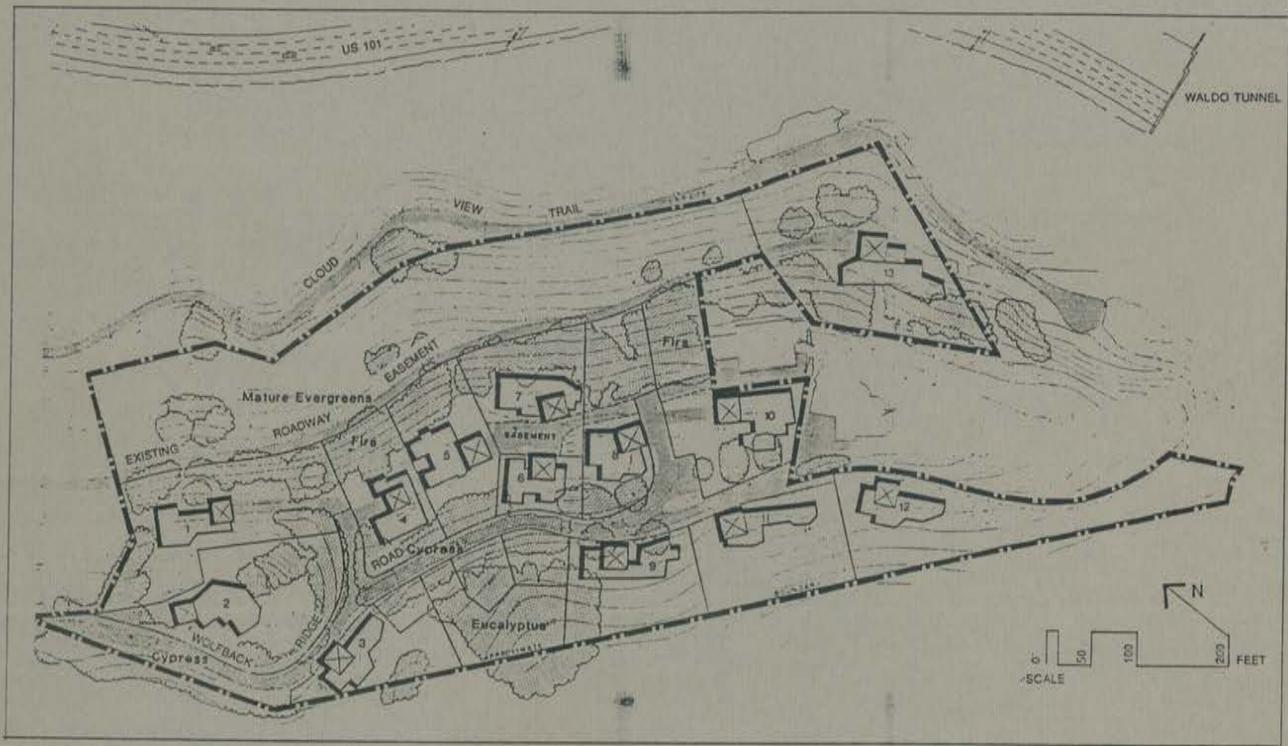


---

DRAFT ENVIRONMENTAL IMPACT REPORT  
**PROPOSED WOLFBACK ESTATES PROJECT**  
CITY OF SAUSALITO, CALIFORNIA

---



WAGSTAFF AND ASSOCIATES  
Urban and Environmental Planners

July 5, 1989

Table 1

**PROJECT DATA**

---

**PROJECT NAME:** Wolfback Estates Subdivision/Planned Unit Development

**PROPOSED ACTION (APPLICATION):** Subdivision of 7.8-acre Wolfback Ridge site into 13 residential lots ranging in size from 7,200 to 31,688 sq. ft., and one 76,552 sq. ft. common open space area.

Approval of a conditional use permit for a Planned Unit Development allowing residential lot sizes below current zoning minimum of 20,000 sq. ft.

**SITE LOCATION:** On Wolfback Ridge (the southwestern edge of Sausalito) above and west of Highway 101 and immediately east of the Golden Gate National Recreation Area (at the southern end of Wolfback Ridge Road above Cloud View Trail).

**SITE AREA AND PARCELIZATION:**

<u>Parcel Number</u>	<u>Owner</u>	<u>Acreege</u>
200-240-13	Alan Patterson/Carolyn Wean	0.05 acres
200-240-14	Carolyn Wean	2.00 acres
200-130-10	Alan Patterson	3.31 acres
200-130-33	Alan Patterson	<u>2.48 acres</u>
		7.84 acres

**EXISTING LAND USE:** One two-family residence, plus open space containing woodland, brush and grassland.

**PROPOSED LAND USE:** 13 single-family-detached residential units.

**EXISTING AND PROPOSED VEHICULAR ACCESS:** Wolfback Ridge Road provides primary access to the site and the existing home; portions of the site can also be reached via Wolfback Terrace (currently unpaved) and Cloud View Trail. Proposed project access routes include Wolfback Ridge Road (12 units) and Wolfback Terrace (one unit).

**CURRENT GENERAL PLAN DESIGNATION:** Low Density Residential (20,000 sq. ft. to one acre of land area per unit)

**CURRENT ZONING:** Residential: 20,000 (20,000 sq. ft. minimum lot size)

**APPLICANT:** Alan Patterson and Carolyn Wean

**PROPERTY OWNER:** Alan Patterson and Carolyn Wean

---

SOURCE: Wagstaff and Associates

---

**DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE  
PROPOSED WOLFBACK ESTATES TENTATIVE MAP AND  
PLANNED UNIT DEVELOPMENT; SAUSALITO, CALIFORNIA**

---

Prepared for the City of Sausalito

by

**WAGSTAFF AND ASSOCIATES**  
Urban and Environmental Planners

in association with

The Goodrich Traffic Group, Transportation Planners  
Andrew J. Leahy, P.E., Consulting Engineer  
Charles Patterson, Consulting Biologist

July 1989



---

## CONTENTS

---

	<u>Page</u>
I. INTRODUCTION	1
A. Purpose and Approach	1
B. Proposed Action	1
C. Site History	2
D. EIR Scope: Significant Issues and Concerns	2
E. Report Organization	3
II. SUMMARY OF FINDINGS	5
III. PROJECT DESCRIPTION	27
A. Existing Project Setting	27
B. Applicant's Objectives and Development Program	36
C. Required Jurisdictional Approvals	44
IV. SETTING, IMPACTS, AND MITIGATIONS	
A. Land Use and Open Space	47
B. Visual Factors	65
C. Circulation and Access	91
D. Water, Sewage, and Storm Drainage	103
E. Emergency Services	133
F. Noise	137
G. Geology and Soils	143
H. Vegetation and Wildlife	151
I. Archaeology	159
V. ALTERNATIVES TO THE PROPOSED ACTION	161
A. No Project	162
B. Mitigated 13-Unit Development Concept	163
C. Reduced Density 8-Unit Development Concept	166
D. Increased Density 16-Unit (Maximum Allowable) Development Concept	169
E. Increased Density 20-Unit Development Concept	172
F. Alternative Sites	174
G. Conclusions	175

	<u>Page</u>
VI. CEQA-REQUIRED ASSESSMENT CONCLUSIONS	177
A. Growth-Inducement Effects	177
B. Unavoidable and Irreversible Adverse Effects	177
C. Short-Term versus Long-Term Environmental Productivity	178
VII. ORGANIZATIONS AND PERSONS CONTACTED	179
VIII. APPENDICES	181
A. Initial Study	
B. GGNRA Letter to the City of Sausalito	
C. Visual Implications of Each Proposed Homesite	
D. Supplemental Geotechnical Data	
E. Supplemental Vegetation and Wildlife Data	
F. EIR Authors	

List of Tables

1. Basic Project Data	ii
2. Tentative Map Area Breakdown (Square Feet)	39
3. Project Visual Impacts and Mitigation Possibilities--Lot-by-Lot	78
4. Project Traffic Impacts on Local Roadways	97
5. Comparative Local Road Dimensions and Traffic Volumes	99
6. Comparative Cost Implications--Water System Choices	111
7. Land Use/Noise Level Compatibility Standards	138
8. Typical Construction Equipment Noise Level Ranges	140

List of Figures

1. Regional and Local Setting	28
2. Local Topography	29
3. Project Vicinity	30
4. Aerial Photograph of Project Site and Environs	31
5. Project Site Topography and Parcelization	33
6. Project Site Cross-Sections	34
7. Illustrative Site Plan	38
8. Tentative Map	40
9. Schematic Landscape Plan	43
10. Sausalito General Plan	48
11. Current Zoning	53
12. GGNRA Land Protection Plan	58
13. Site Portion Proposed for Federal Acquisition	59
14. Existing Land Use	61

	<u>Page</u>
15. Sausalito Areas with Views of the Project Site	66
16. GGNRA and Golden Gate Bridge Views of the Project Site	68
17. Selected View Photographs	69
18. Site Visual Impact Vulnerability	73
19. View Westward from Third and Atwood--Before and After	76
20. View Westward from Crescent Avenue--Before and After	79
21. GGNRA View Eastward from Bunker Road--Before and After	81
22. View Northward from the Golden Gate Bridge--Before and After	83
23. PM Peak-Hour Traffic Volumes	92
24. Existing Wolfback Ridge Roadway System	93
25. Existing and Proposed Water Delivery System	104
26. Proposed Septic System	118
27. Site Vegetation	152
28. Alternative B: Mitigated 13-Unit Development Concept	164
29. Alternative C: Reduced Density 8-Unit Development Concept	167
30. Alternative D: Increased Density 16-Unit Development Concept (Maximum Currently Allowable)	170
31. Alternative E: Increased Density 20-Unit Development Concept	173



---

## I. INTRODUCTION

---

### A. PURPOSE AND APPROACH

This report describes the likely environmental impacts if a proposed 13-lot residential subdivision and Planned Unit Development is approved for a 7.48 acre site atop Wolfback Ridge in Sausalito. The project site is located on the top of the ridge immediately west of Highway (Interstate) 101 on the north side of the Waldo Tunnel. The applicants, Alan Patterson and Carolyn Wean, are proposing to create 13 residential lots on the ridge plateau, ranging in size from approximately 0.2 to 0.7 acres, plus a 1.8-acre permanent open space area on the hillside portion of the site facing Sausalito.

This EIR is an informational document prepared to inform city of Sausalito decision-makers, other responsible agencies and the community at large of the proposed action and the consequences of its approval. The report identifies those environmental impacts associated with the proposed project which are expected to be significant, and recommends possible mitigation measures which would minimize or eliminate significant impacts. The report also describes and evaluates a range of reasonable alternatives to the proposed project.

This EIR may also serve as the environmental documentation, or part of the documentation, for actions related to this project which may be taken by the Marin Municipal Water District, the Marin Local Agency Formation Commission, and other agencies not known at this time.

### B. PROPOSED ACTION

Under existing city zoning regulations, the applicants have requested a Conditional Use Permit to create a Planned Unit Development which would accommodate a proposed 13-lot "cluster" subdivision for the 7.48 acre parcel. The Planned Unit Development (PUD) design approach has been proposed by the applicants' architect in order to accommodate a site plan more adaptive to the site's ridgetop and hillside features, existing vegetative screening possibilities, and sewage disposal limitations.. The PUD approach would allow lots within the subdivision to be smaller than those normally required by the underlying R-20 zoning, and would allow the creation of permanent open space areas for hillside protection and onsite sewage disposal purposes.

### C. SITE HISTORY

The project site and the adjoining Wolfback Ridge residential area were annexed into the city in 1978 under the state's Island Annexation Bill which, under certain circumstances, authorized cities to annex property without the normally-required consent of majority property ownership. Prior to this annexation, the site was designated by the Marin County General Plan for residential use at a maximum density of 20,000 square feet of land area per unit. Upon annexation, the area was designated for a similar residential density under city of Sausalito general plan and zoning provisions (i.e., 20,000 square feet to one acre of land area per unit).

The project site was graded approximately 30 years ago for residential development and related access purposes, but was never developed beyond the existing two-unit residential structure.

### D. EIR SCOPE: KEY ISSUES AND CONCERNS

As provided for under California State EIR Guidelines, the scope of this report is focused on those specific issues and concerns identified as possibly significant by the city of Sausalito Planning Department in its preliminary review and Initial Study of the proposal. (See Appendix A.) These issues and concerns include:

1. **Land Use and Open Space**, including project compatibility with existing residential areas on Wolfback Ridge and with the adjoining Golden Gate National Recreation Area, and project consistency with related city of Sausalito and Golden Gate National Recreation Area land use and open space policies.
2. **Visual Factors**, including the potential impacts of the proposed 13-unit subdivision on the visual character of Wolfback Ridge and, in particular, on views from important vantage points within Sausalito to the east, the Golden Gate National Recreation Area to the west, and along US 101.
3. **Circulation and Access**, including the adequacy of project access and parking provisions; the adequacy of roadway system geometry, width, and grades; related emergency access concerns; the feasibility of related street dedications; U.S. 101 ramp safety implications; and construction period roadway impacts.
4. **Water, Sewer, and Storm Drainage**, including the adequacy of these proposed project systems, and the comparative feasibility of possible alternative approaches (in particular, the feasibility of possible project annexation to the Marin Municipal Water District and connection to the Sausalito-Marín Sanitary District).

5. **Emergency Services**, including anticipated additional project demands on fire and police protection.
6. **Noise**, including the effects of traffic noise from I-101 on the proposed residential lots.
7. **Geology and Soils**, including the potential impacts of the proposed subdivision layout and grading aspects, given existing topographic, soil and geologic conditions.
8. **Vegetation and Wildlife**, including the project's impacts on the site's woodland cover, and any possible effects on sensitive, rare, or endangered plant or animal species.
9. **Archaeology**, including impacts of the proposed development plan on any archaeological values which may be located within the project boundary.

#### E. REPORT ORGANIZATION

Findings in this report are organized under the headings listed above. For each impact category, the report describes the following:

1. The existing setting;
2. Significant impacts anticipated with the proposed action; and
3. Suggested measures to mitigate anticipated significant impacts.

The report also identifies and evaluates five alternatives to the proposed action, including:

- (a) the **CEQA-required "no-project" alternative**, which would involve either denial of the current project request (possibly meaning deferral of development to some future date), or acquisition of the site as permanent open space;
- (b) a **"mitigated" project development concept** with the same gross density (13 units on 7.48 acres), but incorporating mitigating site design measures from the impact analysis, including retention of an exposed, western hillside portion of the site in permanent open space for acquisition by the GGNRA, as suggested in the 1983 GGNRA Land Protection Plan;
- (c) a **reduced-density PUD alternative** which would provide for acquisition of the same western hillside portion of the site by the GGNRA, and development of the plateau area with **8 single-family units**;

(d) an **increased-density PUD development concept**, assuming connection to the city's sewer system and development of **16 units**, the maximum allowable under current city general plan and zoning provisions for the site, clustered in an array to provide for acquisition of the western hillside portion of the site by the GGNRA;

(e) an **increased-density PUD development concept**, assuming connection to the city's sewer system and development of **20 units**, similar to several areas below Highway 101 (in order to increase the feasibility of the sewer system extension and comprehensive water system movements); and

(f) possible development of the project on a similar **alternative site** somewhere else in southern Marin.

Finally, as suggested by CEQA, the report summarizes findings with respect to the project's potential growth-inducing impacts, and its unavoidable or irreversible impacts.

---

## II. SUMMARY OF FINDINGS

---

The following summary briefly identifies project environmental consequences, including each significant project impact and associated mitigation recommendation. A more detailed description of these impacts and mitigation measures is provided in section IV of this report under appropriate subject headings.

### A. LAND USE AND OPEN SPACE

#### 1. Project Relationship to Local Land Use and Open Space Policies

a. Sausalito General Plan. Although the city is currently updating its general plan, the policies of the existing plan remain applicable. Project relationships to relevant policies of the current general plan Land Use Element (LUE) and Open Space and Conservation Element (OSCE) are summarized below:

*Land Use Element.* The project is generally consistent with pertinent LUE development policies relating to Wolfback Ridge residential densities, land use compatibility, harmony with existing neighborhoods and city character, and density relating to slope.

*Open Space and Conservation Element.* Aspects of the project may be inconsistent with OSCE policies relating to preservation of grassy ridge lands, adequate fire protection, and protection of natural visual qualities. The project generally complies with OSCE policies relating to minimizing geotechnical hazards.

b. Sausalito Zoning Code. The project site is designated "Residential 1" (R-1) on the city's current Zoning Map. City Zoning Ordinance provisions for the R-1 district call for 20,000-square-foot minimum lot sizes. Given the special ridgetop site conditions, the applicants have requested a Conditional Use Permit to allow a Planned Unit Development (PUD) design approach under the R-1 designation. Under current zoning regulations, the PUD approach allows for flexibility in individual lot sizes and dimensions in response to special site characteristics (topography, etc.), provided that the development plan meets the basic intent of the underlying zone (in this case, R-1). The city's Conditional Use Permit approach to the PUD process allows the city to review the project in detail and to impose special conditions for PUD approval to: (1) ensure that the project meets the basic intent of the general plan and the underlying zone, (2) ensure compatibility with existing development and surrounding land uses, and (3) ensure the adequacy of existing public facilities and

services available to the project.

In general, the proposed project site plan appears to meet the purpose of city PUD provisions allowing diversification in site planning in response to special site features, while maintaining conformance with the basic intent of city general plan and zoning ordinance designations for the site (20,000 square feet average lot size). The PUD site plan proposes residential development of the site as basically provided for under the R-1 district (i.e., 13 single-family units on the 7.84-acre site), but with more flexibility in lot size and shape, including some lot size reductions below 20,000 square feet in response to the hillside, visual, and septic tank suitability characteristics of the site. Proposed lot sizes range from 7,200 to 31,688 square feet. The land area per unit, including common open space and excluding common road rights-of-way, would be 24,475 square feet.

c. Golden Gate National Recreation Area Land Protection Objectives. The 1983 GGNRA Land Protection Plan recommends GGNRA fee acquisition of one of the four parcels comprising the project site, APN 200-130-10, for visual resource protection purposes. This 3.31-acre parcel is the only remaining piece out of the 155,000 total acres of Marin County private land identified for acquisition in the GGNRA plan that has not yet been acquired. Although the GGNRA has not actively pursued acquisition of the property in recent years, GGNRA representatives have informed the city that steps to acquire the property would move forward with a "confirmed threat of development," i.e., with city notification that the success of a development proposal was probable.

The project site portion schematically designated in the GGNRA plan for fee simple acquisition includes the area occupied by proposed lots 3, 9, 11, and 12 on the west-facing slope, plus all of ridgetop lot 6, the extension of Wolfback Ridge Road, and portions of ridgetop lots 2, 4, 5, 8, and 10. (See Figure 13 on page 11 of section IV.A.) If acquisition of APN 200-13-10 went ahead as proposed, with provisions for maintaining Wolfback Ridge Road access to the remaining project lots, the development capacity of the remaining project property (4.5 acres) would be reduced to between five units (assuming onsite septic drainage fields) to nine units (assuming an easement for up to four offsite septic drainage fields within the GGNRA acquired 3.31-acre portion of the site).

A second GGNRA acquisition scenario suggested in the EIR which might meet basic GGNRA scenic resource protection needs, while allowing for retention of up to nine of the 13 proposed lots, would be to reduce the GGNRA acquisition area to site portions west of the existing Wolfback Ridge Road access easement (i.e., the most visually exposed portion of the site), and incorporation of stringent visual impact mitigation measures in the PUD plan for site portions on the east side of the road which would prohibit removal of existing vegetative screening along the road and enhance that screening with additional planting.

## 2. Physical Land Use Impacts

a. Project Site. The project would accommodate 13 single-family detached residential units on the site, in place of the existing duplex unit. The existing dirt access road would be widened and paved. Some woody vegetation would have to be removed from most lots (9 of 13) to accommodate the plan. Existing grassland vegetation would be eliminated on five lots. The increased residential intensity and the loss of open space and vegetation would reduce the value of the area as a visual resource and, to a lesser extent, as a wildlife habitat.

b. Surrounding Land Uses. The proposed project would extend the low density residential development pattern now found on the northern portions of Wolfback Ridge into the scarcely developed southern end of the ridge, increasing the number of homes on the southern end from five to 16. The project would be of similar density to existing residential development to the north.

The project would result in absorption of the last substantial piece of developable, privately-owned ridgeline property adjacent to the GGNRA.

The new development would slightly impact existing neighborhoods by generating additional traffic and other human activity. The adjacent Deaton and Butz residences would be most impacted by reduced privacy and by disruption of existing entrance road views of the GGNRA (the latter due to the proposed construction of homes and introduction of landscaping on lots 3, 9, 11, and 12).

The proposed project homesites would be separated from Highway 101 by a 350-foot change in elevation and by the steep-sloping, grass-and-brush-covered "common area" along the eastern edge of the site between Wolfback Terrace and Cloud View Trail. Nevertheless, traffic noise from the highway could significantly impact proposed lots 1, 7, and 13.

The project layout would locate four residential lots and three remote septic drainfields on the exposed, west-facing lot portions immediately adjacent to the GGNRA. The development of these lots as proposed would have significant visual impacts on views of the site from the GGNRA, as described in more detail in this EIR under Visual Factors (section IV.B).

## 3. Mitigations

(a) The loss of about four acres of undeveloped land would be a minor, unavoidable, and unmitigable impact if the project were approved as proposed.

(b) Mitigation measures related to project visual impacts on adjacent and nearby homes, and on offsite viewpoints, are described in the Visual Factors section of this EIR.

(c) All city decisions with respect to this project should be made in consultation with the GGNRA Division of Resource Management and Planning.

(d) The following two mitigation choices are suggested as possible means of reconciling the development objectives of the applicant with the protection objectives of the GGNRA:

- Fee-simple acquisition of oceanside APN 200-130-10, with provisions for maintaining Wolfback Ridge Road extension access to existing and future residences on the ridge and, perhaps, for accommodating the proposed remote septic drainfields on the acquired oceanside parcel. This choice would require a reduction in the number of project units to between five and nine.
- Dedication of a scenic (conservation) easement by the applicant on the oceanside property west of the proposed extension of Wolfback Ridge Road, plus applicant dedication of certain west-facing yard areas on the east side of the access road as additional scenic easements. This mitigation choice would require some modifications to the project design to ensure protection of the site's visual resources, and would allow accommodation of between nine and 13 units on lands east of the Wolfback Ridge Road extension (assuming that between four and nine septic drainage fields would be accommodated in the GGNRA view easement).

## B. VISUAL FACTORS

Wolfback Ridge is a major visual element in views from the east, west, and south. The ridge plays a significant role in establishing the valued visual character of Sausalito and Rodeo Valley (GGNRA). In addition, portions of the project site provide expansive, panoramic views of Sausalito, Richardson Bay, Tiburon, Belvedere, Angel Island, the Bay, San Francisco, the Golden Gate Bridge, the Marin Headlands, Rodeo Valley, Fort Barry, and the Pacific Ocean. However, most of these onsite view opportunities are substantially limited or totally obstructed by the existing vegetative cover.

### 1. Impacts

The Visual Factors section of this EIR provides a detailed, lot-by-lot evaluation of project visual impacts on Sausalito, GGNRA, and Golden Gate Bridge viewpoints. The following conclusions have been drawn from that evaluation:

- Proposed home construction on lots 3, 9, 11, 12, and 13 would have the most significant visual impacts. On oceanside lots 9, 11, and 12, the proposed homes would be located on generally barren, west-facing slopes where typical residential

structures would be highly exposed to GGNRA vantage points, and could result in a significant adverse impact on the visual character of the Rodeo Valley portion of the GGNRA. Oceanside lot 3 contains some existing vegetation, but none that would adequately screen the proposed home from vantage points in the GGNRA. Proposed homes on lots 9, 11, and 12 would also be visible from the Golden Gate Bridge. On bayside lot 13 at the end of Wolfback Terrace, a substantial portion of the proposed residential structure could be highly exposed to views from Sausalito.

- Prominent exposure of major portions or all of certain project slideslope residential structures, due to a complete or substantial lack of existing vegetative screening, would constitute a significant adverse impact. Lots where the proposed homesite locations would result in such an impact, at least until proposed new vegetative screening could grow to effective size, include 3, 9, 11, 12, and 13.
- The introduction of additional vegetative screening, as proposed in the applicant's schematic landscape plan, when mature, would reduce the long-term impacts of home construction on lots 3 and 13 to insignificant levels. Until that vegetative growth is reached (at least five years), home construction on these two lots would have a significant interim adverse visual impact.
- The applicant's landscape plan also proposes introduction of vegetative screening for lots 9, 11, and 12. Until that screening has matured (at least five years), home construction on these highly exposed, barren sideslope lots would have at least a significant interim adverse visual impact. In addition, the proposed introduction of additional vegetation may be conspicuous from offsite GGNRA vantage points, and may not reduce the long-term visual impacts of home construction on these three lots to insignificant levels.
- Removal of existing vegetative screening at certain project site locations for the purposes of opening up views and/or improving solar access could expose substantial portions of the proposed homes to views from vantage points below, with significant adverse visual impacts. Although no such vegetation removal has been proposed by the applicant, there are strong incentives for such view improvement measures by the applicant, future homebuilders, or future homeowners (especially on lots 1, 2, 4, 5, 7, 8, 10, and 13).
- Exposure of the upper stories or other noticeable portions of one of the project's ridgetop residential structures above the vegetative canopy or through various existing gaps in the site's vegetative cover could also result in significant adverse visual impacts on offsite vantage points. Such vegetative gaps or structural protrusions could occur on lots 2 through 6, 8, and 10.
- The proposed additional 10,000-gallon, offsite water tank next to the three existing tanks on Wolfback Ridge could result in significant adverse visual impacts on views of the tanks from Wolfback Ridge Road. Some of the vegetation which currently helps to screen the existing tanks may have to be removed to accommodate the new tank.

Also, a new steel tank design may be visually incompatible with the existing tanks.

## 2. Mitigations

(a) The significant long-term adverse impacts of the project on Rodeo Valley and Golden Gate Bridge views, and on GGNRA land protection objectives, would be unavoidable unless the proposed lots 9, 11, and 12 were either eliminated or relocated to a less visually vulnerable portion of the site. Mitigation measures involving GGNRA acquisition of the area containing lots 9, 11, and 12 are described in the Land Use chapter of this EIR.

(b) The significant interim (five years or more) adverse visual impacts of home construction on lots 3 and 13 on GGNRA and Sausalito views, respectively, would be unavoidable unless these lots were eliminated or relocated to less visually vulnerable portions of the site. Mitigation measures involving GGNRA acquisition of the area containing lot 3 are described in the Land Use chapter of this EIR. As part of such an acquisition action, the GGNRA may also be interested in acquiring lot 13.

(c) The significant long-term adverse visual impacts of home construction on lots 3 and 13 on GGNRA and Sausalito viewpoints, respectively, could be effectively mitigated by the introduction of vegetative screening as proposed by the applicants' preliminary landscape plan.

(d) The final design and title provisions of the proposed Wolfback Ridge Estates PUD should incorporate measures and controls on architecture, grading, introduced landscaping, tree thinning and removal, and ongoing landscape maintenance which are specifically formulated to mitigate the visual impacts identified in this EIR. The EIR lists a number of such measures and controls for incorporation into the project PUD plan and CC&Rs to reduce identified significant impacts to insignificant levels. These include:

- Establishment of a homeowners association to implement and enforce various project rules, procedures, and CC&Rs related to visual impact mitigation.
- Incorporation of numerous architectural standards (13 specific standards and measures are suggested) into the PUD plan and project CC&Rs to ensure against construction of conspicuous sideslope or ridgetop residential structures.
- Implementation of numerous landscaping controls, including a detailed landscape plan and associated landscape standards, guidelines, and ongoing maintenance requirements for the project as a whole, and for individual lots, by incorporation into the PUD plan, homeowners association bylaws, and individual lot CC&Rs (eight specific measures are suggested).
- Establishment of stringent controls on the removal and thinning (pruning) of existing trees on the project site beyond those in the existing city Ordinance 812, which protects trees and views. In addition to current citywide permit requirements for

removal of any existing tree of 15 feet or more in height, removal of any tree or branch in excess of specified diameter (e.g., 12 inches) should be subject to review by the city's Trees and Views Committee or Architectural Review Board. The provision should apply in particular to lots 1, 3 through 8, and 13. The developer or future homeowner should be required to demonstrate in the review process that the proposed tree trimming or removal will not result in a significant offsite visual impact. Enforcement of this requirement would be a specific homeowners association responsibility. The exemptions for "undesirable trees" reference in Ordinance 812 and the Draft Ordinance on Trees and Views, May 1989, should not apply to this mitigation measure.

- Restrictions on street lighting. Street lighting should be used conservatively or not at all. If street lighting must be provided, performance standards are described in the EIR to mitigate related visual impacts.
- Incorporation of stringent parameters regarding exterior lighting in the CC&Rs for each lot to ensure against nighttime visual impacts on offsite vantage points.

(d) Swimming pools and tennis courts, if any, should be accommodated totally within existing site grades.

(e) The proposed additional offsite water tank should be designed and located to minimize visual impacts on the Wolfback Ridge Road neighborhood. The design should take maximum advantage of existing vegetative screening opportunities. Instead of a fourth tank, replacement of some or all of the existing tanks with a larger steel tank may reduce the extent of land area and vegetation removal required to meet project water storage capacity objectives. The visual impact of the tank could also be minimized through use of a compatible shape and color, and through introduction of additional vegetative screening.

## C. CIRCULATION AND ACCESS

### 1. Impacts

a. Existing Road Limitations. Direct vehicular access to the project would be provided by Wolfback Ridge Road. The existing Wolfback Ridge Road segment immediately below Cloud View Trail, where the route passes through a rock-lined cut, is currently too narrow (14.5 feet of pavement width with limited or no shoulders) for safe passage of existing traffic. Pavement widths (16 feet) and shoulder provisions through the 180-degree curve in the road just below this cut are also inadequate.

b. Project Trip Generation and Distribution. The project would generate an estimated 130 two-way trips per day, including nine inbound and four outbound PM peak hour trips. Project traffic distribution is expected to follow patterns similar to traffic from existing

residential development on the ridge.

c. Project Impacts on Offsite Roadway Links. PM peak hour traffic volumes would increase by approximately 13 vehicles per hour (VPH) on Wolfback Ridge Road and by one VPH on Wolfback Terrace. PM peak hour increases on Spencer Avenue and Monte Mar Drive would be approximately four and two VPH, respectively. Each freeway offramp would gain about three VPH and each freeway onramp would gain one VPH in the peak hour. Peak hour volumes on the frontage road would increase by approximately 11 VPH south of the Spencer Avenue and by three VPH near Monte Mar Drive. Peak volumes on Highway 101 would increase by four VPH both north and south of the site.

All offsite local roadways and related intersections serving the area have the capacity to handle these traffic increases, although the small turning radius at the 160-degree bend in Wolfback Terrace could force larger vehicles approaching one lot (lot 13) to make two-point turns to negotiate the turn.

d. Cumulative Impacts. There are no substantive additional developments anticipated in the area of the project.

e. Onsite Circulation Adequacy. The proposed extension of Wolfback Ridge Road within the project would have a pavement width of 18 feet and a maximum grade of 19.6 percent (in one location only). Such an access route would be similar to or wider than the existing sections of Wolfback Ridge Road. Comparable Sausalito streets below the freeway have pavement widths of 18 to 20 feet. The proposed road widths would be adequate if sufficient offstreet parking (five spaces per unit, including garages) is provided. The proposed site plan indicates that lots 3, 9, 11, and 12 would have room for no more than three offstreet spaces per unit.

f. Construction Period Impacts. Existing peak hour traffic volumes on Wolfback Ridge Road below Cloud View Trail are approximately 18 VPH. Peak hour traffic volumes on this route during the project construction period would be expected to increase by between 10 to 20 VPH, assuming that three to four houses were under construction at the same time. Some of this temporary traffic could include heavy construction equipment, resulting in possible damage to the road surface.

## 2. Mitigations

(a) The offsite pavement width on Wolfback Ridge Road just below Cloud View Trail (through the rock-lined hillside cut), which is currently 14.5 feet wide, should be widened to at least 16 feet, with five feet of clearance between the pavement and the edge of the rock-lined cut.

- (b) Similarly, the pavement width through the 180-degree curve on Wolfback Ridge Road, which is currently 16 feet wide, should be widened to at least 18 feet.
- (c) To discourage onstreet parking, at least two additional parking spaces per lot should be provided for lots 3, 9, 11, and 12.
- (d) The inside curve turning radius of the 160 degree turn on Wolfback Terrace should be widened to a minimum of 12 feet, 7 inches; and the outside curve turning radius should be widened to a minimum of 22 feet, 7 inches. If these radii cannot be feasibly achieved, an alternative access route to proposed lot 13 should be required. The driveway to lot 13 should have a minimum pavement width of 10 feet and a maximum slope of 25 percent.
- (e) In general, all project roadways should have the following minimum road widths:
- Roadways serving three lots = 16 feet;
  - Roadways serving two lots = 14 feet;
  - Roadways serving one lot = 10 feet.
- (f) During the project construction period, heavy construction equipment should be trucked to and from the site.
- (g) The developer should repair any damage to existing roadways caused by construction equipment.
- (h) The project, perhaps through individual, per lot assessments, should contribute a reasonable fair share to the cost of long-term roadway repairs needed to maintain adequate conditions on Wolfback Ridge Road and Wolfback Terrace.

#### D. WATER, SEWAGE, AND STORM DRAINAGE

##### 1. Water

a. Existing Water System Inadequacies. Thirty-two of the 37 existing homes on Wolfback Ridge are served by the Wolfback Ridge Water System, a water storage and distribution system owned by the applicant. According to city officials, water pressure levels in various portions of the existing Wolfback Ridge system do not meet minimum standards for domestic and fireflow purposes. In addition, the system's existing water storage tanks and pumping facility do not appear to meet minimum standards for sustained fire flow.

The Wolfback Ridge Water System receives its water from the Marin Municipal Water District (MMWD). Because the 32 homes served by the system are outside the MMWD

boundary, the supply agreement with the district, under state law, can provide water on a limited, interruptible, surplus supply basis only. MMWD personnel have stated a desire to end this unreliable water supply situation by annexing the Wolfback Ridge area to the district. Long-term water supply to the ridge would then be guaranteed, subject to any drought restrictions imposed throughout the district. In order to meet District annexation requirements, the existing system would need upgrading to MMWD design standards.

b. Proposed Project Water Service Approach. The applicants propose upgrading of only the project-serving components of the existing water system. The applicants propose to add a 10,000-gallon storage tank to supplement the three existing storage tanks, and to install six-inch mains between the Wolfback Ridge tanks and the project. This approach would require MMWD approval for the additional water supply allocation and the 12 added project connections.

c. Project Water Supply Demands. The 12 new project services would increase Wolfback Ridge Water System water demands by 4,800 gpd, a 38 percent increase.

d. Adequacy of Proposed Water Distribution and Storage System Approach. The six-inch water distribution lines proposed by the applicants for this upgrade may not be adequate to provide the city-recommended fireflow rate, due to anticipated friction losses in the line (distance) and the relatively small difference in elevation ("head") between the tanks and the project fire hydrants. The EIR civil engineer has estimated that the cost of an adequately designed distribution system (including a combination of both eight- and six-inch mains), plus the new storage tank (a 16,000-gallon tank may be the smallest available which will meet local seismic design requirements) and related pumping facilities, would total approximately \$238,000.

e. Possible Alternative Water Distribution and Storage System Approaches. Given the identified supply and distribution system (water pressure) inadequacies of the existing Wolfback Ridge Water System as a whole, this EIR includes a preliminary comparative evaluation of two possible alternative project water system approaches: (1) renovating the entire Wolfback Ridge Water System to provide adequate domestic and fireflow, but retaining its private status (i.e., no annexation to the MMWD) or (2) renovating the entire system and annexation of the 44 system residences (32 existing plus 12 additional) to the MMWD. The two alternative choices compare as follows:

*Water Supply.* The two alternatives would require the same quantity of water from the MMWD as would the applicant-proposed approach, but long-term supplies to the non-annexed system would retain the interruptible, surplus status, while long-term supplies to the annexed system would be guaranteed.

*Water Storage.* The non-annexation alternative would require the same storage capacity as the applicant-proposed, project-specific upgrade (a 16,000-gallon tank and associated pump

system). The annexation alternative would require a 50,000-gallon storage tank to meet MMWD minimum tank size requirements.

*Water Distribution System.* The water distribution system requirements of the two system-wide upgrade alternatives would be similar. Because of inadequate "head" between the tank locations and some of the higher homes in the system, some of these homes would still require individual, privately-owned, hydropneumatic water pressure improvement systems to meet minimum water pressure standards. For the MMWD annexation alternative, the district would probably require these systems for some of the highest homes.

*Estimated Cost Comparison.* The water system approach proposed by the applicant (upgrading of project-serving components only) would cost an estimated \$238,000. The system-wide improvement alternative without MMWD annexation would cost an estimated \$371,000, but would still be subject to an interruptible water supply agreement with the MMWD. The system-wide improvement alternative with MMWD annexation would cost an estimated \$396,000 (the difference is attributable to the larger storage tank requirement), and would provide a guaranteed long-term water supply.

These cost estimates (1989 dollars) include new storage tank and pump, distribution mains, hydrants, and related engineering and contingency costs. They do not include the individual hydropneumatic water pressure improvement systems which may still be required for some homes at higher elevations along the ridge.

f. Impact Conclusion. The EIR concludes that, although the project-proposed improvements to the existing water system would provide water pressure levels to the project which exceed levels at existing Wolfback Ridge residential areas, the project would nevertheless be adding 12 more connections to an existing system which: (a) is supplied through an unreliable, interruptible source agreement, and (b) includes a storage and distribution system which does not meet normal minimum water pressure standards for fire fighting.

g. Mitigation. The EIR recommends initiation of proceedings for annexation of the Wolfback Ridge Water System to the MMWD, formation of an improvement district to upgrade the system to District standards, and completion of a system-wide upgrade and extension to serve the project. The recommended upgrades include replacement of the existing three 10,000-gallon tanks with one 50,000-gallon tank, installation of a new supply pump, installation of a new system of eight- and six-inch water mains, and installation of individual, hydropneumatic water pressure improvement systems for homes located less than 70 feet from the top of the tank. If sufficient room for the 50,000-gallon tank cannot be acquired at the present tank site, then the applicant must find an acceptable tank site at another location (e.g., an easement might be secured for a site in the GGNRA). These water system mitigations should be made as a condition of approval and should be required to be completed prior to occupancy of project homes.

## 2. Sewer

The existing Sausalito municipal sewer system does not extend across the freeway to serve Wolfback Ridge. All existing homes on Wolfback Ridge, including the existing duplex on the project site, use individual, onsite septic tank and drainfield systems.

a. Proposed Project Sewer System. The applicant proposes use of similar individual, onsite septic tank and drainfield systems for the 13 project homesites. Nine of the drainfields would be on nine of the 13 residential lots; four of the drainfields would be located on separate parcels within the project boundary removed from the actual residential lot.

Seven of the drainfields would be located on the oceanside sideslopes west of Wolfback Ridge Road. Six of these oceanside drainfields, including the four remote drainfields, would be in an existing "bowl area" and eucalyptus grove, and thus, would require excavation by hand. These six drainfields would also be located on steep terrain, hindering maintenance access. The proposed drainfield concentration here could also cause oversaturation of hillside soils. Since the proposed size of these oceanside drainfield trenches is slightly smaller than what the County Health Department normally requires for a typical 3-bedroom home, County Board of Health and Regional Water Quality Control Board (RWQCB) approval of a variance from county health regulations would be required.

Five of the drainfields would be located on the ridgetop. One of the ridgetop drainfields would be located beneath a proposed driveway easement, possibly leading to overcompaction of underlying soils and resultant failure of the drainfield. Four would use imported soil placed in excavated pits in order to achieve adequate percolation rates. The seventh oceanside drainfield would also feature this imported soil approach. These imported soil drainfield designs would also require a County Board of Health and RWQCB-approved variance from county health regulations. In total, 12 of the 13 project drainfields would require variances.

A conventional trench drainfield is proposed to serve lot 13 on the bayside of the site. However, the steep slopes here would warrant special engineering consideration to prevent transport of septic system drainage into nearby groundwater.

b. Possible Sewer System Alternative. The other sewer system option for the site is extension of the city's municipal system across the freeway and up to Wolfback Ridge. In addition to the necessary trunk line extension, this option would require construction of a pumping station on the project site to pump wastewater to the end of the gravity portion of the system.

*Cost Comparison.* The proposed onsite sewage disposal system is expected to cost between \$15,000 (oceanside area) and \$22,000 (ridgetop area) per lot. Municipal sewer extension would cost from \$31,000 to \$41,000 per lot. Conceivably (if adequate interest is there), the system might be expanded to serve the entire ridge, resulting in a lower per-unit cost.

c. Sewer System Mitigations. The following mitigations are suggested to minimize the project's potential impact.

- (1) Project approval must be contingent upon County Health Department approval of the proposed onsite wastewater disposal system design, including all variances; and Regional Water Quality Control Board approval of all necessary variances.
- (2) Design precautions should be included in the proposed oceanside drainfields to ensure that wastewater does not resurface a short distance downslope.
- (3) The potential for oversaturation of the soil in the oceanside "bowl area" should be considered in the design of the proposed drainfields. The trenches should be sited and constructed to ensure long-term, maintenance-free operation.
- (4) Drainfield excavation and construction in the oceanside "bowl area" should be done by hand to minimize impact on the existing eucalyptus grove.
- (5) The proposed drainfield for lot 7 should not be located under the proposed access easement for lot 5 (vehicular traffic could cause overcompaction).
- (6) The suitability of the proposed drainfield for lot 12 should be more fully demonstrated by the project engineer.
- (7) Permanent easements should be recorded for the effluent line that would connect each remote drainfield to its residential lot and septic tank.
- (8) Drainfields should be sited in garden or landscaping areas whenever possible to maximize absorption of effluent by plants.
- (9) Although this EIR indicates that with the mitigation measures listed above, the proposed septic system approach could be implemented without significant environmental impacts, and that proposed onsite disposal method is less expensive than extension of the municipal sewer system, the municipal sewer option is the preferred environmental alternative. In that light, extension of municipal sewer to serve the project may merit more detailed investigation beyond the scope of this EIR.

### 3. Storm Drainage

a. Existing Drainage Characteristics. The existing Wolfback Ridge residential area, including the project site, has no well-defined, concentrated drainage pattern. Stormwater flows down the sides of the ridge with few points of concentration. This natural drainage situation is utilized to drain existing homesites and roads on the ridge. For the most part, no curb-and-gutter or common, subsurface drainage features are provided in the existing residential area. The runoff from the eastern side of the ridge is eventually collected in existing surface gutters along the southbound side of Highway 101 where it flows into the city's Main Street drainage line to the Bay. Runoff from the western side of the ridge flows down the natural hillsides eventually to an intermittent stream in Rodeo Valley, which flows into Rodeo Lagoon and the ocean.

b. Project Storm Drainage Impacts. The proposed extension of Wolfback Ridge Road is shown in project plans as crowned away from the hillside. The drainage from the access road would sheet flow off the road onto the existing slopes. Drainage from roads and other project areas would follow existing drainage patterns; i.e., would flow down the two sides of the ridge. Construction of the project would result in an insignificant increase (0.3 percent) in the runoff into the Main Street drainage basin (east of the site), and an even smaller increase in drainage runoff (.05 percent) into the much larger Rodeo Valley drainage basin.

In terms of minor onsite drainage implications, there is the potential for drainage problems in the garages and around the foundations of the homesites proposed for the oceanside slope below the Wolfback Ridge Road extension. Some of these homes may be in the path of the sheet drainage flow (especially on lot 9). Additional problems could occur where the access road to lots 1, 2, 3, and 4 drains down the bayside slope in a concentrated flow, presenting possible erosion problems.

c. Storm Drainage Mitigations. The following mitigation measures have been recommended to minimize the potential for erosion and to prevent minor localized flooding of the proposed homesites:

- (1) Wolfback Ridge Road should be constructed so that runoff flows away from the driveways and garages of lots 3, 9, 11, and 12, but the road design should avoid significant channelization.
- (2) The proposed roadway should be designed to evenly distribute runoff from the access driveways for lots 1 and 4, and for lots 5, 6, 7, 8, and 10, to prevent erosion-producing runoff channelization, especially onto lots 3 and 9.
- (3) The road design for Wolfback Terrace should also crown away from the hillside to prevent concentrated, erosion-inducing flows.

- (4) The long-term stability of the steep road cuts above Wolfback Terrace and Wolfback Ridge Road, where natural topography may concentrate runoff flows, should be demonstrated by the project engineer.
- (5) Roof leaders from the proposed homes should be placed so that stormwater is evenly distributed and not channelized into erosion-inducing concentrations.
- (6) As routinely required by the city, a project construction period erosion and sedimentation plan should be prepared and should include:
  - Restrictions on disturbances of vegetative areas until actual construction of site improvements is ready to commence.
  - Provisions for revegetation of disturbed areas.
  - Provisions for the direction of runoff away from disturbed areas.
  - Provisions for inclusion of sedimentation basins in the project design.

## E. EMERGENCY SERVICES

### 1. Fire Protection Services

a. Impacts. The primary concern relating to fire protection is the substandard water pressure and fire storage that would be available on the ridge, even after the proposed water system improvements were completed.

The introduction of 11 additional homes on the site, and associated human activity, would increase the likelihood of fires on the site. On the other hand, construction of the project would provide increased water storage, increased water pressure, and an improved water distribution system on the site. The project would also provide improved access to most locations on the site. However, the sharp turn in Wolfback Terrace could be a problem for Fire Department vehicles trying to reach lot 13.

b. Mitigations. The following measures are recommended to mitigate potential fire protection impacts:

- (1) The water system should be improved to be capable of providing a fire flow of 1,000 gallons-per-minute at project hydrants, and 20 pounds per-square-inch of residual pressure in the main per the recommendation of the Fire Chief.
- (2) Automatic sprinkler systems should be required in all project homes and garages.

(3) Access to proposed lot 13 should be subject to the approval of the Sausalito Fire Department.

## 2. Police Protection

a. Impacts. The 13 proposed homes on the site (11 new dwelling units) would increase the number of people on Wolfback Ridge exposed to the risks of relatively slow emergency response time associated with the circuitous, single-road access to the ridge. The project would not present any other extraordinary or significant police protection impacts.

b. Mitigation. The relatively slow emergency response time to the project would be an unavoidable impact. (No feasible secondary access route to the area is available.)

## F. NOISE

### 1. Impacts

The west-facing interior walls of the proposed homes on lots 1, 5, 7, and 13 would be exposed to excessive highway noise levels.

Construction period noise from heavy equipment would primarily affect the Deaton and Butz residences. Construction period traffic noise could also affect other residences along Wolfback Ridge Road.

### 2. Mitigations

(a) Outdoor living spaces should be designed to be shielded from Highway 101 through the use of courtyards and/or sound walls, or by locating these areas on the west side of the homes on lots 1, 5, 7, and 13. These four homes should also be designed to include sufficient noise insulation to maintain average indoor 24-hour noise levels at or below 45 dBA.

(b) Construction period noise should be controlled by restricting truck traffic to between 8:00 AM and 5:00 PM on weekdays; by muffling and maintaining internal combustion engine-powered equipment; by locating noise-generating equipment away from existing homes; and by using the quietest construction equipment available.

## G. GEOLOGY AND SOILS

### 1. Impacts

a. Project Layout. Five lots would be located on existing flat, graded areas on the ridgetop. One would be located on the knoll at the northwest end of the project site. Seven homesites would be located on steep slopes--four on the oceanside slope and three on the bayside slope (including lot 13, which would be located at the southwest end of Wolfback Terrace).

b. Foundation Impacts. Homesites on the graded ridgetops appear to be suitable for conventional foundation designs. Homesites indicated on ridgecrest and hillside lots 1, 3, 7, 9, 11, 12, and 13 would require special foundation designs such as drilled pier and/or grade beam foundations. Lot-specific borings and design work would be routinely required by the city as part of subsequent building permit application procedures to develop more detailed foundation engineering specifications for these sites.

c. Road Grading Impacts. The existing Wolfback Ridge Road extension would require a 30 to 50 percent widening to accommodate the proposed road width. This widening would require additional under-cutting of the slope above the road and/or buildup of additional fill on the slope below the road, creating steeper slopes than currently exist. The widening would probably require the removal of one of the two rows of existing cypress trees along the west side of the road. Regrading of the existing roadway would also be required to crown the road away from the hillside as proposed to facilitate drainage. The creation of steeper slopes, the removal of slope-stabilizing vegetation, and the introduction of the several hillside septic fields, could all contribute to slope instability on the oceanside slope.

The site itself does not possess any specific unusual vulnerabilities which would contribute to seismically-induced damage to residential structures. However, regional seismic conditions merit the inclusion of special design precautions. Earthquake-induced hillside landslides are the greatest seismic threat to the project site.

### 2. Mitigation

There are no geotechnical constraints which would prevent normal, safe development of the project if accepted foundation engineering practices were used in the design and construction of the proposed roadways and homes. The following mitigation measures are recommended for inclusion as conditions of PUD approval:

(a) Site-specific geotechnical investigation routinely required by the city as part of the building permit application process should identify roadway and foundation design specifications necessary to prevent hillside ground failure.

(b) The design of Wolfback Ridge Road and Wolfback Terrace should incorporate measures to ensure the long-term stabilization of related embankments (e.g., retaining walls).

(c) All disturbed slopes should be planted, mulched, and/or hydroseeded immediately after construction, and should be maintained by the developer until fully vegetated.

(d) Areas to be disturbed by grading should be confined as closely as possible to building footprints and roadway alignments.

(e) An erosion control plan for the project should be implemented (as routinely required by the city).

## H. VEGETATION AND WILDLIFE

### 1. Impacts

Given the limited vegetation and wildlife values identified on the project site, construction of the project as proposed would have little biological impact. Since the site currently provides little foraging or nesting habitat, no significant wildlife resources would be lost due to the development. Those animals which do use the site could find foraging resources and cover in the adjacent GGNRA. Although some existing non-native landscaping would be removed to accommodate homesites and road widenings, this removal would not result in a significant biological impact.

No sensitive habitats or plant communities would be affected by the project, nor would any specific sensitive plant species be affected.

### 2. Mitigations

In order to minimize the limited project impacts on biotic resources, the following mitigation measures are recommended for incorporation into conditions of project approval:

(a) A tree removal plan should be prepared and submitted to the Planning Department for review and approval prior to approval of the Final Map. The plan should ensure preservation of mature woody vegetation, particularly on the east-facing slope.

(b) A landscaping plan should be designed and implemented, subject to the approval of the Design Review Board prior to approval of the Final Map. This plan should call for the use of native plants.

(c) All non-building areas should be designated on the PUD plan and should be managed as open space. This should include restrictions on the planting of ornamentals, use of pesticides, and general human use.

(d) Individual homeowners should be encouraged to use native plants for individual landscaping.

## I. ARCHAEOLOGY

### 1. Impacts

Grading required for project home foundations, road widenings, the undergrounding of utilities, and the installation of septic systems could disrupt currently unidentified archaeological sites.

### 2. Mitigation

If cultural resources are encountered during project construction, alteration of the materials and their surrounding area should be halted until evaluated by a cultural resource professional, and prescribed mitigation measures should be undertaken prior to resumption of construction activities.

## J. ALTERNATIVES TO THE PROPOSED PROJECT

Section V of the EIR analyzed several alternatives to the proposed project. The following summarizes the mitigating and adverse factors of each alternative included in the EIR.

### 1. No Project Alternative ("Alternative A")

This alternative would involve the retention of existing site characteristics and would eliminate or postpone the open space losses and visual impacts associated with the proposed project. It would also eliminate vehicular access and the need to improve the existing water system and the need for additional septic systems on the site. It would also prevent the introduction of additional homes exposed to freeway noise intrusion on the site.

### 2. Mitigated 13-Unit Development ("Alternative B")

This alternative would confine the residential lots on the ridgetop only (i.e., would avoid hillside lots) and would incorporate several other onsite and offsite mitigation measures from this EIR (road and parking improvements, water system improvements, septic system

refinements, and noise protection measures).

This alternative would reduce project visual impacts on GGNRA and Golden Gate Bridge vantage points. The offstreet parking provisions of this alternative would reduce the likelihood of emergency access problems. Water service would be improved to MMWD standards. Sewage disposal concerns related to overcompaction and oversaturation would be mitigated.

On the other hand, this alternative would require increased grading to accommodate the more compact development on the ridgetop. The more intensive ridgetop clustering would also result in increased obstruction of views from some of the project homes. More leachfields would have to be concentrated on the west-facing slope, increasing the risk of soil oversaturation in this area. This alternative would also increase the number of units requiring mitigation measures to combat excessive freeway noise.

### 3. Reduced Density 8-Unit Development Concept ("Alternative C")

This third alternative would eliminate lot 13 and the four lots on the west-facing slope--3, 9, 11, and 12--from the development plan.

These project modifications would reduce the visual impacts of the project on south Sausalito, GGNRA, and Golden Gate Bridge vantage points. They would also reduce the amount of traffic generated by the project, and would reduce the number of remote septic systems required and therefore, reduce the risk of oversaturation on the west-facing slope. The scheme would also eliminate lot 13, the lot most impacted by freeway noise, and most likely to cause construction period noise impacts on the existing Deaton and Butz residences.

This alternative would not result in any additional adverse factors related to land use, visual, traffic, water, sewage, or noise concerns.

### 4. Increased Density 16-Unit Development ("Alternative D")

This fourth alternative assumes that the 7.8-acre project site would be developed to the maximum density allowed under the current general plan designation (Low Density Residential = 20,000 square feet of land per unit). In addition, this alternative would also connect the site to the city's municipal sewer system, and would provide for open space preservation of the west-facing slope by creating smaller lots on the ridgetop.

This scheme would reduce project visual impacts on GGNRA and Golden Gate Bridge vantage points by maintaining the west-facing slope in open space. It would also eliminate the onstreet parking problems associated with the four proposed lots on the west-facing slopes, and would eliminate the need for septic systems and associated variances from

county health regulations.

On the other hand, this alternative would increase the need for grading and tree removal on the site. The smaller lot sizes on the ridgetop and east-facing slope would result in a "clustered" residential character different from other residential development on the ridge. This alternative could have greater visual impacts on views from south Sausalito and could result in more obstruction of views from within the project due to the tighter clustering of project homes. Offstreet parking opportunities would be reduced; the number of residences added to an interruptible existing water source would be increased; the city's municipal sewer system would have to be expanded at developer expense; and the number of units exposed to excessive freeway noise levels could be increased.

#### 5. Increased Density 20-Unit Development Concept ("Alternative E")

If it is determined that approval of a project site PUD will require an upgrading of the Wolfback Ridge water system and extension of city sewer across to the freeway to serve the ridgetop site, then the applicant may request a substantial increase in development intensity in order to increase the feasibility of the water and sewer system costs. Specifically, this fifth alternative assumes a general plan amendment and rezoning request to allow a density similar to Sausalito hillside neighborhoods on the opposite side of the freeway; i.e., 2.6 units per acre. The layout of this alternative would be similar to the "Alternative D" layout, except that the four lots on the west-facing slopes would also be developed rather than transferred to the GGNRA. With these assumed changes, a 20-unit cluster-residential development has been illustrated for comparative impact evaluation.

Similar to "Alternative D," this sewerred 20-unit scheme would eliminate the need for septic systems requiring variances from county health regulations and associated impacts on the stability of the west-facing slopes and on the eucalyptus grove at that location.

On the other hand, this alternative would increase the extent of grading and tree removal on the site, and would result in smaller lot sizes on the ridgetop which would be different in character from existing residential development on the ridge. These characteristics would result in greater impacts on south Sausalito, GGNRA, and Golden Gate Bridge vantage points, and would increase onsite view obstruction due to the tighter clustering of project homes. The small lot sizes would also limit offstreet parking opportunities, and the number of homes exposed to excessive freeway noise would increase.

#### 6. Alternative Sites

Recent court decisions have determined that such project-specific EIRs should include an examination of alternative site locations for the proposed project. In that light, this EIR identifies and evaluates the following two alternative southern Marin location possibilities for development of a 13-unit with similar amenities.

*(a) Alternative Site 1 (Sky Road--City of Tiburon Sphere-of-Influence)*

This site alternative would eliminate project visual impacts on the GGNRA, Sausalito, and the Golden Gate Bridge, and would also prevent additional homes from receiving substandard water service and from being located in a substandard noise environment. On the other hand, this alternative would have visual impacts on vantage points along Tiburon Boulevard and within surrounding residential neighborhoods, and could have growth-inducing impacts on adjacent lands.

*(b) Alternative Site 2 (Tennessee Valley Road--Tamalpais Valley)*

This alternative would also eliminate project visual impacts on views from Sausalito, the Golden Gate Bridge, and the GGNRA, and would reduce concerns relating to the interruptible ridgetop water supply. On the other hand, this alternative would have significant visual impacts on existing surrounding residential neighborhoods and other vantage points.

7. Alternative Conclusion

In response to CEQA guidelines calling for identification of the "environmentally superior" alternative, this EIR ranks the various project alternatives from "highest environmental ranking" to "lowest environmental ranking" in the following order: Alternative Site 1, the Reduced Density (8 Unit) Development concept, Alternative Site 2, the Mitigated (13 Unit) Development Concept, the Increased Density (16 Unit) Development Concept, the Proposed Project, and the Increased Density (20 Unit) Development Concept.

---

### III. PROJECT DESCRIPTION

---

#### A. EXISTING SETTING

This EIR chapter includes a description of the proposed project, including its location, existing site characteristics, basic objectives sought by the applicants, project design features, and required jurisdictional approvals.

##### 1. Regional Location

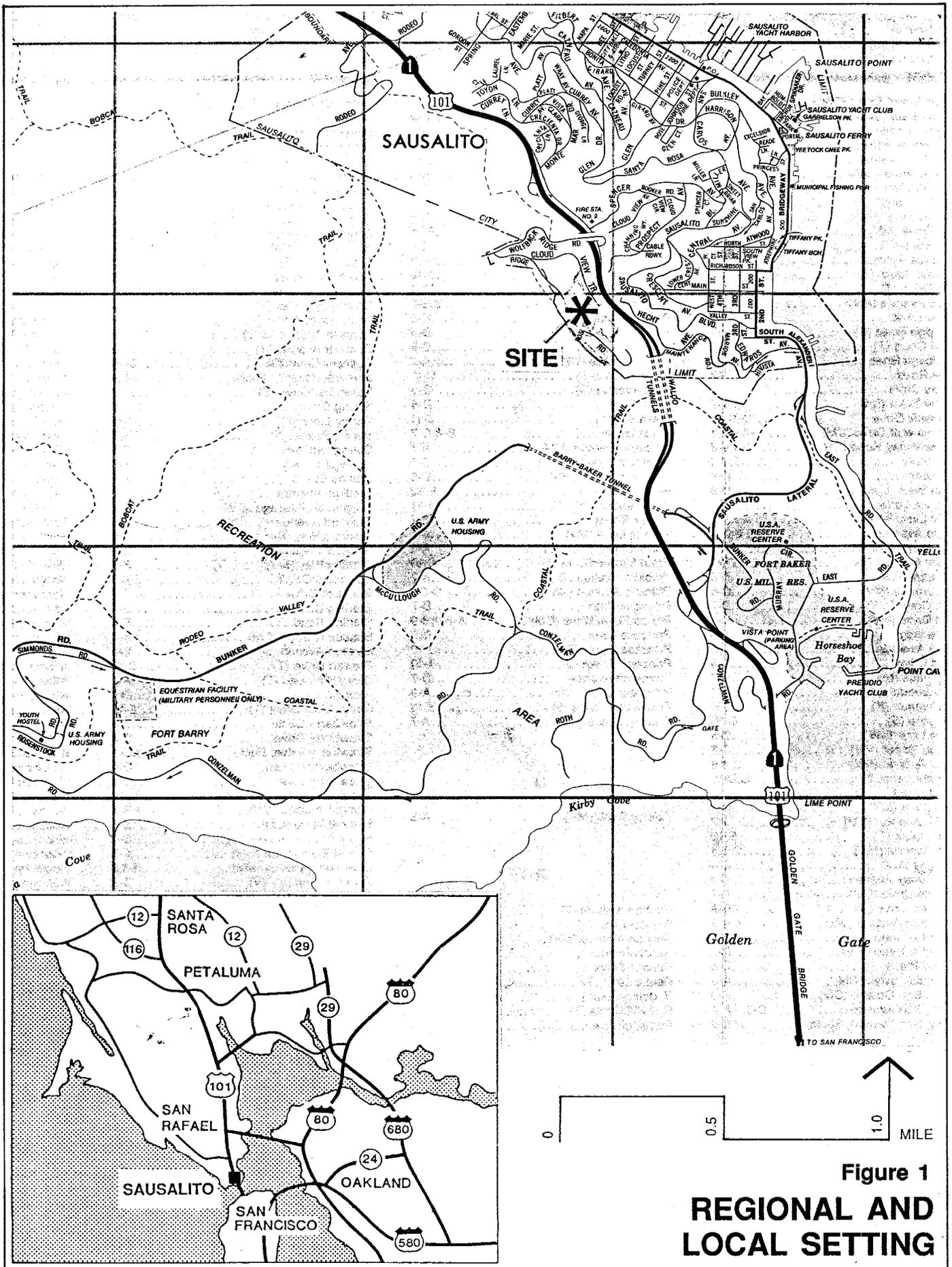
The project is located along the southwestern edge of the city of Sausalito. As illustrated by Figure 1, Sausalito is located in southeastern Marin County. Regional access to the project site is provided by Highway 101 via the Spencer Avenue interchange, approximately two miles north of the Golden Gate Bridge. The Marin County communities of Marin City, Corte Madera, and San Rafael are located to the north on Highway 101. San Francisco is located approximately five miles to the south across the Golden Gate Bridge. As illustrated by Figure 2, the site is located on top of Wolfback Ridge, the uppermost local ridge between the Pacific Ocean and the Richardson and San Francisco bays.

##### 2. Local Setting

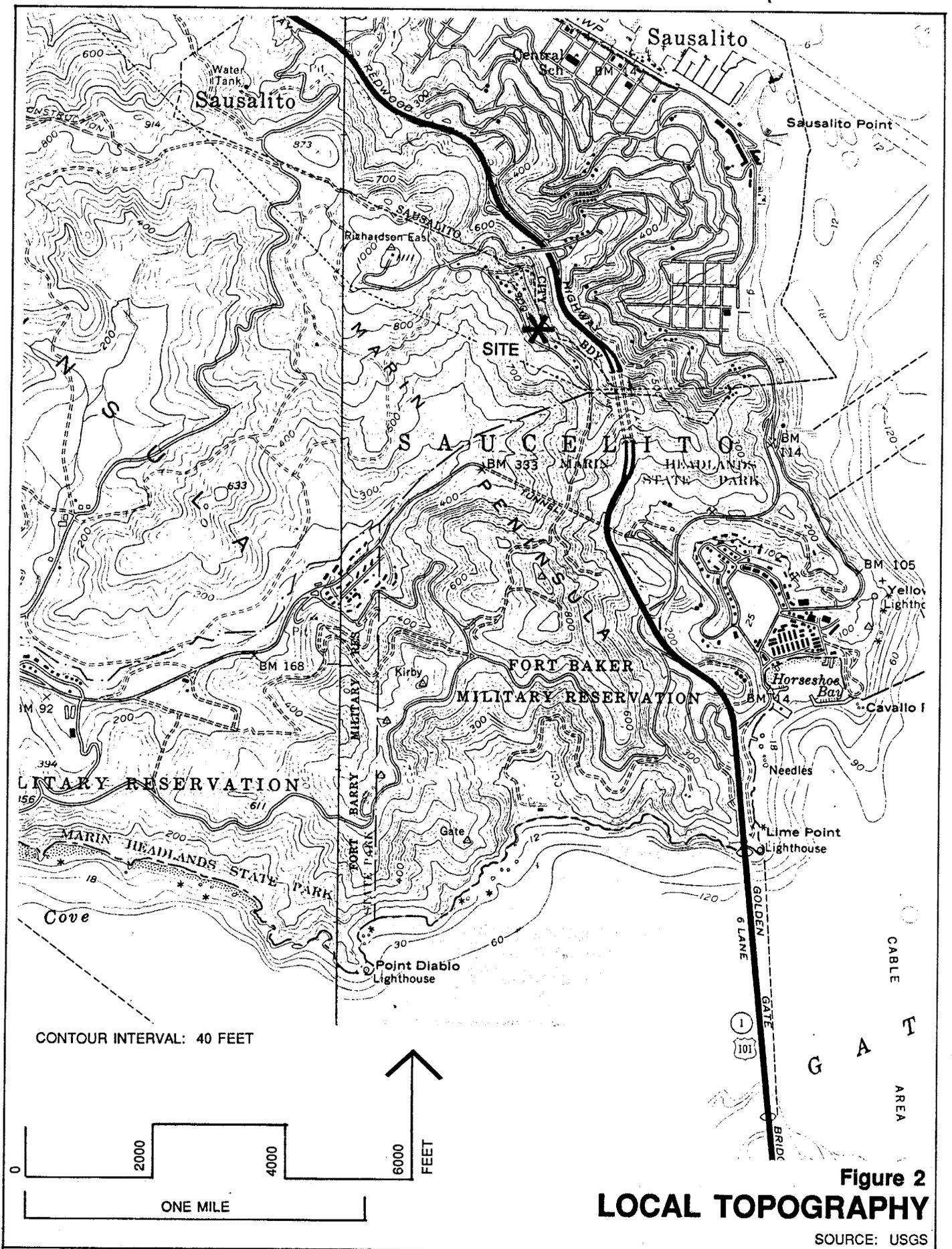
As shown on Figure 3, the project site is approximately one half mile west of the Highway 101/Spencer Avenue interchange northbound offramp. It is also approximately one mile southwest of the Highway 101/Monte Mar Drive interchange northbound offramp via a frontage road along the west side of the freeway.

As illustrated by Figure 3, the site adjoins the southwestern edge of the Sausalito city boundary and is bordered to the west by the Golden Gate National Recreation Area (GGNRA). The southern property line of the project site encloses three residential lots. Figure 4 shows that two of these lots contain existing single-family structures (the Deaton and Butz residences), and one remains vacant. To the north are 32 existing Wolfback Ridge residences on Wolfback Ridge Road, Cloud View Terrace, and Wolfback Terrace. Another single-family home, the Warren residence, is located on an adjacent hillside parcel to the east above the northern end of the Waldo Tunnel.

The southbound travel lane of Highway 101 is located approximately 130 to 310 feet away from, and 220 feet below, the eastern property line of the site.

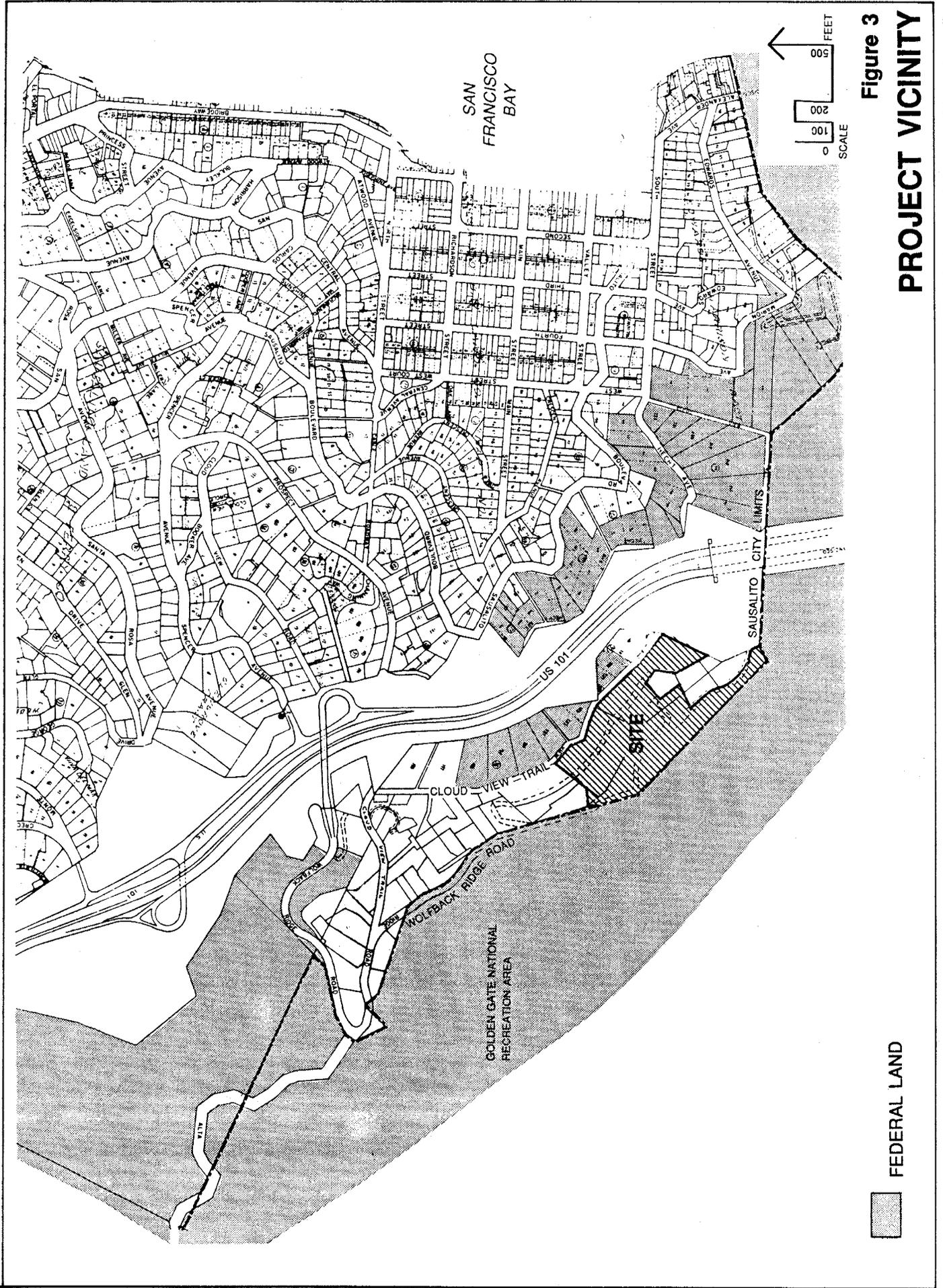


**Figure 1**  
**REGIONAL AND**  
**LOCAL SETTING**



**Figure 2**  
**LOCAL TOPOGRAPHY**

SOURCE: USGS



**Figure 3**  
**PROJECT VICINITY**

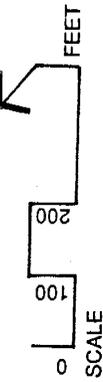


Figure 4

# AERIAL PHOTOGRAPH OF PROJECT SITE AND ENVIRONS

SOURCE: Calthorpe Associates, Architecture and Planning

Wolfback Estates EIR City of Sausalito

### 3. Project Site Characteristics

Existing project site characteristics are illustrated by Figures 4, 5, and 6. Site topographic features include steep hillsides rising from east and west, forming a north-south oriented ridge. The ridgetop has been excavated to create flat, terraced areas totaling approximately one acre. The excavation is approximately 30 years old. The ridge is one of the highest points in the area and provides spectacular panoramic views of Sausalito, Richardson Bay, Tiburon, Belvedere, Angel Island, San Francisco Bay, the East Bay, San Francisco, the Golden Gate Bridge, the Marin Headlands, Rodeo Valley, Fort Barry, the Pacific Ocean, and the Farallon Islands.

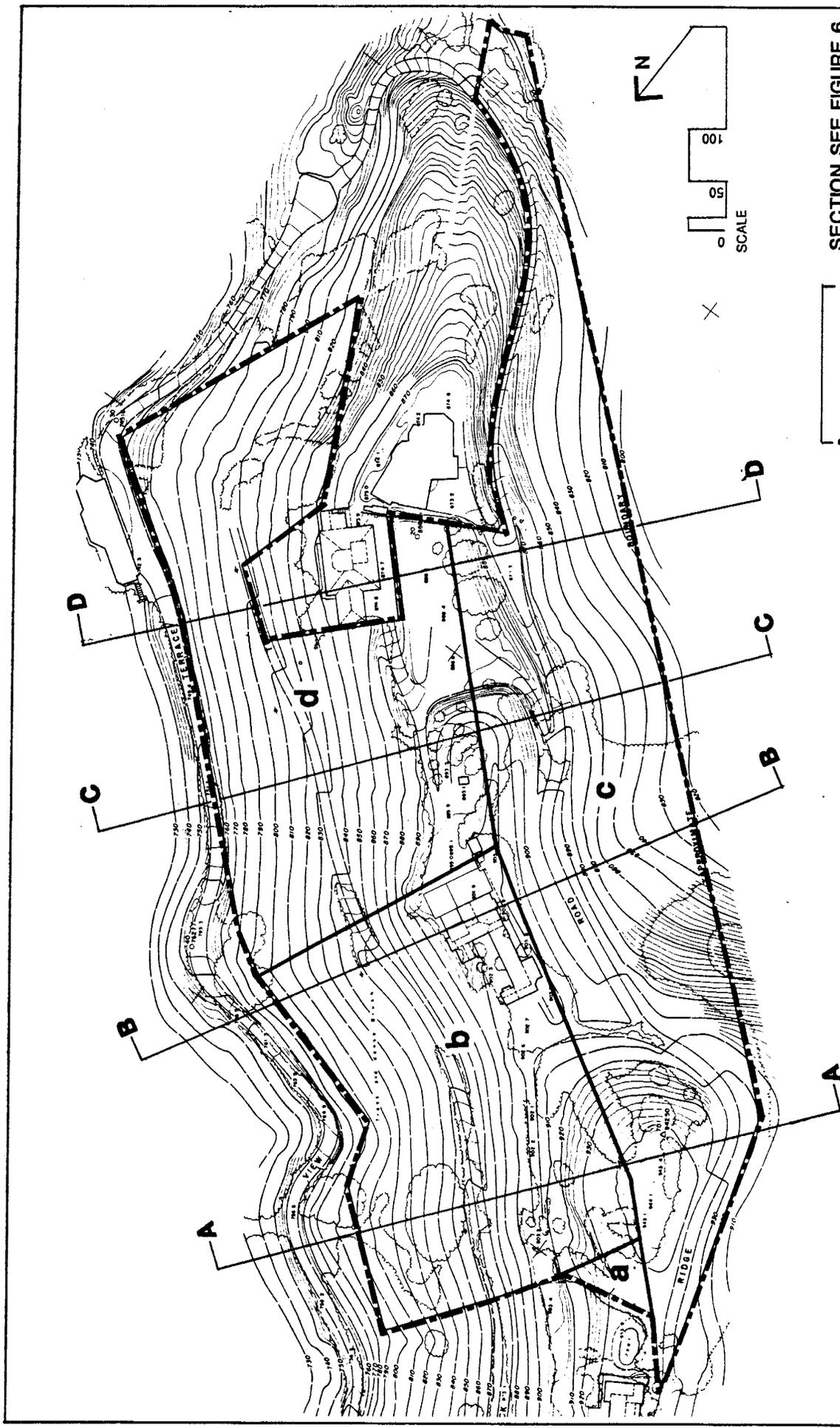
The site currently contains one two-family dwelling. The remainder of the plateau area contains the additional excavated pad areas atop the plateau, and a surrounding access drive (unpaved). These site modifications are surrounded by undeveloped hillside grassland, dense brush, and woodland.

Elevations on the site range from 760 at the eastern property line to 942 at the site's high point near the northwestern corner of the property. The western edge of the property begins at the 800-foot contour. The site's ridgeline slopes downward from the 942-foot high point to an elevation of approximately 850 feet at the southwest end.

Typical site cross-sections are illustrated on Figure 6. While the ridgetop is relatively flat, the slopes on both the east and west sides of the ridge are steep, in some areas exceeding 70 percent. The site is traversed by a dirt and gravel extension of Wolfback Ridge Road along the western side of the ridgetop. The site is also traversed by a 10-foot-wide dirt road, known as Wolfback Terrace, which has been cut into the east-facing slope along a 20-foot-wide access easement (see Figure 5). The route extends from the northeastern to the southern end of the site, and is also known as Melody Way.

The ridgetop area contains the existing residential structure and has been significantly disturbed by past grading, landscaping, yard improvements, and other human activity. The east- and west-facing slopes remain in a more natural state, although substantial grading has occurred in the past on the east slope to extend the Wolfback Terrace roadbed.

Existing vegetative patterns are also shown on Figures 4 and 5. Vegetation includes rocky grassland, dense brush (coastal scrub and coyote brush), and woodland areas containing eucalyptus, cypress, firs, oaks, madrone, and redwoods. The woodland areas are concentrated on the upper elevations of the ridge. The brush and grassland areas cover the lower elevations of the ridge and the steeper, east- and west-facing slopes. (The Vegetation and Wildlife chapter of this EIR describes these vegetative features in more detail.)



Key Assessor's Parcel Number (See Table 1)

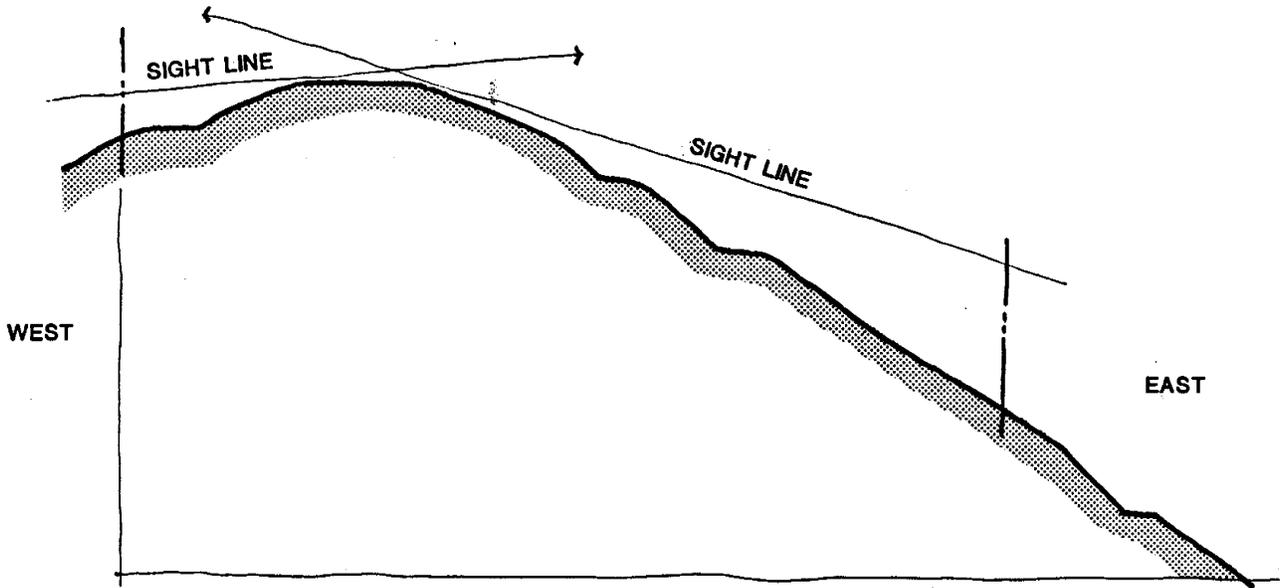
- a** 200-240-13
- b** 200-240-14
- c** 200-130-10
- d** 200-130-33

SECTION SEE FIGURE 6

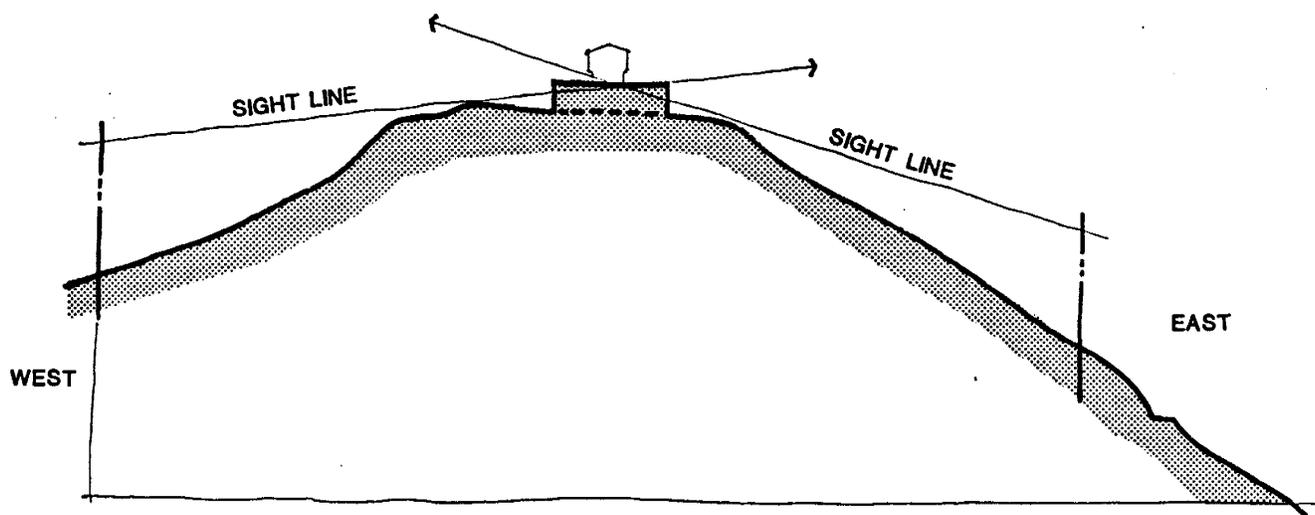
# Figure 5 PROJECT TOPOGRAPHY AND PARCELIZATION

SOURCE: Anrig-Doyle, Land Surveyors

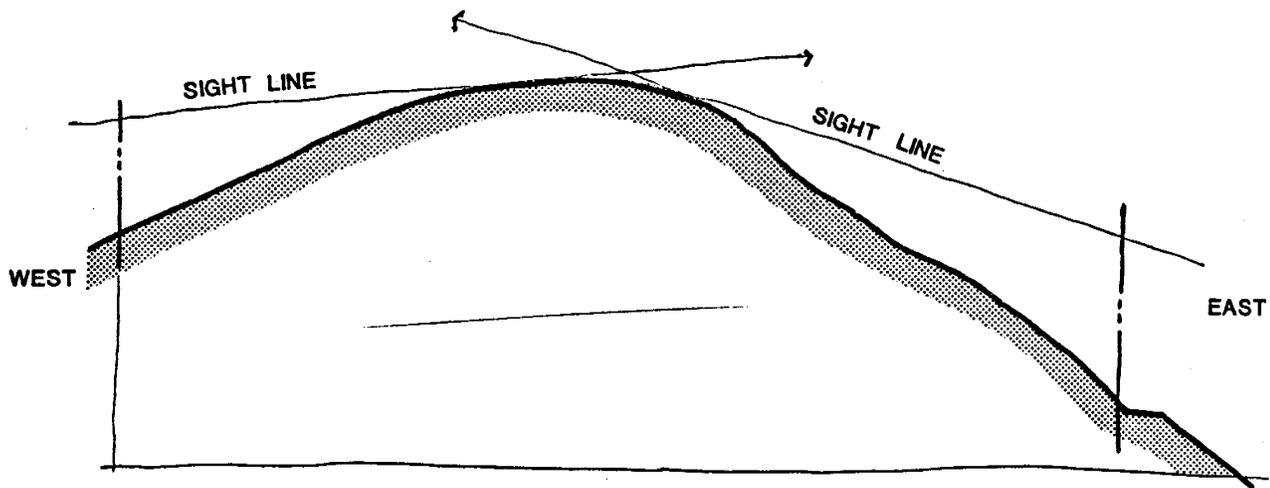
Wolfback Estates EIR City of Sausalito



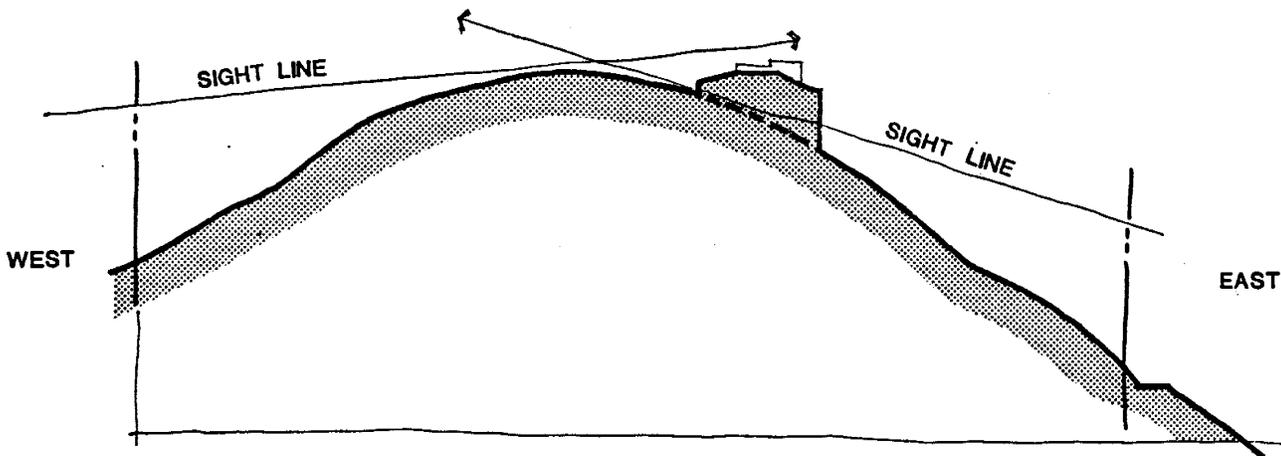
**SECTION A-A**



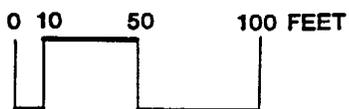
**SECTION B-B**



**SECTION C-C**



**SECTION D-D**



**Figure 6**  
**PROJECT SITE CROSS-SECTIONS**  
 SEE FIGURE 5 FOR CROSS-SECTION LOCATIONS

Soils on the site include loam and clay loam containing small rock fragments. (The Soils and Geology section of this report describes these soil and other geotechnical characteristics in more detail.)

#### 4. Existing Parcelization

The project site is comprised of four different parcels, ranging in size from .05 acres to 2.48 acres. The configuration of these parcels is shown on Figure 5.

### B. APPLICANTS' OBJECTIVE'S AND DEVELOPMENT PROGRAM

#### 1. Overall Development Concept

The applicants/owners have submitted an application to the city of Sausalito for approval of a proposed Tentative Map and a Conditional Use Permit to allow a Planned Unit Development. The applicants' Tentative Map and illustrated PUD site plan are shown on Figures 7 and 8, respectively. As shown on Figure 7, the applicants intend to create a residential development comprised of 13 homes. All of the homes would be custom designed. Most would be constructed by the developer. Some may be constructed on a selective basis by the purchasers.

Since the city's municipal sewerage system does not extend across the highway, all existing Wolfback Ridge homes have individual, onsite sewage disposal systems (septic systems). The proposed Tentative Map (Figure 8) indicates a similar septic system for the project.

The applicants' architect states that the development has been designed to take advantage of the flatter and more stable building sites on the ridgeline, to avoid development of the highly visible, east-facing slopes, and to reflect the site's septic system limitations. Although current Sausalito General Plan and zoning provisions could conceivably permit up to 16 homes on the 7.48 acre site, the applicants' architects and engineers have determined that onsite sewage disposal constraints effectively limit the site's development capacity to 13 units.

Individual home sales prices are expected to exceed one million dollars.

#### 2. Applications

a. Tentative Map. Area takeoffs from the proposed Tentative Map are listed in Table 2. The table indicates that the Tentative Map (Figure 8) would divide the project site into 13 residential lots ranging in size from 7,200 square feet (0.17 acres) to 31,688 square feet (0.71 acres), and one 76,552-square-foot (1.76-acre) common open space area. The subdivision would also create four additional lots--S-4, S-6, S-8, and S-11--ranging in size

from 2,000 to 7,750 square feet to accommodate septic systems for proposed lots 4, 6, 8, and 11. In addition, approximately 22,651 square feet (6.65 percent of the site) would be allocated to common roadway rights-of-way.

**b. Conditional Use Permit.** The requested Conditional Use Permit would allow for the creation of a Planned Unit Development as allowed for in the city of Sausalito Municipal Code, Title 10, Zoning. The city's Planned Unit Development (PUD) zoning designation allows a subdivision to contain lots smaller than those required by the underlying zoning in exchange for onsite amenities such as common open space. The right to develop a property in this fashion can be granted by the Planning Commission if the proposed development is determined to meet the requirements of section 10.111 of the zoning code.

### **3. Development Plan Layout**

**a. Vehicular Access.** The proposed project access road layout is shown on Figure 7. Twelve of the proposed 13 new lots would be served by an 880-foot extension of Wolfback Ridge Road. The existing narrow, unpaved alignment of this route through the project site would be widened to provide a continuous 18-foot-wide pavement width (asphalt), sloped to drain to the downhill side. One lot, #13, would be served by Wolfback Terrace. The existing Wolfback Terrace roadbed would be scraped and paved to provide a continuous 12-foot-wide pavement width. No curbs, gutters, or sidewalks would be provided along either access route.

**b. Residential Layout.** Eight of the proposed 13 lots would be located on the ridgetop plateau area east of the extension of Wolfback Ridge Road (lots 1, 2, 4, 5, 6, 7, 8, and 10). These ridgetop lots would range in size from approximately 7,200 to 21,792 square feet. Six of these ridgetop homesites would be located on relatively flat topography at base elevations ranging from approximately 880 to 944 feet. Homesites for proposed ridgetop lots 1 and 7, however, would be located on the east-facing slopes of the ridge on slopes that exceed 70 percent in some areas. Driveways for all of these ridgetop lots, with the exception of lot 2, would connect to two short dead end road stubs extending northwest from the primary project road. The driveway for lot 2 would be accessed directly from the primary project road.

The house to be constructed on lot 4 would retain the tower portion of the existing residential structure on the site within its design. The house to be constructed on lot 5 would retain other portions of the existing residential structure.

The hillside portion of the site located to the west (GGNRA side) of the Wolfback Ridge Road extension would be subdivided to create four residential lots--lots 3, 9, 11, and 12--ranging in size from 9,320 to 19,496 square feet. This area would also contain four additional non-residential lots set aside to accommodate the leach fields for residential lots 4, 6, 8, and 11. The applicants' engineer has determined that these four residential lots do



Table 2  
TENTATIVE MAP AREA BREAKDOWN (SQUARE FEET)

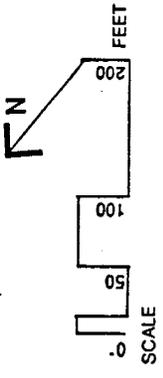
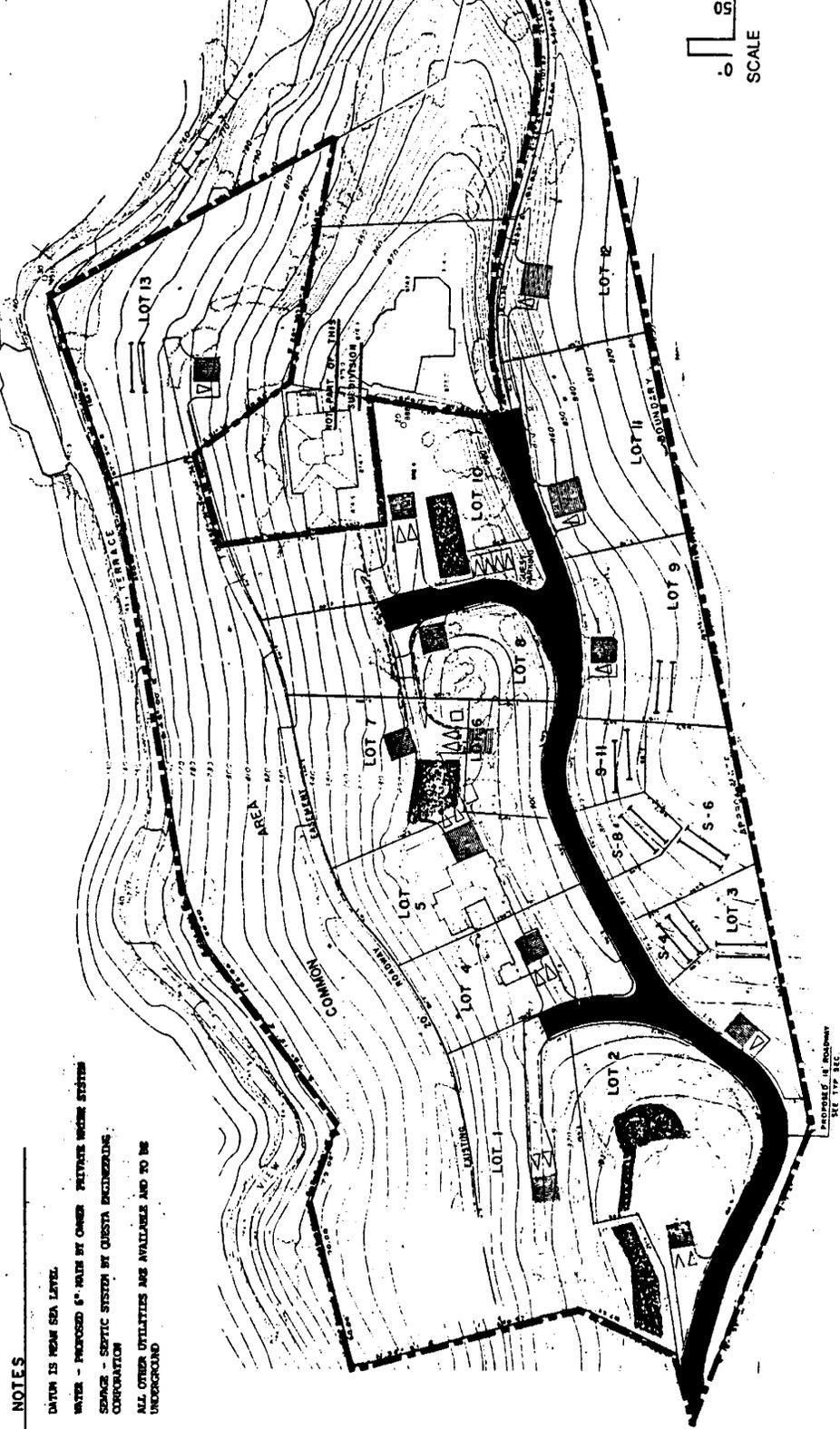
<u>Lot No.</u> <u>(See Fig. 8)</u>	<u>Residential</u> <u>Lots</u>	<u>Driveway</u> <u>Easements</u> <sup>1</sup>	<u>Sewage</u> <u>Disposal</u> <u>Areas</u> <sup>2</sup>	<u>Total</u>
1	24,728			24,728
2	21,792			21,792
3	9,320			9,320
4	12,648		2,000	14,648
5	13,912			13,912
6	7,200		7,750	14,650
7	12,264	(400)	2,200	14,464
8	13,368	(900)	4,200	17,568
9	19,496			19,496
10	31,688	(900)		31,688
11	14,552		3,240	17,792
12	16,448			16,448
13	24,816			24,816
Common Area				76,552
Road R-O-W				<u>22,651</u>
TOTAL				341,395

SOURCE: Wagstaff and Associates

<sup>1</sup>Area of driveway easement is included in residential lot sizes.

<sup>2</sup>Breakdown of actual lot sizes and sewage disposal areas has been estimated by the EIR authors.

APPROXIMATE AREAS IN SQUARE FEET	
LOT 1	24,728
LOT 2	21,792
LOT 3	9,320
LOT 4	14,648
LOT 5	11,512
LOT 6	15,520
LOT 7	14,464
LOT 8	17,568
LOT 9	19,496
LOT 10	31,688
LOT 11	17,792
LOT 12	16,448
LOT 13	24,816
COMMON AREA	76,552
ROAD R/W	22,651
** INCLUDES DRIVEWAY PAVEMENT (LOT 8, 900+ sq. ft.) (LOT 10, 900+ sq. ft.) (LOT 11, 400+ sq. ft.)	



**NOTES**

1. DATA IS FROM SEA LEVEL.
2. WATER - PROPOSED 6" MAIN BY OWNER PRIVATE WASTE SYSTEMS.
3. SEWAGE - SEPTIC SYSTEM BY GUESTA ENGINEERING CORPORATION.
4. ALL OTHER UTILITIES ARE AVAILABLE AND TO BE UNDERGROUND.

**LEGEND**

- SEWAGE DISPOSAL AREA
- ROADWAY
- S-6 INDICATES DISPOSAL AREA FOR THE NUMBERED LOT
- PROPOSED GARAGE AND PARKING
- PROPOSED FENCE LINE
- JOINT TRENCH

**Figure 8  
TENTATIVE MAP**

SOURCE: Callthorpe Associates, Architecture and Planning

Wolfback Estates EIR City of Sausalito

not have adequate soil conditions within their boundaries to accommodate sewage disposal. Some of these west-facing residential and septic system lots are located on slopes exceeding 60 percent.

Lot 13 would be located at a lower elevation on the east-facing hillside in the southeast corner of the project site between the existing Warren and Deaton residences. This lot would be approximately 24,816 square feet in area (0.71 acres), with average slopes in excess of 55 percent. The main floor of the residence itself would be approximately 810 feet in elevation. As mentioned earlier, this lot would be served by Wolfback Terrace via Wolfback Ridge Road north of the project entrance.

#### 4. Open Space Elements

The development plan includes a rectangular shaped, 76,552-square-foot (1.76-acre) common open space area on the site's east-facing slope along the southeastern property line between Wolfback Terrace and Cloud View Terrace. This steep open space area is highly visible from Highway 101 and is directly exposed to high traffic noise levels from the freeway 250 feet below. The area contains brush-covered slopes of approximately 70 percent which are too steep and noisy for recreational use.

#### 5. Grading Approach

The applicants propose minimal grading of the site to accommodate the project. Grading would be limited to widening of the existing Wolfback Ridge Road and Wolfback Terrace access extensions as necessary to accommodate the 18- and 12-foot pavement widths, respectively, and the excavation and backfilling of leach fields. The applicants' architect states that grading around the proposed hillside homesites (lots 1, 3, 7, 9, 11, 12, and 13) would be limited to the minor excavation necessary to secure grade beam and drilled pier foundations. The remaining ridgetop lots 2, 4, 5, 6, 8, and 10 could accommodate the proposed homesite locations on the existing graded terrace areas with minimal additional excavation.

#### 6. Anticipated Home Characteristics

The 13 custom homes in the project would be expected to range in size from approximately 2,000 to 4,000 square feet. They would contain three to four bedrooms, two to three bathrooms, and two-car garages. They are likely to include single-story, split-level, and two-story configurations in a variety of architectural styles. The hillside homes would extend out away from the existing grade and would be supported by grade beams and piers. Home designs are also likely to contain elevated elements and decks in order to take advantage of the spectacular views from the site.

#### 7. Landscaping

a. Existing Vegetation. As mentioned earlier, the site contains several stands of existing mature trees. The northern end of the existing dirt road is lined on both sides with a row of cypress trees. Additional stands of cypress are located on the knoll towards the northern end of the site and at other locations along the ridgeline. A grove of eucalyptus trees is located near the site's western property line in the vicinity of proposed septic lot 6. Stands of fir trees are located along the entire length of the site just above Wolfback Terrace. A few other evergreen trees are located within the proposed common open space area.

The applicants propose to preserve these trees to the extent possible in order to visually screen portions of the proposed development from vantage points below. The Vegetation and Wildlife section of this EIR evaluates the impact of the project on these vegetative features, and identifies possibilities for damage to or loss of mature trees as a result of project road and home construction. In addition, the Visual Factors chapter of this EIR describes the value of this existing vegetation in visually screening portions of the project from Sausalito and GGNRA vantage points. The Visual Factors chapter also identifies those portions of the site which would not be screened by this existing vegetation, and instead would be partially or fully exposed to these offsite vantage points, at least until any proposed additional vegetative screening became effective.

b. Proposed Additional Landscaping. A schematic landscape plan by the applicants' landscape architect is shown on Figure 9. The preliminary plan indicates that the project would include the introduction of additional trees at strategic locations for visual screening purposes. The plan suggests the introduction of additional eucalyptus, pines, oaks, and cyprus to reduce the visual impact of homesites 3, 9, 11, and 12 as viewed from GGNRA vantage points, and homesite 13 as viewed from vantage points on the Sausalito side. The Visual Factors chapter of this EIR evaluates the effectiveness of these introduced plantings in mitigating project visual impacts.

Additional planting is also proposed within the exterior areas immediately surrounding each of the proposed residences. All other hillside areas would remain in their existing state.

## 8. Utilities

a. Water. Water service to the project is proposed to be provided by an existing private water delivery system which is owned by the applicants and currently serves most of the existing 37 residences on Wolfback Ridge. Water purchased from the Marin Municipal Water District is pumped to and stored in three existing wooden tanks (30,000 gallons of total capacity) along Wolfback Ridge Road, and delivered to existing Wolfback Ridge homes via a subsurface distribution system. Project plans include the addition of 10,000 gallons of water storage capacity to the system and installation of a six-inch water main extension to link the project with the existing system. All residences in the development would also

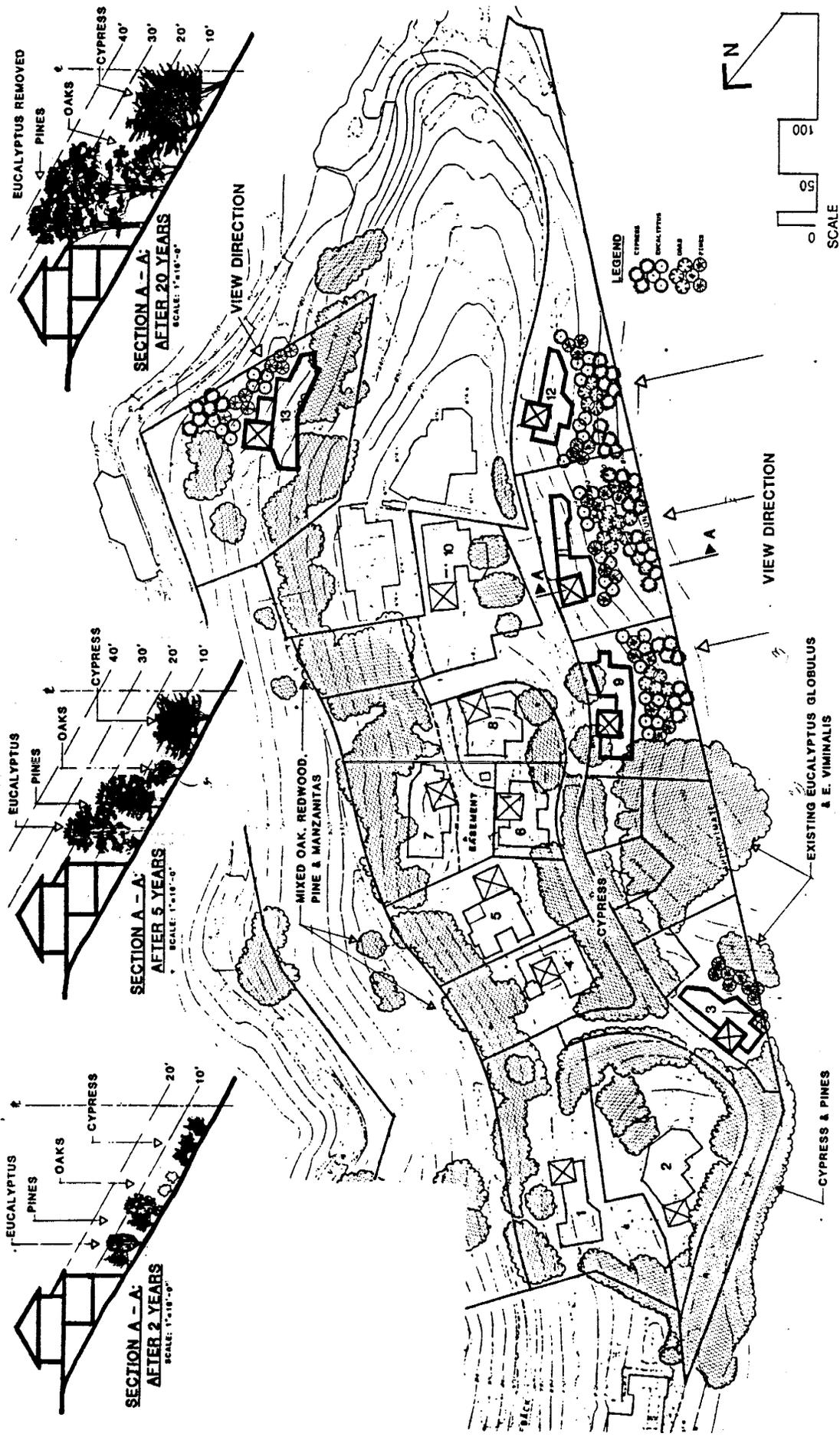


Figure 9

# SCHEMATIC LANDSCAPE PLAN

SOURCE: Lettingwell Associates, Landscape Architects

Wolfback Estates EIR City of Sausalito

include fire sprinkler systems.

b. Sewage Disposal. The applicants propose to utilize onsite septic systems. The applicants' engineer, Questa Engineering, has identified 12 additional leach field sites within the project boundaries (in addition to the one currently serving the existing dwelling). This 13 leach field site limitation is the basis for the proposed 13-unit project development capacity. (The city's General Plan and zoning ordinance would permit up to 16 units on the 7.48-acre site.) Five of the leach field sites would require excavation and backfilling with more suitable soils, and four of the leach field sites are proposed on lots separated from the homes they would serve.

c. Storm Drainage. The project would rely on the site's natural storm drainage characteristics. No subsurface storm drainage systems are proposed as part of the project. The proposed asphalt roads would not contain any curbs or gutter, and would be sheet drained to the downhill side.

d. Other. All other utilities would be installed underground within the common road easement.

#### 9. Anticipated Construction Phasing

No construction phasing plan has been formulated at this time. The applicants have stated that the extension and improvement of the road, waterline, water storage facilities, and other utilities, would follow development of individual homesites.

### C. REQUIRED JURISDICTIONAL APPROVALS

#### 1. City Approvals

In addition to the applications to the city of Sausalito for Subdivision and Conditional Use Permit approval, each residence would also be subject to architectural and site plan review by the city's Design Review Board.

#### 2. Other Jurisdictional Approvals

The project must also receive the approval of the Marin County Health Department for the proposed septic systems. County Board of Health and Regional Water Quality Control Board variances would be required for 12 of the 13 project site drainfields, as explained on pages 110, 111, and 113 of this EIR. If annexation to the Marin Municipal Water District (MMWD) is required by the city, the annexation request would be subject to approval by the

District and the Marin County Local Agency Formation Commission (LAFCO). If annexation to the MMWD is not required, the District would still have to approve the additional water allocation for the project's private water system.



## **IV. SETTING, IMPACTS, AND MITIGATIONS**



---

## A. LAND USE AND OPEN SPACE

---

This EIR chapter describes the land use and open space implications of the proposed project, including:

- Project consistency with applicable city general plan, zoning ordinance, and subdivision ordinance provisions;
- Project relationships to Golden Gate National Recreation Area open space protection objectives; and
- Project compatibility with the existing residential and open space setting on Wolfback Ridge.

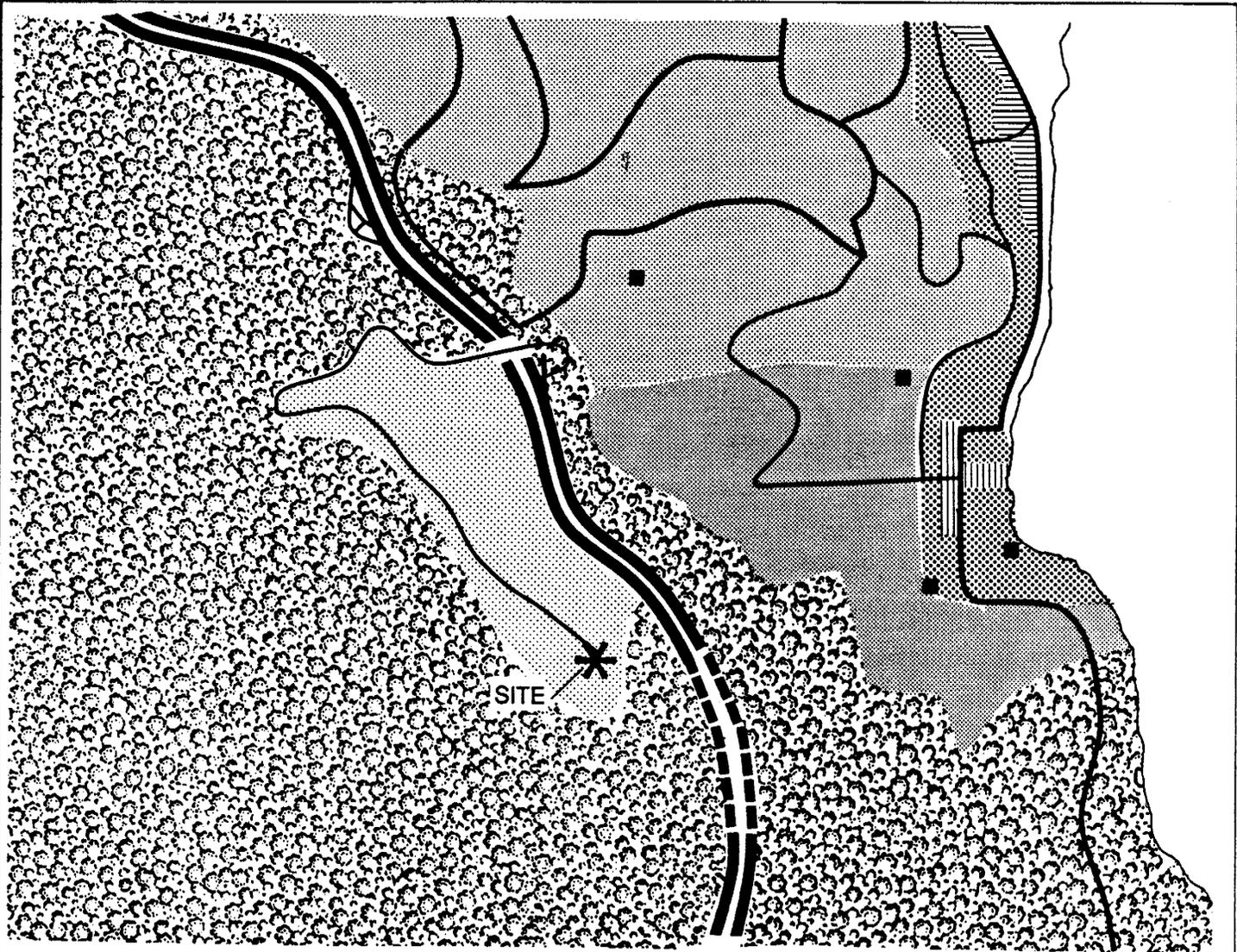
This chapter also describes possible project modifications and refinements warranted to reduce or eliminate identified land use and open space impacts.

### 1. PROJECT RELATIONSHIPS TO LOCAL LAND USE AND OPEN SPACE POLICIES

#### a. Sausalito General Plan

The project site is located in the city of Sausalito and is thus subject to the review and approval of the Sausalito Planning Commission and the Sausalito City Council. City review is guided by the land use and open space policies of the city, as established in the Sausalito General Plan. The portions of the plan which establish pertinent city land use and open space policy are the Land Use Element and the Open Space and Conservation Element. Other city general plan elements with policies pertinent to the proposed action, including the Scenic Highways Element, the Seismic Safety/Safety Element, and the Noise Element, are considered in the Visual Factors, Geology and Soils, and Noise sections of this EIR, respectively.

The city recently initiated a program to comprehensively update its general plan. Until that effort has been completed and a new general plan is adopted, the policies of the current adopted Sausalito General Plan will continue to apply to all subdivision applications. The city's current Land Use Element was first adopted by City Council resolution in 1970 and has been amended periodically between 1972 and 1979. The Open Space Element was added by City Council resolution in 1974.



**RESIDENTIAL**

LAND USE INTENSITY      TYPICAL LAND AREA PER DWELLING UNIT

-  **HIGH** 1500-2000 SQ FT
-  **MEDIUM HIGH** 2000-5000 SQ FT
-  **MEDIUM** 5000-10000 SQ FT
-  **LOW** 20000 SQ FT 1 ACRE

**COMMERCIAL**

-  **CENTRAL**
-  **NEIGHBORHOOD**

**PARKS AND OPEN SPACE**

-  **REGIONAL**
-  **NEIGHBORHOOD**

**Figure 10**  
**SAUSALITO GENERAL PLAN**

(1) Land Use Element. Figure 10 illustrates the Sausalito General Plan land use designations for the project vicinity. The Sausalito General Plan Land Use Element designates the project site for Low Density Residential land use. The plan identifies the site as being in the Wolfback Ridge residential neighborhood, an area described in the plan as having limited access and steep terrain. The plan states that the intensity of development within the Low Density Residential designation should not exceed one dwelling unit per 20,000 square feet to one dwelling unit per acre. To assist city decision makers in their consideration of the Wolfback Estates project, relevant land use goals, objectives and principles from the Land Use Element, and project relationships to those policy statements, are described below:

**Principle:** *Land uses should be grouped for mutual compatibility and to maintain and strengthen interrelationships among uses.*

Project Relationship: The proposed single-family-detached residential land use, lot configurations, and density would be compatible with surrounding residential uses, but the visibility of the proposed homes on lots 9, 11, and 12 from the Golden Gate National Recreation Area to the west would conflict with GGNRA open space protection objectives.

**Objective:** *Assure that residential development reflects and is harmonious with the character of the Sausalito environment and is compatible with its existing neighborhoods.*

Project Relationship: The project could be generally harmonious with the existing Sausalito character.

**Objective:** *Provide for variety, interest, and maximization of opportunities for views and privacy for all properties through careful site planning, building design, and landscape treatment.*

Project Relationship: The proposed design could be consistent with the view maximization policy, although view maximization could entail removal of some existing vegetation, a measure which could substantially increase project visual impacts on city and GGNRA vantage points below. Project consistency with plan site planning and building design goals cannot be determined until such design phases are completed.

**Principle:** *Intensity of land use should decrease as steepness of terrain increases.*

Project Relationship: Consistent. While the site is located on some of the steepest topography in the city, it proposes a comparatively low development intensity.

(2) Open Space and Conservation Element. The general plan Conservation Element outlines several city objectives related to resource protection, health and safety, scenic

resources, recreation, and cultural and historic sites. Those objectives which are relevant to the project, and the project's relationship to those objectives, are described below:

**Objective:** *Preserve grassy ridge lands, rock outcroppings, and major tree clusters.*

Project Relationship: The project would disturb some grassy ridge lands (see the Vegetation and Wildlife section of this EIR).

**Objective:** *Assure that the location and design of development will avoid or minimize hazards from earthquake, erosion, fill settlement, landslide, flood, fire, and accidents.*

Project Relationship: As described in other sections of this EIR, routine engineering measures can be incorporated to mitigate project seismic, erosion, fill, and landslide impacts. The Storm Drainage section of this EIR indicates that the project would not contribute significantly to downstream flooding problems. However, the Water section of this report indicates that the level of service from the project water system, although better than current service levels to existing Wolfback Ridge homes, would not meet minimal standards for adequate fire protection.

**Objective:** *Assure that the suitability of soil or rock formations for development will be a basis for determining the nature of development to be permitted.*

Project Relationship: Preliminary analysis indicates that site geology and soils are adequate for the proposed type and intensity of construction.

**Objective:** *Prohibit development in areas where adequate fire protection cannot be provided.*

Project Relationship: The applicants have not demonstrated that adequate water pressure for fire fighting purposes can be achieved with the proposed improvements to the water system.

**Objective:** *Promote visual qualities and view potential of both natural and man-made settings when reviewing development applications.*

Project Relationship: While the project promotes views from the site, it may detract from views from GGNRA lands, and home construction on lots 1, 4, 5, 7, and 13 could be partially visible through the existing tree cover from certain vantage points in "the Hill" and "Old Town" areas of Sausalito.

**Objective:** *Encourage generous landscaping for all types of new development.*

Project Relationship: Many of the proposed structures would be surrounded by existing vegetation. Selective additional landscape screening of the project site is proposed. The visual impacts of the project would be reduced by this additional landscaping.

**Objective:** *Control tree-cutting while allowing for selective cutting to enhance views.*

Project Relationship: Minimal tree cutting is proposed. However, since the spectacular view opportunities associated with the site will be principal factors in marketing project homes, there may be strong tendencies to remove some existing screening vegetation to take advantage of these views. Such tree-cutting would require special care to reconcile the need for both enhancement of views from the site, and the screening of views into the site.

**Objective:** *Provide pedestrian and bicycle paths to enhance enjoyment of views in the hills.*

Project Relationship: The project would be accessed through private roads and would not provide pedestrian or bicycle paths.

**Objective:** *Provide pedestrian and bicycle path systems for access to scenic areas.*

Project Relationship: The project will not be accessible to the public.

**Objective:** *Assure that the height and location of structures be controlled to preserve views.*

Project Relationship: Project building height characteristics have not been specified with The Tentative Map application. The proposed structures would not block views from nearby existing residences. However, the Visual Factors section of this EIR indicates that the construction of structures on lots 9, 11, and 12 would be conspicuously visible from the GGNRA vantage points to the west, and that building heights in excess of 10 feet could partially be visible through the existing tree cover on lots 1, 4, 5, 7, and 13 from certain Sausalito vantage points below.

**Objective:** *Encourage pedestrian links between Sausalito and the GGNRA.*

Project Relationship: The Tentative Map does not indicate any proposed links to GGNRA lands.

**Objective:** *Encourage and promote gifts of land for recreation facilities.*

Project Relationship: The Tentative Map does not suggest that any of the proposed project permanent open space areas be dedicated for public recreational use.

**Objective:** *Consider the preservation of any historical structures or sites in review of any development proposal.*

Project Relationship: No historical structures or sites have been identified on the project site. (See the Archaeology section of this EIR).

b. The Sausalito Zoning Code

Land use on the project site is also regulated by the city of Sausalito Zoning Ordinance. As noted earlier, the applicants, in response to city zoning ordinance provisions, have requested a Conditional Use Permit to allow a Planned Unit Development on the site.

Figure 11 illustrates the city zoning pattern in the site vicinity. The project site is located in an area designated in the city zoning code as Residential-1 (R-1). This zoning district is intended to "promote and encourage the establishment and maintenance of a suitable environment for urban family living on parcels of sizes adequate to accommodate single-family dwellings of differing characteristics and prevent indiscriminate mixtures thereof and preclude unwarranted reductions in lot size." This particular area of the R-1 district requires a minimum lot size of 20,000 square feet.

As explained in the Project Description section of this EIR, the applicants have requested a Conditional Use Permit (under Section 10.935 of the zoning code) to allow for the development of the site as a Planned Unit Development (PUD) as provided for under section 10.111 of the zoning code. Through this Conditional Use procedure, the property could be developed as proposed with uses allowed in the R-1 district--i.e., with 13 single-family units, but with more flexibility in lot sizes, including some reductions in lot sizes below the minimum 20,000 square feet required in the R-1 district.

A Conditional Use Permit application allows the city to give a detailed review of specific projects with respect to location in relation to existing development, compatibility with surrounding land uses, and the existence of adequate facilities and services to serve the project. The procedure also allows the city to impose conditions and requirements which would reasonably assure that the project conforms with the basic purposes of the general plan and the zoning code.

The purpose of Planned Unit Developments, as paraphrased from the zoning code, is to allow diversification in use and in the relationships of various buildings, structures, and open spaces in planned building groups, while insuring substantial compliance with district regulations and adequate standards of public health, safety, and general welfare, without unduly inhibiting developers attempting to secure the advantages of coordinated, large scale

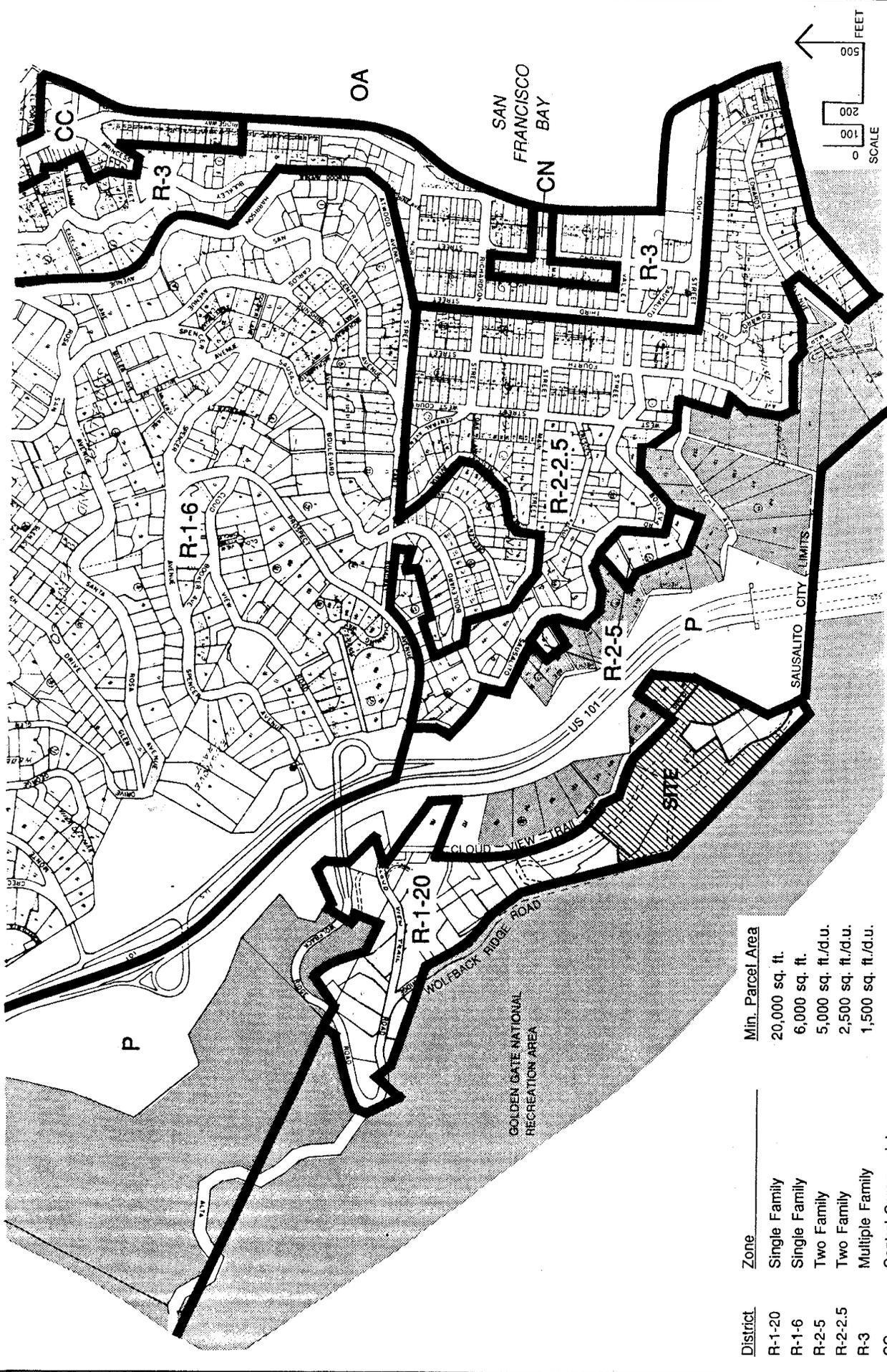


Figure 11

# CURRENT ZONING

SOURCE: Zoning Map, Sausalito, California; 4-11-85

Wolfback Estates EIR City of Sausalito

District	Zone	Min. Parcel Area
R-1-20	Single Family	20,000 sq. ft.
R-1-6	Single Family	6,000 sq. ft.
R-2-5	Two Family	5,000 sq. ft./d.u.
R-2-2.5	Two Family	2,500 sq. ft./d.u.
R-3	Multiple Family	1,500 sq. ft./d.u.
CC	Central Commercial	
CN	Neighborhood Commercial	
P	Public	
OA	Open Area	

development.

City requirements for PUDs include:

- The project site must be 20,000 square feet or greater in area.
- The plan should be in conformance with the general plan.
- The plan should create an environment in harmony with the surrounding area.
- The plan should conform with the requirements of the zoning district in which it is located.
- The arrangement of buildings (including the arrangement of rooms and location of windows) shall be such as to provide standards of light, air, and privacy at least equivalent of the standards required under the zoning code for lots developed individually.
- Yard sizes shall not be less than required in the underlying district.
- The development should not create traffic in excess of what the proposed access streets can safely accommodate.
- The number of units allowed in the project shall not exceed the number determined by dividing the net project area (the project area excluding the area of paved roadway and any area determined by the Planning Commission to be a necessary part of the road) by the minimum lot size required in the underlying zoning district.
- The approved plan shall govern future division of the project site.
- The PUD shall conform with the subdivision regulations of the city.

c. City of Sausalito Subdivision Ordinance

The proposed subdivision is subject to the regulations of the city of Sausalito Subdivision Ordinance. This ordinance sets forth requirements relating to the laying out and design of streets, the creation of lots, and other physical concerns relevant to the subdivision of land. The applicants have requested three exceptions from the Subdivision Ordinance regulations, including:

- The requirement that each new lot contain a minimum of 30 feet frontage on a city street;
- The requirement that minimum pavement width of streets serving the subdivision be 22 feet; and
- The requirement that no roadway exceed a maximum slope of 15 percent.

In order for these exceptions to be granted, the Planning Commission must make the following findings:

- That there are special circumstances or conditions affecting said property;
- That the exception is necessary for the preservation and enjoyment of a substantial property right of the petitioner; and
- That the granting of the exception will not be detrimental to the public.

If these findings can be made, the Planning Commission could then recommend to the City Council that the exceptions be granted so long as the objectives or intent of the regulations are provided for through the design of the subdivision, or through other conditions of approval.

d. Golden Gate National Recreation Area Land Protection Objectives

(1) GGNRA Origin and Purpose. The extensive Rodeo Valley area adjoining the site to the west between the site's western boundary and the Pacific Ocean is a principal element of the Golden Gate National Recreation Area. The Golden Gate National Recreation Area (GGNRA) was created by Congress in 1972 by Public Law #92-199, which directed the National Park Service to use the Land and Water Conservation Fund to acquire land in San Francisco and Marin Counties. The original legislation, which addressed 35,000 acres of private and public land, has been supplemented by five subsequent acts of Congress to increase the size of the Recreation Area by 100 percent, and to include land in San Mateo County. The purpose of the GGNRA is described in the preamble to one of those subsequent acts of congress, Public Law 92-589:

In order to preserve for public use and enjoyment certain areas of Marin and San Francisco Counties, California, possessing outstanding natural, historic, scenic, and recreational values, and in order to provide for the maintenance of needed recreational open space necessary to urban environment and planning, the Golden Gate National Recreation Area is hereby established. In management of the recreation area, the Secretary of the Interior shall utilize the resources in a manner which will provided for recreation and education opportunities consistent with sound principles of land use planning and management. In carrying out the provisions of the Act, the Secretary shall preserve the recreation area, as far as possible, in its natural setting, and protect it from development and uses which would destroy the scenic beauty and natural character of the area.

(2) The Land Protection Plan. A policy statement issued by the Department of the Interior in 1982 directed all federal agencies using the Land and Water Conservation Fund to comply with several requirements. Each agency was required to identify what land was needed to achieve the purposes of their particular agency; to identify and utilize the most

cost-effective method of controlling the land to meet their objectives; to embark on a program of cooperation with land owners, other federal agencies, state and local governments, and the private sector to protect the identified land; and to formulate plans for land acquisition and resource protection of the identified areas. In response to that policy, the National Park Service completed the GGNRA Land Protection Plan in 1983. The Plan identified additional lands authorized by the NPS for protection. Figure 12 illustrates the protection plan policies for lands in the project vicinity.

The plan described four different resource protection alternatives including zoning or other local regulatory powers, private agreements with property owners, less-than-fee acquisition including the acquisition of development rights or scenic easements, and fee acquisition. The plan also identified a list of acquisition priorities and a recommended protection approach for each property. In addition to the Rodeo Valley area to the west of the project, a number of parcels next to the project site on the east side of Cloud View Trail already have been acquired by the National Park Service for the Golden Gate National Recreation Area, as shown on Figure 12.

*One of the four parcels comprising the project site, APN 200-130-10, which is approximately 3.31 acres in area (see Figure 5) is included in the Land Projection Plan list of more than 155,000 acres of private Marin County land authorized by the National Park Service for acquisition. This 3.31-acre parcel is the only remaining piece in the 15,000-acre private property acquisition list that has not yet been purchased by the National Park Service.<sup>1</sup>*

In recent years, the GGNRA has not actively pursued acquisition of this project parcel. However, written correspondence from GGNRA to the city of Sausalito indicates that the property would move up in acquisition priority at such time as development became imminent, and that the GGNRA would take steps to acquire the property at this time.<sup>2</sup> The recommended resource protection alternative identified in the GGNRA plan for the project site is fee acquisition.

Figure 13 illustrates the approximate relationship of the APN 200-130-10 parcel boundary to the proposed project development layout. Presumably, free acquisition of APN 200-130-10 by the GGNRA would include provisions to maintain access to the existing Deaton and Butz homes via the existing Wolfback Ridge Road extension through the parcel. Assuming that

---

<sup>1</sup>The National Park Service GGNRA Land Protection Plan, in describing the 15,000 acres of private land in Marin County authorized for NPS acquisition, refers to APN 200-130-10 in terms of a previous ownership name and configuration. The piece is referred to as the Theaurkauf Estate, and is shown as divided along the centerline of Wolfback Ridge Road into two parcels. The two parcels are referred to in the GGNRA plan as "Tract 07-147" (2.15 acres) and "Tract 07-147" (1.33 acres).

<sup>2</sup>This written correspondence has been included as Appendix B of this EIR.

this is the case, i.e., *that a Wolfback Ridge Road access easement would be retained through the property*, GGNRA acquisition of APN 200-130-10 would require redesign of the proposed development to confine residential lots to the remaining applicant-owned parcels. If a similar lot layout was proposed for these remaining parcels (APN 240-13 and 14, and 200-130-33) the reduced site could probably accommodate four to six units. The higher end of the range would probably require that the GGNRA acquisition arrangement include provisions for septic drainfield easements on APN 200-130-10, as well the access easements, perhaps through less-than-fee acquisition of the parcel (the GGNRA might agree to acquire certain development rights only for view protection purposes).

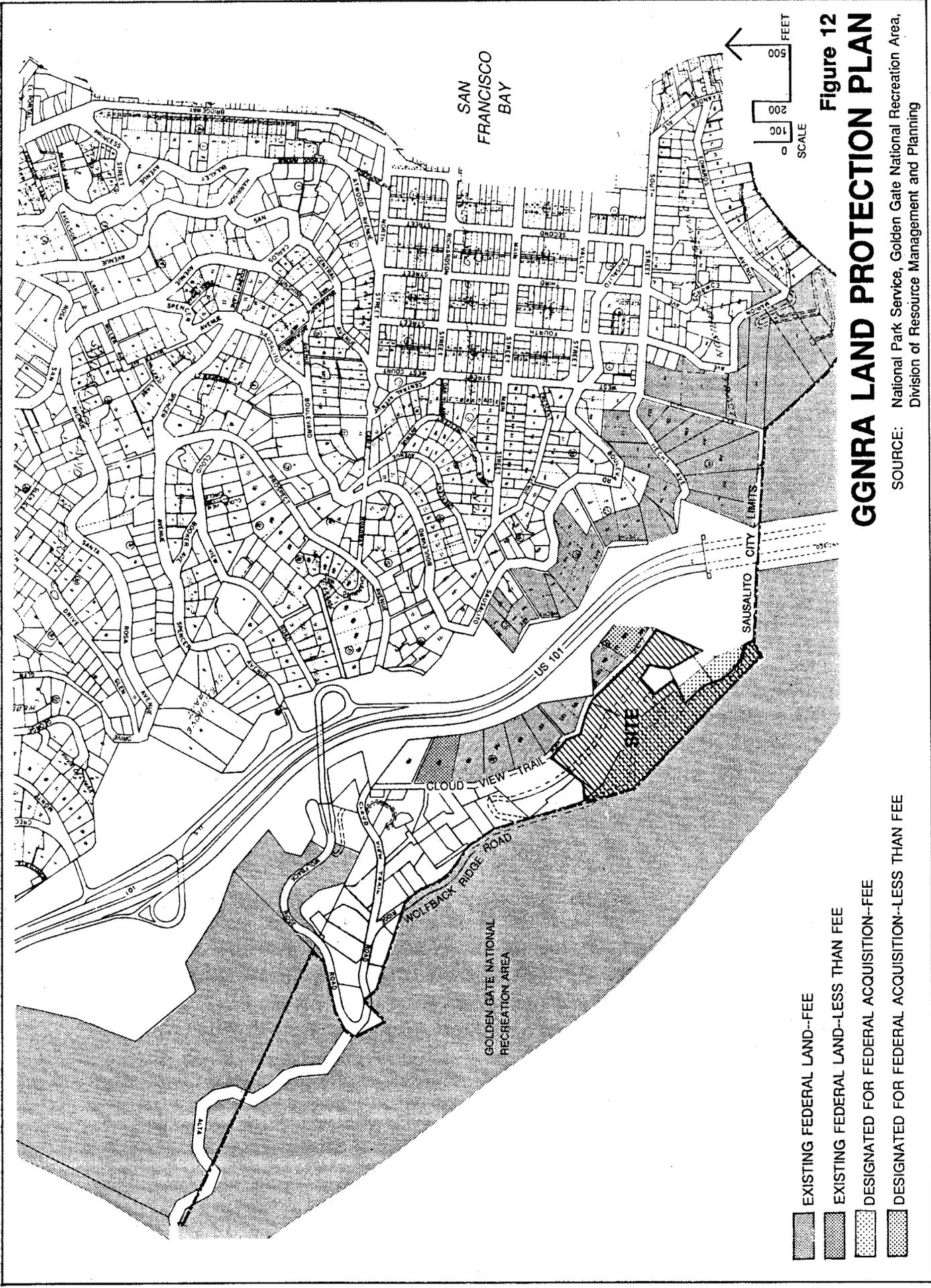
A second scenario could limit GGNRA involvement to less-than-fee acquisition of the project area *west of the existing Wolfback Ridge Road access easement*. With implementation of appropriate visual impact mitigation measures on lots 8 and 10 (vegetative screening), the Visual Factors section of this EIR describes how this scenario may represent a possible alternative for achieving the basic GGNRA scenic resource protection objectives, while allowing for retention of up to nine of the 13 proposed project units.

## 2. PHYSICAL LAND USE SETTING

### a. General Land Use Pattern

The Wolfback Ridge area is currently a low density hillside and ridgeline residential neighborhood physically separated from the rest of Sausalito by Highway 101. The neighborhood represents the westernmost and highest elevation urbanized area in Sausalito. As described in the Visual Factors section of this EIR, some of these homes are either fully or partially visible through the ridge tree cover from various vantage points throughout "the Hill" and "Old Town" sections of the city. The area also contains some of the steepest slopes in the city.

The lower residential densities in the Wolfback Ridge area provide a transition between the more intensive, compact neighborhoods below the freeway and the GGNRA open space lands west of the ridge. This transition in density is also suggested by the Sausalito General Plan Land Use Element, which designates the area for residential development between one unit per 20,000 square feet and one unit per acre, the lowest density residential category identified in the plan, compared to designations of one unit per 2,000 to 10,000 square feet below the freeway. This low density land use designation appears to have been applied to the ridge area for several reasons, including the desire to create this density transition, to respond to topographic limitations, and to preserve ridgeline open space and visual values.

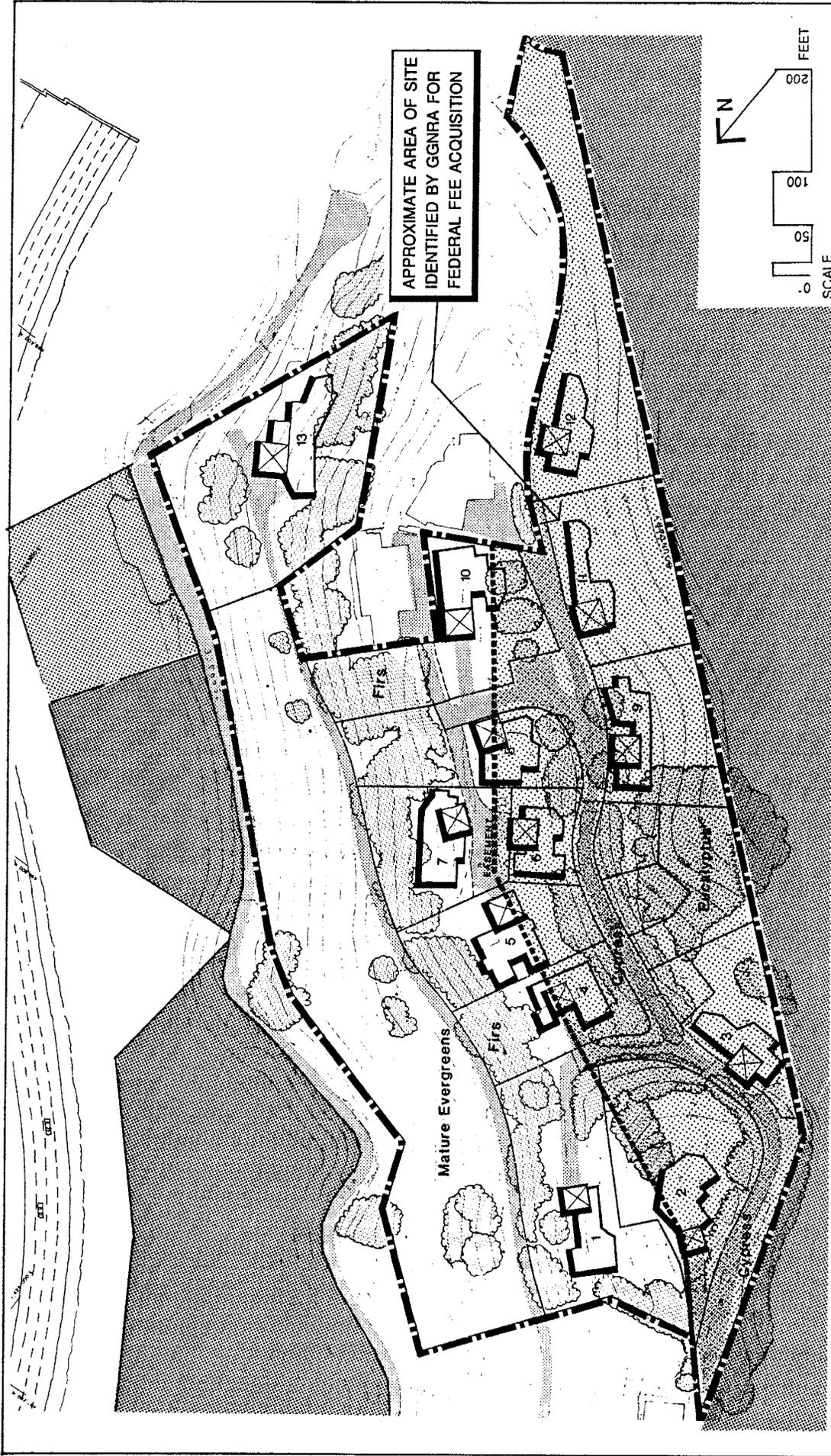


**Figure 12**

**GGNRA LAND PROTECTION PLAN**

SOURCE: National Park Service, Golden Gate National Recreation Area, Division of Resource Management and Planning

Wolfpack Estates EIR City of Sausalito



**Figure 13**  
**SITE PORTION PROPOSED**  
**FOR FEDERAL ACQUISITION**

b. Existing Project Site Land Use

As described earlier under "Project Description," and as illustrated by Figures 4 and 5, the project site currently contains a two-family residence centrally located on the ridgetop, which is most notable for a distinctive two-story masonry tower structure located at its northeast corner. Other portions of the ridgetop area of the site have been terraced. The surrounding wooded and open ridgetop areas and the hillside grassland, brush, and woodland areas are currently unused.

b. Surrounding Land Use Pattern

Land uses surrounding the site are mapped on Figure 14. To the north of the project is the existing Wolfback Ridge residential neighborhood. This area contains 32 single-family homes and five vacant lots. It is characterized by similar topography and vegetation to the project site and contains a variety of home sizes and architectural styles. Lot sizes range from approximately 4,000 to 60,000 square feet with an average size of approximately 18,000 square feet. The homes are located along Wolfback Ridge Road, Cloud View Trail, and tributary private access roads.

To the east of the site is the steep hillside between the site and Highway 101. The side of this slope is traversed by Cloud View Trail which provides access to the Warren house and circles around the southern end of the project site. To the south of the project site are two residences, the Deaton and Butz properties, which are partially enclosed by the project boundary. Also to the south of the project is one undeveloped lot and GGNRA lands above the Waldo tunnel.

To the west of the project site are the GGNRA Rodeo Valley lands. Across and below the freeway to the east are the Sausalito residential neighborhoods known as "Old Town" and "the Hill."

3. PHYSICAL LAND USE IMPACTS

a. Impacts on the Project Site

The proposed project would allow the construction of 13 new single-family homes on the 7.84-acre site, which currently contains one two-family dwelling. Portions of the existing duplex structure would be used as part of the design of two of the 13 new homes (lots 4 and 5). The density of the residential land use of the site would increase with the project from one unit per 3.92 acres to one unit per 1.66 acres. The Vegetation and Wildlife section of this EIR indicates that the development would result in the clearing of some woodland vegetation on proposed lots 1, 2, 3, 6, 7, 8, 9, 10, and 13. Additional woodland would have to be removed to accommodate widening of the access road.

by the GGNRA as a part of the GGNRA Land Protection Plan. The homes proposed on these lots, as well as the possible tree removal required to locate the proposed septic system drainage fields on the other lots, would have an impact on views from Rodeo Valley and, in this important sense, could significantly impact the quality of the GGNRA Rodeo Valley area. These visual impacts are discussed in detail in the Visual Factors section of this EIR.

#### 4. MITIGATION

##### a. General Open Space Losses

The primary land use impact of the project would be the loss of approximately four acres of disturbed open space to residential development. Such open space losses would be unavoidable with the proposed single-family residential development and should be considered to be a minor, unmitigable land use impact.

##### b. Impacts on Surrounding Residential Land Uses

Those project land use impacts on adjacent residential areas which involve visual and municipal service factors, and related mitigation possibilities, are described in the Visual Factors and Water, Sewer and Storm Drainage sections of this EIR.

##### c. Impacts on the Golden Gate National Recreation Area

The following possible mitigation measures are suggested in response to identified project inconsistencies with the 1983 GGNRA Land Projection Plan, and to identify significant project adverse impacts on the quality of the Rodeo Valley area of the GGNRA:

- (1) Because of the project's location within the GGNRA designated land protection area, all city decisions, including city staff recommendations to the Planning Commission and City Council, should be made in consultation with the Golden Gate National Recreation Area, Division of Resource Management and Planning.
- (2) The following two mitigation choices are suggested as possible means of reconciling the basic project objectives with GGNRA land protection objectives:
  - The GGNRA Land Protection Plan specifically calls for fee-simple acquisition as the resource protection alternative for APN 200-130-10. Presumably, GGNRA fee acquisition of the parcel would include title provisions to permanently maintain the existing 20-foot Wolfback Ridge Road extension right-of-way through this parcel in order to maintain the current access to the existing Patterson/Wean, Deaton, and Butz residences, and to any other future homes constructed on the remaining three project

APNs 200-130-33, 200-240-13, and 200-240-14. Under this assumption, a redesign of the proposed development plan with GGNRA fee-simple acquisition of parcel 200-130-10 could accommodate 4 to 6 single-family lots on the remaining three project parcels if lot sizes similar to those currently proposed are pursued, or up to 10 lots if alternative cluster designs are implemented. These two approaches would probably require special title provisions in the GGNRA acquisition arrangements to allow location on APN 200-130-10 of any septic system drainfields beyond the five that can be accommodated on the three remaining project parcels (see Figure 8).

- Although the 1983 GGNRA Land Protection Plan specifically calls for fee-simple acquisition of the APN 200-130-10, the Visual Factors section of this EIR indicates that an alternative which may satisfy GGNRA visual resource protection needs while also retaining the basic objectives of the proposed project would be transfer of all of the project area *west of the existing Wolfback Ridge Road extension easement* to the GGNRA as permanent open space, plus applicant dedication of certain west-facing yard areas of residential lots fronting on the east side of the access easement as additional scenic easements. Through this dedication approach, or some similar variation, design modifications could be incorporated in the proposal project lot and access drive layout for those project portions east of the Wolfback Ridge Road easement, in order to accommodate up to nine of the 13 proposed project units, with minimal visual impact on GGNRA Rodeo Valley visual resources.

This alternative would require GGNRA dedication/acquisition provisions to retain the Wolfback Ridge Road access easement in perpetuity, as well as easement provisions to provide for specific project septic drainfield needs (i.e., up to four offsite drainfields).

---

## B. VISUAL FACTORS

---

The visual implications of additional residential development on Wolfback Ridge are a project concern, including potential impacts of the proposed 13-unit PUD on the valued visual character of Wolfback Ridge in general, and on views of the ridge from Sausalito vantage points to the east, from Golden Gate National Recreation Area vantage points to the west, from the Golden Gate Bridge to the south, and from Highway 101 below. This EIR describes the possible impacts of the project on these vantage points, and possible measures to reduce these visual impacts to insignificant levels.

### 1. EXISTING SETTING

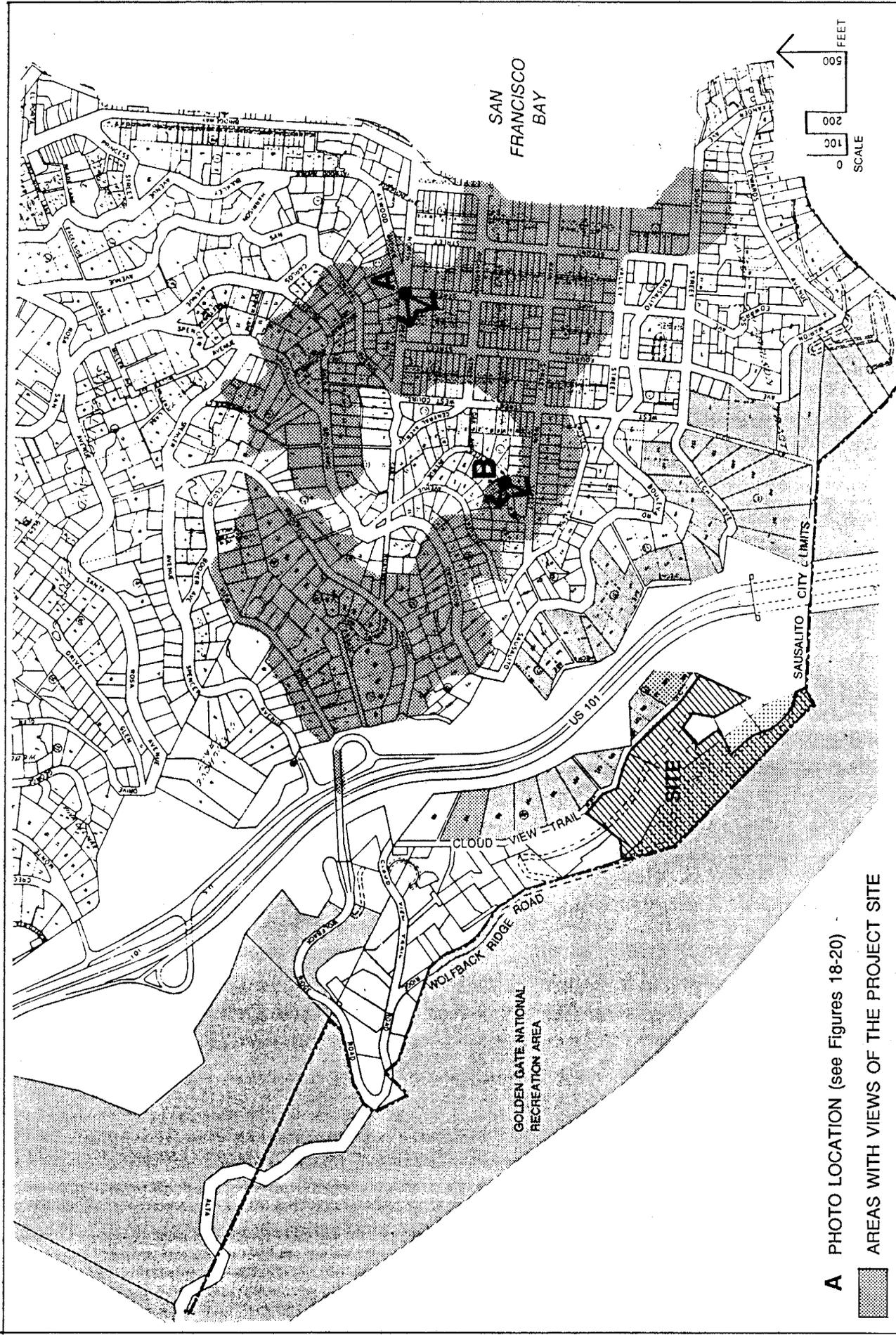
#### a. Visibility from Sausalito Vantage Points

Figure 15 maps those areas of Sausalito from which portions of the project site are visible. The map and corresponding photographs on Figure 17 illustrate how portions of the site's ridgetops and east-facing hillsides can be seen from substantial portions of "the Hill" and "Old Town" portions of the community.

The 7.84-acre project site is situated atop the southwest-to-northwest trending Wolfback Ridge, a major visual element which provides a westerly edge and scenic backdrop for the city. The uppermost (ridge crest) portions of Wolfback Ridge are extensively vegetated with a mixture of natives and ornamentals, including Monterey pine, cypress, redwoods, acacia, and eucalyptus. The steep sideslopes which face Sausalito below the ridge are also densely vegetated with a similar combination of trees, including coast live oak, madrone, Douglas fir, Monterey pine, cypress, coast redwood, acacia, and eucalyptus, plus extensive coastal scrub, and coyote brush. (These vegetative characteristics are described in more biological detail in section IV.H of this EIR.)

The edge of the Highway 101 freeway cantilever structure is the most prominent man-made element in views of Wolfback Ridge from Sausalito. Both the Wolfback Terrace and Cloud View Trail hillside road cuts are also visible as narrow, parallel terraces across the east-facing sideslopes between the freeway structure and the top of the ridge.

A number of homes also dot the ridge. Some of these (approximately a dozen) are visible to varying degrees from Sausalito vantage points below. Most of these visible residential elements are partially concealed by the existing vegetative cover, effectively reducing their



**Figure 15**  
**SAUSALITO AREAS WITH VIEWS OF THE PROJECT SITE**

visual impact. However, at least three of the existing homes are devoid of vegetative screening and, as a result, are highly exposed and particularly prominent in contrast to their heavily-vegetated surroundings.

The Sausalito General Plan recognizes Wolfback Ridge as one of the city's most important visual assets. The plan notes that the Wolfback Ridge area has major visual significance in both a local and regional context.<sup>1</sup> The plan states that views from the city of its western hillsides and its eastern waterfront are its two principal visual attractions.<sup>2</sup> More specifically, the plan notes that the wooded hillsides and ridgeline backdrop of Wolfback Ridge contribute significantly to the valued visual character of "the Hill" and "Old Town" areas of Sausalito.<sup>3</sup>

b. Visibility from GGNRA and Golden Gate Bridge Vantage Points

Figure 16 maps those portions of Rodeo Valley in the Golden Gate National Recreation Area (GGNRA) which have views of the project site. The corresponding photographs on Figure 17 illustrate how site ridgeline and west-facing hillside components are visible from roads and trails within a large area of Rodeo Valley. Figures 16 and 17 also indicate the extent of project site exposure to views from the Golden Gate Bridge.

The selected photographs from Rodeo Valley vantage points convey how Wolfback Ridge and the project site location are identifiable by the contrasting, dense treerows of Monterey pine, cyprus, and eucalyptus that have been established along Wolfback Ridge Road. The west-facing hillsides leading up to Wolfback Ridge and the other ridges above Rodeo Valley together comprise the headlands of the Marin Peninsula range. Because these steep hillsides are directly exposed to the Pacific, they are visually characterized by rugged, open, rocky grassland, with occasional rock outcroppings and scattered stands of brush.

Since the floor and hillsides of Rodeo Valley remain for the most part as a pristine and barren coastal landscape, the few man-made elements which are currently visible from the valley are relatively conspicuous. These man-made elements include the power transmission line and towers running east-to-west along the hillside southwest of the project site, the clearly-visible rooflines of two existing homes on either end of the ridgetop treerow, and the smaller, less noticeable portions of four or five other existing homes along Wolfback Ridge (see view C on Figure 17).

---

<sup>1</sup>Sausalito General Plan Open Space and Conservation Element, page 10.

<sup>2</sup>Sausalito General Plan Open Space and Conservation Element, page 30.

<sup>3</sup>Sausalito General Plan Land Use Element, pages 1 and 7.

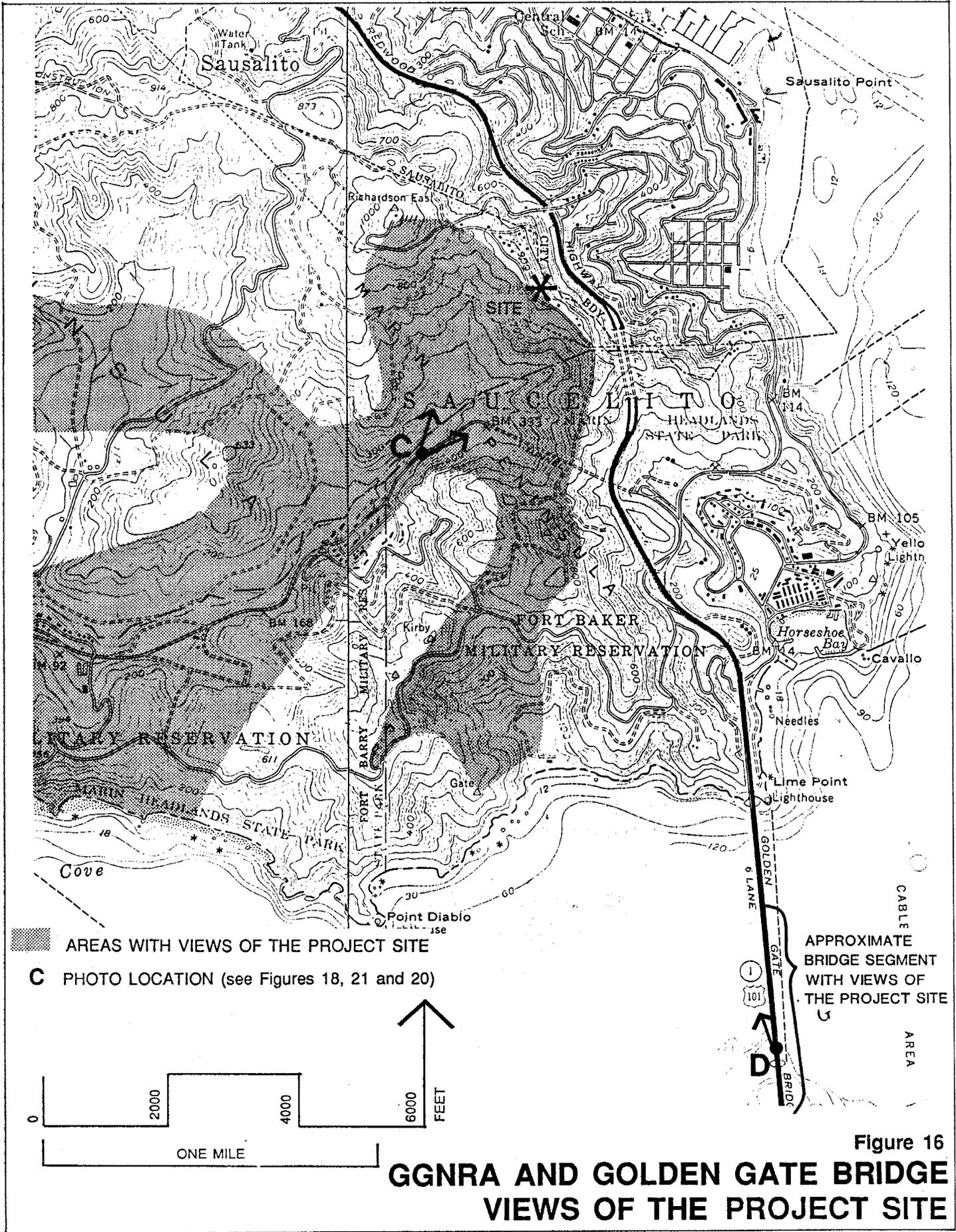


Figure 16

**GGNRA AND GOLDEN GATE BRIDGE  
VIEWS OF THE PROJECT SITE**



**Figure 14**  
**EXISTING LAND USE**

This increased residential land use intensity and clearing of vegetation would reduce the value of the area as a visual resource and as wildlife habitat. These impacts are discussed in detail in the Visual and Vegetation and Wildlife sections of this EIR.

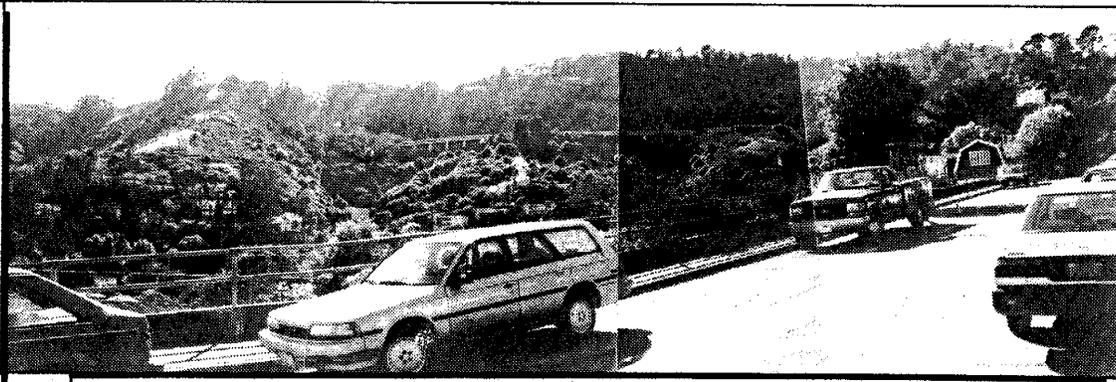
b. Project Impacts on the Surrounding Land Uses

(1) Impacts on the Surrounding Land Use Pattern. The proposed development plan would extend the existing low density residential development pattern now found on the northern portions of Wolfback Ridge into the more sparsely developed southern end of the ridge (see Figure 14). The proposed project would be of similar density and design to the existing residential development in the area. The proposed project would also result in the development of the last substantial piece of privately-owned subdividable Wolfback Ridge land adjacent to the GGNRA. One vacant parcel of approximately one-half acre in size would remain on the west side of Wolfback Ridge Road opposite the Cloud View Trail intersection (again, see Figure 14).

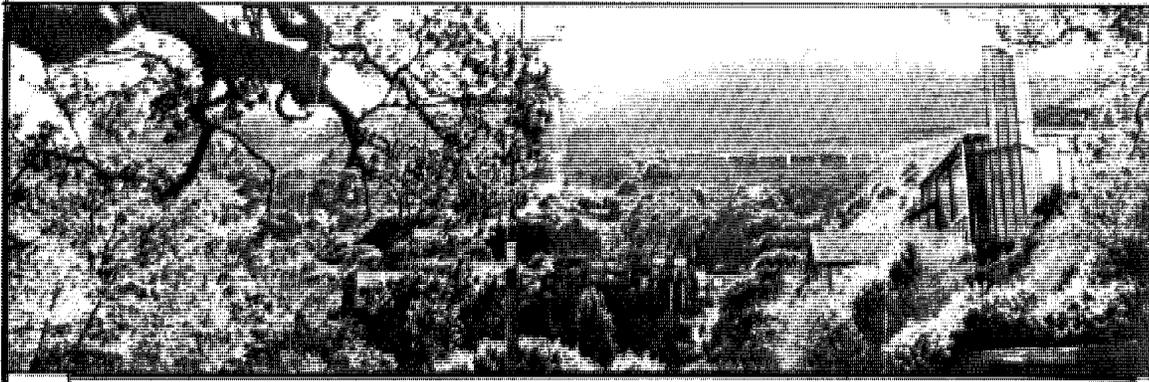
(2) Relationship to the Existing Wolfback Ridge Neighborhood. The proposed development would locate two of the proposed lots ( lots 1 and 2) adjacent to the existing Johnson residence on the ridge to the north (see Figure 7). Existing topography and vegetation would minimize the privacy and visual intrusion aspects of the project on the Johnson and two neighboring homes. The principal impacts of the development on the Johnson residence and on other existing residences on the ridge would be increased traffic, increased demands on the area's water supply, and for the Deaton and Butz homes, a visual impact on views of the GGNRA from the Wolfback Ridge Road extension (these entry drive views would be partially disrupted by the proposed homes and introduced landscaping on lots 3, 9, 11, and 12).

(3) Relationship to Highway 101. The proposed project homesites would be separated from Highway 101 by steep east-facing slopes that provide a 350-foot separation in elevation between the highway and the closest homesites. This separation is provided in part by the steep-sloping, grass and brush-covered "common area" along the eastern edge of the project between Cloud View Terrace and Cloud View Trail. Proposed residences on lots 1, 7 and 13 would nevertheless be visible from the 101 corridor and residential neighborhoods below, as described in the Visual Factors chapter of this EIR. In addition, noise intrusion from the freeway could have a negative impact on the quality of the residential environment on these particular lots, and possibly on lots 4 and 5. These impacts are discussed in detail in the Noise section of this EIR.

(4) Relationship to the GGNRA Lands. As shown on Figure 12 and 13, the proposed project layout would locate residential lots 3, 9, 11, and 12, as well as the three remote septic leach fields S-6, S-8, and S-11, immediately adjacent to existing GGNRA lands. As explained earlier in this section, these lots are located on land designated for fee acquisition



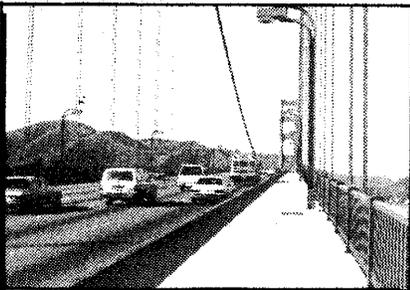
**A** View west-southwest toward Wolfback Ridge from Atwood Street at Third Street (viewpoint A on Figure 15)



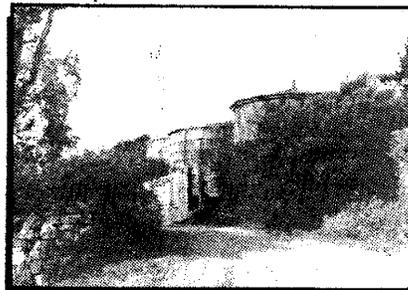
**B** View west-southwest toward Wolfback Ridge from Lower Crescent Avenue (viewpoint B on Figure 5)



**C** View northeast towards Wolfback Ridge from Bunker Road in Rodeo Valley (viewpoint C on Figure 16)



**D** View north from Golden Gate Bridge toward Wolfback Ridge (viewpoint D on Figure 16)



Existing three Wolfback Ridge water tanks

Figure 17

## SELECTED VIEW PHOTOGRAPHS

To protect and enhance the visual character of the Golden Gate National Recreation Area, the GGNRA Land Protection Plan (1983) has identified a 3.31-acre western portion of the project site for federal acquisition and protection. Pages 55 through 59 of the "Land Use" chapter of this EIR include a more detailed description of this piece and related GGNRA plans and intentions.

The wooded ridgetop and west-facing hillside portions of the project are also visible on the Marin Headlands skyline from the southern half of the Golden Gate Bridge, as indicated by Figure 16. As illustrated by photo D on Figure 17, the Marin Headlands and Wolfback Ridge appear undeveloped from this relatively distant vantage point, with the exceptions of the Conzelman Road and Roth Road cuts along the side of the headlands, and the barely noticeable roofline of the Butz residence at the south end of the ridge. The steep and barren hillsides leading up to Wolfback Ridge are particularly vulnerable from this bridge vantage point to the visual impacts of development.

### c. Views from the Site

As explained earlier in the description of project site characteristics, the ridgetop project site is one of the highest points in the area. Some portions of the site currently provide expansive, unobstructed panoramic views of Sausalito, Richardson Bay, Tiburon, Belvedere, Angel Island, San Francisco Bay, the East Bay, San Francisco, the Golden Gate Bridge, the Marin Headlands, Rodeo Valley, Fort Barry, the Pacific Ocean and the Farallon Islands. However, on most portions of the site, panoramic view possibilities are substantially limited or totally obstructed by the existing vegetative cover.

## 2. PROJECT IMPACTS

Given the significance of Wolfback Ridge as a major visual element in views from the east, west, and south, and the role of the ridge in establishing the valued visual character of Sausalito and Rodeo Valley, the proposal to construct 13 homes on the site warrants special scrutiny with respect to visual impact.

Figures 15 and 16 illustrate the extent of views toward the site from Sausalito, the GGNRA, and the Golden Gate Ridge. Figure 18 indicates what portions of the project site are visible from these offsite vantage points, and the degree of visibility. The diagram indicates those portions of the site where new residential development would be fully exposed to offsite views, those portions where development could be partially visible from viewpoints below through or above the site's existing vegetative overstory, and those site portions where typical residential development would be effectively concealed from surrounding viewpoints by existing topographic, structural, or vegetative features.

Appendix C of this EIR provides a lot-by-lot narrative description of visual impact implications for each of the proposed 13 project homesites. Appendix C was prepared by the EIR authors based on field visits and analysis of aerial photos, detailed topographic maps, and photographic inventories from numerous offsite vantage points. Many of the impact conclusions below are drawn from Appendix C.

a. Impacts on Sausalito Vantage Points

Those project homesites on Figure 7 (page 38) which are proposed for east-facing ridgetop and sideslope locations would present the greatest potentials for adverse visual impacts on Sausalito vantage points. Figure 18 illustrates the range of project site visual vulnerabilities from Sausalito vantage points. In addition, Figures 19 and 20 provide "before and after" photo-simulations of project visual impact potentials from two selected typical Sausalito viewpoints. These illustrations indicate that a substantial portion of the proposed residential structure on lot 13 at the end of Wolfback Terrace could be highly exposed to view. The illustrations also indicate that the other six east-facing and ridgetop homesites, lots 1, 2, 3, 5, 7, and 8 would be partially or fully screened from view by existing vegetation, significantly reducing the degree of visual impact on Sausalito vantage points below. On the other hand, this existing vegetative screening would also substantially limit realization of the extraordinary panoramic view opportunities offered by these particular lots. Since these view opportunities could be a principal marketing asset and lot selling price factor, there may be a strong tendency to capitalize on these view opportunities by removing or thinning existing vegetation on certain lots. Such removal or thinning could, in turn, increase the visual impact of the project on the offsite Sausalito vantage points mapped on Figure 15 to significant levels.

b. Impacts on GGNRA and Golden Gate Bridge Viewpoints

Those project homesites on Figure 7 (the applicant's development plan) which are located on the site's barren, west-facing slopes would present the greatest potentials for adverse visual impact on GGNRA and Golden Gate Bridge viewpoints. Figure 18 diagrams project site visual impact vulnerabilities from GGNRA and Golden Gate Bridge viewpoints. Figures 21 and 22 provide "before and after" photo-montage simulations of project visual impacts on these viewpoints. The figures generally illustrate that typical residential structures on homesites 3, 9, 11, and 12 would be highly exposed to views from GGNRA and Golden Gate Bridge vantage points. The simulations also illustrate how residential structures on the other six west-facing and ridgetop homesites--lots 2, 4, 5, 6, 8, and 10--would be effectively screened from view by existing ridgeline vegetation.

Again, however, this existing vegetative screening would also substantially limit realization of some of the spectacular view opportunities offered by these particular lots, and there would be strong incentives to enhance these view opportunities by selectively thinning or removing the existing vegetation in certain areas, reducing the screening effect and increasing project

exposure to, and impacts on, GGNRA views.

In addition, the proposed widening and paving of the existing dirt road along the western side of the ridgetop would require removal of some of the cypress tree row that lines the west side of the roadway. Figure 18 indicates that removal of trees here could expose portions of the home on lot 2 to GGNRA views (home #2 would otherwise be fully screened from GGNRA views), and could increase the exposure of homes 4, 6, and 8 to GGNRA views, although all of these four homes would remain partially screened by the remaining tree row vegetation on the west and east sides of the project roadway.

c. Project Impacts on Views from the Site

As explained earlier, some of the project lots currently provide expansive views with limited or non-existent onsite obstructions. Appendix C indicates that lots in this category include 3, 8, 9, 10, 11, 12, and 13. The proposed homes on each of these lots would benefit from these views, although future views from the home on lot 8 would be partially obstructed by the proposed home location on lot 10.

On five other project lots, view possibilities may also be extraordinary, but the existing ridgetop vegetation substantially limits the extent of the actual view, or blocks views entirely. Appendix C indicates that lots in this obstructed-view category include 1, 4, 5, 6, and 7.

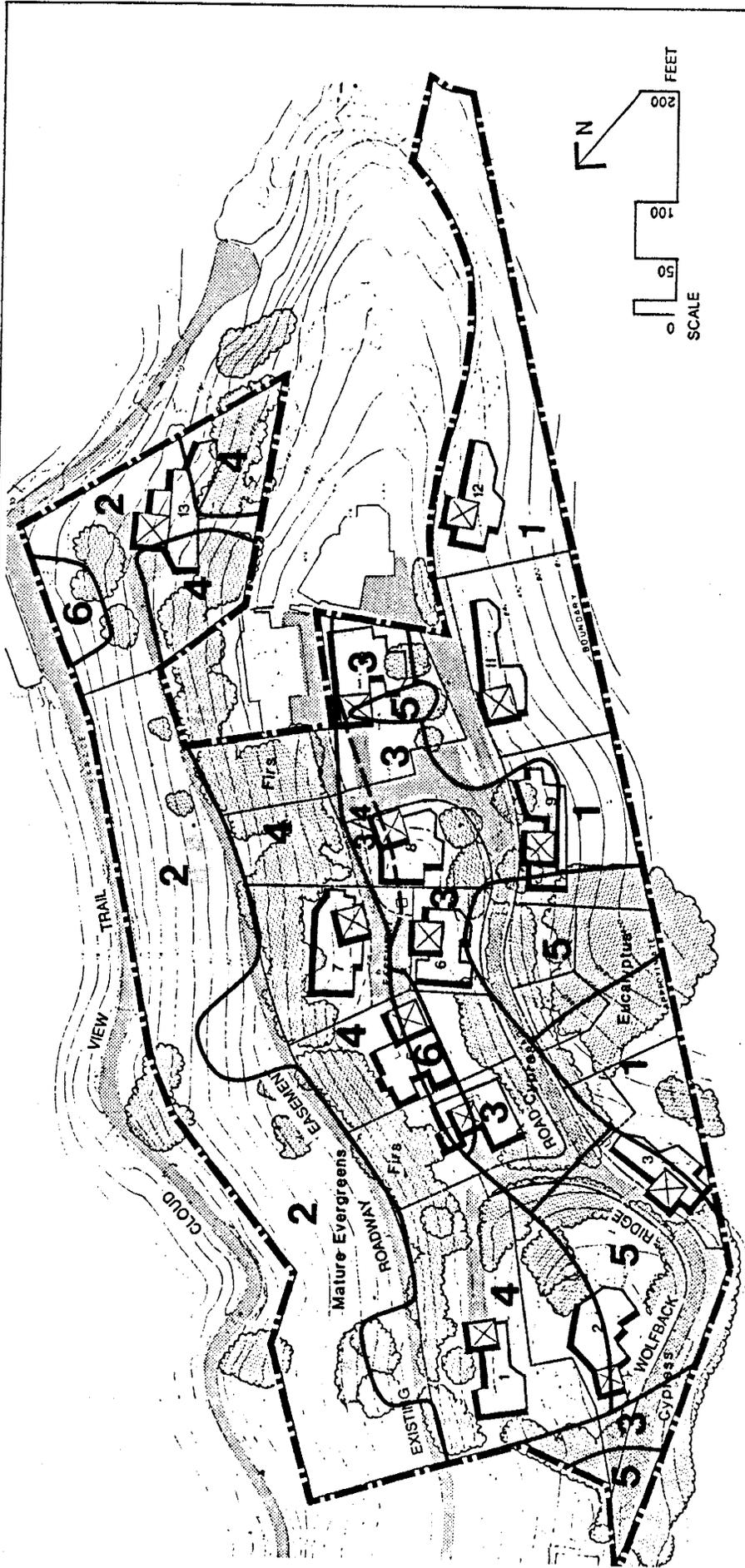
Finally, Appendix C also indicates that selective tree removal could occur on certain portions of some project lots for substantial view improvement without significant offsite visual impacts. Lots in this category include 2, and to a lesser extent, 4 and 5.

d. Visual Impacts of Grading

The visual impacts of project grading plans would be minimal. The applicant proposes use of architectural and foundation designs which are adaptive to site topography (grade beam and pier foundations), and does not propose grading of additional building pads. Cut and fill grading to widen the existing entry roads would also be minimal in terms of offsite visual impact implications. In addition, many of the proposed ridgetop residential structures would be grouped to allow common access drives, further reducing grading requirements and the loss of site open space values.

e. Effectiveness of Applicant-Proposed Additional Vegetative Screening

The preliminary landscape plan submitted by the applicant (see Figure 9 herein) conveys recognition of the visual impact potentials of homesites 3, 9, 11, 12, and 13, and proposes introduction of additional vegetative screening to mitigate these impacts.



- 1** AREAS WHERE RESIDENTIAL STRUCTURES WOULD BE FULLY EXPOSED TO GGNRA AND/OR GOLDEN GATE BRIDGE VANTAGE POINTS
- 2** AREAS WHERE RESIDENTIAL STRUCTURES WOULD BE FULLY EXPOSED TO SAUSALITO VANTAGE POINTS
- 3** AREAS WHERE RESIDENTIAL STRUCTURES COULD BE PARTIALLY EXPOSED TO GGNRA VANTAGE POINTS THROUGH EXISTING VEGETATION
- 4** AREAS WHERE RESIDENTIAL STRUCTURES COULD BE PARTIALLY EXPOSED TO SAUSALITO VANTAGE POINTS THROUGH OR ABOVE EXISTING VEGETATION
- 5** AREAS WHERE RESIDENTIAL STRUCTURES WOULD BE CONCEALED FROM OFFSITE VANTAGE POINTS BY EXISTING VEGETATION
- 6** AREAS WHERE RESIDENTIAL STRUCTURES WOULD BE CONCEALED FROM OFFSITE VANTAGE POINTS BY EXISTING TOPOGRAPHY OR STRUCTURES

**Figure 18**  
**SITE VISUAL IMPACT VULNERABILITY**

(1) Lot 13. The proposed additional vegetative screening on lot 13 (added clusters of cypress, eucalyptus, and pines) when mature, would be visually perceived as intensification of the existing vegetation on the site and could effectively conceal from view the protruding portion of the lot 13 structure shown on the Figure 19 and 20 photo-montages. However, given the size of the proposed new trees when planted (the schematic landscape plan indicates that 5-gallon minimum nursery container sizes would be used), the effectiveness in mitigating the visual impact of homesite 13 to insignificant levels would not be expected until at least 5 years of healthy growth have occurred. *In the interim years, the proposed home construction on lot 13 could be expected to have a temporary, but significant adverse visual impact on Sausalito vantage points below.*

(2) Lot 3. The proposed homesite on lot 3 would already be partially screened by existing vegetation (eucalyptus, cypress, and pines). The proposed planting of additional vegetative screening as shown on Figure 9 (added cluster of pines), when mature, would be visually perceived from GGNRA vantage points as intensification of the existing vegetative cover on the ridgetop, and could effectively conceal from view all or most of the protruding portion of the lot 3 residential structure shown on Figure 21. The effectiveness of this vegetative screening in mitigating the visual impact of lot 3 to insignificant levels would not be expected until at least 5 or more years of healthy growth had occurred. *In the interim period of at least 5 years, the proposed home construction on lot 3 could be expected to have a temporary, but significant adverse visual impact on GGNRA vantage points below.*

(3) Lots 9, 11, and 12. Figure 21 also illustrates how the proposed homesites on lots 9, 11, and 12 would be fully exposed, and highly prominent in contrast to the surrounding barren landscape, as viewed from GGNRA vantage points. Unlike lots 13 and 3, the proposed introduction of vegetative screening on lots 9, 11, and 12 to screen these three homes would not, when mature, be visually perceived from GGNRA vantage points as simply an intensification or "infill" of the existing vegetative cover. Rather, the added cypress, eucalyptus, oaks and pines, when mature, would be visually perceived as a substantial extension of introduced vegetation along the currently barren southern portion of the ridge. The additional vegetation could be highly noticeable, might not effectively conceal the fact that additional urbanization has occurred on the ridge, and would significantly limit or prohibit realization of the principal amenity offered by these three lots, i.e., their views.

In conclusion, there is insufficient evidence that the proposed vegetative screening of lots 9, 11, and 12 would reduce their long-term visual impacts to insignificant levels.

In addition, five years or more of healthy growth would be required for these trees to achieve a substantial screening effect. *In the interim, these three homes would have a significant interim, adverse visual impact on the intent and visual character of the Rodeo Valley portion of the GGNRA.*

f. Onsite Visual Impact Conclusions

Table 3 provides a definitive, lot-by-lot evaluation of project visual impacts on Sausalito, GGNRA and Golden Gate Bridge viewpoints. The table, as well as Appendix C and Figures 15 through 22, were prepared by the EIR authors based upon field study and a detailed topographic, photographic, and video reconnaissance of the project "viewshed."

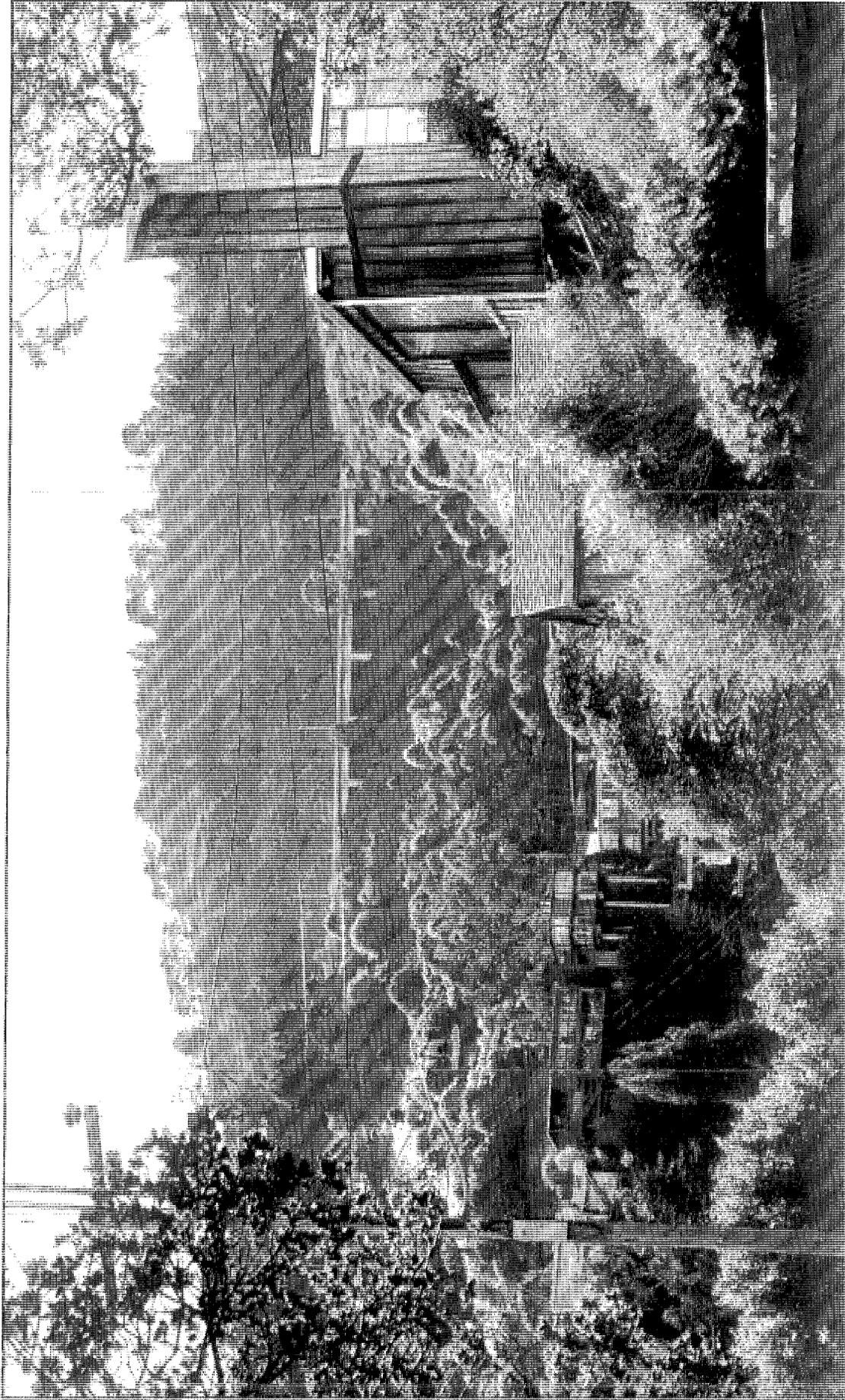
The following conclusions with respect to project visual impacts have been drawn from these studies:

- *Prominent exposure of major portions or all of a sideslope residential structure on the project site to the Sausalito, GGNRA, or Golden Gate Bridge vantage points identified in this EIR, due to a substantial or complete lack of existing vegetative screening, would constitute a significant adverse environmental impact. Lots where proposed homesite locations would result in such an impact, at least until proposed introduced vegetative screening could grow to effective size, include:*

Lot 13 (significant adverse visual impacts on Sausalito viewpoints mapped on Figure 15); and

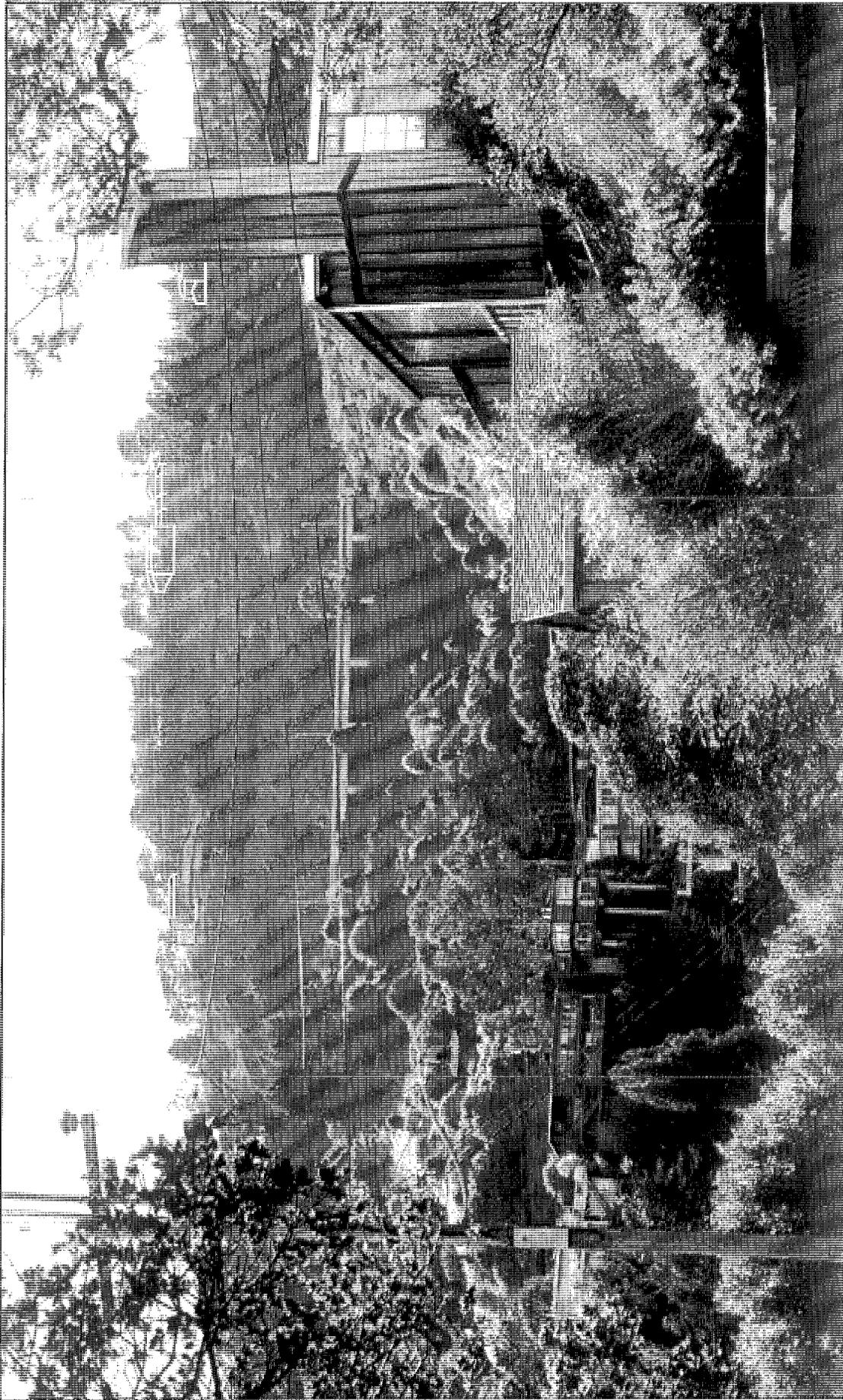
Lots 3, 9, 11, and 12 (significant adverse visual impacts on GGNRA and Golden Gate Bridge vantage points mapped on Figure 16).

- *The proposed introduction of additional vegetative screening as shown on Figure 9 herein (the applicant's schematic landscape plan), when mature, could reduce the visual impacts of home construction on lots 13 and 3 to insignificant levels. Until that point of maturation is reached (at least 5 years or more of healthy growth), home construction on these two lots would have a significant interim adverse visual impact.*
- *For similar reasons, home construction on lots 9, 11, and 12 would also have at least a significant interim adverse visual impact. In addition, the proposed introduction of vegetative screening may not reduce the long-term adverse visual impacts of home construction on these three lots to insignificant levels.*
- *Removal of existing vegetative screening at certain project site locations for the purposes of opening up views and/or improving solar access could expose substantial portions of the proposed homes to views from vantage points below, with significant adverse visual impacts. Although no such vegetation removal has been proposed by the applicant, there are strong incentives for such view improvement measures by either the applicant, future homebuilders, or future homeowners on the site. Lots where extraordinary view opportunities could be realized through the removal of existing vegetation, but where such vegetation removal could result in significant adverse visual impacts, include:*



BEFORE

Figure 19  
VANTAGE POINT "A":  
VIEW WEST FROM THIRD AND ATWOOD



## AFTER

The intention of this simulation is to illustrate general, conceptual, "worst case" building mass outlines. White outlines indicate the location of proposed homesites which would be screened from view by existing vegetation. Architectural details are not shown.

Table 3  
 PROJECT VISUAL IMPACTS AND MITIGATION POSSIBILITIES--LOT-BY-LOT

**NOTE:** Lot numbers correspond to Figures 7 and 8.

	Sausalito Vantage Points (See Figure 15)	GGNRA Vantage Points (See Figure 16)	GG Bridge Vantage Points (See Figure 16)
Lots where major portions or all of the proposed homesite would be prominently exposed to views from below, with significant adverse visual impacts	13	3, 9, 11, and 12	3, 9, 11, and 12
Lots where <u>additional</u> * vegetative screening may be warranted to avoid significant adverse visual impacts from new home construction	2, 4, 5, 6, and 8	3, 4, 6, 8, and 10	8, 10
Lots where possible removal of <u>existing</u> vegetative screening could expose portions of the proposed homes to vantage points below, with significant adverse visual impacts	1, 2, 4, 5, 7, and 13	2, 3, 4, 5, 6, and 8	10
Lots where <u>selective</u> vegetation removal could be allowed to occur for view enhancement and solar access purposes, with no significant adverse impact on views from below	1, 2, 4, 5, 6, 7, and 8	1, 4, 5, 6, 8, and 10	8, 10

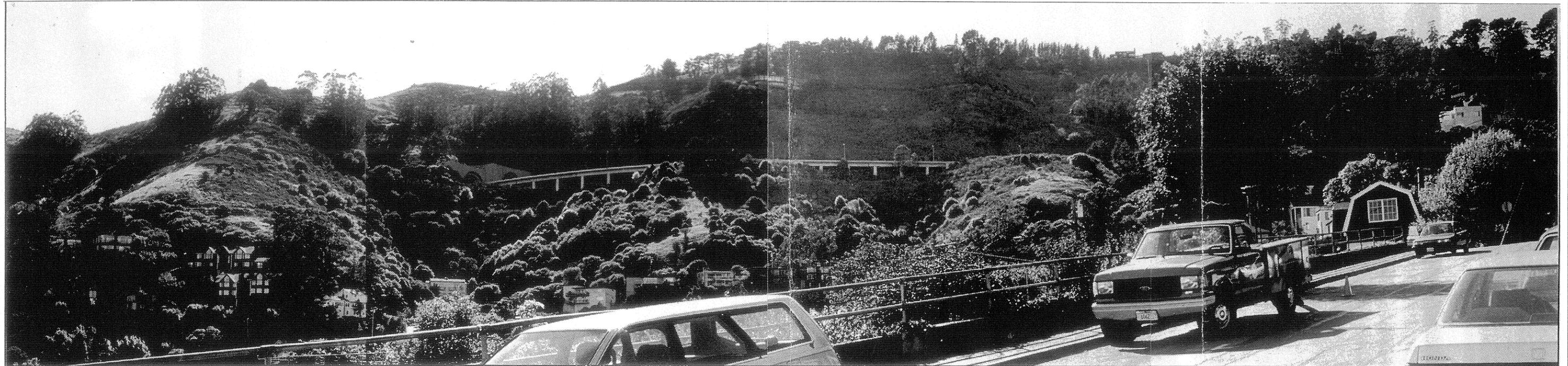
SOURCE: Wagstaff and Associates

\*"Additional" means in addition to existing and proposed vegetation shown on Figure 9.



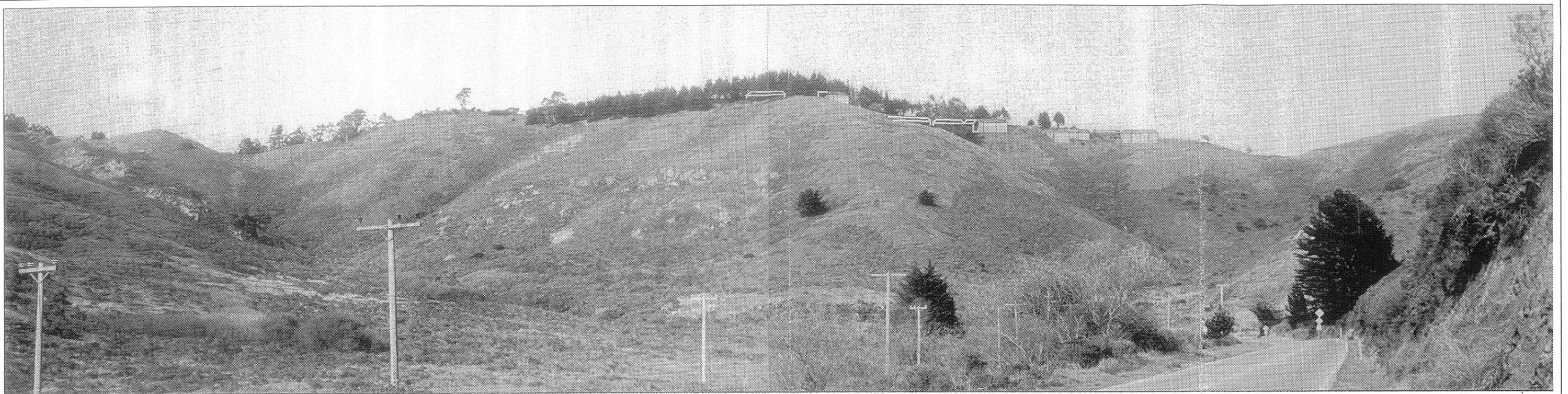
The intention of this simulation is to illustrate general, conceptual, "worst case" building mass outlines. White outlines indicate the location of proposed homesites which would be screened from view by existing vegetation. Architectural details are not shown.

AFTER



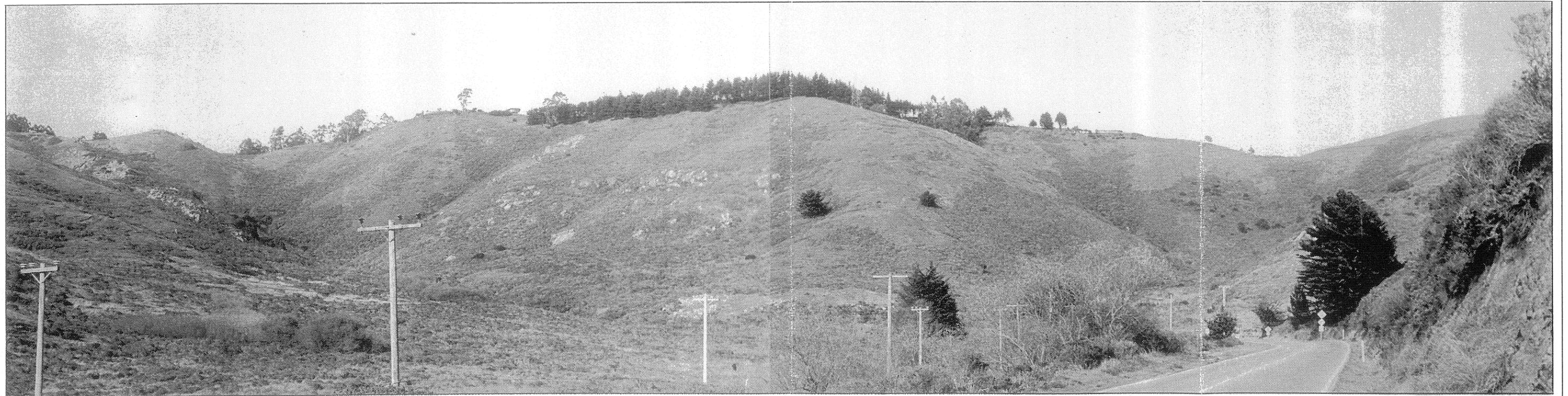
BEFORE

Figure 20  
VANTAGE POINT "B":  
VIEW WEST FROM CRESCENT AVE.



The intention of this simulation is to illustrate general, conceptual, "worst case" building mass outlines. White outlines indicate the location of proposed homesites which would be screened from view by existing vegetation. Architectural details are not shown.

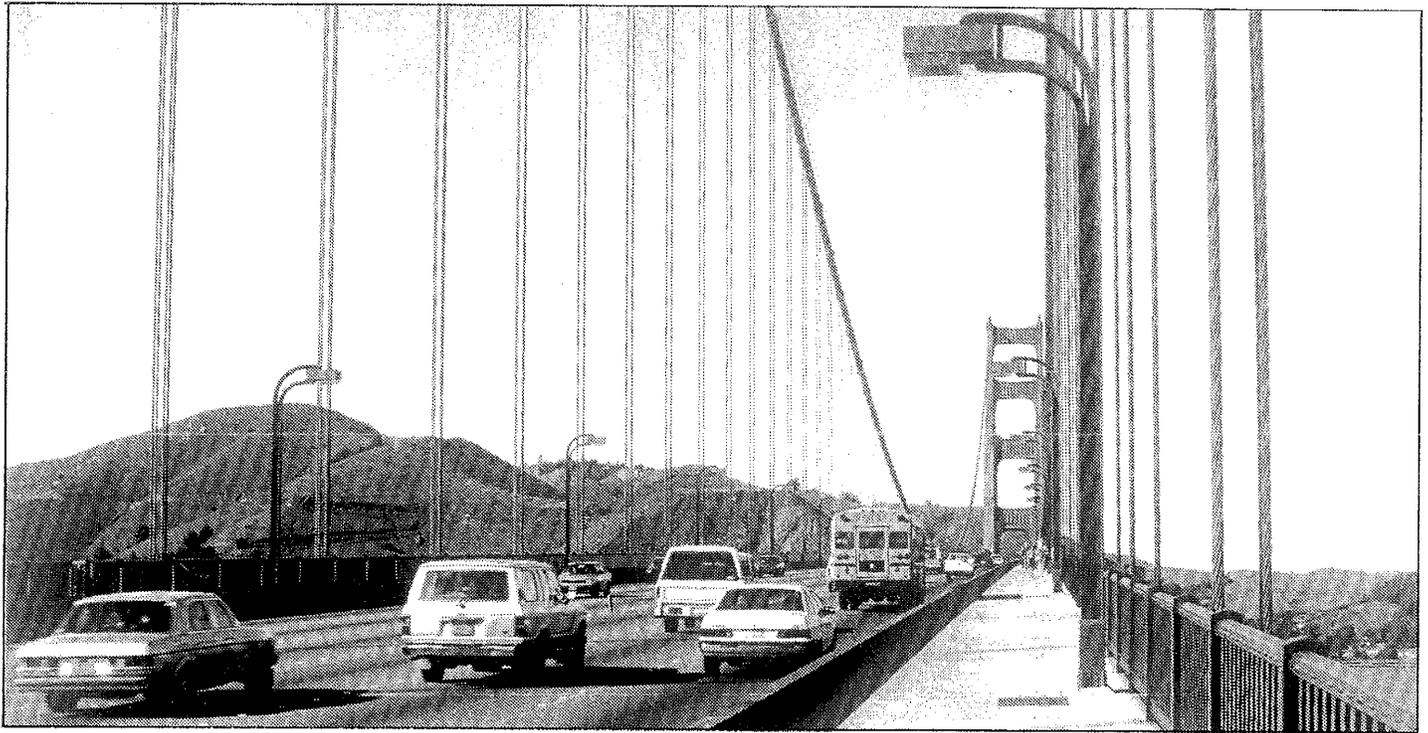
AFTER



BEFORE

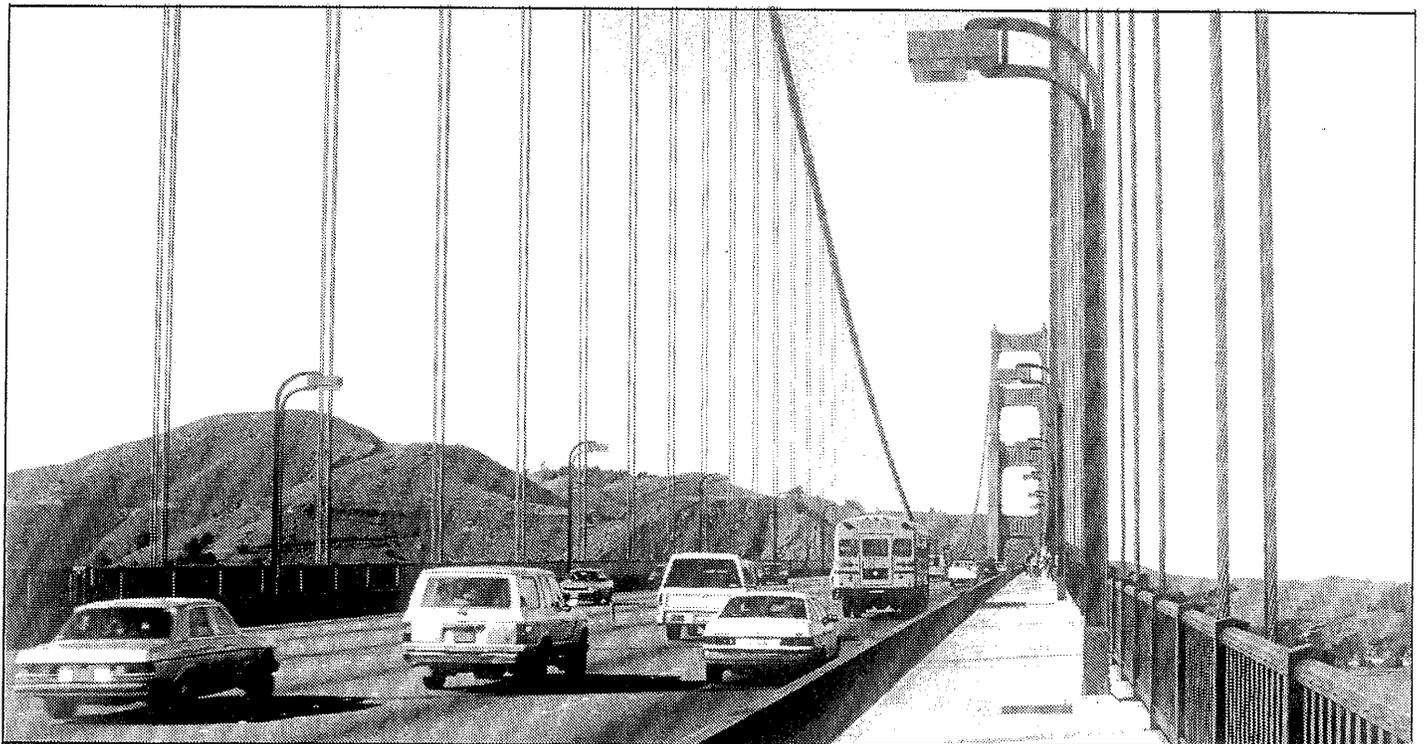
Figure 21

VANTAGE POINT "C":  
GGNRA VIEW EAST FROM BUNKER RD.



The intention of this simulation is to illustrate "worst case" building mass outlines. Architectural details are not shown.

AFTER



BEFORE

**Figure 22**  
VANTAGE POINT "D":  
VIEW NORTH FROM THE GOLDEN GATE BRIDGE

Lots 1, 7, and 13 (significant visual impact implications for Sausalito vantage points mapped on Figure 15);

Lots 2, 4, and 5 (significant visual impact implications for Sausalito and GGNRA vantage points mapped on Figures 15 and 16);

Lots 6 and 8 (significant visual impact implications for GGNRA vantage points mapped on Figure 16); and

Lot 10 (significant visual impact implications for Golden Gate Bridge vantage points mapped on Figure 16).

- *Exposure of the upper stories or other noticeable portions of a ridgetop residential structure, above the vegetative canopy or through various existing gaps in the site's vegetative cover, could also result in a significant adverse visual impact on vantage points below.* Lots where such vegetative gaps or structural protrusions, and resultant significant visual impacts, could occur include:

Lots 2 and 5 (significant visual impacts on Sausalito viewpoints);

Lot 3 (significant visual impacts on GGNRA viewpoints);

Lots 4 and 6 (significant visual impacts on both Sausalito and GGNRA viewpoints);

Lot 8 (significant visual impacts on Sausalito, GGNRA, and Golden Gate Bridge viewpoints); and

Lot 10 (significant visual impacts on GGNRA and Golden Gate Bridge viewpoints).

g. Offsite Water Tank Impacts

The proposed additional 10,000-gallon water tank on the site of the existing three tanks (see last photograph on Figure 17) could also result in significant adverse visual impacts on views of the tank site from Wolfback Ridge Road and neighboring properties. Given the limited remaining area for the new tank, some existing vegetation which currently helps to screen the existing tanks may have to be removed, exacerbating these visual impacts. In addition, a new steel tank design may appear visually incompatible with the more rustic, existing three wooden tanks.

### 3. MITIGATION MEASURES

#### a. Project Visual Impacts--Lots 3, 9, 11, 12, and 13

Table 3 herein and the impact conclusions on pages 10 through 12 indicate that proposed home construction on lots 3, 9, 11, 12, and 13 would have the most significant visual impacts. The following measures address those impacts:

(1) Significant, long-term adverse impacts of the project on Rodeo Valley and Golden Gate Bridge views, and on GGNRA land protection objectives, would be unavoidable unless the proposed homesites on lots 9, 11, and 12 were either eliminated or relocated to a less visually vulnerable portion of the site (the latter measure would require redesign of the remaining homesite layout). Mitigation measures involving GGNRA acquisition of lots 9, 11, and 12 are described in the Land Use chapter of this EIR (see pages 63 and 64 of this EIR).

(2) Significant interim (five years or more) adverse visual impacts of the project on Rodeo Valley and Sausalito views would be unavoidable unless the proposed homesites on lots 3 and 13 were either eliminated or relocated to a less visually vulnerable portion of the site. Mitigation measures involving possible GGNRA acquisition of lot 3 are described on pages 63 and 64 of this EIR. As part of such an acquisition action, the GGNRA may also be interested in acquiring lot 13.

(3) Significant long-term adverse visual impacts of lot 3 and 13 home construction on Rodeo Valley and Sausalito could be effectively mitigated with introduction of vegetative screening as proposed by the applicant (see Figure 9). A number of additional measures to guide introduction of such screening, and to ensure its long-term maintenance, are described below.

In addition, the final design and title provisions of the proposed Wolfback Ridge Estates PUD should incorporate measures and controls on architecture, grading, introduced landscaping, tree removal, and ongoing landscape maintenance specifically formulated to mitigate those project impacts described in this EIR as significant and adverse. The following specific administrative, architectural, grading, landscaping, vegetation removal, and lighting measures are recommended for incorporation in the project PUD plan and, where appropriate, in the conditions, covenants, and restrictions (CC&Rs) attached to the title of each lot, in order to reduce identified significant adverse visual impacts to insignificant levels:

#### b. Homeowners Association

As a condition of project approval, PUD provisions ensuring the establishment and ongoing operation of a project homeowners association should be required. A principal specified

role of the homeowners association should be to implement and enforce the various project rules, procedures, conditions, covenants, and restrictions related to mitigation of visual impacts.

c. Architectural Standards

Architectural design standards should be incorporated in the PUD and CC&Rs to ensure against the construction of conspicuous sideslope or ridgetop residential structures which would adversely affect the character of Wolfback Ridge. The standards should be formulated to achieve the following visual impact mitigation objectives:

- (1) Architectural design for sideslope and ridgetop crest residential structures should be visually adaptive and generally sensitive to the hillside topography.
- (2) The design of residential and accessory structures should be subordinate to existing hillside and ridgeline forms. Hillside and ridgecrest homes should be constructed in multiple levels to achieve a better fit with the existing sideslopes, reduce the need for grading, increase overall visual compatibility with Wolfback Ridge, and maximize architectural interest.
- (3) Use of hillside "stilt" designs should be avoided. Building elevations on the downhill sides should continue to the ground.
- (4) Regraded areas should be generally limited to portions of each homesite covered by the gradebeam and pier building foundations, driveways, leachfields, and minor drainage provisions.
- (5) The design of residential exteriors and appurtenances must be harmonious with the natural character of the project's Wolfback Ridge site.
- (6) Building heights and scales should be compatible with the existing terrain, other project homesites, and surrounding existing homes on Wolfback Ridge.
- (7) Residential designs should be articulated to achieve low-profile forms on the upper sideslopes and ridgeline crest.
- (8) Hillside and ridgetop building designs should incorporate a combination of small volumes and varying surface planes to create visual interest and to avoid conspicuous, large-bulk structures and box-like masses.
- (9) Building materials and colors should be subdued to minimize contrast with the natural landscape on Wolfback Ridge.

(10) Reflective windows and building materials should be prohibited.

(11) Where roof surfaces will be visible from onsite or offsite vantage points, natural-appearing roofing materials (tile, fire-retardant shake, etc.) should be used to minimize visual impacts (especially homes on lots 1, 3, 9, 10, 11, 12, and 13).

(12) Rooftop appurtenances (jacks, vents, etc.) should be located and grouped to conceal them from offsite vantage points below, and from direct view of neighboring homes (especially homes on lots 1, 3, 9, 10, 11, 12, and 13).

(13) Cantilevered decks and balconies on any visible sideslope portions of project homes should be limited in size or avoided entirely.

c. Landscaping Controls

PUD approval should also be contingent upon applicant preparation for city review of a *detailed project landscape plan and associated landscape design standards*. The landscape plan should include specific guidelines for individual residential lots, including pre-ordained plant types and plant locations, as warranted to mitigate the adverse visual impacts identified in this EIR. Implementation of the planting scheme should be ensured through incorporation of related design, planting, and ongoing maintenance requirements in the bylaws of the homeowners association and the CC&Rs of each affected lot. These bylaws and/or CC&Rs should incorporate the following:

(1) The project landscape plan and/or CC&Rs should include landscaping standards for private exterior areas which will ensure compatibility of each homesite with the overall Wolfback Ridge setting, will protect significant views from the site, and will avoid increased adverse impacts on offsite vantage points.

(2) The landscaping plan should include the establishment of additional vegetative screening for lots, 2, 3, 4, 5, 6, 8 and 10 (as indicated by Table 3).

(3) For maximum mitigating effect, landscaping for screening purposes should be clustered in natural-appearing arrays in the immediate vicinity (within 10 to 30 feet) of the buildings to be screened. Location of vegetative screening close to the residential structure would also provide greater opportunities for selective placement and trimming to "frame" and maintain certain views. Screening vegetation should not be placed in unnatural-appearing linear rows.

(4) The project landscaping plan should emphasize use of the same planting "palette" throughout the site in order to unify the project and minimize its impact on offsite viewpoints.

(5) The landscape plan should emphasize use of native, drought-tolerant, wind-resistant species which are compatible with existing site vegetation, including Monterey pine, cypress, coast live oak, Douglas fir, eucalyptus, and acacia. Use of coast redwoods should be avoided, since their ultimate size and shape may be disproportionate with the overall ridgetop landscape.

(6) As suggested by the applicant's landscape architect, use of eucalyptus should be limited to temporary, interim screen planting which will be removed when other more appropriate, but slower-growing vegetative species (the pine, cypress, coast live oak, and acacia) reach sizes necessary for effective visual screening (see Figure 9).

(7) The tendency to use larger size tree containers in the planting program for lots 3, 9, 11, 12, and 13 in order to provide better visual screening in the initial years should be avoided for two reasons:

- the larger container sizes will require greater excavation, which is not advisable on these steep sideslopes; and
- large container sizes (e.g., 20-, 24-, or 36-inch boxed trees) are inferior to smaller seedlings in terms of: (a) adapting to such a site, (b) resisting wind damage, and (c) rate of growth (a smaller seedling will probably grow to effective screening size more quickly than a larger container size).

(8) Given the ongoing, long-term importance of vegetative screening in mitigating project visual impacts, a program of ongoing maintenance and replacement of existing and introduced vegetative screening should be established as a condition of PUD approval. Permanent implementation of the program should be a principal role and responsibility of the project homeowners association, which would collect dues to cover common maintenance costs, and would help to enforce project CC&Rs regarding ongoing, lot-specific mitigation of project visual impacts.

#### d. Vegetation Removal Controls

This EIR describes onsite incentives to remove existing and introduced vegetative screening on the ridgetop for view enhancement and solar access purposes, and possible significant adverse impacts of such vegetation removal on offsite vantage points. Removal and thinning (pruning) of existing trees on the project site should be stringently controlled to ensure against such impacts. Removal of any existing onsite tree of 15 feet or more in height in Sausalito is subject to city tree-removal controls, and under city Ordinance 812 (1973), requires a permit from the city's appointed Trees and Views Committee.

In addition to these existing citywide permit requirements, the requested project PUD conditional use permit should include the provision that removal of any tree or branch in excess of a specified diameter (e.g., 12 inches) will be subject to review by the city's Trees

and Views Committee or Architectural Review Board, despite its status as a desirable or undesirable tree. This provision should apply in particular to lots 1, 3 through 8, 10, and 13. The developer or future homeowner should be required to demonstrate in the review process that the proposed tree trimming or removal will not result in a significant offsite visual impact (i.e., conspicuous exposure of a residential structure).

In the event that the draft revised Tree Ordinance dated May 1989 is enacted in its current form, the conditions of approval for the PUD should specify that the exemptions provided for "undesirable trees" (Monterey pine, cypress, redwood, or eucalyptus) should not apply to this condition.

Enforcement of this project requirement should be a specific homeowners association responsibility.

e. Light and Glare

(1) Street lighting should be used conservatively or not at all. If street lighting must be provided, it should be limited to use of low-intensity fixtures with the cone of light focused in a manner which avoids illuminating any vertical surfaces visible from offsite vantage points.

If street lighting must be provided along the project access road, a common lighting program should be incorporated in the project landscape plan which features low mounting heights; closely-spaced luminaires; and light refractors, reflectors, or diffusers.

(2) The CC&Rs for each individual lot should include stringent parameters regarding exterior lighting to ensure against nighttime visual impacts on offsite vantage points. The parameters should include the standards described above.

f. Miscellaneous Onsite Controls

Swimming pools and tennis courts should be accommodated totally within existing site grades.

g. Offsite Water Tank

(1) The proposed new water tank should be designed and located to minimize visual impacts on the local Wolfback Ridge Road neighborhood. The design should take maximum advantage of the screening opportunities offered by existing vegetation (see last photograph on Figure 17). As an alternative to simply adding a fourth tank, replacement of the existing steel tank with a larger steel tank may serve to reduce the land area required and reduce the need to remove existing vegetative screening, while meeting the water storage capacity requirements identified in section IV.D.1 of this EIR.

(2) The visual impact of the additional water tank should also be minimized through specification of a compatible shape and color, and through the introduction of additional vegetative screening.

---

## C. CIRCULATION AND ACCESS

---

This EIR chapter evaluates the vehicular access implications of the project, including the adequacy of the proposed roadway and parking provisions, and the impact of the additional project homes on the operation and safety of the existing road system serving Wolfback Ridge.

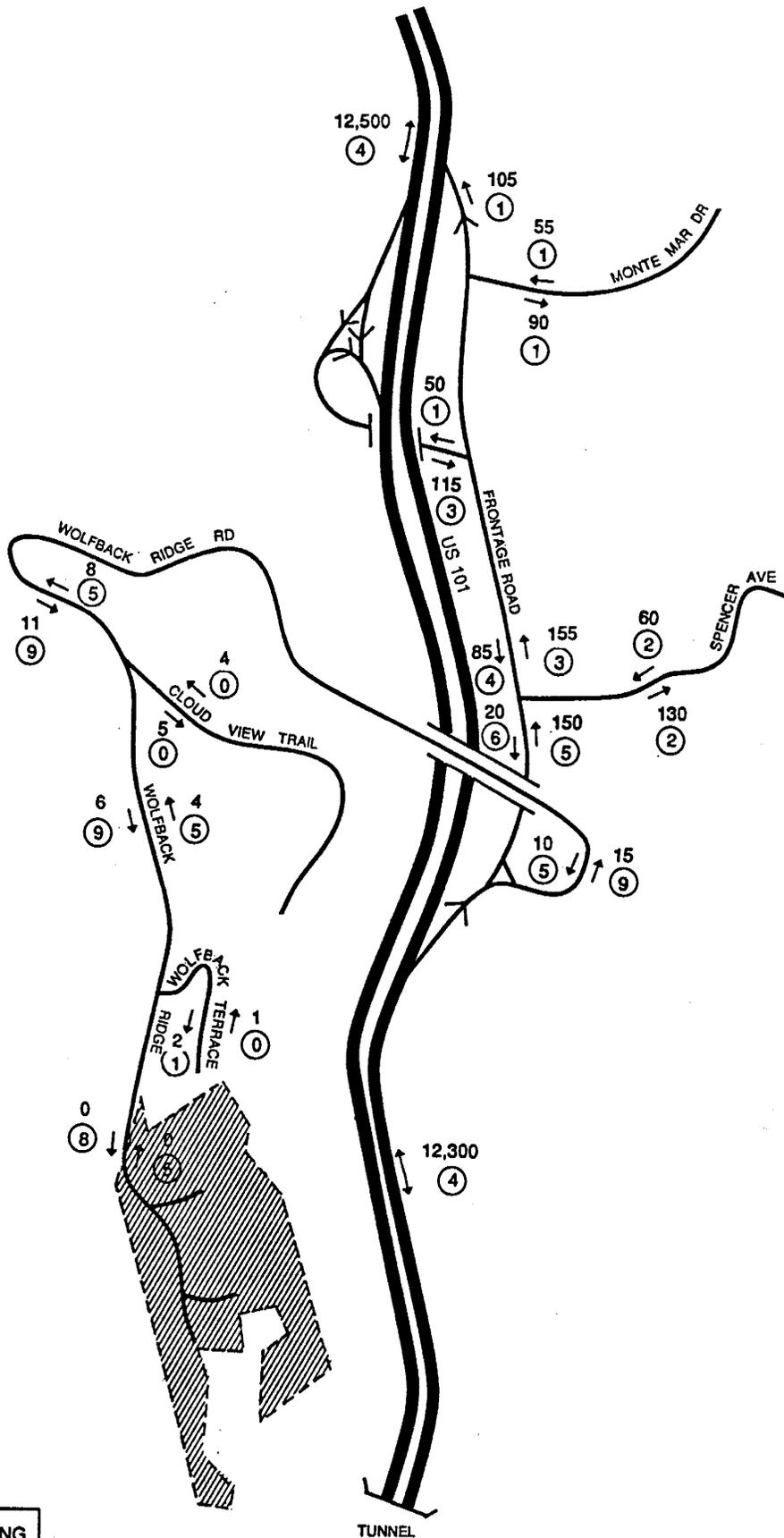
### 1. SETTING

#### a. Existing Roadway System

Regional access to the project area is provided by the State Route 1/Interstate 101 freeway (Highway 101) via Spencer Avenue, Monte Mar Drive, and a frontage road along the east side of the freeway. Local access to the area is provided by Wolfback Ridge Road via the Spencer Avenue overpass of Highway 101. Direct access to the project site is provided by Wolfback Ridge Road, Cloud View Trail, and Wolfback Terrace. Figure 23 diagrams the existing road system serving Wolfback Ridge and the project site. Figure 24 identifies local roadway widths and other conditions identified in the field by the EIR traffic engineer.

(1) Wolfback Ridge Road. Wolfback Ridge Road is a well-paved, two-lane roadway providing the only paved access to the project (west) side of the freeway from the local Sausalito street system and the freeway. The road contains centerline striping and raised buttons. It includes a stop-sign controlled intersection with the frontage road along the east side of the freeway, and a 26-foot-wide (curb-to-curb) overpass of the freeway. From the west side of the freeway, Wolfback Ridge Road passes through a private, unattended security gate and follows a curving, uphill alignment (approximately a 17 percent grade) until it reaches the intersection with Cloud View Trail. As shown on Figure 24, pavement width along this stretch of roadway (between the freeway and Cloud View Trail) varies from 18 feet to 14.5 feet, with the narrowest segment located where the road passes through a rock-lined cut just beyond and to the east of a 180° curve in the road. Shoulder areas are provided along only one section of this roadway segment, on the outside of the 180° curve just west of the cut.

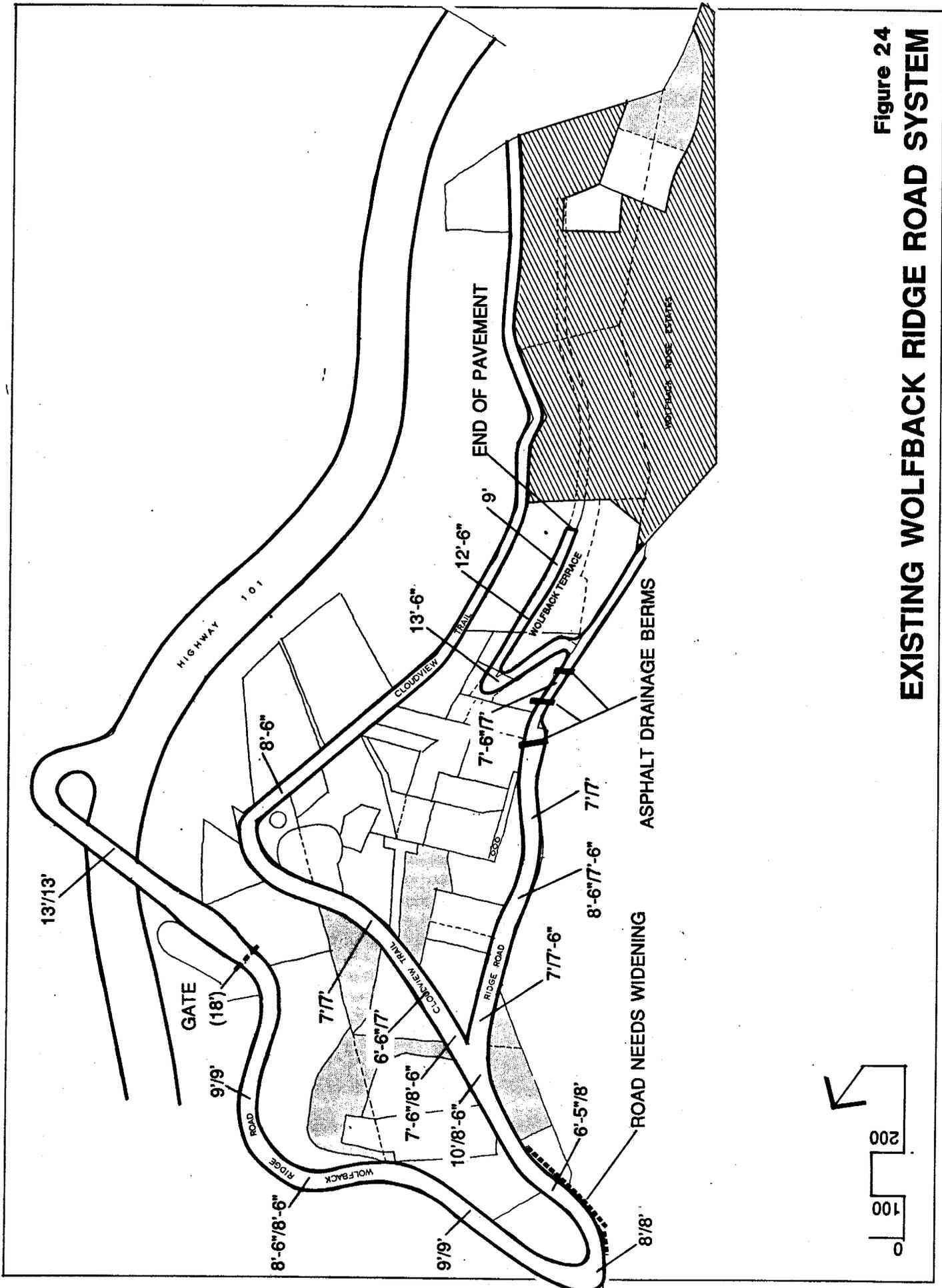
To the southeast of the Cloud View Trail intersection, Wolfback Ridge Road continues up a small rise (15 percent maximum grade) to its intersection with Wolfback Terrace. Pavement width along this segment varies from 16 feet to 14 feet. Some gravel and grass shoulder areas are also provided along this segment. Three asphalt berms are located near the



↑  
NOT TO SCALE

10 - EXISTING  
② - PROJECT

**Figure 23**  
**PM PEAK HOUR**  
**TRAFFIC VOLUMES**



**Figure 24**  
**EXISTING WOLFBACK RIDGE ROAD SYSTEM**

intersection with Wolfback Terrace. Although these berms were constructed to direct drainage across the road, they also act as "speed bumps."

Drivers were observed traveling at speeds of 20 to 25 mph along Wolfback Ridge Road in the ridgetop area. Higher speeds, primarily for downhill traffic, were observed on segments nearer to the freeway.

All of Wolfback Ridge Road west of the private gate is privately owned. There is no public right-of-way on Wolfback Ridge Road beyond the gate. In general, residents own to the centerline of the road in front of their individual parcels. This is also true for Wolfback Terrace.

(2) Cloud View Trail. Cloud View Trail is a narrow, well-paved, two-lane roadway extending easterly and then southerly from a "T" intersection with Wolfback Ridge Road. Centerline striping and raised buttons are in place along the east-west section of this roadway. Pavement width varies from 16 feet to eight feet, as is shown by Figure 24. Cloud View Trail has a steep downhill gradient proceeding easterly from Wolfback Ridge Road (up to 22 percent grade), leveling out where it curves to the southerly alignment. No shoulder areas are provided along most of this roadway. Trees are located immediately adjacent to the road in many locations.

Due to the widths and centerline striping along both Wolfback Ridge Road and Cloud View Trail, sight distances are generally adequate. Although there are some existing driveways where sight distances are marginal, sight conditions are generally better than along most hillside streets in Sausalito.

Cloud View Trail once formed the westerly boundary of the city limits. The existing paved roadway lies partially within the Highway 101 right-of-way, partially on land owned by the GGNRA and partially within street right-of-way owned by the city (see Figure 3, page 30).

Cloud View Trail was improved by and is currently maintained by Mr. Fritz Warren, owner of the existing home located on Cloud View Trail just below proposed lot 13. Mr. Warren has reported that he believes he has an exclusive right to pedestrian and vehicular access across those portions of Cloud View Trail that traverse lands of the GGNRA (see Figure 3), thus limiting through traffic on Cloud View Trail.

(3) Wolfback Terrace. As shown on Figure 24, Wolfback Terrace is a partially-paved, narrow, single-lane roadway connecting to Wolfback Ridge Road at an unsigned intersection. Wolfback Terrace has a downgrade alignment (west to east) and varies in width from 19 feet near Wolfback Ridge Road to nine feet near the end of the paved surface. There is a sharp 160-degree "hairpin" turn in the road about 100 feet east of Wolfback Ridge Road. The limited space at this curve prevents longer vehicles from

completing a turn movement in one forward motion.<sup>1</sup> Existing residential driveways located at this curve are used to facilitate turn movements. The roadway continues as a single-lane dirt road beyond the end of pavement to the portion of the project site proposed for lot 13.

#### b. Existing Traffic Volumes

Existing local roadway weekday PM peak-hour volume counts completed by the EIR traffic engineer on Wednesday, February 22, 1989, are mapped on Figure 23. As shown, existing PM peak-hour volumes on Wolfback Ridge Road were 10 vehicles per hour (VPH) south of the Cloud View Trail intersection; 19 VPH north of Cloud View Trail; and 25 VPH just west of the Highway 101 overpass. Cloud View Trail had a PM peak-hour, two-way volume of nine VPH near Wolfback Ridge Road, and Wolfback Terrace had a volume of three VPH near Wolfback Ridge Road. Volumes on the frontage road which runs along the east side of the Highway 101 were 145 VPH at the northbound offramp, 240 VPH north of Spencer Avenue, and 105 VPH at the northbound onramp. Spencer Avenue had a two-way PM peak-hour volume of 190 VPH and Monte Mar Drive had a volume of 145 VPH.

#### c. Transit Service

Numerous Golden Gate Transit Bus Routes and the Marin-Sonoma Airporter (about 20 buses during the PM peak-hour) exit the northbound Highway 101 offramp onto the frontage road along the east side of the freeway to serve Sausalito passengers. All northbound buses re-enter the freeway at the onramp near Monte Mar Drive. Southbound buses exit and enter the freeway at the southbound ramps on the west side of the freeway. Golden Gate Transit provides service to San Francisco south of the site and to most cities in Marin and Sonoma County north of the site.

## 2. PROJECT IMPACTS

### a. Trip Generation

For conservative traffic impact assessment purposes, the EIR traffic engineer has assumed that the proposed 13-unit subdivision would generate about 14 daily two-way trips in the PM peak-hour, with nine inbound and five outbound.<sup>2</sup> These estimates are conservatively

---

<sup>1</sup>The term "longer vehicles" includes vehicles in excess of 18'-0" in length. This would exclude small cars, compacts, and standard cars, and would include large cars, ambulances, paramedic vans, trash trucks, UPS trucks, and fire trucks.

<sup>2</sup>Trip Generation Assumptions - Daily: Average weekday rate = 10.01, volume = 130; PM Peak Hour: (In) rate = .64, volume = 9; (Out) rate = .37, volume = 5.

higher than the trip-generating characteristics of the existing units in the project area (the February GTG counts indicate that the 37 existing units are now generating 23 PM peak-hour trips or 0.62 PM peak-hour trips/unit).

b. Trip Distribution

The project traffic generation total was distributed to the local roadway network based upon observed existing circulation patterns in the area. The estimated trip assignments to local routes are shown on Figure 23. Twelve of the thirteen project units would be served by an improved version of the existing southerly extension of Wolfback Ridge Road, while a single unit would be served by a southerly extension of Wolfback Terrace. All project traffic would access the greater local roadway system (Highway 101 and Sausalito below) via Wolfback Ridge Road.

c. Project Impacts on Local Roadways

Project traffic increases in PM peak-hour (5 to 6 PM) volumes along various local routes are shown on Figure 23 and Table 4. PM peak-hour volumes on Wolfback Ridge Road could be expected to increase by 14 VPH between the freeway overpass and Wolfback Terrace. While the increase in peak-hour traffic volumes on Wolfback Ridge Road would result in a relatively low number of additional peak-hour trips (14), it would nevertheless result in a 140 percent increase over existing volumes. Residents of this road, especially those nearest the project site who are accustomed to very low traffic volumes, may be sensitive to this relative increase in traffic volumes.

PM peak-hour volumes on Wolfback Terrace would be expected to increase by one VPH. There would be no increase in traffic on Cloud View Trail.

Increases on Spencer Avenue and Monte Mar Drive would be four and two VPH respectively, while each freeway offramp would gain approximately three VPH and each freeway onramp one VPH. Volumes along the frontage road would increase by 11 VPH south of Spencer Avenue and three VPH near Monte Mar Drive, while volumes on Highway 101 would increase by four VPH both north and south of the site.

All roadways near Highway 101, as well as on the freeway itself, have the capacity to accommodate this added peak-hour project traffic. Project traffic would make a negligible contribution to significant cumulative peak-hour traffic delays on southbound Highway 101 at the Golden Gate Bridge Plaza and/or at the north end of the bridge where the four freeway lanes must merge to a fewer number of lanes (during times other than the AM commute).

Closer to the site, Wolfback Ridge Road from the freeway to Wolfback Terrace also has the physical capacity to accommodate project traffic. Existing roadway conditions and road widths would minimize potential safety concerns along this stretch of roadway, with the

Table 4  
PROJECT TRAFFIC IMPACTS ON LOCAL ROADWAYS

<u>Roadway</u>	<u>Increase in Existing Two-Way PM Peak-Hour Volumes Due to Project Traffic</u>
Wolfback Ridge Road (Cloud View to Wolfback Terrace)	+140% (from 10 to 24 VPH*)
Wolfback Ridge Road (Cloud View to Freeway Overpass)	+ 56% (from 25 to 39 VPH)
Cloud View Trail (east of Wolfback Ridge Road)	+ 0% (from 9 to 9 VPH)
Wolfback Terrace (east of Wolfback Ridge Road)	+ 33% (from 3 to 4 VPH)
Frontage Road (south of Spencer)	+ 6% (from 170 to 181 VPH)
Frontage Road (north of Spencer)	+ 3% (from 240 to 247 VPH)
Spencer Avenue (east of Frontage Road)	+ 2% (from 190 to 194 VPH)
Monte Mar Drive (east of Frontage Road)	+ 1% (from 145 to 147 VPH)
NB 101 Offramp	+ 2% (from 135 to 138 VPH)
NB 101 Onramp	+ 1% (from 105 to 106 VPH)
SB 101 Offramp	+ 3% (from 115 to 118 VPH)
SB 101 Onramp	+ 2% (from 50 to 51 VPH)
Highway 101 - South of Site	+.03% (from 12,300 to 12,304 VPH)
Highway 101 - North of Site	+.03% (from 12,500 to 12,504 VPH)

SOURCE: Goodrich Traffic Group, March 1989

\* VPH = Vehicles Per Hour

exception of the one narrower roadway segment at the rock-lined cut just west of Cloud View Trail (see Figure 24). Although with this exception, project traffic increases along this route would be insignificant in terms of operational and safety impacts, residents on Wolfback Ridge Road could still be sensitive to the relative increase in traffic.

The one additional PM peak-hour vehicle on Wolfback Terrace could be accommodated from a physical capacity standpoint on the existing paved sections of roadway. However, longer vehicles travelling along this route (see the footnote on page 87 for the definition of "longer vehicles") may not be able to make the existing 160° "hairpin" turn along the roadway, and may have to use the portions of adjacent residential driveways or parking deck to back up and complete the turn. This condition could pose safety concerns for vehicles parked in this carport. The unpaved section of Wolfback Terrace could also be subject to additional safety concerns during rainy weather.

The project contribution to AM peak-hour traffic would be slightly less than the PM peak hour contribution.

#### d. Cumulative Impacts

There are no substantive other developments proposed in the area of the project which would result in significantly greater cumulative traffic impacts on the local roadway system.

#### e. Onsite Circulation Adequacy

Table 5 provides an approximate comparison of typical Sausalito residential road widths below the freeway with Wolfback Ridge Road. The project Tentative Map indicates that the portion of Wolfback Ridge Road within the site would have a pavement width of 18 feet and a maximum grade of 19.6 percent (at one location only). Table 5 indicates that this width would be the same or wider than other existing sections of Wolfback Ridge Road along the ridgetop. For comparison purposes, the city Subdivision Ordinance requires that hillside public roads have a 22-foot-wide pavement width and a maximum allowable grade of 15 percent. However, many Sausalito city streets do not meet these standards. Typical residential streets below the freeway, such as Prospect, Central, and Sunshine Avenue are generally 18 to 20 feet in width, with three to six feet of shoulder between the pavement edge and the nearest obstruction (stairways, retaining walls, etc.).

The proposed onsite Wolfback Ridge Road extension pavement width would be adequate, provided there would be no onstreet parking. However, the offstreet parking areas indicated on Figures 7 and 8 for lots 3, 9, 11, and 12 generally have room for no more than three vehicles (including garages). A medium-sized gathering at any of these four units would probably result in some onstreet parking along the 18-foot-wide street. This situation could potentially limit emergency vehicle access, and present a temporary, but significant, safety problem.

Table 5  
COMPARATIVE LOCAL ROAD DIMENSIONS AND TRAFFIC VOLUMES

<u>Road Segment</u>	<u>Number of Units Served</u>	<u>Pavement Width (ft.)</u>	<u>Side Clearance (ft.)</u>
Prospect Avenue	38	18-20	3 - 6+
Sunshine Avenue (between San Carlos and Sausalito Boulevard)	17	18	3 - 6+
Sausalito Boulevard <sup>1</sup>	--	20	1 - 3
Wolfback Ridge Road	37	14-18	1 - 6+

No dimensions have been provided by the developer for the paved width of the driveway serving lot 13, nor is there a statement that this driveway will be paved.

f. Construction Period Traffic Impacts

The extent of construction period traffic impacts on the local road system will depend upon the number of residences and street sections under construction at any one time. Potentially, if three to four houses were being built at the same time, the construction period peak-hour traffic increment on Wolfback Ridge Road could range from 10 to 20 vehicle trips. Thus, this temporary construction period traffic impact could be greater (for a short time period) than the long-term impacts of the project after construction is completed.

g. Impact of Phased Paving Proposal

The applicant proposes to complete the paving of project roadways in sections at the time each individual lot is developed, as opposed to all at once prior to occupancy of any of the proposed homes. This phasing would increase the length of time of road construction impacts and would increase the number of construction-related trips that would be required. It may also result in an undetermined period of time when constructed project homes would be served by substandard roadways. Partially completed roadway improvements could also cause safety and erosion problems.

---

<sup>1</sup>Neighborhood Collector

### 3. MITIGATION MEASURES

#### 1. Wolfback Ridge Road Access

- a. The Wolfback Ridge Road pavement should be widened through the rock-lined hillside cut just west of the Cloud View Trail intersection from the existing width of 14-to-16-feet to at least 18 feet. In addition, the sides of the cut should be widened to provide at least five feet of clearance between the edge of pavement and the cut wall.
- b. The pavement through the 180° curve along Wolfback Ridge Road should be widened to a minimum of 18 feet.
- c. To prevent unsafe roadway obstruction by parked vehicles, at least two additional off-street parking spaces per lot should be provided to serve lots 3, 9, 11, and 12.

#### 2. Wolfback Terrace Access to Lot 13

- a. The 160-degree turn in Wolfback Terrace should be reconstructed to create a minimum inside curve turning radius of 12 feet, 7 inches, and an outside curve turning radius of 22 feet, 7 inches. If these radii cannot be feasibly engineered, lot 13 should be accessed from one of two apparent alternative routes; (1) from Cloud View Trail via a negotiated arrangement with the GGNRA, Caltrans, and Mr. Fritz Warren, or (2) via a new access drive cut into the east-facing slope connecting Wolfback Ridge Road with Wolfback Terrace via the southern end of the ridge.
- b. The proposed driveway to serve lot 13 should be paved, should be at least 10-feet wide, and should have a maximum grade of 25 percent.

#### 3. Access Roads in General

Generally, the proposed 18-foot-wide access roads could be narrowed beyond points serving three homes or less. Specifically, access roads serving three homes should have a minimum pavement width of 16 feet. Access roads serving two homes should have a minimum pavement width of 14 feet, while access roads serving only one home could be as narrow as ten feet.

#### 4. Construction Period

- a. The developer should immediately and fully repair any damage to existing roadways due to construction equipment movements.

- b. Provisions should be included in the title to any future project property transactions establishing that project residents will contribute a fair share to any long-term roadway repairs needed due to the routine use of Wolfback Ridge Road or Wolfback Terrace to access the project.
- c. All heavy construction equipment (back hoes, bulldozers) should be trucked to and from the site.
- d. The project roadway improvements (widening and paving) should be completed in their entirety in the initial project construction phase, prior to the occupancy of any proposed new home, to minimize related construction period impacts (construction traffic, safety, and erosion problems).



---

## D. WATER, SEWAGE, AND STORM DRAINAGE

---

This EIR chapter describes the water, sewer, and storm drainage implications of the project. Highway 101 separates the Wolfback Ridge residential area from the rest of south Sausalito. The area was annexed to the city relatively recently (1978). As a result, the area is not served by the city's municipal water and sewer systems. Instead, water is delivered via a private Wolfback Ridge water system, and sewage is disposed of via private, onsite septic systems. Similarly, the hillside neighborhood is not served by a municipal drainage system of curbs, gutters, catch basins, and subsurface storm drains. Instead, roads and homesites for the most part drain naturally in sheet flow down the hillsides.

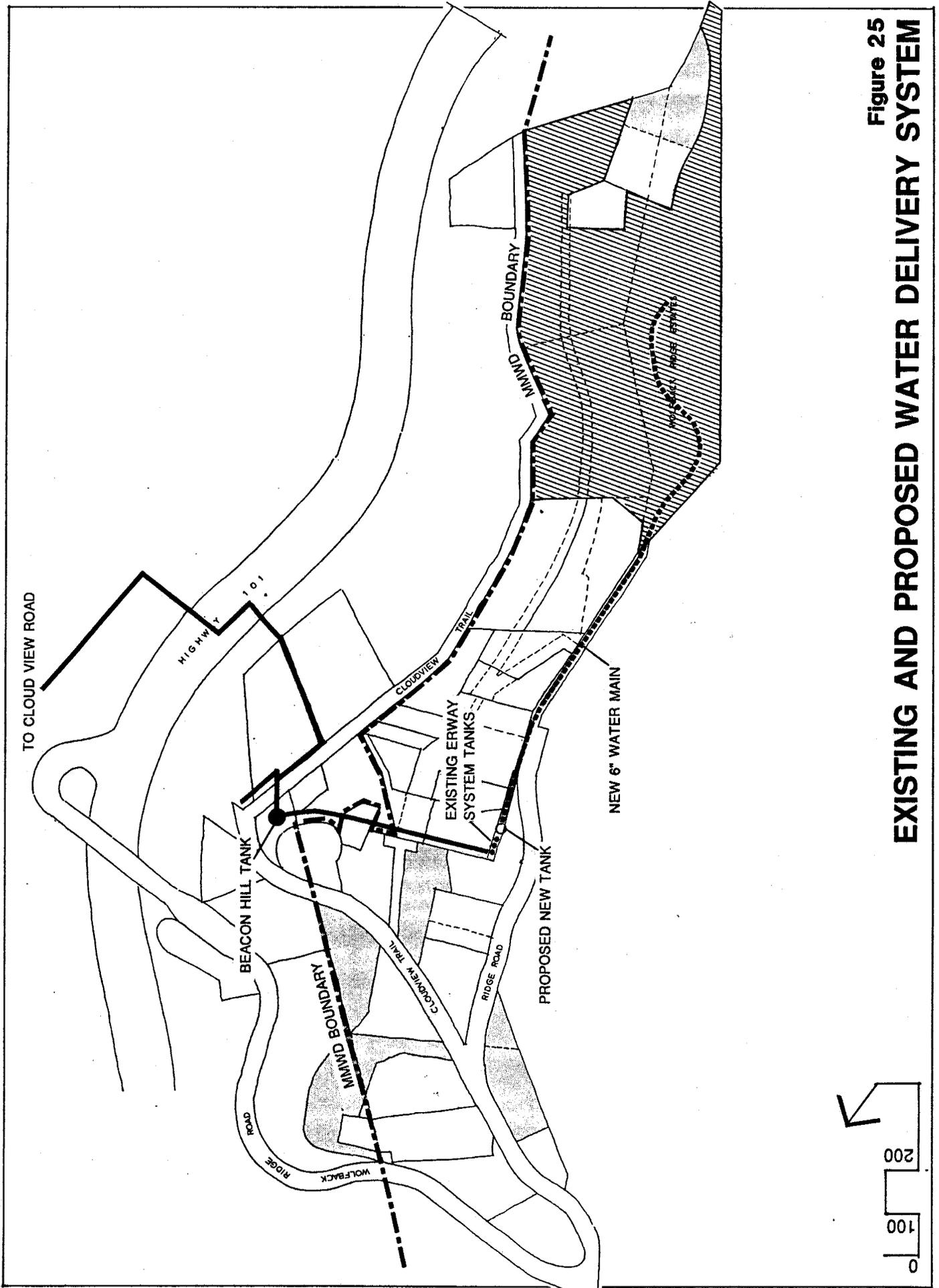
For each of these factors--water service, sewage disposal, and storm drainage--this chapter describes the existing setting, the potential project impacts, and warranted impact mitigations.

### 1. WATER

#### a. Setting

(1) Wolfback Ridge Water Supply Source. The 37 existing homes on Wolfback Ridge presently all receive water from the Marin Municipal Water District (MMWD). However, only four of these homes are within the District's boundaries and are regular District water customers. The remaining 33 homes are located outside the District. One of these homes is linked directly to the District's delivery system, and has a direct contractual relationship with the District for water. The other 32 homes, including the two-unit residence on the project site, are supplied by a private water system, the Wolfback Ridge Water System (also known as the Erway system, after the former owner), which is now owned by the project sponsor.

The existing MMWD connection to the Wolfback Ridge water system is diagrammed on Figure 25. All the water used on Wolfback Ridge is drawn from the MMWD 100,000 gallon Beacon Hill storage tank. The Beacon Hill tank is located on the west side of Cloud View Trail (see Figure 25). The tank is supplied through a six-inch water main that originates at the west end of Cloud View Road on the eastern side of Highway 101. From this point, the main crosses underneath the freeway through a 10 inch casing, then climbs the hill to Cloud View Trail and the Beacon Hill tank. The District operates a 120 gallon per minute (gpm) primary pump and a 70 gpm standby pump to fill the tank.



**Figure 25**  
**EXISTING AND PROPOSED WATER DELIVERY SYSTEM**

The minimum water pressure standard generally sought by the District for its distribution system is 40 pounds per square inch (psi). To meet this water pressure standard, houses directly served by the Beacon Hill tank must be located at least 92 feet below the top of the tank (2.31 feet of elevation or "head" creates one psi, neglecting minor friction losses in the water lines). None of the homes on Wolfback Ridge meet this criterion; most are situated above the tank.

The Beacon Hill tank and its pumping facilities were originally installed to provide pressure storage for about 80 services on the east side of the freeway. Expansion of this water delivery system into the west side of the freeway to serve the upper portion of Wolfback Ridge has occurred in the form of several "restricted service agreements," which provide no guarantees of minimum water pressure.

(2) Wolfback Ridge Water Source Agreements. The Municipal Utility District Act, which is the California enabling legislation for establishing and operating utility districts such as the Marin Municipal Water District, prohibits the sale of anything but "surplus" water outside each district's boundaries. As a result, most of the homes on Wolfback Ridge can only be supplied with water that District personnel have determined is not needed to serve regular District customers or other public agencies within its boundaries. Thus, under their supply contracts with the Marin Municipal Water District, the 33 Wolfback Ridge homes which are outside the MMWD boundary; i.e., the one directly-linked home and the 32 Wolfback Ridge Water System connections, are supplied with District water on a limited, interruptible, surplus basis. When a severe District water supply shortage occurred for several months during the 1977 drought, the water allocation for the Wolfback Ridge area was in fact cut off by the District. Water service was maintained through execution of a complex temporary agreement in which the Wolfback Ridge Water System purchased its water from the North Marin Water District. The water was drawn from the interconnection between the two districts, which is located south of Novato, and delivered to the Beacon Hill tank through the Marin Municipal distribution system.

During the 1988-89 drought, the District recently faced another severe water shortage, and District personnel felt that an end to surplus water sales was once again a possibility.<sup>1</sup> Current water supply conditions are such that a moratorium on new hookups is in effect and there is a short waiting list for new water connections. If the 1988-89 drought had persisted, the ridge could have been cut off again, and there would have been no guarantee that the North Marin District would have had the resources to support the ridge once again. Without the North Marin Water District source, drought conditions could result in an emergency alternative of water delivery to the Wolfback Ridge system by tanker truck from an as yet unspecified source; i.e., some other water district with surplus treated water available for sale. Such a solution would not only be expensive and cumbersome, but

---

<sup>1</sup>Bill Young, personal communication, February 1989.

could severely reduce the area's already limited level of fire protection. The extent of these fire flow inadequacies is discussed below.

District personnel would like to end Wolfback Ridge's unreliable water supply situation by annexing the entire area into the District.<sup>1</sup> The District anticipates completion of a new reclamation plant in September 1989, which is expected to provide sufficient water to supply up to 500 additional homes. Presumably, the existing moratorium on new water connections would be lifted when the plant is completed and the Wolfback Ridge area could be considered for annexation.

Marin Municipal Water District personnel have also indicated that the Wolfback Ridge Water (Erway) System has not paid the required connection fee to the District for the last three homes added to the system. For this reason, the District has requested that the city of Sausalito issue no new building permits on Wolfback Ridge until all outstanding water connection fee amounts are paid.<sup>2</sup>

(3) Wolfback Ridge (Erway) Water Distribution System. As explained above, the Wolfback Ridge Water System (Erway system) supplies 32 homes, including all of the existing homes on Wolfback Ridge Road and Wolfback Terrace, plus most of the homes on Cloud View Trail. The system draws water through a one and one-half-inch metered connection at the Beacon Hill tank and pumps it uphill into three 10,000-gallon storage tanks located just above the high point of Wolfback Ridge Road (see Figure 25). Although these tanks are situated higher than any homes on the ridge, they are not sufficiently high to provide adequate pressure ("head") to satisfy the domestic needs of some Wolfback Ridge homes at the upper elevations. As a result, some of these homes have installed their own water pressure improvement systems (hydropneumatic pumping and storage systems).

There is presently little technical documentation or other information available regarding the condition of the Wolfback Ridge Water System (Erway) distribution network. Some leakage of the existing tank has been reported by representatives of MMWD; however, no evidence of such leakage was visible to the EIR consulting engineer. Some sections of six-inch water main which serve a few standard fire hydrants are apparent, but the extent and condition of these six-inch lines is unknown. It is believed that the remaining distribution lines are two or three inches in diameter, and that they provide rudimentary fire protection through a series of two-inch standpipes located throughout the system.<sup>3</sup>

---

<sup>1</sup>Bill Young, personal communication, February 1989.

<sup>2</sup>Ibid.

<sup>3</sup>Fire Chief Stephen Bogel, personal communication, February 1989.

The size and capacity of the pump that fills the three storage tanks, as well as the size of the tank's supply line, are unknown. According to the Sausalito Fire Chief, the tanks are frequently less than half-full during the summer, suggesting that the pump cannot keep pace with the maximum-day water demand of the 32 existing services on the system. (Maximum-day demand figures are normally used to size a water system's treatment and supply facilities, and are often estimated as twice the average daily demand.)

The Wolfback Ridge distribution lines extend through the project site to serve the existing duplex on the property and the two homes at the southeastern end of the ridge (the Deaton and Butz properties). According to one of the homeowners, water pressure is frequently very low at this end of the system, even though the home elevations are nearly 100 feet below the storage tanks. This apparent pressure loss is probably due to friction losses in the water line, another indication that the line is fairly small in diameter.

(4) Conclusions: Existing Water System Inadequacies. In summary, there appear to be three principal water supply issues facing users of the Wolfback Ridge Water System. The first issue is the interruptible nature of the system's water supply. In a severe drought year, Wolfback Ridge is subject to the possible loss of its Marin Municipal Water District water supply allotment. The second issue involves the inadequacy of the delivery system between the MMWD Beacon Hill tank and the three existing Wolfback Ridge Water System tanks. The tanks appear to be inadequately supplied, resulting in inadequate fire flow capacity. The third issue concerns the system's low operating pressure, apparently related to the undersized distribution network and the low storage tank elevation. This pressure inadequacy results in minor nuisances, and more importantly, results in inadequate fire flow pressure (probably less than 10 psi at the hydrant closest to the tanks).<sup>1</sup>

The lack of adequate water storage and pressure for fire fighting or effective fire sprinkler operation places homes on the ridge at risk.

According to Marin Municipal Water District personnel, the previous owner of the Wolfback Ridge Water System expressed an interest in annexation to the District several years ago. A deposit was made to authorize the facility survey needed to determine the improvements required to upgrade the distribution and storage network to meet District criteria. However, the request was cancelled by the previous owner before the survey was begun, and the system's surplus water contract has remained essentially unchanged since that time.

---

<sup>1</sup>See page 114 for description of city's minimum standard water pressure requirement for fire-fighting.

c. Project Impacts

(1) Proposed Water Supply Approach. The applicants propose to expand the current Wolfback Ridge Water System (the Erway system) by adding a 10,000-gallon storage tank to supplement the three existing tanks, and by installing six-inch mains between the Wolfback Ridge tanks and the project to serve the additional homes. According to MMWD personnel, this proposed approach would also require approval by the MMWD of the required additional water supply allocation necessary to support the added tank and the 11 additional homes.<sup>1</sup>

(2) Impacts. The proposed extension of the existing system would also have the following impacts:

**Increased Water Supply Demands.** Construction of the proposed project would add 12 new connections to the 32 already on the Wolfback Ridge Water System. Using the District's estimate of approximately 400 gallons per day (gpd) for average household consumption in the Beacon Hill tank service area, the total project water demand increment would be 4,800 gpd. Assuming the 32 existing services have approximately the same rate of water use, this would equal a 38 percent increase in total system demand.

**Additional Distribution System Requirements and Costs.** Since the project-related increase in demand would overtax the existing distribution line that serves the project site and the Deaton and Butz residences, the project sponsor has proposed installing a new six-inch water main to serve the project, presumably running from the tank cluster to the far end of the ridge. Assuming the Sausalito Fire Department's recommended design fire flow rate of 1000 gpm, a six-inch diameter water main would probably be inadequate to provide 1,000 gpm of fire flow at the far hydrant. Friction losses in a 2,200-foot-long, six-inch water main would equal approximately 240 feet of "head."<sup>2</sup> However, since this end of the ridge is less than 200 feet lower than the tanks, there would be insufficient pressure to compensate for the friction loss. A larger pipe would be needed for at least part of the distance to the tanks in order to reduce these friction losses and to assure that 1000 gpm would reach the fire hydrant at the far southeastern end of the project site.

Preliminary calculations indicate that the allowable friction loss to maintain 1000 gpm at the southernmost fire hydrant would equal 90 feet of head (the approximate elevation

---

<sup>1</sup>November 24, 1987 letter from Ronald L. Johnson, Manager of Engineering, Marin Municipal Water District, to the city of Sausalito Planning Department.

<sup>2</sup>Water pressure and related friction losses are commonly expressed in terms of equivalent elevation differences, or "head."

difference between the tanks and lot 8 on the project site). Rough calculations by the EIR civil engineer indicate that a combination of 1,300 feet of eight-inch water main and 400 feet of six-inch main would adequately supply a fire hydrant at the end of the proposed access drive for lots 5, 6, 7, 8, and 10. An additional 350 feet of six-inch main would be needed to provide fire lines and hydrants for lots 12 and 13. Not including service lines for the individual houses, the cost to install this common water distribution system for the proposed project can be estimated as follows:

■ 8-inch water main (installed in existing road)	
800 feet @ \$65.00/foot	\$52,000.00
■ 8-inch water main (installed in new road)	
500 feet @ 60.00/foot	\$30,000.00
■ 6-inch water main (installed in new road)	
750 feet @ \$55.00/foot	\$41,250.00
■ Fire hydrants (7 onsite, 2 offsite)	
9 @ \$2400.00 each	<u>\$21,600.00</u>
Total Cost - Water Delivery to Project	\$144,850.00
x 133% for unanticipated construction, engineering, bonding, permits, & contingencies	<b>\$193,150.00</b>

**Water Storage Requirements and Costs.** A new distribution main would solve the service pressure delivery problems at the project site, but the proposed 38 percent increase in both water use and potential fire flow reserve demand would exacerbate the already inadequate storage situation. The applicants have proposed construction of a fourth 10,000-gallon storage tank, which would increase the existing storage volumes by 33 percent. This new tank would be located adjacent to the existing tanks, where there appears to be sufficient space, although the available access driveway and working area would be significantly reduced.

A new welded steel, glass-lined tank, complete and installed, would cost approximately \$40,000.00. (This price is actually for a 16,000 gallon tank--the smallest size made by the only supplier contacted who could meet the area's seismic requirements.)

No proposal has been made to upgrade the *pumping facilities* used to fill the tanks. If, as reported by the Fire Chief, the pump(s) are presently inadequate, they would have to be improved as part of the proposed project. There would be very little difference between the cost of a pump adequate to handle the proposed project incremental demands only, and one with the capacity necessary to provide adequate pumping for the entire Wolfback Ridge storage system. Assuming that the storage system upgrade was designed to accommodate all existing homes, plus the 12 added project

connections, with an average water supply of 400 gpd per home, the average daily design capacity would have to equal 17,600 gallons, and maximum-day design capacity would have to equal 35,200 gallons. This design capacity would require a pump capable of delivering approximately 25 gallons per minute, against nearly 200 feet of elevation ("head") difference. (Friction losses through a six-inch main at this low, 25 gpm flow rate would be negligible; a smaller supply line between the Beacon Hill tank and the Wolfback Ridge System tanks would increase these losses and raise the required pump capacity.)

The cost of such a pump and its controls would be about \$5,000.00.

Together, total costs for the distribution system infrastructure needed to serve the proposed project would equal approximately \$238,000. When the Marin Municipal Water District connection fee of \$3300.00 per home is included, the total water system cost per project lot would be approximately \$21,600 (for each of the 13 project homesites).

d. The Impacts of Possible Alternative Water System Approaches

The applicant proposes upgrading only the project-serving components of the existing Wolfback Ridge Water System to serve the added project connections. These improvements would bring additional benefits to the existing 32 connections in the form of additional pumping and storage capacity (16,000 additional gallons, a 53 percent increase), and would provide opportunities for increased water pressure for four or five existing homes between the project and the tanks. Nevertheless, given the conclusions earlier in this chapter regarding the supply and remaining facility inadequacies of the Wolfback Ridge Water System, the proposed additional subdivision warrants consideration of an alternative, more comprehensive water system improvement program for the entire ridge area. Two more comprehensive alternatives and their comparative environmental impact and cost implications are described below: (a) renovation of the entire Wolfback Ridge water system, but retention of its current privately-owned status, or (b) renovation and annexation of the entire system to the Marin Municipal Water District. The comparative cost implications of the three water system choices are summarized in Table 6.

(1) Wolfback Ridge Systemwide Renovation and Retention of Privately-Owned Status. The water source, storage, and distribution system requirements associated with renovation of the entire water system serving Wolfback Ridge (32 existing plus 12 additional connections), and related improvement cost implications, are summarized below:

**Water Supply Implications.** This alternative would not require additional MMWD water supply allotments beyond those which will be required for the project as proposed. Similarly, since the system service area would remain outside the MMWD boundary, the supply service would continue to have an "interruptible surplus" status.

Table 6

COMPARATIVE COST IMPLICATIONS--WATER SYSTEM CHOICES

	<u>Distribution Mains and Hydrants</u>	<u>Storage Tank and Pump</u>	<u>Total<sup>1</sup></u>
Applicant's Proposal (see cost breakdown on page 109)	\$193,000	\$45,000	\$238,000
Alternative (1): Applicant-proposed improvements, plus upgrading of remainder of Wolfback Ridge distribution system, including 1,750 feet of additional 6-inch main, and 8 additional hydrants	326,000	45,000	371,000
Alternative (2): Applicant-proposed improvements, plus upgrading of remainder of Wolfback Ridge system for MMWD annexation, including same upgrades as Alternative (1), plus larger, consolidated tank	326,000	70,000	396,000 <sup>2</sup>

SOURCE: Andrew Leahy, P.E., and Wagstaff and Associates; March 1989 dollars.

<sup>1</sup>Excludes MMWD connection fees for the 12 additional project connections.

<sup>2</sup>Excludes hydropneumatic pressure improvement systems likely to be required for certain homes on the ridge.

**Water Storage Implications.** This alternative would not require additional water storage beyond the 16,000-gallon tank anticipated with the project, but could require repair or replacement of the three existing water tanks.

**Distribution System Requirements and Costs.** An upgrade of the distribution lines for the rest of the Wolfback Ridge Water System would be of questionable benefit for at least some of the existing 32 customers. A fire hydrant supplied by a six-inch main already exists at the intersection of Wolfback Ridge Road and Cloud View Trail, so the homes in this area are already provided with almost as much pressure as the existing storage tank elevation can provide. The existing homes on the downslope portion of Wolfback Terrace could benefit from an additional hydrant closer than Wolfback Ridge Road, but these residents might not feel that the incremental improvement in fire protection is worth the cost for approximately 200 feet of six-inch main and a new fire hydrant (approximately \$13,400). If it is assumed that the existing line diameter on Cloud View Trail is already six inches, the only other Wolfback Ridge area that might benefit from water line replacement is the group of four homes located on the private drive between Cloud View and Wolfback Ridge Road. These homes are situated at a higher elevation than those on Wolfback Terrace, so the installation of approximately 200 feet of six-inch water main and a fire hydrant could significantly improve their water pressure, and prove to be more cost effective.

Considering the limited financial resources typically available to small, private water systems, it appears that the creation of a local Wolfback Ridge utility assessment district would be the most feasible funding mechanism for construction of such improvements, particularly if district improvements could be funded using the city's reduced-interest municipal revenue bond issuance authority. (Marin Municipal will not finance improvements to a distribution system and then recoup the cost through surcharged water bills. Only complete, operable facilities will be accepted by the District for future maintenance.) The degree of landowner interest in participation in such an assessment district and the possible distribution of its costs (uniformly or by relative benefit received) among landowners are questions that cannot be resolved within the context of this study. These questions would, however, be very similar to those raised by possible annexation of the entire system into the Marin Municipal Utility District.

(2) Wolfback Ridge System Annexation to the Marin Municipal Water District. MMWD personnel recommend that the Wolfback Ridge Water System operator apply for annexation of the system service area to the District as a means of ensuring adequate water supply to all ridge customers. In order for annexation to occur, the storage and delivery system would require upgrading to meet MMWD minimum design standards. The water source, storage, and distribution system improvement requirements necessary to implement this alternative are summarized below:

**Increased Water Supply Demands.** The upgrading of the entire system to meet MMWD standards would not require more MMWD water supply allotments beyond those which would be required for the project as proposed. However, if system upgrading and subsequent annexation did occur, the area would no longer be subject to an "interruptible surplus" supply arrangement.

**Distribution System Requirements and Costs.** This alternative would not require substantial improvements to the ridge distribution system beyond those described for alternative (1), although hydropneumatic water pressure improvement systems may still be required for some of the higher homes to meet District fireflow requirements.

**Water Storage Implications.** The District's basic water storage guideline is 1,000 gallons per home (or service), which computes to a 44,000-gallon total storage requirement for the 44 services in the Wolfback Ridge system if the proposed project is constructed. However, for standard ongoing maintenance purposes, the District uses a minimum storage tank size of 50,000 gallons. As a result, it is unlikely that a fourth 10,000-gallon tank as proposed by the project applicant would be an acceptable storage alternative. According to District personnel, the District would probably require that the existing tanks be removed and replaced with a new single tank. The cost of a welded steel, glass lined water tank suitable for the seismic conditions of the Marin Peninsula would be approximately \$65,000, complete and installed.

A 50,000 gallon tank would be approximately 25 feet in diameter and 15 feet high. This size tank would not fit on the 15-foot-wide parcel currently occupied by the existing tanks; however, there appears to be sufficient room in the area to locate such a tank if the adjacent property owner to the west would be willing to sell or provide an easement over the necessary portion of that property to accommodate the larger tank.

The elevation of the top of a 50,000-gallon tank, placed on this highest spot on the ridge, would not meet the minimum "head" requirements of the District in relation to most of the existing homes on Wolfback Ridge Road and several on Cloud View Trail (the District requires a minimum "head" or elevation difference of 92 feet in order to provide adequate pressure). More accurate elevation studies would be needed to determine how this head shortfall would affect each home on the ridge. However, each home could be expected to fall into one of two pressure need categories:

- For homes which are between 70 and 92 feet below the top of the new tank, an individual hydropneumatic pressure improvement system would be optional. Each owner would have the discretion to decide if the water pressure was adequate to meet his or her needs or if a pressure system was worth the expense.
- For those homes which are less than 70 feet below the top of the tank, an individual hydropneumatic pressure improvement system would be required.

The District will not serve any home if its highest water outlet is higher than the middle of the storage tank. The present tank location is sufficiently high that no home on the ridge should be denied service on this basis.

The District's 50,000-gallon minimum tank size would provide 50 minutes of fire flow on the ridge at the Sausalito Fire Department's 1000 gpm design rate. However, because the storage tank is at a relatively low elevation, the system at some ridge locations may not be able to provide the 20 psi residual pressure (at 1000 gpm) generally required for fire fighting.<sup>1</sup> The Fire Department's pumper trucks can add only 10 psi, so still larger water mains than those suggested earlier in this chapter might be needed to further reduce friction losses in parts of the system.

The comparative cost implications of this alternative are summarized in Table 6.

e. Impact Conclusions

The proposed improvements to the Wolfback Ridge water system currently proposed with the project (increased storage capacity and a larger water main) would provide water pressure levels to the 13 project homes which exceed levels currently provided to several existing homes on the ridge. The project would not significantly worsen the adequacy of water service to existing Wolfback Ridge homes, and may in fact improve the level of service to between two and six existing homes between the new tank and the project. The anticipated new 16,000 tank and associated pumping facility would also provide increased storage to all connections for fire protection purposes. The project would nevertheless add 12 more connections to an existing 32-connection water system which is supplied by an interruptible source and is subject to water storage and water pressure conditions which do not meet normal fire-fighting standards. The introduction of 12 more connections into this substandard water service environment would constitute a significant adverse impact.

f. Mitigation Recommendations

Water system improvement alternative (1), upgrading the entire ridge distribution system, but retention of its privately-owned status, would provide improved pressure and fire protection, especially for the two homes on the downslope portion of Wolfback Terrace and the group of four homes on the private drive between Cloud View and Wolfback Ridge Road. However, under both the proposed project and alternative (1) scenarios, the MMWD water allotment would continue to be supplied on an interruptible, surplus basis, and water storage would remain below standard levels considered acceptable for fire fighting. Alternative (2), upgrading of the entire ridge system, plus improved storage and annexation to the MMWD,

---

<sup>1</sup>Sausalito Fire Chief, personal communication.