construction.

MMVI-2. Materials used for landings shall be permeable, allowing water to percolate naturally into the slope. Surface drainage shall be directed towards the downslope side of the stairway and landing to prevent water from draining into and saturating the slope.

MMVI-3. No irrigation shall be used on the site.

MMVI-4. Care shall be taken during construction to avoid destabilizing the slope. Equipment and material storage, as well as construction operations, shall be carried out so that the amount of external vibration and surcharge to the slope is minimized at all times.

MMVI-5. A geological engineer shall monitor construction to ensure that the slope is not destabilized. Alternative construction methods shall be used, if necessary, as recommended by the geological engineer, to prevent failures.

MMVI-6. The existing slope shall be monitored on an annual basis after the rainy season and after any significant rainfall or storm event to determine whether significant erosion has occurred near the top of the slope or under the viewing deck or stairs. If these occur, it is an indication that the stability of the slope is being compromised. If these occur, a geologic engineer shall be retained to recommend repairs to re-stabilize the slope and these recommendations shall be implemented.

MMVI-7. Following earthquakes of magnitude 4.0 or greater felt in the Malibu area, the stairway shall be inspected by a geological engineer to determine if it has been damaged by groundshaking, liquefaction, or landslides. If any damage has occurred, the stairway will be closed to the public until repairs can be made and the site inspected by a geological engineer and deemed to be safe.

Impacts from Soil Erosion or the Loss of Topsoil

MMVI-8. In conjunction with MMVI-4, care shall be taken during construction to avoid erosion of topsoil.

Impacts from Noise Generated during Construction

MMXI-1. Pile driving shall not be used on-site unless previously approved by a geologic engineer. Instead, pile holes will be drilled.

Chapter 1

Introduction and Overview

Chapter 1

Introduction and Overview

Overview

The California State Coastal Conservancy has prepared this Initial Study/Proposed Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental consequences associated with the construction of a public accessway from Pacific Coast Highway (PCH) to Carbon and La Costa Beaches, in the City of Malibu, County of Los Angeles, California. The project includes the acquisition of a vacant parcel (APN 4451-004-031) for the purpose of scenic visual access, and a conceptual site plan for the adjacent parcel (APN 4451-003-033), previously dedicated to the Coastal Conservancy for the purpose of providing vertical coastal access. The conceptual site plan includes construction of a fence with a gate, viewing platform with stairs, sidewalk and street improvements, and on-site signage. The stairway would allow public access to the Carbon and La Costa Beaches from Pacific Coast Highway. A detailed description of the project is provided in Chapter 2. As part of the permitting process, the proposed project is required to undergo an environmental review pursuant to the California Environmental Quality Act (CEQA).

Authority

The preparation of an IS/MND is governed by two principal sets of documents: CEQA (Public Resources Code Section 21000, et seq.) and the state CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, Section 15063 of the CEQA Guidelines and Sections 15070–15075 of Article 6 guide the process for the preparation of an ND or MND. Where appropriate and supportive to an understanding of the issues, reference will be made either to the statute, the CEQA Guidelines, or appropriate case law.

This IS/MND, as required by CEQA, contains a project description, a description of the environmental setting, potential environmental impacts, mitigation measures for any significant effects, consistency with plans and policies, and names of preparers.

The mitigation measures included in this IS/MND are designed to reduce or eliminate the potentially significant environmental impacts described herein. Where a mitigation measure described in this document has been previously incorporated into the project, either as a specific feature of design or as a

mitigation measure, this is noted in the discussion. Mitigation measures are structured in accordance with the criteria in Section 15370 of the state CEQA Guidelines.

Scope of the IS/MND

This IS/MND evaluates the proposed project's effects on the following resource topics:

- aesthetics,
- agricultural resources,
- air quality,
- biological resources,
- cultural resources,
- geology and soils,
- hazards and hazardous materials,
- hydrology and water quality,
- land use planning,
- mineral resources,
- noise,
- population and housing,
- public services,
- recreation,
- transportation/traffic, and
- utilities and service systems.

Impact Terminology

The following terminology is used to describe the level of significance of impacts:

- a finding of *no impact* is appropriate if the analysis concludes that the project would not affect the particular topic area in any way;
- an impact is considered *less than significant* if the analysis concludes that it would cause no substantial adverse change to the environment and requires no mitigation;
- an impact is considered *less than significant with mitigation incorporated* if the analysis concludes that it would cause no substantial adverse change to the environment with the inclusion of environmental commitments that have been agreed to by the applicant; and

- an impact is considered *potentially significant* if the analysis concludes that it could have a substantial adverse effect on the environment.

Initial Study Organization

The content and format of this report are designed to meet the requirements of CEQA. The report contains the following sections:

- Chapter 1, "Introduction and Overview," identifies the purpose and scope of the IS/MND and the terminology used in the report.
- Chapter 2, "Project Description," identifies the location, background, and planning objectives of the project and describes the proposed project in detail.
- Chapter 3, "Environmental Checklist," presents the checklist responses for each resource topic. This section includes a brief setting section for each resource topic and identifies the impacts of implementing the proposed project.
- Chapter 4, "Citations," identifies all printed references and individuals cited in this IS/MND.
- Chapter 5, "List of Preparers," identifies the individuals who prepared this report and their area of technical specialty.

Appendix A: Prehistoric and Historical Context, Appendix B: Traffic Study, and Appendix C: California Highway Patrol Data Records, presents additional data supporting the analysis or contents of this IS/MND.

Chapter 2

Project Description

Chapter 2

Project Description

Introduction

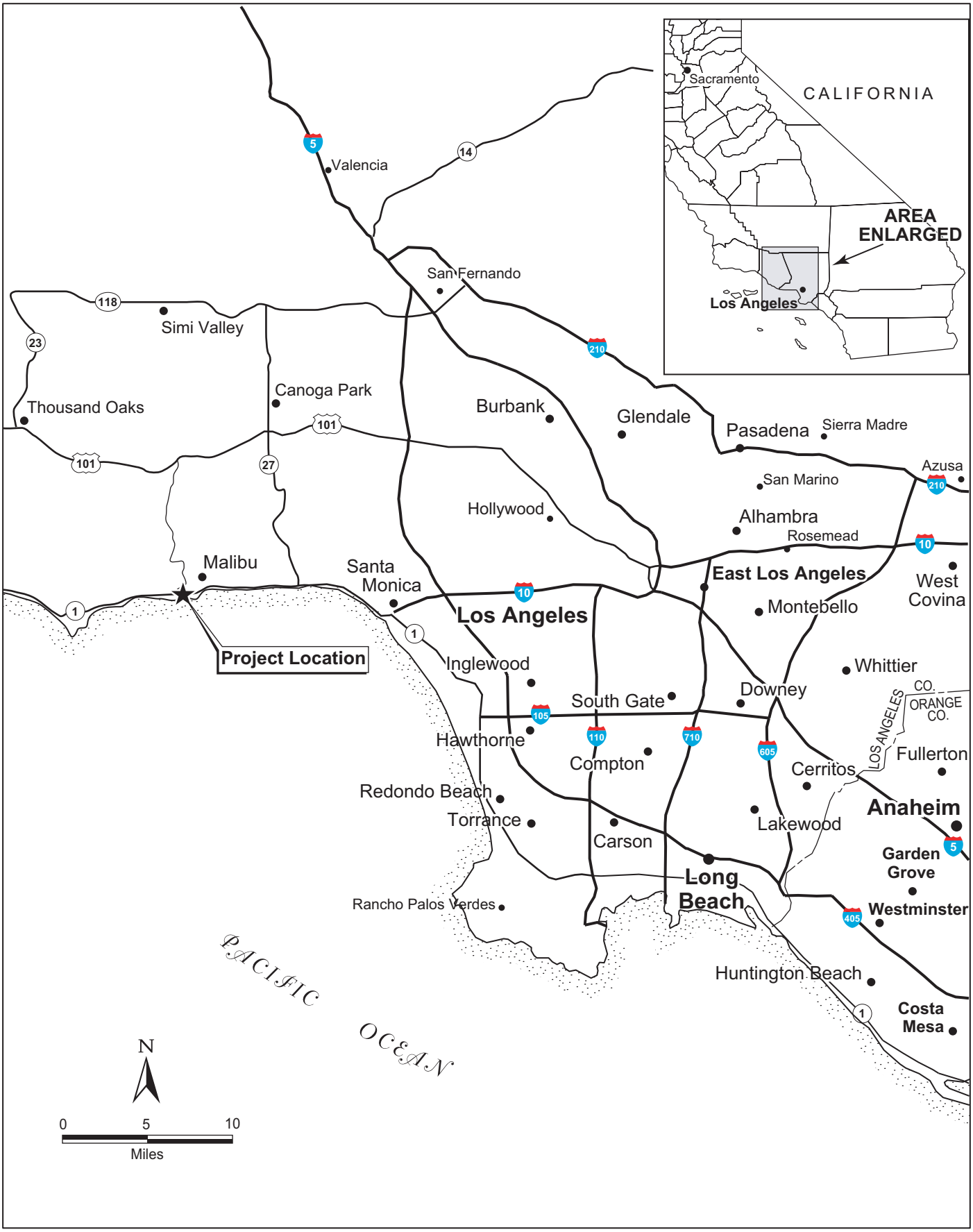
This chapter provides a detailed description of the proposed project, the project location, and the existing conditions of the project site and surrounding areas.

Project Location and Existing Conditions

The project site is located on the southern edge of the City of Malibu, in the County of Los Angeles, California (Figure 2-1 and 2-2). The site consists of two vacant lots on the south side of Pacific Coast Highway (PCH) (APN 4451-004-031 and 4451-03-033) (Figure 2-3); these lots separate Carbon and La Costa Beaches in eastern Malibu. The project site, as well as the entire City of Malibu, is located within the Coastal Zone.

The project site is bounded by PCH on the north, and the intersection of Carbon and La Costa Beaches to the south. Directly east are private residences fronting La Costa Beach. Immediately west of the subject parcels are private residences fronting Carbon Beach (Figure 2-4 and 2-5).

The project site consists of a narrow sand and cobble beach currently separated from PCH by chain link and metal fences, and various riprap boulders and concrete rubble atop a narrow shelf of soil. The width of the site narrows considerably from east to west. The project site is bordered by on-street parking along PCH. A standard curb and gutter exists along this street frontage, but no sidewalks have been installed. An informal dirt path provides pedestrian access along the street in the vicinity of the project site. Street drainage is provided by a break in the curb at the easterly end of the subject site. Just west of the property line on the south side of PCH is an on-street bus stop operated by the Los Angeles County Metropolitan Transit Agency (MTA). Directly across PCH to the north, there is a residential neighborhood served by PCH and Rambla Vista Street. Farther west, on the northeast corner of Carbon Canyon Road and PCH, a fire station is operated by the Los Angeles County Fire Department. The project site provides the only visual access to Santa Monica Bay for a distance of almost two miles to the east and greater than one mile to the west.



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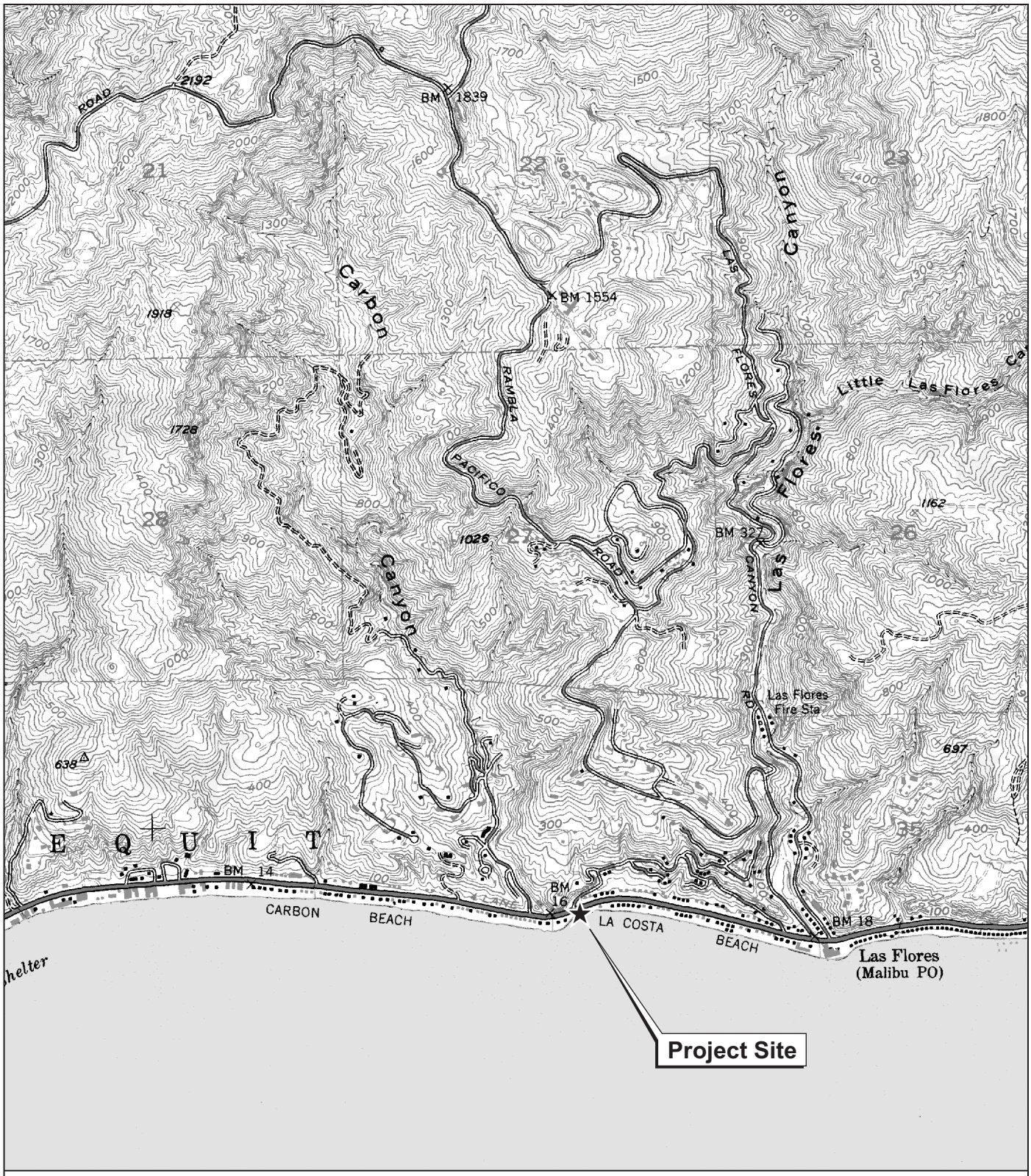
Jones & Stokes

Figure 2-1
Regional Location



0 1,000 2,000 3,000 4,000 5,000

feet

Scale = 1:24,000

Base map: USGS 7.5 Minute Series Malibu Beach, California, quadrangle (1950, PR 1981 and 1994)

TN mN

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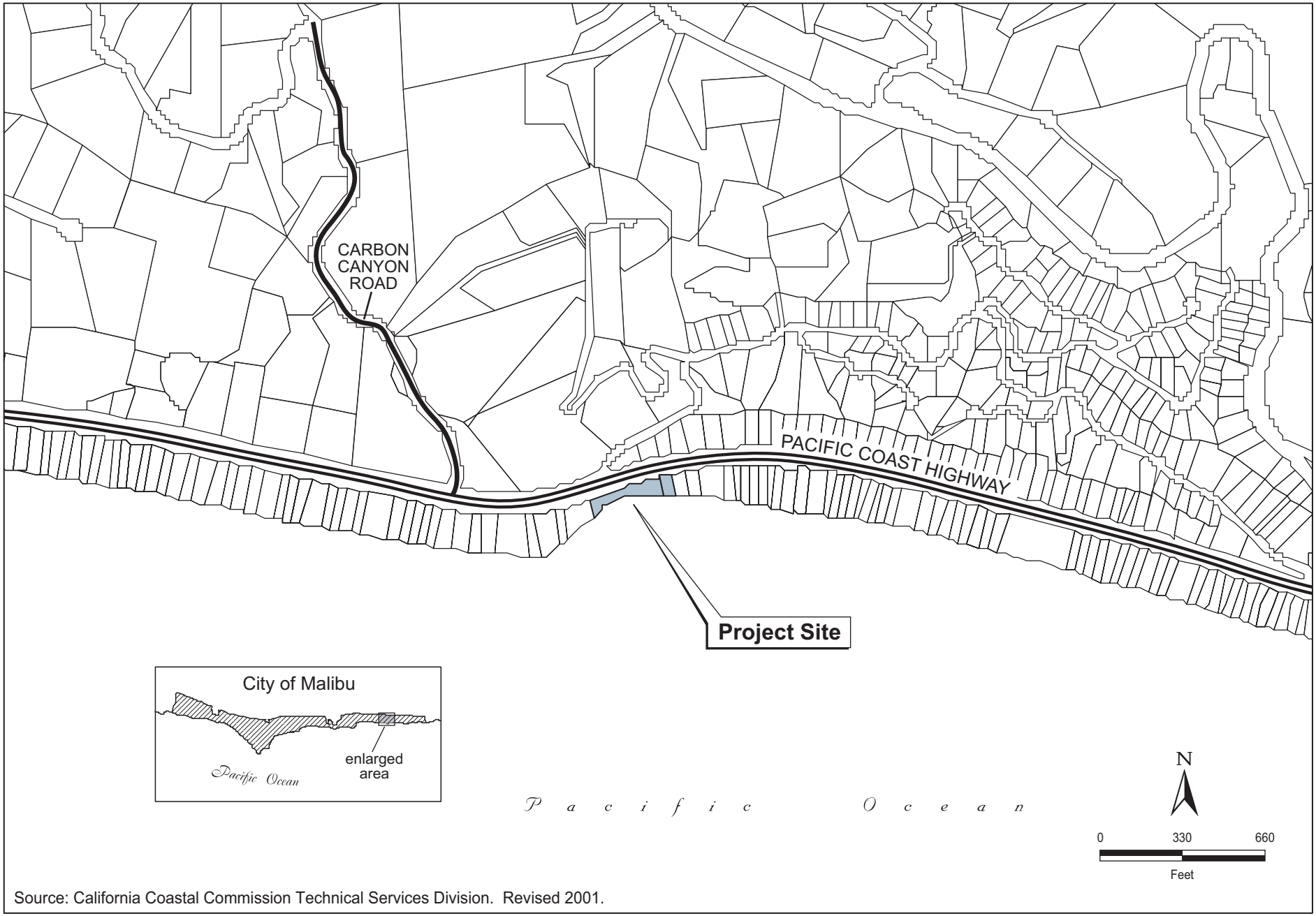
Figure 2-2
Local Vicinity



Source: California Coastal Commission Technical Services Division. Revised 2001.

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Figure 2-3
Project Site Location

View from looking east along PCH from project site.

View looking southeast toward project site from Rambla Vista and PCH intersection.

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Figure 2-4
Existing Conditions at Project Site

View looking northwest along PCH.

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View looking southwest along PCH from east end of project site.

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Figure 2-5
Existing Conditions at Project Site

Background

Pacific Coast Highway is an east/west, four-lane roadway passing through the City of Malibu, providing access to residences, commercial, public facilities and services, and numerous beaches.

Most California beaches, between the water and the mean high-tide line, are designated as public trust lands. Public lands are owned by the State of California and are under the jurisdiction of the California State Lands Commission. By using the vertical access points, people can gain access to the beach and then walk along PCH and other roadways. There are currently 13 vertical access points in Malibu, located at sporadic intervals along the shoreline. The nearest public beach access is approximately 1.3 miles to the west of the project site at the Zonker Harris Accessway, owned and operated by the Los Angeles County Department of Beaches and Harbors (Figure 2-6). The nearest beach access to the east is located approximately 1.7 miles away at Big Rock Beach.

In addition, numerous lateral access easements consisting of dry, sandy beach are in public ownership, on both Carbon and La Costa beaches.

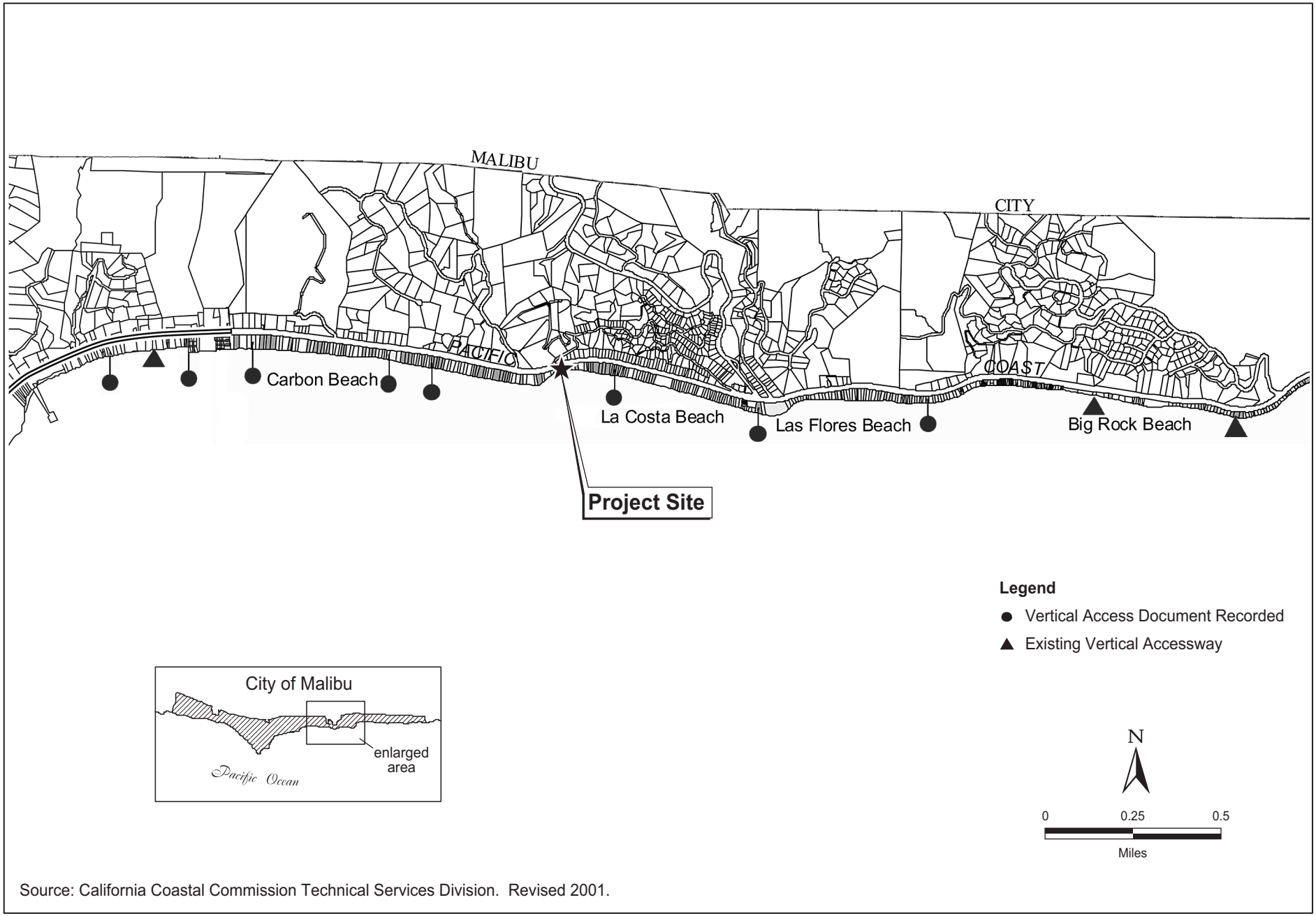
Access to La Costa Beach from the nearest vertical accessway is difficult at high tides due to the rocky promontory formed by the Coal Creek outlet at the east end of Carbon Beach. Direct access to Carbon and La Costa Beaches is available from private residences located along the shore, but this access is not available to the general public. Beachgoers have been observed traversing Coal Creek behind the fire station and passing through the drainage channel under PCH to gain access to Carbon and La Costa Beaches.

Project Objectives

The project is intended to implement the public access goals of the Coastal Conservancy Act of 1976, the Coastal Zone Management Act of 1972, the Coastal Zone Protection Act of 1996, and the California Coastal Act. The project would provide an additional vertical accessway to those designated in the City of Malibu Local Coastal Program (LCP), adopted by the California Coastal Commission on September 13, 2002. Specifically, the LCP calls for development of vertical access at the project site.

Proposed Project

The project includes the acquisition of a vacant parcel (APN 4451-004-031) (herein referred to as the “acquisition parcel”) south of PCH at the intersection of Carbon and La Costa Beaches in the City of Malibu for the purpose of scenic visual access, and a conceptual site plan for the adjacent parcel (APN 4451-003-033) (herein referred to as the “access parcel”), previously dedicated to the



Source: California Coastal Commission Technical Services Division. Revised 2001.

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Jones & Stokes

Figure 2-6
Beach Access Locations

Coastal Conservancy as a condition of three separate Coastal Development Permits (CDPs) for the purpose of providing vertical coastal access.

The conceptual site plan contemplates managed public access through the development of minor public access improvements, including fencing, a gate, a viewing deck, an improved sidewalk, stairs, and on-site signage. No public access improvements are proposed to be constructed on the acquisition parcel; improvements on this parcel would be limited to new fencing, adjacent sidewalk improvements, stabilization of the existing rock materials on the site, and removal of trash and any hazards in the existing riprap boulders and concrete rubble.

The conceptual site plan for the access parcel and the acquisition and minor improvements for the acquisition parcel are addressed in this environmental analysis. Portions of the conceptual site plan improvements were analyzed as part of the requirements of the Coastal Development Permits (CDPs). Also addressed in this analysis is a management concept for both parcels.

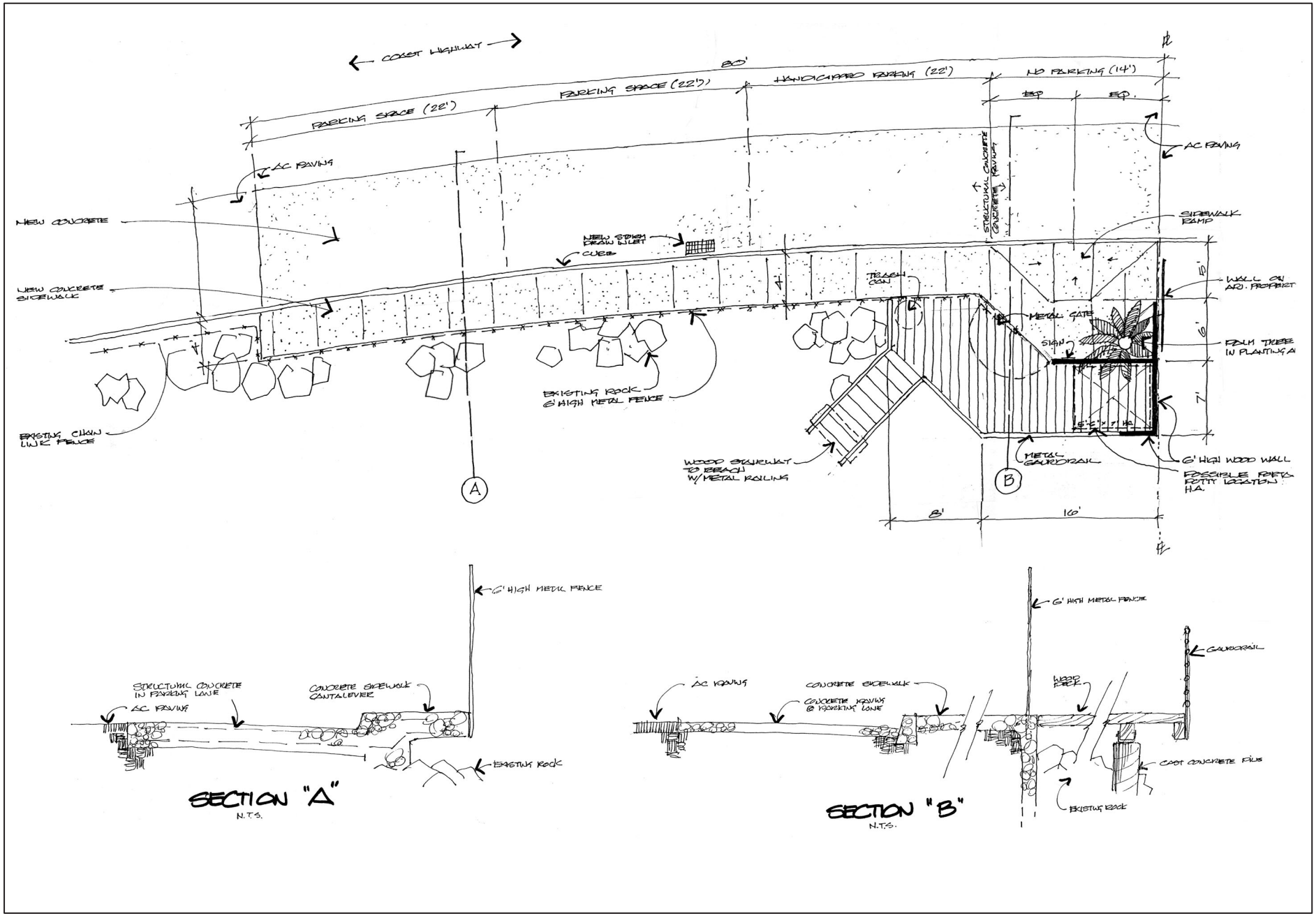
Conceptual Site Plan

The new stairway would take beachgoers from PCH down approximately eight steps to the top of the beach (Figure 2-7). The top of the stairway would be wheelchair accessible with a landing for viewing the ocean. The steepness of the slope and the limited size of the property would prevent inclusion of a wheelchair ramp at this location.

The stairway and landing would be held in place by 6-by-8-inch pressure-treated Douglas-fir timbers placed in cast concrete piles. The stairway would be composed of wood steps, with a metal railing. The landing at the top of the slope would be constructed of treated wood decking with a metal guardrail along the ocean side. A trash can would also be located on the landing. Directional and interpretive signage would be provided. Potentially, a portable toilet facility could be provided.

A fence would be constructed along the top of the slope adjacent to an improved 4-foot-wide sidewalk. The existing chain link and metal fences would be replaced by a new 6-foot high wrought iron metal fence. A locking gate would be provided at the viewing deck and would be closed at night or when restricted access is required due to safety reasons such as storm damage, tsunamis, etc. Signage would be provided at the gate, explaining the rules of the beach, such as, “No dogs, firearms, fires, etc.” A “Coastal Access” sign would be placed along PCH near the beach access location. Use of the site is expected to be similar to that currently provided for and allowed at nearby beach accessways managed by the Los Angeles County Department of Beaches and Harbors. No lifeguard would be on duty, and the hours of operation are expected to be sunrise to sunset.

A 4-foot-wide sidewalk would be constructed, leading from the existing curb location to the new fence line. The concrete sidewalk would cantilever, or hang



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Jones & Stokes

Figure 2-7
Conceptual Site Plan Design

over, the existing rock below (see "Section A" on Figure 2-7). The existing parking lane along the front of the project site would be improved by replacing the existing asphalt surface with structural concrete and a new curb. No additional parking would be provided. Beachgoers using the accessway would be able to use the existing on-street parking on the west side of PCH, as is done for the other beach accessways in the area.

Future Actions

The acquisition parcel is currently in private ownership. However, an offer to purchase has been made by the staff of the Coastal Conservancy. The acceptance of this offer would transfer the land from the private landowner to the California State Coastal Conservancy (the Coastal Conservancy), which would construct the improvements for visual access. The Coastal Conservancy would also construct the beach access on the previously dedicated access parcel to the east. Once the improvements have been constructed, the Coastal Conservancy would enter into an agreement with a local entity to provide property management services.

At a future meeting of theCoastal Conservancy , staff will recommend that the Coastal Conservancy authorize the purchase of the acquisition parcel, authorize staff to submit a Coastal Development Permit to the Coastal Commission for the proposed improvements, approve the design concept, make CEQA findings, approve funds for construction, authorize staff to prepare a management plan, and authorize staff to negotiate and enter into a management agreement with a local (unspecified) organization and thereafter open the accessway for public use.

Chapter 3

Environmental Checklist and Analysis

Chapter 3

Environmental Checklist and Analysis

1. **Project Title:** Carbon – La Costa Beach Acquisition

2. **Lead Agency Name and Address:** California State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612

3. **Contact Person and Phone Number:** Mr. Marc Beyeler
(510) 286-4172

4. **Project Location:** Two vacant lots (APNs 4451-004-031 and 4451-03-033) on the south side of Pacific Coast Highway, adjacent to La Costa Beach, on the southern edge of the City of Malibu, in the County of Los Angeles, California.

5. **Project Sponsor's Name and Address:** California State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612

6. **General Plan Designation:** SF-M (Single-Family Medium)

7. **Zoning:** SFM (Single-Family Residential – Medium Density)

8. **Description of Project:** The project includes the acquisition of a vacant parcel (APN 4451-004-031) for the purpose of scenic visual access, and a conceptual site plan for the adjacent parcel (APN 4451-003-033), previously dedicated to the Coastal Conservancy for the purpose of providing vertical coastal access. The conceptual site plan includes construction of a fence with a gate, viewing platform with stairs, sidewalk and street improvements, and on-site signage. The stairway would allow public access to the Carbon and La Costa Beaches from Pacific Coast Highway. A detailed description of the project is provided in Chapter 2.

9. **Surrounding Land Uses and Setting:** Surrounding land uses include single-family residential to the east and west, Pacific Coast Highway to the north, and La Costa Beach and the Pacific Ocean to the south. A detailed description of the surrounding land uses and setting is provided in Chapter 2.

10. **Other Public Agencies whose Approval Is Required:** California State Coastal Commission

Environmental Factors Potentially Affected:

The environmental factors checked below would potentially be affected by this project (i.e., the project would involve at least one impact that is a "Potentially Significant Impact"), as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards and Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	

Determination:

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature	Date
Printed Name	For

Evaluation of Environmental Impacts:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.

4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less-than-Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. (Mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced.)

5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [Section 15063(c)(3)(D)]. In this case, a brief discussion should identify the following:

   (a) Earlier Analysis Used. Identify and state where earlier analyses are available for review.

   (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   (c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

   (a) the significance criteria or threshold, if any, used to evaluate each question; and
   (b) the mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a.	Have a substantial adverse effect on a scenic vista?	❑	❑	■	❑
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	❑	❑	❑	■
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	❑	❑	❑	■
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	❑	❑	❑	■

a. Less-than-Significant Impact. Although the project site currently affords views of the ocean, the site is not designated as a scenic vista (Malibu General Plan 1995). The ocean may be viewed through a chain link fence along a 300-foot frontage, and through a gray metal slat fence along an 80-foot frontage. Pedestrians wishing to view the beach and ocean currently have an area in which to stand, between the existing fence and the curb and parked cars, of approximately one foot of weedy gravel. As part of the project, a metal post fence would be erected along the ocean side of the new 4-foot-wide sidewalk. The fence would not obscure views of the ocean from PCH or surrounding homes. The ocean would be clearly visible through spaces in the fence and unobstructed open viewing would be available from the viewing platform. Because the proposed project, including the proposed fence, would not block views of the scenic views of the beach or ocean, impacts are considered less than significant.

b. No Impact. The most dominant scenic resource for the City of Malibu is the ocean; the proposed project would not damage the ocean. Additionally, the proposed project would not damage resources visible from a state scenic highway. Within the Malibu Coastal Zone, 21 roadways are designated as potential scenic highways; 14 of these are located within the City of Malibu (Malibu General Plan 1995). Many roads in Malibu are considered scenic, but only PCH has been officially designated as an eligible scenic highway by the California Department of Transportation. Official designation of scenic highways is conducted by the State Scenic Highway Advisory Committee. Therefore, the proposed project would be located along, and clearly visible from, a state scenic highway. The beach access improvements would not damage or degrade beach or ocean views or any natural features on the project site. The new fence would not obscure views of the beach or ocean.

c. No Impact. The visual character of the site would not significantly change. The beach access improvements would be a visual improvement from the existing chain link and metal fence and the narrow weedy gravel pedestrian walking area. The project would enhance the visual character of the site from the south (beach side) by preventing erosion and encouraging native vegetation along the slope, and from the north (PCH) by providing a uniform fence, sidewalk, curb and parking strip along the entire frontage of the site.

d. No Impact. Currently, lights in the area consist of streetlights along PCH, and residential indoor and outdoor lighting. The site does not currently have any lights, and the proposed project would not include the use of lights; therefore, no changes would occur.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
II.	**AGRICULTURAL RESOURCES.** In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. Would the project:				
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	❑	❑	❑	■
b.	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	❑	❑	❑	■
c.	Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	❑	❑	❑	■

a. No Impact. The California Department of Conservation's Farmland Mapping and Monitoring Program identifies categories of agricultural resources that are significant and therefore require special consideration. According to the Department of Conservation's Important Farmland Map, the project site is not located in an area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation 1998). No cultivated farmland currently exists on the project site; therefore, none would be converted to accommodate the proposed project.

b. No Impact. The Williamson Act applies to parcels consisting of least 20 acres of Prime Farmland or at least 40 acres of land not designated as Prime Farmland on which the property owner has signed a Williamson Act contract to prevent conversion to a non-agricultural use. The project site is not located within a Prime Farmland designation, nor does it consist of more than 40 acres of farmland. The property owners have not entered into a Williamson Act contract for the site.

c. No Impact. The project would not disrupt or damage the operation or productivity of any areas designated as farmland. No farmland is located within the project site or the surrounding areas that could be affected by the project.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
III.	**AIR QUALITY.** When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a.	Conflict with or obstruct implementation of the applicable air quality plan?	❑	❑	❑	■
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	❑	❑	■	❑
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	❑	❑	■	❑
d.	Expose sensitive receptors to substantial pollutant concentrations?	❑	❑	■	❑
e.	Create objectionable odors affecting a substantial number of people?	❑	❑	❑	■

a. No Impact. A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceed growth estimates included in the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP). The AQMP is based on the general plans from local jurisdictions. Thus, the land use identified in the general plan is assumed in the AQMP. The project site (two parcels) is currently zoned Single-Family Residential – Medium Density which permits one single-family residence per lot. Therefore, two houses have been accounted for in the AQMP. According to the California Department of Finance, the average household size in Malibu was 2.478 persons, estimated as of January 1, 2003 (DOF 2003). The eastern parcel has been dedicated as a visual and vertical access as a condition of approval for a Coastal Development Permit, and is therefore not developable. Thus, the proposed acquisition of the developable western parcel could potentially decrease the city's estimated population by two to three people. Construction of the beach access stairway would not result in population and/or permanent employment growth in the area; therefore, it would not conflict with implementation of SCAQMD's AQMP.

b. Less-than-Significant Impact. The proposed project would not substantially increase pollutant emissions. Construction, and management and operation phases are discussed separately below.

Construction Phase: Construction-related emissions are typically generated from development activities such as site grading, material export, construction worker commute trips, mobile and stationary construction equipment exhaust, and architectural coatings such as asphalt and paint. The project includes demolition and site preparation activities such as minimal excavation of soils,

removal of the chain link and the metal fence, clearing of weeds, and removal of curbs. Development activities include construction of the viewing deck with guardrail and stairway, replacement of old fence with new metal fence, replacement of curbs including new storm drain, construction of 4-foot-wide sidewalk, and resurfacing of parking area. Minimal use of construction equipment and few construction personnel and material hauling trips would be required for this small project. The construction duration would be short (30-60 days). Based on the size of the project, it would fall significantly below the size of construction projects that have the potential to exceed the emissions thresholds of significance for the SCAQMD (South Coast Air Quality Management District 1993).

Management and Operation Phase: Management and operation-related emissions are typically generated from equipment such as natural gas fuel combustion used for space and water heating, and from landscape maintenance equipment, consumer products, and commuter trips. The proposed project would not involve the use of combustion or landscape equipment or substantially increase trips to the beach (see Section XV, Transportation/Traffic). Cars traveling to Carbon and La Costa Beaches to use the proposed beach accessway would travel to other locations if this site were unavailable for use; therefore, no increase in vehicle use would occur as a result of this project.

c. Less-than-Significant Impact. The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant. The SCAQMD considers its cumulative emissions thresholds to be the same as its project-specific thresholds (Smith pers. comm.). Thus, if a project's mitigated emissions exceed the SCAQMD's project-specific thresholds for either construction or management and operation, the project would have both project-specific and cumulatively significant air impacts. Because the proposed project would not exceed construction or management and operational project-specific emissions thresholds (see item b), it would not result in air quality impacts that are cumulatively considerable.

d. Less-than-Significant Impact. Typically sensitive receptors include the elderly, the very young, and those with respiratory health problems. The project site is located adjacent to residential areas, which could potentially be occupied by sensitive receptors. However, as noted above, the proposed project would not adversely affect air quality, and therefore, would not affect potential sensitive receptors.

e. No Impact. Odors are typically associated with industrial or institutional land uses, as listed in SCAQMD's CEQA Handbook. Neither construction nor management and operation of a beach accessway would produce objectionable odors.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	❑	❑	❑	■
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	❑	❑	❑	■
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	❑	❑	❑	■
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	❑	❑	❑	■
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	❑	❑	❑	■
f.	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	❑	❑	❑	■

a. No Impact. To identify sensitive biological habitat and wildlife species, a search of the California Natural Diversity Database (CNDDB) within the United States Geological Survey (USGS) 7.5-minute Malibu Beach Quadrangle was completed. Additionally, a walking survey of the project site and surrounding areas was conducted on September 13, 2003.

Portions of the project site consist of a sand and cobble beach with a slope characterized by riprap, boulders, and concrete rubble from the beach to the PCH, and developed and disturbed areas. The site is separated from the PCH by a chain link and metal fence. The cobble beach is located to the west of the site and supports habitat for small marine animals; however, no special-status species

were identified. The site lacks native vegetation and plant communities. Non-native weedy plant species occur along the chain link and metal fence adjacent to the PCH.

Based on a CNDDB search, the following species and habitats have the potential to occur within the broader vicinity of the site.

Habitats

Valley Oak Woodland
Southern California Steelhead Stream
Southern California Coastal Lagoon

Plants

Species	Status
Braunton's milkvetch (*Astragalus brauntonii*)	Federally Endangered
Lyon's Pentachaeta (*Pentachaeta lyonii*)	Federally/State Endangered
Marcescent Dudleya (*Dudleya cymosa* ssp. *marcescens*)	Federally Threatened/State Rare
Santa Monica Mountains Dudleya (*Dudleya cymosa* ssp. *ovatifolia*)	Federally Threatened
Santa Susana Tarplant (*Deinandra minthornii*)	State Rare
Plummer's Mariposa lily (*Calochortus plummerae*)	CNPS List 1B
Blochman's Dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)	CNPS List 1B
Malibu Baccharis (*Baccharis malibuensis*)	CNPS considered but rejected, not yet published

CNPS = California Native Plant Society

Wildlife

State "species of concern" (not listed as endangered or threatened by the federal government or the state)

San Bernardino Ringneck Snake (*Diadophis punctatus modestus*)
San Diego Desert Woodrat (*Neotoma lepida intermedia*)
San Diego Horned Lizard (*Phrynosoma coronatum blainvillei*)
San Diego Mountain Kingsnake (*Lampropeltis zonata pulchra*)
Monarch Butterfly (*Danaus plexippus*)
Southwestern Pond Turtle (*Clemmys marmorata pallida*)

State species of concern and federally listed as endangered

Tidewater Goby (*Eucyclogobius newberryi*)	Federally Endangered
Southern California Steelhead (*Oncorhynchus mykiss iridous*)	Federally Endangered

The CNDDB has no record of sensitive habitats, or wildlife or plant species located on the project site. The project site does not have habitat for any of the species listed above, and no sensitive species were observed during the site survey and none are expected. Therefore, the proposed project would not have an impact on any listed species or species identified as a candidate, sensitive, or special-status species.

b. No Impact. Riparian species or other sensitive natural communities are not located on the project site.

c. No Impact. The proposed project would not result in impacts to wetland areas, as none exist on the project site.

d. No Impact. The beach itself provides a migration path and foraging habitat for coastal birds. However, the proposed project would not impact migratory corridors as it contains limited vegetation and does not support significant foraging, roosting, or nesting sites. Furthermore, the construction of public access improvements would not disrupt or disturb the ability of coastal birds to move along the beach or to forage.

e. No Impact. The proposed project would not conflict with any local policies or ordinances protecting biological resources. The project site does not contain any heritage trees or other biological resources that are protected by local policies.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:				
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	❑	❑	❑	■
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	❑	■	❑	❑
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	❑	❑	❑	■
d.	Disturb any human remains, including those interred outside of formal cemeteries?	❑	■	❑	❑

Introduction and Methods

Efforts to identify cultural resources within the project area consisted of background research and consultation with Native Americans. As the project area is currently covered with asphalt, concrete, and riprap, an archaeological survey was not conducted.

Record Search

A record search was conducted at the South Central Coastal Information Center of the California Historical Resources Information System located at California State University, Fullerton, on September 15, 2003. The record search consulted the state's database of previous studies, and previously recorded cultural resource sites. Also consulted were historic maps and historic properties inventories such as the *National Register of Historic Places, California Historical Landmarks, Historic Spots in California*, *the California Inventory of Historic Resources, California Points of Historical Interest, Los Angeles Historic-Cultural Monuments* and documents specific to the City of Malibu. According to these inventories no previously listed federal, state, or local landmarks are located within or adjacent to the project area.

The record search indicated that no previously identified prehistoric or historic archaeological sites are located within or adjacent to the project area. Two prehistoric sites were identified within one mile of the project area. The first of the sites, CA-LAn-2814, is described as a "temporary campsite with a low density of artifacts." Identified artifacts include a chert knife carving tool, a chert scraper, a chert flake fragment, and three cobble core tools (King 1999). The second site, CA-LAn-1415, is described as a village site containing a dark shell midden, fire-affected rock, and chert flakes (Romani 1988).

Additional sources reviewed include regional and local histories and historic maps in order to develop contexts for interpreting cultural resources and to determine the potential for historic resources to be located within the project area. Three United States Geologic Survey (USGS) *Calabasas, Calif.*

topographic quadrangles (1903, 1908, 1903/reprinted 1947) were reviewed. No development, other than the Pacific Coast Highway, appears on the maps from these dates. For more information on the history of the project area, detailed prehistoric and historical contexts are located in Appendix A.

Jones & Stokes' cultural resources staff contacted the Native American Heritage Commission (NAHC) on September 16, 2003, requesting a check of their files for information on the potential for any sacred sites to be located within the project area and to provide a list of Native Americans to be contacted for further information. The Native American Heritage Commission responded on September 26, 2003 stating that no known Native American resources are located within the project area. The NAHC also provided a list of twelve Native American representatives to be contacted for more information. Jones & Stokes sent letters describing the project to the twelve representatives on October 6, 2003. Jones & Stokes is currently awaiting responses from those inquiries.

Archival Research

Resources reviewed included regional and local histories and historic maps in order to develop contexts for interpreting cultural resources. Detailed prehistoric and historic contexts are located in Appendix A.

CEQA Significance Criteria

Regulatory compliance with regard to cultural resources is governed by CEQA. CEQA Guidelines define a significant cultural resource as "a resource listed in or eligible for listing in the California Register of Historical Resources (CRHR)" (Pub. Res. Code Section 5024.1). A resource may be eligible for inclusion in the CRHR if it meets any one of the following criteria.

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

2. It is associated with the lives of important historical figures.

3. It embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic value.

4. It has yielded, or may be likely to yield, important prehistoric or historic information.

Under CEQA, an impact would be considered significant if a project would have an effect that may change the significance of a resource (Public Resources Code 5020.1). Actions that would change the significance of a historical resource include: demolition, replacement, substantial alteration, and relocation of historic properties.

Even without a formal determination of significance and nomination for listing in the CRHR, the lead agency can determine that a resource is potentially eligible for such listing to assist in determining whether a significant impact would occur. The fact that a resource is not listed in the CRHR, or has not been determined eligible for such listing, and is not included in a local register of historic resources, does not preclude an agency from determining that a resource may be a historical resource for the purposes of CEQA.

a. No Impact. No historical resources were identified within the project area. Residences are currently located on properties adjacent to the west and east of the project area that were not evaluated for historical significance. Because there would be minimal visual and audible changes to adjacent

properties resulting from the project, there are no potential impacts outside of the project area. There would be no apparent impact to the significance of historic resources.

b. Less than Significant with Mitigation Incorporated. No prehistoric or historic archaeological sites were identified within the project area. Although prehistoric archaeological sites were recorded within one mile of the project area, it appears that the there is a low potential to encounter subsurface archaeological deposits within the project area. The project area consists of a small area of coastal beach soils, portions of which are covered by protective riprap, which has been shifted by ocean tides and manipulated by previous development projects. Based on these factors, there is no apparent impact to archaeological resources as a result of this project.

However, there is always the possibility that significant buried cultural resources that were not identified during research could be unearthed during project activities. Construction activities could result in the demolition or disturbance of significant cultural resources. This is considered a significant impact. Implementation of Mitigation Measure MMV-1 will reduce this impact to a less-than-significant level.

Mitigation Measures

MMV-1. If buried cultural resources, such as chipped or ground stone, historic debris, building foundations, or human bone, are inadvertently discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with the Coastal Conservancy.

If human remains of Native American origin are discovered during project construction, compliance with state laws, which fall within the jurisdiction of the Native American Heritage Commission (Public Resource Code Sec. 5097), relating to the disposition of Native American burials will be adhered to. If any human remains are discovered or recognized in any location other than a dedicated cemetery, excavation or disturbance of the site shall stop, including any nearby area reasonably suspected to overlie adjacent human remains, until:

a. The coroner of the county has been informed and has determined that no investigation of the cause of death is required; and

b. if the remains are of Native American origin,

1. The descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

2. The Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission.

According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100) and disturbance of Native American

cemeteries is a felony (Section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission.

c. No Impact. The proposed project would not disturb any known paleontological resources or unique geologic features. Paleontology resources are plant and animal fossils dated from 3.5 million to 7,000 years ago. No other unique geologic features are expected to be disturbed by the proposed project.

d. Less than Significant with Mitigation Incorporated. No human remains, including formal cemeteries, were identified within the project area through archival research. However, there is always the possibility that unmarked burials may be unearthed during construction. This is considered a significant impact. If human remains are identified during construction, implementation of Mitigation Measure MMV-1 will reduce this impact to a less-than-significant level.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
VI.	**GEOLOGY AND SOILS.** Would the project:				
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	❑	❑	❑	■
	2. Strong seismic groundshaking?	❑	■	❑	❑
	3. Seismic-related ground failure, including liquefaction?	❑	■	❑	❑
	4. Landslides?	❑	■	❑	❑
b.	Result in substantial soil erosion or the loss of topsoil?	❑	■	❑	❑
c.	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	❑	■	❑	❑
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	❑	❑	❑	■
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	❑	❑	❑	■

a1. No Impact. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. Surface rupture is the most easily avoided seismic hazard. The primary purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. Unlike damage from groundshaking, which can occur at great distances from the fault, impacts from fault rupture are limited to the immediate area of the fault zone where the fault breaks along the surface.

The Malibu Coast Fault, the closest fault to the site, is an east-/west-trending, north-dipping reverse fault with several parallel strands traversing the Malibu and Pacific Palisades area. It is located on the north side of Pacific Coast Highway near the base of the Santa Monica Mountains. The most recent surface rupture for this fault was at an unrecorded date in the Holocene epoch (10,000 years ago to the present). The interval between major ruptures is uncertain. The maximum probable magnitude for earthquakes on the Malibu Coast Fault is 6.0 to 7.1 (Southern California Earthquake Data Center 2002.).

The Malibu Coast Fault is part of the Malibu Coast Fault Zone, an east/west-trending fault system, which marks the southern boundary of the western Transverse Ranges (Santa Monica Mountains). Six recorded earthquakes of magnitudes of 5.0 or greater have been recorded along the Malibu Coast Fault Zone, most or all of which are attributed to the offshore Anacapa fault or to non-emergent structures to the south of the Anacapa fault. Hundreds of smaller earthquakes have been located in the vicinity of the Malibu Coast Fault Zone (Cronin and Sverdrup 1998).

Only portions of the Malibu Coast Fault Zones are mapped as Alquist-Priolo fault zones; the project site is not within any of these zones. This, plus the site's distance from the mapped Malibu Coast Fault, means that the site would not be affected by surface rupture from any known fault. Also, the project would not include structures for human occupancy.

a2. Less than Significant with Mitigation Incorporated. The impact that is most associated with seismic activity is ground shaking. As discussed above, the Malibu Coast Fault is predicted to have a maximum probable magnitude for earthquakes of 6.0 to 7.1. Such an earthquake, as well as lesser ones and earthquakes on other faults within the Malibu Coast Fault Zone, would result in considerable ground shaking on the Carbon-La Costa Beach project site and surrounding areas. In 1989, the "Malibu Earthquake," with a 5.0 magnitude and an epicenter approximately 10 miles off the Malibu shore, resulted in several injuries, items knocked off shelves, and broken windows. The 1979 "Malibu Earthquake" (5.2 magnitude, with an epicenter 8 miles off-shore) resulted in less damage and is best known for occurring during the Rose Bowl game, alarming some of the fans.

It is likely that ground shaking will occur on the site in the future. The impact of this ground shaking at the project site, even from the most severe shaking, would be less than significant. Although the stairway and viewing platform structure may be damaged, the risk to people that may be on the site at the time would be less than if they were in a building or on a roadway nearby. If damaged by ground shaking, however, the use of the stairway after an earthquake could place the public at risk (see mitigation below).

a3. Less than Significant with Mitigation Incorporated. Liquefaction may occur in water-saturated sediment during moderate to severe earthquakes. Liquefied sediment loses strength and may fail, causing damage to buildings, bridges, and other structures. A liquefaction hazard may exist in areas where depth to groundwater is 40 feet or less. Groundwater depths along the beach in Malibu are estimated to be no greater than five feet (California Department of Conservation 2003).

Under the criteria developed by the Seismic Hazards Mapping Act Advisory Committee and adopted by the California State Mining and Geology Board, liquefaction zones are areas meeting one or more of the following:

- Areas known to have experienced liquefaction during historical earthquakes.
- Areas of uncompacted artificial fill containing liquefaction-susceptible materials that are saturated, nearly saturated, or may be expected to become saturated.

- Areas where sufficient existing geotechnical data and analysis indicate that the soils are potentially liquefiable.
- Areas where existing geotechnical data are insufficient.

In Malibu, liquefaction zones occur in narrow areas along PCH on the coast, in a mile-wide area beginning from the coast at Malibu Point north to the northern border of Malibu. Narrow zones also occur in the Canyons of Agoura Hills north of Mulholland Highway (California Department of Conservation 2003b). In the project area, no historic liquefaction events have been documented.

The project site is underlain by artificial fill made up of variable granular materials associated with PCH, and beach deposits made up of fine-to medium- grained sand, locally with rounded pebble gravel (Holocene and late Pleistocene) with very high liquefaction susceptibility when saturated (California Department of Conservation 2003a). Because these roadway fills were engineered, the fill material itself would not result in a liquefaction event. Studies, including those for beach deposit areas west of the site, show potentially liquefiable material at depths of up to 40 feet. This, combined with the probably shallow groundwater, indicates that the site is likely subject to liquefaction.

Although the site would probably experience liquefaction if strong ground shaking occurred and the stairway structure may be damaged, the risk to people that may be on the site at the time would be less than if they were in a building or on a roadway nearby. If damaged by liquefaction, however, the use of the stairway could place the public at risk (see mitigation below).

a4. Less than Significant with Mitigation Incorporated. The oldest geologic unit mapped in the Malibu Beach Quadrangle is the Upper Cretaceous Tuna Canyon Formation, which crops out in Las Flores and Carbon canyons in the southeastern part of Malibu. It consists of massive, coarse-grained, closely jointed, and fractured marine sandstone with thin-bedded siltstone representing deposition in a submarine delta-fan complex. The Tuna Canyon Formation is overlain by lower Paleocene and Eocene very fine- to medium-grained, semi-friable to hard, thickbedded marine sandstone, resistant pebble conglomerate, and conchoidally fractured siltstone of the Coal Canyon Formation. The middle Eocene Llajas Formation disconformably overlies the Coal Canyon Formation and is composed of very fine-grained, semi-friable marine sandstone, siltstone, pebble conglomerate, and mudstone. The only exposure of the Llajas Formation shown on the map is in Solstice Canyon on the western edge. However, some of the strata mapped as Coal Canyon Formation in Carbon Canyon in the southeast may be equivalent to the basal part of the Llajas Formation (California Department of Conservation 2003a).

The coastline in the project area is characterized by broad, gently sloping, relatively continuous terrace surfaces that terminate in moderately steep bluffs above a narrow beach. Landslide zones occur heavily throughout the United States Geological Survey (USGS) Malibu Beach Quadrangle, but become less dense immediately north of Monte Nido and along the Mulholland Highway (California Department of Conservation 2003a). Landslides in the Malibu area range from minor surficial failures resulting from soil and rock creep, rock fall, soil and debris slumps, and debris flows to large rotational and translation landslides. Slides involving bedrock, terrace deposits, and artificial fill occur along the coastal terrace bluffs.

In February 1998, several ground movement events took place in the vicinity of the project site: a dozen homes in Malibu's Las Flores Canyon were evacuated because of unstable ground; the Calle del Barco landslide caused a retaining wall to partially collapsed, damaging two homes; and a wall along Rambla Orienta just above Pacific Coast Highway and the project site, began to give away due to shifting earth (California Geological Survey 2003).

Based on the historic and recent landslide activity in the general area, it is likely that landslides will continue to occur. Construction of the accessway and other improvements, if not performed carefully, could result in immediate or delayed slope failure, affecting the site and, potentially, PCH. If damaged by landslides, the use of the stairway could place the public at risk. The following mitigation measures would reduce impacts to less than significant.

Mitigation Measures

MMVI-1. A geological engineer shall be retained to review the proposed project plans and construction specifications and determine what measures are necessary, if any, to prevent the slope failures from being caused by the construction and use of the project accessway. All recommended measures shall be implemented during project construction.

MMVI-2. Materials used for landings shall be permeable, allowing water to percolate naturally into the slope. Surface drainage shall be directed towards the downslope side of the stairway and landing to prevent water from draining into and saturating the slope.

MMVI-3. No irrigation shall be used on the site.

MMVI-4. Care shall be taken during construction to avoid destabilizing the slope. Equipment and material storage, as well as construction operations, shall be carried out so that the amount of external vibration and surcharge to the slope is minimized at all times.

MMVI-5. A geological engineer shall monitor construction to ensure that the slope is not destabilized. Alternative construction methods shall be used, if necessary, as recommended by the geological engineer, to prevent failures.

MMVI-6. The existing slope shall be monitored on an annual basis after the rainy season and after any significant rainfall or storm event to determine whether significant erosion has occurred near the top of the slope or under the viewing deck or stairs. If these occur, it is an indication that the stability of the slope is being compromised. If these occur, a geologic engineer shall be retained to recommend repairs to re-stabilize the slope and these recommendations shall be implemented.

MMVI-7. Following earthquakes of magnitude 4.0 or greater felt in the Malibu area, the stairway shall be inspected by a geological engineer to determine if it has been damaged by groundshaking, liquefaction, or landslides. If any damage has occurred, the stairway will be closed to the public until repairs can be made and the site inspected by a geological engineer and deemed to be safe.

b. Less than Significant with Mitigation Incorporated. Implementation of the project could result in soil erosion, during construction and, potentially, for the life of the project. Small amounts of grading and excavation of soils would occur as part of some of the project activities. Exposed soils resulting from these construction activities could potentially erode, especially during heavy rains. Alteration of drainage patterns on the soil and introduction of impervious surfaces could also result in erosion. This impact would be mitigated by MMVI-2, above, and MMVI-8 below.

Mitigation Measures

MMVI-8. In conjunction with MMVI-4, care shall be taken during construction to avoid erosion of topsoil.

c. Less than Significant with Mitigation Incorporated. As discussed above, the project site is located in an area with a history of landslides and is susceptible to future landslides. This impact would be mitigated by MMVI-1 through MMVI-7, above.

Also as discussed above, the project site would probably experience liquefaction if strong groundshaking occurred and the structure may be damaged. The risk to people that may be on the site at the time would be less than if they were in a building or on a roadway nearby. If damaged by liquefaction, however, the use of the stairway after an earthquake could place the public at risk. This impact would be mitigated by MMVI-7, above.

d. No Impact. Expansiveness is the potential of the soil to swell and shrink with repeated cycles of wetting and drying. Expansive soils are not suitable for building foundations as they tend to be compressible and do not provide adequate support. Expansiveness is a common feature of fine-grained clayey soils. Soils in the project area are primarily sand and pebble gravel with little or no clay, therefore, they are not considered expansive (California Department of Conservation 2003a).

e. No Impact. The proposed project would not include septic tanks or alternative wastewater disposal systems. No impacts would occur.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
VII.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:				
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	❑	❑	■	❑
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	❑	❑	■	❑
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	❑	❑	■	❑
d.	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	❑	❑	❑	■
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	❑	❑	❑	■
f.	Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	❑	❑	❑	■
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	❑	❑	❑	■
h.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	❑	❑	❑	■

a. Less-than-Significant Impact. Hazardous material would not routinely be used at the site. Although minor amounts of fuels or lubricants may be used during construction, this would not involve any dangerous activities that could expose people or the surrounding community to any health hazards.

b. Less-than-Significant Impact. Significant amounts of hazardous materials would not be transported or used at the project site. Additionally, no known hazardous substances are located beneath the site.

c. Less-than-Significant Impact. The proposed project site is located approximately 4 miles east of Pepperdine University. However, the proposed project would not emit hazardous pollutants.

d. No Impact. The project would not be located on a previously occupied site, or in an area with nearby agricultural, commercial, or industrial uses. Therefore, it would not be included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The project would not create a significant hazard to the public or the environment.

e. No Impact. The project site is not located within an airport land use plan, nor is it located within two miles of a public airport.

f. No Impact. The project is not located within the vicinity of a private airstrip.

g. No Impact. The project would not interfere with an adopted emergency response or evacuation plan. The proposed project would not affect the existing emergency operations. The project would also not require the closure of streets or affect potential emergency response routes. Emergency access would be maintained. Additionally, the proposed project would provide an accessway to the Carbon and La Costa Beaches that would be shorter than entering through private property or from the nearest beach access location.

h. No Impact. The project site is located across PCH from a hillside with possible combustible vegetation. However, construction and management and operation of the proposed accessway would not expose people or structures to a significant risk. No wildlands are located directly adjacent to the project site that could be adversely affected. No impacts would occur.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
VIII.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a.	Violate any water quality standards or waste discharge requirements?	❑	❑	❑	■
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	❑	❑	❑	■
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	❑	■	❑	❑
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	❑	❑	■	❑
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	❑	❑	■	❑
f.	Otherwise substantially degrade water quality?	❑	❑	■	❑
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	❑	❑	❑	■
h.	Place within a 100-year flood hazard area structures that would impede or redirect floodflows?	❑	❑	■	❑
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	❑	❑	❑	■

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
j. Contribute to inundation by seiche, tsunami, or mudflow?	❑	❑	■	❑

a. No Impact. The proposed project site is located within the jurisdiction of the Los Angeles Regional Water Quality Control Board, Santa Monica Bay Watershed Management Area. There are 62 identified watersheds within the boundaries of Malibu. The largest watershed is the Malibu Creek coastal watershed, which drains an area of approximately 74,000 acres. The project site is not located within a "Significant Watershed." However, it is located adjacent to Carbon Canyon, which is identified as the eastern edge of a "Significant Watershed" (Malibu General Plan 1995). The project would not contribute to violations in water quality standards or waste discharge requirements. The project involves the construction of street improvements, a fence, and a beach accessway from the top of a slope at PCH down to the La Costa Beach. The proposed project would not discharge substances into surface waters or alter surface water quality in any water body. Management and operations of the beach access would not affect the watersheds, significant or otherwise, in this area.

b. No Impact. The project would not use significant amounts water during or after construction. During construction water may be used to wash the street or keep dust from becoming airborne. During management and operation water may be used to water potted plants on or near the viewing deck. However, the amount of water would be negligible and would not impact any water groundwater supplies. Native vegetation would be planted around the accessway to help prevent erosion; however, no irrigation of slope would occur. The project would not involve the direct withdrawal of groundwater and would not substantially interfere with recharge capabilities.

c. Less than Significant with Mitigation Incorporated. Surface stormwater from PCH currently drains from the center of the road to either side. Stormwater that drains south flows along the curb toward the east, then into a depression in the roadway and curb-face located at the east end of the project site, then directly onto the La Costa Beach and away from the slope; the project would not change this drainage pattern. New storm drain improvements are planned as part of the project. Stormwater that falls on the slope side would continue to drain down the slope toward the beach area. The accessway would be composed of surfaces that allow stormwater to flow through and, therefore, would not result in heavy flows in specific locations. The project would not result in substantial erosion or siltation.

Wind- and water-driven erosion of soils could occur during the construction phase of the project and before vegetation has a chance become established. Development would be subject to state codes and requirements for erosion control and grading. A Storm Water Pollution Prevention Plan (SWPPP) would be prepared by the contractor prior to construction of the site to identify Best Management Practices (BMPs) that would minimize erosion during construction activities. These BMPs may include installation of silt screens, use of sandbags, and other measures available to reduce erosion. With proper implementation, BMPs would protect against substantial erosion or siltation. Mitigation Measures MMVI-1 through MMVI-5 would also help to reduce impacts from erosion.

d. Less-than-Significant Impact. The proposed project may slightly increase the amount of impermeable surfaces on the project site. This may result in minor alterations to existing absorption rates, drainage patterns, and the rate and amount of surface runoff. Negligible changes in the

drainage pattern would not increase flooding potential. The drainage facilities within the project area currently have capacity to accommodate any flows from the proposed site development without contributing to flooding.

e. **Less-than-Significant Impact.** Stormwater that drains south on PCH flows along the curb toward the east, then into a depression in the roadway and curb-face located at the east end of the project site, then directly onto the La Costa Beach and away from the slope. New storm drain improvements are planned as part of the project. Unlike the current curbcut, the new inlet would be screened to prevent large objects and trash from washing onto the beach area. Stormwater that falls on the slope side would continue to drain down the slope toward the beach area. Although the walking area adjacent to the street parking would be increased by approximately 3 feet along the length of the project site, it would not substantially increase the amount of impermeable surfaces on the project site as a whole. Because runoff from PCH would not be altered, the project would not result in a change in the current amount of contaminants in the stormwater runoff.

f. **Less-than-Significant Impact.** The proposed project would not otherwise substantially degrade water quality. No other sources of water pollution would be generated from the project site other than typical urban runoff.

g. **No Impact.** The proposed project does not involve the construction of housing; therefore, no housing would be located within a 100-year flood zone.

h. **Less-than-Significant Impact.** The proposed project site is located within a 100-year flood zone; however, the fence and accessway structures would not impede or redirect flood flows.

i. **No Impact.** The Rindge Dam (Malibu Dam) on Malibu Creek is the only dam located upstream from the project site. However, "the reservoir has been completely filled with accumulated silt and sediment since the mid-1950s" (American Rivers 2002). Therefore, the proposed project would not be subject to flood inundation from failure this dam.

j. **Less-than-Significant Impact.** If people are standing on the accessway, they may be exposed to potential impacts involving tsunamis from the ocean to the south and mudflows from the hillside to the north. However, the project would not contribute to or increase the possibility of inundation by tsunami or mudflow. There are no enclosed waterbodies near the site; therefore, impacts from a seiche would not occur. If advanced warning of a tsunami (or large tsunami-causing events such as offshore landslide or earthquake) were available, the vertical access management plan would require the closure of the access by the operator.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
IX.	**LAND USE AND PLANNING.** Would the project:				
a.	Physically divide an established community?	❑	❑	❑	■
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	❑	❑	■	❑
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	❑	❑	❑	■

a. No Impact. Both Carbon and La Costa Beach area of Malibu are characterized as built-out beachfront areas consisting of residential development. The project would not physically divide an established community. The site is located on two vacant lots that currently separate residential development along the beachfront.

b. Less-than-Significant Impact.

City of Malibu General Plan and Zoning. The project site is located within the City of Malibu. The city regulates land use within its jurisdiction through a General Plan and a Zoning Ordinance. The project site is currently has a General Plan designated of "SF-M (Single-Family Medium) (2-4 dwelling units per acre)"; and is zoned SFM (Single-Family Residential – Medium Density).

The general plan designation of SF is intended to "enhance the rural characteristics of the community by maintaining low-density single-family residential development on lots ranging from 0.25 to 1.0 acre in size in a manner which respects surrounding property owners and the natural environment." SF-M allows for "the creation of up to four lots [dwelling units] per acre with a minimum lot size of 0.25 acre" (Malibu General Plan 1995).

The SFM zone allows the following uses:

- One single-family residence per lot.
- Small Family Day Care and residential care facilities.
- Accessory buildings such as detached garages, barns, pool houses, gazebos, storage sheds, guest units, and greenhouses.
- Recreational structures such as pools, spas, non-illuminated sports courts, and non-commercial corrals.
- Domestic animals.
- Raising of crops such as trees, bush, berry, row and nursery stock.

- Raising of horses, sheep, goats, donkeys, mules and other equine cattle for personal use by residents on the premises.
- Manufactured homes.
- Second units.
- Large Family Day Care facilities (Zoning Ordinance. Article IX, Zoning, Chapter 9.2.20).

Other restrictions on Medium Density SF zone are:

- Minimum Lot Dimension requirements are 120-foot depth and 80-foot width.
- Impermeable Coverage Limits are 30–45%, not to exceed 25,000 square feet.

Areas surrounding the project site (north, east and west) are currently designated for Single-Family Medium-Density Residential, and are zoned SFM. The proposed project would be consistent with the proposed general plan and zoning designation and would be consistent with surrounding land use designations.

State coastal zones include the coastal waters and adjacent shorelands that extend inland to the extent necessary to control activities that have a direct, significant impact on coastal waters (Coastal Services Center (CSC) 2002). The entire City of Malibu is located within the Coastal Zone, and, as such, is governed by federal, state and local regulations including the Coastal Zone Management Act, California Coastal Act and Local Coastal Programs.

Coastal Zone Management Act of 1972 (CZMA) as amended through P.L. 104-150, The Coastal Zone Protection Act of 1996. The CZMA "strives to preserve and protect coastal resources. Through the CZMA, states are encouraged to develop coastal zone management programs (CZMPs) to allow economic growth that is compatible with the protection of natural resources, the reduction of coastal hazards, the improvement of water quality, and sensible coastal development. The CZMA provides financial and technical incentives for coastal states to manage their coastal zones in a manner consistent with CZMA standards and goals." (CSC 2002). Coastal Zone Protection Act of 1996 (P.L. 104-150) - The Coastal Zone Management Act was reauthorized and amended. "The Act authorizes annual grants to States to develop coastal zone management programs, limiting each State to four (previously, two) grants. The Act now allows resource management improvement grants to be used for the development of a coordinated process among State agencies to regulate and issue permits for coastal zone aquaculture facilities and it also allows coastal zone enhancement grants to be used to evaluate and facilitate the siting of public and private coastal zone aquaculture facilities" (CORE 2002.).

Coastal Zone Management Act. "The California Coastal Act (California Public Resources Code sections 30000 et seq.) was enacted by the State Legislature in 1976 to provide long-term protection of California's 1,100-mile coastline for the benefit of current and future generations. The Coastal Act created a unique partnership between the State (acting through the California Coastal Commission) and local government (15 coastal counties and 58 cities) to manage the conservation and development of coastal resources through a comprehensive planning and regulatory program. The 1976 Act made permanent the coastal protection program launched on a temporary basis by a citizens' initiative that California voters approved in November 1972 (Proposition 20 - the "Coastal Conservation Initiative"). The Act's coastal resources management policies and governance structure are based on recommendations contained in the California Coastal Plan called for by Proposition 20 and adopted

by the Coastal Commission in 1975 after three years of planning and hundreds of public hearings held throughout the State" (CERES 2002).

Local Coastal Program. Local Coastal Programs (LCPs) are basic planning tools used by local governments to guide development in the coastal zone, in partnership with the Coastal Commission. LCPs contain the ground rules for future development and protection of coastal resources in the 74 coastal cities and counties. The LCPs specify appropriate location, type, and scale of new or changed uses of land and water. Each LCP includes a land use plan and measures to implement the plan (such as zoning ordinances). Prepared by local government, these programs govern decisions that determine the short- and long-term conservation and use of coastal resources. While each LCP reflects unique characteristics of individual local coastal communities, regional and statewide interests and concerns must also be addressed in conformity with Coastal Act goals and policies. Following adoption by a city council or county board of supervisors, an LCP is submitted to the Coastal Commission for review for consistency with Coastal Act requirements.

Many of the 74 coastal counties and cities have elected to divide their coastal zone jurisdictions into separate geographic segments, resulting in some 126 separate LCPs. As of 2002, approximately 70 percent of the LCP segments have been certified, representing close to 90 percent of the geographic area of the coastal zone, and local governments are issuing coastal permits in these areas.

After an LCP has been approved, the Coastal Commission's coastal permitting authority over most new development is transferred to the local government, which applies the requirements of the LCP in reviewing proposed new developments. The Coastal Commission retains permanent coastal permit jurisdiction over development proposed on tidelands, submerged lands, and public trust lands, and the Coastal Commission also acts on appeals from certain local government coastal permit decisions. The Coastal Commission reviews and approves any amendments to previously certified Local Coastal Programs (California Coastal Commission 2003).

Malibu Local Coastal Plan (LCP). An LCP is defined as "a local government's land use plans (LUP), zoning ordinances, zoning district maps, and, within sensitive coastal resources areas, other implementing actions, which, when taken together, meet the requirements of, and implement the provisions and policies of [the Coastal Act] at the local level" (PRC Section 30108.6). The initial Draft LCP Land Use Plan (LUP) for the City of Malibu was prepared by the staff of the Coastal Commission pursuant to the mandate of AB 988, which added Section 30166.5 to the Coastal Act (Draft LCP 2002). The City of Malibu Local Coastal Program Land Use Plan was adopted by the California Coastal Commission on September 13, 2002, pursuant to the provisions of PRC Section 30166.5. This project is consistent with the City of Malibu LCP Land Use Plan which designates vertical access to La Costa / Las Flores Beaches. Specifically, the plan states, "improve and open parcel at 21704 Pacific Coast Highway at western end" (California Coastal Commission 2003a). This parcel is part of the proposed project.

The proposed project would provide access to public lands along the shoreline and is therefore consistent with federal, state and local planning regulations. Impacts are considered less than significant.

c. No Impact. The proposed project would not conflict with provisions of an adopted conservation plan or other local, regional, or state conservation plans. The proposed project is not located within a conservation plan area and would not impact any sensitive species or habitat; therefore, it would not conflict with adopted plans.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
X.	**MINERAL RESOURCES.** Would the project:				
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	❑	❑	❑	■
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	❑	❑	❑	■

a **No Impact.** There are no areas in or around the project site that are designated as significant mineral aggregate resource areas. The project site is located within a mineral resource zone classified as MRZ-3. This zone is defined as "areas containing mineral deposits the significance of which cannot be evaluated from available data" (California Department of Conservation 1994). The project area is located between single-family homes along the beach. No mining operations are located on or near the project site. Therefore, no project-related mineral resource impacts would occur.

b. **No Impact.** As discussed above, no mineral resources are known to exist within the project site; therefore, no impacts would occur.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XI.	**NOISE.** Would the project:				
a.	Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	❑	❑	■	❑
b.	Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	❑	■	❑	❑
c.	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	❑	❑	■	❑
d.	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	❑	❑	■	❑
e.	Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	❑	❑	❑	■
f.	Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	❑	❑	❑	■

a. Less-than-Significant Impact. The project is located within the City of Malibu. The city does not have specific quantitative noise standards in the General Plan. The Noise Control Ordinance of the City of Malibu (188, Section 4.2.05D) states that radios, musical instruments, televisions sets, or devices used for the production of sound volume that is loud enough to disturb the peace of people in the immediate vicinity is prohibited between the hours of 10 p.m. and 7 a.m. Relative to construction noise, Section D states that the sustained operation or use of any electric- or gasoline-powered motor or engine is prohibited between the hours of 10 p.m. and 7 a.m., unless it is enclosed in a sound-insulated structure that prevents noise from being plainly audible from 50 feet away or within 10 feet of any residence. Additionally Section G states that "operating or causing the operation of any tools, equipment, impact devices, derricks, or hoists used in construction, drilling, repair, alteration, demolition or earthwork, on weekdays between the hours or 7 p.m. and 7 a.m., before 8 a.m. or after 5 p.m. on Saturday, or at any time on Sundays or holidays, except as provided in Section 4.2.05D herein [is prohibited]."

The noise environment in the project area is dominated by noise from traffic on PCH, low-flying aircraft with banners, pedestrian activity along PCH, people and dogs on the beach, and ocean waves.

Construction of the project would generate noise; however, because of the small size of the project and short duration of the construction period impacts would be less than significant. Additionally, the project would comply with the Noise Control Ordinance of the City of Malibu for construction noise impacts on adjacent land uses. During management and operation of the accessway, noise levels would be similar to the existing condition. Because the management plan would require closure of the accessway at night, violation of the noise ordinance would not occur on the site.

b. Less than Significant Impact with Mitigation Incorporated. Construction activity may result in ground vibration. Pile driving may be involved during construction of the vertical structure support. Vibration related to pile driving could destabilize the slope. Construction would be short in duration and noise will end when construction is completed. Vibration and noise impacts would not be considered excessive. Implementation of Mitigation Measure MMXI-1 would reduce impacts to a less-than-significant level. During management and operation of the accessway, no vibration impacts would occur.

Mitigation Measures

MMXI-1. Pile driving will not be used on-site unless previously approved by a geologic engineer. Instead, pile holes will be drilled.

c. Less-than-Significant Impact. Currently this location does not permit direct access to the beach. The only direct access to Carbon and La Costa Beaches is from private residences located along the PCH. In addition, people have been observed traversing Coal Creek behind the fire station and passing through the drainage channel under PCH to gain access to Carbon and La Costa Beaches. The nearest public beach is approximately 1.3 miles to the west at the Zonker Harris Accessway. Therefore, Carbon and La Costa Beaches currently have limited activity because of the difficulty of access.

The nearest house to the existing gate is located approximately 50 feet to the east. Cars currently park along the entire length of the project site and at other on-street parking spaces along both sides of PCH. Although the numbers of people that currently use this access location would increase during management and operation completion of the project, noise from cars, people on the roadway and beach, children playing, etc., would not be considered a substantial permanent increase from existing conditions. Construction and use of the new accessway is not expected to expose residential areas to the west and east to noise in excess of city noise standards.

d. Less-than-Significant Impact. Construction activities associated with the proposed project could intermittently generate noise levels on and adjacent to the construction site. Construction activities associated with the proposed project include earthmoving activities, hauling materials, and building structures. Construction of the project would occur during daytime hours and will comply with city noise regulations.

e. No Impact. The proposed project is not located within an airport land use plan or within two miles of a public use airport. Therefore, the project would not have the potential to expose people to excessive noise levels.

f. No Impact. The proposed project is not located within the vicinity of the private airstrip. Therefore, the project would not have the potential to expose people to excessive noise levels.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XII.	**POPULATION AND HOUSING.** Would the project:				
a.	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	❑	❑	❑	■
b.	Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■
c.	Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■

a. No Impact. The proposed project would not involve the construction of employment centers or homes and, therefore, would not result in population or housing growth.

b. No Impact. The proposed project site is currently vacant; therefore, the proposed project would not displace any housing. No future housing is planned in this location.

c. No Impact. The proposed project site is currently vacant; therefore, the proposed project would not displace any people. No future housing or employment center is planned in this location.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XIII.	**PUBLIC SERVICES.** Would the project:				
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
1.	Fire protection?	❑	❑	■	❑
2.	Police protection?	❑	❑	■	❑
3.	Schools?	❑	❑	❑	■
4.	Parks?	❑	❑	❑	■
5.	Other public facilities?	❑	❑	❑	■

a1. Less-than-Significant Impact. The proposed project would not significantly affect fire protection services. No additional services beyond what is currently being provided would be required. The new accessway would not increase fire department response times to other service areas. The new accessway would reduce response time for emergencies along Carbon and La Costa Beaches, by providing a safer, more direct route to these areas. The proposed project would comply with all applicable fire regulations required for management and operation.

a2. Less-than-Significant Impact. The proposed project would not increase the population within the city, thereby resulting in the need for additional officers or facilities. The project would not result in a substantial increase in demand for service. It is expected that the existing police force can accommodate the necessary service to the project site. The new accessway would not increase police department response times to other service areas. The new accessway may reduce response time for emergencies along Carbon and La Costa Beaches and shoreline locations to the east, by providing a safer, more direct route to these areas.

a3. No Impact. The proposed project would not involve the construction of housing or employment centers and, therefore, would not increase the population within the city. This project would not result in the need for additional classroom seats.

a4. No Impact. The demand for parks is generally associated with the increase of housing or population into an area. The proposed project would not increase housing or population. The project would not have any significant effect on existing parks.

a5. No Impact. Implementation of the proposed project would not affect any other public facilities or require new or altered facilities.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XIV.	**RECREATION.** Would the project:				
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	❑	❑	■	❑
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	❑	❑	■	❑

a. Less-than-Significant Impact. The increase in the use of recreational facilities is generally a result of significant population growth in an area. The project would not have the potential of increasing the population within the city. This project would not in a demand for new parks or cause substantial physical deterioration of existing parks. Additionally, no existing parks would be impacted by the project construction.

b. Less-than-Significant Impact. The number of people that use this location to access the beach would increase; however, substantial physical deterioration of the beach is not anticipated.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XV.	**TRANSPORTATION/TRAFFIC.** Would the project:				
a.	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	❑	❑	■	❑
b.	Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways?	❑	❑	■	❑
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	❑	❑	❑	■
d.	Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	❑	❑	■	❑
e.	Result in inadequate emergency access?	❑	❑	■	❑
f.	Result in inadequate parking capacity?	❑	❑	■	❑
g.	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	❑	❑	❑	■

A traffic study was conducted for this project and is attached as Appendix B.

a. Less-than-Significant Impact. PCH in the vicinity of the project site is a four-lane divided roadway with a two-way left-turn lane for Rambla Vista. Existing peak hour traffic counts were collected at the intersection of Rambla Vista/PCH during the AM, mid-day, and PM peak hours for a weekday timeframe. Daily traffic counts were collected along PCH, east of Rambla Vista. Based on this data, it appears that PCH is currently carrying approximately 49,900 trips per day in the vicinity of the proposed accessway. The project site currently consists of two vacant lots, and does not generate any traffic. However, people have been observed parking in front of the site. The site currently gets minimal pedestrian activity. The project would result in a negligible increase in traffic volumes on PCH. Based on observations of existing traffic and current intersections during the weekend, and the availability of other beach access locations on PCH and other roadways, the project is not anticipated to have a significant impact on any of the nearby intersections or circulation.

b. Less-than-Significant Impact. The MTA was designated as the Congestion Management Agency for Los Angeles County. The project would result in a negligible increase in traffic volumes on PCH; and would not exceed the level-of-service standard for the MTA.

c. No Impact. Because of the size and nature of the project, the project would not have the potential to affect air traffic. No airports are in the vicinity of the project.

d. Less-than-Significant Impact. The proposed project would not substantially increase hazards because of a design feature or incompatible uses. A thorough review and analysis of California Highway Patrol (CHP) accident data was conducted for impacts to pedestrians (Appendix C). A summary of findings from this analysis and subsequent field evaluation is discussed below.

The CHP provided pedestrian and automobile accident data for a five-year period from April 1998 to July 2003. In that time a total of 46 pedestrian automobile accidents occurred along PCH between the Mulholland Highway to the north and Entrada Drive to the south, a distance of approximately 12.5 miles. Of these accidents, 6 were removed from further evaluation because they occurred between 9:00 p.m. and 5:00 a.m. and were not considered to be comparable to the proposed project location (the proposed beach accessway would be locked at night). Therefore, a total of 40 accident locations were considered in the analysis.

The accident sites were analyzed to determine if physical features in the vicinity of the accidents appear to be attractors for people crossing PCH. In addition, the sites were mapped to identify whether accidents were concentrated in any locations (see Appendix C).

The physical characteristics of the 40 accident locations were varied throughout the study area but tended to be located in higher-density areas that contained multiple of physical attractors. Attractors in the study area generally included businesses and services such as restaurants, shops, gas stations, and bus stops; beaches; and residential areas.

Three existing beach access locations that include a gated accessway similar to the proposed project were identified. The three similar accessways are (1) near Via Escondido Accessway north of Dan Blocker County Beach; (2) Zonker Harris Accessway, which provides stairs to Carbon Beach; and (3) Big Rock Beach Accessway. These locations were similar to the project site in that they are adjacent to residences, provide nearby bus access, contain other nearby attractors such as shops and restaurants, and have no immediately adjacent pedestrian traffic signal. Analysis of the CHP data records identifies the nearest accident to the Via Escondido Accessway was greater than two miles away. Another accident occurred near the Zonker Harris Accessway; however, due to the significant number of attractors and density of the area, it is not possible to determine the cause. No accidents consistent with the analysis criteria occurred near the gated access to Big Rock Beach.

The analysis found no distinct correlation between an increased number of accidents at beach access locations along PCH, therefore the project is not expected to significantly affect pedestrian safety. Accidents were not concentrated near to existing access points in areas similar to the project site and similar to the proposed design of the project. Only one pedestrian accident in five years occurred near one of the existing access points and the accident cannot be attributed to the presence of the access point due to numerous other attractors. Accordingly, the project's contribution to existing pedestrian crossing hazards near the new beach accessway would be less than significant.

To help ensure that future pedestrian movements are as safe as possible, the following improvements are recommended for inclusion in the project.

Signage

The Coastal Conservancy should work with the City of Malibu to ensure that appropriate signage is installed in accordance with City Standards and Municipal Code requirements. Recommended signage would include, but not be limited to, the following:

- No Parking for Beach Access signs placed along the inland side of PCH at 100 foot intervals, extending beyond the project boundaries for 200 feet to the north and south in order to discourage potential users from parking across the street and making illegal crossings.
- Signs posted within the project area stating that the beach is closed from sunset to sunrise daily.

Fencing and Gates

The Coastal Conservancy should ensure that the project includes construction of secure fencing with a lockable gate in accordance with City Standards and Municipal Code requirements. The gate should be locked from sunset to sunrise and all fencing shall be sufficient to prevent and/or discourage beach access during nighttime hours.

e. **Less-than-Significant Impact.** The proposed project would not hinder emergency access in the area; on the contrary, this project would provide a safer access to the beach area than currently exists. No roadway closures would occur during construction or operation of the project.

f. **Less-than-Significant Impact.** Street parking utilization was observed during a weekday and weekend condition to determine overall utilization. Several locations along PCH where parking is permitted were available for parking during site visits. The evaluation determined that, although weekend conditions are far more active, adequate parking is available for people that would use the new beach access location. Therefore, additional vehicles could be accommodated along PCH. The State Coastal Conservancy has no parking standards for this type of accessway. The best comparables are 12 similar accessways that are maintained by Los Angeles County. These accessway locations have no designated parking. This new accessway is consistent with the existing practice by Los Angeles County. Parking regulations would be enforced by the City of Malibu.

g. **No Impact.** The proposed project would not conflict with adopted policies supporting alternative transportation. The proposed project would not result in the elimination of existing bus or bicycle facilities.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XVI.	**UTILITIES AND SERVICE SYSTEMS.** Would the project:				
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	❑	❑	❑	■
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❑	❑	❑	■
c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❑	❑	❑	■
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	❑	❑	❑	■
e.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	❑	❑	❑	■
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	❑	❑	❑	■
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	❑	❑	❑	■

a. No Impact. The proposed project site is located within the jurisdiction of the Los Angeles Regional Water Quality Control Board, Santa Monica Bay Watershed Management Area. The proposed project site is not located within a "Significant Watershed" (Malibu General Plan 1995). The proposed project would not contribute to violations in water quality standards or waste discharge requirements. Operation and management of the project would not generate wastewater that would require treatment; therefore, exceed wastewater treatment requirements. Stormwater that drains from PCH is not currently treated. New stormwater inlet improvement would prevent large objects and trash from being washed onto La Costa Beach, thereby improving water quality.

b. No Impact. The project would not result in a need for new systems or supplies, or substantial alterations to local or regional water or wastewater treatment facilities. The accessway would not increase the demand on the domestic water supply for the city.

c. No Impact. Surface stormwater from PCH currently drains to the beach; the project would not change this drainage pattern. New stormwater inlet improvement would prevent large objects and trash from being washed onto La Costa Beach; however, the amount of stormwater runoff would not significantly change from existing conditions. Stormwater that falls on the slope would continue to drain down the slope toward the beach area.

d. No Impact. The proposed project would be not use water entitlements and resources. The project would not use significant amounts water during or after construction. During construction water may be used to wash the street or keep dust from becoming airborne. During management and operation water may be used to water potted plants on or near the viewing deck. However, the amount of water would be negligible and would not impact any water groundwater supplies. Native vegetation would be planted around the accessway to help prevent erosion; however, no irrigation of slope would occur. The project would not involve the direct withdrawal of groundwater.

e. No Impact. Construction, operation and management of the new accessway and other improvements would not increase the amount of wastewater generation. The project would not include permanent restroom facilities on the site.

f. No Impact. The project would not result in a significant increase in solid waste that would require additional service by the solid waste providers, nor contribute to additional generation of solid waste within the region. As part of the project, a trash receptacle would be provided and emptied by the operator, consistent with other beach access locations along the Malibu shore.

g. No Impact. The proposed project would comply with all regulations related to solid waste.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XVII.	**MANDATORY FINDINGS OF SIGNIFICANCE**				
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	❑	❑	❑	■
b.	Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	❑	❑	❑	■
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	❑	❑	❑	■

a. No Impact. The project area does not contain sensitive biological resources that would be affected by the implementation of the proposed project. Additionally, no cultural resources, either historical or prehistorical, would be affected by the construction or management and operation of the proposed project.

b. No Impact. The project would not result in impacts that are cumulatively considerable. No significant impacts have been identified for the proposed project. Additionally, no less-than-significant impacts of the project would be cumulatively considerable.

c. No Impact. The project would not result in environmental effects that would cause substantial adverse affects on human beings, either directly or indirectly. No significant adverse impacts have been identified for the proposed project.

Chapter 4

Citations

Chapter 4

Citations

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Chapter 5

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Chapter 5

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Appendix A

Prehistoric and Historical Context

Appendix A

Prehistoric and Historical Context

Setting

Prehistoric Setting

Prehistoric cultural change is most often described in terms of cultural horizons. Chronologies describe cultural horizons in terms of changes in technology, subsistence, and settlement patterns. Several chronologies of cultural change for the Santa Barbara subregion of the South Coast Region have been postulated over the years. These have been divided primarily between those applying to the Channel Islands (Hoover 1971, Olson 1930, Orr 1968) and those applying to the mainland (Harrison 1964, Olson 1930, Orr 1943, Rogers 1929). One chronology addresses both geographic areas (King 1981). A synthesis of these theories and the history of archaeology in the area is provided in Moratto (1981) and it is upon that work that this brief summary is based.

King's 1981 chronology of cultural change is divided into three periods, Early, Middle and Late. Each period is subdivided into phases, and each phase is divided into more refined subdivisions. The Early Period is defined as beginning more than 7000 years ago, with the first human occupation of the area, and continuing until approximately 1000 B.C. This period is divided into three phases. The Early Period corresponds to the Oak Grove and Hunting periods postulated by Rogers (1929) and Orr (1943). Oak Grove Period sites tend to be on high ground away from the ocean and contain semi-subterranean pit houses. These sites are characterized by extended burials with red ochre, abundant milling stones, and a few crude projectile points. Hunting Period sites tend to be located near the ocean and are characterized by flexed burials, mortars, pestles, stone bowls, few millingstones, and numerous projectile points. The periods were initially thought to be sequential. Later it was theorized that these two

cultural material sets represented two groups of people coexisting and eventually merging together. More recently, the differences in Oak Grove and Hunting sites appear to be best explained by site specialization.

The Middle Period (1000 B.C. - A. D. 1100) is divided into five phases. This period is characterized by an increase in the number of types of beads and ornaments and a shift from rectangular to circular *Haliotis* and *Olivella* beads.

The Late Period (A.D. 1100-1804) is characterized by the presence of *Olivella* callus beads and clam disks and cylinder beads. Late Period sites are characterized by flexed burials, plank canoes, domed pole and thatch structures, and elaborate shell and steatite industries. The people of the Late Period are the ethnographic Chumash.

This reconstruction is more temporal than cultural. Changes in artifact assemblages indicate time periods, but do not necessarily imply cultural replacement. King believes that the Chumash society was developing in the region for some 7000 years. Changes in artifacts instead are taken to represent the evolution of that society.

Attention is usually focused on the coastal Chumash and their coastal adaptation. However, the Chumash also occupied territory inland. Inland areas appear to have been occupied and utilized both seasonally by coastal groups and year-round by Inland Chumash groups. There is archaeological evidence of trade between inland and coastal groups. Some have postulated that this exchange was necessary to maintain populations in the interior. Generally, technological and design advances that occurred on the coast arrived later to inland areas (Greenwood 1978).

Ethnography

At the time of Spanish contact, the project area was inhabited by the Chumash. The Chumash inhabited the Santa Barbara Channel Islands and the central coastal area of California from approximately San Luis Obispo in the north to Malibu Canyon in the south and inland as far as the west side of the San Joaquin Valley. It is believed that there were at least six Chumashan languages. The project area was inhabited by Ventureño speaking Chumash groups. The Chumashan languages have been classified within the Chumashan language family, Hokan stock (Shipley 1978). The Ventureño Chumash inhabited an area from east side of Malibu Creek to the to the headwaters of the Ventura and Santa Clara Rivers (Grant 1978).

Little ethnographic data about the Chumash groups are available, but explorers' journals, mission records, and archaeology have provided some information. These sources are described and summarized in Grant (1978a, 1978b, 1978c, 1978d) and Greenwood (1978). The Chumash were known to the original investigators as the Santa Barbara Indians, and

inhabited primarily the area along the coast, south of Point Concepcion. Therefore, the coastal Chumash are the best documented.

Ventureño Chumash villages were densely populated especially along the Ventura and Santa Clara river and Calleguas Creek (Grant 1978b). However, archaeological investigations have demonstrated that the high material culture of the coastal Chumash diminished in direct ratio to its distance from the seashore. Houses were round, domed structures made of poles and thatch. These houses were arranged in groups. Other structures within a village included a sweathouse, storehouses, a ceremonial enclosure, gaming areas, and a cemetery (Grant 1978b). Cemeteries were located well away from living areas. Chumash villages were known to the Spanish as "rancherias."

Each village had at least one chief. The position of chief was patralineally hereditary and subject to village approval. Women could occupy the position, if a suitable male was not present. The powers of a chief were limited to being a war leader, and presiding at ceremonies. Each village had prescribed hunting and gathering areas and the chief was solely responsible for granting access to these areas to people from other villages (Grant 1978b).

Mortuary customs are relatively well documented through archaeological evidence. Burials were positioned in a seated posture, flexed on the back, or flexed on the side. Graves were marked with painted stone grave markers, tablets, or poles. Grave goods consisted of shell beads and ornaments, whistles, bone tubes, whole shells, slabs of stone, and lumps of pigment, in addition to utilitarian items. The presence of differential grave goods implies a ranked social system. (Grant 1978b, Greenwood 1978.)

Like most California Indians, the Chumash relied heavily on acorns as a staple food. The acorns of the live oak were collected and stored. Other gathered foods included, pine nuts, wild cherry, cattail, berries, mushrooms, and cress. Hunting larger game (deer, coyote) was accomplished primarily with a bow and arrow. Smaller game were taken with snares, deadfalls, traps, and throwing sticks. The riverine environment provided opportunities for fishing and fowling. Coastal groups did not venture out to sea to fish, but collected from tide pools, fished in shallow waters, and utilized large marine animals that washed onto the beach. (Grant 1978b, Greenwood 1978.)

The Chumash had a complex material culture, including objects of stone, wood, basketry, shell, and cordage, and are considered to be some of the finest craftsmen of Native American groups in California. Stone objects included chipped stone weapons and tools, utilitarian and decorative vessels, beads, medicine tubes, and food processing equipment (mortars, pestles, manos) (Grant 1978b). The finest stone objects were made of steatite, which was often obtained from the Gabrieliño on Santa Catalina island. Wooden canoes were present in the southern area, but little evidence of them exists north

of Point Concepcion. Wood was used for plates, bowls, and mortars. Basketry fulfilled many utilitarian needs. Lined with asphaltum, it could be made water tight. Shell was used for an exchange standard (money) as well as for utilitarian and decorative items.

Historical Context

Spanish Period

Beginning in the 16th century, Spanish explorers sailed the coast of California. The first European to sail along the coast of California was Cabrillo in 1542. Cabrillo died on this voyage, but his expedition continued to sail up the coast of California before returning to Spain. When the Philippines were added to the Spanish empire, ships transporting cargo to or from Manila and the Orient regularly passed the coast of California. A number of expeditions explored the northern coastline looking for a port of call where they could stop between destinations. In 1602, Sebastian Vizcaino explored the coast of California and developed a detailed map of the coastline. As a result of these and other expeditions along the coast, the Spanish succeeded in establishing a tripartite colonization system consisting of missions, presidios and pueblos that lasted from 1769 to 1822. At the heart of this system was the mission, a semi-feudal economic institution offering what it termed "salvation" to the native population in exchange for its life-long commitment of labor to the church. By turning the indigenous population into colonists, New Spain's minimal manpower was not taxed for the settlement of a remote and questionably profitable frontier.

In 1769, a land expedition led by Gaspar de Portola was organized to establish settlements at San Diego and Monterey. The expedition included two parties, made up of Spanish soldiers, Franciscan priests, a number of Christianized Indians from Baja California, and herds of livestock. After meeting up with supply ships at San Diego, Portola and his party set out for Monterey. They traveled northward paralleling the coast, along the route that would later be called El Camino Real. Each of the California missions was later established along the same route (Bean and Rawls 1993, Beck and Haase 1974, Gudde 1998, Hoover et al. 1990).

Missions were designed to convert the indigenous peoples of California to Christianity and assimilate them under Spanish rule. Missions were not intended to be permanent, and their establishment was not accompanied by any conveyance of land from the Spanish crown. Under both Spanish and Mexican governments, missions were permitted to occupy and use land for the benefit of their neophytes (referred to historically as "mission Indians"), but not to own land. In theory, when the native population of a

region had been assimilated, mission settlements were to become pueblos, and the land was to belong to the neophytes, who were expected to continue to manage it in Spanish colonial fashion. Twenty-one missions were eventually established from San Diego to Sonoma, each approximately 1 day's journey from the next. The Mission San Gabriel Arcangel was the first Spanish outpost in the Los Angeles area, founded on September 8, 1771.

Secularization and Ranching

Mexico won its independence, along with control of the Spanish American colonies, from Spain in 1821. The Mexican government adopted a critical stance toward the missions in California and actively worked to undermine their wealth and power. The government's anti-mission sentiment culminated in the passage of the Secularization Act of 1833, which downgraded missions to the status of parish churches and gave the Mexican governor of California the power to redistribute the vast mission land holdings in the form of grants. On August 17, 1833, the Congress of Mexico decreed the secularization of California missions, freeing both the mission lands and the native neophytes from church jurisdiction. Thousands of native neophytes were separated from their missions and forced to seek wage labor on ranchos or in the pueblo itself. Between 1835 and 1846, land used by the missions was for the most part divided into private ranches. Despite legal provisions awarding half of all mission property to the neophytes of the mission, few rancho parcels were ever granted to the missionized natives.

Although popularly referred to as "Spanish" ranchos, land grants were made only during the Mexican period. The land grant movement did not become active until after mission secularization, which triggered a land rush and a shifting of the population outward from the pueblos (Robinson 1948). More than 500 ranchos existed in California in 1846. All but approximately 30 of these were the result of land grants from the Mexican government of California (Robinson 1948).

Rancho Topanga Malibu Sequit

Felipe Santiago Tapia was the first European to settle in the Malibu area. In the late 1700s, his son, Jose Bartolome was granted a permit to graze cattle on the future rancho lands (Robinson 1948; Malibu Chamber of Commerce 2002). Although his son was already grazing cattle on the land, Tapia was not granted the land until between 1802 and 1804. Under his approved land grant, Tapia received most of the coastal land extending from the Ventura County line to Point Mugu on the west coast and to Las

Flores Canyon in the east. The grant passed from Tapia to his son Bartolome who, in turn, passed it to his son Tiburcio. All three generations continued to utilize the land for ranching and agriculture. In 1848, Leon Victor Prudhomme, a Frenchman, married a daughter of Tiburcio and acquired trusteeship of the land. In 1848, Prudhomme acquired the title to the land from Tapia's widow. It appears that Prudhomme was not interested in maintaining the familial legacy of land-ownership and ranching that he had inherited through marriage. In the early 1850s, after the collapse of Mexican California, he sold the land to Matthew Keller, a wine-maker in Los Angeles. In 1873, 13,315 acres of land were formally surveyed and the Rancho Topanga Malibu Sequit was patented (Wlodarski 1993).

United States Conquest and Settlement

In the 1840s, tensions between Mexico and the United States increased because of American's belief in and efforts toward establishing Manifest Destiny. These tensions culminated in the Mexican-American War. The result of the war was the acquisition of California by the United States in 1848. The shift in leadership dramatically affected the inhabitants and economy of California. However, it was the coming of the railroads and the resulting influx of new residents in the late 1800s that irreversibly changed the character of the Los Angeles area. The population expanded and Euro-Americans became the majority, while residential communities sprouted up in the larger basin area to house the new inhabitants. The industry and economy in southern California burgeoned, and industrial areas developed in Los Angeles to take advantage of the new countrywide freighting capabilities (Beck and Haase 1974, Hoover et al. 1990).

The early 20th century saw the spread of industrial and commercial development within downtown Los Angeles. Residential development spread to outlying areas and tracts. Railroad consolidation led to the planning and eventual construction of Union Station in downtown Los Angeles. With the laying of new roads, the car culture came naturally to the greater Los Angeles area.

City of Malibu

In 1881, Matthew Keller sold the Rancho Topanga Malibu Sequit to Frederick and May Rindge (Hoover 1990). At this time the county map lists this area as "Malibu" which may have been taken from the Chumash word *Umalibo* that was the name for the rancheria during the Spanish period when the land was controlled by the Mission San Buenaventura (Gudde 1998). Around the turn of the century, travel and settlement

increased in the area. The Southern Pacific Railroad attempted to establish a coastal line through Malibu but May Rindge countered by having her own railroad constructed. By the 1920s, the state was interested in constructing a coastal highway and succeeded in obtaining a right-of-way through the Rindge's property via legal action. The cost of the court battles forced May Rindge to begin leasing and eventually selling property (Malibu Chamber of Commerce 2002). The combination of the construction of the Pacific Coast Highway and several arterials through the Santa Monica Mountains helped promote settlement and made Malibu highly desired real estate. Development has been limited because much of the area has been under the jurisdiction of the Coastal Commission and the Santa Monica Mountains National Recreation Area (Wlodarski 1993). The City of Malibu was incorporated in 1991 (Malibu Chamber of Commerce 2002).

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Appendix B

Traffic Study

Appendix B

Traffic Study

Introduction

Empirical traffic, parking and pedestrian data was collected in the area of the proposed access location by the firm of Urban Crossroads, Inc. Exhibit A illustrates the location of the proposed accessway. This section presents a discussion of traffic, parking, and pedestrian conditions that are anticipated to occur.

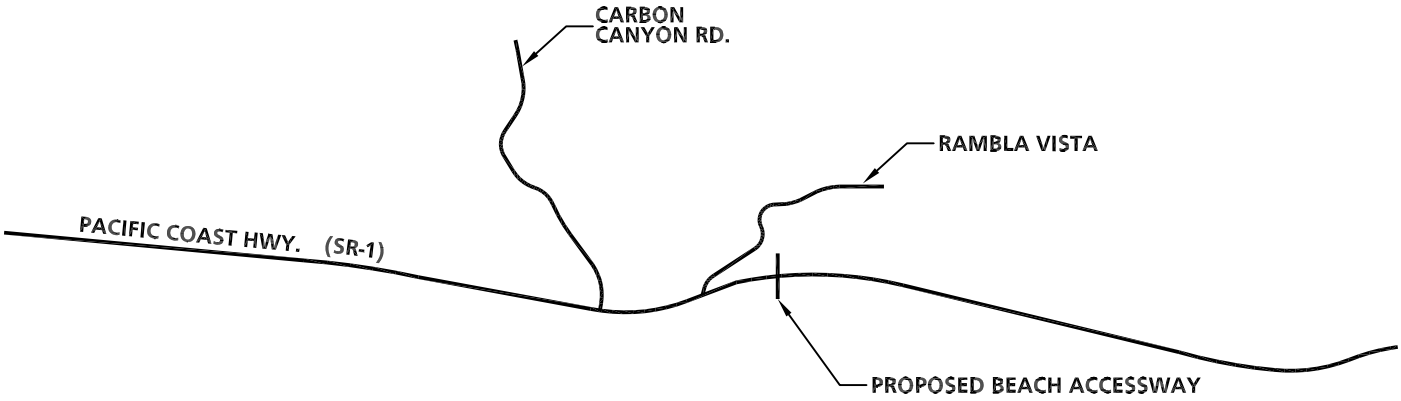
Project Description

The proposed accessway is intended to provide pedestrians with a direct walkway to the beach. The location that is currently proposed is approximately 1.3 miles to the east, and 1.7 miles to the west of current accessways. It will be located east of the unsignalized intersection of Rambla Vista/PCH. The nearest traffic signal is currently located approximately 675 feet to the west (Carbon Canyon Road/PCH). The nearest traffic signal to the east is located approximately 0.6 miles away (Rambla Pacifico/PCH).

The proposed accessway has the potential to attract additional pedestrians and vehicles to this location. However, based on the limited amount of onstreet parking along PCH in the area, the lack of a sidewalk on the north side of PCH, and other nearby beach access points that provides parking, it is anticipated that this accessway will be utilized by patrons that generally live in the area.

EXHIBIT A

LOCATION MAP



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URBAN CROSSROADS

Existing Conditions

PCH in the vicinity of the area is a four lane divided roadway with a two way left turn lane. The speed limit is posted at 45 miles per hour. However, a speed survey has been conducted that indicates that the 85th percentile speed is 54 miles per hour for the eastbound direction and 53 miles per hour for the westbound direction. A bus stop currently exists on both sides of PCH just west of Rambla Vista.

Traffic Counts

Existing peak hour traffic counts have been collected at the intersection of Rambla Vista/PCH during the AM, mid-day, and PM peak hours for a weekday timeframe. Daily traffic counts have been collected along PCH, east of Rambla Vista. The traffic counts are presented on Exhibit B. Based on the data, it appears that PCH is currently carrying approximately 49,900 trips per day in the vicinity of the proposed accessway.

Urban Crossroads, Inc. staff has visited the site and observed pedestrian activities at adjacent beach accessways on a weekend (11:30 AM-1:30 PM). Based on these observations, minimal pedestrian activity was observed.

Traffic Analysis

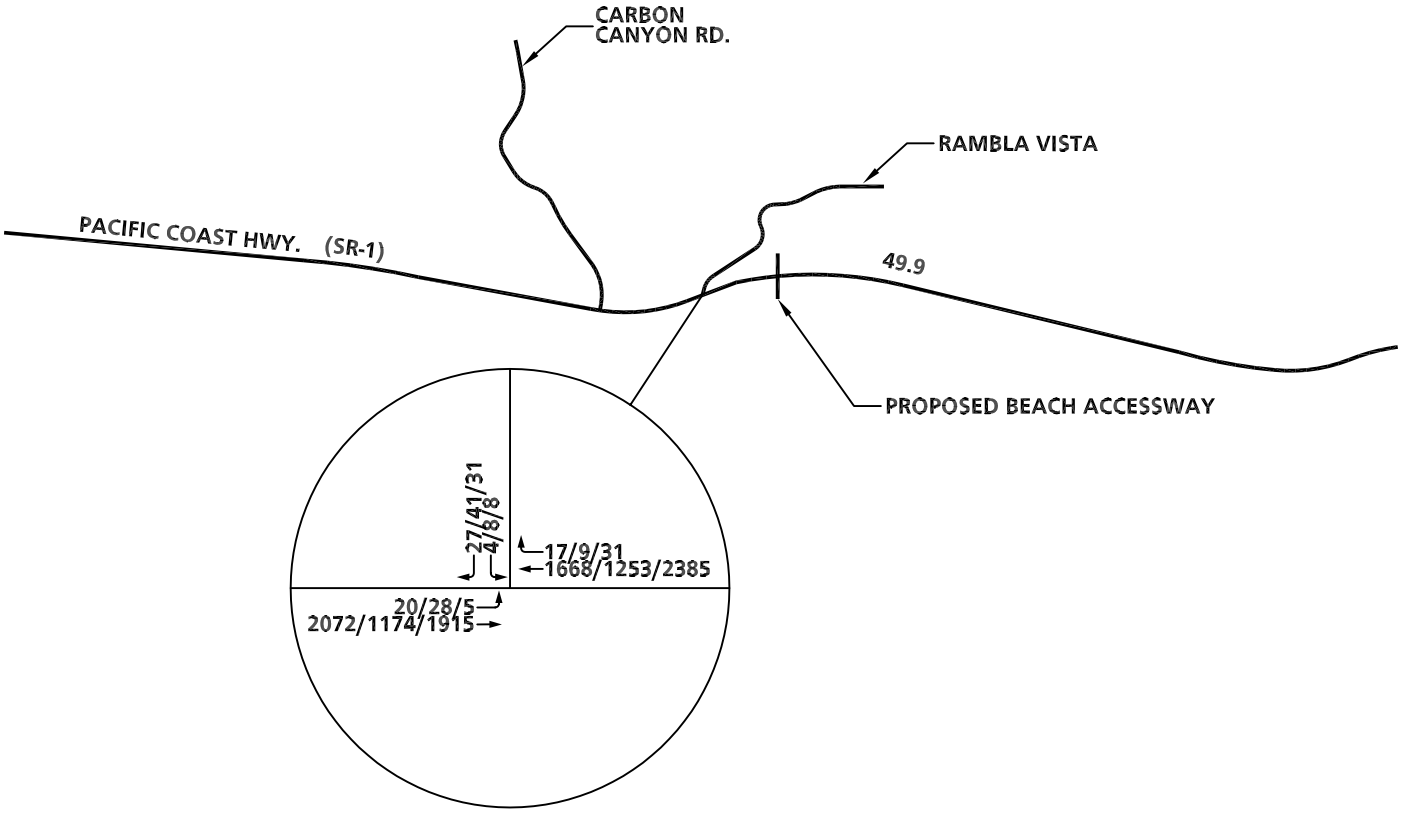
The current technical guide to the evaluation of traffic operations is the *2000 Highway Capacity Manual* (HCM) (Transportation Research Board Special Report 209). The HCM defines level of service as a qualitative measure which describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS (Level of Service) conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

The definitions of level of service for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are:

- LOS "A" represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
- LOS "B" is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
- LOS "C" is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.

EXHIBIT B

EXISTING TRAFFIC COUNTS



LEGEND:

27/41/31 = AM/MIDDAY/PM PEAK HOUR VOLUMES
49.9 = DAILY TRAFFIC VOLUME (1,000'S)

N

URBAN CROSSROADS

- LOS "D" represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
- LOS "E" represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
- LOS "F" is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount that can traverse the point. Queues form behind such locations.

The definitions of level of service for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control.

The level of service is typically dependent on the quality of traffic flow at the intersections along a roadway. The HCM methodology expresses the level of service at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control. The levels of service determined in this study are determined using the HCM methodology.

For signalized intersections, average total delay per vehicle for the overall intersection is used to determine level of service. Levels of service at the signalized study area intersections have been evaluated using an HCM intersection analysis program.

The study area intersections that are stop sign controlled with stop control on the minor street only have been analyzed using the unsignalized intersection methodology of the HCM. For these intersections, the calculation of level of service is dependent on the occurrence of gaps occurring in the traffic flow of the main street. Using data collected describing the intersection configuration and traffic volumes at the study area locations, the level of service has been calculated. The level of service criteria for this type of intersection analysis is based on average total delay per vehicle for the worst minor street movements.

The level of services are defined for the various analysis methodologies as follows:

LEVEL OF SERVICE	AVERAGE TOTAL DELAY PER VEHICLE (SECONDS)	
	SIGNALIZED	UNSIGNALIZED
A	0 to 10.00	0 to 10.00
B	10.01 to 20.00	10.01 to 15.00
C	20.01 to 35.00	15.01 to 25.00
D	35.01 to 55.00	25.01 to 35.00
E	55.01 to 80.00	35.01 to 50.00
F	80.01 and up	50.01 and up

The LOS analysis for signalized intersections has been performed using optimized signal timing. This analysis has included an assumed lost time of three seconds per phase in accordance with HCM recommended default values. Signal timing optimization has considered pedestrian safety and signal coordination requirements. Initial saturation flow rates of 1,900 vehicles per hour of green (vphg) have been assumed for all capacity analysis.

Based on the existing traffic counts and intersection geometry, the level of service has been calculated for the intersection of Rambla Vista/PCH. Table 1 summarizes the analysis for the AM, mid-day, and PM peak hours. As indicated in Table 1, this intersection is currently operating at Level of Service "F" during the AM and PM peak hours.

Based on the existing traffic counts, a traffic signal does not appear to currently be warranted at the intersection of Rambla Vista/PCH.

Parking Counts

Parking counts have been collected along PCH for a distance of 0.5 miles west of Rambla Vista and 1 mile east of Rambla Vista between the hours of 10 AM and 2 PM. These distances were anticipated to represent the midpoint between existing beach accessways located to the east and west of the proposed accessway. On-street parking is allowed on both sides of PCH in the vicinity of the proposed accessway. Table 2 summarizes the existing parking counts for both sides of PCH. As indicated in Table 2, the highest overall parking utilization of 180 vehicles occurred at 12:30 PM.

TABLE 1

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL[3]	INTERSECTION APPROACH LANES[1]												DELAY[2] (SECS.)			LEVEL OF SERVICE		
		NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND								
		L	T	R	L	T	R	L	T	R	L	T	R	AM	MIDDAY	PM	AM	MIDDAY	PM
Rambla Vista (NS) at:																			
• Pacific Coast Higway (EW)	CSS	0	0	0	0	1	0	1	2	0	0	2	1	62.9	26.6	---	F	D	F

---

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement; > = Right Turn Overlap Phase; >> = Free Right Turn Lane

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.5 R1 (2002). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal
CSS = Cross Street Stop
AWS = All Way Stop

[4] "--" = Delay High, Intersection Unstable, LOS = "F".

TABLE 2

PARKING COUNTS ALONG PACIFIC COAST HIGHWAY

Time	West of Rambla Vista (0.5 miles)		East of Rambla Vista (1 mile)		Total
	Northside of PCH	Southside of PCH	Northside of PCH	Southside of PCH	
10:00 AM	23	43	20	70	156
10:30 AM	22	44	26	62	154
11:00 AM	26	58	22	56	162
11:30 AM	24	38	20	60	142
12:00 PM	30	40	24	55	149
12:30 PM	28	65	21	66	**180**
1:00 AM	26	44	25	50	145
1:30 AM	24	59	22	52	157
2:00 AM	19	54	27	53	153

Appendix C

California Highway Patrol Data Reports

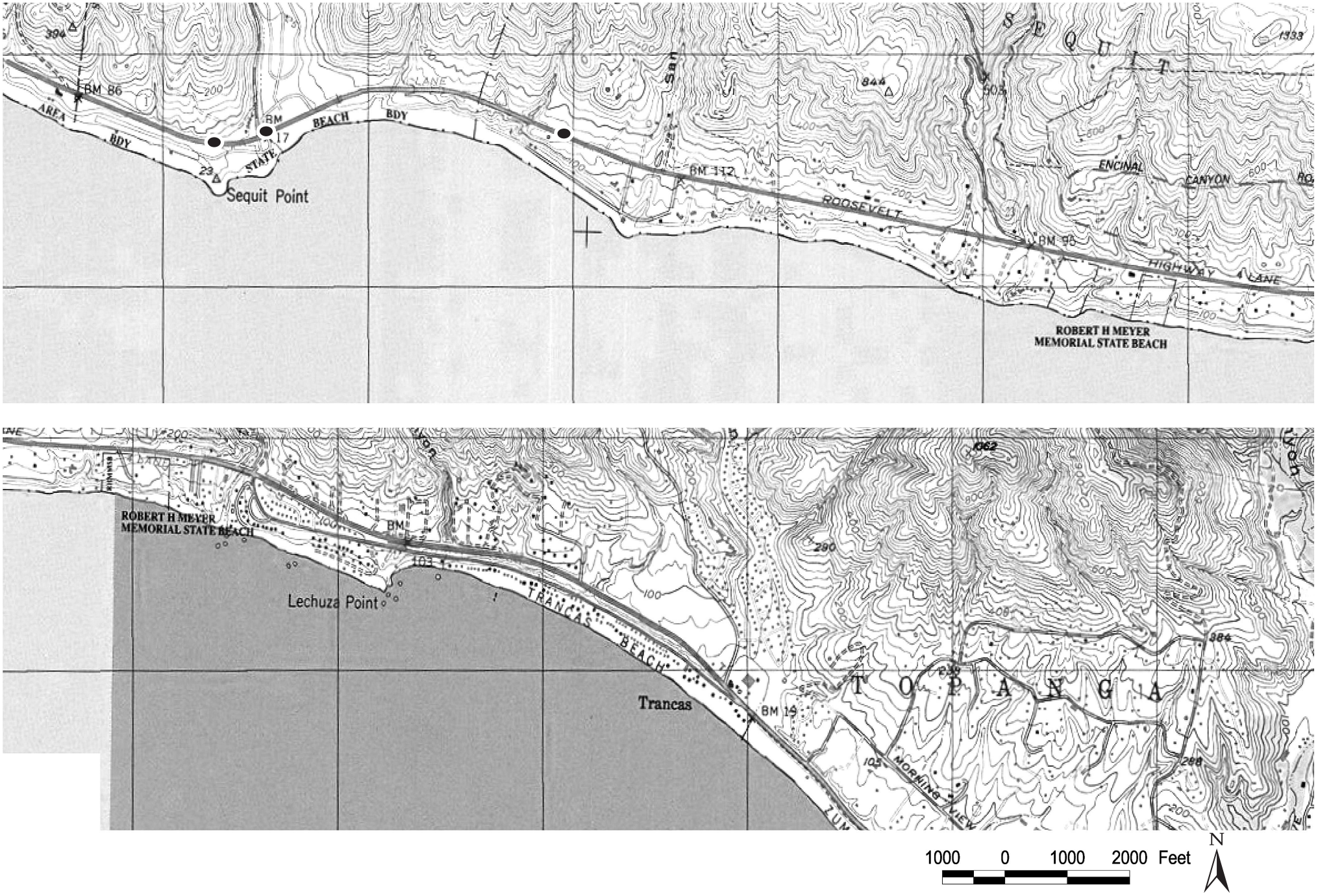


Figure 1
Accident Locations Between Sequit Point and Trancas Beach

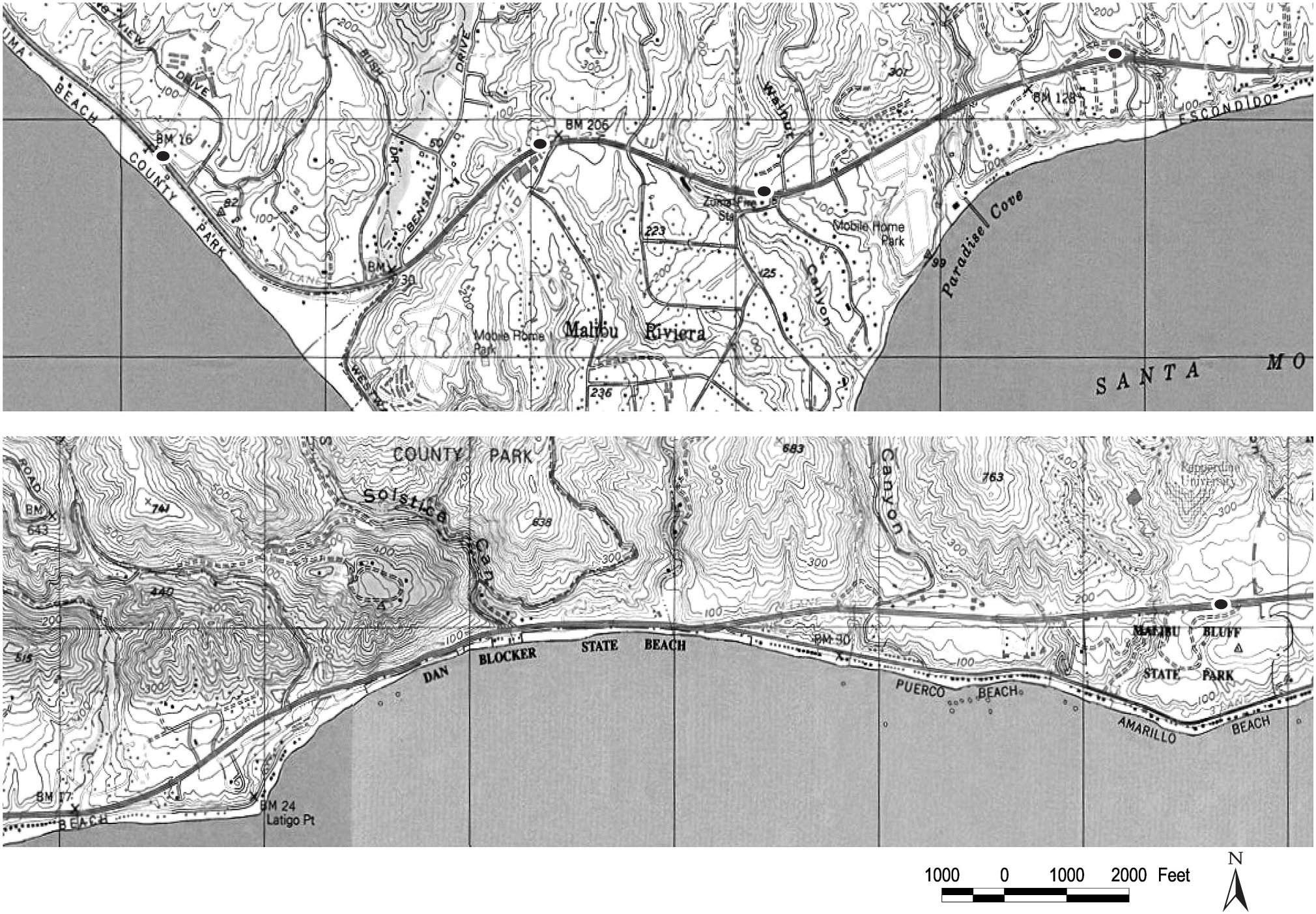


Figure 2
Accident Locations Between Zuma County Beach and Malibu Bluff State Park

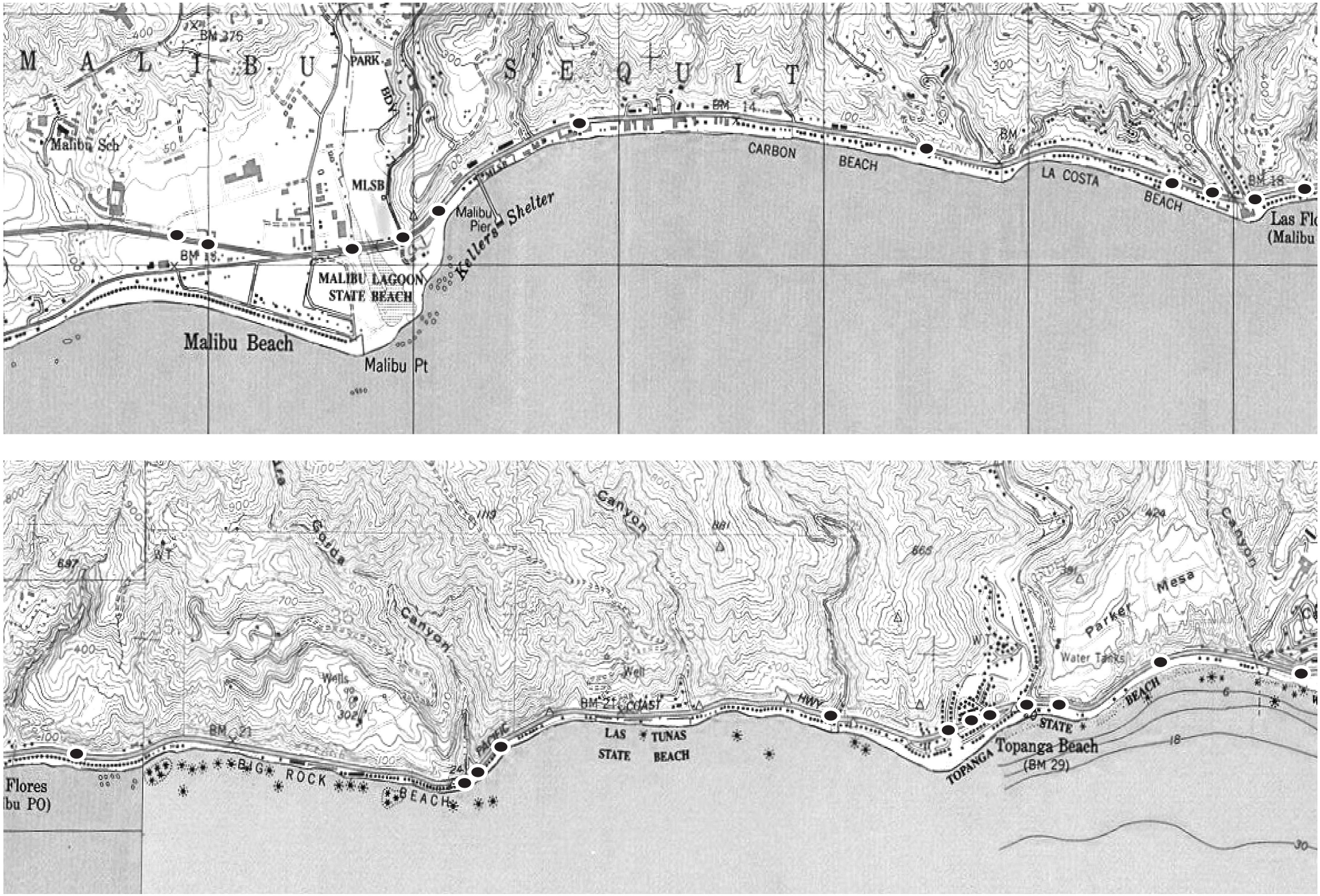
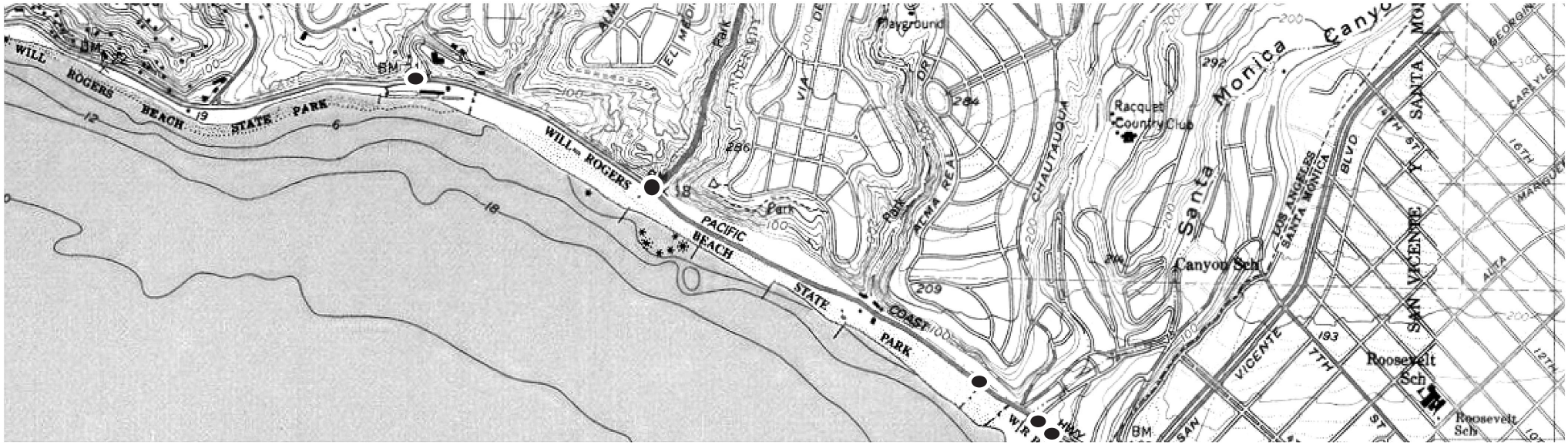


Figure 3
Accident Locations Between Malibu State Beach and Coastline Drive



1000 0 1000 2000 Feet

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Figure 4
Accident Locations Between Will Rodgers State Beach and West Channel