STATE OF CALIFORNIA - THE RESOURCES AGENCY

PETE WILSON, *Governor*

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST AREA OFFICE
725 FRONT STREET, SUITE 300
NTA CRUZ, CA 95060
) 427-4863
EARING IMPAIRED: (415) 904-5200

Th4b

Permit Approved: 7/11/96
Staff: SM-SC
Staff Report: 6/17/98
Hearing Date: 7/7-10/98

STAFF REPORT:

DIRECTION TO THE EXECUTIVE DIRECTOR ON THE NEED FOR A COASTAL DEVELOPMENT PERMIT AMENDMENT

APPLICATION NUMBER: **A-3-SMC-96-008**

APPLICANT: **KATHLEEN MCKENZIE**

PROJECT LOCATION: 921 Pigeon Point Road, Pescadero, San Mateo County

PROJECT DESCRIPTION: Demolition of existing warehouse type structures, and construction of a 9 unit Country Inn with 1,800 square foot storage/maintenance building, 14 off-street parking spaces, a septic system and a domestic well. (Note: this is the same project description that appeared on the first page of the Revised Findings staff report adopted on September 12, 1998, attached as Attachment 1).

LOCAL APPROVALS: San Mateo County Coastal Development Permit No. 95-0022 (approved 12/13/95); San Mateo County Health Services Agency approval of the project's water system (letter of May, 14, 1998, attached as Exhibit A)

FILE DOCUMENTS:

1. Adopted Staff Report for Coastal Development Permit No. A-3-SMC-96-008 (Revised Findings, August 21, 1996)

2. San Mateo County Certified Local Coastal Program

3. Central Coast Regional Water Quality Control Board Staff Report and Supplement for the Issuance of Waste Discharge Requirements (Order No. 98-14, approved January 30, 1998)

4. Negative Declaration for the Use of a Recirculating Sand Filter Septic System and Reverse Osmosis Water Treatment System with Brine Septic System (San Mateo County Planning Division, filed August 5, 1997)

5. Sewage Disposal Plan, prepared by Questa Engineering Corporation, as revised on July 19, 1997

6. Letters from the San Mateo County Health Services Agency to: Kathleen McKenzie (May 14, 1998, February 17, 1998, December 18, 1997, December 3, 1997, and September 25, 1996); the Department of Water Resources (May 5, 1998); Harry

O'Brien (March 10, 1998); Questa Engineering Corporation (February 27, 1998, October 4, 1996); and, Kleinfelders (November 14, 1996)

7. Letters from the Monterey Bay National Marine Sanctuary to: the Regional Water Quality Control Board (January 27, 1998, January 8, 1998); and, the San Mateo County Planning Division (September 29, 1997)

8. Letters from Questa Engineering Corporation to: Kathleen McKenzie (June 1, 1998 and July 9, 1996); the Regional Water Quality Control Board (January 2, 1998); the San Mateo County Health Department (February 13, 1998, June 9, 1997, May 5, 1997, and February 12, 1997); and, the San Mateo County Planning Division (August 5, 1997)

9. Engineering Geologic Review for the Proposed Wastewater and Brine Waste Disposal Systems (UPP Geotechnology, July 9, 1997)

10. Recommendations and Design Basis for Well Water Treatment System (Kleinfelder, January 27, 1997)

11. Pumping Test and Water Sampling Report (Kleinfelder, Inc., October 18, 1996)

12. Water Use Assessment (Kleinfelder, Inc., June 6, 1996)

13. Percolation Testing Report (UPP Geotechnology, June 5, 1996)

STAFF NOTE

This staff report is different from the typical staff reports reviewed by the Commission because it has been prepared to obtain direction from the Commission on an issue that is usually addressed at the staff level: clarification of a previously approved permit and whether final project designs trigger the need for an amendment to the permit. This issue is being referred to the Commission at the request of a permittee (letter of request attached as Exhibit B). As detailed below, the staff has determined that the wastewater and water systems to serve the Pigeon Point Country Inn project involve development beyond that previously analyzed by staff and approved by the Commission, and therefore require an amendment to the permit. The permittee disagrees with this determination, and has requested that the Commission clarify the development authorized by the original approval, specifically with respect to whether an amendment is required for the currently proposed sewer and water systems.

SUMMARY OF STAFF RECOMMENDATION

The staff recommends that the Commission **concur** with the Executive Director's Determination that the water and wastewater systems currently proposed to serve the project require an amendment to Coastal Development Permit A-3-SMC-96-008, as approved on July 11, 1996. Since the Commission's approval of this permit, the project has been expanded to include: a reverse osmosis water treatment facility; a new leachfield for the disposal of brine effluent from the reverse osmosis treatment facility within 25 feet of the coastal bluff and on prime agricultural soils; a recirculating sand filter for the treatment of wastewater; pump facilities for circulating wastewater; two curtain drains uphill of the leachfields with outfalls located above two eroded gullies on the site; and, two additional water storage tanks. These new elements of the project pose potential adverse impacts to prime agricultural soils, coastal vegetation, bluff stability, scenic resources, and marine habitats, and raise questions about

consistency with the standards of the San Mateo County certified Local Coastal Program. Staff believes that the coastal development permit amendment process is the appropriate way to resolve these issues.

I. STAFF RECOMMENDATION

Staff recommends that the Commission concur with the Executive Director's determination that the wastewater and water systems currently proposed to serve the Pigeon Point Country Inn require an amendment to Coastal development Permit No. A-3-SMC-96-008.

MOTION. I move that the Commission determine that the wastewater and water systems to serve the Pigeon Point Country Inn, as shown on the plans prepared by Questa Engineering Corporation dated November 26, 1996 and revised on May 5, 1997 and July 29, 1997, require an amendment to Coastal Development Permit A-3-SMC-96-008.

Staff recommends a **YES** vote on the motion. A majority of the Commissioners present is required to pass the motion.

II. FINDINGS AND DECLARATIONS

A. Project Description and Setting

This project entails the development of a 9-unit Country Inn on a narrow blufftop parcel of approximately 4.5 acres adjacent to the Pigeon Point Lighthouse in rural southern San Mateo County (please see Exhibit C of Attachment 1 for a location map). The 9 units (8 of which are 600 square feet, and one of which is 700 square feet) are grouped in three separate buildings which have a total footprint of 5,500 square feet. An existing 1,800 square foot warehouse type building will be converted to a storage/maintenance building. An on-site water and sewage treatment system is needed to support this development. The site plan for the project approved by the Commission is attached as Exhibit F of Attachment 1.

The property on which the project will be located (921 Pigeon Point Road) is immediately east of the Pigeon Point Lighthouse on the west side of Highway One, along the southerly facing bluffs of Pigeon Point. The north side of the property is bounded by Pigeon Point Road, and the east side of the property is defined by an eroded gully which runs from the corner of Pigeon Point Road and Highway One to the public beach area south of the property. Across Pigeon Point Road to the north is a privately owned parcel in agricultural production, and the property to the southeast of the project site (across the eastern gully) is owned by San Mateo County and has been leased to agricultural operators in the past. Currently, this undeveloped County-owned land provides unimproved parking, and an unofficial, generally hazardous accessway to the shoreline adjacent to the County property.

The project parcel is approximately 875 feet long, and varies in width from approximately 120 feet to 300 feet. The bluffs which define its southern limit range in height from 35 to 40 feet. At the base of these bluffs is a beach area known as Whaler's Cove. This beach area is only accessible to the public by boat, or during low tides from the unofficial accessway on the County owned property approximately 0.5 mile southeast. Seals and sea lions occasionally

haul out on this beach, and the adjacent intertidal areas support rich marine life. These habitat values are required to be protected by Policy 7.22 of the San Mateo County certified Local Coastal Program (LCP).

The parcel is also part of the unique geologic Pigeon Point formation, characterized by moderately fractured impervious bedrock. Topsoil covering this formation on the site ranges from approximately 2 feet to 8 feet in depth. On the eastern half of the site, these soils have been identified as prime agricultural soil, although the site has not been used for agricultural purposes in the recent past. Existing vegetation on the site includes native species of coastal strand habitat, as well as exotic species such as ice plant. Other than Monterey Pine planted amongst the existing buildings, there are no trees on the site.

The site is also within the Highway One State Scenic Corridor. The adjacent lighthouse is a State of California Historic Landmark, and is listed in the National register of Historic Places. This area offers dramatic coastal views that provide excellent opportunities to view migrating Gray whales and other marine life, and is also rich in maritime and whaling history. The project site and adjacent Pigeon Point Road afford expansive views of the ocean and coastline, including views of Point Año Nuevo and Año Nuevo Island.

B. Project History

1. Commission Action on the Coastal Development Permit

This project was first approved by San Mateo County on December 13, 1995, and subsequently appealed to the Coastal Commission. On April 10, 1996, the Commission staff recommended that the Commission determine that the appeal of this project raised a substantial issue, and that the Commission deny the permit because, among other reasons, the applicant had failed to demonstrate that an adequate on-site water supply was available to serve the project, or that the site could support a wastewater treatment system that would prevent adverse impacts to coastal water quality and adjacent habitat areas. At that hearing, the Commission concurred with the staff's recommendation on substantial issue, but continued the De Novo hearing until June, 1996 in order to provide additional time to resolve these issues. At the request of the applicant, the De Novo hearing was postponed until July, 1996, in order to provide more time for the applicant to obtain the necessary information.

Between the April, 1996 hearing and the July, 1996 hearing, the applicant obtained a Water Use Assessment (Kleinfelder Inc., June 6, 1996), a well pump test (Maggiora Bros. Drilling, Inc., June 7, 1996), an analysis of well water quality (Soil Control Lab, June 10 and 17, 1996), and a Percolation Testing report (UPP Geotechnology Inc., June 5, 1996). The Water Use Assessment found that the project could operate within the water use limitations established by the LCP, and identified water storage needs, recommending that a single 6,000 gallon tank be installed on-site. The results of the well tests and percolation report, however, heightened the staff's concerns regarding the adequacy of the well, and the ability to effectively treat the wastewater generated by the project.

Information regarding the well indicated that it had been drilled to a depth of 735 feet, had a drawdown of 592 feet during the 24 hour pump test, and produced water that contained levels of total coliforms, conductivity, total dissolved solids, chloride, and fluoride that exceeded drinking water standards. This raised concerns regarding: the long term stability of the well, including the potential for seawater intrusion; the need to treat the water, the extent to which

had not been defined; and the need to dispose of waste water generated by the treatment process (the method for which had also not been identified), which could result in adverse impacts to adjacent marine habitats and water quality. These concerns were exacerbated by the fact that the proposed well had yet to be approved by the San Mateo County Health Services Agency. A complete discussion of these concerns was contained on pages 13-14 of the Revised Findings staff report, adopted by the Commission on September 12, 1996 (attached to this report as Attachment 1).

The Percolation Testing report found that the terrace deposits underlying the site failed to percolate adequately. As a result, the report recommended installing a shallow leachfield in the sites topsoil, with 4 foot deep trenches. The report also recommended the installation of an 8-foot deep subdrain uphill of the leachfield to intercept surface water that may infiltrate surface soils and perch on top of the impermeable terrace deposits. The need to pump the wastewater to the leachfield was also identified by the report. However, the specific design of the wastewater system and the recommended subdrain was not provided by the report, nor had this system been approved by the San Mateo County Health Services Agency by the July, 1996 hearing. Because these issues were unresolved, the Commission remained concerned that the site could not effectively treat the wastewater generated by the project, and that inadequate treatment of project wastewater would adversely affect coastal water quality, adjacent marine habitats, and coastal recreation opportunities, as reflected on pages 17 -18 of the adopted staff report (Attachment 1).

On July 10, 1996, the day before the Commission hearing, the Commission staff received by fax a letter from Questa Engineering to Ms. McKenzie which evaluated the feasibility of on-site sewage disposal for the project. This letter concurred with the proposal to dispose of project wastewater in a shallow drainfield, and identified the area of drainfield required (10,080 square feet). The letter also agreed that the installation of an 8 foot deep subdrain should be installed to intercept shallow perched groundwater, but did not provide any additional information regarding this drain or it's point of discharge.

This letter also identified modifications that could be added to the system to increase safety factors against water quality and public health problems, such as the use of a pressure-dosing system to minimize the concentration of wastewater in localized portions of the drainfield, and the use of a sand filter between the septic tank and the drainfield to improve the quality of the effluent before disposal into the soil. These features were not, however, incorporated into the project proposal at the time of the Commission's review, and the details of these systems had not been identified.

Notwithstanding the outstanding concerns regarding the project's water supply and wastewater system, the Commission staff recommended, at the July 11, 1996 hearing, that the Commission approve the project with conditions. This recommendation responded to the direction provided by the Commission at the April , 1996 hearing that these problems should be resolved and the permit should be approved. In order to comply with this directive and at the same time address the outstanding issues, the staff recommended, and the Commission adopted, a special condition of approval, which required Executive Director review and approval of final plans for the these systems, after they had been approved by San Mateo County (Special Condition 3.d. on page 3 of the adopted staff report attached as Attachment 1). A detailed analysis of this approval, and its relationship to the currently proposed water and wastewater systems, is contained on pages 12 - 15 of this staff report; Special condition 3.d. is specifically addressed on pages 12 -13 of this report.

2. Events Since the Commission's Approval

Since the Commission's July 11, 1996 approval, the permittee has expended a great deal of effort to design a wastewater and water supply system within the physical constraints of the site. The following chronology of correspondence chronicles the development of the systems currently proposed, and the issues that have been raised during the San Mateo County Health Services Agency's (Health Services) and the Central Coast Regional Water Quality Control Board's (RWQCB) review of these systems.

September 25, 1996: Health Services informs Ms. McKenzie that her application for an on-site water supply is incomplete. In addition to requesting additional information regarding well data and system design (e.g., method of treatment to reduce levels of conductivity, total dissolved solids, chloride and iron), this letter identifies the need to obtain the services of a Licensed Hydrogeologist to generate a report describing the well's ability to be a reliable, long-term water source, and addressing the potential for salt water intrusion based on the well's location and characteristics.

October 4, 1996: Health Services responds to Questa Engineering Corporation's (Questa) September 4, 1996 request for a variance to construct a pressure-dosed on-site sewage disposal system. Health Services identifies several areas of concern that may require design options or denial of the project. These concerns include: non-compliance with the RWQCB Basin Plan, which requires 10 feet trench bottoms (4 feet were proposed); proposal to fill and compact a drainage swale and construct leachfields directly above and adjacent to this swale does not meet the minimum setback distance of 50 feet; the proposed subdrain does not meet the minimum setback distance of 20 feet, and the available geotechnical data does not sufficiently address effluent movement towards this subdrain; and non-compliance with the minimum setback of 100 feet from the coastal bluff established by the RWQCB. The letter notes that these design issues, combined with questions regarding the water supply, which would require additional waste disposal, significantly affect the viability of this project.

October 18, 1996: Kleinfelder, Inc. (Kleinfelder) submits a pumping test and water sampling report, including recommendations regarding water treatment system design to Ms. McKenzie and Health Services. The report identifies that during the 24 hour pump test during which the well discharged water at an average rate of 4.94 gallons per minute, the drawdown in the well never stabilized, as required by the County. However, the water level at the end of the test was 168.5 feet shallower than the depth of the pump (682 feet below ground surface), and the time versus drawdown data indicated a theoretical well recovery time of approximately 6.6 hours. Based on this fact, and the limited pumping that would be required to refill the 1,160 gallon portion of the 6,000 gallon water storage tank that would be used for domestic, rather than fire protection purposes, the report states that it is unlikely that the proposed operation of the well will result in seawater intrusion. The report's analysis of water sampling data found levels of total dissolved solids and conductivity that exceeded drinking water standards, as well as levels of boron which are toxic to plants. Based on this data, Kleinfelder recommended treating the well water using a reverse osmosis system coupled with a resin bed ion exchange unit.

November 14, 1996: Health Services responds to Kleinfelder report on the McKenzie well and concurs that the well can supply a dependable supply of water for the proposed development. However, the letter notes Health Service's reservation on several issues

regarding the water system as a whole. These include: the proposal to store water for domestic supply and fire protection in a single 6,000 gallon tank, as these water supplies must be stored separately; assumptions used in the development of the pumping schedule did not account for the 50% reduction in potable water yield and pumping rates associated with the use of the proposed treatment system (for example, in order to obtain 100 gallons of potable water from the proposed reverse osmosis water treatment system, 200 gallons must be treated, resulting in 100 gallons of reject water); the proposed pumping exceeds the amount of daily water use established by the LCP; whether the proposed treatment process will continue to be effective with the potential degradation of groundwater quality; and the need to address the method of disposing the wastewater effluent generated by the water treatment process.

January 27, 1997: Kleinfelder provides recommendations and design basis for well water treatment system in response to issues raised by Health Services letter of November 14, 1996. Revisions to the recommended water system design include an additional 2,000 gallon water storage tank and a revised pumping schedule. Treated wastewater is proposed to be discharged into a separate leachfield, the design of which is to be submitted to Health Services by Questa. This letter also identifies that all fixtures (i.e., generator to run pumps during power failures, and reverse osmosis treatment facility) will be mounted on proper concrete foundations adjacent to the well.

May 5, 1997: Questa provides a supplemental report and revised plans for the disposal of brine wastewater from the reverse osmosis water treatment plant to Health Services. This report relocates the brine leachfield so that it is 100 feet, rather than 50 feet from the well, and provides percolation test results for the brine leachfield area. This results in the brine leachfield being located 25 feet from the bluff, which requires an exemption to the 100 foot setback required by the RWQCB Basin Plan. An additional exemption to RWQCB requirements that leachfield trenches be 10 feet deep is needed, as the proposed leachfield trenches are only 30 inches deep due to the shallow depth of surficial soils in this area.

May 20, 1997: Health Services responds to the revised brine wastewater disposal plan, stating that their most critical concern has been addressed by relocating the disposal system 100 feet downslope of the water well, and accepting the percolation test data. Attached to this letter is Health Services conceptual approval of the RWQCB exemptions being requested, which is to be provided to the RWQCB for processing of the exemptions requests.

June 25, 1997: RWQCB staff releases a proposed Waiver of Waste Discharge Requirements for the proposed wastewater system and the proposed disposal of reject water from the reverse osmosis water treatment plant.

July 7, 1997: Commission staff send a letter to the RWQCB identifying concerns regarding the potential coastal resource impacts of the proposed system and requesting a careful review of these issues. Soon after, the RWQCB postpones action on this item.

August 5, 1997: San Mateo County Planning Division (County Planning) releases a Negative Declaration for the recirculating sand filter septic system and reverse osmosis water treatment system with brine septic system, pursuant to the California Environmental Quality Act, as these elements of the project had not been reviewed in the Negative

Declaration previously certified by the County for the 9 unit Country Inn project. Questa Engineering provides additional information to County Planning regarding the environmental impacts of the proposed systems. Within this information the need for an additional subdrain uphill of the brine leachfield is identified.

August 8, 1997: Commission staff meets with Ms. McKenzie, Questa, RWQCB, County Planning, Monterey Bay National Marine Sanctuary (Sanctuary) staff, and interested parties to discuss issues and concerns regarding the proposed wastewater and water systems. Although these issues were not fully resolved, it was agreed that the permittee, her consultant, and the RWQCB would obtain additional data and develop a monitoring plan that would be circulated for the review of the meeting participants prior to RWQCB action on these project elements. This additional coordination never occurred.

September 29, 1997: Commission staff send comments to County Planning on the Negative Declaration (attached as Exhibit C), as does Sanctuary staff. Commission staff's letter identifies that concerns regarding the wastewater and water system's impacts on marine resources, coastal water quality, public access and recreation opportunities, and agricultural resources are not adequately addressed by the Negative Declaration Other issues identified in the Commission staff letter include: unresolved issues regarding the water well's long-term stability and potential for seawater intrusion; quantities of water use that exceed water use limitations established by the LCP to regulate density; and, impacts of treatment facilities on visual resources. Sanctuary staff comments state that the geologic conditions and narrow configuration of the project site are inadequate to support the proposed wastewater and brine leachfields, and that the project, as proposed, poses a threat to Sanctuary resources and qualities.

December 3, 1997: Health Services requests that a licensed hydrogeologist certify the accuracy of the information regarding the water system proposed by Kleinfelder. This letter also states that since Kleinfelder has not addressed the potential for seawater intrusion, Health Services opinion is that the well will be subject to saltwater intrusion at some point in the future, particularly during periods of prolonged drought; when this occurs, the proposed reverse osmosis treatment process will be inadequate, and the proposed drainfield will fail.

December 8, 1997: Ms. McKenzie responds to Health Services letter of December 3, 1997, contesting the findings, and identifies Questa as liaison between Health Services and Kleinfelder.

December 18, 1997: Health Services responds to Ms. McKenzie's letter of December 8, 1998, explaining information needs for review and approval of proposed water system.

December 22, 1997: Commission staff receive RWQCB Proposed Waste Discharge Requirements Order No. 98-14 (Order) for the project's wastewater system and brine disposal system, to be acted on by the RWQCB on January 30, 1998. Comments on the proposed Order are requested by January 2, 1998. The proposed Order includes discharge specifications and a monitoring and reporting program, but does not contain a response to comments submitted regarding the Negative Declaration previously circulated for these project elements.

January 2, 1998: Questa provides comments to the RWQCB on behalf of Ms. McKenzie. Among the comments contained in this letter is a request to clarify that the discharger will

collect representative samples of the shallow groundwater only when there is a sufficient depth of the groundwater to obtain a representative sample, as well as request to use monitoring wells, rather than sampling the treated wastewater effluent itself, to determine compliance with Order's Coliform Bacteria limitations.

January 8, 1998: Sanctuary staff comments on the proposed Order, identifying the need to review a response to the comments submitted on the Negative Declaration before being able to provide complete comments on the proposed Order. This letter also: expresses concern that the amount of brine flow to the leachfield has been underestimated; questions the ability of the brine leachfield to adequately accommodate the proposed discharged based upon the low percolation rates found in this area; requests that the discharger monitor the quality of the water seeping from the bluffs; and suggests prohibiting the discharge of any fluids used to clean and maintain the reverse osmosis system.

January 20, 1998: Commission staff receive a revised RWQCB staff report for the proposed order, along with revised discharge specifications and monitoring requirements, and a response to comments submitted regarding the Negative Declaration. The revised Order incorporates the Sanctuary's recommendation to prohibit the discharge of cleaning agents, but does not require the monitoring of bluff seeps. The requests contained in Questa's letter of January 2, 1998 are incorporated into the proposed Order. The response to comments on the Negative Declaration state that the applicant has agreed to install an additional 5,000 gallon holding tank for the brine wastewater to facilitate hauling and off-site disposal if this becomes needed or desired.

January 27, 1998: Sanctuary staff comment on the revised Order and express their ongoing concern that the brine leachfield may fail in the future, based upon Health Services opinion that the well will be subject to saltwater intrusion.

January 30, 1998: Commission staff faxes the RWQCB comments on the revised order. These comments emphasize the concern that the potential for salt water intrusion in the well will exacerbate the environmental impacts of the brine disposal, and will jeopardize the discharges ability to comply with the proposed discharge limitations. Staff also requests that the RWQCB require the monitoring of the water seeping the bluffs, and identifies other environmental issues that have not been adequately addressed, including the impact of the proposed curtain drain outfalls and associated rip rap, and the impact of the brine disposal on coastal vegetation, prime agricultural land and bluff stability. This letter identifies that the new development associated with the proposed wastewater and water systems (i.e., the outfalls/rip rap, the brine leachfield, and other new elements of these facilities) will require an amendment to the coastal development permit previously approved by the Commission. A copy of this letter is mailed to Ms. McKenzie.

January 30, 1998: The RWQCB approves the Order without revisions to the discharge specifications, and with additional mitigation measures requiring the submission of: a revegetation plan for the area above the brine leachfield; an engineering report for the rock energy dissipater at the end of the curtain drain outfalls; and, an archaeological reconnaissance report and recommendations. Monitoring of the bluff seeps is not required.

February 13, 1998: Questa submits an evaluation of the on-site water well to Health Services. This analysis concludes that the well's production capacity will be more than adequate to meet project demands, and that the potential for salt water intrusion is small.

February 17, 1998: Health Services responds to additional information provided by Kleinfelder on January 29, 1998, stating that Kleinfelder's response to the concerns of the well's long-term viability and its potential for seawater intrusion are inconclusive, and requesting that a more definitive response be provided. (It is assumed by Commission staff that Health Services had not received or reviewed the February 13, 1998 letter from Questa at this point in time). Due to Kleinfelder's inability to conclusively respond to this issue, Health Services submits the pump test data to the California Department of Water Resources (Water Resources) for an unbiased determination of the long-term viability of the on-site water supply.

February 25, 1998: Harry O'Brien, the attorney representing Ms. McKenzie, submits a letter to Health Services, which asserts that additional review of the well by Water Resources and the associated delays is unacceptable in light of the technical documentation that has been submitted to date and the fact that Water Resources has no jurisdiction over the project.

February 27, 1998: Health Services responds to a letter from Questa dated February 24, 1998. This letter identifies that Questa's letter of February 13, 1998 will be forwarded to the state Department of Health Services, Office of Drinking Water, and that Questa will be informed of the hydrogeologist that will be reviewing this information.

March 10, 1998: Health Services responds to Mr. O'Brien, ensuring him that the project will be reviewed in a timely manner. Health Services identifies that concurrent review by the Office of Drinking Water is appropriate because they oversee the County's water supply program, assist staff with engineering oversight, and have access to additional resources (e.g., a licensed hydrogeologist).

April 9, 1998: Commission staff send Ms. McKenzie a letter reiterating that the proposed water and sewage treatment facilities require an amendment to the approved coastal development permit, as previously identified in comments submitted regarding the RWQCB waste discharge Order. This letter also states that because the long term stability of the well is related to the functioning of the newly proposed brine leachfield, resolution of the well's adequacy is a prerequisite to processing an amendment to incorporate the brine leachfield as part of the project.

April 17, 1998: Commission staff analyst Steve Monowitz meets with the permittee to discuss the need for an amendment and to review the processes for amending and extending a coastal development permit.

May 5, 1998: Health Services sends a letter to the Department of Water Resources summarizing an April 28, 1998 discussion regarding the proposed water system. This letter states that their "conversation concluded that the proposed system is, at best marginal, and concrete conclusions cannot be made with the testing already performed. It was also concluded that there may not exist testing methods to properly assess the long-term viability of this system".

May 14, 1998: Health Services writes Ms. McKenzie, summarizing their findings on the proposed water system: Kleinfelder's estimated water use of 428 gallons per day is unrealistic; the 24 hour pump test may be inadequate to predict the long term stability of the well; a pumping rate of 1.25 gallons per minute may be the well's upper limit of sustainability; and, the potential for saltwater intrusion is inconclusive. Notwithstanding these findings, the letter states "while the proposed system appears marginal it does meet minimum quantity and quality requirements. Therefore, the proposed water system is approved." The letter goes on to state that in order to address the marginal nature of the proposed water system, Health Services intends to recommend that County Planning add conditions to the use permit for the project that require monitoring of water quality and water depth; and, enforcement of strict water use rates if monitoring indicates potential failure of the well.

May 26, 1998: Ms. McKenzie sends a letter to Commission staff, challenging the staff's opinion that an amendment is required, and requesting that this issue be considered by the Commission at its July, 1998 meeting in San Francisco.

June 1, 1998: Ms. McKenzie meets with Deputy Director Tami Grove and District Manager Charles Lester to discuss the need for an amendment. It is agreed that this issue will be referred to the Commission at its July, 1998 meeting. Questa provides additional information regarding the details of the proposed curtain drains and the impacts associated with the brine field, which are asserted to be insignificant (Exhibit D)

C. Need for Amendment

1. When Amendments Are Required

The coastal development permit amendment process is designed to provide permittees with the opportunity to modify a previously approved permit and/or project as may be necessary or desired, and to ensure that the Commission has an opportunity to review and act on such changes so that project consistency with Coastal Act and/or LCP standards is maintained. Changes that require an amendment are project modifications that relate to the type, location, or intensity of "development" as defined by the Coastal Act.

As set forth by Section 13166 of the Commission's regulations, the process for amending coastal development permits (other than administrative permits) involves a determination by the Executive Director as to whether the amendment is a "material" change to the permit. Amendments that are determined to be "immaterial" (i.e., do not have the potential to affect coastal resources) can be processed administratively, and become effective 10 working days after they have been noticed if no objections to the determination of immateriality are received. Amendments that are determined to be material are referred to the Commission for a determination of Coastal Act consistency. The Executive Director also has the ability to reject an amendment request that in his or her opinion would lessen the intent of the originally approved permit. Thus, in reviewing amendments to a previously approved coastal development permit, the Executive Director's discretion is limited to whether the proposed change is a material change, and whether the change would lessen the intent of the original approval.

The discretion that can be exercised by the Executive Director in reviewing and approving final project plans required by a condition of approval is similarly limited. This level of review and

approval is intended to ensure that final project plans accurately reflect the specific type, location, and intensity of development that was approved by the Commission, and that the final plans appropriately incorporate any changes required by the Commission. Any other modifications that affect the type, location, or intensity of development require an amendment to the permit. Consistent implementation of this process is essential to maintaining project compliance with Coastal Act standards and ensuring that the Commission's actions are effectively carried out.

2. Facts Of This Case: What Is Currently Proposed Vs. What Was Originally Approved

a. Clarification of the Commission's July 11, 1996 Approval

To determine whether the currently proposed water and wastewater systems trigger the need to amend the permit approved by the Commission in 1996, it is essential to understand the extent of the development originally approved by the Commission. This can be derived from the adopted staff report (attached as Attachment 1), as well as the plans and project information submitted by the permittee prior to the Commission's Action.

Portions of the adopted staff report that are relevant to the question of whether the currently proposed water and wastewater systems require an amendment are excerpted and interpreted below. The page numbers of the excerpts in the original staff report follow each excerpt.

Excerpt 1: "Project Description: Demolition of existing warehouse type structures, and construction of a 9 unit Country Inn with 1,800 square foot storage/maintenance building, 14 off-street parking spaces , a septic system and a domestic well" (page 1)

Interpretation: The full extent of the project's wastewater and water systems, as submitted by the applicant prior to the Commission's review and approval, was a "septic system and a domestic well". This is consistent with the project plans submitted by the permittee prior to the Commission's approval, attached as Exhibits F and P to the adopted staff report (Attachment 1). The site plan attached as Exhibit F shows an "expanded septic system" (i.e., expanded beyond the smaller septic system that currently exists on the site) in the area landward of the western guest units; Exhibit P illustrates the location of the leachfield along the northern property boundary.

Excerpt 2: "Special Condition 1. Scope of Permit. This permit authorizes the development of a Country Inn, with an ultimate maximum of 9 units, in two phases. Phase I comprises those 6 units closest to the lighthouse. Phase II comprises the remaining 3 units on the east side of the gully leading to Whaler's Cove beach. The permit also covers the use of an existing warehouse building for storage and office purposes only (no occupancy); visitor parking spaces; and the project's water supply and sewage treatment systems." (page 2)

Interpretation: The scope of the development approved by the Commission included the water supply and sewage treatment system proposed by the applicant at that time to serve the 9 unit Country Inn. As identified above, these facilities were limited to a typical septic system and domestic well.

Excerpt 3: "Special Condition 3. Revised Final Plans. PRIOR TO TRANSMITTAL OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit, for Executive Director review and approval, final project plans which include the following: ... d. Specific plans and details for the project's water supply and sewage treatment systems approved by the County Dept. of Environmental Health; such plans shall identify final locations of the water well, water storage tank, septic system, and utility lines. If any of these project elements encroach outside of the parcel on which the project is located, the required easements or encroachment permits must be submitted concurrently." (p. 3)

Interpretation: At the time of the Commission's review and approval, San Mateo County had not yet approved the proposed septic system and water supply system. Nor had project plans indicated the location of the utility lines, or the single 6,000 gallon water tank that had been proposed in the project's Water Use Assessment. The above condition identified the requirement that if any of these facilities encroached outside of the property, authorization from the affected land owner would need to be secured. This requirement was identified in order to inform the permittee of the information that would be need to accompany final plans if any portion of the **proposed** infrastructure extended beyond the property boundaries.

Special condition 3.d. was attached to the permit in order to address these unresolved issues associated with the **proposed** infrastructure (i.e., local approval of the proposed well and septic system, locations of the water storage tank, and utility lines). It should not be construed to mean that an undefined amount of infrastructure, different in type, scope ,and intensity from that which was submitted to the Commission at the time of the public hearing, could be developed anywhere on the property. In addition, as is usually the case with Executive Director review and approval conditions, the condition was applied in a manner that gave the Executive Director the ability to approve or deny the submitted plans after his review. In other words, this condition did not guarantee approval of the final plans that would be submitted.

Excerpt 4: "Other important elements of project construction include the installation of a domestic well to serve the project, as well as a sewage treatment system. The details of these facilities have yet to be developed. As a result, assurances that such facilities will be adequate to serve the development without adversely affecting coastal views, marine habitats, and water quality, are essential. The adopted conditions of approval, as further discussed in the findings of this report, address these issues." (Findings, Project Description, p.6)

Interpretation: The above finding refers to the conditions of approval (i.e., Special Condition 3.d) as the means to resolve coastal issues that may be raised by the final details of the proposed wastewater and water systems. Again, this condition should not be construed to imply that development well beyond the infrastructure proposed at the time of the Commission's approval (i.e., a well, septic system, and 6,000 gallon water storage tank) could be approved administratively by the Executive Director.

Excerpt 5: "The project site contains almost equal portions of both prime agricultural soils, and non-prime agricultural soils (otherwise referred to as land suitable for agriculture by the LCP). The entirety of the proposed development is outside the areas containing prime agricultural soils, which are located within the eastern portion of the site, with the exception of the proposed well and leachfield. It is noted that during the County's review of the

subject project, the leachfield was also proposed outside of prime agricultural soils, but has since been relocated to the eastern portion of the site due to percolation constraints." (Findings, Agricultural Resources, p. 12)

Interpretation: This finding reflects the Commission's understanding that the project well and wastewater leachfield were the **only** elements of the approved project that would be located on prime agricultural soils.

Excerpt 6: "The submitted water analysis (Exhibit R) identifies the presence of total coliforms, as well as characteristics and constituents within the water which exceed drinking water standards. These include total conductivity, total dissolved solids, chloride, and fluoride. As a result, the proposed water system will require treatment, the extent of which has not been identified. The need to treat the water in order to meet public health standards raises concerns that the amount of water available for use by the project may be reduced, and the treatment may result in the need to dispose of effluent in the surrounding environment. As discussed later in this report, the low permeability of the surrounding soils may complicate the disposal of such effluent, and therefore result in adverse impacts to adjacent marine habitats and water quality." (Findings, Agricultural Resources, p. 13).

Interpretation: At the time of Commission review and approval, it was clear that there was a high likelihood that the project's well water would need to be treated. Water treatment facilities were not, however, a component of the project proposal at this time, and the extent of the treatment and the facilities required were unknown. The Commission required Executive Director review and approval of final plans for the water system, via Special Condition 3.d., to ensure that if additional water treatment and disposal facilities were confirmed to be needed, they would be addressed through the appropriate regulatory process. As discussed below, the water system currently proposed is well beyond the extent of development originally proposed and approved by the Commission, and therefore must be incorporated into the project through the amendment process.

Excerpt 7: "Other constraints identified by the percolation testing report include the 'possibility that surface water infiltrating the permeable silty surficial soils could perch on top of the less permeable terrace deposits', and the possible occurrence of groundwater within 3 feet of the bottom of the leachfield. The report states that these constraints could be mitigated by installing an approximately 8-foot deep subdrain uphill of the leachfield, which would intercept both perched water and high groundwater." (Findings, Sensitive Habitats, p. 18)

Interpretation: As indicated by the above finding, the proposal to install a subdrain uphill of the proposed septic system leachfield was a conceptual recommendation at the time the Commission acted on this permit. None of the submitted project plans illustrated this feature, and neither the Commission nor the staff were aware that such a facility would involve an outfall with a rock energy dissipater, as currently proposed.

Excerpt 8: "The report also acknowledges that the location of the leachfield, uphill of the proposed guest facilities, will require pumping of the effluent. Pumping of sewage currently requires a variance from the County, and is subject to problems during power outages, which are common at the subject site". (Findings, Sensitive Habitats, p.18).

Interpretation: This finding represents another situation where additional features of the project (in this case wastewater pumping facilities), beyond what was proposed or approved by the Commission, were anticipated by the analysis of potential project impacts on coastal resources. However, the identification of the potential need for such facilities does not exempt the permittee from the need to incorporate these facilities into the permit, through the amendment process, should it be confirmed that such facilities are necessary after the Commission has acted on the project.

Excerpt 9: "The remaining issues regarding project consistency with LCP visual resource protection policies, have to do with project fencing, and utility lines. The submitted project plans do not identify the type of fencing that will be used, nor do they address the LCP requirements that new utility lines be installed underground. These issues will be resolved during the Executive Director's review of final plans, as required by Special Condition 3." (Findings, Visual Resources, p. 22).

Interpretation: The above finding is illustrative of the Commission's concern regarding the visual impacts of the project, and the need to ensure that the specific components of the project proposed by the applicant will effectively protect the important scenic resources within the project's vicinity. Any new development, beyond what was originally proposed an approved by the Commission, would clearly need to be re-evaluated by the Commission for their potential impacts on visual resources.

In summary, the coastal development permit approved by the Commission on July 11, 1996 authorized the construction and operation of the 9 unit Country Inn, according to certain conditions. With respect to water and sewage treatment, the project reviewed and approved by the Commission included a domestic well, a 6,000 gallon water storage tank, and a typical septic system (i.e. septic tank and leachfield). A subsurface drain uphill of the leachfield was also recommended by the Percolation Testing report completed in June, 1996, although the details of this feature were unknown. Because specific plans for these elements of the project had not been finalized or approved by San Mateo County, Special Condition 3.d. was attached to the permit, which required the Executive Director to review and approve these final plans after they had been approved by the County. The intent of this condition was to address the unresolved issues associated with the proposed development, not to allow for an unspecified degree of additional infrastructure development necessary to implement the project. While it was anticipated by the adopted findings that additional infrastructure, such as water treatment and reject water disposal facilities, these elements were not a part of the project reviewed and approved by the Commission. The specific differences between what was approved by the Commission in 1996, and the development currently proposed, is analyzed below.

b. Currently Proposed Development That Is Beyond The Scope Of The Commission's Original Approval (illustrated by Exhibit E)

1) water system

As previously described, the original water system proposed by the applicant and approved by the Commission (subject to Executive Director review and approval of final plans) consisted of a domestic well and a single 6,000 gallon water storage tank. As currently proposed, the water system has been expanded to include:

- **A reverse osmosis treatment plant**. As proposed by the Kleinfelder report of January 27, 1997, this feature will be mounted on proper concrete foundations adjacent to the well. The dimensions of this facility, or the structure its will be housed within (if any) have not been provided to the Commission.

- **An additional leachfield for the disposal of reject water (brine) from the treatment plant**. This additional leachfield is approximately 8,800 square feet in size, and is located in the southeastern corner of the site, on prime agricultural soils and within 25 feet of the coastal bluff. Due to the shallow depth of the topsoil in this portion of the property, which is underlain by impermeable bedrock, the leachfield trenches will be at a depth of 30 inches. As opposed to the leachfield currently proposed for project wastewater, the brine leachfield will not be pressure dosed. The expected level of Total Dissolved Solids contained in the brine waste stream is approximately 2,000 mg/L based upon the current quality of water being obtained from the well. If the content of Total Dissolved Solids (TDS) in the well water increase, so will the level contained in the brine discharge. The RWQCB has established a maximum discharge concentration for TDS of 2,500 mg/L. Boron is another constituent that may be found at high levels in the reject water that will be discharged to this additional leachfield.

- **An additional curtain drain uphill of the brine leachfield, with an outfall and rock energy dissipater above the eastern gully**. Similar to the subsurface drain recommended for the wastewater leachfield, a curtain drain is proposed to be installed uphill of the brine leachfield in order to prevent perched groundwater from interfering with the functioning of the disposal system. The drain will be approximately 140 feet in length, and will be installed at a depth of 5 feet. A standard 4 inch pipe is proposed to collect and transport the water. The drain is proposed to discharge through an outfall located at the top of the eroded gully that defines the eastern boundary of the site, and 4 inch rock is proposed to be installed beneath the outfall to dissipate the energy of the discharge and prevent erosion According to the system designer, the proposed 4 inch drain pipe is a standard size for such a purpose; there have been no calculations used to estimate the quantity of water that will be collected and discharged through this pipe, the velocity at which it will travel, or the size or amount of rock needed to effectively prevent erosion. The engineer estimates that the peak flow of water from this outfall to be in the order of "a few gallons per minute".

- **Two additional water storage tanks**. As proposed in the Kleinfelder report of January 27, 1997, the project's water storage facilities have been expanded to include an additional 2,000 gallon tank that will store treated water to be used by project guests. In addition, the RWQCB's response to comments on the 1997 Negative Declaration for the project's water and wastewater treatment systems states that the applicant has agreed to install an additional 5,000 gallon storage tank in case it becomes necessary or desirable to dispose of the reject water from the treatment site by hauling it off-site to an appropriate facility. While the location of the storage tanks have not been identified on project plans to date, it has been stated that these tanks will be located underground. The degree to which these tanks may be partially visible remains unknown.

2) wastewater treatment system

The wastewater treatment system proposed at the time of the Commission's review and approval consisted of a 1,500 gallon capacity septic tank, and a leachfield along the northern portion of the property, in the location identified by Exhibit P attached to the adopted staff report (Attachment 1). As previously noted, the concept of installing a sub-surface (curtain) drain uphill of the leachfield to prevent perched groundwater from affecting the effluent disposal system was recommended by the June, 1996 percolation testing report. This report also identified the need to pump wastewater effluent from the proposed septic tank uphill to the proposed leachfield. However, the details of the curtain drain and the pumping facilities were not provided, and the development proposal did not specifically include these elements in project plans.

Since the Commission's approval, the location of the wastewater leachfield has remained consistent with the leachfield area shown by Exhibit P of the adopted staff report. However, the following additional developments have been incorporated into the project's wastewater treatment system:

- **Curtain drain outfall with rock energy dissipater** located above the eroded gully leading to Whaler's Cove beach. The need to construct an outfall to discharge the perched water collected by the subdrain was not identified until April, 1997, when the Negative Declaration for the project's new water and wastewater systems was circulated. Similar to the curtain drain outfall associated with the brine leachfield (described above), both the drain and the outfall will be a standard 4 inch pipe. 4 inch rock will be installed below the outfall in order to dissipate the energy of the discharge and prevent erosion. Again, the project engineer has estimated that the discharge from this outfall at peak conditions will be "a few gallons per minute", although there has been no calculation of the amount of water that is anticipated to be discharged from this outfall, the velocity at which it will travel, or the size and extent of rock needed to effectively prevent erosion. Concerns regarding this outfall's impact on erosion is heightened by the fact that the outfall will be located above the same gully that will be used by project guests to access Whaler's Cove beach.

- **Recirculating Sand Filter**. Due to the limited permeability of the site, which gives rise to the concern that inadequately treated wastewater effluent could migrate through the shallow surficial soils and exit through existing seeps in the coastal bluff to the beach area and marine environment below, the project has incorporated a recirculating sand filter to provide additional levels of wastewater treatment. The use of a sand filter was first identified as a potential way to address these concerns in Questa's June 10, 1996 letter to Ms. McKenzie. However, this feature was not specifically adopted as a component of the project until 1997, after further consultations between the permittee, health Services, and the RWQCB. This facility measures approximately 16 feet by 22 feet, and is proposed to be located underground in the area between the western most guest units and the property boundary with the lighthouse.

- **"Pressure Dosed" leachfield and wastewater pumping facilities**. In order to prevent wastewater effluent from pooling in certain areas of the wastewater leachfield, the engineering design developed by Questa in 1997 incorporated a "pressure dosed" leachfield system. A duplex pump station with a 5000 gallon pump chamber is proposed to provide the pressure to the leach lines. A second duplex pump station, with a 3000 gallon pump chamber, is proposed to pump the wastewater effluent from three 1500 gallon septic tanks (one for each structure of three units) through the recirculating sand filter. These facilities were not included in original project plans, although the need to pump the effluent

had been identified in the June, 1996 Percolation Testing report. As shown on the sewage disposal plan prepared by Questa in 1997, the two pumping stations measure approximately 10 feet by 15 feet, and are located in the same vicinity of the recirculating sand filter (between the westernmost guest units and the lighthouse). It is unclear what size or type of structures these pumping facilities will be housed within, or if they can be located underground.

3. conclusion

The point where changes to a project extend beyond the Executive Director's discretion to review and approve administratively are changes that modify the type, location, and/or intensity of the development originally proposed and approved by the Commission. This holds true even in instances where the need for project modifications are anticipated in the Commission's analysis of potential project impacts, but the specifics of these modifications are unknown and not a part of the project proposal.

In the case of the subject project, the Commission approved, in July, 1996, a development proposal that included a typical domestic well and septic system. The Commission's analysis of this proposal indicated that the physical constraints of the site made such systems problematic, and anticipated that additional features, beyond typical well and septic systems may be needed. These features were not, however, a part of the project approved by the Commission. The condition of Commission approval which required Executive Director review and approval of final project plans for the project's wastewater and water system was intended to resolve outstanding issues associated with these facilities, as proposed (i.e., approval by health services, location of utility lines and water storage tank). This condition did not authorize an undefined amount of infrastructure development that could become necessary to accommodate the project.

Since the Commission's approval, the water and wastewater systems needed to serve the project have significantly increased in scope, sophistication (a licensed professional is required to maintain the proposed water treatment facility), and in the amount of land area required. Because they represent additional development in areas which were not subject to development under the approved project, they can not be administratively approved by the Executive Director and thus they require an amendment to the permit. The need to process these project modifications as an amendment to the permit is also underscored by the new impacts to coastal resources posed by the expanded water and wastewater facilities. These impacts were not considered by the Commission during its review of the project in 1996, and are discussed in more detail below.

D. Impacts to Coastal Resources Posed by the New Development

The following discussion of potential impacts associated with the new development identified above is not intended to be conclusive. Rather, it identifies the unresolved coastal issues that are raised by the currently proposed water and wastewater systems. There has been a great deal of discussion regarding these potential impacts since the Commission's original approval of the project, primarily in response to the Negative Declaration circulated by the County in 1997 for the new elements of the project's water and wastewater systems, and with respect to the Waste discharge Requirements developed by the RWQCB. Nonetheless, the potential impacts identified below have not been satisfactorily resolved. Resolution of these issues will need to take place during the processing of the amendment, after further information and data

is gathered. The need for an amendment is not affected by the significance of these issues, although if these issues prove to be insignificant, the required amendment (or specific portions of it) could be processed as an immaterial amendment.

1. Potential Impacts to Prime Agricultural Soils

The proposed disposal of reject wastewater, which may have a concentration of TDS up to 2,500 mg/L, has the potential to adversely affect the productivity of the prime agricultural soils on which the brine leachfield will be located. The reduction in the agricultural values of the prime soils could result from the buildup of salts and minerals contained in the reject water from the reverse osmosis treatment system. This concern is exacerbated by the fact that the proposed leachlines will be only 30 inches beneath the surface of the soil.

2. Potential Impacts on Coastal Erosion, Vegetation, and Bluff Stability

The currently proposed water and wastewater systems have the potential to increase bluff erosion in three ways: by locating the two curtain drain outfalls above eroded gullies on the site; by saturating the area where the brine leachfield will be located, which in some locations is as close as 25 feet from the edge of the bluff; and, by potentially causing the loss of coastal vegetation that holds bluff top soils in place. Erosion that may be caused by the western outfall may be exacerbated by the use of this gully by project guests to access the beach. As previously noted, there have been no hydrologic calculations regarding the amount of water that will be discharged from this pipe at peak conditions, nor have there been engineering calculations applied to the proposed 4 inch rock energy dissipater. In addition, the potential for the saturated soil in the area of the brine leachfield to reduce bluff stability, not only by seeping over and through the bluff, but also by influencing the stableness of existing bluff fractures, has not been adequately evaluated. Finally, the discharge of reject water from the treatment plant, which will contain salts and other constituents, may build up in the soil to a level that is deleterious to coastal vegetation. The loss of coastal vegetation in the area of the brine leachfield could significantly reduce the stability of the soil in this area and thereby result in increased erosion.

3. Potential Impacts to Marine Habitats and Coastal Water Quality

The potential increase in erosion associated with the proposed infrastructure would also result in adverse affects to marine habitats and coastal water quality, by increasing sedimentation and turbidity in the adjacent intertidal environment. Furthermore, as evidenced by the comment letters provided by the staff of the National Marine Sanctuary previously summarized on pages 8 - 9 of this staff report, there are unresolved concerns that the proposed leachfields could have an adverse affect on Sanctuary resources, as the discharges to these leachfields may eventually enter Sanctuary waters. This concern is heightened by the potential degradation and/or failure of the well, acknowledged by the County Health Services Agency in its recent approval of the project's water system. If the quality of the well water is reduced over time, the levels of salts and other constituents in the reject water from the treatment facility will increase. Should these constituents build up in the soil of the brine leachfield, then the ability of the soils to remove any deleterious constituents of the waste stream would be reduced.

4. Potential Impacts to Visual Resources

The additional structural facilities associated with the currently proposed water and wastewater systems may have adverse impacts on the scenic coastal views available from Pigeon Point Road, and may also be visible from Whaler's Cove beach. The permittee has stated that some of the additional facilities, such as the recirculating sand filter and the water storage tanks, can be placed underground. However, the regular maintenance required to operate the reverse osmosis treatment plant necessitates that it be located above ground. Although the location of the treatment facility has not been indicated on project plans submitted to date, the January, 1997 Kleinfelder report identifies that all water fixtures, which is assumed to include the treatment facility, will be mounted on concrete foundations adjacent to the well. This is an area of the project site that is devoid of development. Other impacts to visual resources posed by the proposed infrastructure include: potential damage to or loss of coastal vegetation due to the disposal of reject wastewater at a depth of 30 inches below the ground surface; and, the installation of two outfalls, and associated rock energy dissipaters in gullies that are devoid of development, which may be visible from the beach area adjacent to the project.

5. Impacts Associated with the Potential Failure of the Well

Health Service' s recent approval of the project's water system (attached as Exhibit A) indicates that the proposed system is marginal and may be at its upper limit of sustainability. As a result, they recommend that the well be monitored, and if such monitoring indicates the potential failure of the well, then strict water use rates should be enforced. This recommendation raises questions regarding the long-term viability of the project itself, and whether water use restrictions beyond the water conservation fixtures that are already built into the project, if determined to be necessary, will adequately compensate for the shortcomings of the well. If the quality of well water degrades over time, it may become impossible for the permittee to comply with the discharge limitations established by the RWQCB. Significant reductions in well water quantity or quality could eventually necessitate abandonment of the project itself. As a result, it appears prudent to resolve the issue of the wells adequacy prior to development of the project.

E. Relationship to Settlement Agreement

The project site is the subject of a settlement agreement between the permittee and State of California that resolved a quiet title action previously pursued by the property owner. As part of this agreement, the Coastal Commission staff agreed "to process any appeal of the Coastal Permit Application expeditiously and without undue delay in accordance with the timeline requirements of the California Coastal Commission's regulations."

The Executive Director's determination that an amendment is required for the new elements of the project discussed in this report does not conflict with the terms of this settlement agreement. The appeal of the project was handled in a timely manner, consistent with the Commission's administrative regulations. The events that have occurred since the Commission's approval of the project on July 11, 1998, do not represent a delay in the processing of the appeal. Rather, they reflect the physical and environmental constraints of the site, and the effort that has gone into engineering wastewater and water systems within these constraints. This is chronicled by the summary of events found on pages 6 - 11 of this staff report.

The settlement agreement does not exempt project from normal permit processing procedures. In this case, the Executive Director's determination that an amendment is required is

consistent with the course of action routinely applied to previously approved projects that are modified to incorporate additional development, beyond what was originally reviewed and approved by the Commission.

HEALTH SERVICES AGENCY

RECEIVED

MAY 15 1998

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

May 14, 1998

Ms. Kathleen McKenzie
730 37th Avenue
San Francisco, CA 94127

SUBJECT: 921 PIGEON POINT AT HIGHWAY 1, PESCADERO, CALIFORNIA, SAN MATEO COUNTY

Dear Ms. McKenzie:

I would like to thank you for your patience while we have been performing our review of the proposed water system for the subject site. For staff to issue approval of the water supply, minimum quality and quantity must be demonstrated. A number of potential concerns were raised early in the process that required a more in depth review of the data obtained. In order to ensure a fair and adequate review and evaluation I asked several professionals to review and comment on the proposed system. These professionals consisted of the County Contract Geologist, the Division's Registered Engineer, and consultation with a Registered Engineer from the State Office of Drinking Water and consultation with an Engineering Geologist with the California Department of Water Resources.. The issues raised are summarized below:

1. Kleinfelder's June 6, 1996 Water Use Assessment concluded that a peak consumption factor of 428 gallons per day (gpd) would be adequate for the project. This calculation did not take into account a number of factors, most importantly the proposed "soak tubs." Expected peak use is anticipated to be closer to double Kleinfelder's estimate. Taking into account the estimated 50% efficiency of the proposed treatment unit, actual daily need of raw water would climb to almost 1,800 gpd or a sustained rate of 1.25 gallons per minute (gpm). Since the designed water usage is the driving factor for other components of the project it is recommended that a more realistic usage rate be utilized. The other components that are affected are the size of the storage tank and most importantly the quantity of effluent from the treatment unit.

2. The 24 hour pump test may be inadequate to predict long term sustainability of the water well. This is due to the geology of the site. Bedrock systems do not lend themselves well to modeling and even if a longer pump test is performed it may not shed more light on the long term viability of the water supply. However, some preliminary research in bedrock aquifers has shown that a good rule-of-thumb is that long-term sustainability can be estimated by using twenty-five percent (25%) of the tested pump rate. In this case that would be 25% of 5 gpm or 1.25 gpm. Using this information coupled with the more realistic potential draw from the well (1.25 gpm) indicates that the system may be at it's upper limit of sustainability.

EXHIBIT NO. A
APPLICATION NO. A-3-SMC-96-008
Health Services
Well Approval

PUBLIC HEALTH AND ENVIRONMENTAL PROTECTION DIVISION

Board of Supervisors: Ruben Barrales • Richard S. Gordon • Mary Griffin • Tom Huening • Michael D. Nevin • **Health Serv**

590 Hamilton Street • Redwood City, California 94063 • PHONE 650.363.4305 • TDD 650.573.3206 • FAX 65(

3. Salt-water intrusion was another concern. Due to the proximity to the ocean and the extreme depth of the well and pump, there is a potential that the well may cause local saltwater intrusion concerns. Based on the information presented and known to my staff it is inconclusive as to if saltwater intrusion is a concern for this particular well. Regional damage from saltwater intrusion, however, is not a concern based on the limited pumping that is proposed by this well. The water analysis meets the minimum water quality standard adopted by San Mateo County. Since there is no concern for regional long-term impact of salt-water intrusion, the risk to the system in inherent upon you as the owner of well.

Based on the above findings and the rigorous review this project has received, it is determined that while the proposed system appears marginal it does meet the minimum quantity and quality requirements. Therefore, the proposed water system is approved.

Due to the marginal nature of the proposed water system, we intend to recommend to the County Planning Department to add the following conditions to the use permit:

1. Water quality monitoring and water depth be measured monthly for the first 6 (six) months and annually thereafter.
2. If water quality and water depth measurements indicate potential failure of the system then strict water usage rates should be enforced.

Again, thank you for your patience and cooperation throughout this process. If you have any questions please give me a call at (650) 363-4305.

Sincerely,

Brian J. Zamora, REHS, MPH
Director, Public Health and Environmental Health

cc: Supervisor Richard Gordon, 3rd District
Margaret Taylor, Director, Health Services
Dean Peterson, Program Supervisor, Environmental Health
Ken Robinson, REHS, Environmental Health
Harry O'Brien, Coblentz, Patch, Duffy, Bass, LLP
Michael Murphy, Deputy County Counsel
Janice Jagelski, County Planning
Norman Hantzsche, Questa Engineering
Lennie Roberts, Commission for Green Foothills
Ed Heber, Monterey Bay National Marine Sanctuary
Steve Monowitz, California Coastal Commission
Robert Zatkin

CL
TG
LO
SM

Kathleen McKenzie
730-37th Ave.
San Francisco, CA 94121

Lee Otter
Tami Grove
Steve Monowitz
California Coastal Commission
Central Coast Area Office
Front St. Ste 300
Santa Cruz, CA 95060

May 26, 1998

Mr. Otter, Ms. Grove and Mr. Monowitz;

To confirm my earlier phone request:

I am appealing your opinion that my permit, A-3-SMC-96-008 requires an amendment.

In accordance with the agreement of August 22, 1996, signed by the Attorney General, the Executive Officer of the State Lands Commission, the President of the San Mateo County Board of Supervisors, San Mateo County Counsel, and Peter Douglas of the California Coastal Commission, in which the **commission staff** agreed that " **it will process any appeal of the Coastal Permit Application expeditiously, and without undue delay,**" I request that this matter be handled administratively within the next two weeks. If that is not possible, then I request that the item be placed on the agenda of the Coastal Commission's next meeting in San Francisco in July. It would be an unfair delay and financial hardship for me to travel to any other location for this matter to be considered.

Please contact me at your earliest opportunity so we can confirm this matter's resolution.

Kathleen McKenzie

Cc: Peter Douglas
Janice Jagelski
Lee Otter

EXHIBIT NO. B
APPLICATION NO. A-3-SMC-96-008
Request by
Permittee

STATE OF CALIFORNIA - THE RESOURCES AGENCY

PETE WILSON, *Governor*

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST AREA OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
(408) 427-4863
HEARING IMPAIRED: (415) 904-5200

September 29, 1997

Janice Jagelski
San Mateo County Planning Division
590 Hamilton Street
Redwood City, CA 94063

RE: ***Negative Declaration for the Use of a Recirculating Sand Filter Septic System and Reverse Osmosis Water Treatment System with Brine Septic System to Serve the Pigeon Point Country Inn at 921 Pigeon Point Road, Pescadero, San Mateo County***

Dear Ms. Jagelski:

Thank you for the opportunity to comment on the above referenced document. As you know, issuance of the Coastal Development Permit for the Pigeon Point Country Inn (CDP A-3-SMC-96-008) requires Executive Director review and approval of the water supply and wastewater treatment facilities needed to serve this project. This was required by the Commission in recognition of the fact that site constraints such as its narrow configuration, proximity to the ocean, low permeability and other unique geologic characteristics, made the provision of adequate wastewater treatment and an adequate water supply problematic. The Commission has been particularly concerned that these project components have the potential to result in adverse impacts to marine resources, water quality, and public access and recreation opportunities on the adjacent public beach, as detailed in the adopted staff report for this project.

Since the Commission's conditional approval of the Inn on July 11, 1996, it has become evident that the project will also involve the discharge of brine reject from a reverse osmosis water treatment system on a portion of the bluff within 25 feet of the bluff edge and covered with prime agricultural soils. This new development has exacerbated the concerns identified above, and raises new issues regarding the protection of agricultural resources. The Negative Declaration prepared for this new feature, as well as for the specialized domestic wastewater treatment system recently proposed, does not adequately address these concerns, as detailed below.

I. Impacts and Reliability of Proposed Water Supply

Policy 5.22 of the San Mateo County certified Local Coastal Program (LCP) requires the demonstration of a potable and adequate on-site well water source. While the information contained in the Negative Declaration suggests methods to treat well water to a level that will meet drinking water standards, the long-term stability of the water well, and the potential for the well to result in sea water intrusion, remain in question.

The Negative Declaration states that the San Mateo County Department of Environmental Health has approved the proposed water supply. However, evidence of such approval, including the basis of the approval, is not provided. From our review of San Mateo County

EXHIBIT NO. C
APPLICATION NO. A-3-SMC-96-008
Staff comments on Negative Declaration

Standards for Adequate Water (San Mateo County Ordinance Code Section 4717), minimum production levels must occur at a **stabilized water level** in order to be considered "adequate". The well testing data that has been provided to date indicates the water level of the well never stabilized during the required 24 hour pumping test. In order to resolve this issue, we request that the County provide us with a copy of the water well approval, accompanied by a detailed explanation of how this well was determined to be "adequate" under San Mateo County water well standards.

The potential for the well to result in seawater intrusion (based upon its depth of over 670 feet, its location within approximately 100 feet of the coastal bluff, and the geologic characteristics of the Pigeon Point formation), calls the adequacy of the proposed water well into further question. Seawater intrusion has the potential to exacerbate the problem of making the groundwater potable, and may increase adverse impacts of brine disposal on agricultural soils, sensitive habitat areas, and marine resources, as discussed later in this letter.

The potential for seawater intrusion is not adequately addressed by the Negative Declaration; in fact, the water reports attached to the Negative Declaration recommend further monitoring of well water depths and quality to detect changes in either parameter that would suggest an increase in salt water intrusion (Kleinfelder, October 18, 1996, p. 3). To appropriately address this issue, a specific detailed assessment of the well's hydrogeologic characteristics should be undertaken by a certified hydrogeologist. This assessment should include an evaluation of the potential for the salt and mineral content of the well water to increase during the long-term use of the well. This information should then be incorporated into an analysis of the chemical make-up of the reject brine over the long term, which should be compared consistency with State discharge standards

II. Quantity of Water Use

The Coastal Commission previously approved CDP A-3-SMC-96-008 on the basis that the 9 bed and breakfast units would not exceed a maximum daily water use of 630 gallons per day, and was therefore consistent with LCP density standards. New information contained in the Negative Declaration indicates that the maximum water use of the project will be 856 gallons per day (twice as much as the 428 gallons per day which the County and Coastal Commission approvals were based upon), due to the anticipated 50% recovery rate associated with the proposed treatment system. We do not agree with the assertion that "density credits are based upon the square footage and number of rooms ... Therefore, the gallons per day of daily water use value assigned, based upon the density credit, is not intended to restrict the amount of water a facility uses" (Kleinfelder, January 27, 1997, p.3). LCP Policy 1.8c. clearly establishes a maximum daily water use of 630 gallons per density credit for Public and Commercial Recreation land uses. We therefore request that the County address this apparent discrepancy with LCP density standards.

III. Impacts to Marine Resources and Sensitive Habitat Areas

As stated earlier, the narrow configuration of the subject property, its proximity to the Monterey Bay National Marine Sanctuary, the shallow depth of permeable topsoil, and other unique geologic features including the presence of year round seeps along the coastal bluff, raises significant concerns regarding the impact of wastewater and brine disposal on adjacent marine

resources and sensitive habitat areas. Of particular concern is the proposal to discharge up to 450 gallons per day of brine wastewater within 25 feet of the coastal bluff.

The Negative Declaration assumes that such impacts will be avoided through the use of: curtain drains to prevent perched groundwater from resulting in the discharge of contaminants to the adjacent beach and ocean environment; and, a recirculating sand filter for the treatment of domestic wastes. In addition, the Negative Declaration relies upon the monitoring and maintenance plan proposed by the applicant to ensure that the system will function properly; however, this monitoring is not required as a mitigation measure by the Negative Declaration, nor does it include provisions for monitoring the quality of water being discharged from the site.

The Commission staff does not agree with the Negative Declaration's conclusion that these measures will prevent the project from resulting in adverse impacts to marine resources and water quality, for the following reasons:

- There is no hydrologic evidence provided by the Negative Declaration to support the conclusion that the proposed curtain drains will prevent domestic and brine wastewater from being discharged through geologic fractures in the bluff. Although the curtain walls may reduce the amount of perched groundwater that enters the leachfield area from uphill locations, it would appear that the shallow leachfields, given the impermeability of the underlying rock formation, will inevitably result in a potentially adverse discharge even with the curtain walls.

- The two examples of successful wastewater treatment using a recirculating sand filter referenced by the Negative Declaration are not directly applicable to the subject project, as they are not adjacent to a National Marine Sanctuary, or on a parcel with unique geologic features where year round seepage of water from the bluffs is apparent. The high potential for wastewater and brine to discharge through the bluffs warrants an evaluation of impacts to the health of beach goers, the biologic productivity of adjacent tidepools, and other impacts to marine resources and water quality. This should include a comparison of domestic and brine wastewater contaminant levels (including any contaiminants associated with chemicals that may be used to periodically clean the reverse osmosis treatment system) to State standards for ocean discharges. And,

- The proposed monitoring plan does not include any provisions for monitoring the quality of water being discharged from the site, or for corrective actions should problems be detectd. While this is a necessary component of the monitoring plan, we caution against relying upon monitoring as an appropriate mitigation measure. It must first be determined that if discharged to the beach and marine environment, the brine and domestic wastewater will not have a significant adverse environmental impact. Beyond routine inspections to ensure proper functioning of the proposed systems, monitoring should be used to confirm that levels of contaminants contained in the discharge do not increase to levels which would result in significant adverse affects to the public or marine resources. An acceptable monitoring plan will also include specific corrective actions should such problems be detected.

In addition, the drainage associated with the proposed curtain wall raises new issues that have not been adequately addressed by the Negative Declaration. This includes: the concentration

of surface runoff within two outfalls proposed to be located within gullies along the coastal bluff; and, the installation of an unquantified amount of rip rap to dissipate the energy of these drainage features. We question the conformance of this drainage with Condition 5 of the permits approved by San Mateo County, which requires that "storm water runoff from the site shall be controlled so as not to increase the velocity of the runoff". While the rip rap is proposed to prevent erosion, its ability to accomplish this objective is questionable, given the fact that the rip rap, as currently proposed, will be located at the point of discharge only; concentrating larger quantities of surface runoff within these steep gullies may result in higher velocities of runoff down gradient of the rip rap, which has a high likelihood of increasing erosion. Other issues raised by the proposal to install rip rap within the gullies of the coastal bluff include: whether or not this is a permitted use for new development (as opposed to being needed to protect existing development); and, whether the installation of rip rap along the westernmost gully may interfere with the ability of the public to exit the public beach in an emergency.

Furthermore, the Negative Declaration notes that "the presence of concentrated brine leachate could impede growth of coastal vegetation in the area directly above the brine leach lines. Unless mitigated, this could be a significant impact because unvegetated backfill could erode at a higher rate and accelerate bluff instability. Vegetation is also beneficial over the leach lines because their natural evapotranspiration process would draw excess moisture from the ground" (Negative Declaration, p.2).

The Negative Declaration goes on to discount this impact by stating that coastal bluff vegetation "is inherently resistant to saline conditions", and by establishing a mitigation measure which requires the applicant to "provide the Coastal Commission with a revegetation plan ... to reestablish native coastal vegetation above the brine leach lines with appropriate native plants that are shallow rooted or tolerant of saline conditions" (Negative Declaration, p.2).

The Commission staff question the effectiveness of this mitigation measure due to the unknown ability of native coastal vegetation to survive in soils that have concentrated brine leachate, which is a much different circumstance than the typical exposure to salt spray. We are unsure why the County is relying upon the Coastal Commission to carry out a mitigation measure established by the County to comply with CEQA requirements.

IV. Impacts to Agriculture

Another important environmental issue that is not addressed by the Negative Declaration is the impact of the proposed brine disposal on prime agricultural soils. This new component of the project may significantly impair the agricultural viability of the prime agricultural soils located on the site, inconsistent with LCP Policy 5.8 and Section 6355 of the San Mateo County Zoning Ordinance. This issue should be thoroughly analyzed by the County, and must be resolved before the Coastal Development Permit for this project can be issued.

V. Impacts on Visual Resources

The visual impacts of the proposed project is another important consideration that has not been adequately addressed by the Negative Declaration, which relies upon the screening of all ancillary infrastructure, pumps, and housing with landscaping. It is inappropriate for the

Negative Declaration to assume that impacts to visual resources will not be significant if these facilities are screened with landscaping, due to the fact that such landscaping has the potential to block significant coastal views available from public areas. At a minimum, the County should identify the extent of coastal views that will be impacted by the treatment facilities, and suggest locations for these facilities that will minimize their impacts on coastal views. In addition, the ability to restore native coastal vegetation in the proposed brine discharge area must be established before it can be concluded that the project will not have significant adverse affects on scenic resources.

In conclusion, the Commission staff have significant outstanding concerns regarding the adequacy of the proposed water supply system and the environmental impacts of the proposed domestic and brine wastewater disposal methods, which have not been adequately addressed by the Negative Declaration. We request that the County respond to these concerns prior to adopting this document, and that these issues be appropriately resolved prior to Regional Water Quality Control Board adoption of a Basin Plan Exemption and establishment of Waste Discharge Requirements.

Please contact me, or staff analyst Steve Monowitz, if you have any questions or wish to discuss these issues further.

Sincerely,

Charles Lester
District Manager

cc: Adam White, Regional Water Quality Control Board
Ed Ueber, Gulf of the Farallones National Marine Sanctuary
Patrick Cotter, Monterey Bay National Marine Sanctuary
Brian Zamora, San Mateo County Department of Environmental Health
Kathleen McKenzie, Applicant
Peter Douglas, Executive Director

Questa Engineering Corporation

CIVIL, ENVIRONMENTAL, AND WATER RESOURCE ENGINEERS

June 1, 1998

Kathleen McKenzie
730 37th Avenue
San Francisco, CA 94127

Subject: Pigeon Point Country Inn - Coastal Permit Amendment Request

Dear Ms. McKenzie:

This letter is provided in partial response to the letter of April 9, 1998, from the California Coastal Commission regarding a staff determination that an amendment to your Coastal Development Permit will be required. The Coastal Commission letter cites two aspects of the water and wastewater systems that they believe necessitate the permit amendment:

1. The disposal field for brine reject water from the reverse osmosis water treatment system; and,

2. The outfall lines and rock rip-rap from two curtain drains (i.e., sub-drains).

The stated reasoning of the Coastal Commission staff is that these elements of the water and wastewater systems were not detailed in your original project proposal and they are located outside of the authorized area for the water and wastewater facilities.

Although it is true that these features of the water and wastewater systems were not specified at the time of your original Coastal Permit approval, I believe their inclusion falls within the permit condition for the water and wastewater systems which requires submission of the following:

> "Specific plans and details for the project's water supply and sewage treatment systems approved by the County Department of Environmental Health; such plans shall identify final locations of the water well, water storage tank, septic system, and utility lines. If any of these project elements encroach outside of the parcel on which the project is located, the required easements or encroachment permits must be submitted concurrently."

This permit condition recognized that detailed plans and locations of water and wastewater facilities were to be supplied at a later date and would be as approved by the County Department of Environmental Health. Approval of the water and wastewater system plans has, in fact, been obtained from the County as well as the Central Coast Regional Water Quality Control Board.

Regarding the siting of the water and wastewater facilities, the permit condition recognized that the final location of facilities was not determined, and that it would be identified in the approved plans.

(510) 236-6114 • (FAX) 236-2423
P.O. BOX 70356 • 1220 BRICKYARD COVE ROAD, SUITE 206 • POINT RICHMONI

EXHIBIT NO. D
APPLICATION NO. A-3-SMC-96-008
Information re. Brine

The only apparent restriction is that if the facilities were to be located outside of the project parcel, then easements and encroachment permits would be required. I believe this gives fairly broad flexibility in the siting of the water and wastewater facilities; there is clearly no reference to restricting the facilities to a particular portion of the site, i.e., an authorized "development area" as mentioned in the Coastal Commission's letter. Consequently, it doesn't seem that the location of the water and wastewater facilities provides a basis for requiring an amendment.

With respect to the actual facilities themselves, i.e., the brine disposal field and the curtain drain outfall lines, I believe the terminology we used may have contributed to some misunderstanding of the nature and significance of these elements of the water and wastewater systems.

- **"Brine" Disposal Field.** The proposed brine disposal field is simply a series of sub-surface leaching trenches (30 inches deep) used to disperse the wastewater from the reverse osmosis (RO) water treatment system into the ground. The term "brine" may be misleading. The wastewater from an RO treatment system is typically referred to as "brine"; however, in this case, the reject water will have a TDS (i.e., salt) concentration of no more than 2,500 mg/L, which is well above the drinking water limit of 1,000 mg/L, but still below what would even be considered "brackish". Sea water has a TDS of over 30,000 mg/L and brackish water is defined as beginning at 5,000 mg/L. The "brine" wastewater from this project would actually be suitable as a drinking water supply for livestock, which can safely tolerate TDS levels up to about 3,000 mg/L.

  The water quality and environmental effects of the "brine" disposal field were fully reviewed by San Mateo County and the Central Coast Regional Water Quality Control Board. It is my understanding that the Coastal Commission staff's main concerns have to do with the vegetation and prime farmland impacts. These issues were addressed and the following summarizes the findings:

1. The disposal of the high TDS water will occur below the normal root zone, and any salt concentration effects, if they occur at all, will be limited to narrow strips along the trenches. At 2,500 mg/L, there is the possibility of a small amount of salt build-up in localized areas, but this will be diluted and flushed by rainwater infiltration. There are a number of native coastal plant species that can tolerate the minor/localized salt build-up that may occur; and revegetation is not anticipated to present any particular problems. In fact, the provision of supplementary soil moisture from the brine field (and the septic system drainfield) are most likely to be beneficial to the native vegetation on the site.

2. Regarding the prime farmland impacts, it is true that the brine disposal field, as well as the septic system leachfield area, is mapped as "prime farmland", based on soil conditions. However, there is nothing about either the brine or septic system drainfields would adversely

affect the farming potential of the site. Any build-up of salts in the soil, should it occur, would be temporary only. It would be eliminated by the dilution and flushing effects of rainwater infiltration upon terminating the use of the drainfield, should the site ever be desired to be converted to agricultural use. However, the likelihood that the brine disposal area would ever be considered for agricultural crop production is extremely remote, given the impracticality of farming along the coastal bluffs. In fact, to use the brine disposal field area (which is to be located 25 to 50 from the bluff) for farming would be in direct contradiction of agricultural Best Management Practices, which advocate a 50-foot vegetative buffer.

- **Curtain Drain Outfall.** Our use of the term "rip-rap" in describing the rock slope protection at the outlet ends of the proposed curtain drains may have caused some misunderstanding, since most people think of rip-rap as large boulders used for river bank and shoreline protection. As indicated on the site plans and shown in the attached detail, the "rip-rap" will consist of four-inch cobbles, covering an area of no more than a few square feet. The purpose of the rock is to dissipate the energy and flow of water at the ends of the curtain drains. This is very much the same as might be used at the bottom of a downspout from a house gutter. The curtain drains themselves are simply sub-drains, consisting of rock-filled trenches with a perforated four-inch pipe at the bottom. Such drains are common place; they are used widely for yard, road, and foundation drainage as a standard practice, if not a mandatory requirement. There is nothing unusual about their proposed use in the Pigeon Point Country Inn project. They are intended to intercept and drain the perched winter groundwater away from the proposed septic system and brine drainfield areas. The flow of water in these drains, at peak conditions, is likely to be in the order of a few gallons per minute. The rock cobbles at the outfall locations will adequately disperse this flow and prevent the creation of erosion or a flow channel where the water exits the pipe. It is difficult to imagine that this is an issue that needs to be brought before the State Coastal Commission.

I trust the above information will be of help in clarifying and answering the Coastal Commission staff concerns about the proposed brine disposal field and curtain drains. If there are any other questions or if we can be of further assistance, please don't hesitate to call.

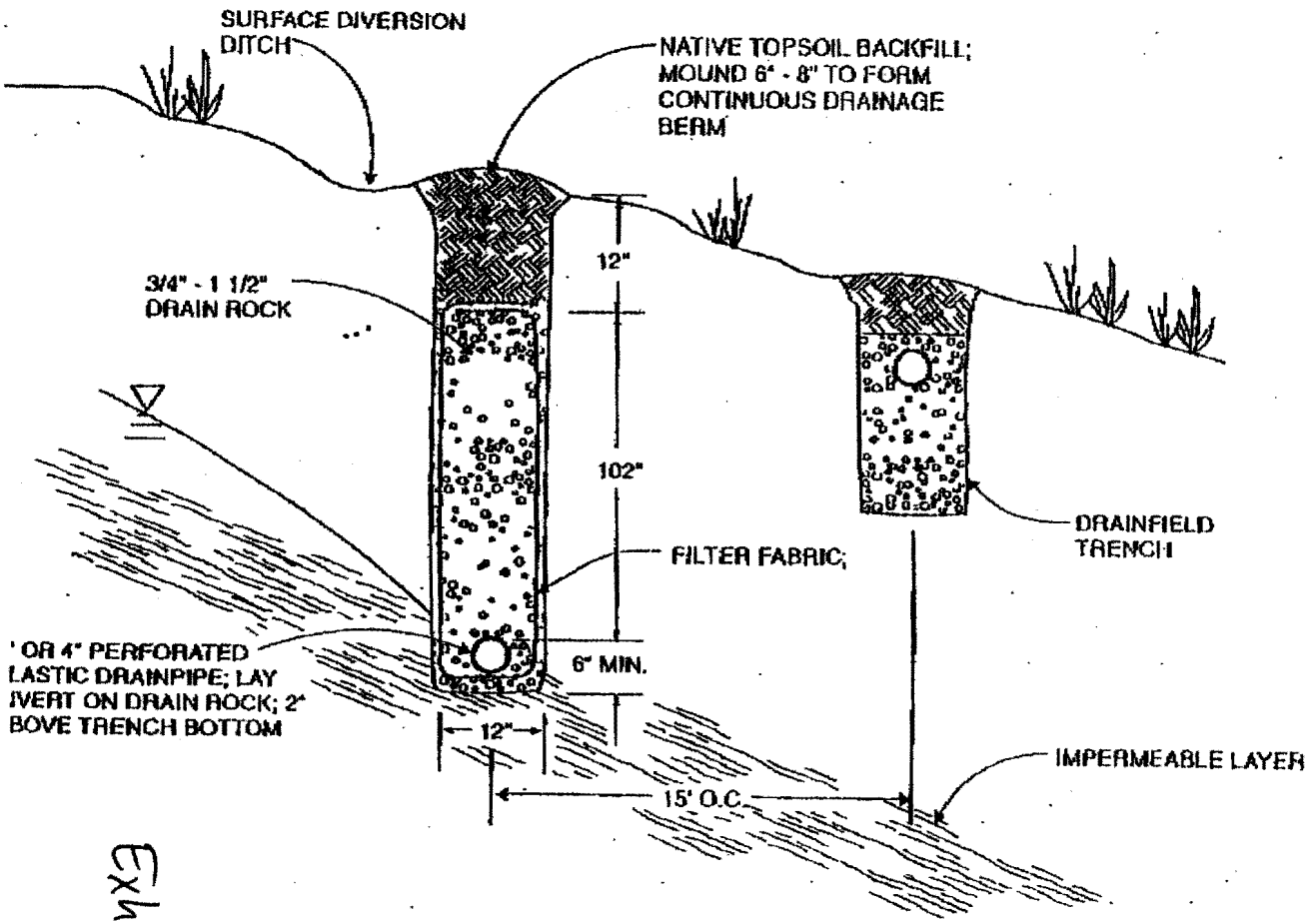
Sincerely,

Norman N. Hantzsche, P.E.
Principal/Managing Engineer

NNH/cw

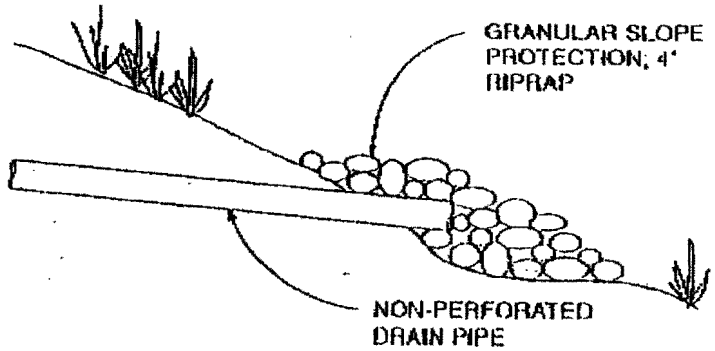
Ref.: 96073L12

Exhibit D, p. 3



CROSS-SECTION

INTERCEPT DRAIN DETAILS

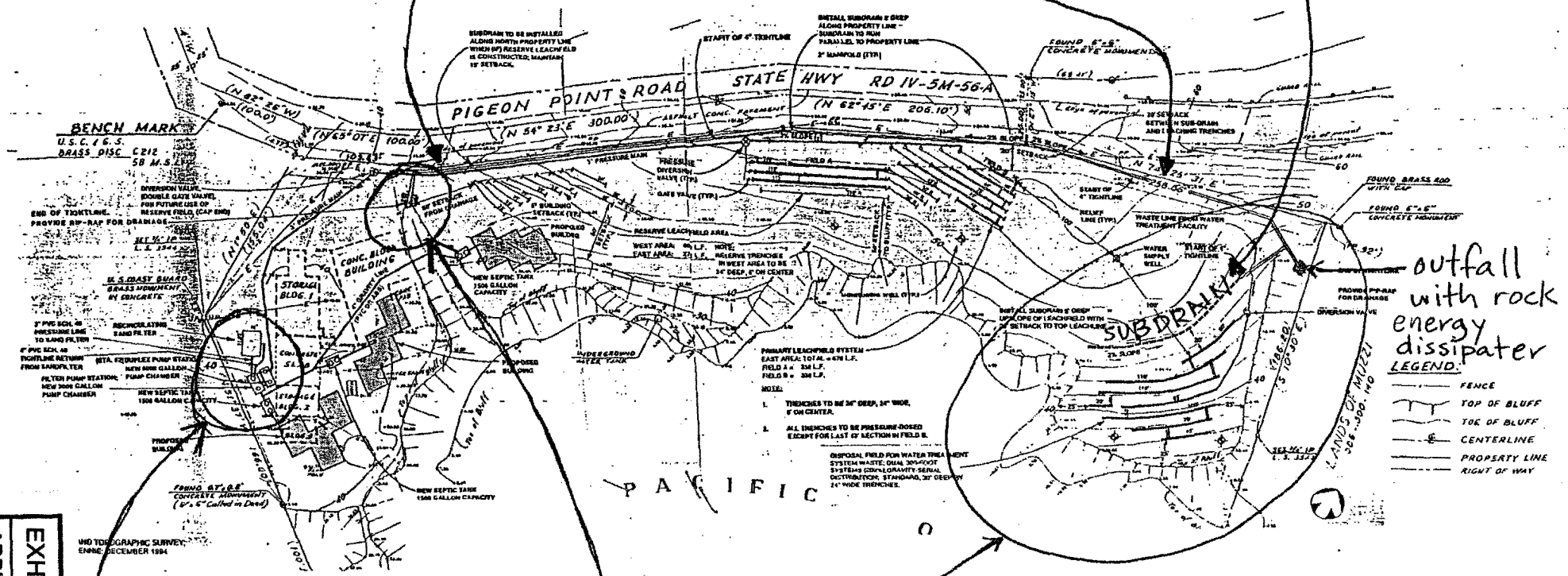


CROSS-SECTION

OUTLET DETAIL

Exhibit D, p.4

"subdrains" run along north property line and north of brine disposal field



outfall with rock energy dissipater

New curtain drain outfall with rock energy dissipater

New wastewater treatment and pumping facilities

New brine disposal field, associated subdrain with outfall and rock energy dissipater

New development not shown above: reverse osmosis water treatment facility
2 new water storage tanks

EXHIBIT NO. E
APPLICATION NO. A-3-SMC-96-008
Maui Development

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST AREA OFFICE
725 FRONT STREET, STE. 300
SANTA CRUZ, CA 95060
(408) 427-4863
HEARING IMPAIRED: (415) 904-5200

ATTACHMENT 1

Filed: 1/30/96
49th day: 3/19/96
Staff: SM-SC
Staff Report: 8/21/96
Hearing Date: 9/12/96
Commission Action on Findings:

ADOPTED

STAFF REPORT: REVISED FINDINGS

APPEAL NUMBER: A-3-SMC-96-008

APPLICANT: **KATHLEEN MCKENZIE**

PROJECT LOCATION: 921 Pigeon Point Road, Pescadero, San Mateo County

PROJECT DESCRIPTION: Demolition of existing warehouse type structures, and construction of a 9 unit Country Inn with 1,800 square foot storage/maintenance building, 14 off-street parking spaces, a septic system and a domestic well

COMMISSION ACTION: Approval with Conditions

DATE OF COMMISSION ACTION: July 11, 1996

COMMISSIONERS ON PREVAILING SIDE: Belgard, Flemming, Giacomini, Pavley, Randa, Rick, Staffel, Steinberg, Wan, Wear, Chairman Calcagno

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SUMMARY OF STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following findings in support of the Commission's action on July 11, 1996, approving with conditions the permit for the above referenced project. The major revisions from the previous staff report include a maximum density of 9 guest units (as opposed to the previously recommended 6 unit maximum), as well as elimination of the previously recommended condition requiring architectural modifications to the guest units.

I. STAFF RECOMMENDATION ON COASTAL DEVELOPMENT PERMIT

The staff recommends that the Commission adopt the findings, listed in Section IV. below, in support of the following resolution approved on July 11, 1996:

Attachment 1

Approval with Conditions. The Commission hereby grants, subject to the conditions below, a permit for the proposed development as modified, on the grounds that, as conditioned, the modified development will be in conformance with the provisions of the San Mateo County certified Local Coastal Program (LCP), the public access and recreation policies of the California Coastal Act of 1976 (Coastal Act), and will not have any significant adverse impact on the environment within the meaning of the California Environmental Quality Act (CEQA).

II. STANDARD CONDITIONS (adopted July 11, 1996)

Attached as Exhibit A

III. SPECIAL CONDITIONS (adopted July 11, 1996)

1. Scope of Permit. This permit authorizes the development of a Country Inn, with an ultimate maximum of 9 units, in two phases. Phase I comprises those 6 units closest to the lighthouse. Phase II comprises the remaining 3 units on the east side of the gully leading to Whaler's Cove beach. The permit also covers the use of an existing warehouse building for storage and office purposes only (no occupancy); visitor parking spaces; and the project's water supply and sewage treatment systems.

2. Compliance with Local Conditions of Approval. All 29 conditions of San Mateo County Coastal Development Permit # 95-0022 become conditions of this permit. (See Exhibit B of this report for a copy of the local conditions of approval). PRIOR TO TRANSMITTAL OF THE COASTAL DEVELOPMENT PERMIT, the permitee shall provide evidence to the Executive Director that those conditions requiring action prior to the commencement of any work have been signed-off by the appropriate County official. Evidence of subsequent condition compliance must also be submitted to the Executive Director at the required stage. In the event that County officials do not exercise such authority, permitee shall submit condition compliance materials to the Executive Director for review and approval.

3. Revised Final Plans. PRIOR TO TRANSMITTAL OF THE COASTAL DEVELOPMENT PERMIT, the permitee shall submit, for Executive Director Review and approval, final project plans which include the following:

a. Architectural elevations of the maintenance/storage building which improves its design compatibility with the existing highly scenic historic structures at Pigeon Point. The modifications shown on these revised plans shall include a change in the pitch of the roof, the removal of the skylights or screening of the skylights from the public view, and similar design characteristics needed to make the structure resemble similarly-sized support buildings associated with comparably situated traditional lighthouses.

b. Detailed fencing plan indicating the design, materials, and location of all fencing which will be installed as a component of the project, demonstrating that the proposed fencing will not impair public views.

c. A signing plan illustrating the exact design, location, and content of all permanent signs that will be posted on the site. This shall include the signs that will be posted in the guest units informing visitors that pets must be on leash, and that both guests and pets are not permitted on the beach when marine mammals are present. The signing plan shall also include signs identifying public parking spaces and the public viewing area.

d. Specific plans and details for the project's water supply and sewage treatment systems approved by the County Dept. of Environmental Health; such plans shall identify final locations of the water well, water storage tank, septic system, and utility lines. If any of these project elements encroach outside of the parcel on which the project is located, the required easements or encroachment permits must be submitted concurrently.

e. Plans for the public viewing area, in the location of the public viewing platform required by the Negative Declaration adopted by the County of San Mateo. This plan shall identify the boundaries of the viewing area available for public use, as well as improvements to the viewing area, including, at a minimum, a public bench which facilitates ocean and lighthouse viewing opportunities. Signs identifying public parking and viewing areas shall be addressed in the signing plan required by Section c of this condition.

4. Visitor Serving Use Only. PRIOR TO TRANSMITTAL OF THE COASTAL DEVELOPMENT PERMIT, the permitee shall submit, for Executive Director review and approval, a deed restriction which indicates that this coastal permit authorizes the development of a 9 unit Country Inn, a visitor serving use exclusively available to the general public. This deed restriction shall also specify that visitor length of stays are limited to no more than 29 consecutive days, and no more than 84 days per year. Furthermore, the deed restriction shall indicate that conversion of any portion of the approved facilities to a private or member only use, or the implementation of any program to allow extended or exclusive use or occupancy of the facilities by an individual or limited group or segment of the public is specifically not authorized by this permit and would require an amendment to this permit which may require a reduction in project density in order to maintain compliance with the density regulations of the San Mateo County certified Local Coastal Program. Upon approval of the Executive Director, the deed restriction shall be recorded within 15 days and a conformed copy submitted for the record. ON A BI-ANNUAL BASIS COMMENCING AT THE CONCLUSION OF THE FIRST YEAR OF PROJECT OPERATION, the permitee shall submit to the Executive Director copies of the project's Transient Occupancy Tax records in order to ensure compliance with this condition.

5. Compliance with Geotechnical Recommendations. Final project plans and project construction shall conform to and incorporate the recommendations contained in the Geotechnical Investigation prepared for the subject project by UPP Geotechnology, Inc., dated September 25, 1995. PRIOR TO THE TRANSMITTAL OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for Executive Director review and approval, drainage and erosion control plans, which include those measures necessary to protect the adjacent marine environment, accompanied by written evidence that UPP Geotechnology has reviewed these plans and concurs with their content.

6. Construction/Operations Plan. PRIOR TO TRANSMITTAL OF THE COASTAL DEVELOPMENT PERMIT, the permitee shall submit, for Executive Director review and approval, a project construction and operations plan which includes the following components:

a. the timing and/or phasing of all elements of project construction;

b. the location of construction staging areas and washdown facilities;

c. identification of the disposal site for excavated agricultural soils, excess grading spoils, demolished buildings, and any other construction wastes; and,

d. means of assuring that access to and from the lighthouse along Pigeon Point road will not be disrupted during project construction.

7. Landscape Plan. PRIOR TO THE TRANSMITTAL OF THE PERMIT, the permitee shall submit, for Executive Director review and approval, a landscape plan which includes the following:

a. use of local drought resistant native plants in all areas that will be disturbed during project construction, as well as in all areas that will be exposed as a result of building demolition;

b. use of Monterey cypress and local drought resistant native vegetation to screen project elements including, but not limited to the water storage tank, water treatment facility, and septic pumps; and

c. an irrigation and maintenance plan necessary to ensure the survival or replacement of the required landscaping.

IV. FINDINGS AND DECLARATIONS

A. Project History:

On December 13, 1995, the San Mateo County Planning Commission approved a Coastal Development Permit (File # CDP 95-0022) for the development of a 9 unit Bed and Breakfast facility at the subject site, and adopted a Negative Declaration pursuant to the California Environmental Quality Act. Rather than being appealed to the San Mateo County Board of Supervisors, the locally-approved Coastal Development Permit was directly appealed to the Coastal Commission. On March 14, 1996, the Coastal Commission opened and continued the public hearing on this appeal. On April 10, 1996, the Commission determined that the appeal raised a substantial issue regarding project conformance with the certified LCP. The De Novo hearing was continued, in order to provide the applicant with additional time to respond to the concerns expressed by the Commission and contained in the staff report prepared for the April Commission meeting (e.g., demonstration of an adequate water source to serve the proposed development). Upon the request of the applicant, the continuance of the De Novo hearing on this project was postponed from June, 1996, until July, 1996, in order to provide more time to

obtain the necessary additional information. Completion of the De Novo hearing on this project, and action on the coastal development permit for the proposed development, was undertaken by the Commission on July 11, 1996. At that hearing, the Commission granted a permit for the project, subject to the special conditions contained in this staff report.

B. Project Description:

The subject project proposes the partial demolition of existing warehouse-type structures on the property, and development of a 9-unit Country Inn with a ± 1800 square foot storage/maintenance building, 14 off-street parking spaces, and a domestic well. The previously proposed repair of an existing private stairway to the coastal bluff has been eliminated from the current project before the Commission. In addition, the applicant has proposed to eliminate landscaping as a component of the subject project.
Four buildings with a combined area of 7,659 square feet, constructed to serve a previously operating oyster farm, originally occupied the 4.5 acre site. One of these buildings, the largest and easternmost warehouse building, has already been demolished, without the benefit of the required coastal development permit.

The subject project proposes to demolish 5,800 square feet of the existing buildings (including the one which has already been illegally demolished), and maintain approximately 1,800 square feet of one of the buildings as a "storage/maintenance building", the exterior of which will be remodeled to match the proposed new development. No landscaping in the areas of existing buildings proposed for demolition has been provided by the proposed project. The floor plans for the "maintenance/storage" building show that the majority of the building will be used for the storage of vehicles, maintenance equipment, and miscellaneous materials. Approximately 150 square feet of this building is proposed to be used for linen storage and a lavatory (Exhibit G).

Eight of the proposed nine individual guest units are 600 square feet each (20 feet by 30 feet), with one of the units having 700 square feet (20 feet by 35 feet), totaling 5,500 square feet of new development. The 9 units are grouped in three clusters of 3 units each, with two of the clusters within the previously developed western portion of the site, and the third cluster located on an undeveloped eastern portion of the site (Exhibit F). The County's approval of this project described the development as being completed in three phases: the first two phases involve the construction of 6 units within the general vicinity of the existing buildings; Phase III would consist of the development of the remaining 3 units located on the currently undeveloped eastern portion of the 4.5 acre site. As illustrated in the submitted plans, each of the 9 units would contain a bedroom/living room with a fireplace, bathroom with a "soak tub", and kitchenette with a microwave oven.

The proposed architectural design of the units is illustrated by Exhibit J. According to the applicant's architect, the proposed design is intended to compliment the style and size of the Pigeon Point Lighthouse caretaker's living quarters, located immediately west of the site. The units would be 16 feet in height from the floor to the peak of the roof, covered by wood siding with a gray color, and private patios would extend from each unit and offer a view of the ocean.

Due to the geologic constraints of the parcel, the units will be located slightly above grade (approximately 1 1/2 feet above ground), on piers that will be drilled into the highly compacted soils of the Pigeon Point formation. According to the submitted grading plan, only minor

grading limited to the area of the units' footprints, is necessary to prepare the site for the development.

No information regarding the maximum length of stay allowed is contained within the project proposal or County record, which has raised concerns that the self-sufficient units, similar in size and facilities to a one bedroom apartment, could be rented out as residences. The parcel on which the project is located has one density credit and is zoned Planned Agricultural District, which conditionally allows one single family residence, or a density of development equivalent to two single family residences if for a Coastal Act priority visitor serving use. Residential uses are not eligible for the 100% density bonus granted for visitor-serving projects by the San Mateo County certified LCP. Thus, as discussed in the following findings, conditions requiring a limit of stay for visitors, and the periodic submission of Transient Occupancy Tax records is necessary to ensure that the proposed development actually functions as a visitor serving facility in perpetuity.

Other important elements of project construction include the installation of a domestic well to serve the project, as well as a sewage treatment system. The details of these facilities have yet to be developed. As a result, assurances that such facilities will be adequate to serve the development without adversely affecting coastal views, marine habitats, and water quality, are essential. The adopted conditions of approval, as further discussed in the findings of this report, address these issues.

With respect to project operation, a resident manager will not be present on site. According to the applicant, a manager will reside within a few miles of the premises, will attend to the site as needed, and will be available by phone 24 hours per day. Laundry service would take place off-site, and no meal service, other than continental breakfasts for each room, will be provided. The applicant will allow pets, including dogs, within the rooms, and anticipates that most guests will be couples, primarily from the Bay Area. With respect to the protection of marine mammals, which occasionally haul out on the adjacent Whaler's Cove beach, the applicant has proposed to post signs within each of the rooms which inform guests that neither humans nor dogs are allowed on the beach when marine mammals are present.

C. Project Location:

The subject 4.5 acre parcel at 921 Pigeon Point Road is directly adjacent to the eastern side of the Pigeon Point Lighthouse Reservation, on the west side of Highway One, in a rural area of the southern San Mateo County coastline (Exhibits C, D, and E), and is included within the State Scenic Highway Corridor. The adjacent Lighthouse is a State of California Historic Landmark, and is listed in the National Register of Historic Places. The Archaeological Reconnaissance Survey completed for this project indicates a rich history of maritime activities on the project site and within the project vicinity.

Pigeon Point, a small point jutting southwesterly into the Pacific Ocean, offers dramatic coastal views which are known to provide excellent opportunities to view migrating Gray whales and other marine life, and is rich in maritime and whaling history. The historic lighthouse on the point is known as one of California's most picturesque lighthouses. The existing ancillary buildings surrounding the lighthouse are currently used as a youth hostel , which provides overnight accommodations for up to 50 people. Other than limited local produce stands, the nearest place for visitors to find food would be the Town of Pescadero, approximately 10 miles

north of the site, or the City of Half Moon Bay (approximately 35 miles north of the site), or the Town of Davenport on the north coast of Santa Cruz County (approximately 20 miles south of the site).

D. Site Description:
The subject parcel, on the southern portion of Pigeon Point east of the lighthouse, is approximately 875 feet long, and varies in width between approximately 120 feet and 300 feet, as defined by the coastal bluffs (Exhibit F). The seaward side is bounded by the Monterey Bay National Marine Sanctuary. The jagged shoreline is marked by steep bluffs ranging in height from 35 to 40 feet. At the base of these bluffs are three small cove beaches, rocky shoreline, and the Pacific Ocean. The westernmost cove beach, closest to the proposed development, is known as Whaler's Cove, indicating its past use by the whaling industry. The parcel is bounded by Pigeon Point Road to the north, and undeveloped coastal land owned by San Mateo County to the east. The County-owned land to the east of the subject site currently offers unimproved parking and an unofficial, hazardous accessway to the beach. Only during low tide can Whaler's Cove be reached from the adjacent unofficial County-owned beach access.

Vegetation on the subject site includes native species of coastal strand habitat, as well as exotic species such as ice plant. Other than Monterey Pine planted amongst the existing buildings, there are no trees on the site.

The extreme western portion of the site was developed with 4 modular structures (one of which has been removed) which cover approximately 7,700 square feet of land, and are surrounded by fences. The existing buildings, originally developed in the 1960's for aquaculture purposes, are currently used for private storage. In the past, one of the buildings has been used as a residence, and another rented as a lodging facility, without the benefit of the required coastal development permits. Other existing development on the property includes a failing wooden walkway leading from the existing development to a promontory at the southwest property corner which then connects to a rickety stairway that leads down the bluff to a lower bluff; an underground water tank; two concrete pads between the buildings; a large black plastic water tank; a gravel driveway; planting areas; and an existing well on the southeastern portion of the property.

To the east of the existing developments is an abandoned road, also described as a "gully" in the County staff report, which leads from Pigeon Point Road to Whaler's Cove. Because this abandoned road serves as a primary drainage for the property, it has been deeply eroded. According to a settlement agreement reached between the State of California, the State Lands Commission, the Coastal Commission, and the property owners, the Whaler's Cove beach is owned by the State of California. Other than the abandoned road on the subject parcel, the only means of accessing this beach is by boat, or at low tides from County owned land southeast of the property, which provides an unofficial, hazardous trail down to the intertidal area southeast of Whaler's Cove.

In responding to comments submitted regarding the Negative Declaration, the County states "the applicant proposes to restore native vegetation on the sides of the gully while leaving an informal path down the center to allow for emergency access to the beach". The applicant has recently proposed to eliminate landscaping from the project proposal. It is assumed that the

proposed project will maintain this accessway to the beach for private use by the facility's guests.

The Whaler's Cove beach, in addition to providing exceptional coastal views and containing important historical artifacts, is also is used by pinnipeds (seals and sea lions) as an occasional haul-out area. Another attraction which makes this beach a desirable destination for coastal recreation, especially during the spring and summer, is the fact that it is protected from the predominantly strong north west winds. Letters received from fishermen, divers, school groups, and other members of the public, have emphasized that the unique characteristics of this beach provide coastal access and recreation opportunities for the public that are unavailable elsewhere. Over 200 letters to the Commission and Commission staff, stressing the importance of public access to this beach, were received and referenced in a previous staff report presented to the Commission at the April, 1996 hearing.

E. Density of Development:

1. Background:

The San Mateo County certified Local Coastal Program (LCP) establishes standards for development which regulate, among other things, the allowable density of development. The appropriate application of LCP density standards is very important, especially in rural areas of the County, as it serves to limit non-agricultural development in order to preserve agricultural land and natural resources, ensure that development takes place consistent with limited public service capacities (e.g., water, sewer, roads); and maintain the projected buildout figures contained in the certified LCP.

The density regulations contained in the San Mateo County LCP are based on the concept of density credits, which each parcel is assigned, according to a variety of factors. Every legal parcel is entitled to at least one density credit, which can be used to build a single family residence, or the equivalent thereof. In order to encourage Coastal Act priority uses, the LCP provides a 100% bonus for such development. For example, a visitor serving development equivalent to two single family residences could be built on a parcel with one density credit. This LCP density bonus is intended to implement the Coastal Act mandate which preserves limited public services for coastal dependent and coastal related development, and gives priority to those uses which are either require a close proximity to the ocean, or enhance public enjoyment of the coast.

One of the problems associated with the LCP's method of calculating allowable density is the difficulty in establishing the equivalent of a single family residence. In developing the LCP, alternatives for objectively determining, on a quantifiable basis, the amount of development equivalent to one density credit were evaluated. In considering elements of development which could provide a means for determining the allowable intensity of development per density credit, such as site coverage, traffic generation, or water use, the County chose water use.

Water use is thus simply a "yardstick" for determining the density of development equivalent to a single family home, for the purpose of allocating the amount of use for one density credit. Water conservation is not the thrust of this policy. In fact, extreme water conservation would significantly increase density projected in the certified LCP. For example, extreme water conservation could allow three single family residences, rather than

one, per density credit, thus tripling buildout and inflicting unknown impacts on resources and infrastructure. So far, water conservation has not been used as a tool to obtain additional single family residences on a site with one density credit. However, water conservation has been used as a tool to increase the allowable density of development for uses other than single family residences, as in case of the Cascade Ranch Health and Fitness lodge.

2. LCP Policies and Ordinances:

The following LCP Policies and ordinances regulate the allowable density of development at the project site:

a. Policy 1.8c.:

"Land Uses and Development Densities in Rural Areas"

"c. Require density credits for non-agricultural land uses in rural areas, including any residential use, except affordable housing ... and farm labor housing. One density credit shall be required for each 315 gallons maximum daily water use as a result of a land use. For purposes of this ordinance, a single family dwelling unit shall be deemed to use 315 gallons per day. In order to give priority to Public and Commercial Recreation land uses, one density credit shall be required for those uses for each 630 gallons of maximum daily water use. Water use shall be calculated on the best available information and shall include all appurtenant uses, e.g., landscaping, swimming pools, etc."

b. Section 6356 of the Zoning Regulations, states in relevant part:

"Maximum Density of Development."

"In order to equate the density credit accrued for different uses permitted in the PAD [Planned Agricultural District], one density credit shall equal 630 gallons/day of water for Public and Commercial Recreation uses, and 315 gallons/day of water for all other uses. For the purpose of this ordinance, a single-family dwelling shall be deemed to use 315 gallons per day. Any uses requiring more than 315 or 630 gallons/day of water shall consume the number of additional whole credits needed. Water use shall be calculated on the best available information and shall include all appurtenant uses, e.g., landscaping, swimming pools, etc. ..."

3. Project Consistency with LCP Density Regulations:

a. Visitor Serving Density Bonus

In order to qualify for the 100% density bonus provided by the LCP for Coastal Act priority developments, the subject project must function as a public or commercial recreational facility. The subject project proposes nine 600-700 square foot "Country Inn" units, and a 1,800 square foot maintenance/storage building, but does not include length of stay limitations that will ensure that the project will truly function as a visitor serving use. If the proposed visitor serving

use was converted to a residential use, the resulting density of development would be twice as much as that currently allowed by the LCP. The concern that the proposed project may be used for residential rather than visitor serving purposes is heightened by the following: the size and type of the proposed units could easily be converted to residential units as they are completely self sufficient; the project lacks the typical Country Inn support facilities (e.g., laundry, manager's residence, dining facility, guest lounge) which is especially peculiar given its remote location; and, the County did not condition its approval of the project in a manner which ensures that the development can only be used for visitor serving purposes.

As a result, Special Condition 4 attached to this permit requires that a deed restriction be recorded which indicates that this permit is for a visitor serving use only, and specifies a maximum length of stay 29 consecutive days, and 84 days out of the year, per visitor. Similar length of stay requirements have been used by the Commission in approving permits for other visitor serving developments, such as in the case of the Hotel Oceano in San Luis Obispo County. Evidence that the requirements of this deed restriction are complied with is also required by Special Condition 4, through the periodic submission of Transient Occupancy Tax records. In addition, Special Condition 4 specifically identifies that a conversion to residential use requires an amendment to this permit, and acknowledges that such a conversion may require a reduction in density in order to maintain consistency with the density regulations of the San Mateo County LCP.

b. Water Use

According to the applicable requirements of the San Mateo County certified LCP, the allowable density of visitor serving development on a parcel with one density credit can not exceed a maximum daily water use of 630 gallons. These requirements state that water use shall be calculated on the best available information and shall include all appurtenant uses, (e.g., landscaping, swimming pools, etc.).

The County's approval of this project allowed 9 units based on a Rural Area Water Use Study prepared for the County by Kleinfelder, Inc. in 1991, which asserts that hostelries, hotels, and motels with water conservation fixtures can support 9.33 units per one density credit. In response to concerns that the County's reliance on this study, which is not a certified component of the San Mateo County LCP, did not ensure consistency with LCP density regulations, the applicant provided project specific water use information (attached to this report as Exhibit K), and revised the project by replacing the proposed "soak tubs" with low-flow showers. The results of the project specific water use analysis indicate that the project will not consume more than 630 gallons per day.

Staff also notes that the County of San Mateo will soon be submitting an LCP amendment intended to provide a more precise and definitive method of objectively calculating density for non-residential development in the County. This comprehensive amendment is expected to assign specific unit values to the various non-residential uses permitted in rural areas of the County, thereby eliminating the need for case by case reviews which have often resulted in significant controversy. The Commission will, upon submittal of this amendment, have the opportunity to review the County's proposal and its potential impacts on the build-out of the rural San Mateo coastline. At this time, staff cannot predict what the final unit values will be when certified, however, it is clear that a more objective method of determining density is on the horizon.

4. Conclusion:

As detailed in the above analyses, the proposed project raises two issues regarding conformance with LCP policies regulating the allowable density of development. These include the project's eligibility for the visitor serving density bonus, and whether or not the project falls within the established 630 gallon per day maximum water use per density credit for a visitor serving facility.

In order to ensure that the project will truly function as a visitor serving use, Special Condition 4 that a deed restriction be recorded which indicates that this permit is for a visitor serving use only, and specifies a maximum length of stay 29 consecutive days, and 84 days out of the year, per visitor.. Evidence that the requirements of this deed restriction are complied with is also required by Special Condition 4, through the periodic submission of Transient Occupancy Tax records. In addition, Special Condition 4 specifically identifies that a conversion to residential use requires an amendment to this permit, and acknowledges that such a conversion would require a reduction in density.

Special condition 1 notes that this permit authorizes a maximum development of 9 units, consistent with LCP density regulations which establish a maximum daily water use of 630 gallons a day per density credit for visitor serving facilities. This conclusion is based upon the best information available to the Commission regarding the anticipated water demand of the proposed project.

Accordingly, as conditioned, the project is found to be consistent with standards of the San Mateo County certified LCP regulating maximum densities of development.

F. Agricultural Resources:

1. Background:

The project site is within the Planned Agricultural District (PAD) of the San Mateo County Zoning Regulations, which serves as the Implementation Program for land designated for agricultural use in the San Mateo County certified LCP. This PAD designation indicates the LCP's intent to preserve existing and potential agricultural operations on the site, and to minimize conflicts between agricultural and non-agricultural land uses within the project vicinity. This zoning district, and its associated regulations for development, are integral components of the San Mateo County LCP, as they provide the means for achieving the protection of coastal agriculture mandated by the Coastal Act of 1976. Consistent implementation of these regulations is necessary to protect the extensive agricultural resources of southern San Mateo County's coastal area, which is subject to intensive development pressures due to its location between the cities of Santa Cruz and San Francisco, as well as its scenic beauty and recreational resources.

The project site contains almost equal portions of both prime agricultural soils, and non-prime agricultural soils (otherwise referred to as lands suitable for agriculture by the LCP). The entirety of the proposed development is outside the areas containing prime agricultural soils, which are located within the eastern portion of the site, with the exception of the proposed well

and leachfield. It is noted that during the County's review of the subject project, the leachfield was also proposed outside of prime agricultural soils, but has since been relocated to the eastern portion of the site due to percolation constraints.

The site has not been under agricultural development in recent history, but is located across Pigeon Point Road from an agricultural field typically farmed for Brussels sprouts. The project has received approval from the County's Agricultural Advisory Committee, and as approved by the County, the applicant is required to record a "Right to Farm" statement in order to minimize project conflicts with adjacent agricultural operations. This condition, originally required by the County, is maintained by Special Condition 2 of this permit, which incorporates all of the County's conditions (attached as Exhibit B).

As evidenced by the need to record a "Right to Farm" statement, an important component of the agricultural resource protection policies contained in the LCP is to prevent non-agricultural development from adversely affecting agricultural operations. This includes the protection of agricultural water supplies, which are extremely limited along the southern San Mateo coastline. As a result, the LCP policy identified below requires that prior to approving a development permit for non-agricultural development, it must be demonstrate that the site has an adequate on-site water source to serve the proposed development, which does not adversely affect agricultural water supplies, or those water supplies necessary for the survival of a sensitive habitat area.

2. LCP Requirements:

LCP Policy 5.22a., "Protection of Agricultural Water Supplies", states:

> "Before approving any division or conversion of prime agricultural land or other land suitable for agriculture, require that:
>
> "a. All non-agricultural uses permitted on a parcel demonstrate the existing availability of a potable and adequate on-site well water source.
>
> "b. Adequate water supplies needed for agricultural production and sensitive habitat protection in the watershed are not diminished.
>
> "c. All new non-agricultural parcels are severed from land bordering a stream and their deeds prohibit the transfer of riparian rights."

3. Project Consistency:

The applicant has not yet demonstrated that an adequate well exists on-site to serve the proposed development. As expressed by many of the Commissioners at the April 1996 hearing on this project, resolution of this issue was a prerequisite to final Commission consideration of this project.

In complying with the directives of the Commission, staff met with the applicants and their representatives immediately following the April, 1996 hearing. At this meeting, the involved parties reviewed the additional information necessary to return the project for final consideration by the Commission, including approval by the San Mateo County Department of Environmental

Health of a well adequate to serve the proposed development. A follow up letter to the applicant summarizing the additional information necessary (including well approval) was sent on April 24, 1996, and is attached to this report as Exhibit O.

Since that time, the applicant has failed to obtain the requested well approval from Environmental Health. The applicant has submitted, however, a Well Test Report summary (Exhibit Q), and a water quality analysis (Exhibit R). The results of these investigations have raised concerns regarding the well's ability to adequately serve the proposed project, as discussed below. The Commission indicated at the April, 1996 hearing that the water supply issue should be resolved before review of this project was completed; however, many Commissioners also expressed a desire to meet the applicant's needs for a timely hearing, and requested that the project be scheduled for the June, 1996 meeting. This hearing date was postponed until the July Commission meeting upon the request of the applicant, due to the fact that the information necessary for the continued hearing (including well approval) was not yet available.

The submitted well test report indicates that on June 5, 1996, a 24 hour well test was undertaken (the location of the well is depicted by Exhibit P). The subject well, which was drilled to a depth of 735 feet, started the test with the water level at 80 feet. At the conclusion of the test, the water level was at a depth of 672 feet, indicating a total drawdown of 592 feet over the 24 hour test period. The total production of the well over the 24 hour period was 7,250 gallons, resulting in an average yield of 5.03 gallons per minute. Although the final sustained yield was not determined, the report states that the "well stabilized at 5 gpm [gallons per minute] at the top of the pump".

The above information is not adequate to determine the adequacy of the proposed well because there is no indication of the level at which, and at what point during the test, the well stabilized. This "time versus drawdown" information is necessary to determine the well's ability to recharge during and after the withdrawal of water, which directly relates to the well's capacity to serve the proposed development over the long term. In addition, there has been no analysis of the materials encountered during the drilling of the well. This information applies to the type, size, and geologic stability of the aquifer, which also relates to the well's long term ability to serve the proposed development.

The submitted water quality analysis (Exhibit R) identifies the presence of total coliforms, as well as characteristics and constituents within the water which exceed drinking water standards. These include conductivity, total dissolved solids, chloride, and fluoride. As a result, the proposed water system will require treatment, the extent of which has not been identified. The need to treat the water in order to meet public health standards raises concerns that the amount of water available for use by the project may be reduced, and that the treatment may result in the need to dispose of effluent in the surrounding environment. As discussed later in this report, the low permeability of the surrounding soils may complicate the disposal of such effluent, and therefore result in adverse impacts to adjacent marine habitats and water quality.

Other concerns raised by the proposed water supply, and the fact that it has not been approved by the San Mateo County Department of Environmental Health, include:

- The well's proximity to the ocean and its depth below sea level, which increase the possibility of salt water intrusion. This concern is heightened by the fact that the submitted water quality analysis indicates levels of conductivity and total dissolved solids which exceed public health drinking water limits. Such characteristics are indicative of salinity.

- The geologic characteristics of the area in which the well is located, commonly referred to as the "Pigeon Point Formation", and known for its highly compacted soils, indicates that the aquifer from which the water will be derived is a "fractured" aquifer as opposed to the more common "porous" aquifer. This feature may not only reduce the reliability of the water source, but may increase the potential for salt water intrusion. The Commission staff has discussed the hydrogeologic characteristics of the site with a certified geologist[1], who described the Pigeon Point formation as a "graveyard of dry holes", and the potential for seawater intrusion was confirmed. This geologist, who participated in the water availability analysis for the Cascade Ranch project, also stated that from his experience in looking for water at the adjacent Campbell's Mushroom Plant, where 18 test wells came up dry, he would not consider looking for water on the western portion of Cascade Ranch underlain by the Pigeon Point formation.

With respect to the well's affect on agricultural water supplies, the surrounding agricultural operations use agricultural impoundments, as opposed to wells, for irrigation, and should therefore not be impacted by the project. This does not , however, address the potential for seawater intrusion posed by the proposed well, which would result in adverse impacts to future agricultural operations, should such activities require the use of groundwater supplies.

4. Conclusions:

The project can not be approved consistent with LCP Policy 5.22 until it has been demonstrated that an adequate and potable water supply exists on site to serve the proposed development, that will not result in adverse impacts to water supplies needed for agriculture and the protection of sensitive habitats. As detailed above, evidence that the proposed well will adequately serve the proposed development has not been provided. In addition, the proposed well has the potential to cause seawater intrusion, which could adversely affect groundwater supplies on adjacent properties. Furthermore, the disposal of effluent resulting from the required treatment of the water supply has the potential to adversely affect adjacent marine habitats.

As a result, Special Condition 3d. attached to this permit requires the permitee to submit specific plans and details for the project's water supply as approved by the San Mateo County Department of Environmental Health, for review and approval by the Executive Director prior to the transmittal of the coastal development permit. This condition is necessary to ensure project consistency with the specific requirements of LCP Policy 5.22a.

G. Sensitive Habitats:

1. Background:

[1] Personal Communication with Barry Hecht of "Balance Hydrolics", June 20, 1996

The ocean waters adjacent to the project site fall within the boundaries of the Monterey Bay National Marine Sanctuary. According to Policy 7.1 of the certified LCP, marine habitats and coastal tide lands are defined as sensitive habitats. Policy 7.22 specifically designates Pigeon Point as a marine and estuarine habitat requiring protection. Whaler's Cove beach, on the south side of Pigeon Point and directly adjacent to the proposed project, is used periodically as a seal haul-out area and may also be used for pupping activities. Other features of the Whaler's Cove beach and intertidal areas which are representative of their sensitive habitat designation include: tidepools which provide habitat for a wide variety of marine life, including abalone; "Prisoner Rock", a seastack (i.e., geologic feature in the form of a small but tall rocky island protruding from the ocean) which is used as a haul out area by marine mammals such as harbor seals; and, the close proximity Gray whales during their annual migrations. Because the subject project is directly adjacent to such habitat areas, LCP policies protecting sensitive habitat areas apply to the proposed development.

2. LCP Requirements:

Policy 7.3, "Protection of Sensitive Habitats", states:

> "a. Prohibit any land use or development which would have significant adverse impact on sensitive habitat areas."
>
> "b. Development in areas adjacent to sensitive habitats shall be sited and designed to prevent impacts that could significantly degrade the sensitive habitats. All uses shall be compatible with the maintenance of biologic productivity of the habitats."

Policy 7.5, "Permit Conditions", states in part:

> "a. As part of the development review process, require the applicant to demonstrate that there will be no significant impact on sensitive habitats..."

3. Project consistency:

In summary, the proposed project has the potential to adversely effect the adjacent sensitive habitat areas by:

- Attracting visitors, and their canine pets, to the site when seals or sea lions are present.

- Increasing the rate of erosion, as well as the quantity of sediment and urban pollutants contained in runoff from the site, as a result of project construction and operation. Such impacts can diminish water quality and biological productivity, adversely affecting sensitive habitats and the species dependent upon these habitats.

- Discharging contaminants to the marine environment from the disposal of effluent resulting from the required treatment of the water supply, and/or from a sewage treatment system that does not function properly.

These potential impacts, and their relative significance, are analyzed in more detail in the following paragraphs.

The applicant will require that dogs be kept on leash when outside the guest units, and will advise project guests that neither humans nor dogs are permitted on the Whaler's Cove beach when marine mammals are present. These rules will be described in signs posted in each guest unit, which must receive Executive Director review and approval prior to the issuance of the permit pursuant to Special Condition 3c.. Considering these safeguards, and in light of the small scale of the project, as well as the fact that the adjacent beach area is not currently considered a significant marine mammal haul-out area, the project's impacts to adjacent sensitive habitat areas resulting from limited numbers of additional visitors is not considered significant.

The potential for erosion and sedimentation as a result of project implementation was identified by a geotechnical investigation of the project site and proposed development undertaken in September 1995. This study found that "the soil that blankets the site is poorly consolidated", and, as a result, stated that the "control of surface drainage is critical to the successful development of the property" as "the results of improperly controlled run-off may include erosion, gullying, ponding, and potential slope instability". The report recommends controlling drainage and surface runoff via closed conduit discharge system with an energy dissipater. Such a feature, has not, however, been incorporated into current project plans.

The impacts of erosion, sedimentation, and urban pollutants on marine and intertidal habitat areas can be significantly adverse if they are not properly controlled. Sources of erosion, sedimentation, and urban pollutants include: an increase in the quantity and velocity of stormwater runoff resulting from the increased extent of impervious surfaces; instability of surface soils caused by earth moving activities and the demolition of existing structures; improper control of stormwater during project construction; inadequate or poorly designed drainage facilities; washdown and use of improperly maintained construction equipment; and the increased quantity of automobile fluids (i.e., oil and coolant) contained in stormwater runoff as a result of increased visitation by the public using automobiles.

Erosion, sedimentation, and urban pollutants can significantly degrade intertidal and marine habitats by: reducing water clarity, thereby diminishing the amount of sunlight available to bottom dwelling organisms dependent upon sunlight; directly removing habitat areas through the erosive forces of high velocity runoff; smothering (with sediment) habitat areas dependent upon water circulation for survival; and introducing toxic substances to the marine environment which can result in mortality, reproductive failure, or other adverse impacts to biological resources within intertidal and marine environments.

As a result of the potentially significant impacts described above, Special Conditions have been attached to this permit which ensure that such impacts are minimized to an insignificant level.

Special Condition 5 requires compliance with the recommendations contained in the Geotechnical Investigation conducted for the project, and requires the submission of drainage and erosion control plans for Executive Director review and approval. This condition provides the mechanism for ensuring that project construction and project drainage facilities will not

result in adverse impacts to adjacent habitat areas or reduce the stability of surface soils and coastal bluffs.

Special Condition 6 requires the submission of a construction operations plan which identifies construction staging and washdown areas, as well as methods of spoils disposal, for Executive Director review and approval. The intent of this condition is to minimize site disturbance, and ensure that proper precautions are implemented during project construction, in order to prevent sediment and contaminants from entering adjacent habitat areas.

Special Condition 7 requires Executive Director review and approval of a landscape plan for the portion of the site proposed for development. Installation and maintenance of native vegetation enhances soil stability, especially in areas that will be disturbed as a result of project implementation. The Negative Declaration adopted by the County of San Mateo for this project pursuant to the California Environmental Quality Act states "protective native landscaping is proposed to prevent acceleration of erosion at this site". However, the applicant has recently proposed to eliminate landscaping from the project proposal. Therefore, the landscaping requirement not only provides a means to reduce erosion and control sediment in order to protect adjacent habitats, but also maintains project conformance with the Negative Declaration adopted by the County.

The impact from discharging water treatment effluent on marine and intertidal habitats, as well as from potential contaminants from the proposed septic system, must be assessed at the development review stage pursuant to LCP Policy 7.5a.. With respect to the project's water supply, the extent of the required treatment is currently unknown. This information is crucial to identifying the quantity and constituents of the effluent resulting from water treatment. Due to the low permeability of the soils on the project site and the extent of the proposed septic system (addressed in more detail in the following paragraphs), upland on-site disposal of the effluent will be problematic, and may result in ocean disposal. This has the potential to adversely affect marine and intertidal habitats through a reduction in water quality, depending upon the quantity and constituents of the effluent. As a result, subsequent review and approval of the proposed water supply system, including the specific details of the required treatment process, is required by Special Condition 3c.

Regarding the issue of sewage treatment, the constraints of the site's geology and irregular narrow shape, as well as its proximity to the marine environment, demands an in depth review of the proposed septic system in order to ensure that it can adequately handle the effluent generated by the project, and not result in significant adverse impacts to adjacent sensitive habitat areas. Potential effects of an inadequate or malfunctioning septic system include the introduction of bacteria and toxic substances to the marine environment and/or subsurface waters, which can diminish the biological productivity of marine habitats and result in human health risks.

Initial percolation tests undertaken at the project site found that the terrace deposits underlying the project site failed to percolate adequately. As a result, subsequent percolation tests were conducted within surficial soils (at a depth of two feet). These surface soils exhibited very good percolation rates. Based upon these test results, the geotechnical consultants recommend "installing a shallow leachfield system utilizing 4-foot deep trenches. The leachfield should be located in the areas outlined in Figure 2 [Exhibit O]. We do not recommend using the

driveways and parking areas to the north of the existing structures as part of the leachfield area because the shallow soils have been disturbed by vehicular traffic and do not exhibit adequate percolation rates. We do not recommend using the area around Pits 12 and 13 because the mantle of silty topsoil is less than approximately 2 feet thick in this area...". The proposed leachfield location includes a 100 foot setback from the proposed well, a 50 foot setback from the coastal bluffs, and a 10 foot setback from the northern property boundary adjacent to Pigeon Point road. As a result of these setbacks, the report states that in the consultants opinion, "it is unlikely that effluent will surface along these cuts or create slope instability problems".

While the consultants have stated that the site can accommodate a shallow leachfield on its eastern portion, it is unclear how the recommended 4-foot trenches will function properly since the percolation tests indicated that the soil did not percolate at a depth of 4 feet. In addition, there has been no analysis of the size of the leachfield or septic tank needed to accommodate the quantity of effluent resulting from the project. This analysis may prove the need to expand the size of the leachfield proposed by the consultants, thereby reducing the setbacks from the coastal bluff or well, and exacerbating potential risks to the health of adjacent habitats, humans, and the stability of the coastal bluffs.

Other constraints identified by the percolation testing report include the "possibility that surface water infiltrating the permeable silty surficial soils could perch on top of the less permeable terrace deposits", and the possible occurrence of groundwater within 3 feet of the bottom of the leachfield. The report states that these constraints could be mitigated by installing an approximately 8-foot deep subdrain uphill of the leachfield, which would intercept both perched water and high groundwater. Upon review of this report, the County of San Mateo Health Services Agency submitted a letter concurring with this mitigation measure, and identifying the need to install the subsurface drain prior to the construction of the septic system. This report also noted that "a detailed design of the proposed septic system employing the shallow drainfield with its equivalent sidewall capacity will need to be submitted ... for review and approval prior to the issuance of the building permit". The required size of this leachfield will be determined at this stage of review, and remains unresolved as of the writing of this staff report.

The report also acknowledges that the location of the leachfield, uphill of the proposed guest facilities, will require pumping of the effluent. Pumping of sewage currently requires a variance from the County, and is subject to problems during power outages, which are common at the subject site. Other difficulties posed by the proposed leachfield location include routing of water lines around the leachfield, which lies directly between the proposed well and guest units. In addition, access to the proposed cluster of units on the east side of the beach access gully would be problematic, as the leachfield would be located between these units and Pigeon Point Road and driveways are not permitted to be constructed over leachfields due to the potential compaction problems associated with the driving across the leachfield.

Due to the potentially significant impacts to sensitive habitats posed by on-site sewage disposal, resulting from the unique characteristics of the subject property, the Commission staff requested, within an April 24, 1996 letter to the applicant, San Mateo County Department of Environmental Health approval of a septic system adequate to serve the proposed development. The basis of this request was to allow Commission staff to establish project consistency with the previously identified LCP sensitive habitat protection policies, which require such a finding to be made prior to the approval of a coastal development permit.

Because the adequacy of the proposed septic system remains unresolved, a finding that the project is consistent with LCP sensitive habitat protection policies can not be made. As a result, special condition 3d. has been attached to this permit, which requires the final septic system design, as approved by the San Mateo County Department of Environmental Health, to be submitted for subsequent review and approval by the Executive Director prior to the transmittal of the coastal development permit.

4. Conclusions:

As detailed by the above analysis, significant adverse impacts to sensitive habitat areas adjacent to the project are posed by the potential increase in erosion, sedimentation, and urban contaminants resulting from project construction and operation, as well as by the potential discharge of contaminants from the required water treatment and sewage disposal systems.

Special Conditions have therefore been attached to this permit, which ensure that appropriate mitigation measures will be implemented during project construction, and in the design of the project's drainage system, in order to protect adjacent sensitive habitat areas from the adverse impacts of erosion, sedimentation, and urban pollutants. In addition, these conditions require subsequent review of the project's water treatment and septic systems, in order to ensure that their final designs adequately protect adjacent intertidal and marine habitats within the waters of the Monterey Bay National Marine Sanctuary.

Only with the implementation of the special conditions summarized above can the project be found to be consistent with the policies of the San Mateo County certified LCP protecting sensitive habitat areas.

H. Visual Resources:

1. Background:

The proposed project is directly adjacent to the Pigeon Point Lighthouse, which is described in National Register of Historic Places as a highly visible and important component in the development and heritage of the San Mateo County's coast. This lighthouse is one of the most picturesque in the State, and is a popular subject for artists and photographers.

The scenic qualities of this lighthouse are supplemented by the extensive views of rural coastline and open ocean which surround Pigeon Point. The vistas available from Pigeon Point are also known to provide excellent opportunities to view whales and other marine life. The significance of these views, and their accessibility by motorists and bicyclists traveling along Highway One, are evidenced by the fact that this area is included within the California State Scenic Highway Corridor. From the project site and adjacent Pigeon Point public road, expansive views of the ocean and coastline to the south of Pigeon Point are available, including views of Point Ano Nuevo and Ano Nuevo Island.

Based on the adverse visual impact that the proposed development would have on the adjacent lighthouse, the County's Historic Resources Board voted 5-3 to deny the project. As indicated in the County staff report for this project, the Historic Resources Board action did not have any

impact upon the approval granted by the County Planning Commission, other than resulting in conditions of approval requiring the protection of archaeological resources.

The County staff report and Negative Declaration prepared for this project, indicated that visual impacts resulting from the proposed development were to be mitigated by the construction of a public viewing platform. This mitigation measure, however, was not reflected in the County's conditions of approval, and has since been dropped from project plans.

2. LCP Requirements:

The following policies contained in the San Mateo County certified LCP regulate the impact of new development on visual and scenic resources of the San Mateo County coastal zone and apply to the subject project:

a. Policy 8.4b.:

"Set back bluff top development and landscaping from the bluff edge (i.e., decks, patios, structures, trees etc.) sufficiently far to ensure it is not visually obtrusive when viewed from the shoreline except in highly developed areas where adjoining development is nearer the bluff edge, or in special cases where a public facility is required to serve the public health, safety, and welfare."

b. Policy 8.5:

"Minimize the number of structures located in open fields and grassland areas; require that structures be designed in scale with the rural character of the region, and that they be clustered near existing and natural or man-made vertical features."

c. Policy 8.10:

"Replace vegetation removed during construction with plant material (trees, shrubs, ground cover) which are compatible with surrounding vegetation and is suitable to the climate, soil, and ecological characteristics of the area.

d. Policy 8.12c.:

"Locate and design new development and landscaping so that ocean views are not blocked from public viewing points such as public roads and publicly owned lands."

e. Policy 8.13d.:

"Encourage new buildings to incorporate architectural design features found in the historic buildings of the community (see inventory listing), i.e., clean and simple lines, precise detailing, steep roof slopes, symmetrical relationship of windows and doors, wood construction, white paint, etc. Require remodeling of existing buildings to retain and respect their traditional architectural features, if any.

f. Policy 8.15:

"Prevent development (including buildings, structures, fences, un-natural obstructions, signs, and landscaping) from substantially blocking views to or along the shoreline from coastal roads, roadside rests and vista points, recreation areas, and beaches."

g. Policy 8.16a.:

"Use plant materials to integrate the man-made and natural environments and to soften the visual impact of new development."

h. Policy 8.18a.:

"Require that new development be located, sited, and designed to fit the physical setting, so that its presence is subordinate to the preexisting character of the site, enhances the scenic and visual qualities of the area, or maintains the natural characteristics of existing major water courses, established and mature trees, or dominant vegetative communities."

i. Policy 8.21 regulates the design and location of commercial signs.

j. Policy 8.22 requires new utility lines within State Scenic Corridors to be installed underground, unless a specific exception is granted by the Planning Commission on the basis of constraints posed by topographic features.

3. Project consistency with Visual Resource policies:

Six of the nine proposed guest units are located within an area of the site which was previously developed with 4 buildings that were a component of an oyster farm, one of which has already been removed. The existing buildings are very utilitarian in nature and design, and are not considered an asset to the visual qualities of Pigeon Point. While the proposed removal of 3 of these buildings will clearly be an asset to the visual resources at Pigeon Point, the new development proposed in this area will be taller than the existing development, thereby increasing its visibility from the public beach area and adjacent public roads.

The project also proposes to utilize an existing 1,800 square foot building as storage/maintenance building, the siding of which will be replaced in order to match the new development. Replacing the siding of this building will not, however, adequately address the architectural design considerations required by LCP policy 8.13d. and 8.18a.. This is primarily due to the fact that the roof of the existing building is almost flat, and contains 6 large bubble shaped skylights which are incompatible with the design of the proposed development and the historic buildings of the surrounding area. It may be possible to resolve this visual incompatibility by replacing the roof of this building, or constructing a false roof over the exiting one. Special Condition 3 therefore requires final project plans to address this design consideration, and be submitted for Executive Director review and approval.

The remaining three units proposed as a component of this project are located on the eastern side of the existing access road to the beach, in an open space area of the parcel which has not been previously developed. These units will result in the blockage of significant ocean views

available from Pigeon Point road, and will also be clearly visible from the adjacent public beach area, inconsistent with LCP policies 8.4b., 8.5, 8.12c., and 8.15.

The adverse visual impact of this component of the proposed development was acknowledged by the County staff report and Negative Declaration prepared for this project, which proposed to mitigate this impact with the construction of a public viewing platform. However, implementation of this mitigation measure was not required by the County's conditions of approval, and has since been removed from project plans.

Due to the unmitigated significant adverse visual impacts resulting from the project, special condition 3a. requires the submission of final project plans which include modifications to the maintenance/storage building consisting of a change in the pitch of the roof, removal of the skylights or screening the skylights from public view, and similar design characteristics needed to make the structure resemble similarly-sized support buildings associated with comparably situated traditional lighthouses. In addition, Special condition 3e. requires the permitee to submit final plans which include a public viewing area in the location of the public viewing platform required by the Negative Declaration adopted by the County of San Mateo, as mitigation for the visual impacts resulting from Phase III of the development.

Another visual resource issue associated with the proposed project is LCP landscaping requirements. While the County's approval of the proposed project included landscaping, the applicant has recently proposed to delete landscaping from the project proposal. The elimination of landscaping is clearly inconsistent with LCP policies 8.10 and 8.16a. previously cited, which require vegetation removed during construction to be replaced with suitable plant materials, and use of landscaping to soften the visual impact of new development. As a result, Special Condition 7 requires a landscape plan responding to these requirements to be submitted fro Executive Director review and approval.

The remaining issues regarding project consistency with LCP visual resource protection policies, have to do with project fencing, and utility lines. The submitted project plans do not identify the type of fencing that will be used, nor do they address the LCP requirements that new utility lines be installed underground. These issues will be resolved during the Executive Director's review of final project plans, as required by Special Condition 3.

4. Conclusions:

The subject project is proposed within an area of significant visual resources, and must therefore be designed and constructed in strict adherence to the visual resource component of the San Mateo County LCP. As the above analysis indicates, the subject project will result in the beneficial visual impact of removing existing warehouse type buildings that are incompatible with surrounding historical structures. However, the new development proposed will be taller than the existing buildings, increasing their visibility from Whaler's Cove beach and Pigeon Point Road. As proposed, the project will also result in adverse impacts to visual resources by increasing the visibility of development from the adjacent public beach area, covering undeveloped open space lands, and blocking significant coastal views available from Pigeon Point road that are currently unobstructed. Other visual impacts include: design incompatibilities between the proposed use of an existing warehouse and the surrounding historical buildings;

the complete lack of landscaping; and, the possible impairment of views by fencing, signs, or overhead utilities for which no plans have been provided.

The most significant visual impact associated with the proposed project is the blockage of significant coastal views available from Pigeon Point Road that would result from the development of the three units on the undeveloped east side of the beach access gully, as well as the visibility of these units from the adjacent Whaler's Cove public beach. Considering the significant adverse visual impacts resulting from these units, special condition 3e. requires final plans to include a public viewing area as mitigation, consistent with the Negative Declaration adopted by the County.

Other Special Conditions attached to this permit address the remaining visual impacts by requiring Executive director review and approval of final project plans, including landscaping, signing, fencing, and utility plans, which must respond to these requirements. Only with the implementation of these conditions can the project be found to be consistent with the Visual Resource Component of the San Mateo County certified LCP.

I. Public Access and Recreation:

1. Background:

As described in Part IV.C. of this staff report, the site on which the subject project is located contains the only safe accessway to the adjacent Whaler's Cove beach, which according to a settlement agreement reached between the State of California, the State Lands Commission, the Coastal Commission, and the property owners, is owned by the State of California. Other than this abandoned road, the only means of accessing this beach is by boat, or only by the most adventurous at low tides from County owned land south east of the property, which provides an unofficial, hazardous trail down to the intertidal area southeast of Whaler's Cove.

The unique characteristics of Whaler's Cove beach make it an attractive place for coastal access and recreation activities, including swimming, diving, sunbathing, fishing, and boating. The qualities of this beach which make it so attractive for the above activities include: shelter from strong winds, waves, and ocean currents; the ability to transport a small boat from the nearby public roadway and launch it in a protected area; and the opportunity to observe tidepools and marine life, including migrating whales. Other unique features which have made this beach a popular destination for educational groups ranging from elementary schools to university students and elder hostels, include: its rich history of maritime and whaling activities; the biological productivity of the intertidal and offshore marine environment; and the unique geologic characteristics of the Pigeon Point formation.

Attached to the previous staff report distributed to the Commission at the April, 1996 hearing, were examples of letters received from fisherman, divers, school groups, and other members of the public, which expressed that the unique characteristics of this beach provide coastal access and recreation opportunities for the public that are unavailable elsewhere. Over 200 of these letters to the Commission and Commission staff, stressing the importance of public access to this beach, were received.

The project site, including the accessway to Whaler's Cove beach, is subject to a settlement agreement which resolves issues of implied dedication to the general public (i.e., whether the public, by virtue of historic use, has obtained an easement over some portion of the property), and what portion of the site is subject to the public trust. According to the terms of this settlement agreement, the beach area of the project site has been conveyed to the State of California, under the jurisdiction of the State Lands Commission. Regarding the issue of implied dedication relevant to the path across the subject property which leads to the beach, both the State of California and the County of San Mateo have acknowledged and agreed that they are precluded from finding that the existence or possible existence of implied dedication rights in the site constitute a basis for imposing any public access conditions.

The settlement agreement does not, however, bar the Coastal Commission or the County of San Mateo from considering other public access issues which are not, in whole or in part, based on any claim of implied dedication. The County and the Coastal Commission can impose appropriate public access conditions that are based on issues outside the scope of implied dedication.

At the County hearing on this project, the applicant volunteered to incorporate limited public access provisions across the subject property. As worded by the County's conditions of approval, this component of the project includes "limited access as provided herein, to school groups and fishermen over the path designated by the owner on the owners property from Pigeon Point Road to the public beach, provided that any such group or fishermen have entered into a written agreement with the owner providing reasonable terms and conditions governing such access, including without limitation release of any liability of owner, reasonable insurance requirements, and regulations of hours of use and minimizing disturbance of project guests. No access shall be permitted when any pinnipeds are present on the beach. Owner shall not be required to permit access to more than one school group per week in months July through December and more than two school groups per week in months January through June. Fishermen shall be limited to launching portaged boats for pole and line fishing from the boats."

2. Coastal Act Policies:

a. Coastal Act Section 30212 states, in relevant part:

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

"(1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,"

"(2) adequate access exists nearby, or"

"(3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway".

b. Section 30210 states:

"In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse."

c. Section 30214 states, in relevant part:

"(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:"

"(1) Topographic and geologic site characteristics."

"(2) The capacity of the site to sustain use and at what level of intensity"

"(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to the adjacent residential uses."

"(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter."

"(b) It is the intent of the legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. ..."

3. LCP Requirements:

The following access policies of the San Mateo County LCP apply to the subject project:

a. Policy 10.1, "Permit Conditions for Shoreline Access":

"Require some provision for shoreline access as a condition of granting development permits for any public or private development permits (except as exempted by Policy 10.2) between the sea and the nearest road. The type of provision, the location of the access and the amount and type of improvements required shall be consistent with the policies of this component."

b. Policy 10.13:

"Require the establishment and improvement of vertical (trails) and lateral (shoreline destinations) public access and parking consistent with Policy 10.22(e) as a

condition of approval for obtaining a permit for commercial and industrial development along the shoreline, except where the establishment of access would disrupt activities which are essential to public safety."

(note: Policy 10.22(e), referenced by the above policy, calls for the provision of trails linking parking facilities to nearby shoreline destinations that do not have existing parking facilities because such facilities would be inconsistent with other parking policies.)

c. Policy 10.22d.:

"New commercial or industrial parking facilities of 10 or more spaces within 1/4 mile radius of an established shoreline access area shall designate and post 20% of the total spaces for beach user parking between 10:00 a.m. and 4:00 p.m."

d. Policy 10.30:

"Requirement of Minimum Access as a Condition of Granting Development Permits"

"a. Require the provision of shoreline access for any private or public development between the sea and the nearest public road."

"b. Base the level of importance and development of access support facilities at a site on the Locational Criteria and Development Standard Policies and the Site Specific Recommendation contained in Table 10.6."

note: Table 10.6 lists the subject site under "Beaches Along Pigeon Point Road", and contains the following site specific recommendations: "consolidate bluff trails"; "develop interpretive educational displays discussing the fragile nature of the tidepools at Pigeon Point and prohibiting removal of species"; "construct short staircases to beaches"; "landscape parking area at Yankee Jim Gulch"; and, "include public access in all plans for the development of Pigeon Point Lighthouse". This table also recommends, for special consideration, to "close Pigeon Point Road to vehicular traffic. Retain existing right of way for use by bicycles, hikers, and limited traffic to the lighthouse".

"c. Base the responsibility and requirements of the property owner for the provision of this access on: (1) the size and type of development, (2) the benefit to the developer, (3) the priority given to the type of the development under the Coastal Act and (4) the impact of the development, particularly the burden the development would place on the public right of access to and use of the shoreline. Determine the minimum requirements according to the following:"

"...(3) For large agricultural and non-agricultural developments (i.e., developments of more than one single family house, major subdivisions, commercial and industrial developments, and large greenhouses and agricultural processing plants), require

the property owner to provide, improve, and maintain shoreline access consistent with the policies of this component."

Note: Since the subject development constitutes a non-agricultural commercial development, part 3 of Policy 10.30c. applies to this project.

e. Policy 10.31:

"Require additional access areas, improvements or operation and maintenance beyond the minimum when a project decreases the existing or potential public access to the shoreline by: (1) removing or infringing upon an area which has historically been subject to public use without permission or effective interference by the owner and/or (2) decreasing the amount of sandy beach by building seawalls, etc., and/or (3) removing future recreation opportunities by committing lands suitable for recreational development to uses which are not assigned priority for use of oceanfront land by Section 30222 of the Coastal Act."

4. Precedential Court Decisions:

The application of the above Coastal Act and San Mateo County LCP access policies must be taken in context with important court decisions which have set a precedent regarding the implementation of these policies. The following discussion summarizes the relationship between the proposed project and applicable court decisions:

a. Nollan vs. California Coastal Commission:

The applicable legal point made in the Nollan decision was that there needed to be a direct connection, or "nexus" between the impact caused by a project and the mitigation proposed to address it. This decision requires that in order for the Commission to impose an access condition on the subject development, it must find that the project will result in an adverse impact to public access which must be mitigated.

b. Dolan vs. City of Tigard:

The Dolan decision refined the Nollan decision discussed above by finding that, in addition to limiting mitigation measures to those that have a direct nexus to the impact of the project, such mitigation measures must be "roughly proportional" to the extent of the impact. As a result, in order to impose a condition requiring public access as a component of project approval, the Commission must find the benefits of such a condition are equivalent to the project impacts on public access which the condition is intended to offset.

5. Analysis:

In order to determine the applicability of the Coastal Act and LCP access policies previously identified, the degree to which the proposed project will impact public access must be determined, in light of the precedents set by the above court decisions. In this particular case,

this analysis must also consider, and be consistent with, the terms of the Settlement Agreement which resolved the issue of implied dedication, and to which the Coastal Commission was a party.

As described in Part IV.J.1. of this report, the terms of the Settlement Agreement preclude the State of California and the County of San Mateo from finding that the existence or possible existence of implied dedication rights at the site constitutes a basis for imposing any public access conditions. This effectively bars the Commission or County from asserting that the project will adversely impact public access by blocking the accessway to the beach located on the subject property.

The settlement agreement does not, however, bar the Coastal Commission or the County of San Mateo from considering other public access issues which are not, in whole or in part, based on any claim of implied dedication. The County and the Coastal Commission can impose appropriate public access conditions that are based on issues outside the scope of implied dedication.

In light of the terms of the Settlement Agreement, the only impacts that the project could have on public access and recreation opportunities would be intensifying the use of Whaler's Cove beach, and adversely affecting the sensitive habitat areas which is one of the reasons why this beach is an attractive destination. Because the issue of project impacts on sensitive habitat areas are addressed in detail in Section IV.E. of this report, the following analysis focuses on whether or not an intensified use of the site will affect the public access and recreation opportunities. Such an analysis is mandated by Coastal Act Section 30214, which requires that the capacity of a site to sustain a certain level of intensity of use be considered. This analysis is also required by LCP Policy 10.30c., which bases requirements for public access on "the impact of the development, particularly the burden the development would place on the public right of access to and use of the shoreline", among other factors.

The increased intensity of use of Whaler's Cove beach that will result from the subject project, and the burden that this will place on the public right of access to, and use of, shoreline areas is directly related to the project's density of development. As conditioned, the project is limited to 9 guest units, which would introduce approximately 18 visitors per day, and a smaller number of dogs, to the beach during periods of high occupancy. It is likely that these visitors will recreate on the beach for limited periods of time, and at different times of day, thereby reducing the number of project guests that are on the beach at one time. This minor addition of visitors to the beach should not significantly affect the public's ability to access or recreate on this beach.

6. Conclusions:

The minor increase in the intensity of beach use that will result from the subject project will not reduce the public's ability to access or recreate on Whaler's Cove beach, and therefore does not provide a nexus for a public access requirement pursuant to the Nollan decision. Similarly, a requirement for public access would not be proportional to the insignificant impact of a few additional beach users, and can not be pursued consistent with the precedent set by the Dolan case. Furthermore, because the project interferes with a coastal access route which the public has no established legal right to use, the Commission does not have a basis for requiring public access across the subject site as a condition of development approval.

J. Violations:

Violations of the Local Coastal Program have taken place on the subject property in the recent past. These include:

a. Erection of a fence without benefit of a coastal development permit;

b. Use of the agricultural storage building as a guest residence/rental; and,

c. Demolition of a building without benefit of a coastal development permit.

In response to the first two violations mentioned above, the County of San Mateo required the applicant to apply for coastal development permit for the fence, and to re-establish the agricultural storage building to its permitted use. An "after the fact" coastal development permit exemption was subsequently issued by the County for the fence.

With respect to the recent demolition of an existing building on the site, the County issued a demolition permit in January, 1996, but did not issue the required coastal development permit. This violation has yet to be resolved.

Although violations have taken place on the subject property prior to Commission review of this project, consideration of this project has been based solely on the project's conformance with applicable policies of the San Mateo County certified LCP and the Coastal Act. The Commission's action on this permit is without prejudice, as if the unpermitted development had not previously occurred. This action does not, however, constitute a waiver of any legal action with regard to any violation of the Coastal Act that may have occurred.

K. Relationship to Local Permits:

San Mateo County issued a coastal development permit for this project (CDP 95-0022), along with a Planned Agricultural Permit (PAD 95-0008) and Architectural Review (AR 95-0007), subject to 29 conditions attached to this report as Exhibit B. By finding "substantial issue" on April 10, 1996, the Coastal Commission stayed San Mateo County's coastal permit approval. The Coastal Commission approved a coastal development permit for this project, subject to the stated conditions, on July 11, 1996. The conditions of approval adopted by the Commission incorporate all of the local conditions of coastal permit approval. While many of these conditions overlap, they are internally consistent, and can be implemented without contradiction. Except as they may require modification to conform with the Commission's action, the other County permits remain valid; however, no development can commence until the applicable terms of this Coastal Development Permit are satisfied. Any future proposed changes to this project or the conditions of approval must be submitted to the Coastal Commission for approval.

L. California Environmental Quality Act (CEQA):

The County of San Mateo County adopted a Negative Declaration for the subject project on December 13, ~~1996~~. This Negative Declaration included six mitigation measures designed to ensure that the proposed development would not have a significant impact on the environment.
1995 (SM)

Attachment 1

The County's conditions of approval for this project, which are incorporated into the conditions of approval for this permit, do not, however, incorporate, or require compliance with, two of the six mitigation measures. These include:

"3. The applicant shall either provide for public access on the proposed stairway to the beach, or the stairway shall be removed from the plan", and

"4. If the applicant eliminates the stairway to the beach, a public viewing point shall be established on-site prior to the completion of Construction of Phase III of the project".

As previously stated, the applicant has removed the proposed stairway to the coastal bluff (as opposed to the beach) from the project plans, thereby complying with Mitigation 3 of the Negative Declaration. Mitigation 4, intended to provide compensation for the visual impacts of the project, is maintained by special condition 3e. of this permit, which requires that final plans include a public viewing area in the location of the public viewing platform required by the Negative Declaration.

Other potentially significant environmental impacts which may result from project implementation have been mitigated to an insignificant level by the special conditions attached to this permit. This is documented in detail throughout the text of this staff report. As a result, approval of this permit, as conditioned, will not have a significant adverse impact on the environment within the meaning of the California Environmental Quality Act.

COASTAL DEVELOPMENT PERMIT

STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

4. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

5. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.

6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

Attachment 1

EXHIBIT NO. A
APPLICATION NO. A-3-SMC-96-08
McKenzie
Standard Conditions

access to the beach area. The "gully," which lies between Phases I and II and Phase III of the project, and which has been the subject of claims of public and private access, will not be developed. The status of this "gully," and any other claims of implied access over the property, is the subject of an action to quiet title brought by the owners of the property against the State of California, the State Lands Commission, the Coastal Commission and the County of San Mateo. This lawsuit, entitled McKenzie v. County of San Mateo, et al., will resolve any claims of implied public access over the beach area and the upland property. If, for any reason, it is judicially determined that such rights exist, the proposed development would not impede such access. Further, the proposed development would not impede any private prescriptive rights that may be perfected in the future by private individuals or groups.

c. Development of Phases I and II will not result in impacts to coastal views in that the site for these phases is currently developed with warehouse structures of the approximate size and location as the proposed development. For this reason, no conditions are necessary as to Phases I and II to protect coastal views. Phase III of the project, however, will occur on a site that is not currently developed, and thus will result in a blockage of coastal views.

Regarding Architectural Review:

Attachment 1

8. Found that the project, as described in the application materials and as conditioned, is in compliance with the Architectural and Site Control within the Cabrillo Highw Corridor.

EXHIBIT NO. B
APPLICATION NO. A-3-SMC-96-08
McKenzie
Local Conditions

CONDITIONS OF APPROVAL

Planning Division

1. This approval is for the nine one-bedroom units, well, parking area and conversion of the warehouse unit into a manager's office, repair of a bluff top stairway and installation of utilities. Any major modifications to this project shall be subject to subsequent review and planning permits.

2. If any significant cultural materials are exposed or discovered during site clearing of site work, or during subsurface construction, operations shall stop within ten (10) feet of the find immediately and a qualified archaeologist retained for professional recommendations. Significant artifacts or features include, but are not limited to, aboriginal human remains, chipped stone, groundstone, shell and bone artifacts, concentrations of fire cracked rock, ash, charcoal, shell, and bone; and historic

features such as privies or building foundations. Appropriate mitigation of significant cultural resources may include the systematic scientific excavation and removal of the cultural resource. Any artifacts or samples collected, as part of the initial discovery, monitoring or mitigation phase must be properly conserved, cataloged, analyzed, evaluated, and curated along with associated documentation in a professional manner consistent with current archaeological standards. All artifacts and samples collected shall be submitted to the San Mateo County Historical Museum for curation. The project archaeologist shall submit all recommendations for mitigation to the Planning Division for review and approval. The Planning Division will require any recommended mitigation or conditions contained within the project archaeologist's report to be incorporated into the project. All documentation prepared during the initial discovery, monitoring, or mitigation phase shall be submitted to the Planning Division and the San Mateo County Historical Museum.

3. The applicant is required to retain the services of a qualified Archaeologist and to implement an archaeological monitoring program during the initial soil exposure after the following removal and prior to the issuance of any building permit(s): (1) vegetative removal, concrete pad(s) removal, existing building(s) removal, and parking and driveway encroachment areas for Phase I, (2) vegetative removal in the area proposed for Phase II building including the parking and driveway encroachment areas east of the main ravine on the property, and (3) waterline construction, to prepare a professional general reconnaissance report and recommended mitigation for archaeological resources for those areas identified above. All documentation prepared during the initial discovery, monitoring, or mitigation phase shall be submitted to the Planning Division and the San Mateo County Historical Museum. The project archaeologist shall submit the general reconnaissance report and recommended mitigation to the Planning Division for review and approval. The Planning Division will require any recommended mitigation or conditions contained within the project archaeologist's report to be incorporated into the project. All artifacts and samples collected shall be submitted to the San Mateo County Historical Museum for curations. If during this phase of monitoring and report preparation the project archaeologist determines the existence of significant cultural resource(s), the applicant shall retain the services of a qualified historian or historical archaeologist to prepare a focused historical research and report for the McKenzie Pigeon Point property to detail the history of land use on the property and the association with the significant cultural resource(s) as required by this condition.

4. Owner shall permit limited access as provided herein, to school groups and fishermen over the path designated by owner on the owner's property from Pigeon Point Road to the public beach, provided that any such group

Attachment 1

Exhibit B, p.2

or fishermen have entered into a written agreement with the owner providing reasonable terms and conditions governing such access, including without limitation release of any liability of owner, reasonable insurance requirements, and regulations of hours of use and minimizing disturbance of project guests. No access shall be permitted when any pinnipeds are present on the beach. Owner shall not be required to permit access to more than one school group per week in months July through December and more than two school groups per week in months January through June. Fishermen shall be limited to launching portaged boats for pole and line fishing from the boats.

5. Storm water runoff from the site shall be controlled so as not to increase the velocity of the runoff and to maintain the same or improved quality of the surface runoff from this site. Drainage improvements shall be assessed at the building permit stage.

6. Prior to completion of construction of Phase I of the project, the applicant shall record the "Right to Farm" statement, pursuant to Local Coastal Program Policy 5.15.a (Mitigation of Land Use Conflicts), on the deed for the property.

7. The applicant shall submit a night lighting plan of the site to the Planning Director for review and approval prior to installing outdoor lighting on this site. The outdoor lighting shall be designed to minimize glare and visibility from the right-of-way along Highway 1, and shall not directly illuminate areas beyond the project site. The lights shall be located as close to ground as possible with the use of motion sensitive lighting encouraged where necessary.

8. Prior to completion of the building permit, the applicant shall submit a sample of the exterior color and materials to be used on the units for review and approval by the Planning Director. No reflective or bright colors shall be permitted.

9. All landscaping installed by the applicant shall consist of native vegetation. Prior to issuance of the building permit for Phases I and II, the applicant shall provide a landscape plan for review and approval by the Planning Director. Landscaping shall be installed prior to completion of construction of Phases I and II.

10. Exterior trash receptacles shall be screened from view from off-site locations. Vegetation or fencing shall be employed to screen dumpsters and trash receptacles.

11. Prior to installation of signs on this site, the applicant shall submit a sign program to the Planning Director for review and approval.

Attachment 1
Exhibit B, P.3

12. The water storage tank shall be screened from public view. Prior to issuance of a building permit for the water storage tank, the applicant shall submit a screening plan consisting of either native vegetation or a wooden fence to screen the tank from public view.

13. The applicant shall be responsible for assuring that 1) all dogs outside of guest units on the site shall be leashed or contained; and 2) no people or their dogs shall be allowed access to the beach when marine mammals are present.

14. The applicant shall provide to guests, and prominently display in each unit, a "right to farm" notice which informs them of the inconvenience which may accompany residing adjacent to agricultural operations. This notice shall be to the satisfaction of the Planning Director.

15. If the applicant fences the property, open fencing shall be utilized around the perimeter of the site to allow visibility. Fencing around courtyards adjacent to units may be closed.

Department of Public Works

16. Prior to issuance of the building permit, the applicant will be required to provide payment of "roadway mitigation fees" based on the square footage (assessable space) of the proposed bed and breakfast operation per Ordinance #3277.

17. The provisions of the San Mateo County Grading Ordinance shall govern all grading on and adjacent to this site. Unless exempted by the Grading Ordinance, the applicant may be required to apply for a grading permit upon completion of the County's review of the development plans.

18. The applicant shall submit a driveway "plan and profile" to the Department of Public Works, showing the driveway access to the parking lot areas complying with County standards for driveway slopes (not to exceed 20%) and to County standards for the driveways (at the property line) being the same elevation as the center of the access roadway (Pigeon Point Road). The driveway plans shall also include and show specific provisions and details for handling both the existing and the proposed drainage.

19. No construction work within the County right-of-way shall begin until Public Works requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued.

Attachment 1

Building Inspection Section

20. Fire sprinklers shall be required to be installed in each unit.

21. The applicant shall submit plans for review and approval of a demolition permit and building permit prior to commencement of demolition of existing structures or construction of new structures on site.

22. A survey of the site shall be required for a building permit.

Fire Marshal

23. Upon submittal of a final site plan and building plans, the Fire Marshal shall review the plans to establish a "fire lane" in the parking area serving six units.

24. Upon submittal of building plans, the Fire Marshal shall determine the quantity of water storage, the size of the water mains, location of hydrants and pressure pump requirements for fire suppression needs.

25. The applicant shall design emergency pedestrian access around the units to the satisfaction of the Fire Marshal.

26. All chimneys shall have an approved spark arresting device installed prior to final approval of the building permit to the satisfaction of the Fire Marshal.

Environmental Health Division

27. The applicant shall submit a plot plan showing the existing and proposed septic drainfield and water supply to the Environmental Health Division for review and approval prior to issuance of a building permit. The septic system shall be required to meet Environmental Health standards prior to issuance of the building permit.

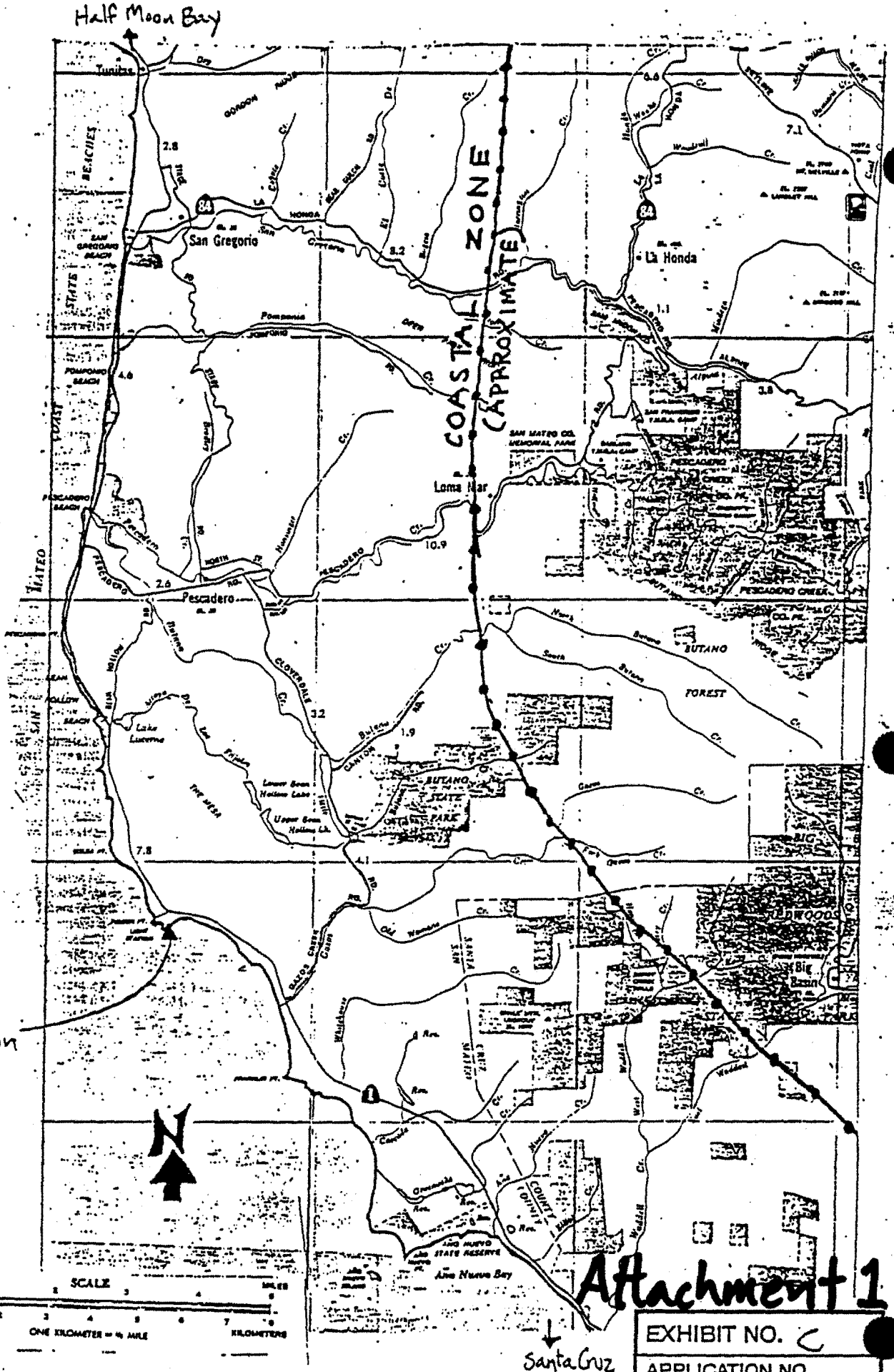
28. The applicant shall submit water quality tests for the new and existing well to the Environmental Health Division for review and approval prior to issuance of the building permit.

Geotechnical Division

29. The applicant shall submit a geotechnical report for review and approval by the Geotechnical Division to ensure the stability of the proposed construction prior to issuance of a building permit for this project.

Any interested party aggrieved by the determination of the Planning Commission has the right of appeal to the Board of Supervisors within ten (10) days from

Attachment 1
Exhibit B, p.5



Attachment 1

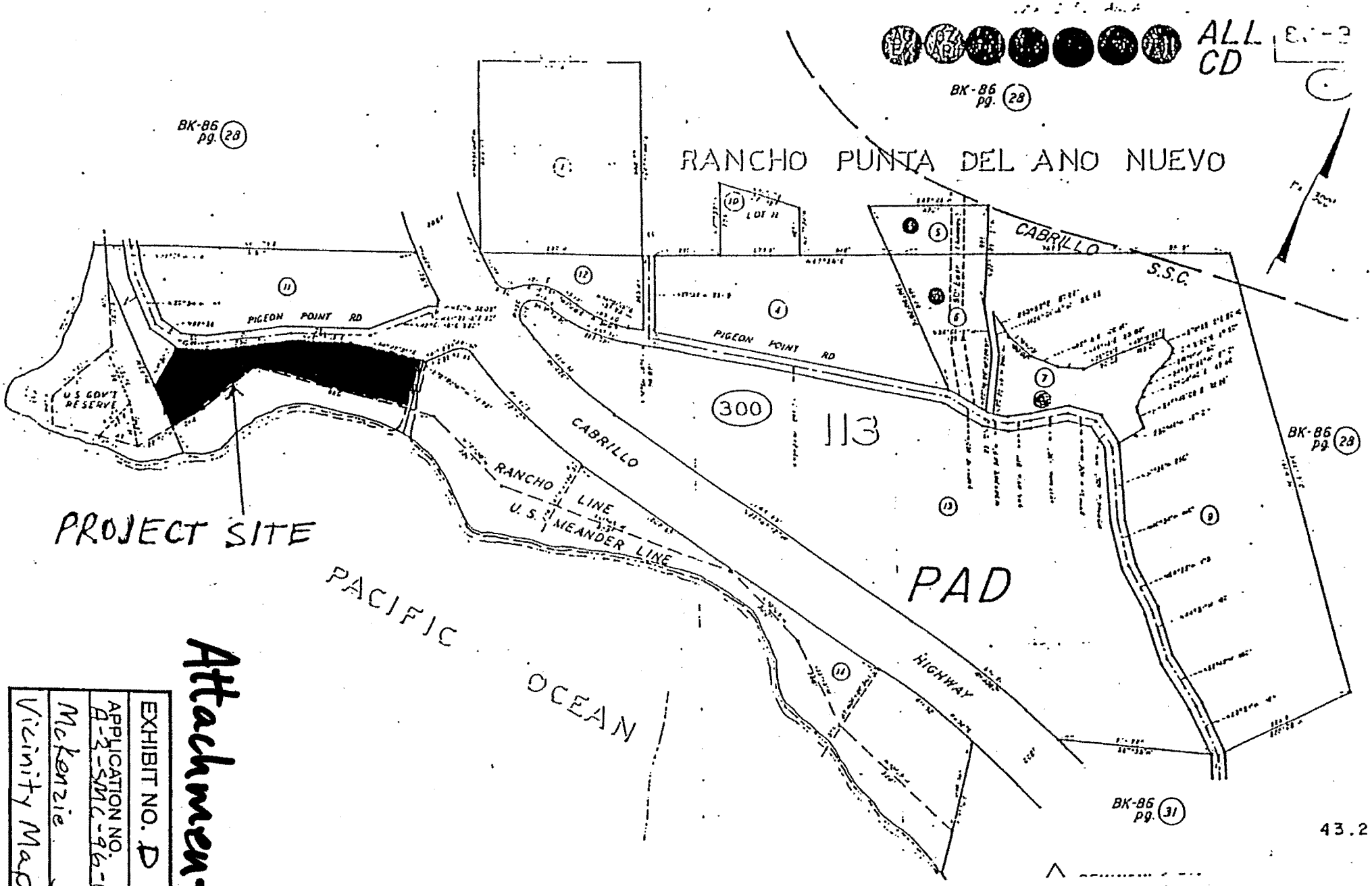
EXHIBIT NO. C

APPLICATION NO. A-3-SMC-96-08

McKenzie

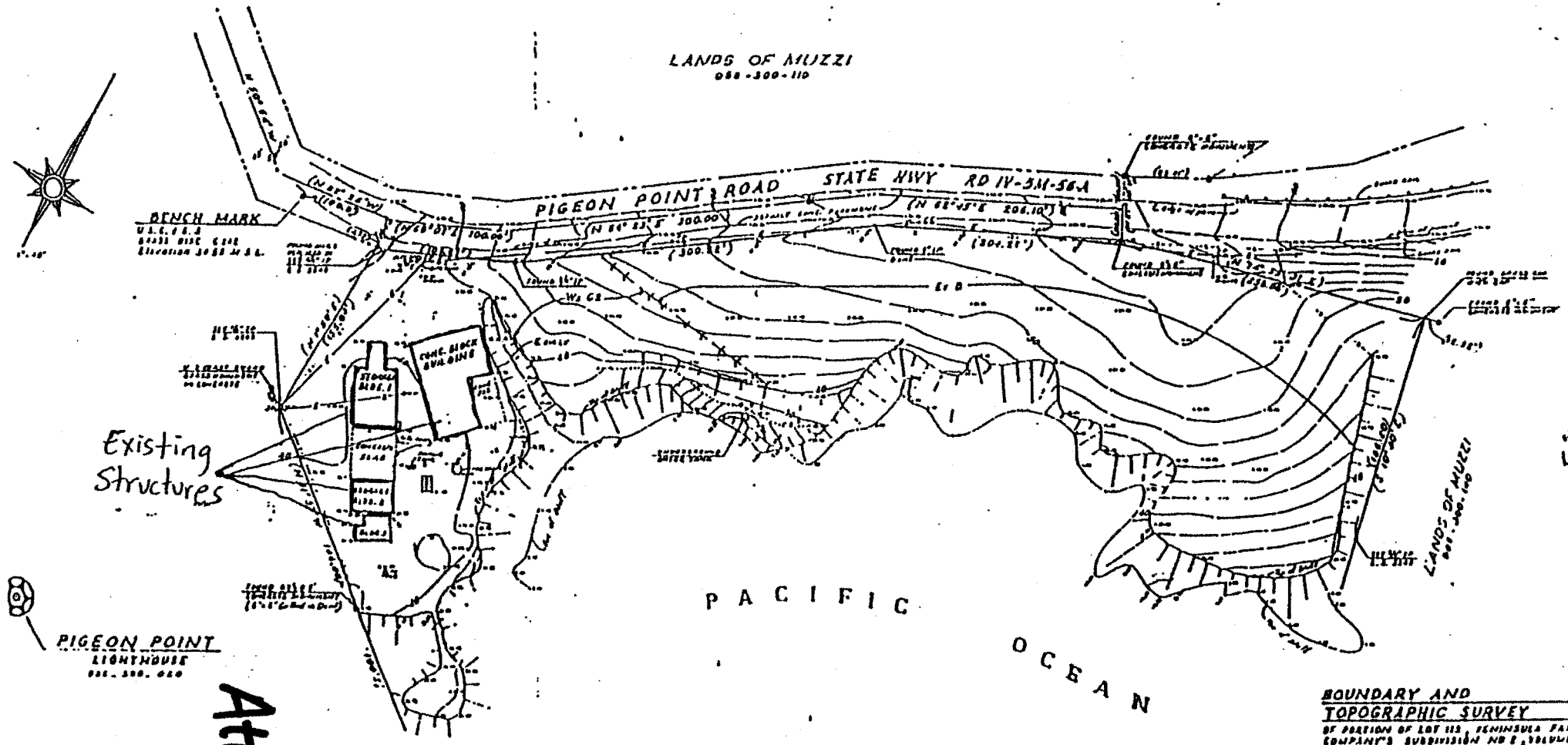
Location Map

SAN MATEO CO- SOUTH



Attachment 1

EXHIBIT NO. D
APPLICATION NO. A-3-SMC-96-08
McKenzie
Vicinity Map



BOUNDARY AND TOPOGRAPHIC SURVEY

OF PORTION OF LOT 115, PENINSULA FARMS COMPANY'S SUBDIVISION NO 8, VOLUME 11 OF MAPS 38 AND AS DESCRIBED IN M.R. 21/25 SAN MATEO COUNTY RECORDS, CALIFORNIA

APN 086-300-030

FOR:
JIM KEITH
722 37TH AVENUE
SAN FRANCISCO, CA 94121
(415) 668-3481

LEGEND:

- FENCE
- TOP OF BLUFF
- TOE OF BLUFF
- CENTERLINE
- PROPERTY LINE
- RIGHT OF WAY
- OVERHEAD ELECTRIC
- E FLOW LINE
- ( ) RECORD INFORMATION
- GUYED POLE
- POWER POLE

NOTES:

1. Topographic features accurate ± two feet
2. Contours accurate to one half contour interval.
3. Es & = Elkhorn Sandy Loam Class 2 soil
4. Wa CE = Watsonville Sandy Loam Class 3 soil

Soil line interpolated from "Soil Survey San Mateo Area, California" Series 1936 No 13 Plate No 45

JOSEPH R. BENNIE

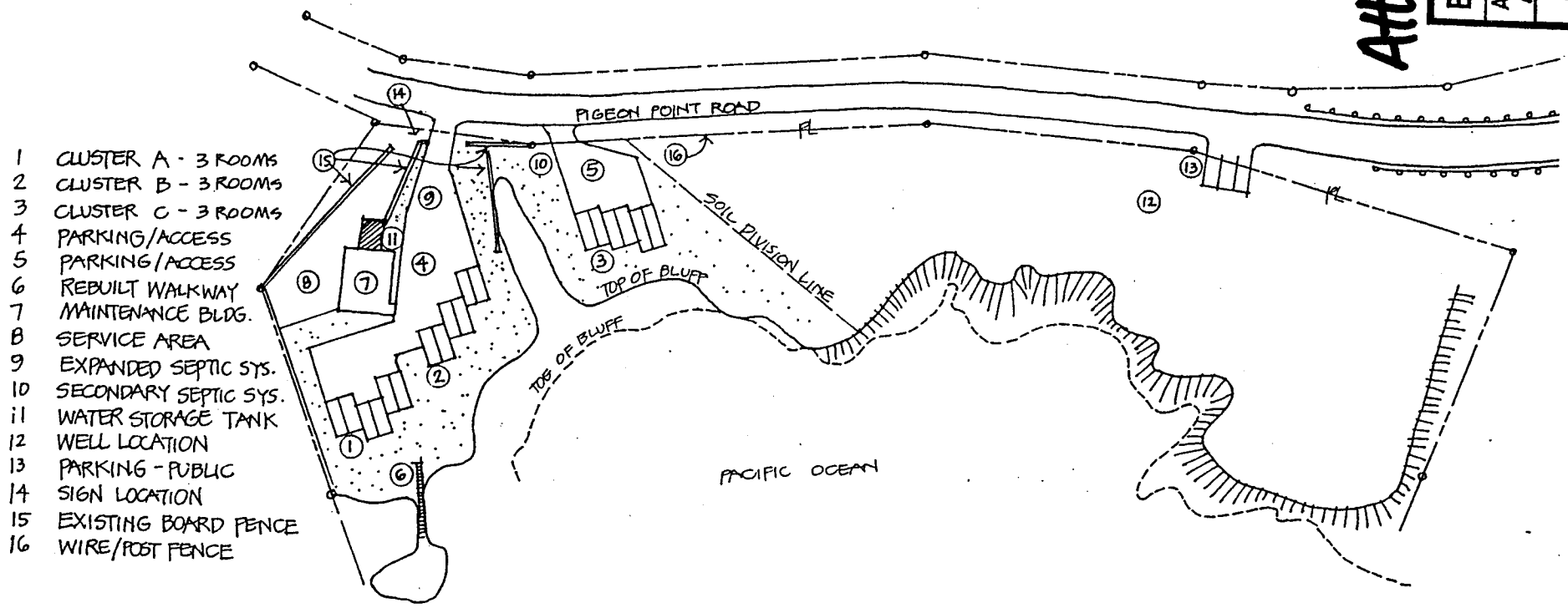
Attachment 1

EXHIBIT NO.	E
APPLICATION NO.	A-3-SMC-96-08
McKenzie	
Site Map	

15

Attachment 1

EXHIBIT NO. F
APPLICATION NO. A-3-SMC-96-08
McKenzie
Site Plan



1 CLUSTER A - 3 ROOMS
2 CLUSTER B - 3 ROOMS
3 CLUSTER C - 3 ROOMS
4 PARKING/ACCESS
5 PARKING/ACCESS
6 REBUILT WALKWAY
7 MAINTENANCE BLDG.
8 SERVICE AREA
9 EXPANDED SEPTIC SYS.
10 SECONDARY SEPTIC SYS.
11 WATER STORAGE TANK
12 WELL LOCATION
13 PARKING - PUBLIC
14 SIGN LOCATION
15 EXISTING BOARD FENCE
16 WIRE/POST FENCE

PIGEON POINT COUNTRY INN
921 PIGEON POINT ROAD, SAN MATEO COUNTY

SITE DEVELOPMENT

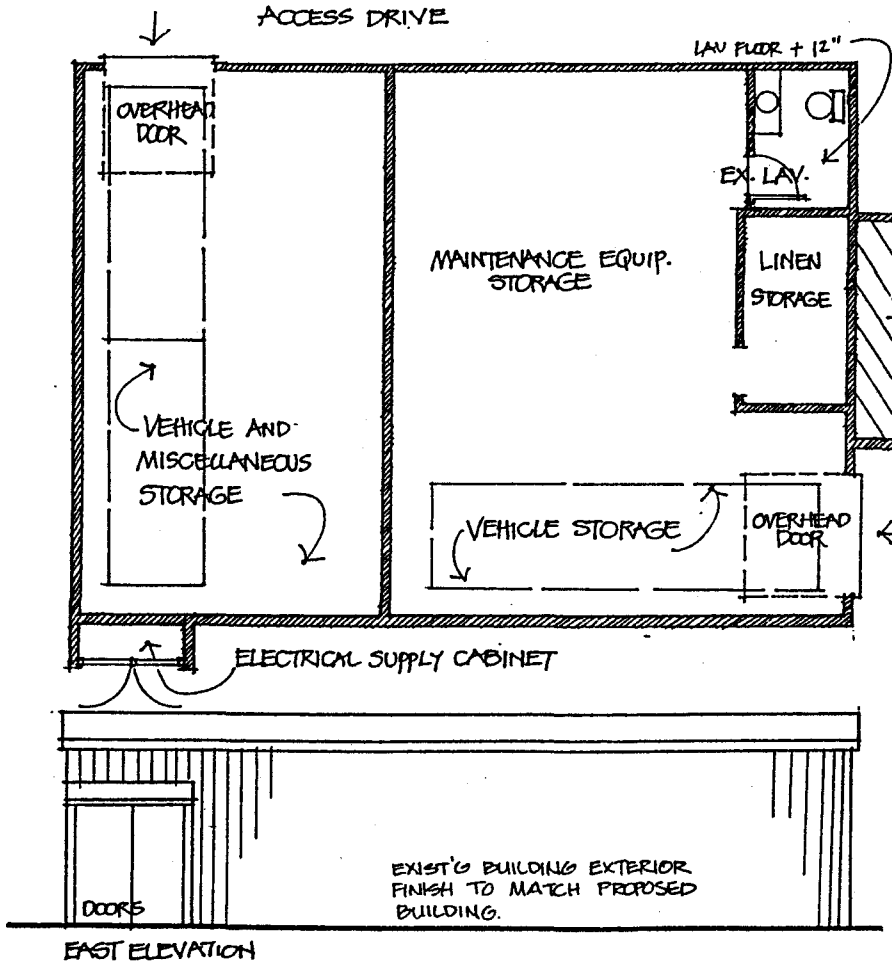
1

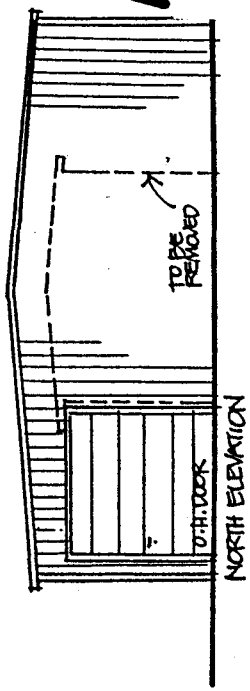
REV. MAY 96

HELLMUTH, OBATA + KASSABAUM, INC • SAN FRANCISCO • 415/243 0555 • FEB 1996

Attachment 1

EXHIBIT NO. G
APPLICATION NO. A-3-SMC-96-08
McKenzie Storage Building





1/8" = 1'0"

N

PIGEON POINT COUNTRY INN
921 PIGEON POINT ROAD, SAN MATEO COUNTY

STORAGE/MAINTENANCE BUILDING

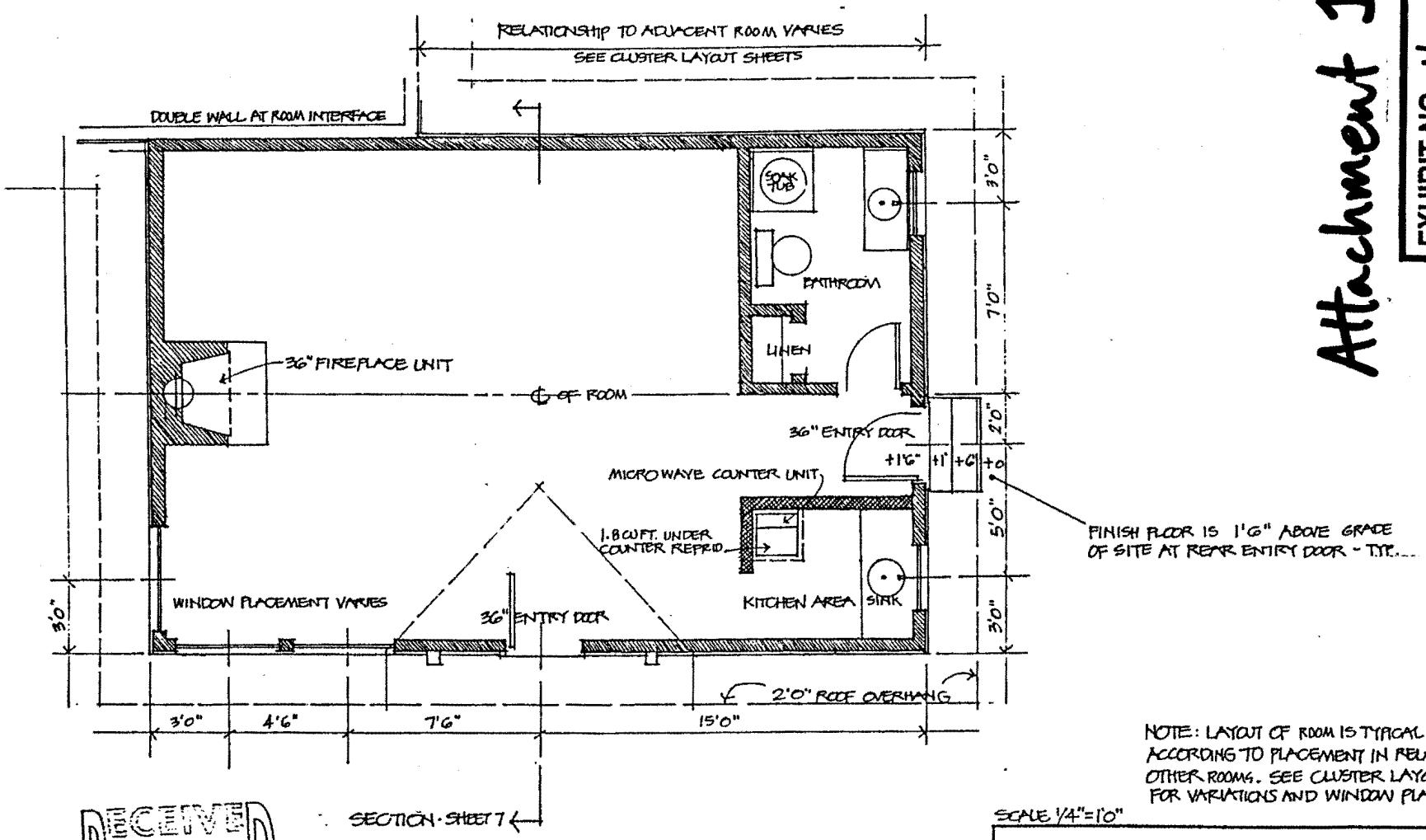
9

REV. MAY 91

HELLMUTH, OBATA + KASSABAUM, INC • SAN FRANCISCO • 415/243 0555 • FEB 1996

Attachment 1

EXHIBIT NO. H	APPLICATION NO. A-3-SMC-96-08	McKenzie	Unit Floor Plan



NOTE: LAYOUT OF ROOM IS TYPICAL AND WILL VARY ACCORDING TO PLACEMENT IN RELATIONSHIP TO OTHER ROOMS. SEE CLUSTER LAYOUT SHEETS 10,11 & 12 FOR VARIATIONS AND WINDOW PLACEMENT.

SCALE 1/4"=1'0"

SECTION · SHEET 7

SEE SHEET 7 FOR ENTRY ELEVATION

PIGEON POINT COUNTRY INN
921 PIGEON POINT ROAD, SAN MATEO COUNTY

TYPICAL FLOOOR PLAN

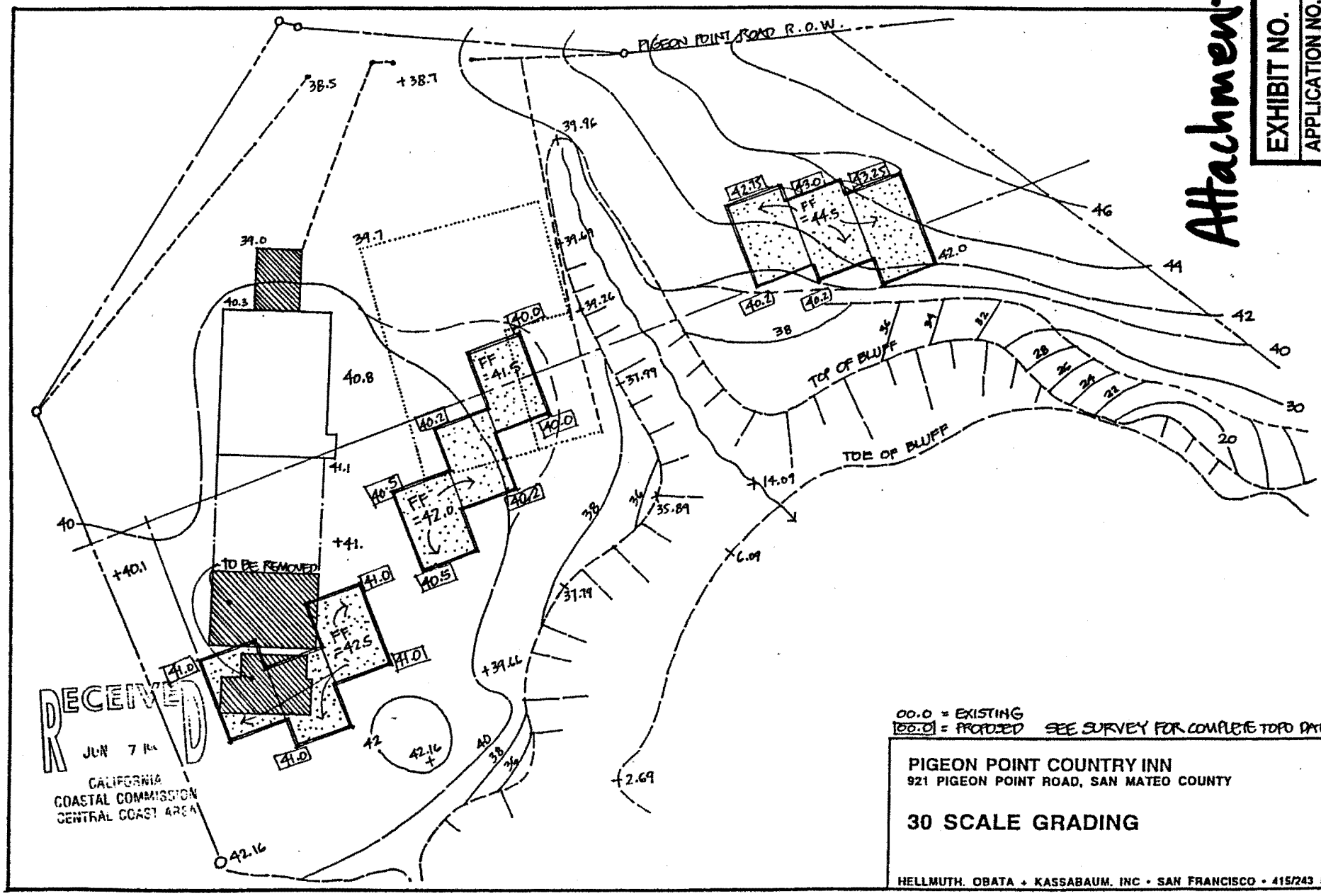
6

REV. MAY 96

HELLMUTH, OBATA + KASSABAUM, INC • SAN FRANCISCO • 415/243 0555 • FEB 1996

Attachment 1

EXHIBIT NO. 1
APPLICATION NO. A-3-SMC-96-08
McKenzie
Preliminary Grading



00.0 = EXISTING
[00.0] = PROPOSED

SEE SURVEY FOR COMPLETE TOPO DATA (SHEET 2)

PIGEON POINT COUNTRY INN
921 PIGEON POINT ROAD, SAN MATEO COUNTY

30 SCALE GRADING

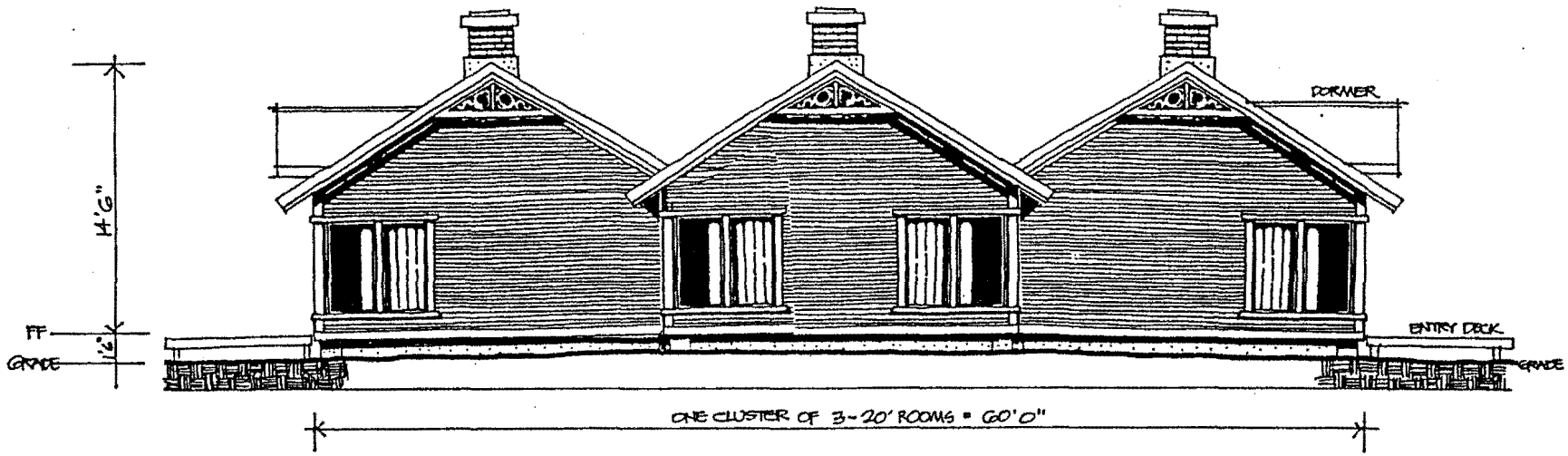
5

REV. MAY 96

HELLMUTH, OBATA + KASSABAUM, INC • SAN FRANCISCO • 415/243 0555 • FEB 1996

Attachment 1

EXHIBIT NO. J
APPLICATION NO. A-3-SMC-96-08
McKenzie
3 unit Elevation



NO SCALE

PIGEON POINT COUNTRY INN
921 PIGEON POINT ROAD, SAN MATEO COUNTY

ELEVATION

8

REV. MAY 96

HELLMUTH, OBATA + KASSABAUM, INC • SAN FRANCISCO • 415/243 0555 • FEB 1996

KLEINFELDER

WATER USE ASSESSMENT
PIGEON POINT COUNTRY INN
SAN MATEO COUNTY, CALIFORNIA

June 6, 1996

Attachment 1

EXHIBIT NO. K
APPLICATION NO. A-3-SMC-96-08
McKenzie
Water Use Assessment

05-96-68
21-339001

1 INTRODUCTION

Kleinfelder, Inc. has prepared this water use assessment for the proposed Pigeon Point Country Inn located at 921 Pigeon Point Road, San Mateo County, California. This water use assessment is a planning document for use by the owner and by the architects Hellmuth, Obata & Kassabaum, Inc., San Francisco, California.

The proposed Pigeon Point Country Inn will be located on a parcel of land located adjacent to the Pigeon Point Lighthouse. The property is described as a "portion of lot 113, Peninsula Farms Company's subdivision No. 2, volume 11 at page 28 and as described in O. R. 84101858, San Mateo County records, California".

This water use assessment will evaluate the projected water consumption for the proposed development of nine tourist units and one manager's office/storage area.

Attachment 1

Exhibit K, p. 2

2 BACKGROUND

The proposed facility will consist of nine identically plumbed guest units, in three groups of three units, and one separate manager's office/storage area. The floor plan of the proposed development indicates that similar bathroom and kitchen facilities are planned for each unit. Each unit will comprise one shower, one toilet, one bathroom basin and one kitchen sink. The units will not include laundry facilities nor appliances such as dishwashers, water treatment, or washing machines. No saunas, hot-tubs, spas, swimming pools, irrigation for landscaping or fountains will be utilized at the proposed facility. Washing facilities such as for. automobiles or housekeeping are not considered in the assessment. Laundering will be conducted off-site.

A well has been constructed on the property. At the time of drilling and development, the well was airlift tested at the rate of 5 gallons per minute. This flow rate should only be used as a guide to determine the supply capacity of the well. A formal pump test including constant pumping and drawdown and recovery data will be conducted in order to evaluate the sustained supply capacity of the well.

Attachment 1

3 WATER DEMAND

No generally recognized standards for water use in "country" inns are available that can be used as a guideline for design of this system. However, information for average and peak consumption in hotels and motels (including rooms with kitchens) was available from several sources including texts and publications (see reference section). Principal documents are publications by The Environmental Protection Agency (EPA) and "Rural Area Water Use Study" prepared for San Mateo County by Kleinfelder in 1991. Texts are Water Quality, Tchobanoglous and Schroeder, 1987 and Wastewater Engineering, Metcalf and Eddy, 1991.

Average Water Consumption

Review of the selected data is directed towards assessment of motel or hotel rooms with a double occupancy rate. These motel and hotel units have water usage similar to the guest units proposed in the architectural plans. This is based on one shower, one toilet, one washbasin, and one kitchen sink in each unit. Water consumption for the individual units and all units combined is calculated from the average of water consumption rates published in the reference material and presented in Table 4. These consumption rates are based on measured historical data and refer to conventional appliances and fixtures.

Relative Percentage Consumption Per Guest Unit

The use of water in the guest units for hotels and motels is generally consistent with residential water use. A general list of residential water use is described by Kleinfelder, 1991 and is made up of four components. These components are toilet, shower, and washbasin consumption in the bathroom, and consumption for cooking and cleaning in the kitchen. These percentages show the ratio of consumption of each of the fixtures, to the total consumption for each guest unit. The percentages are not altered by average or peak consumption caused by occupancy rates.

Percentage Consumption of Water per Guest Unit

Toilet	40 percent
Shower	30 percent
Bathroom Faucets	15 percent
Kitchen Faucets	15 percent
Total	100 percent

Attachment 1

Exhibit K, p.4

These figures are consistent with water use figures for hotels and motels as presented by Kleinfelder, 1991.

Peak Consumption Factor

Peak daily water use assumes that the nine guest units are fully occupied with two guests in each unit. This does not take into account any seasonal factors where the occupancy rate is likely to be less than 100 percent. Occupancy rates for the project are not available; however, it is considered necessary to evaluate the effect of occupancy rates on water consumption. (see Table 1)

TABLE 1

Occupancy Rate	Average consumption / guest unit	Average consumption for project	Peak Consumption for project	Peak Consumption using low flow devices	Peak Consumption using Ultra-low flow devices
	Gallons/day	Gallons/day	Gallons/day	Gallons/day	Gallons/day
40%	36	358	527	248	169
60%	54	537	790	371	253
80%	72	717	1053	495	337
100%	90	896	1317	628	428

The peak daily consumption was estimated based on individual customer account records supplied by the Coastside County Water District. The records were taken from the 1987 billing year, the last year to include available records for maximum available water supply.

The average daily water use rate is taken as the average daily water use rate for the whole of the billing year. The peak daily water use rate was taken as the average daily water use rate for the two month billing period with the highest consumption for the whole of the billing year. The peak daily water use factor is derived by the ratio of the peak daily water use to the average daily water use, for the billing period. This peak use factor is applied to the average daily consumption to calculate the peak water consumption rate for the project. The adjusted peak daily water use for hotels and motels as reported by Kleinfelder, 1991 is 1.47 times average daily water use.

This peak water consumption rate is a conservative planning figure. The peak rate assumes 100 percent occupancy at all times. Occupancy rates for guest units at hotels and motels are generally not one hundred percent at all times. However, due to the storage capacity being considered, peak consumption may be achieved over a five day period and the peak rate factor considered should be viable. Based upon the information presented in Table 1, the water demand

Attachment 1

Exhibit K, p.5

for the project is anticipated to be 428 gallons per day. This requires a constant supply rate from the well of approximately 18 gallons per hour.

Water Conservation Techniques.

The water consumption rates calculated thus far are attributed to conventional water fixtures. Low flow devices such as Low flow flush toilets and low flow shower heads and faucet flow control devices can significantly reduce the consumption of water, (see Table 2).

TABLE 2

Appliance or Fixture	Conventional Consumption	Consumption using Low Flow fixtures	Percent savings	Consumption using Ultra Low Flow fixtures	Percent savings
Toilet (gallons/flush)	6.00	3.50	42	1.50	75
Shower (gallons/minute)	8.00	2.00	75	2.00	75
Bathroom faucet (gallons/minute)	5.00	2.75	45	2.50	50
Kitchen (gallons/minute)	5.00	2.75	45	2.50	50

Savings made by utilizing these fixtures is estimated to average 53 percent of average flows with conventional fixtures. The use of Ultra low flush toilets can reduce water consumption by approximately 75 percent per flush, when compared to conventional flush toilets. This contributes to an overall saving of approximately 68 percent over conventional fixtures. This factor is applied to the peak water consumption figure to determine the water usage rates that will be applicable when water conservation devices are used., (see Table 3).

TABLE 3

Appliance of Fixture	Percent Use	Percent Saving contribution using Low Flow fixtures	Percent Saving contribution using Ultra Low Flow fixtures
Toilet	40	17	30
Shower	30	23	23
Bathroom faucet	15	7	8
Kitchen	15	7	8
Total	100	53	68

Attachment 1

Exhibit K, p. 6

Water Consumption

The calculation for water consumption rates for the project is based on the consumption of nine guest units and one manager's office/storage area. The manager's office/storage area is for daytime use as an office and is not expected for use as overnight accommodation. The construction of the manager's office/storage area will, however include similar fixtures as the guest units and, to be conservative, all calculations are based on full occupancy and equivalent water usage of the guest units and manager's office/storage area at peak loads. Table 4 presents a summary of water consumption based upon the aforementioned information.

TABLE 4

Unit Description	Average Consumption / Guest Unit	Average* Consumption for Development	Average Consumption using ultra low flow fixtures	Peak Consumption for Development using ultra low flow fixtures	Information Source
	Gallons/day	Gallons/day	Gallons/day	Gallons/day	
Small Hostelry, Hotel/Motel room	125	1250	406	597	Rural Area Water Use Study
Motel Room	70	700	228	334	Wastewater Engineering, Metcalf and Eddy, 1991
Motel Room	62	620	202	296	Water Quality, Tchobanoglous and Schroeder, 1987
Motel Room with Kitchen	80	800	260	382	Wastewater Engineering, Metcalf and Eddy, 1991
Motel Room with Kitchen	110	1100	358	526	Water Quality, Tchobanoglous and Schroeder, 1987
Motel Room with Kitchen	100	1000	325	478	Manual of Individual and Non-Public Water Supply systems. EPA, 1991.
Lodging House and Tourist Home	80	800	260	382	Wastewater Engineering, Metcalf and Eddy, 1991
Average	90	896	291	428	

* Assumes 10 guest units.

The method of calculation takes the following steps:

Attachment 1

Exhibit K, P.7

- Calculate the average water consumption from conventional fixtures based on the reported consumption rates published in the selected texts and publication:
  Average Consumption = 90 gallons per unit per day

- Calculate the total consumption using the number of guest units multiplied by the average consumption per unit (The managers office/storage area is included in this calculation).
  Total number of guest units equals 10.
  Total Consumption = Average Consumption * Number of Units =>
  90*10=900 gallons per day.

- Calculate the total consumption using ultra low-flow (ULF)devices and appliances based on the total consumption rate minus the percentage reduction (percentage reduction is 68 percent)
  Total ULF Consumption = Total Consumption *(1-percentage reduction)=>
  900*(1-0.68)=291 gallons per day

- Calculate peak consumption using ULF devices and appliances using total ULF consumption multiplied by the peak use factor which is 1.47.
  Peak Consumption using ULF devices = Total ULF Consumption * peak use factor =>
  291*1.47=428 gallons per day

The anticipated water consumption for the project was selected based upon the average rates of consumption for several types of accommodations as presented in Table 4. Based on the preceding calculations our estimate is a peak water consumption rate of 428 gallons per day for the project. This projection is based on the installation of ultra low-flow devices throughout the project. Kleinfelder further estimates that a peak consumption rate of 628 gallons per day for the project is achievable using low-flow fixtures throughout the project

Attachment 1
Exhibit K, p. 8

4 WATER STORAGE

Fire Fighting

Water reserved for fire fighting must be considered in the calculation for storage requirements. The Office of the Fire Marshall of San Mateo County has released the following guidelines.

The storage requirements for fire use is based on the number of square feet of the building multiplied by a conversion factor equal to 1.6. The area of each guest unit is approximately 600 square feet. Therefore, each three-unit guest structure has a floor plan area of approximately 1800 sq. ft. The managers office/storage area is assumed to be approximately the equivalent of four guest units or 2,400 square feet. The storage requirements are presented in Table 5

TABLE 5

Building	Approximate Area square feet	Storage required for fire fighting gallons
Cluster "A"	1800	2880
Cluster "B"	1800	2880
Cluster "C"	1800	2880
Office and Storage	2400	3840

Each of the clusters and the office and storage building are separated and can be considered separate buildings, thus the minimum storage requirement for fire safety, based upon the largest square foot, is 3,840 gallons. Office of San Mateo County Fire Marshall requires that this storage requirement not be included in storage calculation for daily guest or manager office/storage area water consumption for the project.

Water Storage Requirements

San Mateo County requires a storage tank capacity calculated for three days of peak consumption. Kleinfelder recommends that the capacity be increased to five days. The increased storage capacity will better accommodate down capacity for possible repairs and the importance of maintaining a supply of water to the guests. These extended down times for pump and piping repairs may be expected because of to the remote location of the project. Storage capacity is calculated using the following steps.

Attachment 1
Exhibit K, p.9

- Calculate storage capacity required assuming peak consumption using ULF devices multiplied by number of days of storage required. (Kleinfelder recommends 5 days of storage, San Mateo County requires a minimum of 3 days of storage)

  Storage capacity = Peak ULF consumption rate * No of days of storage required =>

  428 * 3 = 1284 gallons (San Mateo County)

  428 * 5 = 2140 gallons (Kleinfelder)

Peak consumption and storage capacity requirements are presented in Table 6.

TABLE 6

Unit Description	Peak Consumption using Ultra Low flow devices	Capacity required for 3 days storage	Capacity required for 5 days storage	Information Source
	Gallons/day	Gallons	Gallons	
Small Hostelry, Hotel/Motel room	597	1792	2986	Rural Area Water Use Study
Motel Room	334	1003	1672	Wastewater Engineering, Metcalf and Eddy, 1991
Motel Room	296	889	1481	Water Quality, Tchobanoglous and Schroeder, 1987
Motel Room with Kitchen	382	1147	1911	Wastewater Engineering, Metcalf and Eddy, 1991
Motel Room with Kitchen	526	1577	2628	Water Quality, Tchobanoglous and Schroeder, 1987
Motel Room with Kitchen	478	1433	2389	Manual of Individual and Non-Public Water Supply systems. EPA, 1991.
Lodging House and Tourist Home	382	1147	1911	Wastewater Engineering, Metcalf and Eddy, 1991
Average	428	1284	2140	

Attachment 1

Exhibit K, p.10

Total Storage Requirement

- The water storage requirements are calculated as the sum of the storage requirements for fire safety and the water requirements for project use.

  Total Storage Requirement = Storage for fire safety + Storage for project use.

  = 3840 + 1284 = 5124 gallons (San Mateo County)

  = 3840 + 2140 = 5980 gallons (Kleinfelder)

Based upon the base capacity required for fire safety and the average capacity required for five days of storage at the peak consumption using low flow devices, Kleinfelder suggests that the tank size be approximately 6000 gallons. The size recommended to fulfill the requirements of the San Mateo County is approximately 5000 gallons.

Attachment 1

Exhibit K, p.11

5 RECOMMENDATIONS

Kleinfelder makes the following recommendations for water consumption and storage capacity for the country inn project at Pigeon Point, San Mateo County, California.

- ☐ The storage capacity for the project is recommended to be approximately 6000 gallons.
- ☐ Ultra low-flow devices and fixtures should be used throughout the whole project.
- ☐ Install devices and fixtures that will deliver flows as listed below

Toilet	1.1 - 1.5 gallons per flush
Shower head	2 - 2.5 gallons per minute
Faucets	2 - 2.5 gallons per minute

These fixtures and devices are commonly available and the flow rates are listed on the product information. The toilets are available in either gravity flow or pressurized flushing systems.

Kleinfelder recommends that each guest receive a water conservation pamphlet that highlights the water conservation features of the facility. The pamphlet should encourage each guest to conserve water and should provide guests with water conservation practices that can be followed.

The following water saving practices are recommended in order to decrease water consumption rates:

- ☐ Repair all leaks as soon as they are discovered
- ☐ Flush only human waste and toilet paper.
- ☐ While shaving or brushing teeth, only turn the water on as needed, do not leave the water running continuously.
- ☐ Wash dishes and then rinse them all at once, do not rinse the dishes before washing them.
- ☐ Keep a bottle of water in the refrigerator for drinking, do not let the faucet run while waiting for cold water for drinking.
- ☐ Don't use running water to thaw frozen food.

Attachment 1

Exhibit K, p.12

CALCULATED AVERAGE CONSUMPTIONS COMPARISON CHART
updated 3/12/91

(acre feet/year unless otherwise noted)

	MARIN W.D.	MONTEREY W.D.	SANTA BARBARA W.
Auto Repair	NA	.03/1000sq ft	.11/1000sq ft
Bar	NA	.0202/seat	NA
Bank	.021/1000sq ft	.16/1000sq ft	.17/1000sq ft
Beauty Shop*	.089/station	.02576/station	NA
Bed & Breakfast	NA	.0934/unit	NA
Car Wash w/Recycle*#	.441/1000sq ft	.52/1000sq ft	NA
Church*	.064/1000sq ft	NA	.17/1000sq ft
Church w/School*	.121/1000sq ft	NA	.18/1000sq ft
Cleaners/Comm. Laundry	NA	.64/1000sq ft	
Condominium	NA	NA	.28/unit
Cinema*	.0028/seat	NA	NA
Convalescent Hosp.*	.105/bed	NA	.11/bed
Delicatessen*	.168/1000sq ft	.24/1000sq ft	NA
Gas/Mini Market*	.37/1000sq ft	NA	.49/1000sq ft
Grocery/Market	.211/1000sq ft	.83/1000/sq ft	.42/1000sq ft
Health Club*	.4/1000sq ft	NA	.32/1000sq ft
Hospital*	.18/1000sq ft	.3/1000sq ft	NA
Houseboat	.17/houseboat	NA	NA
Industrial Assembly & Manufacturing	NA	NA	.085/1000sq ft
Industrial R&D	NA	NA	.15/1000sq ft
Launderette/self-serve	NA .175	.1275/machine	NA
Lodge/Motel	.103/room	.1208/room	.13/room
Lodge/Restaurant	NA	NA	.15/room
Lodge/restaurant bar/laundry	.168/room	NA	NA
Lodge/laundry	.135/room	NA	NA
Lodge/restaurant & bar	.136/room	NA	NA
Lodge/bar	.65/room	NA	NA
Medical Office*	.21/1000sq ft	.08/1000sq ft	.15/1000sq ft
Medical/Dental*	.365/1000sq ft	.16/1000sq ft	.23/1000sq ft
Meeting Hall	NA	.02/1000sq ft	NA
Multi-Family Apt.	NA	NA	.24/1000sq ft
Nursing Home	NA	.1323/room	NA
Office	.087/1000sq ft	.16/1000sq ft	.10/1000sq ft
One person-resi.	70gals./day	NA	NA
Open Space (non-turf)	3/acre	.88/acre	NA
Open Space (turf)	4/acre	1.76/acre	NA
Photographic*	2.275/1000sq ft	2.4/1000sq ft	NA
Plant Nursery*	.074/1000sq ft	.016/1000sq ft	NA
Public Restroom	NA	.1012/toilet	NA
Restaurant*	.023/seat	.0171/seat	.0[illegible]
Restaurant, 24hr*	.036/seat	NA	.0[illegible]
Rest., Fast Food*	.905/1000sq ft	.0161/seat	1.[illegible]
Retail-Large	NA	NA	.0[illegible]
Retail-Small	.025/1000sq ft	.03/1000sq ft	.1[illegible]
Retail-Photo	NA	.08/1000sq ft	NA
Retirement Home	NA	NA	.1[illegible]
School-Childcare	.016/student	.24/1000sq ft	NA

Attachment 1

EXHIBIT NO. L
APPLICATION NO. A-3-SMC-96-08
McKenzie
Water Use Chart

STATE OF CALIFORNIA—THE RESOURCES AGENCY

PETE WILSON, Governor

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST AREA OFFICE
701 CAPITOLA ROAD
SANTA CRUZ, CA 95062
(408) 479-3511

November 15, 1991

Mark Duino
San Mateo County Planning Department
County Government Center
Redwood City, CA 94063

Dear Mark:

Thank you for sending the "Rural Area Water Use Study" prepared by Kleinfelder and dated October 21, 1991. I have reviewed the material and offer the following comments:

DOCUMENTATION OF WATER USE

The author did an excellent job of researching water use figures for the various land uses included in the study. The analysis of figures from a variety of sources (EPA, EIR's, Water District, Water Studies) provides an objective rationale for the final figures selected for each land use category (Table 3). The inclusion of both average and maximum daily figures also allows the County to clearly and quickly calculate the effects on project density which occur throughout the use of one set of figures or the other. Commission staff notes that Policy 1.8(c) of the Certified LCP indicates that maximum water use figures should be applied.

CALCULATION OF WATER USE BASED ON
WATER CONSERVATION AND OTHER VARIABLES

Table Seven of the study indicates water use figures for the various land uses if adjusted for water conservation and then if further adjusted for average rather than maximum daily use. The author of the study did not include an adjustment for "seasonality" because, as he correctly points out on page 59, the sources from which the use figures have been derived have already adjusted for "seasonality." In any event, this Table is very useful because it clearly demonstrates the dramatic effect that these adjustments have on the density of some of the land uses. For example, hotel units could be increased by as much as 300% if adjusted for average rather than maximum water use and then adjusted again for water conservation.

As presently adopted, the LCP does not provide for what is, in effect, a density bonus for water conservation. As indicated in our earlier comments on the preparation of this study, water conservation is laudable but is not relevant to this process. The establishment of water use figures in this case, has less to do with water use per se than with using the figures to set

Attachment 1

EXHIBIT NO. M
APPLICATION NO. A-3-SMC-96-08
McKenzie
comments on water study

an objective density for non-residential land uses in the rural areas. Thus, the policy thrust of the LCP -- which is to limit density in the rural areas consistent with resource protection goals -- is a significant factor to be considered along with the technical water use data in setting the final numbers.

Again, thank you for the opportunity to comment on this thorough, well documented study. We will present a report on the study to the Coastal Commission at the December 1991 meeting in Los Angeles.

Very truly yours,

David Loomis
Assistant District Director

David Loomis

Diane S. Landry
Legal Counsel

DL/DSL/cm

5908A

Attachment 1
Exhibit M, p. 2

STATE OF CALIFORNIA—THE RESOURCES AGENCY

GEORGE DEUKMEJIAN, Governor

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST AREA OFFICE
701 CAPITOLA ROAD
SANTA CRUZ, CA 95062

September 10, 1990

Mark Duino
San Mateo County Planning Department
County Government Center
Redwood City, CA 94063

Dear Mark:

Thank you for sending along the July 27, 1990 procedural report on the Rural Area Water Study for our review and extending an invitation to attend the Board of Supervisors meeting on Tuesday. Unfortunately, neither Dave nor I will be able to attend. I will be at the Commission hearing in Los Angeles and Dave is heavily scheduled in Santa Cruz.

We did receive the material on August 29, 1990 and have both reviewed the proposal. We offer the following brief comments:

METHODOLOGY: The methodology proposed for gathering data on water consumption, pg. 11-12, appears straightforward and is similar to the approach we used in developing use information for the Cascade Ranch recommendation. The consultants may save some time, and money, by making use of the information already generated in that report as it includes the rates used by Department of Parks and Recreation and the Department of Water Resources, as well as others. You may also wish to conduct the Monterey Water Management District as they have a similar climate and have been maintaining detailed records of water consumption for a variety of land uses for the past twelve years.

We note that important assumptions used in developing standardized water use data sometimes vary. In most instances, for example, an occupancy rate has already been factored into the equation. In some cases, the use rates are based on older plumbing fixtures and in other instances on the newer, more conserving fixtures. It is therefore helpful to learn the basic assumptions behind the data to gain a clearer picture of how one rate compares with another.

PROPOSED DENSITY TABLE: (pgs. 6-10) The format proposed is logical and easy to follow. We are concerned, however, about the impact of providing what are essentially density "bonuses" based on seasonality and water conservation.

Attachment 1
Exhibit M, p.3

THE FUNCTION OF WATER CONSUMPTION RATES WITHIN THE BROAD SCOPE OF THE LCP

It is understandable that this proposal focuses on water consumption and, in that context, explores the effect of variables on that rate. It is, in this case, however, essential to pull back from this narrow technical area and reflect on its place in the broader scope of the Certified LCP.

A foundational premise of the LCP was that the various specific policies of the LCP would adequately protect the County's considerable natural resources so long as the overall density, at build-out, did not exceed the equivalent of ±1700 single family homes. The effective implementation of the LCP is thus predicated on not only a rigorous application of specific policies, but also on an understanding that, in the final large picture, density must not exceed a certain level. Therefore, in this case, water use per se is not the fundamental issue. Water, in the larger context of the LCP, is a device to ensure that overall density limitations will not be exceeded.

In summary, if the issue was simply setting density based on water consumption then it would no doubt be useful to look at all the variables. In San Mateo County, however, the density has already been set in the LCP, and the job of this work program is to ensure that the certified density of ±1,700 single family home equivalents is what will occur. An essential part of this project would be to estimate the final build-out densities based on whatever figures or scenarios are ultimately determined to be the most appropriate. If the final densities are higher than the certified amount then an LCP amendment should be considered.

THE SEASONALITY FACTOR PRESENTS PLANNING AND ENFORCEMENT PROBLEMS

The consideration of seasonality as a factor in determining density presents some problems. The most obvious problem is one of effective enforcement -- both legally and from a practical standpoint. The other issue to consider is the effect on the ultimate build-out under the plan, i.e., is it consistent with planning objectives to protect coastal resources to maintain excessive density for part of the year?

It may well be that in certain limited circumstances it would be appropriate to factor in seasonability. The potential impacts of such a course should, however, be fully considered as they relate to other plan objectives.

Attachment I
Exhibit M, p.4

WATER CONSERVATION ALLOWANCES COULD
RESULT IN EXCESSIVE DENSITY

Water conservation is certainly a laudable planning goal. Policies which require or encourage water conservation are becoming increasingly popular. As a vehicle for conserving a valuable resource, there is no question that such a policy body is highly appropriate. In this case however, a water conservation policy is extended to affect another planning objective -- appropriate land use density. According to the work program, density could increase over 100% if water conservation was factored into the equation. This increase in density could cumulatively result in a substantial impact on coastal resources, particularly as other non-water effects are considered, i.e., traffic, site coverage, number of people. An equity issue is also present in that it appears that all land uses -- with the exception of single family homes could take advantage of the increased density due to water conservation. We would therefore encourage the County to have a water conservation policy, but not one which offers such a generous density bonus.

Very truly yours,

David Loomis
Assistant District Director

Diane Landry

Diane S. Landry
Coastal Planner

DL/DSL/cm

4918A

Attachment 1

Exhibit M, p.5

STATE OF CALIFORNIA—THE RESOURCES AGENCY PETE WILSON, Governor

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST AREA OFFICE
725 FRONT STREET, STE. 300
SANTA CRUZ, CA 95060
(408) 427-4863
HEARING IMPAIRED: (415) 904-5200

June 19, 1996

Christopher S. Johnson
Kleinfelder, Inc.
1410 F Street
Fresno, CA 93706

BY FAX

Subject: Water Use Assesment for Pigeon Point Country Inn (Kleinfelder Job No. 21-339001)

Dear Mr. Johnson:

As a follow up to our telephone conversation this morning, I am faxing you this request for clarification regarding information contained within the above referenced report.

Please explain the figures contained in Table 3, specifically the "percent saving contibution" amounts, and how these amounts were derived. In addition, please provide a source of reference for the "percent savings" figures contained in Figure 2. Finally, please explain the basis for:

- averaging water consumption figures of units that do not have kitchens with those that do (Table 4), when it is known that this project includes kitchens in all 9 of the units; and
- applying the calculated "percentage reduction" to the project's overall water use, when it appears that water conserving fixtures will reduce water use for certain activities, but not others (e.g., filling a bath tub or kitchen sink).

I am also interested in your professional opinion regarding the accuracy of assuming that the project, with water conserving fixtures, will not consume more than 628 gallons per day at peak consumption, and with ultra low flow fixtures, will not consume more than 428 gallons per day at peak consumption. Please consider the following factors when responding to this request:

- the project proposes a "soak tub" in each unit;
- the project is located in an isolated location, several miles from the nearest restaurant or deli, which will likely increase the frequency of kitchen use when compared to typical transient facilities; and

Attachment 1

EXHIBIT NO. N
APPLICATION NO. A-3-SMC-96-02
McKenzie
Water Use

- o some degree of landscaping will be reguired as a condition of project approval. At a minimum, landscaping will be required to be installed within areas of disturbance that will not be covered by structures or facilities. This may include the entire leachfield area, which, due to its shallow depth, will require backfilling. Although the use of drought resistant native vegetation will be required, it is necessary to consider that even these type of plants require some degree of irrigation to become established. It also seems reasonable to assume that the applicant will want to have some ornamental landscaping in order to enhance the visual attractiveness of the project.

Thank you for your anticipated response. If you have any questions rearding the information requested, or wish to discuss these issues further, please contact me at (408) 427-4863.

Sincerely,

Steve Monowitz
Coastal Planner

cc: Harry O'Brien

0428M

Attachment 1

Exhibit N, p.2

STATE OF CALIFORNIA—THE RESOURCES AGENCY

PETE WILSON, Governor

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST AREA OFFICE
725 FRONT STREET, STE. 300
SANTA CRUZ, CA 95060
(408) 427-4863
HEARING IMPAIRED: (415) 904-5200

June 20, 1996

Christopher S. Johnson
Kleinfelder, Inc.
1410 F Street
Fresno, CA 93706

BY FAX

Subject: Addendum to June 19, 1996 Request for Information on Water Use Assessment for Pigeon Point Country Inn (Kleinfelder Job No. 21-339001)

Dear Mr. Johnson:

As a follow up to the above referenced letter, please also address the following issue in clarifying the information contained in the subject assessment:

- In researching the amount of water that can reasonably be expected to be saved through the use of ultra-low flow fixtures, it has come to our attention that standard plumbing codes have required the installation of low flow fixtures in all new developments since approximately 1980. Please discuss how this fact may affect the 53% savings through low-flow fixtures, and 68% water savings through ultra low flow fixtures, asserted by the subject report.

It appears that the average consumption figures contained in Table 4, which were all developed in 1991 or 1987, may already include water conserving fixtures. As a result, to figure additional savings of 53% or 68% would be double counting.

We recommend that you address this issue by:

- revising Table 2 to indicate conventional consumption levels according to current plumbing code standards;
- calculating the percent savings that could be achieved when compared to the above amounts; and
- correcting the "percent savings contributions" and overall estimated project water consumption accordingly.

Thank you for your anticipated cooperation. Please contact me if you require further explanation of this request.

Attachment 1

Sincerely,

Steve Monowitz

Steve Monowitz
Coastal Planner

EXHIBIT NO. N, p. 1
APPLICATION NO. A-3-SMC-96-08
McKenzie
water use

cc: Harry O'Brien
Brian Zamora, San Mateo County Health Services Agency

STATE OF CALIFORNIA—THE RESOURCES AGENCY PETE WILSON, Governor

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST AREA OFFICE
701 OCEAN STREET, STE. 300
SANTA CRUZ, CA 95060
(408) 427-4863
HEARING IMPAIRED: (415) 904-5200

April 24, 1996

Harry O'Brien
Coblentz, Cahen, McCabe & Breyer
222 Kearny Street, 7th Floor
San Fransisco, CA 94108-4510

Subject: Additional Information Needed for the June 1996 Coastal Commission Hearing on the McKenzie Appeal (A-3-SMC-96-008)

Dear Mr. O'Brien:

Thank you for meeting with us today, and for providing supplemental information regarding the proposed bed and breakfast project at 921 Pigeon Point Road. As a follow up to our meeting, this letter summarizes the additional information which must be submitted to this office by the project applicant in order for the Commission staff to adequately analyze the subject project. This information should be submitted as soon as possible, and no later than May 13, 1996, in order for Commission staff to present a recommendation to the Commission at the June, 1996 Commission meeting. As our discussion revealed, a general description of the project which better details how the facility will be managed, who the targeted clientele will be, etc. will also be helpful.

The additional information required for processing the permit includes:

A. Water Source.

1. San Mateo County Department of Environmental Health approval of a well adequate to serve the proposed development under full occupancy.

2. Hydrologic analysis evaluating the impact of the well on agricultural water supplies within the project's vicinity.

B. Sewage Treatment.

1. San Mateo County Department of Environmental Health approval of a sewer treatment facility (percolation, septic tank, and leach field) adequate to serve the proposed development under full occupancy.

C. Plans (to scale and reproducible).

1. Site plan including location of all development (well and sewer as approved by Environmental Health, water tank, fencing, and utility lines) and indicating existing developments to remain and be removed;

2. Floor plans for all units and manager's office (including extent of kitchen facilities);

Attachment 1

EXHIBIT NO. 0
APPLICATION NO. A-3-SMC-96-08
McKenzie
Post April Hrg. Ltr.

3. Elevation drawings of all new development (guest units, renovated manager's office, water tank);

4. Foundation plans;

5. Drainage plans;

6. Landscape/irrigation plans;

7. Grading plans;

8. Stairway plans, prepared by a certified engineer, indicating what portions of the existing stairway will remain and what will be replaced; and

9. Summary description of signing and outdoor lighting plans.

D. Water Use.

1. Analysis of maximum anticipiated daily water use (under full occupancy, considering "kitchennete" use, meal service, and facilities for staff).

2. Maximum daily water use associated with landscaping.

3. Water use associated with special events (e.g., weddings, family reunions, conferences)

E. Visual Impacts.

Using photos and elevation drawing overlays, illustrate the visual impact of all elements of the proposed development (units, water tank) on views of the ocean and lighthouse available from Highway One, Pigeon Point Road, and Whaler's Cove. (The visual information presented at the meeting should be supplemented with an analysis of impacts to ocean views from Pigeon Point Road and as viewed from Whaler's Cove beach).

F. Marine Resource Protection Provisions.

1. Rules for keeping dogs on site, and how they will be enforced; and

2. Rules regarding guest use of Whaler's Cove beach when marine mammals are present, and how they will be enforced.

If you have any questions regarding these requirements, please contact me, or staff analyst Steve Monowitz, at (408) 427-4863.

Sincerely,

Tami Grove

Tami Grove
District Director

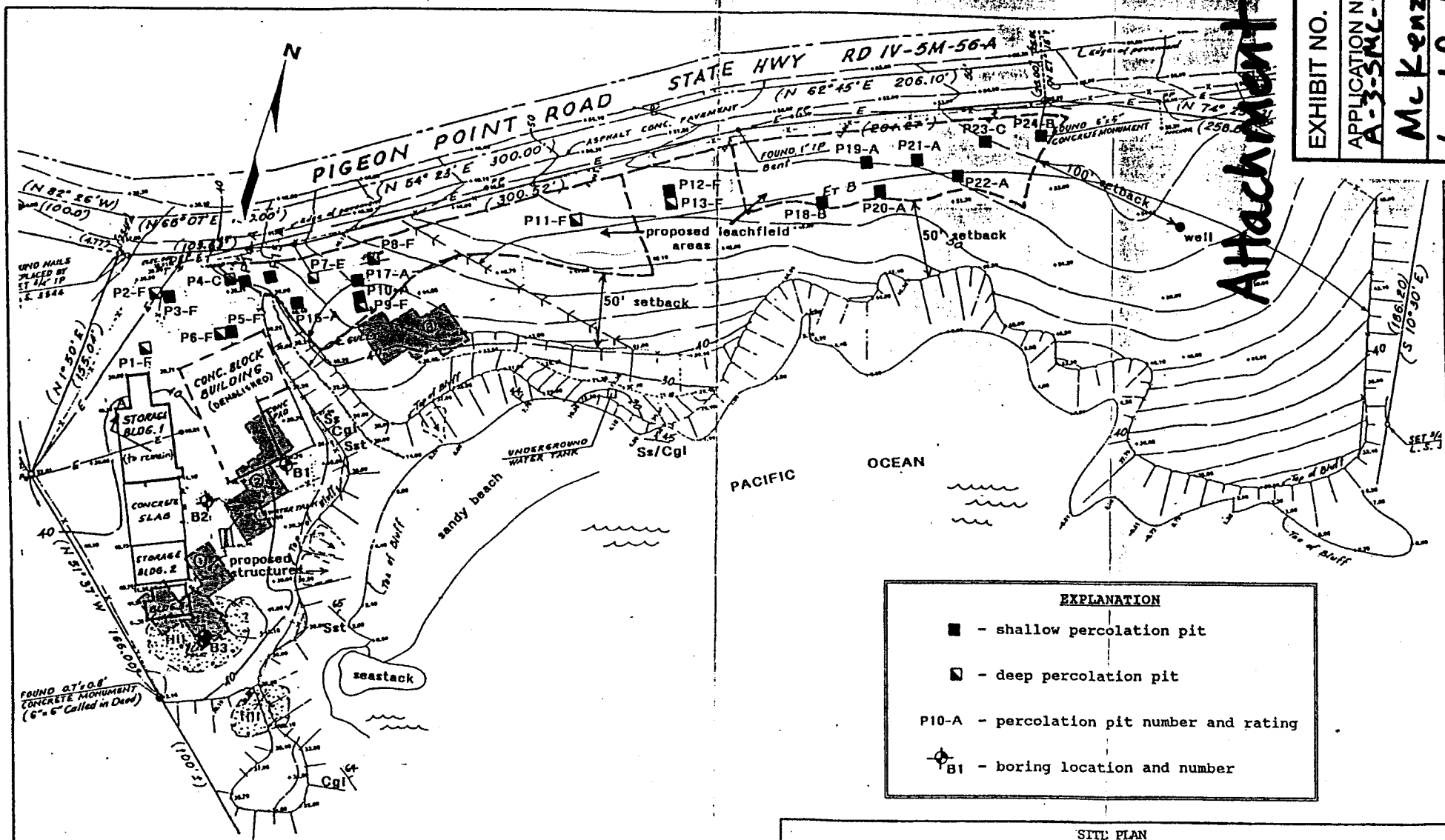
Attachment 1
Exhibit O, p.2

EXHIBIT NO. P

APPLICATION NO. A-3-SMC-96-03

McKenzie leachfield

Attachment 1



BASE: Boundary and Topographic Survey; JOSEPH R. BENNIE; December 1994

SITE PLAN

UPP GEOTECHNOLOGY
Engineering Geology • Geotechnical Engineering

LANDS OF McKENZIE
921 Pigeon Point Road
San Mateo County, California

APPROVED BY	SCALE	PROJECT NO.	DATE	
MB	1" = 2,000'	1410.2L1	June 1996	Figure 2

MAGGIORA BROS. DRILLING, INC.

DRILLING CONTRACTORS – PUMP SALES & SERVICE
CALIFORNIA CONTRACTOR'S LICENSE NO. 249967
(800) 728-1480

Corporate Office
595 Airport Boulevard
Watsonville, CA 95076
(408) 724-1338

Branch Office
2001 Shelton Drive
Hollister, CA 95023
(408) 637-8228

WELL TEST REPORT

A. Customer: KATHLEEN MCKENZIE / JAMES KEITH Telephone: 415-879-1455
Mail address: 732 37TH AVE., SAN FRANCISCO, CA 94121
Well Location: 921 PIGEON POINT APN:
Date Drilled: MAY 11, 1996 By: MAGGIORA BROS. DRILLING, INC.

B. Well Data:

	Previously Reported:	Measured In Test
Depth of Well:		735'
Diameter of Casing:		5" PVC
Depth of Perforation:		
Type of Perforation:		FACTORY PERF.
Standing Water Level:		80'
Pump Type and HP:		GRUNDFOS 3HP
Depth Pump Set:		672'

C. Well Test: Date of Test: JUNE 5, 1996

(1) Water Level at Start:	80	ft.
(2) Sustained Pumping Level:	672	ft.
(3) Drawdown (1-2):	592	ft.
(4) Test Duration:	1440	min.
[X]		
(5) Observed Total Production:	7250	gal.
(6) Average Yield for Test Period (5/4):	5.03	gpm
[ ]		
(7) Final Sustained Yield:		gal.
(8) Calculated Total Production (4x7):		gpm

Pump Broke Suction During test:	Yes [ ]	No [X]
Bacteriological Analysis Attached:	Yes [X]	No [ ]
Chemical Analysis Attached:	Yes [X]	No [ ]

D. Water System Visual Inspection (N/Ob means not observed):

Pump Operation:	Normal [X]	Deficient [ ]	N/Ob [ ]
Electrical Equip.:	Normal [ ]	Deficient [ ]	N/Ob [X]
Pressure Tanks:	Normal [ ]	Deficient [ ]	N/Ob [X]
Water Pipes:	Normal [ ]	Deficient [ ]	N/Ob [X]
Storage Tanks:	Normal [ ]	Deficient [ ]	N/Ob [X]

E. Comments: WELL STABILIZED AT 5 GPM AT THE TOP OF THE PUMP.

Dated: JUNE 7, 1996

Rev. 11/94

Attachment 1

PLEASE SEE DEFINITIONS AND ADDITIONAL TERMS OF THE R

DRILLING – Municipal, Industrial, Agricultural, Domestic, Foundation, Test Holes, Envi

PUMPS – Turbine, Submersible, Centrifugal, Jet, Split Case, Waste &

"WATER IS OUR BUSINESS"

EXHIBIT NO. Q
APPLICATION NO. A-3-SMC-96-08
McKenzie
Well Test

WELL TEST REPORT

DEFINITIONS AND ADDITIONAL TERMS

Sustained yield. Sustained yield is the pumping rate at which long-term pumping can be maintained, and is the rate normally used to compare wells. If the test is of sufficient duration (and assuming the aquifer has a large storage capacity), sustained yield is the best indicator of long term well production during regular operation. As used in this report, sustained yield is the production rate measured at the conclusion of a test in which the pumping level in the well is held constant for the period of time indicated.

Average yield. In many wells, especially wells with small diameter casings, water levels cannot be monitored during pumping, and sustained yield can only be approximated by calculating average yield (which is total volume pumped divided by total pumping time including any period in which the pump breaks suction). Since the pumping level may be declining while testing, and the measured water production may include water in storage in the well and surrounding formation at the start of the test, average yield calculations may be significantly higher than the true sustained yield (particularly where the pumping time is less than four hours).

Unusual pumping conditions. Wells which break suction while pumping, or have high drawdowns in relation to the standing water level, are often indicative of marginal long term water producers. These wells should always have protective shutoff devices on the pumps to prevent pump burnout from lack of water. A smaller capacity pump may improve electrical efficiency and sustain less wear by enabling longer pumping cycles. Conversely in stronger wells, the pump itself may be too small to pump the full well capacity, and thus the true sustained (or average) yield may be higher than observed in this test.

Sole report. This report contains the sole observations and conclusions of the company pertaining to the testing of the Customer's well. Any prior statements of the agents or employees of the company which are not contained herein are superseded by this report, and shall be relied upon at the Customer's own voluntary risk.

Test limitations. The data and conclusions provided are based upon the tests and measurements of the company using standard and accepted practices of the groundwater industry. However, conditions in water wells are subject to dramatic changes in even short periods of time. Additionally, the techniques employed may be subject to considerable error due to factors within the well and groundwater formation which are beyond the company's immediate control or observation. Therefore, the data are valid only as of the date and to the extent of the observational limitations of the test or installation indicated.

Use of test. The test conclusions are intended for general comparison of the well in its present condition against known water well standards or guidelines, and should not be relied upon to predict either the future quantity or quality of water that the well will produce. Wells should be periodically retested to show both seasonal and long-term fluctuations.

Disclaimers. In presenting the data and conclusions, the company makes no warranties, either express or implied, as to future water production of the well. Further, the company, unless expressly stated to the contrary, does not represent (1) that the well or pump system is in any particular condition or state of repair, or (2) that the test results will satisfy cognizant governmental ordinances or regulations, or (3) that the test duration or methodology is sufficient to meet local water system or new construction permit standards (which usually require 24 hour or more tests), or (4) that the water is adequate for a particular purpose contemplated by Customer, (5) the accuracy and reliability of the report for any purpose more than one year after the date of the test.

Customer's release. In accepting this report, the Customer releases and holds the company harmless from liability for consequential or incidental damages arising (1) out of the breach of an express or implied warranty of future water production, or (2) in any manner through the further dissemination of this report, or its conclusions, by either Customer or third parties, except as the dissemination is required to complete the project or other activity for which the report was prepared.

Exhibit Q, p.2
Attachment 1

ANALYTICAL CHEMI
and
BACTERIOLOGISTS
Approved by State of California

Tel: 408 7243422
FAX: 408 7243188

SOIL CONTROL LAB

42 HANGAR WAY
[redacted]

A Division of Control Laboratories Inc.

In any inquiries, please quote Certified Analytical Number appearing hereon.

115018- 459

Maggiora Bros.
595 Airport Blvd.
Watsonville CA 95076

10 Jun 1996

CERTIFIED ANALYTICAL REPORT

BACTERIOLOGICAL EXAMINATION OF WATER FOR COLIFORM ORGANISMS

MATERIAL: Water sample received 07 JUN 1996
REPORT: Bacteriological examination of water for total and fecal coliforms by MMO-MUG procedure using 100 millilter sample is as follows:

Identification	Total Coliforms	Fecal Coliforms
#60350-3: KATHLEEN MCKENZI	PRESENT	ABSENT

Public Health Drinking Water Standards for bacteriological quality of drinking water are met when coliform organisms are absent in a water sample. If coliform organisms are present, the water is considered unsafe to drink unless the water is treated to remove the bacteria. NOTE: The above test does not establish whether this water meets Public Health Standards for chemical composition of drinking water

Attachment 1

The undersigned certifies that the a
accurate report of the findings o

EXHIBIT NO. R
APPLICATION NO. A-3-SMC-96-08
McKenzie
Water Quality

ANALYTICAL CHEMISTS
and
BACTERIOLOGISTS
Approved by State of California

Tel: 408 7343422
FAX: 408 7343188

SOIL CONTROL LAB

42 HANGAR WAY
[redacted]

A Division of Control Laboratories Inc

115001-2-459

Maggiora Bros.
595 Airport Blvd.
Watsonville CA 95076

17 JUN 96

CERTIFIED ANALYTICAL REPORT

MATERIAL: Water sample received 06 June 1996
IDENTIFICATION: Job #60350-3, Kathleen McKenzie
Sampled 6/5/96, 7:00 p.m.
REPORT: Quantitative chemical analysis is as follows expressed as milligrams per liter (parts per million):

		PUBLIC HEALTH DRINKING WATER LIMITS[1]
pH value (units)	8.4	10.6
Conductivity (micromhos/cm)	1900	1600
Carbonate Alk. (as $CaCO_3$)	20	120
Bicarbonate Alk. (as $CaCO_3$)	425	-
Total Alkalinity (as $CaCO_3$)	445	-
Total Hardness (as $CaCO_3$)	50	-
Total Dissolved Solids	1200	1000
Nitrate (as NO_3)	1.1	45
Chloride (Cl)	410	250
Sulfate (SO_4)	15	250
Fluoride (F)	1.7	1.0
Calcium (Ca)	12	-
Magnesium (Mg)	4.9	-
Potassium (K)	5.2	-
Sodium (Na)	475	-
Total Iron (Fe)	0.53	0.3
Manganese (Mn)	0.03	0.05
Nitrite (as NO_2)	< 0.5	-

[1]California Administrative Code; Title 22

Attachment 1

The undersigned certifies that the above is a true and accurate report of the findings of this laboratory.

Analyst

Exhibit R, p.2

ANALYTICAL CHEMISTS
and
BACTERIOLOGISTS
Approved by State of California

TEL 408 724-5472
FAX 408 724-0188

SOIL CONTROL LAB

42 HANGAR WAY

A Division of Control Laboratories Inc.

115001-2-459

Maggiora Bros.
595 Airport Blvd.
Watsonville, CA 95076

17 JUN 96

CERTIFIED ANALYTICAL REPORT

MATERIAL: Water sample received 06 June 1996
IDENTIFICATION: Job #60350-3, Kathleen McKenzie
Sampled 6/6/96, 10:30 a.m.
REPORT: Quantitative chemical analysis is as follows expressed as milligrams per liter (parts per million):

		PUBLIC HEALTH DRINKING WATER LIMITS[1]
pH value (units)	8.4	10.6
Conductivity (micromhos/cm)	2000	1600
Carbonate Alk. (as $CaCO_3$)	20	120
Bicarbonate Alk. (as $CaCO_3$)	430	-
Total Alkalinity (as $CaCO_3$)	430	-
Total Hardness (as $CaCO_3$)	40	-
Total Dissolved Solids	1300	1000
Nitrate (as NO_3)	< 1	45
Chloride (Cl)	445	250
Sulfate (SO_4)	14	250
Fluoride (F)	1.7	1.0
Calcium (Ca)	7.7	-
Magnesium (Mg)	5.0	-
Potassium (K)	6.2	-
Sodium (Na)	485	-
Total Iron (Fe)	0.12	0.3
Manganese (Mn)	< 0.03	0.05
Nitrite (as NO_2)	< 0.5	-

[1]California Administrative Code; Title 22

Attachment 1

The undersigned certifies that the above is a true and accurate report of the findings of this laboratory.

Analyst

Exhibit R, p.3

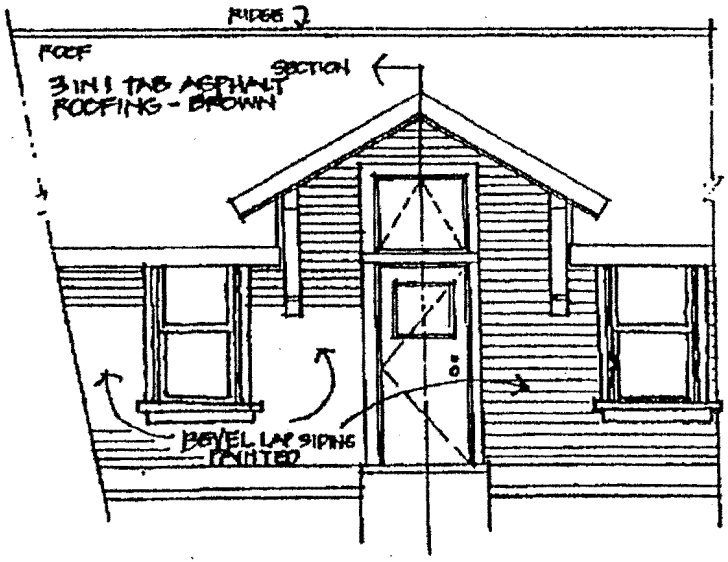
Attachment 1

EXHIBIT NO. S

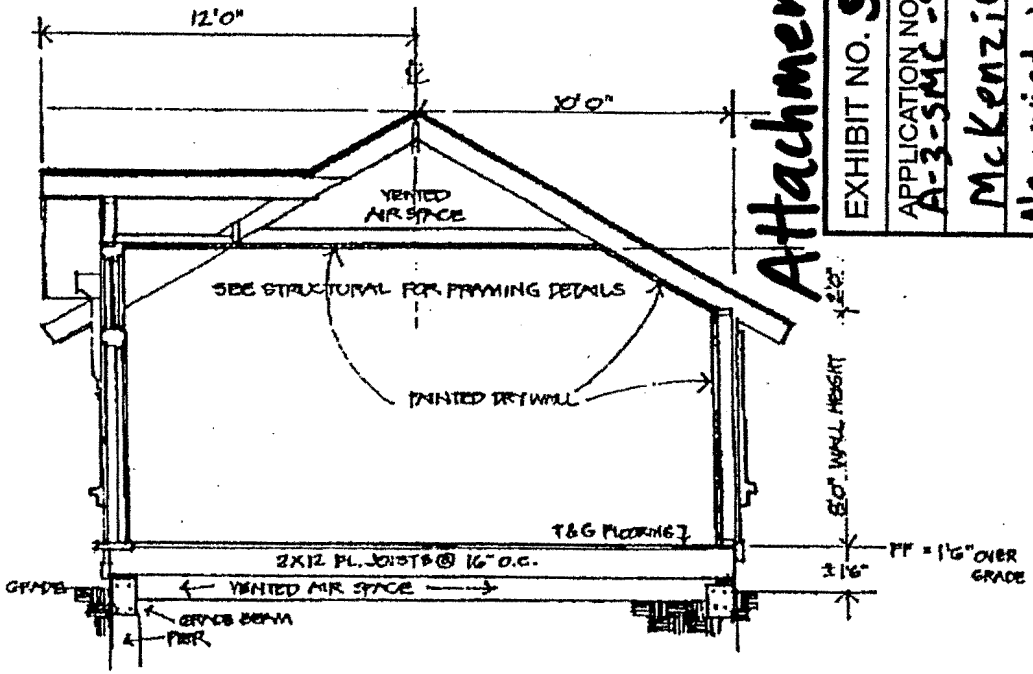
APPLICATION NO. A-3-SMC-96-08

McKenzie

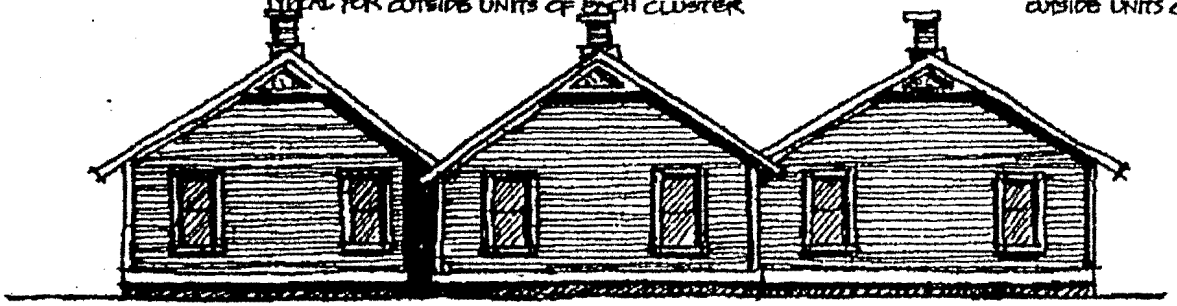
New window design



ELEVATION OF SIDE ENTRY DOOR
TYPICAL FOR OUTSIDE UNITS OF EACH CLUSTER



CROSS SECTION THROUGH ℄ OF UNIT - TYPICAL FOR OUTSIDE UNITS OF EACH CLUSTER



TYPICAL ELEVATION OF CLUSTER

SCALE: 1/4" = 1'0"

PIGEON POINT BED & BREAKFAST
921 PIGEON POINT ROAD, SAN MATEO COUNTY

SECTION

7

ROMANN 96
REV. MAY 96

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