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STATE OF CALIFORNIA -- THE RESOURCES AGENCY

GRAY DAVIS, *Governor*

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
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RECORD PACKET COPY

Filed:	12/14/99
49th Day:	2/1/00
180th Day:	6/11/00
Staff:	S. Hudson
Staff Report:	3/23/00
Hearing Date:	4/12/00
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-99-169

APPLICANT: Alfredo and Robin Trento

AGENTS: Jaime Harnish
Michael Andersson

PROJECT LOCATION: 25126 Pacific Coast Highway, Malibu; Los Angeles County

PROJECT DESCRIPTION: Construction of a 6,706 sq. ft., 28 ft. high, two-story single family residence; a 749 sq. ft., 18 ft. high guest house; a 975 sq. ft., 18 ft. high detached garage; a 525 sq. ft., 14 ft. high detached garage; a pool; a driveway; a septic system; and a concrete v-ditch drainage swale system. The project also includes the construction of a 420 ft. long 3-6 ft. high retaining wall, a 120 ft. long 2-3 ft. high retaining wall, and approximately 3,802 cu. yds. of grading (1,302 cu. yds. of cut, 630 cu. yds. of fill, and 1,870 cu. yds. of removal and recompaction).

Lot area:	4.78	acres
Building coverage:	8,733	sq. ft.
Pavement coverage:	16,977	sq. ft.
Ht. abv. ext. grade:	28 ft.	

LOCAL APPROVALS RECEIVED: Approval in Concept City of Malibu Planning Department, Approval in Concept for City of Malibu Engineering and Geotechnical Review, Approval in Concept City of Malibu Environmental Health Department (Septic).

SUBSTANTIVE FILE DOCUMENTS: Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 3/10/00; Drainage System Response Letter by Land Design Consultants dated 2/1/00; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 1/31/00; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 10/25/99; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 9/17/99; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 9/1/99; Supplemental Geologic and Soils Engineering Report by GeoConcepts, Inc. dated 3/19/99; Supplemental Geologic and Soils Engineering Report by GeoConcepts, Inc. dated 7/10/98; Supplemental Geologic and Soils Engineering Report by GeoConcepts, Inc. dated 3/23/98; Limited Geologic and Soils Engineering Investigation Report by GeoConcepts, Inc. dated 10/23/97; Response Letter Regarding Phase III Mitigation Program by E. Gary Stickel, Ph.D. dated 6/3/99; Phase 2 (Test Phase) of Archaeological Site CA-LAN 803 Report by E. Gary Stickel, Ph.D. dated March 1999; Proposed Program for Test Phase (Phase 2) Archaeological Evaluation Report by E. Gary Stickel, Ph.D. dated 11/25/97; Coastal Development Permits (CDPs) 4-98-142, 143, & 163 (Duggan & Levinson), CDP 4-97-031 (Anvil), CDP 5-90-020 (Young).

SUMMARY OF STAFF RECOMMENDATION

Staff recommends **approval** of the proposed project with nine (9) special conditions as outlined on pages 5-10. The applicant is proposing the construction of a 6,706 sq. ft., 28 ft. high, two-story single family residence, a 749 sq. ft. guest house, a 975 sq. ft. detached garage, a 525 sq. ft. detached garage, a pool, a driveway, a septic system, and a concrete v-ditch drainage swale system. The project also includes the construction of a 420 ft. long 3-6 ft. high retaining wall, a 120 ft. long 2-3 ft. high retaining wall, and approximately 3,802 cu. yds. of grading (1,302 cu. yds. of cut, 630 cu. yds. of fill, and 1,870 cu. yds. of removal and recompaction).

The subject site is a vacant bluff top lot located on the south (seaward) side of Pacific Coast Highway and north of Malibu Road (Exhibit 1). Pacific Coast Highway is designated as a scenic highway in the previously certified County of Los Angeles Malibu/Santa Monica Mountains Land Use Plan (LUP). The subject site is designated as a "Priority One" (highest scenic value) viewshed for Pacific Coast Highway by the LUP. All vegetation on the bluff top portion of the site has been previously removed and views of the ocean from the highway are available across the entire site.

In previous permit actions, the Commission has limited the height of new structures and landscaping on bluff top lots with ocean views to an elevation adequate to retain public views of the ocean over the entire site where feasible. In this case, the proposed residence will be 28 ft. in height above existing grade and will extend approximately 5 or more ft. higher in elevation than the highway, substantially reducing public views of the ocean over a portion of the site. In addition, although the proposed accessory structures will be less than 18 ft. in height from existing grade, due to the closer location of these structures in relation to the highway and slope elevation, portions of these structures will also exceed the elevation of Pacific Coast Highway by approximately 2-3 ft. To minimize adverse effects to public views, Special Condition One (1) requires the submittal of revised project plans which show that the proposed development will be no more than 20 ft. in height above existing grade and will not, in any case, exceed the 175 ft. elevation line in height (approximate elevation of Pacific Coast Highway). Special Condition Two (2) has been required to ensure that vegetation on the subject site shall be limited to low-lying species that will not block or adversely impact public views of the ocean from the highway. To ensure that any future structures, additions, or landscaping that may be exempt from coastal permit requirements are reviewed by the Commission for consistency with the visual resource protection policies of the Coastal Act, Special Condition Eight (8) has been required.

Although the proposed development will be designed to ensure stability, three separate landslides have been identified on the bluff slope in the south eastern portion of the project site. Due to the inherent hazard of constructing new development adjacent to an identified landslide, Special Condition Nine (9) requires the applicant to acknowledge the potential hazards on the project site and waive any claim of liability

against the Commission. In past permit actions regarding bluff top development, the Commission has required that new development be setback no less than 25 ft. from the bluff edge. In this case, the proposed driveway will be located less than 25 ft. from the edge of the bluff. To ensure geologic and structural stability, Special Condition One (1) requires the submittal of revised plans which show that the proposed driveway will be located no less than 25 ft. from the edge of the bluff. In addition, to further ensure structural and site stability, Special Condition Five (5) requires the submittal of project plans certified by all consulting geotechnical consultants as conforming to all recommendations.

This application was originally scheduled to be heard at the Commission meeting of January 13, 2000, in Santa Monica and was postponed at the applicant's request. The applicant's representative has indicated that the applicant is not in agreement with Special Condition One (1) which requires the applicant to submit revised plans to reduce the height of the proposed residence from 28 ft. in height to 20 ft. in height. Several letters of concern regarding geologic, archeological, and visual issues in relation to the proposed project have been received and are included as exhibits.

I. STAFF RECOMMENDATION

MOTION: ***I move that the Commission approve with conditions Coastal Development Permit No. 4-99-169 pursuant to the staff recommendation.***

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions

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 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 term or 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 development during construction, 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.

III. Special Conditions

1. Revised Plans

Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, revised project plans which show that:

(a) All proposed development is no more than 20 ft. in height above existing grade and will not, in any case, exceed the 175 ft. elevation line in height (approximate elevation of Pacific Coast Highway). Any substantial changes to the footprint of the proposed structures will require an amendment to this permit.

(b) The proposed driveway, including all associated grading and fill slopes, is located no less than 25 ft. from the seaward most top edge of the bluff.

(c) The proposed 42 inch high masonry wall adjacent to Pacific Coast Highway is deleted. Fencing consisting of visually permeable designs and materials (e.g. wrought iron or non-tinted glass material) and low-lying vegetation consistent with Special Condition Two (2) shall be allowed. Fencing on site shall be limited to no more than 6 ft. in height. All bars, beams, or other non-visually permeable materials used in the construction of the proposed fence shall be no more than 1 inch in thickness/width and shall be placed no less than 12 inches in distance apart. Alternative designs may be allowed only if the Executive Director determines that such designs are consistent with the intent of this condition and serve to minimize adverse effects to public views.

(d) The proposed swimming pool is designed as a free-standing structure (walls do not rely upon the lateral support of the soil) set below grade.

2. Landscape and Erosion Control Plans

Prior to issuance of a coastal development permit, the applicant shall submit a landscaping and erosion control plan, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director. The landscaping plan shall identify all necessary irrigation improvements. The landscaping and erosion control plan shall be reviewed and approved by the consulting engineering geologist to ensure that the plans are in conformance with the consultants' recommendations. The plans shall identify the species, extent, and location of all plant materials and shall incorporate the following criteria:

A) Landscaping Plan

1) All graded & disturbed areas on the subject site shall be planted and maintained for erosion control purposes within (60) days of receipt of the certificate of occupancy for the residence. To minimize the need for irrigation all landscaping shall consist primarily of native/drought resistant plants as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled Recommended

List of Plants for Landscaping in the Santa Monica Mountains, dated October 4, 1994. Invasive, non-indigenous plan species which tend to supplant native species shall not be used.

2) All cut and fill slopes shall be stabilized with planting at the completion of final grading. Planting should be of native plant species indigenous to the Santa Monica Mountains using accepted planting procedures, consistent with fire safety requirements. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils;

3) Plantings will be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements;

4) The Permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission - approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.

5) Permanent irrigation improvements shall be designed to minimize groundwater infiltration and shall be primarily limited to drip irrigation systems. No permanent irrigation shall be allowed within 25 ft. of the landward edge of the top of the bluff or on the bluff slope itself.

6) Vegetation on the subject site shall be limited to low-lying species that will not block or adversely impact public views of the ocean from the highway. Vegetation within Zone A, as shown on Exhibit 4, shall be limited to no more than 2 ft. in height. Vegetation within Zone B, as shown on Exhibit 4b, shall be limited to no more than 14 ft. in height. In no case shall vegetation on the subject site exceed the 175 ft. elevation line in height (approximate elevation of Pacific Coast Highway). The use of any vegetation of greater height than otherwise provided for above may be allowed only if the Executive Director determines that such landscaping is consistent with the intent of this condition and will serve to minimize adverse effects to public views.

7) Vegetation within 50 feet of the proposed house may be removed to mineral earth, vegetation within a 200 foot radius of the main structure may be selectively thinned in order to reduce fire hazard. However, such thinning shall only occur in accordance with an approved long-term fuel modification plan submitted pursuant to this special condition. The fuel modification plan shall include details regarding the types, sizes and location of plant materials to be removed, and how often thinning is to occur. In addition, the applicant shall submit evidence that the fuel modification plan has been reviewed and approved by the Forestry Department of Los Angeles County. Irrigated lawn, turf and ground cover planted within the fifty foot radius of the proposed house shall be selected from the most drought tolerant species or subspecies, or varieties suited to the Mediterranean climate of the Santa Monica Mountains.

B) Interim Erosion Control Plan

1) The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the project site with fencing or survey flags.

2) The plan shall specify that should grading take place during the rainy season (November 1 – March 31) the applicant shall install or construct temporary sediment basins (including debris basins, desilting basins or silt traps), temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes and close and stabilize open trenches as soon as possible. These erosion measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained through out the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site unless removed to an appropriate approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill.

3) The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bag barriers, silt fencing; temporary drains and swales and sediment basins. The plans shall also specify that all disturbed areas shall be seeded with native grass species and include the technical specifications for seeding the disturbed areas. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.

C) Monitoring.

Five years from the date of the receipt of the Certificate of Occupancy for the residence the applicant shall submit for the review and approval of the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the landscape monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the landscaping plan approved pursuant to this permit, the applicant, or successors in interest, shall submit a revised or supplemental landscape plan for the review and approval of the Executive Director. The revised landscaping plan must be prepared by a licensed Landscape Architect or a qualified Resource Specialist and shall specify measures to remediate those portions of the original plan that have failed or are not in conformance with the original approved plan.

3. Removal of Natural Vegetation

Removal of natural vegetation for the purpose of fuel modification within the 50 foot zone surrounding the proposed structure(s) shall not commence until the local government has issued a building or grading permit for the development approved pursuant to this permit. Vegetation thinning within the 50-200 foot fuel modification zone shall not occur until commencement of construction of the structure(s) approved pursuant to this permit

4. Archaeological Resources

By acceptance of this permit, the applicant agrees to have a qualified archaeologist(s) and appropriate Native American consultant(s) present on-site during all grading, excavation, site preparation, installation of irrigation systems or landscaping features that involve any earth moving operations. The number of monitors shall be adequate to observe the earth moving activities of each piece of active earth moving equipment. Specifically, the earth moving operations on the project site shall be controlled and monitored by the archaeologist(s) with the purpose of locating, recording and collecting any archaeological materials. In the event that any significant archaeological resources are discovered during operations, grading work in this area shall be halted and an appropriate data recovery strategy be developed, subject to review and approval of the Executive Director, by the applicant's archaeologist, the City of Malibu archaeologist and the native American consultant consistent with CEQA guidelines.

5. Plans Conforming to Geologic Recommendation

All recommendations contained in the Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 3/10/00; Drainage System Response Letter by Land Design Consultants dated 2/1/00; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 1/31/00; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 10/25/99; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 9/17/99; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 9/1/99; Supplemental Geologic and Soils Engineering Report by GeoConcepts, Inc. dated 3/19/99; Supplemental Geologic and Soils Engineering Report by GeoConcepts, Inc. dated 7/10/98; Supplemental Geologic and Soils Engineering Report by GeoConcepts, Inc. dated 3/23/98; and the Limited Geologic and Soils Engineering Investigation Report by GeoConcepts, Inc. dated 10/23/97. shall be incorporated into all final design and construction including all grading, septic, and drainage improvements. All plans must be reviewed and approved by the geologic and the geotechnical engineering consultants as conforming to said recommendations. Prior to the issuance of the coastal development permit, the applicant shall submit, for review and approval by the Executive Director, evidence of the consultants' review and approval of all project plans.

The final plans approved by the consultants shall be in substantial conformance with the plans approved by the Commission relative to construction, grading and drainage. Any substantial changes to the proposed development approved by the Commission which may be recommended by the consultants shall require an amendment to the permit or a new coastal permit.

6. Drainage and Polluted Runoff Control Plan and Maintenance Responsibility

Prior to the issuance of the Coastal Development Permit, the applicant shall submit for the review and approval of the Executive Director, a drainage and polluted runoff control plan designed by a licensed engineer which minimizes the volume, velocity and pollutant load of stormwater leaving the developed site. The plan shall be reviewed and approved by the consulting engineering geologist to ensure the plan is in conformance with the geologists' recommendations. The plan shall include but not be limited to the following criteria:

(a) The proposed concrete v-ditch drainage system to be constructed on the bluff face shall be of an earthtone color similar to the soil of the surrounding bluff slope. White tones shall not be acceptable.

(b) Post-development peak runoff rates and average volumes shall not exceed pre-development conditions.

(c) Runoff from all roofs, parking areas, driveways and other impervious surfaces shall be collected and directed through a system of vegetated and/or gravel filter strips or other media filter devices. The filter elements shall be designed to 1) trap sediment, particulates and other solids and 2) remove or mitigate contaminants through infiltration and/or biological uptake. The drainage system shall also be designed to convey and discharge runoff in excess of this standard from the building site in non-erosive manner.

(d) The plan shall include provisions for maintaining the drainage and filtration systems so that they are functional throughout the life of the approved development. Such maintenance shall include the following: (1) the drainage and filtration system shall be inspected, cleaned and repaired prior to the onset of the storm season, no later than September 30th each year and (2) should any of the project's surface or subsurface drainage/filtration structures fail or result in increased erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system and restoration of the eroded area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.

7. Removal of Excavated Material

Prior to the issuance of the coastal development permit, the applicant shall provide evidence to the Executive Director of the location of the disposal site for all excavated material from the site. Should the dump site be located in the Coastal Zone, a coastal development permit shall be required.

8. Future Development Deed Restriction

A. This permit is only for the development described in coastal development permit No. 4-99-169. Pursuant to Title 14 California Code of Regulations Section 13250(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610(a) shall not apply to the proposed residence or the entire subject parcel. Accordingly, any new development on the subject parcel or future improvements to the permitted single family residence, guesthouse, or garages, including but not limited to landscaping or repair and maintenance identified as requiring a permit in Public Resources Section 30610(d) and Title 14 California Code of Regulations Sections 13252(a)-(b), shall require an amendment to Permit 4-99-169 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

B. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, which reflects the above restrictions on development in the deed restriction and shall include legal descriptions of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

9. Assumption of Risk, Waiver of Liability and Indemnity

A. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from landslide, erosion, and wildfire; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

B. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director incorporating all of the above terms of this condition. The deed restriction shall include a legal description of the applicant's entire parcel. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description and Background

The applicant is proposing the construction of a 6,706 sq. ft., 28 ft. high, two-story single family residence; a 749 sq. ft., 18 ft. high guest house; a 975 sq. ft., 18 ft. high detached garage; a 525 sq. ft., 14 ft. high detached garage; a pool; a driveway; a septic system; and a concrete v-ditch drainage swale system. The project also includes the construction of a 420 ft. long 3-6 ft. high retaining wall, a 120 ft. long 2-3 ft. high retaining wall, and approximately 3,802 cu. yds. of grading (1,302 cu. yds. of cut, 630 cu. yds. of fill, and 1,870 cu. yds. of removal and recompaction).

The subject site is a 4.78 acre vacant bluff top lot located on the south (seaward) side of Pacific Coast Highway and north of Malibu Road (Exhibit 1). Slopes on site gently descend to the south approximately 20-40 ft. in elevation from Pacific Coast Highway to the top seawardmost edge of the bluff. Slopes descend more steeply from the top of the bluff to Malibu Road at an approximate gradient of 2:1 (26°) to 1:1 (45°). All proposed development, with the exception of the new concrete bluff slope v-ditch drainage system, will be located on the relatively gently sloping bluff top portion of the site (Exhibit 5). A segment of Puerco Road, an existing private road constructed in the mid-1920's, is located on the south facing bluff slope on the subject site immediately north of Malibu Road. However, Puerco Road does not extend to the bluff top portion of the subject site where development is proposed and access to the project site is from Pacific Coast Highway only.

Pacific Coast Highway is designated as a scenic highway for coastal views in the previously certified County of Los Angeles Malibu/Santa Monica Mountains Land Use Plan (LUP). In addition, the subject site is designated as a "Priority One" (highest scenic value) viewshed for Pacific Coast Highway by the LUP. All vegetation on the bluff top portion of the subject site has been previously removed and views of the ocean from Pacific Coast Highway are available across the entire site. In addition, archaeological resources are present on the subject site (listed in the State of California Archive as Archaeological Site CA-LAN-803).

In past permit actions regarding beachfront development along Pacific Coast Highway, the Commission has required the construction of sidewalk improvements to eliminate adverse effects to public access from such development. Although, the subject site is located adjacent to Pacific Coast Highway, the proposed development is separated from the beach by Malibu Road and numerous residences and located along a semi-rural stretch of Pacific Coast Highway where there is adequate open area for pedestrian use of the road shoulder. As such, the proposed development will not result in any adverse effects to public access and a condition requiring the construction of sidewalk improvements is not necessary.

B. Hazards

Section **30253** of the Coastal Act states in part that new development shall:

> ***(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.***
>
> ***(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.***

The proposed development is located in the Santa Monica Mountains, an area which is generally considered to be subject to an unusually high amount of natural hazards. Geologic hazards common to the Santa Monica Mountains include landslides, erosion, and flooding. In addition, fire is an inherent threat to the indigenous chaparral community of the coastal mountains. Wild fires often denude hillsides in the Santa Monica Mountains of all existing vegetation, thereby contributing to an increased potential for erosion and landslides on property.

Further, Section 30253 of the Coastal Act mandates that new development provide for geologic stability and integrity and minimize risks to life and property. To assist in the determination of whether a project is consistent with section 30253 of the Coastal Act, the Commission has, in past Malibu coastal development permit actions, looked to the certified Malibu/Santa Monica Mountains Land Use Plan (LUP) for guidance. The Malibu LUP has been found to be consistent with the Coastal Act and provides specific standards for development along the Malibu coast and within the Santa Monica Mountains. Due to the geologic instability of bluffs and their continuing role in the ecosystem, the certified LUP contains specific policies regarding development on or near bluffs. For instance, Policy 164, in concert with the Coastal Act, provides that new development shall be set back a minimum of 25 ft. from the top edge of the bluff or a stringline drawn between the nearest corners of the adjacent structures, *whichever distance is greater*, but in no case less than would allow for a 75-year useful life for the structure.

The proposed project includes the construction of a single family residence, a guest house, two detached garages, a pool, a concrete "v-ditch" drainage swale system, retaining walls, and approximately 3,802 cu. yds. of grading (1,302 cu. yds. of cut, 630 cu. yds. of fill, and 1,870 cu. yds. of removal and recompaction). The subject site is located in an area of Malibu prone to landslide activity. The Limited Geologic and Soils Engineering Investigation Report by GeoConcepts, Inc. dated 10/23/97 indicates that portions of three separate landslides are located on the bluff slope in the south eastern portion of the subject site. However, the applicant's geologic and geotechnical consultants have indicated that the bluff top area of the subject site, where the proposed development will be located, is relatively stable and suitable for residential development. The Limited Geologic and Soils Engineering Investigation Report by GeoConcepts, Inc. dated 10/23/97 asserts that a stability analysis was performed the site and that their analysis indicates that

the subject site is grossly stable. Further, the Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 9/17/99 indicates that the proposed project will be free from geologic hazards. The addendum states:

> ***It is the finding of this corporation, based upon the subsurface data, that the proposed project will be safe from landslide, settlement or slippage and will not adversely affect adjacent property, provided this corporation's recommendations and those of the Los Angeles County Code are followed and maintained.***

The Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 3/10/00; Drainage System Response Letter by Land Design Consultants dated 2/1/00; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 1/31/00; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 10/25/99; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 9/17/99; Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 9/1/99; Supplemental Geologic and Soils Engineering Report by GeoConcepts, Inc. dated 3/19/99; Supplemental Geologic and Soils Engineering Report by GeoConcepts, Inc. dated 7/10/98; Supplemental Geologic and Soils Engineering Report by GeoConcepts, Inc. dated 3/23/98; and the Limited Geologic and Soils Engineering Investigation Report by GeoConcepts, Inc. dated 10/23/97 include a number of geotechnical recommendations to ensure the stability and geotechnical safety of the site. Therefore, to ensure that the recommendations of the geotechnical and geologic engineering consultants have been incorporated into all proposed development, Special Condition Five (5) requires the applicant to submit project plans certified by the consulting geotechnical and geologic engineer as conforming to all recommendations regarding structural and site stability. The final plans approved by the consultants shall be in substantial conformance with the plans approved by the Commission relative to construction, grading and drainage. Any substantial changes to the proposed development approved by the Commission which may be recommended by the consultants shall require an amendment to the permit or a new coastal permit.

However, the Commission notes that, although the subject site is considered grossly stable from a geologic standpoint, the steep slopes on the subject site are still subject to potential erosion and soil slippage. The Commission finds that the minimization of site erosion will add to the stability of the site. Erosion can best be minimized by requiring the applicant to landscape all disturbed and graded areas of the site with native plants compatible with the surrounding environment. Further, the Limited Geologic and Soils Engineering Investigation Report by GeoConcepts, Inc. dated 10/23/97 states:

> ***All slopes should be maintained with a dense growth of plants, ground covering vegetation, shrubs and trees which possess dense, deep root structures and require a minimum of watering. It is recommended that a landscape architect be consulted regarding planting adjacent to improvements***

In past permit actions, the Commission has found that invasive and non-native plant species are typically characterized as having a shallow root structure in comparison with their high surface/foliage weight and/or require a greater amount of irrigation and maintenance than native vegetation. The Commission notes that non-native and invasive plant species with high surface/foliage weight and shallow root structures do not serve to stabilize steep slopes, such as the slopes on the subject site, and that such vegetation results in potential adverse effects to the geologic stability of the project site. In comparison, the Commission finds that native plant species are typically characterized not only by a well developed and extensive root structure in comparison to their surface/foliage weight but also by their low irrigation and maintenance requirements. Therefore, in order to ensure the stability and geotechnical safety of the site, Special Condition Two (2) requires that all proposed disturbed and graded areas on subject site are stabilized with native vegetation. However, the Commission also notes that landscaping improvements which require intensive watering requirements, such as many lawn and turf species, will result in potential adverse effects to the stability of the bluff slope due to increased groundwater infiltration on the subject site. Therefore, in order to ensure stability of the bluff slope, Special Condition Two (2) also requires that permanent irrigation improvements, included as part of the landscaping plan for the subject site, shall be designed to minimize groundwater infiltration and shall be primarily limited to drip irrigation systems. No permanent irrigation shall be allowed within 25 ft. of the landward edge of the top of the bluff or on the bluff slope itself. In addition, Special Condition Three (3) has been required in order to ensure that no vegetation may be removed on the subject site for the purpose of fuel modification until after the local government has issued a building or grading permit. A septic system injects water directly into the subsurface and therefore has the potential to increase slope instability. This can be minimized by locating the septic system as far from the slope as feasible. In this case, the proposed septic system is located as far from landward on the site, and away from the bluffslope, as feasible.

As discussed above, portions of three identified landslides are located in the south east corner of the subject site (adjacent to or overlying each other). The Commission notes that although portions of the three landslides are located on the project site, the three identified landslides also extend offsite across three other separate parcels. The Commission received letters from neighboring property owners suggesting that the applicant (Trento) should be required, as part of this project, to remediate these landslides (Exhibits 11c-g). Assertions have been made that the landslides were "reactivated" by recent increased rains. In addition, neighbors have asserted that surface drainage and infiltration to groundwater will increase as a result of the development and will increase the risk of landslides. The applicant's geotechnical consultant has indicated that, in order to adequately remediate the identified landslides, it would be necessary to conduct remedial grading on the other affected properties and that; therefore, it is not possible to remediate the identified landslides by grading on the project site only. The Geologic and Soils Engineering Investigation Addendum by GeoConcepts, Inc. dated 1/31/00 states:

> ***The active landslide appears to be on four properties, with the smallest portion on the subject site. The City recognized this and, therefore, has not required a remedial repair of the active slide on the subject site. A remedial repair has not been required because the active portion on the subject site can not be effectively repaired without the Weber's correcting their larger portion of the slide. Currently, the Weber's have trimmed their slope and redeposited the earth material on the active landslide, which only exacerbates the instability of the slide by adding additional weight.***

As such, the Commission notes that remediation of the identified landslides on the subject site would require cooperation by the adjacent property owners (as well as remedial grading on those neighboring properties). It is the Commission's understanding, based on information submitted by both the applicant and by the concerned neighboring property owners, that a meeting was held by the City of Malibu with the intent of reaching an agreement between the four affected property owners to remediate the slides; however, no final agreement between the concerned property owners was reached. As such, the Commission notes that it is not possible for the applicant to stabilize the bluff slope only on the subject site by remedial grading unless all property owners affected by the slide mass were to also conduct such grading on their own properties.

Although it is not possible to directly remediate the portions of the identified landslides on the subject site through grading, the applicant's geotechnical consultants have indicated that the proposed concrete v-ditch drainage system will serve to direct all drainage away from those portions of the subject site prone to landslide and, therefore, increase the geologic stability of the subject site. Drainage from the project site will be directed to two existing 18 inch and 24 inch drainage pipes which inlet from the southwest and southeast corners of the abandoned Puerco Road on the subject site and which outlet to Malibu Road at the base of the slope. A neighbor has asserted that the existing drainage pipes are not adequate to handle the drainage from the site, although they the neighbor has not submitted any calculations to support this assertion (Exhibits 11c-g). The applicant's hydrologic consultants have indicated that their calculations show that the existing drainage pipes are adequate to handle the flow from the proposed drainage improvements. The Drainage System Response Letter by Land Design Consultants dated 2/1/00 states:

> ***As a remedial grading plan, an integral part is controlling surface drainage from the northerly portion of the property from draining over the steeper natural slope below the bluff which are more subject to erosion and debris flows. This will be accomplished by the construction of the proposed driveway system, surface drainage devices located at the top of the bluff and located at the southerly boundary along with a series of catch basins, pipes, and inlet structure directing flows towards the two (2) existing drainage systems located at the westerly and easterly portions of the site.***
>
> ...
>
> ***The amount of debris flows will be reduced by the development of the parcel and the design of the on-site drainage system has been designed to carry these flows to two new inlet structures. The proposed drainage system comprises of two drainage areas and systems. One drainage system directing approximately 3.8 acres (Q=25 cfs) to the westerly portion of the site to a 24" CMP pipe and second system directing approximately 3.3 acres of (Q-22cfs) to the easterly portion of the site.***
>
> ...

> ***As part of the westerly system the existing inlet structure located near the southwestern property corner will be replaced with a new metal flared end section, CMP pipe, berms and minor grading modifications...[to] allow the required flows to enter the pipe as required. The total flow rate after development will be 25 cfs, which is much less than the design capacity of the existing 24" CMP. As part of the improved eastern system located near the southeastern property corner the existing modified inlet structure will be replaced with a new concrete inlet structure and CMP pipe designed to carry the debris flows generated on site...The total flow rate after development will be 22 cfs, which is much less than the design capacity of the existing 18" and 24" CMP pipe.***

To ensure that drainage is conveyed off site in a non-erosive manner, the Commission finds that it is necessary to require the applicant, as required by Special Condition Six (6), to submit drainage plans certified by the consulting geotechnical engineer as conforming to their recommendations. Further, to ensure that the project's drainage structures will not contribute to further destabilization of the project site or surrounding area and that the project's drainage structures shall be repaired should the structures fail in the future, Special Condition Six (6) also requires that the applicant agree to be responsible for any repairs or restoration of eroded areas should the drainage structures fail or result in erosion.

Further, the Commission notes that the proposed swimming pool, located on top of the bluff upslope from the identified landslides on site, may result in potential adverse effects to slope stability if the pool leaks due to structural distress. The Commission further notes that potential structural distress to the proposed pool could result from such potential hazards as slope movements, slide activity, or catastrophic failure during an earthquake. The introduction of water directly into the slope from such a structural failure of the pool could result in potential slope failure. This is of particular concern in view of the geometry of the terrace/Monterey Formation contact (dipping down-slope) and the very low factor of safety (1.011) calculated by the applicant's geotechnical consultants for Cross Section E-E under earthquake loading conditions. Therefore, in order to ensure that the proposed pool is designed in a manner that minimizes the potential for structural failure and to ensure slope stability on site, Special Condition One (1), in part, requires the applicant to submit revised plans which show that the proposed pool is designed as a free-standing structure (walls of the pool do not rely on the lateral support of the soil) set below grade.

For the reasons explained above, the Commission finds that surface drainage from the site of the proposed development, as conditioned, will not increase the risk of landslides. The Commission also finds that the location of the proposed septic system away from the landslide and the conditions regarding irrigation and pool design will insure that infiltration to groundwater is minimized.

As discussed above, the subject site is located on a coastal bluff top. As stated above, due to the inherent geologic instability of bluffs, Policy 164 of the LUP, in concert with the Coastal Act, provides that new development shall be set back a minimum of 25 ft. from the top edge of the bluff or a stringline drawn between the nearest corners of the

adjacent structures, whichever distance is greater, in order to ensure geologic and structural stability. In the case of this project, the 25 ft. setback is the greater and proper setback distance, not the stringline measurement. Although the proposed buildings (main residence, guesthouse, two garages) and the pool will be setback 25 ft. or more from the top edge of the bluff, the Commission notes that portions of the proposed driveway will be located less than 25 ft. from the delineated top edge of the bluff. Specifically, the fill slope for approximately 75 linear ft. of the proposed driveway on the west side of the property will be located only 11 ft. from top edge of the bluff (the paved portion of the driveway will be located only 15 from the top edge of the bluff). In addition, the fill slope for approximately 60 linear ft. of the driveway on the central portion of the site (between the main residence and the guest house) will be setback only 19 ft. from the bluff edge. Therefore, in order to ensure geologic and structural stability, Special Condition One (1) requires the applicant, prior to the issuance of the coastal permit, to submit, for the review and approval of the Executive Director, revised project plans which show that the proposed driveway (including all associated grading and fill slopes) will be located no less than 25 ft. from the seaward most top edge of the bluff as delineated on Exhibit 3. Therefore, the Commission notes that, only as conditioned, will all development (with the exception of landscaping and drainage improvements which serve to increase the geologic stability of the site) be setback at least 25 ft. or more from the bluff edge as consistent with past Commission action and Policy 164 of the LUP.

Further, the Commission also notes that the amount of new cut grading proposed by the applicant is larger than the amount of fill to be placed and will result in approximately 672 cu. yds. of excess excavated material. Excavated materials that are placed in stockpiles are subject to increased erosion. The Commission also notes that additional landform alteration would result if the excavated material were to be retained on site. In order to ensure that excavated material will not be stockpiled on site and that landform alteration is minimized, Special Condition Seven (7) requires the applicant to remove all excavated material, including concrete debris resulting from the removal of the existing pool, from the site to an appropriate location and provide evidence to the Executive Director of the location of the disposal site prior to the issuance of the permit. Should the dump site be located in the Coastal Zone, a coastal development permit shall be required.

As discussed above, the Commission notes that the applicant's engineering consultants have indicated that the proposed development will serve to ensure relative geologic and structural stability on the subject site. However, the Commission also notes that the Limited Geologic and Soils Engineering Investigation Report by GeoConcepts, Inc. dated 10/23/97 indicates that three separate landslides are located on the bluff slope in the south eastern portion of the subject site. The Commission further notes that because there remains some inherent risk in building on sites underlain or located adjacent to a landslide, such as the subject site, and due to the fact that the proposed project is located in an area subject to an extraordinary potential for damage or destruction from wild fire, the Commission can only approve the project if the applicant assumes the

liability from the associated risks as required by Special Condition Nine (9). This responsibility is carried out through the recordation of a deed restriction. The assumption of risk deed restriction, when recorded against the property, will show that the applicant is aware of and appreciates the nature of the hazards which exist on the site and which may adversely affect the stability or safety of the proposed development and agrees to assume any liability for the same.

It should be noted that an assumption of risk deed restriction for hazardous geologic conditions and danger from wildfire is commonly required for new development throughout the greater Malibu/Santa Monica Mountains region in areas where there exist potentially hazardous geologic conditions, or where previous geologic activity has occurred either directly upon or adjacent to the site in question. The Commission has required such deed restrictions for other development throughout the Malibu/Santa Monica Mountains region.

Therefore, for the reasons discussed above, the Commission finds that the proposed project, as conditioned, is consistent with Section 30253 of the Coastal Act.

C. Visual Resources

Section **30251** of the Coastal Act states that:

> ***The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinated to the character of its setting.***

Coastal Act Section 30251 requires that visual qualities of coastal areas shall be considered and protected, landform alteration shall be minimized, and where feasible, degraded areas shall be enhanced and restored. In addition, to assist in the determination of whether a project is consistent with Section 30251 of the Coastal Act, the Commission has, in past Malibu coastal development permit actions, looked to the certified County of Los Angeles Malibu/Santa Monica Mountains Land Use Plan (LUP) for guidance. The LUP has been found to be consistent with the Coastal Act and provides specific standards for development along the Malibu coast and within the Santa Monica Mountains. For instance, in concert with Section 30251 of the Coastal Act, Policy 125 of the LUP provides that new development shall be sited and designed to protect public views from LCP-designated scenic highways to and along the shoreline. Policy 125 further provides that, where feasible, new development on sloped terrain should be set below road grade. Policy 130 of the LUP provides that in highly

scenic areas and along scenic highways, new development and landscaping shall be sited so as to not significantly intrude into the skyline. Policy 138 of the LUP provides that new development on the ocean side of and fronting Pacific Coast Highway shall occupy no more than 80% of the lineal frontage of the site. In addition, Policy 141 of the LUP provides that "fencing or walls to be erected on the property shall be designed and constructed to allow for view retention from scenic roadways." Further, Policy 142 of the LUP provides that new development along scenic roadways, such as Pacific Coast Highway, shall be set below the road grade on the down hill side wherever feasible to protect designated ocean views.

The project site is a vacant bluff top lot on the seaward side of Pacific Coast Highway in a partially built-out area of Malibu primarily consisting of residential development. Pacific Coast Highway is designated as a scenic highway for coastal views by the LUP. In addition, the subject site is designated as a Priority One (highest scenic value) viewshed for Pacific Coast Highway by the LUP. All vegetation has been previously removed from the bluff top portion of the site. Views of the ocean from Pacific Coast Highway are available across the entire 430 ft. wide lot. Further, the Commission notes that Pacific Coast Highway is also a major coastal access route, not only utilized by local residents, but also heavily used by tourists and visitors to access several public beaches located in the surrounding area which are only accessible from Pacific Coast Highway. Public views of the beach and water from Pacific Coast Highway have been substantially reduced, or completely blocked, in many areas by the construction of single family residences, privacy walls, fencing, landscaping, and other residential related development between Pacific Coast Highway and the ocean. This type of development limits the public's ability to view the coast or ocean to only those few parcels which have not yet been developed. The Commission notes that the construction of individual beachfront or bluff top residences, when viewed on a regional basis, results in potential cumulative adverse effects to public views and to the visual quality of coastal areas.

In past permit actions, consistent with Coastal Act Section 30251, the Commission has required that new development located on the seaward side of Pacific Coast Highway be sited and designed to protect public bluewater views of the ocean and, where feasible, to restore and enhance visual quality in visually degraded areas. Specifically, in regard to new development located on beachfront lots, where it is not possible to limit the height of new structures to an elevation lower than the highway, the Commission has required that new development occupy no more than 80% of the lineal frontage of Pacific Coast Highway in order to maintain a public view corridor over the lot for ocean views [Saban (4-99-146), Broad (4-99-185), 4-99-154 (Montanaro)]. However, in past permit actions regarding development on bluff top sites where slopes descend seaward from the highway, such as the proposed project site, the Commission has further limited the height of new structures and landscaping to an elevation adequate to ensure that public views of the ocean are retained over the entire project site [CDPs 4-98-142, 143, & 163 (Duggan & Levinson), CDP 4-97-031 (Anvil), CDP 5-90-020 (Young)]. Coastal Development Permits 4-98-142, 143 and 163 were approved by the Commission in

1998 for the construction of three new single family residences on the three separate neighboring vacant lots immediately east of the subject site. The Commission notes that the approved single family residences on the neighboring lots to the east were limited to a single story of no more than 18 ft. in height in order to ensure that ocean views were retained above the rooflines of the residences.

In the case of the proposed project, the Commission notes that the proposed 28 ft. high main residence, although located downslope from Pacific Coast Highway, will extend approximately 5 or more ft. higher in elevation than the highway and will significantly reduce or completely block public views of the ocean over a portion of the subject site. In addition, although the proposed accessory structures (guest house and garages) will be less than 18 ft. in height from existing grade, due to the closer location of these structures in relation to the highway and slope elevation, portions of these structures will also exceed the elevation of Pacific Coast Highway by approximately 2-3 ft and result in adverse effects to public views of the ocean from the highway. Staff has confirmed during a site visit that the proposed structures would significantly block public views of the ocean from Pacific Coast Highway. At Staff's request, prior to the site visit, the project site was staked with poles adequate to indicate the footprint and height of the proposed buildings. Staff notes, based on visual analysis of the staked project site, that the rooflines of all proposed structures would extend near or above the horizon line significantly blocking public bluewater views of the ocean from the highway. Therefore, in order to ensure that adverse effects to public views are minimized, Special Condition One (1) requires the applicant to submit revised project plans which show that all proposed development will be no more than 20 ft. in height above existing grade and will not, in any case, exceed the 175 ft. elevation line in height (approximate elevation of Pacific Coast Highway). Any substantial changes to the footprint of the proposed structures will require an amendment to this permit. The Commission notes that Special Condition One (1) will still allow the applicant to construct a large multi-level residence (including the proposed 1,500 sq. ft. "basement" level located below the first floor of the residence shown on Exhibit 6) and that it is clearly feasible to redesign this project consistent with Section 30251 of the Coastal Act and the guidance provided by Policy 142 of the LUP which mandates that views to the ocean be protected. In addition, the Commission notes that any future development on the subject site (such as a new structure, a second-story addition, changes to the roofline, or landscaping) would result in potential adverse effects to visual resources on the subject site. Therefore, Special Condition Eight (8) requires the applicant to record a future improvements deed restriction to ensure that any future structures, additions, or landscaping that would otherwise be exempt from coastal permit requirements are reviewed by the Commission.

In addition, the Commission also notes that public views of the ocean from Pacific Coast Highway have been significantly reduced or completely blocked by landscaping associated with residential development. Currently, the ocean is visible from Pacific Coast Highway over the entire parcel since all vegetation has been previously removed from the bluff top area of the site. However, the Commission notes that new

landscaping on the subject site will result in a potential reduction in the public's ability to view the ocean from the highway. Therefore, Special Condition Two (2) has been required to ensure that vegetation on the subject site shall be limited to low-lying species that will not block or adversely impact public views of the ocean from the highway. Vegetation within Zone A (generally located upslope and near the highway), as shown on Exhibit 4b, shall be limited to no more than 2 ft. in height. Vegetation within Zone B (general located downslope and farther from the highway), as shown on Exhibit 4b, shall be limited to no more than 14 ft. in height. In no case shall any vegetation on the subject site exceed the 175 ft. elevation line in height (approximate elevation of Pacific Coast Highway). The use of any vegetation of greater height than otherwise provided for above may be allowed only if the Executive Director determines that such landscaping is consistent with the intent of this condition and will serve to minimize adverse effects to public views.

The proposed project also includes a large amount of grading that will result in landform alteration of the subject site (approximately 1,302 cu. yds. of cut and 630 cu. yds. of fill). However, in the case of the this project, the Commission notes that the majority of the proposed grading is for excavation that will allow the proposed structures and driveway to be "set" lower into the hillside, thereby reducing the amount of structural surface visible from upslope public viewing areas such as Pacific Coast Highway. As such, the Commission notes that the proposed grading plan will serve to minimize adverse effects to public views on the subject site.

Further, the proposed project includes the construction and installation of a new concrete v-ditch drainage system on the bluff slope. The Commission notes that the proposed drainage system will minimize erosion and increase the geologic stability of the subject site. The Commission also notes that the minimization of erosion on the subject site will also serve to protect public views of the bluff slope on the subject site from Malibu Road. However, the Commission further notes that the proposed concrete v-ditch drainage system itself will result in adverse effects to the visual quality of the subject site if constructed using white or non-earthtone colors. Therefore, Special Condition Six (6) requires that the proposed concrete v-ditch drainage system on the bluff face be earthtone in color and designed to blend with the surrounding bluff slope in order to minimize adverse effects to visual resources.

The Commission notes that the proposed project includes the construction of a 42 inch high solid masonry wall with a wrought iron fence on top located adjacent to Pacific Coast Highway. The Commission further notes that even a relatively short, 42 inch high, solid privacy wall and gate in the proposed location, immediately adjacent to Pacific Coast Highway, would diminish the public's ability to view the ocean from the highway and would not be consistent with either the above referenced policies of the LUP or with past Commission action regarding the protection of public views along the coast. The Commission further notes that a feasible alternative to the construction of the proposed solid wall and gate structure would include the construction of a less visually intrusive fence and gate. Therefore Special Condition One (1) requires the

applicant to submit, for the review and approval of the Executive Director, revised project plans which show that the 42 inch high solid masonry wall/gate is deleted in order to ensure that adverse effects to public views of the ocean from the highway are minimized. The Commission notes that Special Condition One (1) will still allow the applicant to submit revised plans, for the review and approval of the Executive Director, which would allow for the construction of a fence/gate along Pacific Coast Highway, provided that such a fence is of a design that is (1) of a visually permeable design and material (e.g. wrought iron or non-tinted glass material); (2) no more than 6 ft. in height; and (3) all bars, beams, or other non-visually permeable materials used in the construction of the proposed fence are no more than 1 inch in thickness/width and placed no less than 12 inches in distance apart. Alternative designs may be allowed only if the Executive Director determines that such designs are consistent with the intent of this condition and serve to minimize adverse effects to public views.

Therefore, for the reasons discussed above, the Commission finds that the proposed development, as proposed, will not result in any adverse effects to public views and is consistent with Section 30251 of the Coastal Act.

D. Archaeological Resources

PRC Section 30244 of the Coastal Act states that:

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

Archaeological resources are significant to an understanding of cultural, environmental, biological, and geological history. The proposed development is located in a region of the Santa Monica Mountains which contains one of the most significant concentrations of archaeological sites in southern California. The Coastal Act requires the protection of such resources to reduce the potential adverse impacts through the use of reasonable mitigation measures.

Degradation of archaeological resources can occur if a project is not properly monitored and managed during earth moving activities and construction. Site preparation can disturb and/or obliterate archaeological materials to such an extent that the information that could have been derived would be permanently lost. In the past, numerous archaeological sites have been destroyed or damaged as a result of development. As a result, the remaining sites, even though often less rich in materials, have become increasingly valuable as a resource. Further, because archaeological sites, if studied collectively, may provide information on subsistence and settlement patterns, the loss of individual sites can reduce the scientific value of the sites which remain intact.

A portion of Archaeological Site CA-LAN-803 is located on the subject site. The recorded map of CA-LAN-803 indicates that the archaeological site extends over almost the entire subject site, including the proposed locations for the residence, guesthouse, pool, and two detached garages. A Phase II archaeological study of the subject site consisting of the archaeological excavation of 31 shovel test pits and four 1 x 1 meter excavation pits located on different areas of the subject site has been previously conducted. The study concluded that although some artifacts have been discovered on the subject site, CA-LAN-803 is not highly significant from an archaeological perspective. The Phase 2 (Test Phase) of Archaeological Site CA-LAN 803 Report by E. Gary Stickel, Ph.D. dated March 1999, states:

> ***Given the lack of variability of the data recovered from the 35 units [test pits] that were excavated for the Test Phase (Phase 2)...with only a few formal tools recovered and with the vast majority of the data limited to waste flaked material (debitage)...it would appear that site CA-LAN-803 is not a highly significant site (i.e. it lacks major habitation indicators, lacks burials and/or cemeteries, lacks religious site data, and it lacks other unique data that would make it a highly significant site. Nonetheless, if the site does, in fact date to the Early Period, it does provide data important to our understanding of that period (albeit on a limited data set basis).***

The Phase II Report concludes that further archeological excavation on the site is not necessary and the City has adopted this recommendation. The applicant's consultant has conducted further investigation of the archeological resources at the site, as part of a Phase III (Data Collection/Artifact Recovery) Program, which included collection of all artifacts on the site.

Although the above mentioned archaeological study found that the subject site is not highly significant from an archaeological perspective, the Commission notes that archaeological artifacts have been found on the subject site and that the proposed project may result in potential adverse effects to archaeological resources from grading and construction activity. In addition, several letters of concern, including several comments and reports by Dr. Chester King, archaeologist, have been received by staff which assert the subject site should be considered significant in regards to archaeological resources (Exhibit 13). However, regardless of the different assertions by all concerned parties regarding the actual significance of the site, the Commission notes that the presence of archaeological artifacts on the subject site is undisputed. As such, the Commission also notes that potential adverse effects may occur to those resources as a result of the proposed development and that; therefore, reasonable mitigation measures should be required pursuant to Section 30244 of the Coastal Act.

In addition, staff has received letters from both the State Office of Historic Preservation (OHP) and the State Native American Heritage Commission (NAHC) regarding the proposed project (Exhibits 13a & 13b). The NAHC expressed concern regarding whether consultation with the appropriate Chumash groups had occurred in regards to the proposed project. The letter from the NAHC dated 2/23/00 states:

> ***The concerns of the Native American Heritage Commission (NAHC) regarding the Trento project deal with whether or not there was meaningful consultation with the appropriate Chumash Native American groups and individuals. I was contacted by Susan McCabe acting on behalf of Mr. and Mrs. Trento and provided her with a list of the appropriate Native Americans who should have been contacted regarding any concerns they have about cultural resources...From conversations that I have conducted with a random group of the people on the list, I have determined that (1) they were aware of the project (through the grapevine) however, (2) there was no formal written contact by Dr. Stickle for input regarding any concerns they might have...No one expressed to me any concerns about the monitoring on the project...I would recommend that all of the groups and individuals on the list provided to be Ms. McCabe be invited to view and comment on the site before construction begins.***

The Commission notes that although the "list" referred to in the above letter was not provided to Commission staff, the NAHC did indicate that they had found that the appropriate Native American Groups and individuals "were aware of the project." In addition, the applicant has since indicated to staff that the individuals included on the NAHC's list have been formally notified of the project by letter. However, regardless, of the noticing requirements of the NAHC, the Commission notes that no assertions have been made by any of the concerned parties that the proposed project has not been properly noticed pursuant to the requirements of the Coastal Act.

In addition, as mentioned above, the State Office of Historic Preservation (OHP) has reviewed the archaeological studies conducted by both Dr. King and Dr. Stickle on the subject site. The OHP has indicated that they are in agreement with the recommendations of the previously completed Phase II Study which recommends that further excavation of the subject site is not necessary, although additional surface collection of artifacts should be implemented prior to construction. The letter from the OHP dated 3/20/00 states:

> ***Stickel (1999) recommends that no further excavation in the main site area be conducted as mitigation. He advocates that "there should be a complete surface collection of all formal artifact tools at the main site." The results of this effort should be analyzed and formally reported. The OHP agrees with this but also recommends that additional mitigation should include avoidance of archaeological materials or features with sterile soils if avoidance is not possible, the recovery and reporting of archaeological material discovered during construction should also be considered a function of successful mitigation.***

As recommended by the OHP, a complete surface collection of artifacts on the subject site has already been completed as part of the Phase III (Data Collection/Artifact Recovery) Program to mitigate adverse effects from the proposed project. The OHP also recommends that the proposed project be sited in a manner that avoids archaeological materials. In this case, the Commission notes, based on information submitted by both Dr. King and Dr. Stickle, that archaeological resources are located over the majority of the site and that; therefore, there are no feasible alternative locations for the proposed development that would eliminate potential adverse effects to archaeological resources. The Commission further notes that, with the exception of

the proposed guest house garage, the proposed development will be generally sited in a manner to avoid those areas of the site where the greatest concentration of artifacts have been identified. Although the proposed guest house garage will be located within an area mapped by Dr. King as an area of higher artifact concentration, the Commission notes that Dr. Stickle has previously conducted two 1 x 1 meter excavation pits in the location of the guest house garage as part of the Phase III (Data Collection/Artifact Recovery) program in order to mitigate potential adverse effects to those resources.

In past permit actions regarding development on sites containing significant archaeological resources, the Commission has typically required that the applicant conduct a Phase II (Test Phase) Archaeological Study of the site to develop a better understanding of the archaeological resources which may be disturbed by a proposed project and, if warranted, a Phase III (Data Collection/Artifact Recovery). In this case, it is not necessary to require such testing since a Phase II Study and a Phase III (Data Collection/Artifact Recovery) Program has been previously completed on the subject site by the applicant's archaeological Consultant. As previously discussed, the Phase II portion of the program included the study of 31 shovel test pits and four 1 x 1 meter excavation pits located on different areas of the subject site where development is proposed. The Phase III Program included the surface collection of artifacts, two 1 x 1 meter excavation pits in the location of the proposed guest house garage, and a shovel test pit in the area of an identified shell midden.

In addition, in past permit actions regarding development on sites containing archaeological resources the Commission has also required that a qualified archaeologist and appropriate Native American consultant be present on-site during all grading, excavation, and site preparation that involve earth moving operations. Therefore, to ensure that adverse effects to archaeological resources are minimized during the construction of the proposed development (and as recommended in the letter from OHP dated 3/20/00) Special Condition Four (4) requires that the applicant have a qualified archaeologist(s) and appropriate Native American consultant(s) present on-site during all grading, excavation and site preparation in order to monitor all earth moving operations. In addition, if any significant archaeological resources are discovered during construction, work shall be stopped and an appropriate data recovery strategy shall be developed by the City of Malibu's archaeologist, the applicant's archaeologist, and the Native American consultant consistent with California Environmental Quality Act (CEQA) guidelines. Further, staff notes that Archaeological Site CA-LAN-803 extends over almost the entire subject parcel. To ensure that any future potential adverse effects to the archaeological resources on site are minimized, Special Condition Eight (8) provides that any future development of the site will be reviewed by the Commission which might otherwise be exempt from permit requirements.

Therefore, the Commission finds that the proposed development, as conditioned, is consistent with Section 30244 of the Coastal Act.

E. Cumulative Impacts

Sections 30250 and 30252 of the Coastal Act address the cumulative impacts of new developments. Section **30250 (a)** of the Coastal Act states:

> ***(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.***

Section **30252** of the Coastal Act states:

> ***The location and amount of new development should maintain and enhance public access to the coast by (l) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing non-automobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.***

New development raises coastal issues related to cumulative impacts on coastal resources. The construction of a second unit on a site where a primary residence exists intensifies the use of a parcel increasing impacts on public services, such as water, sewage, electricity and roads. New development also raises issues as to whether the location and amount of new development maintains and enhances public access to the coast.

Based on these policies, the Commission has limited the development of second dwelling units (including guest houses) on residential parcels in the Malibu and Santa Monica Mountain areas. The issue of second units on lots with primary residences has been the subject of past Commission action in the certification of the Santa Monica Mountains/Malibu Land Use Plan (LUP). In its review and action on the Malibu LUP, the Commission found that placing an upper limit on the size of second units (750 sq. ft.) was necessary given the traffic and infrastructure constraints which exist in Malibu and given the abundance of existing vacant residential lots. Furthermore, in allowing these small units, the Commission found that the small size of units (750 sq. ft.) and the fact that they are likely to be occupied by one or at most two people would cause such units to have less impact on the limited capacity of Pacific Coast Highway and other roads (including infrastructure constraints such as water, sewage, electricity) than an

ordinary single family residence. (Certified Malibu Santa Monica Mountains Land Use Plan 1986, page 29 and P.C.H. (ACR), 12/83 page V-1 - VI-1).

The second unit issue has also been raised by the Commission with respect to statewide consistency of both coastal development permits and Local Coastal Programs (LCPs). Statewide, additional dwelling units on single family parcels take on a variety of different forms which in large part consist of: 1) a second unit with kitchen facilities including a granny unit, caretaker's unit, or farm labor unit; and 2) a guesthouse, with or without separate kitchen facilities. Past Commission action has consistently found that both second units and guest houses inherently have the potential to cumulatively impact coastal resources. Thus, conditions on coastal development permits and standards within LCP's have been required to limit the size and number of such units to ensure consistency with Chapter 3 policies of the Coastal Act in this area (Certified Malibu Santa Monica Mountains Land Use Plan 1986, page 29).

As proposed, the 749 sq. ft. second residential unit (guesthouse) conforms to the Commission's past actions allowing a maximum of 750 sq. ft. for a second dwelling unit in the Malibu area. However, the Commission notes that any future improvements or additions to the structure would increase the size of the guest unit beyond the maximum of 750 sq. ft. and constitute a violation of this coastal development permit. Therefore, Special Condition Ten (10) has been required to ensure that any additions or improvements to the guesthouse structure will be reviewed by the Commission.

Therefore, the Commission finds that, as conditioned, the proposed development is consistent with Sections 30250 and 30252 of the Coastal Act.

F. Water Quality

The Commission recognizes that new development in the Santa Monica Mountains has the potential to adversely impact coastal water quality through the removal of native vegetation, increase of impervious surfaces, increase of runoff, erosion, and sedimentation, introduction of pollutants such as petroleum, cleaning products, pesticides, and other pollutant sources, as well as effluent from septic systems. Section 30231 of the Coastal Act states that:

> ***The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, minimizing alteration of natural streams.***

As described above, the proposed project includes the construction of a single family residence, garage, guest house, guest house garage, driveway, concrete v-ditch drainage system, septic system, and approximately 3,802 cu. yds. of grading (1,302 cu. yds. of cut, 630 cu. yds. of fill, and 1,870 cu. yds. of removal and recompaction). The conversion of the project site from its natural state will result in an increase in the amount of impervious surface and reduction in the naturally vegetated area. Further, use of the site for residential purposes will introduce potential sources of pollutants such as petroleum, household cleaners and pesticides, as well as other accumulated pollutants from rooftops and other impervious surfaces.

The removal of natural vegetation and placement of impervious surfaces allows for less infiltration of rainwater into the soil, thereby increasing the rate and volume of runoff, causing increased erosion and sedimentation. Additionally, the infiltration of precipitation into the soil allows for the natural filtration of pollutants. When infiltration is prevented by impervious surfaces, pollutants in runoff are quickly conveyed to coastal streams and to the ocean. Thus, new development can cause cumulative impacts to the hydrologic cycle of an area by increasing and concentrating runoff, leading to stream channel destabilization, increased flood potential, increased concentration of pollutants, and reduced groundwater levels.

Such cumulative impacts can be minimized through the implementation of drainage and polluted runoff control measures. In addition to ensuring that runoff is conveyed from the site in a non-erosive manner, such measures should also include opportunities for runoff to infiltrate into the ground. Methods such as vegetated filter strips, gravel filters, and other media filter devices allow for infiltration. Because much of the runoff from the site would be allowed to return to the soil, overall runoff volume is reduced and more water is available to replenish groundwater and maintain stream flow. The slow flow of runoff allows sediment and other pollutants to settle into the soil where they can be filtered. The reduced volume of runoff takes longer to reach streams and its pollutant load will be greatly reduced.

As described above, the project is conditioned to implement and maintain a drainage plan designed to ensure that runoff rates and volumes after development do not exceed pre-development levels and that drainage is conveyed in a non-erosive manner. This drainage plan is required in order to ensure that risks from geologic hazard are minimized and that erosion and sedimentation is minimized. In order to further ensure that adverse impacts to coastal water quality do not result from the proposed project, the Commission finds it necessary to require the applicant to incorporate filter elements that intercept and infiltrate or treat the runoff from the site as required by Special Condition Six (6). Such a plan will allow for the infiltration and filtering of runoff from the developed areas of the site, most importantly capturing the initial, "first flush" flows that occur as a result of the first storms of the season. This flow carries with it the highest concentration of pollutants that have been deposited on impervious surfaces during the dry season. Additionally, the applicant must monitor and maintain the drainage and

polluted runoff control system to ensure that it continues to function as intended throughout the life of the development.

Finally, the proposed development includes the installation of an on-site septic system to serve the residence. The applicants' geologic consultants performed percolation tests and evaluated the proposed septic system. The report concludes that the site is suitable for the septic system and there would be no adverse impact to the site or surrounding areas from the use of a septic system. Finally, the City of Malibu Environmental Health Department has given in-concept approval of the proposed septic system, determining that the system meets the requirements of the plumbing code. The Commission has found that conformance with the provisions of the plumbing code is protective of resources. Therefore, the Commission finds that the proposed project, as conditioned to incorporate and maintain a drainage and polluted runoff control plan, is consistent with Section 30231 of the Coastal Act.

G. Local Coastal Program

Section **30604** of the Coastal Act states that:

> ***a) Prior to certification of the local coastal program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the permitted development will not prejudice the ability of the local government to prepare a local program that is in conformity with the provisions of Chapter 3 (commencing with Section 30200).***

Section 30604(a) of the Coastal Act provides that the Commission shall issue a Coastal Permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act. The preceding sections provide findings that the proposed project will be in conformity with the provisions of Chapter 3 if certain conditions are incorporated into the project and accepted by the applicant. As conditioned, the proposed development will not create adverse impacts and is found to be consistent with the applicable policies contained in Chapter 3. Therefore, the Commission finds that approval of the proposed development, as conditioned, will not prejudice the City's ability to prepare a Local Coastal Program for Malibu which is also consistent with the policies of Chapter 3 of the Coastal Act as required by Section 30604(a).

H. CEQA

Section 13096(a) of the Commission's administrative regulations requires Commission approval of Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent

with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Commission finds that, the proposed project, as conditioned will not have significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed project, as conditioned, has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.

SMH-VNT

File:smh/permits/regular/4-99-169 Trento report

EXHIBITS

General Exhibits

Exhibit 1:	Location Map
Exhibit 2:	Parcel Map
Exhibit 3:	Aerial Photograph of Site
Exhibit 4a:	Site Plan/Grading Plan
Exhibit 4b:	Site Plan/Vegetation Zones
Exhibit 5:	Cross Section of Subject Site
Exhibit 6:	Main Residence: Cross Sections
Exhibit 7:	Main Residence: Elevations
Exhibit 8:	Guest House Plans
Exhibit 9:	Main House Garage Plans
Exhibit 10:	Guest House Garage Plans

Letters of Concern Regarding Geologic Issues

Exhibits 11a-b:	Two Letters from Donald B. Kowalewsky Regarding Concern with Project (Geologic Consultant for Neighboring Property Owner)
Exhibits 11c-g:	Five Letters of Concern from Neighboring Property Owners
Exhibits 11h:	Response Letter to Geologic Concerns by GeoConcepts
Exhibits 11i:	Response Letter to Drainage Concerns by Land Design Consultants

Letters of Concern Regarding Visual Issues

Exhibit 12a:	Letter from Neighboring Property Owner
Exhibit 12b:	Letter from Applicant's Consultant to Chairperson Wan in Opposition to Special Condition One

Letters of Concern Regarding Archaeological Resources

Exhibit 13a:	Letter from the State of California Office of Historic Preservation
Exhibit 13b:	Letter from the State of California Native American Heritage Commission
Exhibit 13c:	Letter from the City of Malibu
Exhibit 13d:	Letter from the Sierra Club
Exhibit 13e:	Letter from the Surfer's Environmental Alliance
Exhibits 13f-k:	Six Letters of Concern from Members of the Public
Exhibit 13l:	Letter from Carol Pulido (Chumash Monitor/Consultant for Applicant)
Exhibit 13m:	Letter (with attached reports) from Dr. Chester King (Archaeologist)
Exhibit 13n:	Letter from Dr. Gary Stickel (Archaeological Consultant for Applicant) in Rebuttal to Letter by Dr. King

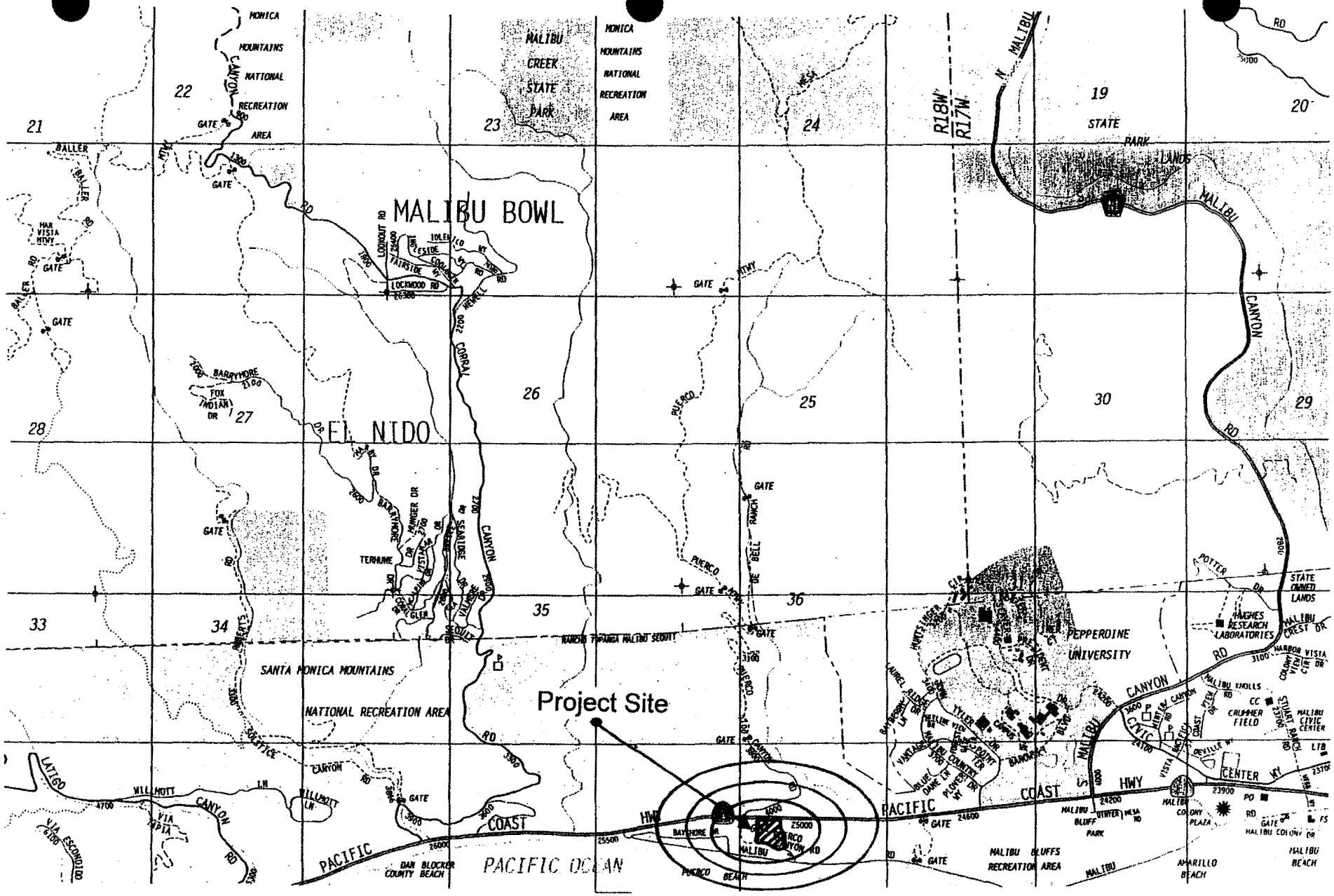


EXHIBIT 1
CDP 4-99-169 (Trento)
Location Map

4458	15
SCALE 1" = 200'	

1992

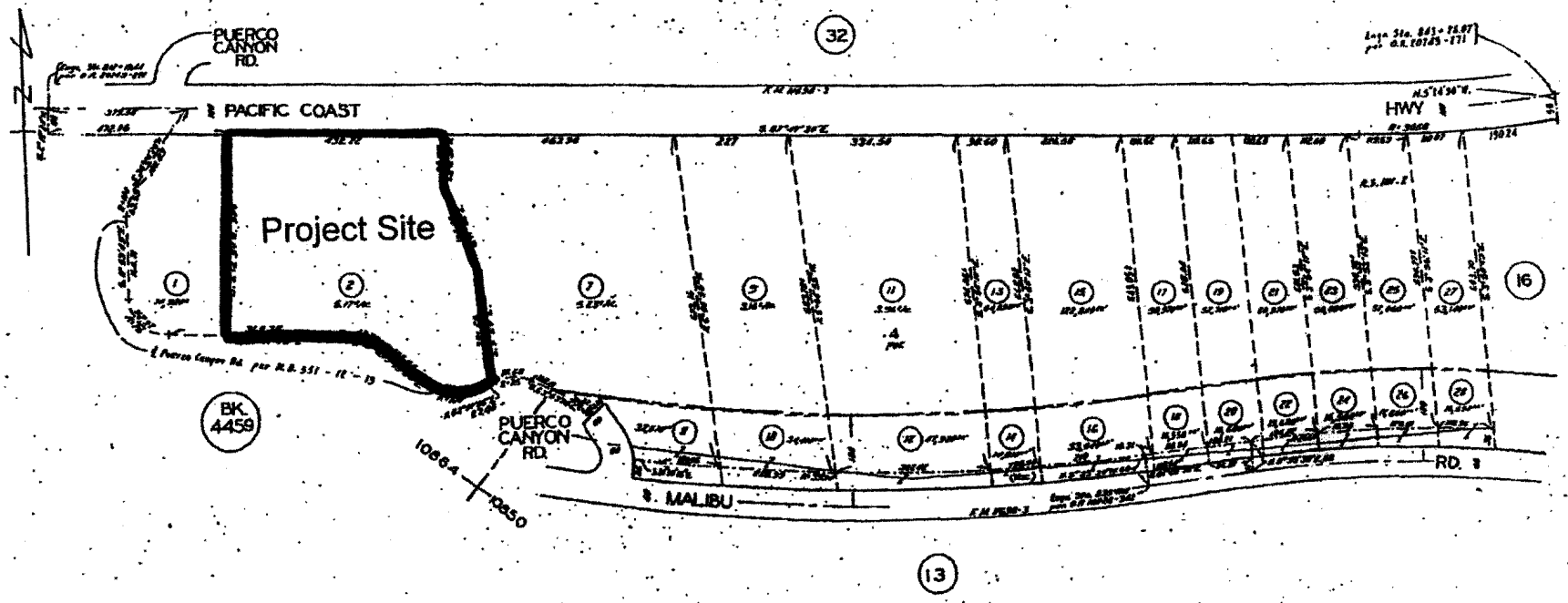
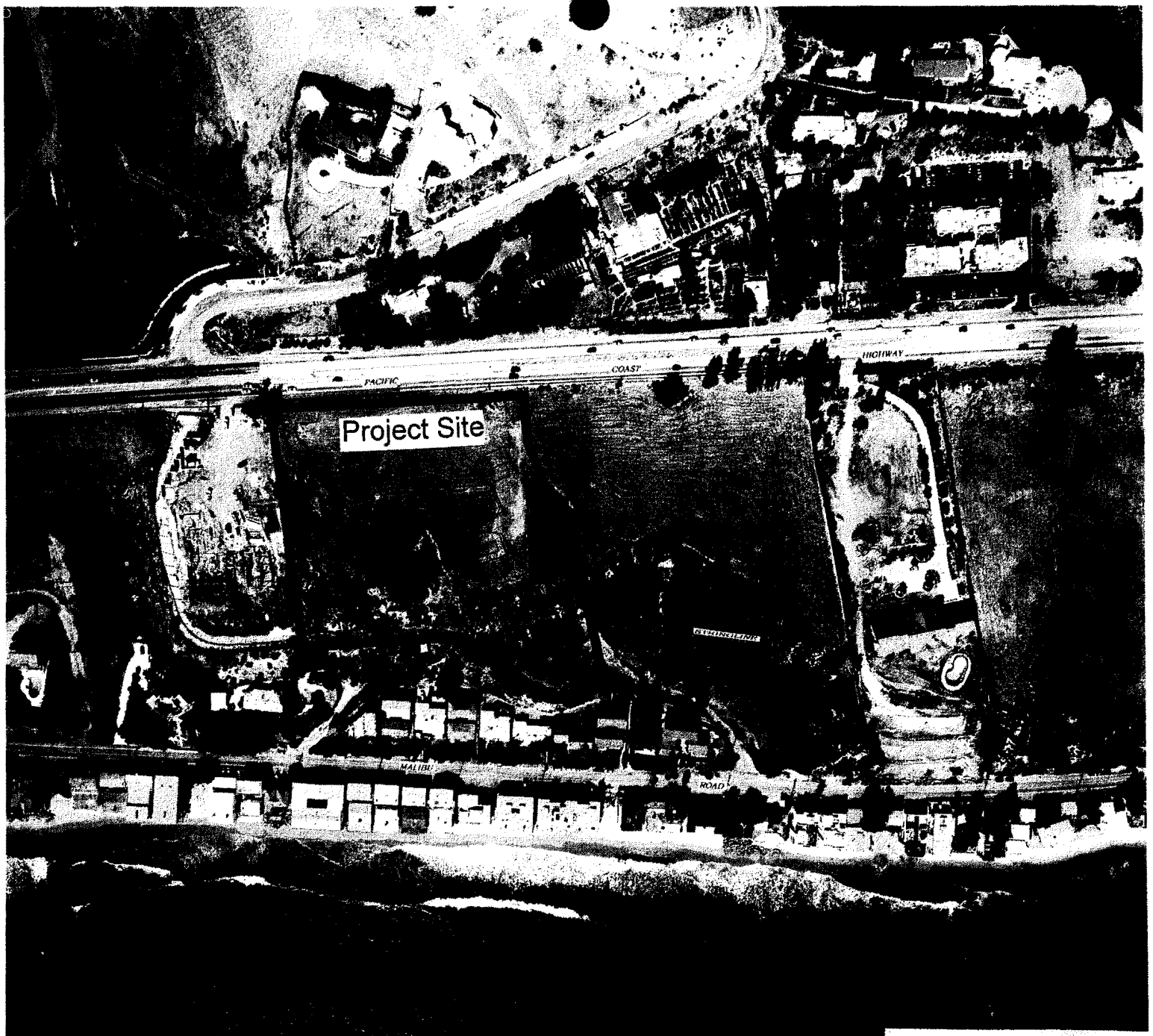
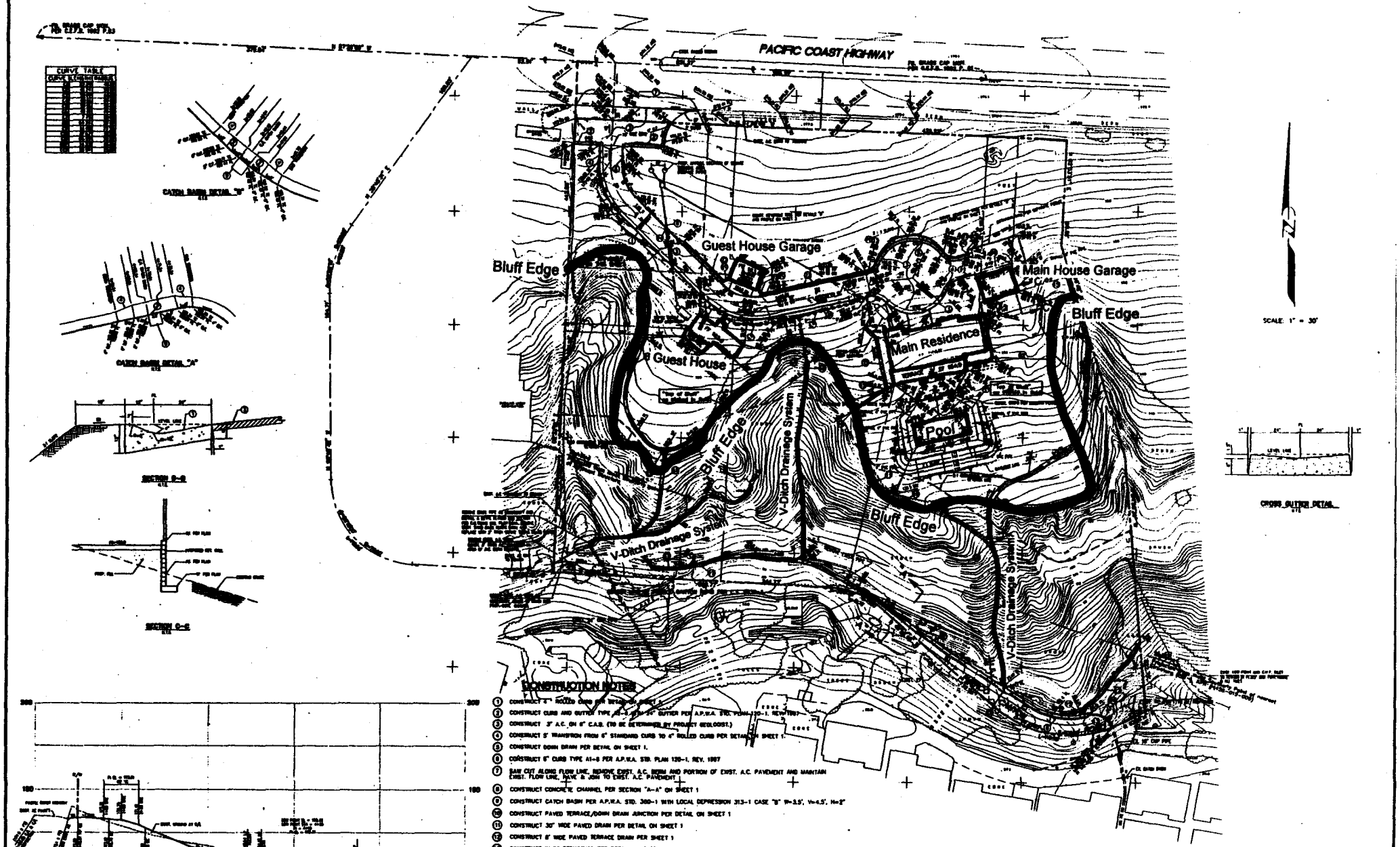


EXHIBIT 2
CDP 4-99-169 (Trento)
Parcel Map



Note: See Site Plan (Exhibit 4) for Minor Revision to Location of Driveway by Applicant.

EXHIBIT 3
CDP 4-99-169 (Trento)
Aerial Photograph



CURVE TABLE			
CURVE	RADIUS	DELTA	LENGTH
[illegible]	[illegible]	[illegible]	[illegible]

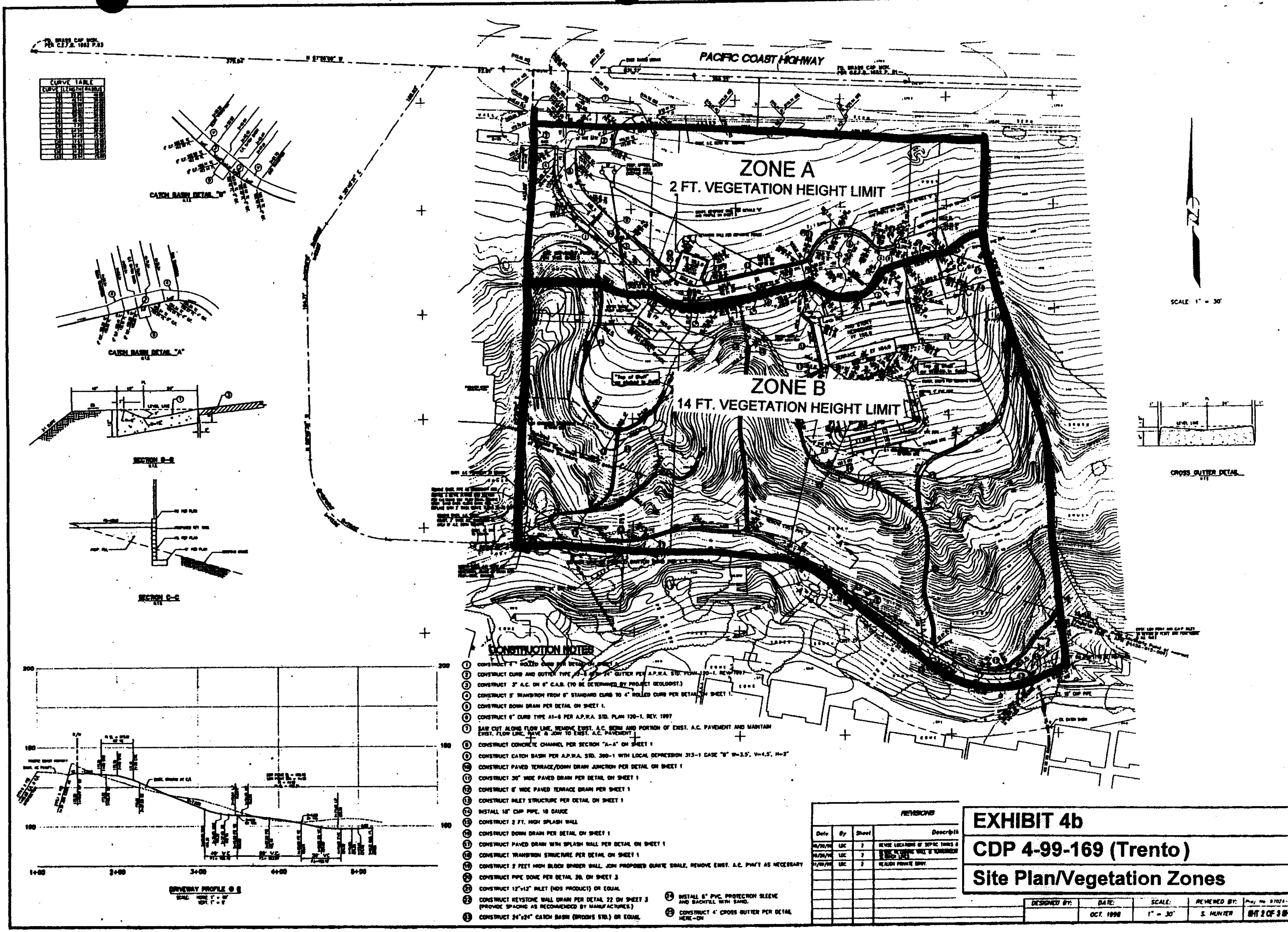
CONSTRUCTION NOTES

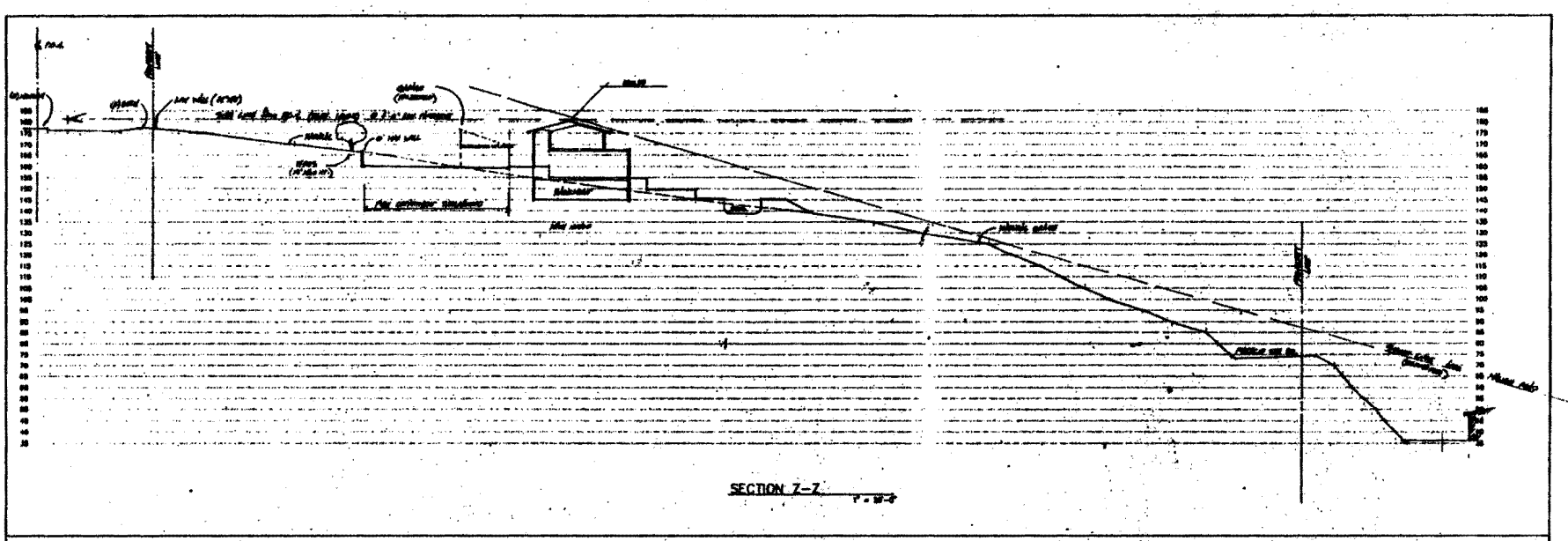
1. CONSTRUCT 4" ROLLED CURB PER DETAIL ON SHEET 1
2. CONSTRUCT CURB AND GUTTER TYPE A1-6 PER 24" GUTTER PER A.P.W.A. STD. PLAN 120-1, REV. 1997
3. CONSTRUCT 3" A.C. ON 6" C.A.B. (TO BE DETERMINED BY PROJECT GEOLOGIST.)
4. CONSTRUCT 5' TRANSITION FROM 6" STANDARD CURB TO 4" ROLLED CURB PER DETAIL ON SHEET 1.
5. CONSTRUCT DOWN DRAIN PER DETAIL ON SHEET 1.
6. CONSTRUCT 6" CURB TYPE A1-6 PER A.P.W.A. STD. PLAN 120-1, REV. 1997
7. SAW CUT ALONG FLOW LINE, REMOVE EXIST. A.C. BERM AND PORTION OF EXIST. A.C. PAVEMENT AND MAINTAIN EXIST. FLOW LINE, MAKE & JOIN TO EXIST. A.C. PAVEMENT
8. CONSTRUCT CONCRETE CHANNEL PER SECTION "A-A" ON SHEET 1
9. CONSTRUCT CATCH BASIN PER A.P.W.A. STD. 360-1 WITH LOCAL DEPRESSION 313-1 CASE "B" W=3.5', V=4.5', H=2"
10. CONSTRUCT PAVED TERRACE/DOWN DRAIN JUNCTION PER DETAIL ON SHEET 1
11. CONSTRUCT 30" WIDE PAVED DRAIN PER DETAIL ON SHEET 1
12. CONSTRUCT 8' WIDE PAVED TERRACE DRAIN PER SHEET 1
13. CONSTRUCT INLET STRUCTURE PER DETAIL ON SHEET 1
14. INSTALL 18" CMP PIPE, 16 GAUGE
15. CONSTRUCT 2 FT. HIGH SPLASH WALL
16. CONSTRUCT DOWN DRAIN PER DETAIL ON SHEET 1
17. CONSTRUCT PAVED DRAIN WITH SPLASH WALL PER DETAIL ON SHEET 1
18. CONSTRUCT TRANSITION STRUCTURE PER DETAIL ON SHEET 1
19. CONSTRUCT 2 FEET HIGH BLOCK DIVIDER WALL, JOIN PROPOSED GUNITE SWALE, REMOVE EXIST. A.C. PAV'T AS NECESSARY
20. CONSTRUCT PIPE DOME PER DETAIL 26, ON SHEET 3
21. CONSTRUCT 12"x12" INLET (NDS PRODUCT) OR EQUAL
22. CONSTRUCT KEYSTONE WALL DRAIN PER DETAIL 22 ON SHEET 3 (PROVIDE SPACING AS RECOMMENDED BY MANUFACTURES.)
23. CONSTRUCT 24"x24" CATCH BASIN (BROOKS STD.) OR EQ
24. INSTALL 6" PVC, PROTECTION SLEEVE AND BACKFILL WITH SAND.
25. CONSTRUCT 4" CROSS GUTTER PER DETAIL HERE-ON

REVISIONS			
Date	By	Sheet	Description
[illegible]	LDC	3	REVISE LOCATIONS OF SEPTIC TANKS & [illegible]
[illegible]	LDC	3	[illegible]
[illegible]	LDC	2	REVISED PRIVATE DRIV.

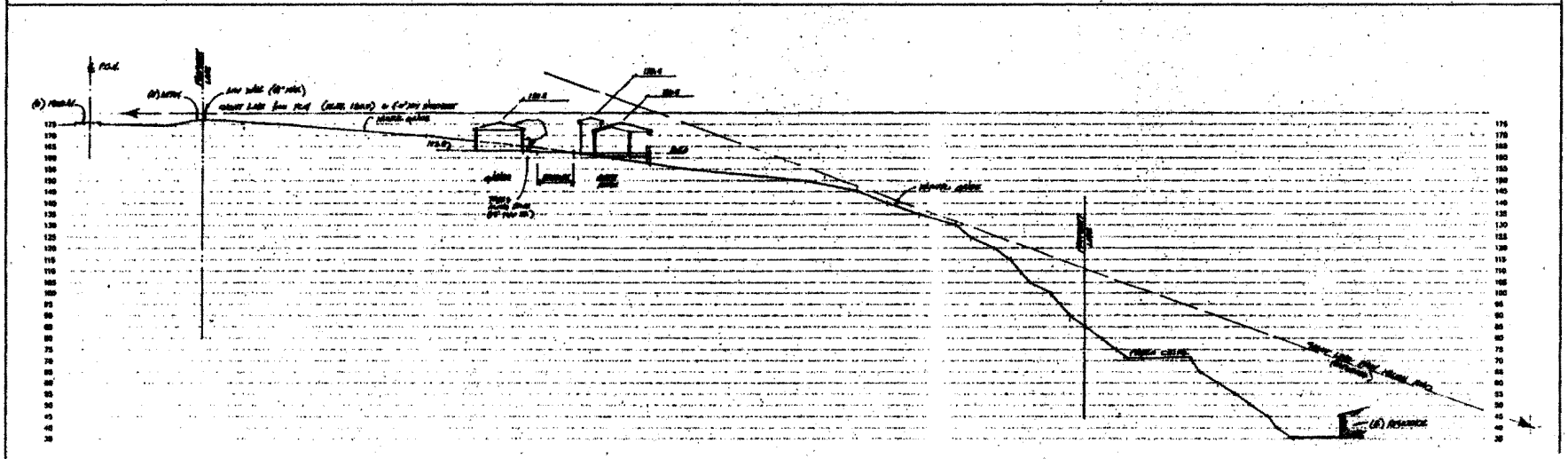
EXHIBIT 4a
CDP 4-99-169 (Trento)
Site Plan/Grading Plan

DESIGNED BY:	DATE:		REVIEWED BY:	Proj. No. 97124-001
	OCT. 1998		S. HUNTER	SHT 2 OF 3 SHTS


PACIFIC COAST HIGHWAY
ZONE A
2 FT. VEGETATION HEIGHT LIMIT
ZONE B
14 FT. VEGETATION HEIGHT LIMIT
SCALE: 1" = 30'
CURVE TABLE
CATCH BASIN DETAIL "B"
CATCH BASIN DETAIL "A"
SECTION B-B
SECTION C-C
CROSS GUTTER DETAIL
DRIVEWAY PROFILE @ ℄
CONSTRUCTION NOTES
1 CONSTRUCT 6" ROLLED CURB PER DETAIL ON SHEET 1
2 CONSTRUCT CURB AND GUTTER TYPE A1-6 W/ 24" GUTTER PER A.P.W.A. STD. PLAN 120-1, REV 1997
3 CONSTRUCT 3" A.C. ON 6" C.A.B. (TO BE DETERMINED BY PROJECT GEOLOGIST.)
4 CONSTRUCT 5' TRANSITION FROM 6" STANDARD CURB TO 4" ROLLED CURB PER DETAIL ON SHEET 1.
5 CONSTRUCT DOWN DRAIN PER DETAIL ON SHEET 1.
6 CONSTRUCT 6" CURB TYPE A1-6 PER A.P.W.A. STD. PLAN 120-1, REV. 1997
7 SAW CUT ALONG FLOW LINE, REMOVE EXIST. A.C. BERM AND PORTION OF EXIST. A.C. PAVEMENT AND MAINTAIN EXIST. FLOW LINE, PAVE & JOIN TO EXIST. A.C. PAVEMENT
8 CONSTRUCT CONCRETE CHANNEL PER SECTION "A-A" ON SHEET 1
9 CONSTRUCT CATCH BASIN PER A.P.W.A. STD. 300-1 WITH LOCAL DEPRESSION 313-1 CASE "B" W=3.5', V=4.5', H=2'
10 CONSTRUCT PAVED TERRACE/DOWN DRAIN JUNCTION PER DETAIL ON SHEET 1
11 CONSTRUCT 30" WIDE PAVED DRAIN PER DETAIL ON SHEET 1
12 CONSTRUCT 6' WIDE PAVED TERRACE DRAIN PER SHEET 1
13 CONSTRUCT INLET STRUCTURE PER DETAIL ON SHEET 1
14 INSTALL 18" CMP PIPE, 16 GAUGE
15 CONSTRUCT 2 FT. HIGH SPLASH WALL
16 CONSTRUCT DOWN DRAIN PER DETAIL ON SHEET 1
17 CONSTRUCT PAVED DRAIN WITH SPLASH WALL PER DETAIL ON SHEET 1
18 CONSTRUCT TRANSITION STRUCTURE PER DETAIL ON SHEET 1
19 CONSTRUCT 2 FEET HIGH BLOCK BINDER WALL, JOIN PROPOSED GUNITE SWALE, REMOVE EXIST. A.C. PVM'T AS NECESSARY
20 CONSTRUCT PIPE DOME PER DETAIL 20, ON SHEET 3
21 CONSTRUCT 12"x12" INLET (NDS PRODUCT) OR EQUAL
22 CONSTRUCT KEYSTONE WALL DRAIN PER DETAIL 22 ON SHEET 3 (PROVIDE SPACING AS RECOMMENDED BY MANUFACTURES)
23 CONSTRUCT 24"x24" CATCH BASIN (BROOKS STD.) OR EQUAL
24 INSTALL 6" PVC PROTECTION SLEEVE AND BACKFILL WITH SAND.
25 CONSTRUCT 4' CROSS GUTTER PER DETAIL HERE-ON
REVISIONS
Date
By
Sheet
Description
EXHIBIT 4b
CDP 4-99-169 (Trento)
Site Plan/Vegetation Zones
DESIGNED BY:
DATE: OCT. 1998
SCALE: 1" = 30'
REVIEWED BY: S. HUNTER
SHT 2 OF 3 SHTS



SECTION Z–Z



SECTION X–X

EXHIBIT 5

CDP 4-99-169 (Trento)

Cross Section of Subject Site

SHEET LIVE STUDY

ERIC T. FISHBURN, INC.

the Trento Residence

A1.2

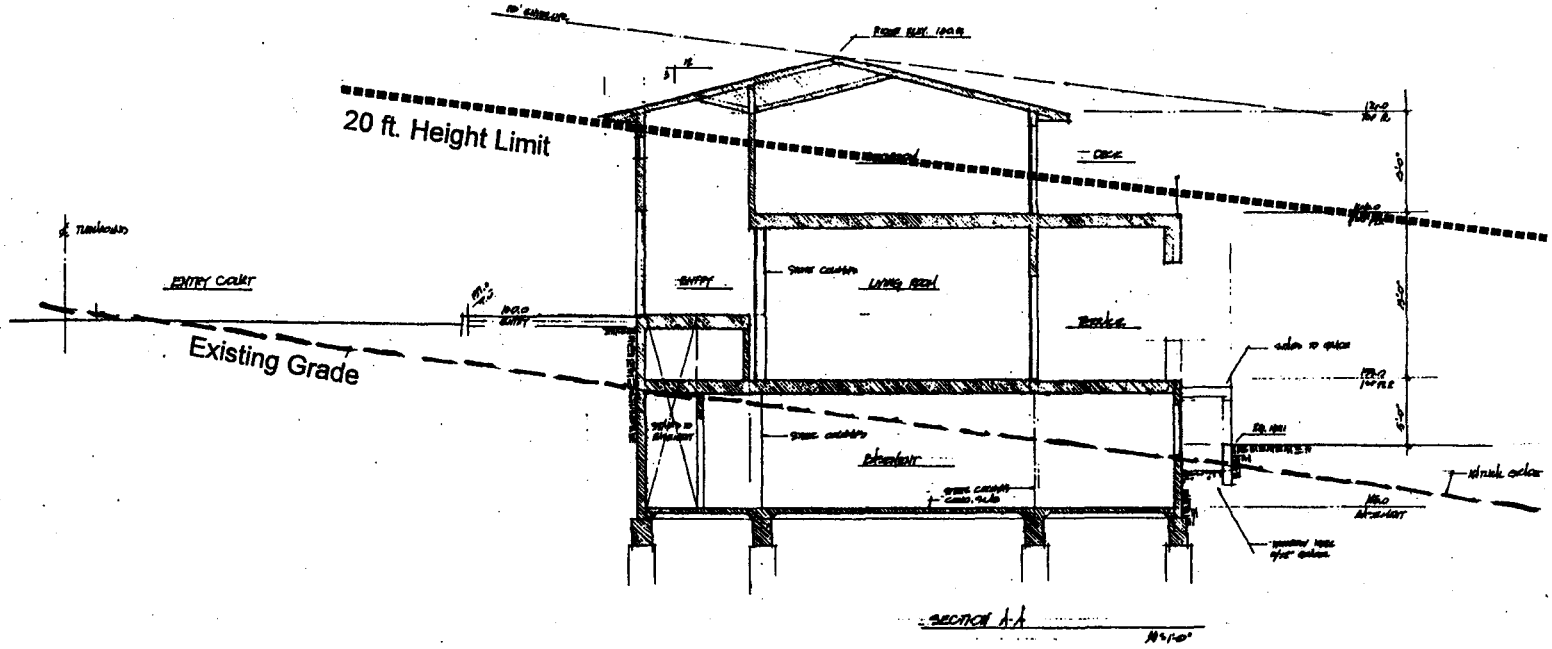


EXHIBIT 6

CDP 4-99-169 (Trento)

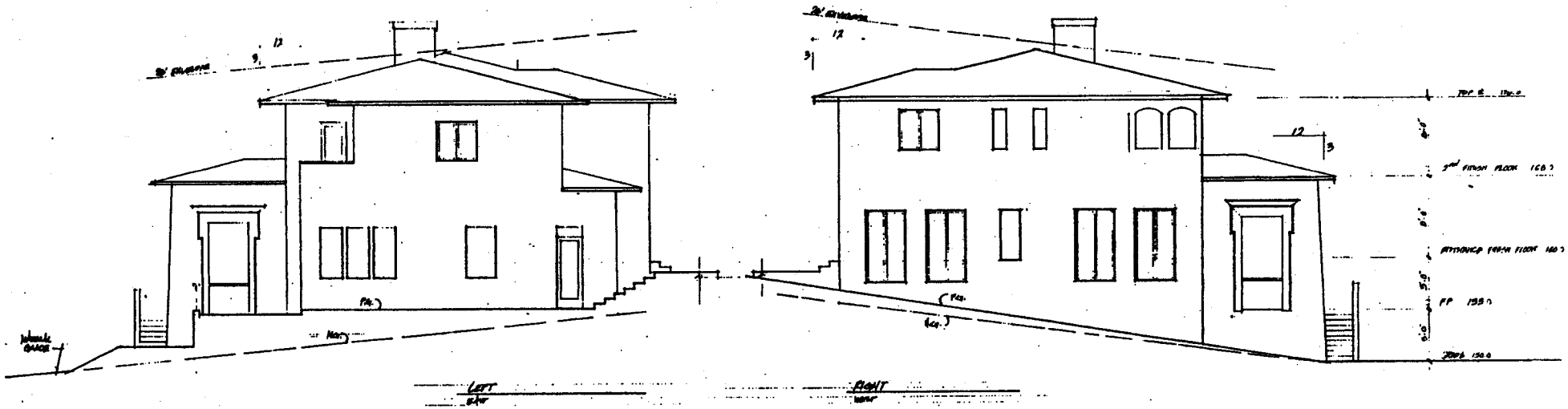
Main Residence Cross Sections

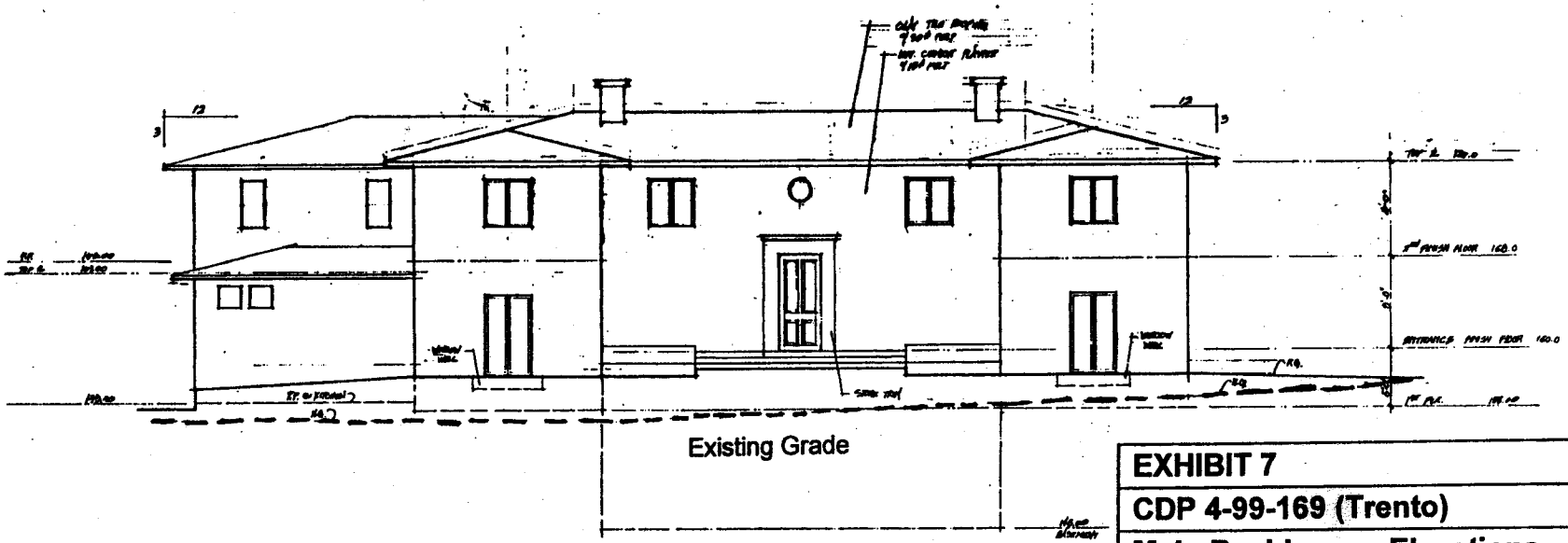
ERIC T. FISHBURN, INC.

the Trento Residence

MAIN HOUSE
EXTERIOR ELEVATIONS

A3.2





View from Pacific Coast Highway (North)

EXHIBIT 7

CDP 4-99-169 (Trento)

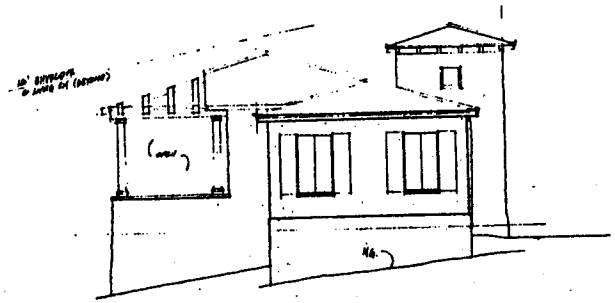
Main Residence: Elevations

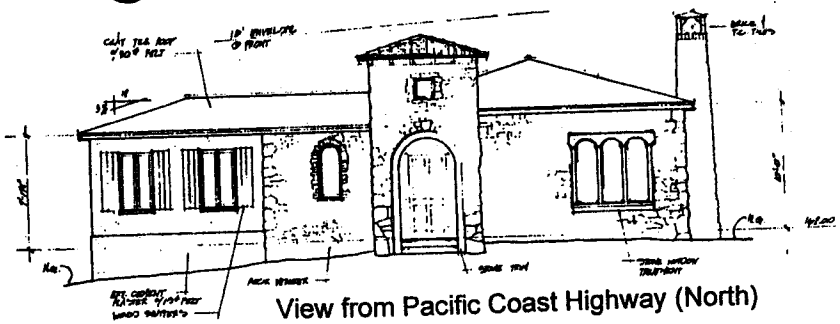
ERIC T. FEHRBURN, INC.

Del Trento Residence

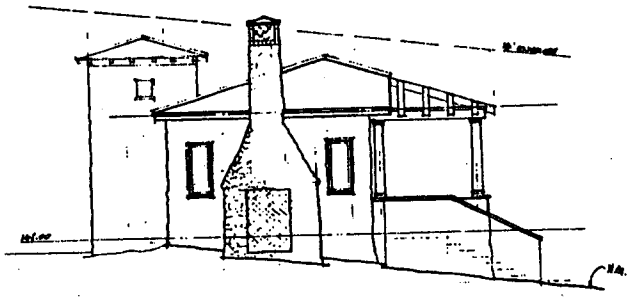
MAIN HOUSE
EXTERIOR ELEVATIONS

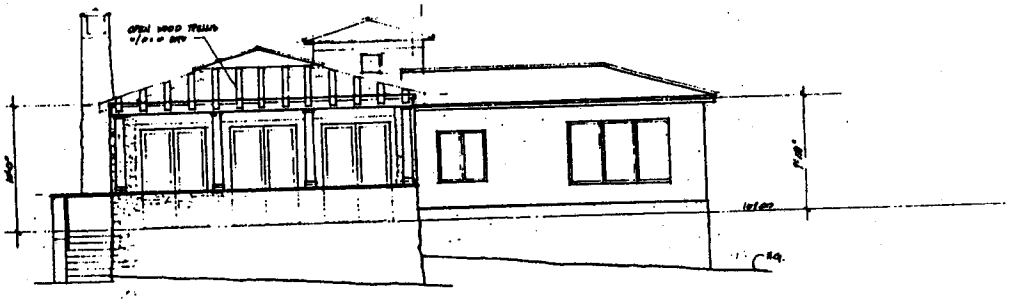
A3.1



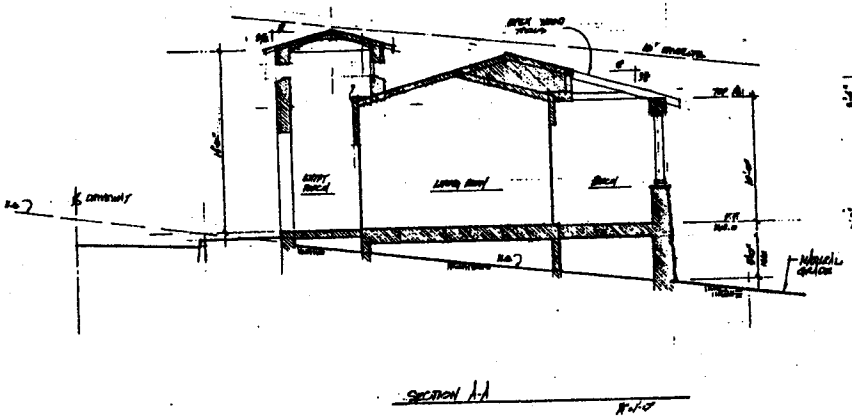


View from Pacific Coast Highway (North)





View from South



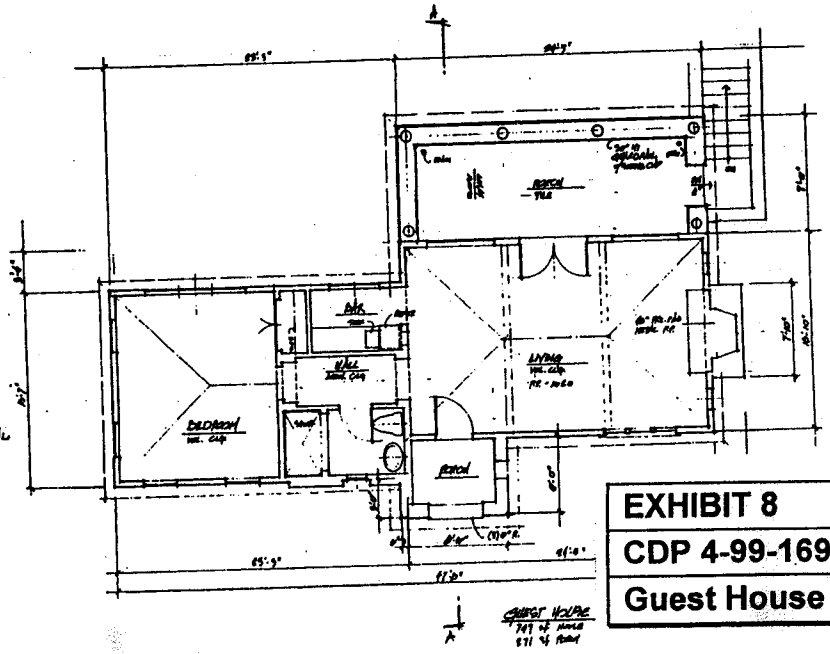
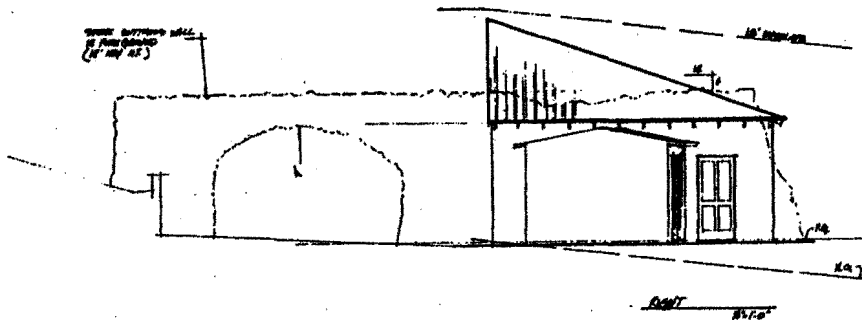
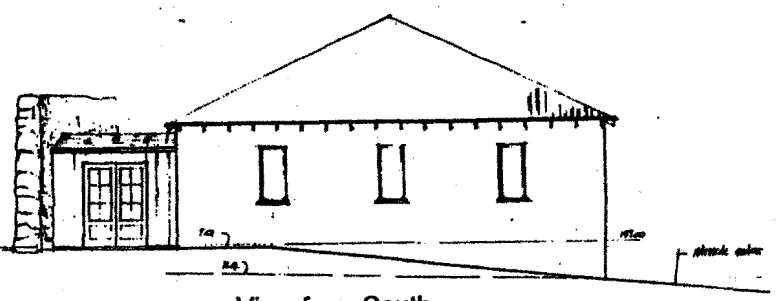
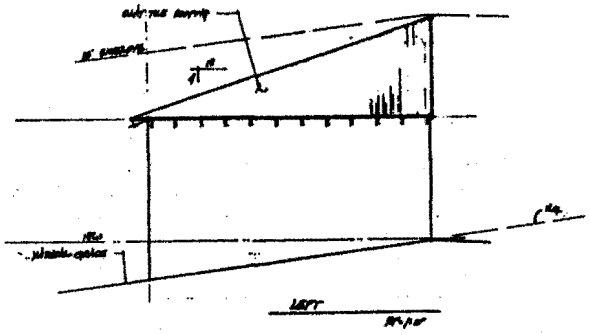


EXHIBIT 8
CDP 4-99-169 (Trento)
Guest House Plans

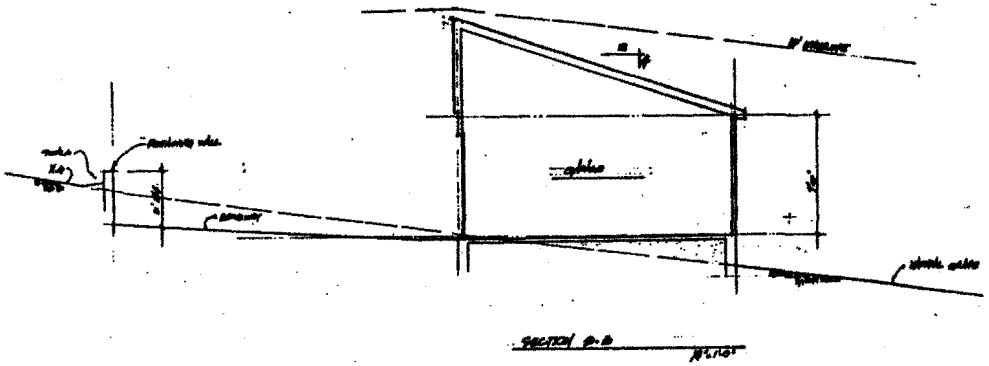




View from South



View from Pacific Coast Highway (North)



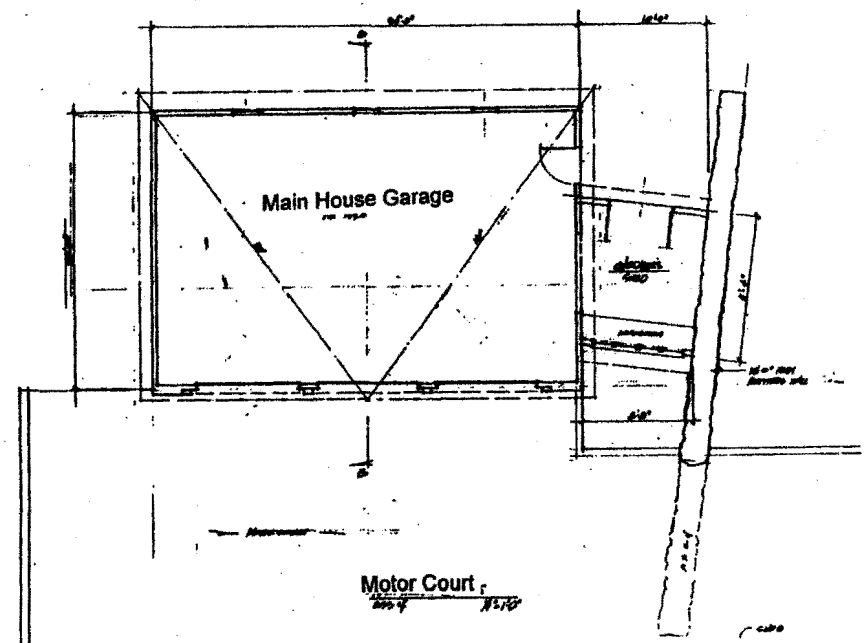


EXHIBIT 9

CDP 4-99-169 (Trento)

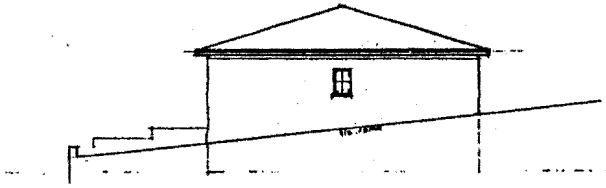
Main House Garage Plans

ERIC T. REHBURN, INC.

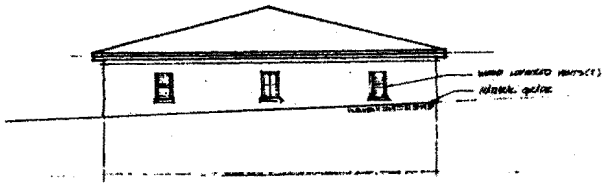
Los Trentos Residence

MAIN HOUSE GARAGE

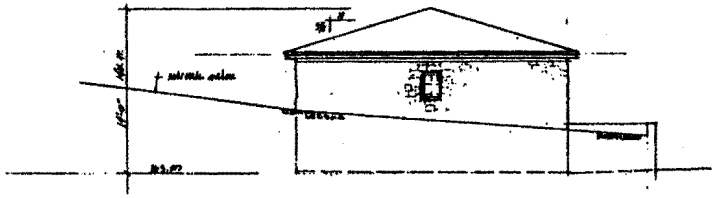
A5



RIGHT



View from Pacific Coast Highway (North)



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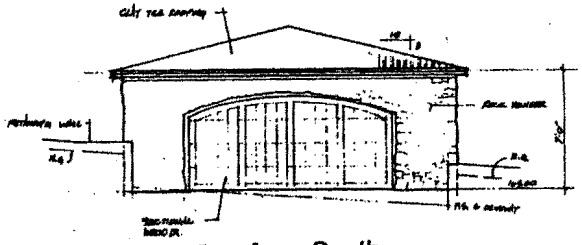
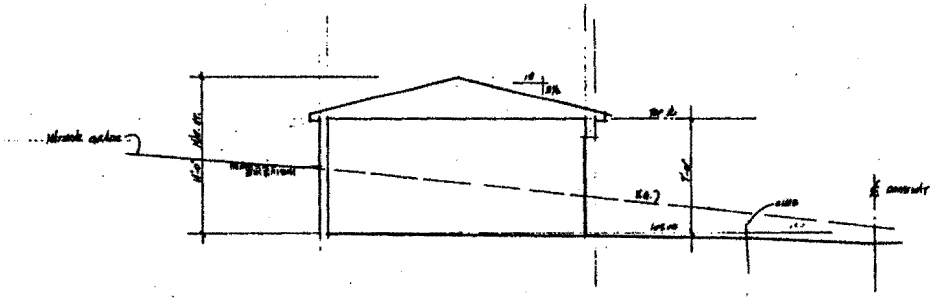


View from South



SECTION C-C

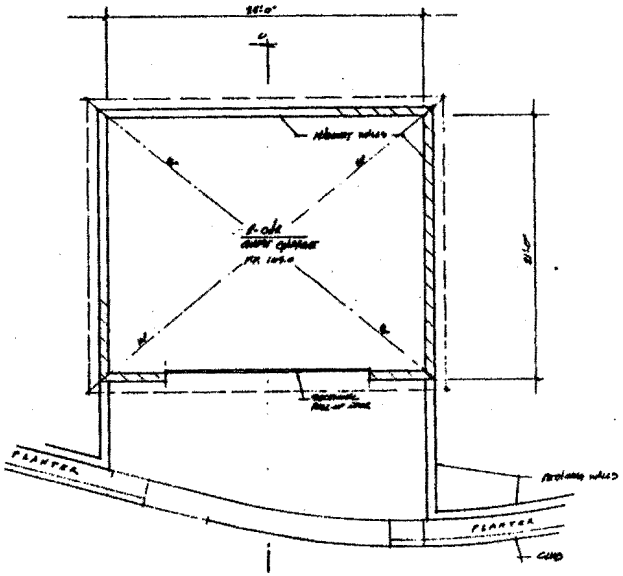


EXHIBIT 10

CDP 4-99-169 (Trento)

Guest House Garage Plans

GUEST HOUSE GARAGE

The Trento Residence

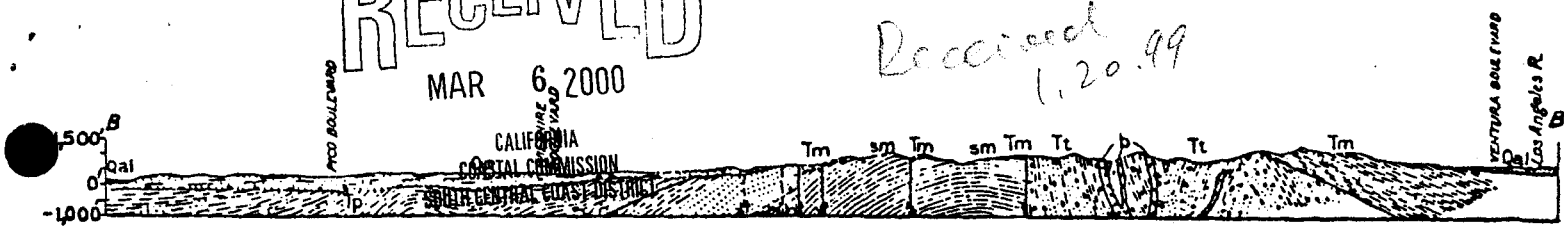
ERIC T. REHBURN INC.

A6

LETTERS OF CONCERN REGARDING GEOLOGIC ISSUES

RECEIVED
MAR 6 2000
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

Received 1.20.99



Donald B. Kowalewsky

ENVIRONMENTAL & ENGINEERING GEOLOGY

January 14, 1999
Job #98628F7.001

Malibu Department of Building and Safety
Attn.: Craig George
23555 Civic Center Way
Malibu, CA 90265

SUBJECT: Geologic memorandum concerning currently active landslide affecting properties located at 25113-17 Malibu Road, 25123 Malibu Road, 25126 Pacific Coast Highway and approximately 25100 Pacific Coast Highway, Malibu, California.

An active landslide has involved portions of the four subject properties as shown on the accompanying geologic map. In 1979, a general geologic report of landslides along this portion of Malibu Road was prepared for the County by Geotechnical Consultants, Inc. That report provided recommendations for remediation of landslides in the area, however, those recommendations were never implemented. The subject landslide significantly reactivated during the intense storm season of 1997 and 1998 and is still creeping. Several foot wide ground fissures have developed, two retaining walls are near collapse, private roadway access to several residences is impaired, and septic systems have been put at risk. Each of these conditions can be considered a danger to public health.

My clients wish to mitigate risk to their property, but I have advised them that they cannot repair only that portion of the landslide on their property without temporarily putting the other properties at increased risk during construction. They must work with the other three adjoining property owners. I believe the City should investigate this condition and the potential health risks, order each property owner to eliminate hazards within their property, and advise them to work in conjunction with all other property owners so that a comprehensive repair can be achieved.

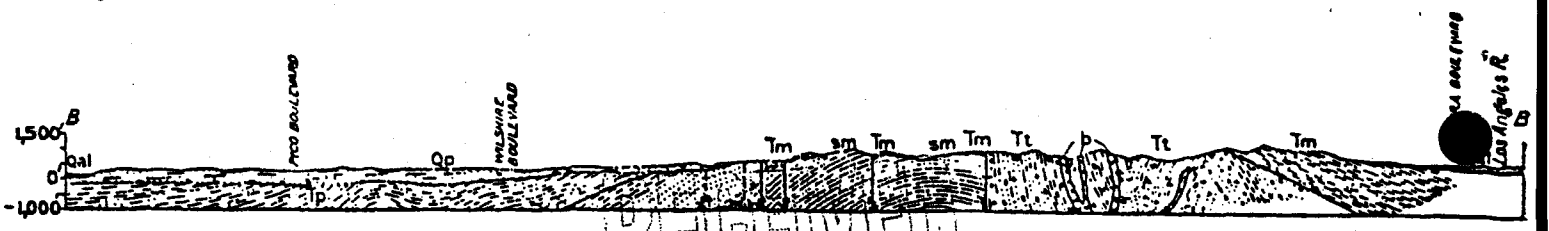
Attached is a list of property owners and their current addresses.

Donald B. Kowalewsky
Certified Engineering Geologist 1025

27101 Old Chimney Road
Malibu, California 90265

(310) 457-2456

EXHIBIT 11a
CDP 4-99-169 (Trento)
Letter from Neighbor's Geologist



Donald B. Kowalewsky

ENVIRONMENTAL & ENGINEERING GEOLOGY

RECEIVED
JAN 1 0 REC'D
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

January 5, 2000
Job #98628F7.001

Albert and Yvonne Weber
25123 Malibu Road
Malibu, CA 90265

CALIFORNIA COASTAL COMMISSION APPLICATION No. 4-99-169

SUBJECT: Geologic memorandum concerning potential effect of development at 25126 Pacific Coast Highway on active landslide on that site and adjacent properties.

This office has prepared two previous letters concerning the active landslide (Figure 1) that is affecting your property and adjacent properties. That landslide is a small portion of a substantially larger ancient landslide (Figure 2) that involves most of the ascending slope. I revisited the landslide area on January 4, 2000 and observed evidence of enlargement of the active landslide. The area of recent cracks which indicate lateral enlargement of the active landslide are illustrated on Figure 1. Proposed drainage facilities (that are planned as part of the development at 25126 Pacific Coast Highway) and an existing drainage basin (with 18" pipe) are within the area of most recent movement. Previous geologic reports prepared for development of 25126 Pacific Coast Highway did not map the most recent movement, therefore, no recommendations for remediation of the landslide were provided.

Page 11 of the Coastal Commission Staff report quotes GeoConcepts, Inc. indicating the proposed project will be free of landslide risks and will not adversely affect offsite properties. Because of the most recent landslide movement, this statement is no longer correct.

A previous letter regarding the active landslide was sent to the City of Malibu by this office. Because of the risks to multiple property owners, the City held a meeting following their written request that all property owners attend. Based on that meeting, subsequent landslide evaluations were to be performed. The City Geologist approved the project at 25126 Pacific Coast Highway, from a planning standpoint, with the following notice:

"City Geotechnical Staff attended a meeting at City Hall on March 23, 1999 to discuss remedial repair alternatives for landslide Qls 2. It was agreed by the three property owners in attendance (the fourth property owner did not attend the meeting) to obtain bids for a survey of the property boundaries and landslide limits. Please contact the undersigned geologic reviewer at 310-456-2489, x306 and Mr, Craig George at ext. 229 to schedule additional meetings regarding this matter".

27101 Old Chimney Road
Malibu, California 90265

(310) 457-2456

EXHIBIT 11b
CDP 4-99-169 (Trento)
Letter from Neighbor's Geologist

That statement indicted the City Geologist anticipated the landslide would be repaired. Therefore, he approved the project. However, the current grading and drainage plan for 25126 Pacific Coast Highway provides for no landslide remediation. Since the drainage system crosses land that is currently moving, and depends upon stability of the land that it crosses to remain functional, the project must include landslide stabilization measures.

Interestingly, review of the drainage and grading plan indicates that the lowest drainage swale, that crosses the active landslide does not follow the ground contours and would require its own grading within the landslide. Yet that grading is not shown on the plan.

As with all landslides of this type, groundwater has the most effect on stability. The proposed drainage system is intended to reduce the amount of surface water affecting the landslide area but does nothing for groundwater. In fact the project, like all new projects will increase groundwater through sewage disposal and irrigation. Typical annual rainfall in this area is 15 to 18 inches per year. Periodically 30 to 40+ inches of precipitation occurs. Landslide movement in the Malibu area is greatest during and shortly after the heavy rains. However, irrigation of ornamental vegetation and lawns commonly approaches the equivalent of 300 inches per year and sewage disposal is typically 300 to 500 gallons per day. Since all sewage waste water and some irrigation water infiltrates into the ground, it will have a negative effect on groundwater. As a consequence, unless the active landslide that is located below the development is stabilized, the project will adversely affect offsite properties.

Donald B. Kowalewsky
Certified Engineering Geologist 1025

RECEIVED
JAN 1 0 REC'D
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

January 4, 2000

California Coastal Commission
South Central Coast Area
89 California St., Suite 200
Ventura, CA 93001

Re; Application # 4-99-169
Applicant: Alfredo and Robin Trento
Project Location: 25126 Pacific Coast Hwy, Malibu (LA)

Dear Commissioners;

We have reviewed the Coastal Commission's staff report on the above referred to property at 25126 Pacific Coast Hwy in Malibu. We are the owners of property at 25123 Malibu Road, which abuts the southeast corner of the above property site. Although we do not object to plans for the development of this beautiful view site property, there are several areas of concern which we would like to address.

1. <u>DRAINAGE SYSTEM:</u>

The runoff from the greatest portion of the building site will be drained via open V-shaped swales, downsloped to portions of the old abandoned Puerco Canyon Road and fed into an 18" drain pipe at the southeast corner of the property. This drain pipe was installed by the County of Los Angeles in the early 1980's to replace the natural drainage once provided by the now collapsed Puerco Canyon Road. It runs south over a failing embankment and then underground via a neighboring sideyard to a storm drain on Malibu Road. The drain was installed on an emergency basis with right of access and a verbal agreement for the County to maintain it. We do not believe an 18" pipe will be adequate to handle all the surface runoff during extended heavy rains via the swales from all the surfaces of the property such as roofs, terraces, driveways, patios and/or tennis courts, etc. We do understand that water collection along swales is advantageous by decreasing ground water absorption but the run-off will now flow at a larger volume and greater speed. We don't think this 18" pipe will be able to accommodate that volume and a larger drainage pipe may be necessary.

See 8x10's photos;
#1 - water flowing from the canyons on the Trento property (looking north)
#2 - the same water flowing down the lower portion of abandoned Puerco Cyn Rd to Malibu Rd storm drain. (looking south)

EXHIBIT 11c
CDP 4-99-169 (Trento)
Letter from Neighbor (Geologic Concern

The drainage from the westerly area of the Trento property is served by a 24" drain which we understand was put in and paid for by Cher with the City agreeing to take over all future flood control maintenance. After speaking with the City engineer we are suggesting a similar project on the eastern portion of the Trento property to be coordinated with the City of Malibu so that the City takes over and maintains the flood control in this vicinity. The maintenance responsibility under your SPECIAL CONDITIONS, POINT 6, should include a yearly inspection by the flood control division of the City of Malibu of all ditches and swales on the applicant's property as well as the storm drain now going underneath our common driveway.

2. **FLOOD CONTROL INLET:**

The existing flood control inlet on the southeast corner of the Trento property, which the planners state will remain in place, has very little support because it edges on a 3 ft drop/slip of the Puerco Canyon Road drainage area. The asphalt around it is failing and cracks in the asphalt appear on the road above it. We feel it needs better anchoring.

See photos # 3 & 4

3. **SLOPE FAILURE:**

Drainage swales over the eastern portion of the property have a high risk of failure because some appear to cross or are adjacent to landslide movement. There are no drainage plans in the staff report which show the landslides on this project and we don't feel the commissioners can make an informed decision without this information. Also rain falling on the existing surface of the asphalt apron put there by LA county in the 1980's will only continue to grease the landslide because of seepage into the large fissures, slippages and deterioration of its surface. At this point we are the ones who cover these surfaces with plywood, plastic sheeting and sandbags in the rainy season. Any improvements of OUR slope below the applicant's property is dependent upon upslope property owners correcting their slope failures. The City of Malibu was in the process of coordinating plans for the remedial repair of the referred to landslide (Qls2) with affected property owners. The Geology and Geotechnical Engineering Dept from The City of Malibu on 4-28-99 approved the plan "in concept" with NOTICE to the applicant. See Don Kowalewsky's memo 1-5-00. We feel slope stabilization would

correct the slope failure/swale failure problem.

See copy of memorandum by Don Kowalewsky (Geologist) dated 1-14-99
See copy of memorandum by Don Kowalewsky (Geologist) dated 1-5-2000
See photo # 5

Unless the above items are addressed (Drainage and Slope Failure) we cannot agree with the staff's approval of this project.

Thank you for letting us voice our concerns.

Sincerely,

Albert and Yvonne Weber
25123 Malibu Road,
Malibu, CA 90265
(310 456-8828)

enclosures:
Copies- photographs #1 thro #5
Copy-a) letter to Christopher Dean dated 7-26-98
b) memorandum by Don Kowalewsky, Geologist dated 1-14-99
c) memorandum by Don Kowalewsky, Geologist, dated 1-5-00

RECEIVED
JAN 13 REC'D
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

GLORIA AUSTIN
25143 Malibu Road
Malibu, CA 90265
January 13, 2000

RE: PERMIT 4-99-169 before the Coastal Commission
Project Site - 25126 Pacific Coast Hwy, Malibu, CA 90265

My name is Gloria Austin and I live at 25143 Malibu Road. My property abuts the southern edge of the above referred project site.

Although I am not opposed to this applicant's project in general I am nevertheless worried about future drainage maintenance or lack thereof. Should the large development's water be allowed to spill over the swales along and near the old abandoned Puerco Canyon Road a major landslide could be triggered. Because of the height and steepness of the slope behind my house, our driveway would be buried and "out of use" for myself and other neighbors.

I feel that with your approval of this development a recorded maintenance contract should be part and parcel of this project so that ALL the people affected by this construction can benefit from it. We live downslope from the proposed development and would therefore benefit by not having to worry about hillside saturation and failures from the uncontrolled waters.

Thank you for letting my concerns be read into the record to-day.

Gloria Austin

GLORIA AUSTIN
(310 456-8079)

EXHIBIT 11d
CDP 4-99-169 (Trento)
Letter from Neighbor (Geologic Concern

William and Jonnie Handley
2415 High Lonesome Trail
Lafayette, Colorado 80026
jlhandley@juno.com

RECEIVED
JAN 06 2000
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

January 3, 2000

California Coastal Commission
South Central Coast Area
83 South California Street, suite 200
Ventura, California 93001

Re: Coastal Permit application
Permit No. 4-99-169

Dear Commissioners:

Thank you for the notification of the public hearing regarding the proposed construction of a 6,706 sq. ft. residence at 25126 Pacific Coast Highway, Malibu, California (APN(s) 4458-015-002). While we have no objection to the reasonable development of the mentioned site, we do have major concerns involving current and increased ground water problems. We have been attempting to maintain an unstable mass directly above our home at 25135 Malibu Road (below to proposed building site) subsequent to the county abandoning maintenance of Puerco Road upon Malibu becoming a city. Sand bags, a fence to hold back falling debris, constant removal of plant growth in the concrete swales, and the filling of cracks in the asphalt of what was once Puerco Road are all a part of our maintenance to keep water runoff from further eroding the hillside behind our home.

Concerns regarding the proposed septic systems, landscape irrigation and miscellaneous water retention resulting from development that directly contributes to additional ground water are critical. Stabilization of the existing slopes, an ongoing monitoring of down-gradient impact and maintenance of unstable areas are also important issues that must be addressed, and perhaps entered into the title that maintenance be continued in the event the property is transferred.

Other concerns that need to be addressed are the ingress and egress issues. If the ground water erodes the landmass below the proposed building site, the ability to enter and depart our property becomes a major problem. Residents could become unable to get to their garages and, in cases of handicapped individuals, that becomes a critical situation.

Thank you for your time.

Sincerely,

Jonnie Handley
William Handley

William and Jonnie Handley

EXHIBIT 11e
CDP 4-99-169 (Trento)
Letter from Neighbor (Geologic Concern

Ray & Cindy Schofield

25129 Malibu Road
Malibu
California 90265

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California Coastal Commission
South Central Coast Area
89 South California St., Suite 200
Ventura Ca. 93001

EXHIBIT 11f
CDP 4-99-169 (Trento)
Letter from Neighbor (Geologic Concern

January 10th 2000

In reference to Application No. 4-99-169 (Applicants Alfredo and Robin Trento)

We wish to go on record as opposing the plan for the subject development. The current plan fails to address certain issues and if approved will create a hazard to our property and to adjacent properties on Malibu Rd.

We are not opposed to the development of the bluffs above our property. In fact we believe that a well planned development of the bluffs would benefit the homeowners of Malibu Road. The existing plan, however does not conform to section 30253 of the Coastal Act in that it fails to adequately address existing geological hazards and includes a drainage plan which is in no way sufficient for the size and nature of the development.
Furthermore, the proposed drainage plan encroaches on portions of our property.

The site of the proposed development is affected by three separate active landslides. While the plan may provide for sufficient protection of the new structures, it does not address the effect of future land movement on the properties below the development and the difficulties which will be faced by the owners of these properties in mitigating the effects of future slides once the development has been completed.

Our property and adjacent properties below the bluffs are already affected by these land slides. Only two years ago my neighbor to the East had his retaining wall completely destroyed by land movement created by one of the slides.

The mitigation of such land movement can only be accomplished by substantial grading, which will be extremely difficult to undertake once the proposed development has been completed.

The development of the subject property must include a plan to repair the existing land slides before construction commences.

With respect to the drainage issue, the application clearly does not sufficiently address the needs of the site and completely ignores the effect of the additional run off created by the development, on the properties below.

The existing drainage plan calls for the run off from virtually the entire site to collect in a catch basin directly above and on the northern edge of our property line. The run off is then carried through an existing 18" corrugated metal pipe ***through our property*** and out to a street drain on Malibu Road.

Hence the key portion of the drainage system for the proposed development ***is located on our property.*** The drain pipe running through our property was the result of emergency access granted to the County of Los Angeles in 1980, when land movement destroyed the drainage system existing at that time and created a hazard to the properties below on Malibu Road. It should be noted that ***NO EASEMENT EXISTS.***

This drain was installed to dewater the slope above our property but was never intended to carry the volume of run off which the proposed development will generate. Furthermore, the pipe

is already twenty years old and, due in part to the City of Malibu refusing to accept any responsibility for the maintenance of the drainage system, has not been inspected or maintained for many years.

The existing system has proven to be inadequate for the volume of run off it must currently carry. Most recently, during the rains of 1998, the system failed causing a major amount of mud and debris to block the access road behind our property. Fortunately no major damage was done but the material had to be removed at our expense, since the City will not acknowledge the responsibility which it inherited from the County.

The increased pressure which will be placed on the existing system by the proposed development will certainly cause a failure of the system and clearly presents a hazard to our property. The portion of the pipe which runs below our property is adjacent to our foundation and incorporated into the slope on which our home is built. Over loading this aging and inadequate pipe will inevitably cause a failure to occur which will result in major damage to our property.

Aside from the risk of actual physical damage to our home and the safety of its occupants, the application does not even address who will be responsible to maintain the portion of the drainage system which is located on our property. Clearly we cannot be expected to bear the responsibility and expense of maintaining a system which provides drainage to our neighbors.

It is imperative that an alternate method of disposing of the run off from the site be devised. Alternatively the City of Malibu should be compelled to take responsibility for the drainage issue. We can not accept the current application's disregard for the effect of the development on the surrounding properties and implore the Commission to exercise its' responsibility to protect all parties affected by the application.

If the issues contained herein are satisfactorily addressed we would have no objection to the approval of the application and to the development of the subject site.

Sincerely,

Ray and Cindy Schofield, Homeowners

cc. Joan House
Harry Barovsky
Malibu Road Property Owners Association
City of Malibu Planning Department
Martin Z. Katz Esq.

25103 Malibu Rd.
Malibu, CA 90265
January 13,2000

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COASTAL COMMI
SOUTH CENTRAL COAST DI

California Coastal Commission
South Central Coast Area
89 South California St. Suite 200
Ventura, CA 93001

Re: Permit Number 4-99169
Applicants: Alfredo and Robin Trento
Project Location: 25126 Pacific Coast Highway, Malibu, Ca
(Los Angeles County) (APN(s) 4458-015-002)

My property is downhill and to the southeast of the proposed development. I have read the staff report on the proposed development of this property.

First: There is a correction to be made. Page 6 paragraph 2 states there is an existing private road. This area referred to as a road cannot be used by vehicles or even easily walked upon, There is no easement. Puerco Canyon Road was a county road maintained by the county from 1929 to 1970 when it was severely damaged and made impassable by the massive landslides at that time. The road was lifted, tilted and undermined and large sections were washed away. The road was then abandoned by the county and deeded to the property owners on either side January 15,1974. Most of the pavements covered by the landslide. The county has retained control of the road from the intersection of Malibu Road north 60 feet.

This inaccuracy in facts does not lead to confidence in the report.

MOST IMPORTANT : Page 11, concerning the geology and soils engineering.
My living in this location for 31 years has had its interesting moments. The National Guard was here one rainstorm season to clear the slumping hill and to stop the mud from damaging the homes below this property. My family and I have spent many hours during the rains digging trenches and shoveling mud attempting to keep the water and mud flowing down to the storm drain on Malibu .Road. Teachers from various colleges in the area have brought study groups to see an example of a slump block fault and evidence of an ancient landslide. The hillside continues to erode and move.

Plans for the protection of my property and all property below the planned development I believe to be inadequate

I have a copy of a geology study by the county in November that stated

EXHIBIT 11g
CDP 4-99-169 (Trento)
Letter from Neighbor (Geologic Concern

not only is surface water a problem but the underground water adds to the instability of the area.

That fact is the reason for my great concern that the watering of landscaping and use of septic systems adding to the ground water could magnify the potential for slippage of the slope.

I see no provisions for mitigating the underground water problem. The proposed drainage v-ditch I believe to be inadequate. I have enclosed a partial copy of the 1974 geology report.

I would also ask for assurances that the developers will assume responsibility for maintaining the slope and drainage system, And for any damage that may occur to properties below their site that occur during or after construction be the developers assume the responsility for repair. As we all know trucks movements are banned on PCH because of land movement caused by vibrations they cause. Any large project using earth-moving equipment and truck to haul away dirt has serious potential for causing structural and geological damage to neighboring properties.

Jeanne Heneghan
Dan Heneghan
Loren Wright

No damage occurred during the winter of 1979; however, during the recent disastrous storms, additional earth movement occurred causing mud slides onto the properties below Puerco Canyon Road and large cracks to develop in the abandoned Puerco Canyon roadway. The reside requested that the County take action to repair the interim drainage system. Since Puerco Canyon Road is no longer a public road and in accordance with terms of the Permits to Enter and Hold Harmless Agreements in which it was agreed that the County will not maintain the system, the County has taken no action to restore the drainage system.

CAUSES OF THE PROBLEM

The geology consultants hired by County Engineer to study Zone B of the C.I. 2607-M published their report in November, 1979. Zone B includes the area surrounding Puerco Canyon Road. The report indicat that this area has probably been the site of periodic slope failure since pre-historic times and identifies the principal problems affect the study area as the low shear strength of bedrock, uncontrolled flow of surface drainage, and the presence of ground water. It indic also that modification of the natural landscape for local development has in some instances added to the instability of already potentially unstable earth materials. It points out that grading for the alley and building pads for the homes and apartments north of Malibu Road - has undermined toe areas of several slides and reactivated or caused accelerated movement on them. The report also indicated that construction of Puerco Canyon Road undermined the toe of one slide near the intersection with Malibu Road (this location is still mainta by the County), and several near-vertical slopes were created that may fail in the future.

The report points to the water seepage in the weathered part of the bedrock as contributing significantly to the slide problems. It further indicates that ground water at the base of the terrace deposits act as a catalyst to the sliding by adding weight to already unstable land masses, by lubricating shear surfaces, and by increasir pore pressure in earth materials which further decreases their streng According to the report, the ground water results partly from deep percolation of rainfall compounded by poor surface drainage, and partly from the use of seepage pits for sewage disposal.

RESPONSIBILITY FOR EARTH MOVEMENTS

The entire area extending far above Puerco Canyon Road is affected by ancient slides. It is our belief that the continuing land movemer in the Puerco Canyon Road area are primarily caused by the uncontroll flow of surface drainage and the presence of groundwater and its effect on the weakened bedrock.

The record-breaking storm of 1969 and the rains of 197[illegible] [illegible]79 and 1980, (the wettest three-year period on record) contri[illegible] most of the water to the problem. The undeveloped hillside [illegible]perty has suffered many land movements over the years and as [illegible]esult there are large cracks and depressions in the surface. [illegible]ese serve to catch storm runoff and allow it to percolate into the bedrock. In addition, water produced by the seepage pits of the houses and apartments above Malibu Road add significant amounts to the groundwater at the lower areas of the slides.

While the geology report indicates that construction of Puerco Canyon Road may have contributed to localized slides, it is clear that in the more than 40 years since the road was built there were little or no problems prior to 1969. Other factors such as the natural geology of the area, excessive rainfall and increased developme with its attendant increase in groundwater are major factors contributi to the problems of the area since that time.

Based upon the factors stated above, and upon consultation with County Counsel, there appears to be no further County obligation arising out of the construction or abandonment of Puerco Canyon Road or approval of Tract 18868 to implement or finance any measures aimed at stabilization of the area around Puerco Canyon Road.

CORRECTIVE MEASURES

The measures required for stabilization of this area are those set forth in the report prepared by County Engineer-Facilities for County Improvement District 2607-M. They include controlling surface drainage through extensive regrading and construction of drainage structures; removing of groundwater through horizontal subdrains; and physically stabilizing sliding areas. Installation of a sewer system to capture sewage now entering the groundwater is also recommended.

Regrading and construction of drainage structures in itself may not stop the continuing movements, but such measures would reduce the amoun of storm runoff reaching the groundwater and would be beneficial. However, if the other measures are not implemented, any grading or drainage done now could suffer damage from continuing land movements and therefore, will require ongoing maintenance.

It is recommended that County Engineer-Facilities continue to develop proposals for permanent measures as part of C.I. 2607-M to achieve stabilization of this area. Because of the critical situation existing

GCI

GeoConcepts, Inc.

Geology • Geotechnical Engineering

14401 Gilmore St., #2
Van Nuys, CA 914
Office (818) 994-88
Fax (818) 994-85

RECEIVED
FEB 1 REC'D
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

January 31, 2000

Project 1436

Dr. Alfredo Trento
7151 Grasswood Avenue
Malibu, California 90265

Subject: California Coastal Commission Application #4-99-169
25126 Pacific Coast Highway
Malibu, California

References:

1) Letter by William and Jonnie Handley dated January 3, 2000 to the California Coastal Commission.

2) Letter by Albert and Yvonne Weber dated January 4, 2000 to the California Coastal Commission.

3) Geology Letter by Donald B. Kowalewsky dated January 5, 2000 for Albert and Yvonne Weber.

4) Letter by Ray and Cindy Schofield dated January 10, 2000 to the California Coastal Commission.

5) Limited Geologic and Soils Engineering report by GeoConcepts, Inc. covering 25126 Pacific Coast Highway, dated October 23, 1997, March 23, 1998, July 10, 1998, March 19, 1999, September 1, 1999, September 17, 1999 and October 25, 1999.

Dear Dr. Trento:

Pursuant to your request, presented herein are geological responses covering References 1-4, copies attached. Land Design Consultants, Inc. will discuss grading and drainage issues relative to References 1-4. The development history of the subject area and Puerco Canyon Road, and a summary of the active landslide adversely affecting the subject site is provided. A location map depicting property lines of the subject site and the property owners of References 1, 2 and 4 is attached.

Puerco Canyon Road was built for Mr. Philip Wilson in the mid-1920's. Aerial photographs from 1928 indicate that a substantial amount of non-compacted fill was placed on the down slope side of Puerco Canyon Road and within the natural drainage courses. The County of Los Angeles acquired Puerco Canyon Road in 1929. The County of Los Angeles reported that the roadway was constructed and only minor maintenance w were installed within the natural drainage courses below pipes were plugged with concrete prior to 1978.

EXHIBIT 11h
CDP 4-99-169 (Trento)
Response to Geologic Concerns

Tentative Tract No. 18868 is located immediately below Puerco Canyon Road and was recorded in 1955. A 1:1 (horizontal to vertical) cut slope was graded down from the edge of Puerco Canyon Road to provide space for the building pads and alley behind the future buildings. This 1:1 cut slope is steeper than the current code of 2:1. Properties that are owned by References 1, 2 and 4 are part of this development.

In January 1969, Puerco Canyon Road was severely damaged due to major slumping caused by record-breaking rains. Property owners signed a petition in February 1969, requesting that the County of Los Angeles abandon Puerco Canyon Road. In 1970, the County Road Department installed asphalt curbs to channeled runoff along Puerco Canyon Road to Malibu Road. Subsequently, the County of Los Angeles abandoned the roadway in 1974.

During the storms of 1978, additional slumping of Puerco Canyon Road occurred and the drainage system was damaged. Later in the year, additional drainage devices were installed consisting of asphalt berms and above–ground corrugated metal pipes.

The report by Geotechnical Consultants, Inc. (1979) indicated that the bluff slope consisting of uncompacted fill, underlying and along the south side of Puerco Canyon Road, had been subject to downslope movement. In addition, grading for the alley (1:1 cut slope) within Tract 18868 and below Puerco Canyon Road had removed support from the ascending slopes. The slope consists of non-compacted fill, soil, weathered bedrock and bedrock. The combination of the grading for the alley for Tract 18868 and heavy rains have triggered significant slumping of the non-compacted fill, soils and weathered bedrock within the natural drainage channels. One of these affected areas is the active landslide on the Weber's property.

Excavation Permits from the City of Malibu were issued to GeoConcepts, Inc. to evaluate the bluff slopes on the subject site. Drilling equipment and hand dug test pits were planned. However, the Weber's refused to allow equipment access along the abandoned Puerco Canyon Road to evaluate the slumping. In addition, they acknowledged that they retained a geotechnical consultant to evaluate the slumping on their property in the 1980's. A copy of the results have not been submitted to the City of Malibu, nor has a copy been provided to their geology consultant Donald Kowalewsky or GeoConcepts, Inc. for evaluation. Details of the active slide could be better understood if the information was available.

The El Nino rains of 1998 have triggered reactivation of a slump that adversely affects four properties along Puerco Canyon Road. A meeting was held at the City of Malibu with three of the property owners and the undersigned geologist to discuss potential options to mitigate the active slump. It was decided that a detailed topographic map of the active slide would be needed as a first step. The survey would clarify the limits of the active landslide and what percentage of the slide is on the respective properties. A proposal was sent to the four property owners by the City of Malibu. It is our understanding that no one signed the agreement. Copies of the City of Malibu letters area attached.

To evaluate the mapped slides on the subject site, a subsurface exploration program consisting o (24) hand dug test pits and (5) five deep borings were geologically logged, detailed field mapping was performed and historical aerial photographs were reviewed.

No bedrock landslide debris was encountered during the subsurface exploration or exposed or the surface. The three landslides mapped by Geotechnical Consultants, Inc., (1979) on the eastern portions of the subject site were evaluated by (10) ten hand dug test pits tha encountered in-place bedrock. The subsurface exploration indicated that the exposed terrace deposits along the top of the bluff slope were easily eroded. The upper portions of the bluff slope exhibits excessive erosion and gully erosion in the terrace deposits and slopewash sediments. In addition, the siltstone beds, exposed in the eastern portion of the bluff, are highly expansive and easily eroded creating moderately deep gullies extending to Puerco Canyon Road.

The over steepened cut slopes along and above the western portion of Puerco Canyon Road exposed bedrock that is subject to raveling due the highly fractured nature of the shale and siltstone beds.

Stereographic aerial photographs from the Fairchild collection, U. S. Department of Agriculture Metrex Aerial Surveys and American Aerial were reviewed using an Abrams stereoscope with a built-in magnifier of 2X and 4X binoculars. Aerial photographs dated 1928, November 19, 1953 June 15, 1967, and August 25, 1988, exhibit no gross instability of the bedrock on the subject site The aerial photographs exhibited surficial slumping of the eastern mid-slope area on the subjec site. The slumped areas currently consist of soils slip scars, which were not mapped, as th slumped material has since been eroded. In addition, the natural drainage channels on th southwestern portion of the property were filled with non-compacted material to suppo construction of Puerco Canyon Road that failed in 1969.

Based on the subsurface explorations, geologic mapping and aerial photographs, slumping alor Puerco Canyon Road is attributed to a combination of improper grading methods, grading th 1:1 cut slope for Tract 18838, heavy rains and poor drainage. The slumping involved no compacted fill placed within the natural drainage channels, native soils and possibly weathere bedrock. Furthermore, instability of the slumps may have been exacerbated by private sewag systems installed in the alley and near the slope toe.

The landslides on the subject site have been mapped, evaluated and stability analyses ha been provided for review and approved by the Geologist and Geotechnical Engineer for the C of Malibu.

The letter by William and Jonnie Handley indicated that they do not object to reasonal development of the subject site. Their concerns specifically address the ascending slope abc the alley, which is their property up to the abandon Puerco Canyon Road, see location map. should be noted that the geologic concerns expressed by the Handley's are almost complet on their own property and not on the subject site.

Essentially, grading of the over steepened 1:1 cut slope for Tentative Tract 18838 up to Puerco Canyon Road caused the slope instability. The proposed drainage plan by Land Design Consultants, Inc. for the subject site is designed to mitigate potential instability of the slope by collecting and channeling upslope runoff away from the slope face. GeoConcepts, Inc. looks forward to working with the Handley's geotechnical engineer to provide mitigating measures to decrease the surficial instability of their slope.

The letter by Albert and Yvonne Weber indicate that they do not object to developing the subject site, with specific conditions, copy attached. Their concerns specifically address the proposed drainage system for the subject site. Item 3 suggest that the proposed drainage swale above their property would be installed in a landslide. GeoConcepts, Inc. has mapped the active landslide on the subject site, which has been subsequently been submitted and approved by the Geologist for the City of Malibu. GeoConcepts, Inc. and the City of Malibu would not approve construction of a paved swale drain in the active landslide above the Weber's property. A copy of the mapped landslide (colored yellow) and proposed swale drain (colored pink) is attached, Plate 1.

Rainfall is partially collected and channeled by the existing paved asphalt above the Weber's property, (colored blue on Plate 1). Most of this runoff is channeled along the eastern edge of the asphalt. On site runoff will be collected and channeled away from the active landslide. However, offsite runoff from the other three properties involved in the active landslide should be channeled away from the active landslide.

There are various geologic maps covering the active landslide. The geologic map by Geotechnical Consultants, Inc. depicts the active landslide within a larger ancient landslide, copy attached. The geologic map by Geoplan, Inc. depicts the active landslide, but does not show it located within a large ancient landslide, copy attached. Based on the above information, mitigation of the active landslide should not be considered a permanent solution. However, the geotechnical report on the active landslide written for the Weber's is thought to provide additional geologic information on the limits of the active landslide.

The geology memorandum dated January 5, 2000 by Donald B. Kowalewsky was reviewed. A meeting with Mr. Kowalewsky at the subject site was held on January 19, 2000. He acknowledged that the active landslide might be located within an ancient landslide. If that is the case, any repair to the active landslide should be considered as remedial and not a permanent solution. Mr. Kowalewsky agreed that the only evidence for the new landslide, as depicted on his map, was the two "recent cracks" in the asphalt on the abandoned Puerco Canyon Road. A test pit dug, on January 26, 2000, extended through the cracking asphalt and into competent bedrock, log attached. The test pit exhibited two layers of asphalt and a minor amount of sand (road base), overlying competent bedrock. The "recent cracks" did not extend through the older asphalt layer or into the bedrock. An animal burrow was exhibited just below one of the recent cracks. The bedrock did not exhibit evidence of landsliding.

Based on the field evidence it appears that the upper layer of asphalt is moving along the upper surface of the older asphalt due to nominal weathering, heaving and shrinkage.

Mr. Kowalewsky's report noted that the inlet for the 18-inch pipe is damaged and the proposed drainage plan depicts a new location for the pipe outside of the active landslide, (Plate 1).

It was suggested to Mr. Kowalewsky that he should have contacted Chris Dean (City Geologist) and Craig George (Building and Safety Supervisor) at the City of Malibu prior to making potentially misleading statements in his letter. The City believes that the active landslide is a civil problem and the City of Malibu does not have jurisdiction.

The active landslide appears to be on four properties, with the smallest portion on the subject site. The City recognized this and, therefore, has not required a remedial repair of the active slide on the subject site. A remedial repair has not been required because the active portion on the subject site can not be effectively repaired without the Weber's correcting their larger portion of the slide. Currently, the Weber's have trimmed their slope and redeposited the earth material on the active landslide, which only exacerbates the instability of the slide by adding additional weight.

The letter by Ray and Cindy Scholfield indicated that they do not object to development of the subject site. Their concerns specifically address stability of the ascending slope above the alley, which is essentially their property up to the abandon Puerco Canyon Road, see location map. The landslides on the subject site have been mapped, evaluated and stability analyses have been provided for review and approved by the Geologist and Geotechnical Engineer for the City of Malibu.

In summary, the slope between the alley and abandoned Puerco Canyon Road is generally not on the subject site. The proposed development plans covering the subject site will mitigate onsite and offsite potential geologic problems and drainage concerns. However, it is not designed to eliminate offsite geologic problems.

It is suggested that the Handley's, Weber's and Scholfield's retain the services of a geologic and/or geotechnical engineer to better understand geotechnical issues associated with their collective properties and how to mitigate their concerns. Hillside properties are subject to hazards, which are not found with flatland properties. It may not be possible to eliminate all hazards, but it is strongly recommended that all homeowners properly maintain their property and improve deficiencies. GeoConcepts, Inc. is willing to work with the offsite property owner consultants to mitigate instability of the slopes.

Should you have any questions regarding this report, please do not hesitate to contact the undersigned at your convenience.

Respectfully submitted,
GeoConcepts, Inc.

Robert L. Sousa
CEG 1315
RLS/SJW-1436-10

Scott J. Walter
GE 2476

Distribution:
(1) Addressee
(1) Eric Fishburn
(1) Jaime Harnish
(1) Steve Hunter

LDC

LAND DESIGN CONSULTANTS, INC.

Land Planning, Civil Engineering, Surveying & Environmental Services

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CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

February 1, 2000

Mr. Steve Hudson
California Coastal Commission
South Central Coast Area Office
89 South California Street, Suite 200
Ventura, CA 93001

Re: 25126 PCH – Trento Parcel
Coastal Permit No. 4-99-169
Our Project No. 98003-001

Dear Steve:

This report is being prepared in response to comments provided to the California Coastal Commission staff from property owners located southerly of the proposed development. The attached report addresses the comments provided regarding drainage issues related to the above permit application. The geological comments are being addressed under a separate report provided by Mr. Bob Sousa with GeoConcepts, Inc.

EXISTING DRAINAGE CONDITION: The existing drainage pattern for the approximately 4.6 acre project site located at 25126 pacific Coast Highway, includes two distinct drainage areas currently draining towards the southwest and southeast. Traversing the property at the southerly boundary are portions of old Puerco Canyon Road. The old road is partially paved and currently carries surface run-off (flows) from the site to the existing inlet structure located at the southeasterly portion the site. The runoff from the western 3.1- acre drainage area (including the parcel located to the west) is collected in a series of smaller PVC pipe and inlet structures located off-site and one (1) 24" corrugated metal pipe (CMP) located onsite all draining directly to the south. The flow is than directed in a southerly direction in a 24" CMP with a minimum slope of 5.7%, with a capacity of 31 cubic feet per second (cfs) to Malibu road. The runoff from the eastern 3.6-acre drainage area is collected in a series of above ground CMP's and old Puerco Canyon Road directed to an existing modified inlet structure and 18" CMP located on site. The existing 18" CMP drains in a southerly direction and connecting to an existing 24" CMP located on the Schofield parcel constructed by the County of Los Angeles Road Maintenance Division. The flow is than directed in a southerly direction in a 24" CMP with a minimum slope of 10%, with a capacity of 42 cubic feet per second (cfs) to Malibu Road.

PROPOSED DRAINAGE MITIGATION: As a remedial grading plan, an integral part is controlling surface drainage from the northerly portion of the property from draining over the stepper natural slope below the bluff which are more subject to erosion and debris flows. This will be accomplished by the construction of the proposed driveway system, surface drainage devices located at the top of the bluff and located at the southerly boundary along with a series of catch basin, pipes and inlet structure directing flows

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EXHIBIT 11i
CDP 4-99-169 (Trento)
Response to Drainage Concerns

225 South Lake Avenue, Suite 600, Pasadena, California 91101 / 626•578•7000 Fax 626•578•7373
25570 Rye Canyon Road, Suite I, Valencia, California 91355 / 661•775•3940 Fax 661•775•3942

towards the two (2) existing drainage system located at the westerly and easterly portions of the site. The proposed driveway will intercept flows from the north and collect them into a catch basin then are conveyed down the slope by pipe and surface drains.

As part of the westerly system the existing inlet structure located near the southwestern property corner will be replaced with a new metal flared end section, CMP pipe, berms and minor grading modifications with gunited surfaces to improve the inlet control and allow the required flows to enter the pipe as required. The total flow rate after development will be 25 cfs, which is much less than the design capacity of the existing 24" CMP.

As part of the improved eastern system located near the southeastern property corner the exiting modified inlet structure will be replaced with a new concrete inlet structure and CMP pipe design to carry the debris flows generated onsite. A concrete channel will be constructed along the southerly boundary to incept flows from up slope of the existing homes to prevent water infiltration, debris flows and erosion. Due to the unstable slope condition (landslide) located near the most southeasterly property corner, a drainage device will be added along the easterly property boundaries to intercept flows and reduce the amount of water affecting the landslide material. The total flow rate after the development will be 22 cfs, which is much less than the design capacity of the existing 18' & 24" CMP pipe.

METHODOLGY: All of the hydrologic input data used was based on the "Los Angeles County Department of Public Works, HYDROLOGY/SEDIMENTATION MANUAL. The manual guidelines require that the developed area having continuous grade shall be designed for 25-year frequency storm and the system shall be analyzed for natural areas are based on 50-year frequency storm. All the natural open space should be considered for burned condition with a safety-bulking factor of 1.57. As shown on the hydrologic map, the project watershed is located within the soil classification "029" area, rainfall zone "K", and debris potential area 7 (DPA-7). The approved drainage concept plan also conforms to the City of Malibu drainage and flood hazard standards.

ALTERNATIVE DRAINAGE SYSTEM AND RESPONSE TO COMMENTS: This section is provided in response to the project geotechnical engineers report dated January 31, 2000. It was recommended by the project soils engineer to extend the proposed swale located at the southeasterly portion of the site along the easterly boundary to reduce the amount of surface water currently draining towards the landslide. The extension of the drain would redirect approximately 0.4 acres away from the landslide. To avoid increasing the flows to the existing 18" CMP pipe located on the Schofield property 0.7 of acre can be redirected to the westerly drainage system as shown on the attached drainage study. The following outlines the responses to the existing homeowner's comments.

a). William & Jonnie Handley : With the implementation of the proposed drainage system, swales and channel the amount of erosion and debris flows currently affecting the property will be mitigated. The swales located at the top of the bluff will reduce the amount of erosion affecting the natural slopes and direct flows to the new inlet structures located on the easterly and westerly sides of the property. The proposed channel located along the southerly boundary will prevent surface flows and debris from eroding the hillside southerly of the site. All the proposed drainage devices have been sized to carry 150% of on-site flows and designed to handle debris flows.

b). Ray & Cindy Schofield: All drainage improvements proposed for 25126 P.C.H. will be constructed on-site and no portion of the improvements encroaches on adjacent property. The boundary reflected on the attached drainage maps are based on a field boundary survey and review of record data conducted by this firm. The amount of debris flows will be reduced by the development of the parcel and the design of the on-site drainage system have been designed to carry these flows to two new inlet structures. The proposed drainage system comprises of two drainage areas and systems. One drainage system directing approximately 3.8 acres (Q= 25 cfs) to the westerly portion of the site to a 24" CMP pipe and the second system directing approximately 3.3 acres (Q= 22 cfs) to the easterly portion of the site. The drainage study attached has been designed to reduce the flows to the easterly side (Schofield pipe) by 0.3 acres and directing water to the westerly drainage system recently improved by the City of Malibu. The existing 18" CMP pipe originally placed by the County was installed to collect both surface and debris flows. The existing drainage pipe has adequate capacity to carry both surface and debris flows in an attempt to redirect flows. The existing drainage system potentially failed not due to inadequate capacity but due to the existing inlet structures inlet control and limited maintenance. The proposed new inlet structure has been designed to handle existing debris flows.

c). Albert & Yvonne Weber: As discussed above the proposed drainage system consists of two drainage areas and systems. One located to the easterly side and one on the westerly side. The drainage area contributing the easterly drain has been reduced by 0.3 of an acre. Based on our hydrology analysis the existing pipe has adequate capacity to handle the flows and the Q's are not increasing. As shown on the attached drainage study the existing inlet structure located on the southeasterly portion of the property will be replaced and realigned with a new inlet structure designed to carry both surface and debris flows. The proposed drainage system has been designed to improve the existing drainage problems affecting both neighbors and reduce the amount of surface water affecting the landslide. The updated system will connect to the existing 18" CMP pipe and maintains the same drainage pattern.

d). Donald B. Kowalewsky: On the revised hydrology and drainage study the proposed concrete swales have been modified to follow the existing contours and eliminate the need for additional grading. The preliminary grading plan design has contemplated the drainage swales would daylight at their respective contours. A final precise grading plan will be processed with the City of Malibu department of building & safety prior to issuance of the grading permit.

If you have any questions or wish to discuss the above give me a call.

Sincerely

LAND DESIGN CONSULTANTS, INC.

Steve Hunter
Vice President

LETTERS OF CONCERN REGARDING VISUAL ISSUES

Julie Hoffman

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JAN 11 REC'D
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

January 6, 2000

Mr. Steven M. Hudson
Coastal Program Analyst
California Coastal Commission
South Central Coast Area
89 South California Street, Suite 200
Ventura, Ca. 93001

re: Permit # 4-99-169

Dear Mr. Hudson,

We are greatly concerned about the precedence that will be established if the Trento family is allowed to ignore Coastal Commission standards and build their home higher than allowed by code.

We live across the street from their proposed building site and our ocean view will be greatly obstructed by their structure. Please don't alter the height restrictions that the Coastal Commission designed for good reason.

Pertaining to the height of walls along PCH... it is part of the extraordinary beauty of the coastal highway to see the ocean. It doesn't seem fair if more and more new homes block that view, only to be enjoyed by those residents.

Thank you.

Julie Hoffman

Julie Hoffman

EXHIBIT 12a
CDP 4-99-169 (Trento)
Letter from Neighbor (Visual Concern)

McCabe & Company

☐ SEND CORRESPONDENCE
1100 Eleventh Street, Suite 305
Sacramento, CA 95814
(916) 340-2626
Fax (916) 340-2627
sfmccabe@mindspring.com

☐ SEND CORRESPONDENCE
1930 Purdue Avenue, #10
Los Angeles, CA 90025
(310) 473-6383
Fax (310) 479-0052

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CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DIST.

January 6, 2000

THURSDAY: ITEM 8G

Commissioner Sara Wan
22350 Carbon Mesa
Malibu, CA 90265

RE: CDP# 4-99-169 (Trento) Construction of Single Family Residence Located at 25126 Pacific Coast Highway, Malibu

Dear Commissioner Wan:

I am writing in regard to the above-mentioned coastal permit to request your support for deleting Special Condition 1(a), which would significantly impact the ability of the applicants to construct their residence. Special condition 1(a) would limit the height of structures on the property to 20 feet and to the 175-foot elevation line. We believe that this condition will unreasonably restrict the ability of the Trento's to construct their home and that their project with the remaining conditions satisfies the visual protection policies of the Coastal Act and the Malibu LUP.

Project Description

The Trento's are proposing to construct a two-story 6,706 square foot residence, a guest house, garages, and a pool on a 4.78-acre bluff-top lot located on the seaward side of Pacific Coast Highway in Malibu. The property extends lineally 432 feet along PCH and gently slopes downhill to a bluff that extends to Malibu Road below. The project originally included a 42" masonry wall that extended along PCH but the wall has been removed to protect ocean views in compliance with special condition 1(c) of the staff recommendation. The project is designed to notch the structures into the hillside to preserve the natural elevations of the site and lower the profile of the buildings. Additionally, the house and accessory structures have been broken up into small, mostly one-story structures in order to create a lower profile and less mass and are clustered to visually break up and minimize view disruptions from PCH. All structures, as well as the driveway, will be set back from the bluff by a minimum of 25 feet.

The Project is in Conformity with the Coastal Act and the Malibu LUP

EXHIBIT 12b
CDP 4-99-169 (Trento)
Letter from Applicant (Visual Concern)

The Project is in Conformity with the Coastal Act and the Malibu LUP

The Malibu LUP contains several policies to protect ocean views from PCH. Those policies require:

- Projects be set below road grade on sloping terrain where physically and economically feasible. (Policy 125)

- Development be sited and designed to protect views to and along the ocean, minimize alteration of natural landforms, be visually compatible with and subordinate to the character of its setting, and be sited so as not to significantly intrude into the skyline, as seen from public viewing places. (Policy 130)

- Buildings located on the ocean side of and fronting PCH not occupy more than 80% of the lineal frontage of the site. (Policy 138c)

- Development along scenic highways be set below grade wherever feasible to protect ocean views. (Policy 142)

The Trento's architect fully considered these view shed policies in the design of the project. The property fronts PCH for a total of 432 lineal feet. Of this total, 46% (200') will have no view obstruction whatsoever. The main residence is two-stories tall and only partially obstructs ocean views and lineally extends 90 feet, a mere 21% of the PCH frontage. These view disruptions are substantially less than the 80% view obstruction allowed in Policy 138c. The project will not at any point encroach into the skyline and will not disrupt any ocean views for the vast majority of the project. All portions of the project will have at least some blue water views. The project has additionally been notched into the slope to lower the profile in conformance to Policies 125, 130, and 138 of the LUP.

The City of Malibu has Reviewed and Approved the Visual Aspects of the Project

The City of Malibu in its approval of the project found that the second story of the residence "contributes to a reduction of the total lot coverage, consequently decreasing the visual impact associated with this project." The City additionally found "The project protects vistas and large open areas that contribute to the rural feeling of the area..." and "provides maximum feasible protection to significant public and private views." Finally, the City noted that "The proposed project is sited south of PCH and notched into the hillside, therefore, public views from PCH will not be impacted because the primary views from PCH are south toward the Pacific Ocean and off-shore islands."

Special Condition 1(a) is Unreasonable and Unnecessary

Special condition 1(a) has the effect of limiting the project to virtually no view impacts, far in exceedance of the visual protection policies of the Coastal Act and the Malibu LUP and past decisions by the Coastal Commission. The portion of the condition that limits

structures to 20 feet would reduce the Trento's residence to one-story. As stated above, the 90-foot lineal distance of the residence is a minimal view disruption when compared to the entire lineal frontage on PCH. Additionally, limiting the height of all of the structures to the 175-foot elevation unnecessarily reduces the height of the guest house and garages and would require design changes that impact the integrity of the architectural design.

In conclusion, we believe that the project as proposed fully complies with the visual protection policies of the Coastal Act and the Malibu LUP, noting that the Trento's have agreed to all conditions recommended by staff with the exception of special condition 1(a).

Thank you for your consideration of our position on this project.

Sincerely,

Susan McCabe

Cc: Commissioners
Steve Hudson, Staff Analyst

LETTERS OF CONCERN REGARDING ARCHAEOLOGICAL RESOURCES

STATE OF CALIFORNIA – THE RESOURCES AGENCY
GRAY DAVIS, Governor
OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov

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COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

March 20, 2000

Steve Hudson,
Coastal Program Analyst
California Coastal Commission
South Central Coast Area
89 South California St., Suite 200
VENTURA CA 93001

Subject: CA-LAN-803 at 25126 Pacific Coast Highway, Malibu
Coastal Development Permit Amendment Application 4-99-169(Trento)

Dear Mr. Hudson:

Thank you for seeking the Office of Historic Preservation's (OHP) assistance with regards to evaluating the significance of archaeological site CA-LAN-803, assessing the adequacy of the Phase II Study, and commenting on the appropriate mitigation measures. We have reviewed the information submitted and offer the following observations.

Whether archaeological site CA-LAN-803 is a significant resource hinges on the adequacy of the Phase II Study of the site. The prime goal of a Phase II should be to determine whether the archaeological site has yielded, or may be likely to yield, information important in prehistory (Public Resources Code Section 21084.1(a)).

To date, conflicting views of the site's archaeological significance have been submitted. It was held by King (December 2, 1998) that the site's importance is reflected in noticeable differences in manos and metates. He further suggested that the artifacts at LAN-803 indicate the presence of a residential base. His recordation of the site ultimately resulted in the mapping, cataloguing and description of 626 surface artifacts. The site, according to King (January 10, 1999), was occupied between 6000-4000 B.C. and is the best example of an Early Period prehistoric residential settlement in the City of Malibu.

Stickel's (1999) Phase II test excavation was comprised of a total of 31 Surface Test Pits (STPs), and four 1 x 1 meter excavation units. Little beyond what King identified on the surface, was recovered during Stickel's Phase II excavation. According to Stickel (1999), archaeological "site CA-LAN-803 is not a highly significant site (i.e. it lacks major habitation indicators, lacks burials and/or cemeteries, lacks religious site data, and it lacks unique data that would make it a highly significant site)". He concluded that the site likely served as a "production site for lithic tools", and as "a floral resources processing site". Stickel acknowledges, however, that "if the site does, in fact date to the Early Period it does provide data important to our understanding of the period (albeit on a limited data set basis)".

While King and Stickel appear to disagree on why CA-LAN-803 is an historical resource, they appear to agree that the site is, or may be, an important Early Period site. Consequently, it is safe to presume the site is an historical resource in accordance with PRC 21084.1(a). While Stickel (1999) claims that the site does not posses nonarchaeological values, it was not clear how he arrived at that conclusion. Was this decision made in consultation with the Native American community?

EXHIBIT 13a
CDP 4-99-169 (Trento)
Letter from Office of Histori Preservation

Stickel (1999) recommends that no further excavation in the main site area be conducted as mitigation. He advocates that "there should be a complete surface collection of all formal artifact tools at the main site". The results of this effort should be analyzed and formally reported. The OHP agrees with this but also recommends that additional mitigation should include avoidance of archaeological materials through project redesign, as well as capping of in situ archaeological materials or features with sterile soils if avoidance is not possible. The recovery and reporting of archaeological material discovered during construction should also be considered a function of successful mitigation.

If you have questions about my comments, please do not hesitate to contact Steven Grantham at (916) 653-8920, or at sgran@ohp.parks.ca.gov.

Sincerely,

Daniel Abeyta, Acting
State Historic Preservation Officer

STATE OF CALIFORNIA GRAY DAVIS, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
Fax (916) 657-5390

February 23, 2000

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SOUTH CENTRAL COAST DISTRICT

Mr. Steve Hudson
California Coastal Commission
89 South California Street, Suite 200
Ventura, CA 93001

RE: Trento – 4-99-169

Dear Mr. Hudson:

The concerns of the Native American Heritage Commission (NAHC) regarding the Trento Project deal with whether or not there was meaningful consultation with the appropriate Chumash Native American groups and individuals. I was contacted by Susan McCabe acting on behalf of Mr. And Mrs. Trento and provided her with a list of the appropriate Native Americans who should have been contacted regarding any concerns they have about cultural resources on the property. I spoke with Ms. McCabe and she stated that she passed the list on to the Trentos. From conversations that I have conducted with a random group of the people on the list, I have determined that (1) they were aware of the project (through the grapevine) however, (2) there was no formal written contact by Dr. Stickel for input regarding any concerns they might have nor were they invited to the site. Some of these individuals stated they can trace their descendancy directly to the site. No one expressed to me any concerns about the monitoring on the project.

I would recommend that all of the groups and individuals on the list provided to Ms. McCabe be invited to view and comment on the site before construction begins.

It is not NAHCs responsibility to evaluate the methods and procedures that were used in the archaeological study of the site by Dr. King and Dr. Stickel, this would need to be done by either a peer groups review or a new archaeologist completing an independent study.

If I can provide you with any further information, please do not hesitate to contact me at (916) 653-4040.

Sincerely,

Gail McNulty

Gail McNulty
Associate Program Analyst

EXHIBIT 13b
CDP 4-99-169 (Trento)
Letter from Native American Heritage Commission

City of Malibu

23555 Civic Center Way, Malibu, California 90265-4804
(310) 456-2489 Fax (310) 456-3356

Harry R. Peacock, City Manager

February 1, 2000

RECEIVED
FEB 10 2000
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

California Coastal Commission
South Central Coast Area
89 South California Street, Ste. 200
Ventura, CA 93001

Attn: Jack Ainsworth, Regulatory Supervisor

RE: Application No.: 4-99-169 (Trento)
Applicant: Dr. Alfredo Trento

Dear Mr. Ainsworth:

The City of Malibu has learned that the Coastal Commission at its January 2000 meeting, reviewed and postponed the above application based, in part, on testimony received from the City Archaeologist, Dr. Chester King. It is my understanding that Dr. King has testified against the project, claiming that it will adversely impact an important cultural resource.

This letter is to inform the Commission that the Dr. King's knowledge of the project comes from his work as City Archaeologist. Specifically, Dr. King is contracted by the City to advise the Planning Director on the potential effects of projects on important cultural resources. Included in this assignment is the review and comment on studies prepared by other archaeologists. In accordance with the City's ordinance, the final decision on cultural resource protection is vested in the Planning Director.

From the City's records, it has been clear for some time that Dr. King disagrees with the methodology of project archaeologist, Dr. Gary Stickle. These concerns were presented to the Planning Director over the course of the last fifteen months, and the Director has reviewed them with the City's own Cultural Resources Study Committee. Following a detailed investigation by Dr. Stickle, a review by the City's study committee and of Dr. King's own reports, the Planning Director concluded that the Trento project will not have a significant detrimental effect on important cultural resources. Conditions of approval were part of the City's decision, including the preparation of a Phase III Mitigation program (see attached letter of May 25, 1999).

EXHIBIT 13c
CDP 4-99-169 (Trento)
Letter from City of Malibu

It is very disappointing to learn that Dr. King now feels compelled to raise this issue to you. Based on information he developed and reviewed as the City Archaeologist, he has decided to step outside his role as an impartial consultant to the City and become an advocate for his own point of view. We respectfully request that you review the materials attached, and recognize that the City has struck a fair and objective balance on the cultural resource protection issues raised by this project.

The City of Malibu appreciates this opportunity to comment on the above project. If you have any questions about this letter, feel free to contact Mr. Craig A. Ewing, Planning Director at City Hall (ext. 234).

Sincerely,

CITY OF MALIBU

Harry R. Peacock

Harry R. Peacock
City Manager

Enc:
cc: Dr. Trento

City of Malibu

23555 Civic Center Way, Malibu, California 90265-4804
(310) 456-2489 Fax (310) 456-3356

Craig A. Ewing, AICP - Planning Director

May 25, 1999

Dr. Alfredo Trento
6851 Fernhill Drive
Malibu, CA 90265

RE: Phase III Mitigation Program for 25126 Pacific Coast Highway (PPR 98-235)

After reviewing the Phase II Report of the above project (prepared by ERA / March, 1999) I have determined that the project site is an "important cultural resource" as defined in Section 9.3.81.D of the Malibu Zoning Ordinance. Specifically, the site is at least 100 years old and possesses substantial stratigraphic integrity. (It is not clear at this time if the other criteria for determining the cultural importance of a resource have been satisfied.) This conclusion confirms earlier expectations for the site that led to the decision to prepare a Phase II Study.

Following a meeting with the City on November 10, 1998, a Phase II Evaluation was designed and implemented by Dr. Gary Stickle. Based on my review of both Dr. Stickle's conclusions and City Archaeologist Dr. Chester King's comments, it appears that the site may be anything from a "production site" where stone tools were produced, to a "habitation site" where most residential and domestic activities would take place.

The direct evidence produced by the Phase II Evaluation suggests that it is a production site. No house structures, shell fragments, fire-altered rock or bone fragments were found. Only stone fragments (debitage) and a limited number of tools were recovered. However, Dr. King's remarks regarding the nature of habitation and burial sites - in particular, their tendency to be sparsely scattered - suggests that there is a potential for the existing Phase II Evaluation to have missed more significant artifacts and data. Nevertheless, the absence of any non-lithic material leads me to conclude that this possibility is very small in the area of the project.

Consequently, I have concluded, as follows:

1. The project may adversely affect important cultural resources, and a Phase III Mitigation Program is required (Malibu Zoning Ordinance Section 9.3.83.G.1)
2. The Phase III Mitigation Program shall be designed and implemented by a qualified archaeologist, and conducted in consultation with a qualified Chumash cultural resource monitor. (Section 9.3.83.G.1)
3. The Phase III Mitigation Program shall be designed to include the following provisions:
    a. A complete surface collection of all formal artifact tools (manos, hammerstones, choppers, etc.) (Section 9.3.83.G.3.c)

b. An excavation plan for the small concentration of Pismo clams located immediately south of Pacific Coast Highway, slightly east of the center of the site. (Section 9.3.83.G.3.c)

c. Mitigation of the guest house garage through one of the following measures:
   i. Elimination of the structure,
   ii. Relocation of the structure such that it does not require excavation,
   iii. Complete archaeological excavation of the garage site, or
   iv. Other measures acceptable to the Planning Director. (Section 9.3.83.3.b.1)

d. Preparation of a landscape plan that avoids use of trenching for irrigation, unless suitable archaeological investigations are conducted, subject to approval by the Planning Director. (Section 9.3.83.3.b.1)

4. An alternative Phase III Mitigation Program in which any or all structures are placed on fill to avoid foundation excavation would be considered, subject to approval by the Planning Director. (Section 9.3.83.G.3.b.3)
5. All reports resulting from this evaluation and mitigation program shall be filed with the Regional Historical Resources Information Center. (Section 9.3.84.A)
6. All artifacts discovered in this evaluation and mitigation program shall be recorded in the manner required by the State of California. All site records, field notes, maps, photographs, notes by Native American monitors, reports by consulting archaeologists, and other records resulting from this evaluation and mitigation program shall be cataloged in accordance with the United States Department of the Interior Guidelines. (Section 9.3.84.B)
7. Any person who discovers important cultural resources during the course of construction for a project shall notify the Planning Director of the discovery. Once important cultural resources are discovered, no further excavation shall be permitted without approval of the Director. (Section 9.3.85)

Please contact me after June 14, 1999, if you have any questions.

Sincerely,

Craig A. Ewing, AICP
Planning Director

c: Dr. Gary Stickle, P. O. Box 480074, Los Angeles, CA 90048
Dr. Chester King, City Archaeologist

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CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

SIERRA CLUB

LOS PADRES CHAPTER

"ONE EARTH, ONE CHANCE"

California Coastal Commission
South Central Coast Area
89 South California Street, Suite 200
Ventura, CA 93001
(805) 641-0142
Fax (805) 641-1732

January 7, 2000

VIA FACSIMILE TRANSMISSION

RE: **Application No. 4-99-169 (Trento, Malibu) Significant Archaeological Resources on the site should be protected pursuant to CEQA , and the Coastal Act.**

Dear Commissioners and Staff:

The following comments are submitted on behalf of the Los Padres Chapter of the Sierra Club.

The Los Padres Chapter of the Sierra Club is informed that unique and significant archaeological resources exist on the subject site. As stated in the staff report, a substantial portion of Archaeological Site CA-LAN-803 is located on the site, and extends over almost the entire subject site.

The City of Malibu, has failed to hold public hearings in this matter. The City of Malibu has failed to comply with CEQA , (Pub Res C sec. 21083 (c)-(f)) , and CEQA Guidelines, that require proper environmental review for impacts to significant archaeological resources. The City of Malibu has ignored the recommendations of the City Archaeologist, Mr. Chester King, and allowed money, politics and the construction of large homes for the wealthy to overshadow proper preservation of the significant archaeological resources located on the site.

Please uphold the Coastal Act and CEQA and deny approval of the applicant's Coastal Development Permit on the grounds that the proposed development will have a significant impact on the well documented archaeological resources on the site.

Sincerely,

Alan Sanders

EXHIBIT 13d
CDP 4-99-169 (Trento)
Letter from Sierra Club

Received at Commission Meeting

JAN 1 3 2000

SURFERS ENVIRONMENTAL ALLIANCE

1015 Casitas Pass Road, Suite 103, Carpinteria, CA, 93013

"THE LEADING EDGE OF COASTAL ACTIVISM"

California Coastal Commission
89 South California St., Suite 200
Ventura, CA 93001
(805) 641-0142
Fax (805) 641-1732

VIA FAX AND U.S.MAIL

1/6/2000

RE: APPLICATION NO. 4-99-169, (TRENTO) 25126 PACIFIC COAST HIGHWAY, MALIBU, LOS ANGELES COUNTY, PRESERVATION OF ARCHAEOLOGICAL RESOURCES

Dear Commissioners:

The following comments are submitted on behalf of Surfers Environmental Alliance (SEA), a non-profit organization dedicated to the protection and preservation of the coastal environment, and marine resources. SEA appreciates the opportunity to comment on this matter and wishes to thank you for your consideration of these comments.

There remain only a few significant archaeological sites in the Malibu coastal area that have not been irreparably damaged by the careless construction of mansions along the beleaguered Malibu coast.

Compounding the problem of preservation of archaeological sites is the continued use of hired-gun experts by applicants. These experts are hired to make naked assertions, conclusionary recital, and unsupported opinions, to support coastal development in areas where significant resources exist. The Commission Staff should not rely on such conclusionary statements made by the applicant's hired experts, especially when conflicting expert opinion is present.

The Commissioners and Staff should properly consider the expert opinion of Mr. Chester King, the Archaeologist for the City of Malibu. Mr.

EXHIBIT 13e
CDP 4-99-266 (Daly)
Letter from Surfer's Environmental Alliance

King's comments on the proposal have been made available to the Commission, and are incorporated herein by this reference.

The Coastal Act and CEQA require that when qualified experts present conflicting evidence on the nature or extent of a project's impacts, the agency must accept the evidence tending to show the impact might occur. Evidence to the contrary is usually irrelevant, because the agency cannot weigh competing evidence. (See City of Carmel-by-the-Sea v. Board of Supervisors (1986) 183 CA3d 229, 249; conflicting opinions by multiple experts on definition and extent of wetlands made it clear EIR was necessary; See also Brentwood Ass'n for No Drilling, Inc. V. City of Los Angeles (1982) 134 CA3d 491; expert testimony that exploratory oil well would have traffic and noise impacts, would have soil erosion and seismic consequences, and would endanger an underground reservoir required preparation of EIR.)

Due to the conflicting expert opinions regarding whether highly significant archaeological resources exist at the subject site it would be most prudent and appropriate for an EIR to be prepared before any development goes forward on the site. This would better insure that the proposed development would not adversely impact the archaeological resources identified at the site and further insure proper compliance with Pub Res Code section 30244 of the Coastal Act.

The applicant's proposed development should be denied pending proper environmental review, and compliance with CEQA and the Coastal Act.

Sincerely Yours,

Geoffrey D. Latham

Geoffrey D. Latham
SEA

January 9, 2000

California Coastal Commission
South Central Coast Area
89 South California St., Suite 200
Ventura, CA 93001

Dear California Coastal Commision:

Please reference application no.: 4-99-169 and applicant: Alfredo and Robin Trento. I am writing out of concern for the preservation of an early period (6,000 to 8,000 BP) coastal settlement site (LAN-803) which is located on a mostly level and slightly slanted (about 7.7 degrees) marine terrace adjacent and to the west of PCH in Malibu, CA. Much of this archaeological site is on the land owned by the applicant and will effectively be destroyed by the proposed residential development given in the staff report.

I have considerable experience locating and recording Native American cultural sites in the Santa Monica Mountains and Simi Hills under the direction of Dr. Chester King. I have seen in detail many sites ranging in age from the earliest period of occupation in southern California to those occupied as recently as the late 1700's. Of these many contain recognizable frequencies of stone tools that vary by position and which can be related directly to certain types of activities such as processing plant materials or wood working. If these amalgams also contain specific tool types associated with houses and other organized areas of activity the site is viewed as a place of settlement. Often these 'village sites' are stratiographically complex because of long periods of continuous use and/or disjunct occupations at widely separated times. Sometimes they are badly damaged by erosion or other environmental forces and often by the recent activities of people. Reconstruction of how people lived and how settlements were organized at different time periods at these sites can be difficult.

One of the remarkable features of LAN- 803 is that it is a moderately large (for early period) and wholly intact settlement site that appears to have been used continuously for a relatively short period (maybe 500 years) with no obvious replacement and no significant mensurable disturbance accept for recent bulldozer disking. This makes LAN- 803 a model village site for research since such a site possesses a very clear and directly interpretable stratiographic record. Also, LAN- 803 contains the complete range of tool types to be seen in an early site with a very large (over 700) artifact scatter on the surface over an area which I calculated from Dr. King's map to be about 7,840 square meters. If one were to include the draws the rectangular area enclosing the mapped artifacts is about 12,540 square meters. The spatial relationships of the mapped surface artifacts at LAN-803 appear very much intact and tools associated specifically with kitchens inside houses in an early site (e.g. manos and metates) and men's areas (e.g. flaking hammers, burins, gravers, etc.) are consistently seen in the expected frequencies and in well defined aggregates wherever they occur in the site. Also, I performed a test of randomness using the joint point nearest neighbor method of C.L. Batcheler on the mapped surface artifacts which also provided an estimate of the expected density for the artifacts under the null hypothesis of randomness (or no structure in their s patial arrangement.). The conclusion from the analysis is that the null hypothesis is rejected and the artifacts are arranged in patterns of strong aggregation. Also the observed density of surface artifacts using the larger of the above areas is about .06 artifacts/square meter which is 1.5 times greater than the density expected (.04 artifacts/square meter) if the artifacts were randomly scattered on a bounded plane with straight sides. A complete outline of the analysis is available upon request.

Also, I have personally visited site LAN-803 on more than one occasion with Dr. King and have seen a reasonable portion of the remaining known early period sites between Point Mugu and Topanga Canyon on the immediate coast. Of all of these LAN-803 is the only remaining complete early "village site" and is in the best state of preservation. LAN-803 almost certainly ranks as the most important remaining cultural site amenable for providing a detailed picture of how the earliest people of Malibu lived.

EXHIBIT 13f
CDP 4-99-169 (Trento)
Letter of Concern

Destruction or damage at any level to this site would be an act of malfeasance against native people and will result in the loss of considerable, unique, and incalculably important information on ways people lived in very early southern California. Thank you for receiving my letter.

Sincerely,
Michael Merrill

Michael Merrill
5341 W. 95th Street
Weschester, CA 90025

This copy does not have missing sentences and the other typographical errors of the copy I sent yesterday.

CALIFORNIA STATE UNIVERSITY, LOS ANGELES

5151 STATE UNIVERSITY DRIVE, LOS ANGELES, CA 90032

Received at Commission Meeting

JAN 1 3 2000

From: _____

Mr. S. Hudson
California Coastal Commission
South Central Coast Area
89 South California St, Suite 200
Ventura, CA 93001

Dear Mr. Hudson:

RE: Application 4-99-169

The purpose of this letter is to request that the determination that the archaeological site known as CA-LAN-803 is not highly significant be re-evaluated and to express my concern regarding the plan to allow this rare example of a large early period site to be destroyed without adequate data recovery.

My credentials include: Professor of Archaeology and Anthropology, California State University, Los Angeles (1989-present). Appointed as Prehistoric Archaeologist for the State Historical Resources Commission by Governors Deukmejian and wilson 1990-1997. Senior Archaeologist for the Los Angeles District, Army Corps of Engineers, 1977-1989 (CV provided upon request).

It appears that this determination was made on the basis of less than a 1% sample of the site area. Based on my experience with similar sites that have been graded after minimal data recovery, it is highly probable that significant cultural features and burials are present within the 99% of the site that was not tested and that these will be destroyed if the present plan requiring monitoring is implemented.

The site has been identified as a large Early period site with substantial stratigraphic integrity. There are very few sites of this time period remaining in southern California and a search of the literature will show that we know very little about the early prehistoric settlers of California. Given the lack of information regarding this important period in the development of native societies, the fact that sites of this time period are disappearing at an alarming rate, and the fact that this site appears to be intact and to contain the materials that can address important questions, I am convinced that the site can address many important questions and that additional study will result in a significant contribution to our understanding of California prehistory.

Ideally, CA-LAN-803 or at least a witness area should be preserved for future generations. However, if this is not feasible, a data recovery program based on a research design that identifies the data gaps in our knowledge of the lifeways of people living in

EXHIBIT 13g
CDP 4-99-169 (Trento)
Letter of Concern

California 6000-4000 BC and includes current state of the art systematic sampling procedures should be implemented prior to any ground disturbing activitiy. In addition, the research design and the archaeological recovery program should be subject to peer review.

Sincerely,

Patricia Martz

Patricia Martz, Ph.D.
Associate Professor

SDSU
San Diego State University

Department of Anthropology
College of Arts and Letters
5500 Campanile Drive
San Diego CA 92182-4413
619-594-5527
FAX: 619-594-1150
E-mail: anthro@mail.sdsu.edu

Received at Commission Meeting

JAN 13 2000

From:_____

California Coastal Commission
South Central Coast Area
89 South California St., Suite 200
Ventura, CA 93001

RE: Application No. 4-99-169

Dear Commissioners,

January 12, 2000

It has been brought to my attention that CA-LAN-803 in the City of Malibu is under threat and that at least portions of the site may be destroyed. The artifact assemblage at the site indicates it is an Early period site that may be 6000- 8000 years old. The site is in the region that historically was occupied by the Chumash Indians. Many sites in Malibu and other coastal regions of southern California have been destroyed because of heavy development along the coast.

CA-LAN-803 has a high density and a wide range of artifacts on the surface. Artifact types include groundstone such as manos and metates, stone scrapers, burins, gravers, hammerstones, and choppers, as well as other artifact types typical of the Early period. The abundance of artifacts and the wide range of tools indicate that the site was an important Early period settlement. Many Early period settlements that have similar artifact assemblages in the Santa Monica Mountains and elsewhere in the Chumash region have cemeteries associated with them.

I recently co-authored a published article (*Middle Holocene Settlement Distribution in the Santa Monica Mountains Region*) on Early period sites in the Santa Monica Mountain region. Many archaeological sites from this time period in Malibu and elsewhere in the Santa Monica Mountains have been destroyed or severely damaged. Much of the work on sites from this time period lacks information on spatial organization of settlements and data resulting from fine mesh screening. Very little analysis of floral remains has been collected from sites of this time period, as few archaeologists have conducted flotation as part of their excavations. Moreover, this region lacks a large corpus of radiocarbon dates from Early period sites. Given the limited knowledge that we have on sites from this time period and the fact that many sites of this era have been destroyed, CA-LAN-803 is even of greater significance. I recommend that the Coastal Commission deny the project until the site can be further evaluated.

Sincerely,

Lynn Gamble

Lynn Gamble
Assistant Professor

EXHIBIT 13h
CDP 4-99-169 (Trento)
Letter of Concern

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MAR 1 2000
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

Steve Hudson
California Coastal Commission
89 South California Street
Suite 200
Ventura, California 93001

M 28 February 2000

Dear Steve Hudson,

Dr. Gary Stickel requested I communicate with you regarding his cultural resource investigation in progress at CA-LAN-803, a proposed building site (applicant Dr. Alfredo Trento) in the city of Malibu. At issue, it seems, are two differing philosophies of how such investigations should be conducted - that of Dr. Chester King and that of Dr. Gary Stickel.

I have reviewed such information as was provided to me by Dr. Stickel - a 47 page (plus attachments) document consisting of excerpted review comments by Dr. King and Dr. Stickel's response to each of them. I believe this has been previously submitted to your attention or is available for your evaluation.

I can't judge how well you know these two individuals, but I can assure you that both Drs. Stickel and King are highly motivated professionals and thoroughly qualified to conduct (or review) cultural resource investigations of the type in question and have been doing so for many years. Both men are sensitive to the concerns of Native Americans and employ Native American monitors of unquestioned (or reputed) direct lineal descent.

What may appear to you as petty bickering over trivial points of procedure and methodology by Drs. Stickel and King (i.e. business rivals) may be viewed in another way. I suggest, that once the rhetoric is distilled down to it's essence, it may be viewed as an honest difference of opinion between two experts and reflective of fundamentally differing personal philosophies, temperaments, and divergent avenues of approach to site investigations.

BACKGROUND

Both of the gentlemen in question hold doctorate degrees from the UCLA Department of Anthropology. During it's heyday (1960's-1970's), it was one of the strongest and finest such departments in the world. With it's emphasis on regional field studies and a rigorous academic program, it was not an environment in which the incompetent or ill-prepared student succeeded.

EXHIBIT 13i
CDP 4-99-169 (Trento)
Letter of Concern

Although I have a layman's interest in American prehistory, I am not an anthropologist or archaeologist. My area of interest (since 1960) is basically zoological in nature, the identification and analysis of animal remains (bones, teeth, etc.) recovered from paleontological and archaeological (including historic) sites. For example,

Reynolds, Richard L. 1979. Preliminary Analysis of the Mammalian Fauna from CA-VEN-261, in Jack Prichett and Allen McIntyre. The Running Springs Ranch Site: Archaeological Investigations at VEN-65 and VEN-261. *Monograph XII Institute of Archaeology, University of California, Los Angeles*, pp. 157-189.

I first met Dr. King (possibly still a student) in the 1960's at the UCLA Archaeological Survey Office to discuss some now forgotten matter of mutual interest (probably Chumash bone tool/ornament technology). I recall feeling satisfied with the constructive nature of the discussion and being impressed by his extensive knowledge of Chumash material culture. Although I cannot recall meeting him since then, I know him by reputation (i.e. published works). He is, and should be regarded as, an expert in Chumash culture. His personal approach (philosophy) may perhaps be characterized as strongly traditional (typological) and narrowly focused, for example,

King, Chester D. 1971. Chumash Inter-village Economic Exchange. *The Indian Historian* 4(1):30-43. and
King, Chester. 1978. Protohistoric and Historic Archaeology, in *Handbook of North American Indians*, California (edited by Robert F. Heizer), Smithsonian Institution, Washington 8:58-68).

I first met Dr. Stickel (as a student) between 1967 and 1970 at Dr. Rainer Berger's radiocarbon laboratory at the UCLA Institute of Geophysics while I was working (staff research associate NSF Grant) on the extraction of collagen amino acids (for radiocarbon dating) from fossil animal and human bones from the Rancho La Brea asphalt deposits ("tar pits") and elsewhere in California (see,

Berger, Rainer, Reiner Protsch, Richard Reynolds, Charles Rozairre, and James R. Sackett. 1971. New Radiocarbon Dates based on Bone Collagen of California Paleoindians. *Contributions of the University of California Archaeological Facility* 12:43-49. and
Reynolds, Richard L. 1985. Domestic Dog associated with Human Remains at Rancho La Brea. *Bulletin of the Southern California Academy of Sciences* 84(2):76-85).

Through discussions with Dr. Stickel, I found his interests (personal philosophy) to be worldwide in scope, strongly

theoretical and forensic (clinical) in application, for example,

Stickel, E. Gary and Adrienne E. Cooper. 1969. The Chumash Revolt of 1824: A Case for an Archaeological Application of Feedback Theory. *Annual Reports of the University of California Archaeological Survey* 11:5-21, Los Angeles. and
Stickel, E. Gary. 1979. More on Theory Building in Archaeology. *Current Anthropology* 20(3):621-624).

I have consulted on a number of Dr. Stickel's projects over the years and have found no short-comings. He is always willing to try innovative technology to enhance resource discovery (e.g. remote sensing, side scan sonar, magnetometer, etc.). His early studies and continuing investigations in Chumash territory also qualify him as an expert in Chumash culture.

COMMENTS

I will limit my comments to those areas I feel I can provide constructive observations, mainly faunal content and recovery methods. I cannot, for example, offer comments on the placement of test pits/units because the application of sampling theory to archaeological sites has become so mathematically complex that I cannot grasp the rationale for determining locations and minimal numbers, sizes, and depths of test excavations necessary, under probability theory, to provide a statistically reliable level of sampling (I've long suspected this involves as much luck as science).

Dr. Stickel and crew excavated a total of 32 STP's and 6 1x1 meter units and used 16" mesh wet screening. Recovery of artifacts (and ecofacts) was by field picking (sorting) without magnification. Only three bones were recovered from CA-LAN-803. All three specimens are poorly preserved, show no evidence of exposure to fire nor other modification indicative of use as a food resource, and are unidentifiable to a specific taxonomic level. These specimens are:

#724, unit 5, 10-20 cm. One vertebra fragment (cf. pre- or postzygopophysis) of a deer-size mammal.
#uncat., unit 5, 40-50 cm. One curved enamel fragment from a cheek tooth of a deer-size artiodactyl (?deer, sheep, goat, antelope).
#162 surface find. One bone fragment of a cow- or horse-size mammal.

Despite promising early period artifacts on the surface (observed by both Drs. King and Stickel) which suggested the possible existence of a buried habitation site and possible cemetery, subsurface investigation (by Dr. Stickel) failed to demonstrate that this portion of CA-LAN-803 was a habitation site and he found no evidence suggestive of a cemetery.

Dr. King's comments regarding picking (sorting) 16" mesh wet screened samples under magnification in laboratory conditions are well received by me. To digress, for five years (1989-1994) I contracted (as senior research scientist) to the paleontological resource assessment program of the San Bernardino County Museum. Here, we removed fine grained sediments (matrix) containing microfossils from assessment projects in bulk (tons at a time) by truck in 55 gallon steel drums (to prevent construction delays) to off-site wet screening stations. We used 20 mesh over 40 mesh stacked screens in processing [Note that these are finer meshes than are used in archaeology]. The resulting concentrate was dried, bagged by mesh size, weighed, and transported to the laboratory. Here the 40 mesh concentrate was always picked under magnification (dissecting scopes 2X-25X). However, the 20 mesh concentrate was picked with or without magnification, depending on the individual preference of the technician. I strongly maintained that all 20 mesh samples should be picked under magnification. On two occasions, I repicked (under magnification) samples that had been picked without magnification. Although I always found a few specimens that pickers had missed, I could not prove a statistically significant bias.

So, contrary to my preconceived expectations, I was forced to concede that the picking of 20 mesh samples by normally sighted technicians did not create data biases. I thus accept Dr. Stickel at his word that nothing of significance was missed by picking 16" mesh samples in the field without magnification.

As to the matter of the possible human bone reportedly found by Dr. King in his surface mapping of artifacts (and ecofacts) at the Trento portion of CA-LAN-803, I understand that the surface was plowed (weed abatement?) between the times of surface mapping by Drs. King and Stickel, thus possibly accounting for the disparity of reported artifact (and ecofact) observations. The single bone found by Dr. Stickel (#162 near Datum 3), I can assure you is not human and can be made available for independent evaluation by an expert in human osteology.

Actually (as both Drs. King and Stickel well know), finding isolated bits and pieces of human skeletal remains in archaeological sites lacking cemeteries is quite common. Most common are teeth and elements of the hands and feet (fingers and toes) which can be lost through accidents or disease. Less common are long bones (arms and legs). Least common are elements of the central body (head, spine, ribs, girdles). The last most frequently result from overlooked fragmentary elements in temporarily interred individuals (death occurring during the seasonal round of movements at a distance from the home village) who are later retrieved for reburial in a mortuary village (see Reynolds, Richard L. 1985. cited above, pp. 81-82 and literature cited therein).

I have general comments on two more subjects, both of which lie outside my area of competence - the two sterile level rule and the matter of the possible sweatlodge.

Regarding the two sterile level rule, I have carefully read Dr. Stickel's response to Dr. King's comments. It does not appear to me that Dr. Stickel excavated deeper once he encountered two sterile levels. However, he assures me that he closely inspected the sediments in the sidewalls of the deep (?8 feet plus) Geo-trench which was placed through STPs 1 and 2 and found no indications of a more deeply buried cultural level. Certainly the nature of the subsurface soils are known to the planning department through the various foundation investigations that were conducted to determine the suitability of this parcel for development and the construction of a residence and associated structures. Based on my limited experience when working on archaeological projects, once two sterile levels are encountered, it is a practice of some archaeologists to use a pick and dig down a foot or more in the center of a suspected sterile unit, both as a test and to protect themselves from later criticism of the type in this case.

On the matter of the possible sweatlodge, since it is no longer going to be directly impacted, it might be as well to leave it as it is for now. Perhaps at some future point it can (with Dr. Trento's cooperation) be investigated by private research funding?

I am satisfied with Dr. Stickel's responses to Dr. King's review comments and feel that the work performed by Dr. Stickel was adequate to fulfill the requirements of the Malibu Planning Department and the California Environmental Quality Act (CEQA).

Sincerely yours,

Richard L. Reynolds

Richard L. Reynolds
Research Associate
George C. Page Museum
5801 Wilshire Blvd.
Los Angeles, CA 90036

cc.Dr. E. Gary Stickel
Dr. Chester D. King
Dr. Alfredo Trento
Planning Director, City of Malibu

Nancy Sue Pearlman
1783 South Wooster Street
Los Angeles, California 90035-4332
(310) 559-2773

January 24, 2000

RECEIVED
JAN 26 RECD
CALIFORNIA
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

Mr. Steve Hudson, California Coastal Commission
89 South California Street, Suite 200, Ventura, CA 93001

Mr. Larry Myers, Director, Native American Heritage Commission
915 Capitol Mall, Room 288, Sacramento, CA 95814

Re: Dr. Chester King's critique of Dr. E. Gary Stickel's archaeology at site CA-LAN-803 on the Dr. Trento property in the City of Malibu, California

Dear Gentlemen:

As a Community College Instructor in Anthropology, I have had the opportunity to work with Dr. Stickel when he was a guest speaker in my classes. As an Environmental Broadcaster and environmentalist for over thirty years, I have been privileged to have Dr. Stickel as a guest on my national ECONEWS television show and Environmental Directions radio series. His archaeological experiences and knowledge have provided my audiences with new insights and understanding of the field of human cultures. Since I was first referred to him by UCLA in 1992, I have followed his work and been impressed by his careful utilization of archaeological techniques and his good relationships with local Native Americans.

It came as a surprise to me to see some of the critique that Dr. King has distributed about Dr. Stickel's work at the Malibu site referenced above. Unfortunately, non-profit organizations with whom I volunteer, did not receive copies although apparently other conservation groups did receive information. To whom has this material been distributed? I further learned that King's critique was sent to organizations although King apparently never communicated with Dr. Stickel about this critique prior to such mailings nor did King communicate with the Chumash Native American monitor, Ms. Carol Pulido, about the critique. Certainly, professional protocols require that such communications should occur before involving the public in this manner.

I am also concerned about Dr. King's claim that "one piece of large bone, possibly human, was observed on the surface of LAN-803" three years ago. If it were human, then procedures would have required getting it identified, reporting it to the relevant Chumash people and notifying appropriate authorities. Since this seemingly did not occur, it would not be appropriate to use this "discovery" to discredit Dr. Stickel's work.

If you have any questions, my business/message machine number is (310) 202-7553. Thank you for your consideration of my concerns.

Sincerely yours,

Nancy Pearlman

Nancy Pearlman

EXHIBIT 13j
CDP 4-99-169 (Trento)
Letter of Concern

Thomas F. King, PhD
P.O. Box 14515, Silver Spring MD 20911, U.S.A.
(410 Windsor Street, Silver Spring, MD 20910-4242)
Telephone (301) 585-9572 Facsimile (301) 589-5049 E-mail tfking106@aol.com

Cultural Resource Impact Assessment and Negotiation, Archaeology, Writing, Training

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January 15, 2000

California Coastal Commission (Attn. S. Hudson)
89 South California Street, Suite 200
Ventura, CA 93001

Dear Commission:

I have recently received a copy of the staff report on Application No. 4-99-169, for construction of a residence and associated facilities at 25126 Pacific Coast Highway in Malibu. I hope it is not untimely for me to comment on this matter for the Commission's consideration.

Among other things, the staff report documents the potential for impacts to archeological site LAN-803. Apparently there are conflicting opinions about the significance of this site as articulated by Dr. Chester King (no relation) on the one hand and Dr. E. Gary Stickel on the other.

Without commenting on the merits of either Dr. King's or Dr. Stickel's position, I want to remind the Commission of its responsibility -- or that of the National Oceanic and Atmospheric Administration -- to comply with Section 106 of the National Historic Preservation Act (NHPA) in considering approval of the proposed construction. As you doubtless know, Section 106 and its implementing regulations (36 CFR 800) provide for the resolution of adverse effects on historic properties through a process of consultation and agreement, where a "federal undertaking" may result in such adverse effects. Section 301 of NHPA includes in the definition of the word "undertaking":

...a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including--

(D) those subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency.

EXHIBIT 13k
CDP 4-99-169 (Trento)
Letter of Concern

Neither the statute nor the regulation is clear as to whether it is the responsibility of the State or local regulator or of the delegating or approving Federal agency to comply with Section 106, but since Section 106 requires the review of "undertakings," clearly someone is responsible for carrying out the review outlined in 36 CFR 800. This process, with its focus on resolving conflicts through consultation, could provide a perfect context in which to clarify and resolve the issues involved in the importance and proper treatment of LAN-803.

I urge you to contact your State Historic Preservation Officer in the Department of Parks and Recreation, and initiate Section 106 review of this project as required by law.

Sincerely,

Thomas F. King, PhD

Cc: State Historic Preservation Officer
Dr. Chester King

January 18, 2000.

Caliifornia Coastal Commission.
So. Central Coast Area.
89 So. Calif. St.
Ventura, Calif. 93001

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COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

Dear Mr. Hudson,

This letter is in response to a complaint that has been sent to your office, concerning the Archeology on the property of Dr. Alfredo Trento Ca -Lan 803, located in Malibu, Calif.It has been stated by Dr. King that the Archeology that was conducted by Dr. E. Gary Stickel and crew was in his opinion not performed correctly.

As the Chumash Monitor of record, of this project, it is in my opinion that Dr. Stickel connducted the Archeology in a professional and ethical manner, and from the onset of this project to it's end both the Archeologist and the developer, were always in concern for the issues of the Native Americans.

During this project Dr. Stickel employed no less than 3 Native American crew members, 2 of Gabrielino descent, and 1 of Chumash descent, making a total of 4 on field at all times. From the time of setting up the units to the lab data count, there was continous and through supervision from our Native Americans on site.

I'am also aware that my monitoring and or qualifications are now being questioned by Dr. King. I feel very fortunate that I have been born of two parents of Chumash descent, from numerous villages in our State, and this has left me as a 'Lineal Descendant' to many of the projects for which I've been a Monitor.

I, along with my sons are on the M.L.D. list, with the State Native American Heritage Commission. Mr. Hudson, I have been a 'Cultural Protector' of our sites for over 38 years of my life and acted as a Monitor, before there was such a term used, or an agency formed to handle our Cultural issues

I believe that there is not a factual basis for Dr. Kings complaint, and your office can be assured that the Archeology was in fact done meticously, and all of the Native Americans worked as a team, and that above all, and most important, I as a documented Chumash, with all the proper lineal descendency, in order, and the rights to be on these projects, would never in any way sacrifice the welfare of my people past or present.

Mr. Hudson , I take my position very seriously, and with great pride and conduct it in the same manner as I have conducted my life.

EXHIBIT 13L
CDP 4-99-169 (Trento)
Letter from Carol Pulido

If you have any questions, please feel free to contact me at (805) 649-4231, or John Johnson, Department of Anthropolgy, Santa Barbara Museum of Natural History (805) 682-4711 ext-306.

Sincerely;

Carol A. Pulido

Carol A. Pulido.

cc; Larry Myers.
Dr. Alfredo Trento.
Dr. E. Gary Stickel.
Craig Ewing, City of Malibu
Planning Dept.

Topanga Anthropological Consultants
P.O. Box 826
Topanga, California 90290
(310) 455-2981

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SOUTH CENTRAL COAST DISTRICT

California Coastal Commission
89 South California Street, Suite 200
Ventura, California 93001

Application No 4-99-189

Dear Steve Hudson,

January 3, 1999

The enclosed two groups of documents concern archaeological site LAN-803. The first group of documents relate to the Phase 2 study. The first document in this group was prepared to define the recommended scope of work. The second was prepared as a review of the initial work plan proposed by Dr. Stickel. The third was a review of a resubmitted work plan. The forth document is a review of the Phase 2 program. It is clear from these documents that Dr. Stickel conducted a program that was contrary to the program I had outlined and that his conclusions are very different from mine. He ignored the information obtained during the Phase 1 study. He was given a map of artifact locations and a list of all the surface artifacts keyed to the map before he conducted his study.

The second group of documents includes a map of artifacts observed on the surface, a list of the artifacts observed on the surface that is keyed to the map and illustrations of selected artifacts that are referred to in the artifact list. This is the basic information obtained during the Phase 1 study. The list of artifacts and the illustrations document the similarity with collections from the Sweetwater Mesa site (LAN-267), the Zuma Creek site and many other Early period settlements in the Malibu and Santa Barbara coastal areas. Counter to Stickel's assertion that the site has little variability, it has the full range of artifacts usually found in Early period Phase x sites and these are found in similar ratios.

The presence of distinctive residential areas, men's working areas, a possible sweat lodge depression and flat areas with few artifacts surrounded by artifacts indicates that many of the features of historic Chumash settlements, including sweatlodges, dancing areas, shrines, playing courts and cemeteries were present in settlements 7000 years ago. Recent discoveries of earth mound complexes in the southeastern United States indicates that features of historic settlements were present at a similar time in other areas of North America. In anthropological circles, it is commonly believed that societies living during Early period Phase x did not have complex settlements. If the depression is the remains of a sweatlodge, its excavation would be the earliest documentation of sweatlodges in North America. Further study of the site could document the organization of ancient native society in Malibu and dispel many racist beliefs about native peoples.

I suspect that the Phase 2 archaeological study which exceeded 2 square meters of excavation was conducted without the required coastal permit. A phase 2 study should be conducted using state of the art archaeological procedures to determine the positive value of different site areas for understanding the organization of a whole settlement. This study could be used to carefully design a program to salvage significant information. The design and conduct of the testing program should be conducted under the supervision of a panel of expert archaeologists.

EXHIBIT 13m
CDP 4-99-169 (Trento)
Letter from Dr. Chester King

Sincerely,

Chester King

Memo to Craig Ewing
Archaeological Evaluation at 25126 Pacific Coast Highway, Malibu, California, PPR-98-235.
From: Chester King
October 21, 1998

On September 16, 1997, I completed a Phase 1 archaeological study for the parcel at 25126 Pacific Coast Highway. During the Phase 1 study, I mapped 626 surface artifact locations in the project area. I observed that the distribution of different frequencies of artifact types in different areas of the site indicated the presence of the organization of a settlement and observed the presence of a slight depression that may indicate the presence of the location of a semisubteranian structure. The artifacts found at the site indicate that most occupation at the site occurred during the early part of the Early period approximately 6000-8000 years ago. The organization of surface artifacts and features indicates that this early settlement contained many of the features characteristic of historic California native settlements.

Of the 105 archaeological sites recorded within the jurisdiction of the City of Malibu, CA-LAN-803 appears to be the most intact whole site. It is probably the best preserved site that was occupied during the Early period that remains along the coasts of Los Angeles and Ventura Counties. Archaeologists have not mapped the organization of the sites that have been destroyed or damaged by development. Damage or destruction of site LAN-803 will result in the loss of important information concerning lifeways and social organization of early Malibu residents.

One piece of a large bone, possibly human was observed on the surface of LAN-803. One or more cemeteries are expected to be associated with the settlement. Cemeteries have been found near the crest of hills at many Early period settlements. A cemetery may be located north of the probable house cluster or may be in other places.

Site LAN-803 covers a large part of the parcel. In my Phase 1 report, I recommended that the project be designed to avoid impacting potentially sensitive areas. The project design submitted for planning review has not avoided the site. A larger area of the site will be impacted than indicated on the preliminary plan submitted when the Phase 1 report was prepared. It will be necessary to conduct a Phase 2 study. Phase 2 studies are defined in the Zoning Ordinance:

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SOUTH CENTRAL COAST DISTRICT

Section 9383. Cultural Resource Review

F. Phase II Evaluation

1. Applicability

Where, as a result of the Phase I Inventory, the Director determines that the project may have an adverse impact on cultural resources, a Phase II Evaluation of cultural resources shall be required and a negative declaration, mitigated negative declaration, focused environmental impact report, or an environmental impact report shall be prepared. All Phase II Evaluations shall be conducted by a qualified archaeologist and, where the Phase I Inventory indicates the presence of prehistoric or ethnohistoric Chumash cultural resources, the evaluation shall also be conducted in consultation with a qualified Chumash cultural resources monitor.

2. Definition

Phase II Evaluations are investigations intended to gather any additional data necessary to assess the importance of the cultural resources identified in Phase I Inventories, to define site boundaries of the cultural resources, to asses the site's integrity, to evaluate the project's potential adverse impacts on cultural resources, and to develop measures to mitigate potential adverse impacts. Phase II Evaluation proposals shall be designed on a project-specific basis and must be guided by a research design/work plan that clearly identifies the study goals and articulates the proposed methods of data collection and analysis with the goals.

Data collection methods may include a number of subsurface exploration techniques, including excavation of auger holes, test pits, or trenches.

3. City Review and Approval

The Director shall review and approve all Phase II design/work plans prior to any testing or excavations. The Director shall also review and approve all reports resulting from Phase II Evaluations. Where, as a result of the Phase II Evaluation, the Director determines that the project will not have an adverse impact on important cultural resources, no further cultural resource review of the project shall be required.

I understand that it is desired to excavate an additional geotest trench in the site area. The trench project can be evaluated separately as a geotest project or can be evaluated as part of the total project. If it is desired to first evaluate only the test trench, a Phase 2 proposal can be submitted for the trench project.

The following sections from the Phase 1 report have been modified in the light of recent information including following field visits and the plan submitted for the proposed project

RECOMMENDATIONS FOR A PHASE 2 STUDY

After a project is submitted for planning review, the project applicant should obtain the services of a professional archaeologist to prepare a Phase 2 archaeological study. Phase 2 archaeological studies are conducted to determine significance of archaeological sites and design mitigation programs to recover or preserve significant information and cultural

values. Proposals for the Phase 2 program must be submitted for review to the City of Malibu prior to conducting the program. The Phase 2 report should provide information necessary to prepare a mitigated negative declaration or a focused EIR. Testing programs for evaluation of archaeological sites in Malibu are required to be conducted under the supervision of a Chumash cultural resource consultant. The testing program should be designed to efficiently obtain information necessary to evaluate the site and design mitigation programs.

After the locations of earth disturbing elements of the project have been determined, test programs should be conducted in the areas that will be effected by the project. It is recommended that the test program include controlled unit excavations. Controlled excavations are used to determine site area boundaries, to determine small artifact content of site deposits, acquire information concerning soil development and to develop mitigation programs. The types of excavation should be based on initial information concerning types and frequencies of remains and the types of impacts which are expected. Procedures which are relatively standard in Santa Monica Mountain archaeological studies were used at Oak Park Zone III (King with others 1991). The research design for Phase 2 evaluations should include a map indicating placement of excavations.

The number and density of excavations should be based on the types of impacts that are expected and the apparent significance of areas that will be disturbed as a result of project construction. Soil disturbing activities will probably include: 1) excavations for foundations for structures, 2) grading for a driveway, 3) excavations for utility lines (water, gas, telephone, cable and electricity),4) excavations for septic systems and associated pipelines, 5) excavation of pools, 6) excavations for landscaping (holes to plant trees and shrubs), and 7) excavations for slope stabilization. All possible impacts should be identified in Phase 2 evaluation studies.

Excavations should be placed in areas that will be excavated during project construction. Cemeteries may be less than 20 feet in diameter and testing should be conducted at intervals of 10 meters (30 feet) or less in areas which will be excavated or graded to provide a reasonable opportunity to locate them. It is estimated that the site deposits are less than a meter (3 feet) deep. It is recommended that the test excavations be dug in 10 cm levels soils to subsoil. Soil from the excavation units should be screened through 16 mesh per inch screen and all residues laboratory sorted. Sidewalls of excavation units should be profiled by a person with training in geomorphology of archaeological soils. During excavation, indications of features or burials should be looked for. Information concerning

the types of plants and animals parts which are recovered should be reported. If dateable artifacts are not found in large numbers, shell or carbon should be submitted for radiocarbon dating. The soils of the archaeological site should be described by a soils geomorphologist with experience studying archaeological sites.

The scope of the construction project should be precisely defined. A commitment should be made concerning the extent of grading to allow for the design of a data recovery program. One purpose of monitoring will be to ensure that earth disturbing activities stay within defined bounds and do not unnecessarily damage site areas both inside and outside project boundaries. In addition to impacts caused by grading within the defined boundaries, issues such as stockpiling of soil removed during grading and loading and unloading of equipment must be addressed.

The significance of site areas to the Chumash should be determined. The significance of the sites to all archaeologists conducting research concerning Chumash prehistory must be considered when assessing their scientific significance. If the depression near the southwest edge of the site is the remains of a sweatlodge, it is the earliest recognized religious structure in California. The Phase 2 report should compare the condition and size of the site with other sites of same time period.

Proposals should provide information that demonstrates familiarity with research interests of archaeologists who conduct research in the area. Proposals should provide a research design that clearly relates procedures that will be used to accomplish project goals. Proposals should provide detailed descriptions of field and laboratory procedures that will be used. Proposals should make a commitment for curation of collections.

Chester King
P.O. Box 826
Topanga, California 90290
(310) 455-2981

To Mary Ann DeHaven

December 2, 1998

Concerning 25134 Pacific Coast Highway Phase 2 proposal

Background

I have reviewed the scope of work for a Phase 2 program at 25134 Pacific Coast Highway prepared by Gary Stickel. The Phase 2 testing program is to assess impacts of construction of a new single family residence on prehistoric archaeological site CA-LAN-803 and design measures to avoid or reduce identified impacts. The Phase 2 testing program is proposed in response to requirements of the Malibu Zoning Ordinance.

Section 9383 Section F2 of the Zoning Ordinance defines Phase 2 evaluation programs:

> Phase II Evaluations are investigations intended to gather any additional data necessary to assess the importance of the cultural resources identified in Phase I Inventories, to define site boundaries of the cultural resources, to asses the site's integrity, to evaluate the project's potential adverse impacts on cultural resources, and to develop measures to mitigate potential adverse impacts. Phase II Evaluation proposals shall be designed on a project-specific basis and must be guided by a research design/work plan that clearly identifies the study goals and articulates the proposed methods of data collection and analysis with the goals.
>
> Data collection methods may include a number of subsurface exploration techniques, including excavation of auger holes, test pits, or trenches.

What additional data is necessary to accomplish the goals of a Phase 2 evaluation? The following discussion evaluates the need for additional information to accomplish the goals of a Phase 2 study as defined by the ordinance.

<u>Assess the importance of the cultural resources identified in Phase I Inventories</u>

Although the Phase 2 program will gather more information concerning the importance of the cultural resources at the project area, available information including observa-

tion of artifacts on the surface of the site, the site's situation, and similarities and differences with other sites provide most of the information needed to assess the importance of the site. Assessment of the importance of sites requires comparison with the other prehistoric sites in the area. It is only by comparison with other sites that sites can be determined to be large or small, well or poorly preserved, situated in more or less easily defended situations, etc.. The surface artifacts and what is known about the distribution of artifacts at site LAN-803 indicate that the site is a medium sized settlement that was occupied during the early part of the Early period when manos and metates were the most important milling implements. On the basis of differences in manos and metates, I suspect that occupation at the site is contemporary with the early occupation studied at Sweetwater Mesa (LAN-267).

Excavations may discover features or burials that will further document the significance of the site. Because the test excavations are small and do not cover areas where cemeteries are most expected on the basis of comparison with other sites, they are not expected to encounter or identify burials or features. It is expected that the testing program will provide additional information concerning the importance of the site. The information will enhance our understanding of the site; however, this additional information is not necessary to evaluate the importance of the site.

Define site boundaries of the cultural resources

Boundary definition is necessary for determination of impacts and development of mitigation measures. The distribution of surface artifacts indicate that all of the area to be developed except possibly the northeastern corner of the project site is within the boundaries of LAN-803.

Within LAN-803, the distributions of surface artifacts, differences in soil color and the presence of an apparent depression in the ground surface indicate areas where residences were located and areas where men conducted various activities away from the residences. Often, boundaries can not be accurately mapped on the basis of surface observations and measurement of changes along a transect or groups of transects of excavation units can enable more accurate determination of boundaries. If the distance between excavation units is relatively short, information about absolute and relative frequencies of artifact types at different locations can be used to generate maps indicating artifact frequency or graphs that indicate where major changes in frequencies occur. The maps or graphs can be used to document the locations of boundaries.

Asses the site's integrity

It appears that the project area contains intact soils except in areas where geotest trenches have been excavated. Enough data should be gathered while conducting the first stage of test excavations to determine the integrity of the site deposits.

Evaluate the project's potential adverse impacts on cultural resources

Evaluation of impacts involves first determining the areas of soil disturbed by the project. This is done through study of the grading plan, landscape plan and knowledge of the types of earth disturbing activities that can occur during and after construction of a single family residence. After areas that will be disturbed are defined, data concerning the boundaries of different site areas can be used to determine the degree and significance of disturbance that will be caused by the project.

Excavations that will occur outside of the areas covered by driveway, other paved areas, house, and pool and septic system include trenches for lawn and yard watering systems, trenches for utilities, holes for tree planting, walls for planting beds, terraced planting beds, and retaining walls, and supports for fences and gates. It is probable that areas, outside the paved area, will be used for staging while the project is being built. Creation and use of staging areas can cause significant impacts. All the impacts that will be caused by the project must be identified.

Develop measures to mitigate potential adverse impacts

Mitigation measures are described in the Zoning Ordinance. Costs of mitigation programs are limited and it will be necessary to estimate the costs of proposed mitigation programs to determine if they are feasible mitigation measures. The Zoning Ordinance describes mitigation programs:

> Measures to mitigate potential impacts may include, but shall not be limited to, the following:
>
> a. In-situ preservation of the important cultural resource site.
>
> b. Avoiding damage to the important cultural resource site through the following approaches:
>
> 1)Planning construction to miss important cultural resource sites.
>
> 2)Planning parks or other open space to incorporate important cultural resource sites.
>
> 3)"Capping" or covering important cultural resource sites with a layer of soil before building tennis courts, parking lots, or similar facilities. Capping may be utilized if all the following conditions are

satisfied:

a) The soils to be covered will not suffer serious compaction;

b) The covering materials are not chemically active;

c) The site is one in which the natural processes of deterioration have been effectively arrested; and

d) The site has been recorded.

4)Deeding important cultural resource sites into permanent conservation easements.

c. Scientific data recovery of an appropriate sample of the important cultural resource(s) via surface collection and archaeological excavation as provided for under this Chapter.

4. Limitations on Mitigation

The limitations on mitigating adverse impacts on important cultural resources shall apply as provided in Appendix K, 14 Cal. Code Reg. § 15000, et seq., as may be amended from time to time.

Measures to mitigate damage that are relevant for the proposed project are avoidance and scientific data recovery. Accurate determination of the boundaries of the site and boundaries of different site areas is necessary to either design a data recovery program or design the project to avoid sensitive areas. It is possible that a program involving a mix of avoidance and data recovery will be necessary to mitigate damage that will be caused by the proposed project. The design of avoidance programs may require testing in areas within the parcel that are not affected by the proposed project.

The costs of conducting Phase 2 excavations in different site areas can be used to estimate the costs of mitigation programs. The costs of mitigation programs need to be estimated to determine if they can be conducted within cost limits.

Goals of the Phase 2 Study

The Phase 2 study will gather additional information to 1) define boundaries, 2) evaluate the project's impacts, and 3) develop measures to mitigate potential adverse impacts.

The proposed first stage testing program will gather information useful for determining relative costs of data salvage programs for the proposed project. Figure 2 of the proposal indicates the locations of excavations that will be conducted as part of the first stage of excavations. Information concerning the costs of data salvage will be used to determine whether salvage is a practical or feasible means of mitigation. If data salvage is not a feasible mitigation measure, it will be necessary to determine if the

project can be redesigned to reduce impacts to a level where data recovery is feasible.

After completion of the first stage of the Phase 2 program, the scope of additional field work necessary to define boundaries, evaluate impacts, and design mitigation programs will be determined.

In addition to field work, analysis of the proposed project is necessary to determine the impacts of project elements.

Recommendations

I recommend approval of the Phase 2 study subject to the following conditions. These conditions describe modifications to the procedures to conduct excavations, conditions to preserve the site from disturbance during test excavations, procedures that will be used to process material that does not pass through 16 mesh per inch or larger mesh screens and the procedures that will be used to analyze the material. Procedures that will be used to report the results of the Stage 1 excavations are outlined.

Condition 1: All excavations will be conducted to subsoil.

Condition 2: The site will be protected from unnecessary disturbance during excavation. Sifting of soil will be conducted off site. It appears that the western edge of parcel is off site. The screening station should be located beyond areas where artifacts were observed on the surface. Care will be taken to avoid disturbance of the surface of the site. Unless a controlled surface collection is conducted, artifacts will be left in place. No motor vehicles will be permitted to drive on the site. Buckets and wheelbarrows will be used to transport soil to the screening station. Excavations will be backfilled with clean sand.

Condition 3: The following discussion describes procedures that will be used for processing screen residues and cataloguing the collection. The emphasis of laboratory procedures will be consistent recovery and identification of cultural materials. The catalogue will be submitted to the City at the conclusion of the Stage 1 study. It will be submitted as a printout and on disc as a computerized text file with columns separated by tabs and rows by returns.

During screening, residue materials will be sorted into several sizes: greater than 4 mesh per inch, between 4 and 8 mesh per inch, and between 8 and 16 mesh per inch.

Washed screen residues will be dried on screens, and put into bags marked with provenience information. Residues of different sizes will be placed in different bags, but all mesh sizes from a level in a unit will be kept together in a larger bag. All levels from a unit will be delivered to a laboratory and be inventoried by a laboratory director. This inventory will be compared with the field inventory to ensure that no material is missing.

The residues retained by the screens will be sorted in the laboratory. Residues will be separated into cultural and non-cultural constituents, cultural objects will be identified, a catalogue of artifactual material will be created, and cultural materials will be prepared for curation. All materials including non-cultural screen residues will be stored until completion of Phase 2 studies. The catalogue will include an inventory of what is found in different mesh sizes according to the sorting categories listed below.

All laboratory personnel will be trained in pertinent recovery and identification techniques. A laboratory director will 1). coordinate work in the laboratory, 2). check the identification of cultural materials, 3). met regularly with the project director to discuss progress in the laboratory and scheduling of tasks, and 4). work with cataloguers to manage the database and reduce errors in the catalogue. Other specific duties should be delegated to various laboratory workers. An important duty is maintaining inventories of materials that are removed from the laboratory for study.

Sorting: The purpose of sorting the screen residues is to recover artifactual material retained in screens. This is accomplished in three steps. The first step should occur during wet-screening activity when residue materials pass through screens of graduated mesh size (4, 8 and 16 mesh per inch). The second sorting step involves separating screen residues into cultural versus non-cultural residues. The final sorting step is a check-sort to recover cultural materials not seen in the first sort and to remove non-cultural residues from cultural materials. At this time the laboratory director will identify artifact types and materials. The sorting procedure is elaborated upon below.

Sorting Categories: Laboratory personnel will sort screen residues into categories including shell, bone, flakes, and non-cultural materials (the exact categories are listed below). Microscopes and magnifying lenses will be used on occasion to make identification of materials in the 16 mesh per inch size. All sorting work will be checked for thoroughness and accuracy by the laboratory director or another experienced person. Sorting categories that will be used in the laboratory processing are described in this section. The categories consist of cultural and non-cultural materials.

CHIPPED STONE. Projectile points, flakes, flake fragments and flake cores will be

sorted out of each size mesh. Lithic material will be identified and the chipped stone artifacts will be counted per mesh, per level. Cataloguers will enter this information into a computer database. The chipped stone materials may include: fused shale, chalcedony, chalcedony with quartz crystals, chalcedonic chert, Monterey chert, silty chert, quartzite, rhyolite, andesite, basalt, other igneous rock, and obsidian.

Objects of debatable cultural significance will be also identified. The two classes of objects will be chunks and spalls. Spalls are defined as lithics displaying recently broken surfaces that might have been the result of fire alteration, natural battering, or cultural activity. Chunks are lithics that have been modified by cultural means; the diagnostic features are not sufficiently complete to merit further identification.

GROUNDSTONE. Groundstone or possible groundstone, manos, metates, etc. will be identified by the laboratory crew.

ASPHALTUM. Asphaltum will be identified by two properties: 1). its appearance, and 2). it will melt when touched with a hot soldering rod.

BONE. Bone pieces will be weighed and counted. Bone should be sorted into categories such as rodent, small mammal, large mammal, and fish.

SHELL. Shell should be sorted out of all mesh sizes. Shell should be identified to species.

FIRE-ALTERED ROCK. Fire-altered rock and concretions may indicate the presence of features. Fire-altered rock and concretions will be sorted out of the 1 inch and 2 inch meshes only because it is difficult to distinguish in smaller meshes. Pieces of fire altered rock will be counted and weighed.

HISTORIC. Historic remains such as lead shot, plastic, skeet, asphalt, glass, and metal will be sorted for all mesh sizes. This class of remains may be useful in identifying disturbance. Historic items will be weighed and catalogued.

CARBON. Carbon will be sorted out of all mesh sizes. Carbonized material can be used to identify features and the types of plants found in a site.

RESIDUE. Residue is a combination of natural rocks and gravels recovered from the site. Residue types expected at LAN-803 are shale, sandstone, and pea gravels

Weighing: After the remains are classified and checked they will be weighed. Items

under 1800 grams in weight will be weighed in .01 gram increments.

Cataloguing: Cataloguing of cultural remains and non-cultural residues will occur after the remains are sorted, weighed, and checked by appropriate laboratory personnel. Cataloguers will enter data into a computer database. The database will be used to generate printed labels for bags containing catalogued artifacts.

The laboratory catalogue will serve two purposes. The catalogue will serve as a list of the materials retrieved from the sites and it also will serve as a database for current and future analyses. Cataloguers will check the inventory for errors regularly. Some errors will be found by sorting columns to look for inconsistent or anomalous entries. In addition, errors will probably be found when using the data file for preliminary analysis. Anomalies and other clues will be used to identify errors. Laboratory personnel will investigate and correct all discovered inconsistencies in the database.

Condition 3: A report will be submitted prior to approval of further Phase 2 studies. The report will include: 1. tables listing the artifacts found by excavation unit and level, 2. a table listing the times spent excavating soil, times spent sifting soil and drying and sorting and bagging screen residues, and times spent cataloguing material for each excavation, 3. conclusions concerning the results of the Stage 1 study, and if necessary, 4. a work plan for further Phase 2 studies.

The report will include discussion of differences in interpretation of Early period sites reflected in the literature. The report will include discussion of issues related to the study of Early period sites in the Santa Monica Mountains and adjacent areas. Reports describe observations of distribution of artifact types at Early period sites in the Santa Monica Mountains at VEN-1019, LAN-451, and LAN-266. The discussion will describe the potential of site LAN-803 to resolve issues and provide useful information concerning early Malibu society.

Groundstone tools, chipped stone tools, residues resulting from the use and retouching of tools, and stone tool manufacturing debitage recovered will be described in the report. The descriptions will assist in the identification of the types of activities such as food and material processing and tool manufacture that occurred at areas tested. The report conclusions will discuss the utility of the information gathered for distinguishing site boundaries and explain how further excavations will provide information

necessary to accomplish the goals of a Phase 2 evaluation.
The report will provide information concerning the amounts of time spent for excavation, sorting and cataloguing for each excavation unit to enable comparison of costs of excavating in different site areas.

A complete list of causes of soil disturbance that will result from construction and use of the project will be included in the Stage 1 report. The Stage 1 report will include an analysis of the impacts to the archaeological record that will result from the disturbance.

Condition 4: Second stage procedures will be designed to obtain the types of information necessary to 1) define boundaries, 2) evaluate the project's impacts, and 3) develop measures to mitigate potential adverse impacts.

It may be possible to make a map of soil color (or an enhanced air photograph of soil color) and use it with the map of surface artifacts, and the data from the Stage 1 program to define many parts of the site.

The map of the project indicates that the area developed for the pool is in the area of the possible structure depression. To determine if the depression is an indicator of a buried pit structure it will be necessary to excavate a trench through it to observe and record the soil profile. If a buried structure is present, features may be discovered below or near its floor.

At sites of similar age, cairns of metates are often found in cemeteries. Probes or remote sensing could be used to locate concentrations of rocks that may be metate cairns. If concentrations of rocks are located, excavations adequate to identify their contents should be conducted.

Chester King
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To Craig Ewing

January 10, 1999

Concerning 25134 Pacific Coast Highway Phase 2 proposal

I have reviewed the revised scope of work for a Phase 2 program at 25134 Pacific Coast Highway prepared by Gary Stickel on December 21, 1998. The first 18 pages of the proposal are identical to the proposal prepared on November 16, 1998.

Approximately two pages of discussion are added to the original proposal. The additions do not address my concerns with the previous proposal. The added material includes a discussion of sampling procedure to be used for the second stage testing program and a discussion of analysis and report writing. The discussion of sampling does not define the boundaries of the areas to be sampled, it does not describe the sizes and frequencies of the activity areas or features that are to be identified or the required level of probability that pertinant features will be identified. Discussion of the parameters of the sampling program would enable the scale of the second stage testing program to be estimated. The proposed stratified random sampling program will probably require extensive excavations if statistically significant results are to be obtained.

My main concern is that the proposed program may result in a product that fails to satisfy the requirements of the zoning ordinance and fails to provide information adequate to enable the planning department to prepare a CEQA study.

In my previous review, I did not discuss my concerns but rather proposed a set of conditions that addressed my concerns. The conditions I proposed were similar to those proposed for another project that Dr. Stickel is working on in Malibu. The procedures described in the condition are procedures I have used and are the procedures I would use if I was conducting the Phase 2 study. The conditions were for the purpose of clarifying the procedures that would be used to conduct the study because the proposal did not describe procedures that would be used. Dr. Stickel's response to my proposed conditions for the other project revealed that he is proposing to use procedures that differ significantly from my conditioned procedures. In the proposal, he does not describe his initial sorting procedures. The procedures are apparently referred to by the phrase "All recovered data" on page 19 first paragraph and by the phrase "recovered artifacts and ecofacts" on page 20 last paragraph.

FIELD SORTING OF SCREEN RESIDUES

Dr. Stickel's response to my proposed condition describing procedures to recover and process artifacts indicates he has his field crew sort out the materials that are to be further analyzed in the field. Material not bagged is dumped in the field. Each person screening determines what is sent to the lab.

Most archaeological excavators in the area where Chumash languages were spoken prior to Spanish colonization stopped using field sorting procedures over 20 years ago. Archaeologists have regularly sorted all material remaining in screens in laboratories. In Santa Barbara County, County guidelines require laboratory sorting of material remaining in screens from excavations conducted for Phase 2 and Phase 3 studies.

Field sorting of materials that remained in screens was standard procedure in 1960 when I started working on archaeology projects. We most often used 4 mesh per inch screens although occasionally we used 8 mesh screens or 2 mesh screens. Excavations were often square and measured 5 feet, or 2 meters on a side. There was a greater emphasis on excavation of features and less emphasis on small artifact recovery. Most funded excavations were for the purpose of salvaging information from sites that were being destroyed by reservoir or highway projects. Excavations were not conducted for environmental assessments. There were no legal procedures that allowed for preservation.

When we used dry screening, soil was often shoveled directly from an excavation into a screen. The screen was then shook until soil fell through; remaining soil was rubbed through screens as well as could be done; and the remaining residues were then shook to the end of the screen away from the screener. The residues were then moved in small quantities across the screen toward the screener. Artifacts that were observed during this process were taken out of the screen and placed in a bag. As material was sorted, chunks of soil and rock were allowed to accumulate at the end of the screen near the sorter. The field sorting process could be repeated until few artifacts were found and the remaining contents of the screen were then dumped into the pile of screened soil. All observed artifacts were placed into bags. The contents of the bag were later further sorted in a laboratory. After the screen was dumped, the excavator shoveled more soil into the screen and the screening and field sorting process was repeated. Often we did not save flakes bones without articular ends or many other categories of artifacts during field screening. We mostly collected shaped artifacts and tools that are usually large enough to be retained in 4 mesh screens. Each individual that sorted material from the screens independently decided what to save and what to discard. Eight mesh screens were the finest mesh screens used. It is not possible to field sort most artifacts out of 16 mesh screens.

Since the late 1970s, wet screening and laboratory sorting of all screen residues has been standard procedure for cultural resource management studies and archaeological research studies in the Chumash area. Cost and the needs of management studies have led to excavation of smaller samples using techniques to consistently recover small artifacts. The excavation of smaller samples is driven both by cost considerations and desires to minimally damage sites that might be preserved. The Santa Barbara County guidelines for Phase 2 and Phase 3 projects requires laboratory sorting of all materials that remain in screens. Laboratory sorting of all material that remains in screens has been adopted to obtain replicable results and reduce differences between samples that inevitably result from errors. I have found that no archaeologists are perfect and that we all make errors of observation and recordation. The adoption of strict standardized procedures for collecting data reduces errors and usually allows for identification and correction of errors that do occur. Some of the reasons that laboratory sorting has become standard procedure in much of California are:

1. If field sorters are extremely conscientious and try to recover all artifacts it takes more time to sort material under less than optimal conditions and lengthens the time spent in the field. Even if the sorters are conscientious individual differences in visual acuity is apt to introduce differences in recovery and the difference can not be measured. By saving all material that is retained in the screens it is possible to check all sorts and standardize recovery rates.

2. Small objects that pass through 8 mesh screens and remain in 16 mesh screens are not possible to differentiate from small gravels and large sand while they are wet. They are most efficiently sorted in the lab. They are also most efficiently sorted under magnification.

3. Frequencies of different gravel sizes in different parts of the soil profile reflects the length of time that soil has developed since abandonment. I have found that consistent collection of non-cultural materials can unexpectedly aid in interpretation of the distributions of cultural materials. Non-cultural materials can be compared to cultural materials to determine if they have similar histories of being sorted by gophers and earthworms. In the Sweetwater Mesa report, I discussed the distribution of different sizes of non cultural and cultural materials in the soil profile of a control excavation that I laboratory sorted.

4. Laboratory sorting reduces the amount of observer error. Standardized recovery is necessary if samples are to be statistically compared. Statistically significant differences between collections from different site areas can easily result from errors or differences between sorters. I analyzed a collection made in the early 70s by a field class for community college teachers to help them improve their weekend field classes. The students in the class had master degrees in anthropology and many had experience teaching archaeology field classes. I attempted to map the frequencies of animal bone recovered from the excavations to show where bone was concentrated in the site. The collection had been made by sorting the residues remaining in screens in the field. The soil from

some excavations was sifted through 8 mesh per inch screens and the soil from other excavations was sifted through 4 mesh per inch screens. I found that differences in recovery were sometimes greater than differences that apparently reflected differences between site areas and found it impossible to map more detail than presence of bone in excavated areas. In two adjacent excavations, more small bone was recovered by excavators using a 4 mesh per inch screen than excavators using 8 mesh screen. The differences were probably due to a multiplicity of causes. Perhaps the excavators in one excavation excavated faster and encouraged the screeners to empty their screens before removing as many artifacts. Perhaps there were differences in degree of dedication or understanding of the purpose of the research. Perhaps there were differences in eyesight. Perhaps there were differences in training. The affects of these differences can be reduced by reducing the number of decision makers and the number of differences between decision makers.

Reasons for regularly recovering small artifacts.

Small artifacts can be the main indicator of cultural activity. During salvage excavations at Vandenberg AFB a crew under my direction excavated an area with a hearth and a flat floor visible in sidewall profiles. It was apparently a temporary house used while gathering. In addition to a few fire altered rocks, the only artifacts near the floor were small flakes that passed through 8 mesh screens. These were probably flakes that passed through mats placed on the floor . They may have been the result of tool use. Outside of the house area, a concentration of larger flakes was found in an area where stone tools were apparently manufactured.

During salvage excavations in 1970 at Pitas Point, I unknowingly discarded most of the beads that were present in the site through 8 and 4 mesh screens. I excavated 1 meter square control units and screened them through 8 mesh screens and lab sorted the residues. I found few beads. Later after I conducted research for my dissertation and after I analyzed beads that had been recovered from the midden at Talepop using different screen sizes and recovery techniques, I realized that over 90 percent of the beads used during the main occupation at the site passed through the 8 mesh screens. I should have used 16 mesh screens for the control samples to get close to representative samples of beads.

Consistent recovery of small artifacts usually greatly increases the number of artifacts recovered from an excavation. When small holes are excavated, fewer artifacts are expected to be recovered than when large holes are excavated. To recover enough artifacts to enable statistically meaningful conclusions concerning the boundaries of activity areas, it is necessary to recover small artifacts. When I first started doing archaeology in the 1960s, we collected small samples (column samples), water screened them through 16 mesh screens, and sorted the screen residues in a laboratory.

THE TWO STERILE LEVEL RULE

Dr. Stickel claims his two sterile level rule for cessation of excavations is the most common practice in California. In 1960 when I worked on archaeological projects I was told stories of archaeologists who stopped digging just feet above buried occupation deposits. The two levels Stickel refers to only total eight inches in thickness. I was never taught nor have I practiced any two level rule. By excavating small excavations, sorting in the field and deciding to stop excavations after two small levels without observing artifacts, it is possible that significant areas of the site will be ignored or determined to have no significance. Stickel refers to his two sterile level rule in his old text on the top of page 19 and in the second paragraph in his added material on page 20. I recommend that all excavations be conducted to subsoil.

OTHER PROBLEMS

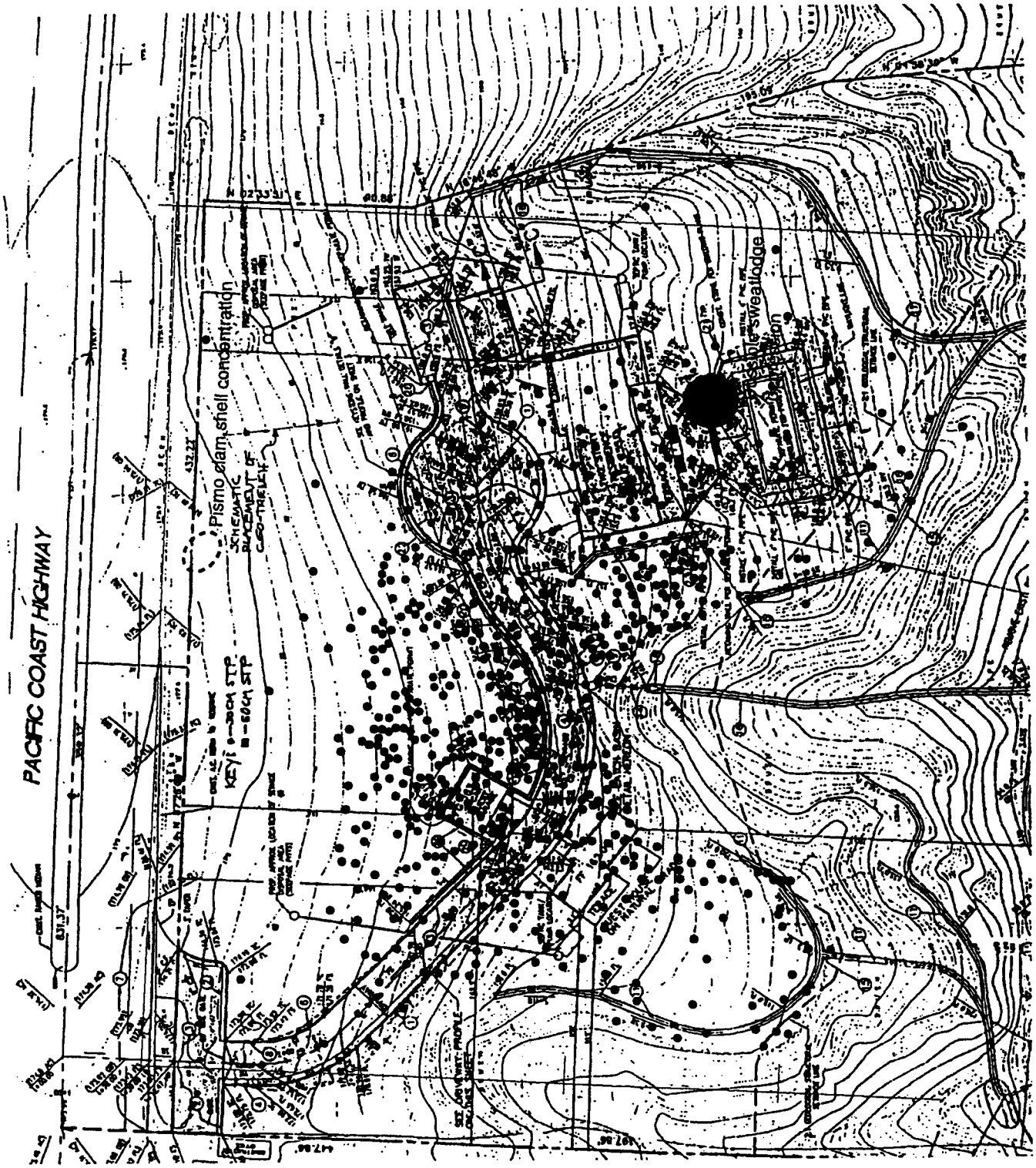
The mapped location of the planned geotest trench differs from the location indicated on the map submitted to the City geologist. It indicates placement of the trench south of the previously excavated trench. The excavation of small test holes may fail to identify artifacts in areas where few artifacts are found on the surface. Inconclusive results may require stage 2 testing to assess the impacts of the trench prior to its excavation.

On page 18 it is stated that originally the pool was placed over the possible sweatlodge depression and the developer agreed to move the pool to avoid the possible structure. I believe the original plan referred to was a plan that was used by the geologists during escrow related studies. On this older plan, development was restricted to the east half of the parcel and the development resulted in disturbance of less of the site than the present plan. On the attached map, the plan included in the proposal is shown with the information presented in Figure 2 of my Phase 1 report superimposed on it. It appears that the depression is in the developed area.

MEASURES TO AVOID UNNECESSARY DISTURBANCE OF THE SITE DURING EXCAVATION

I have observed that frequently archaeological studies can result in a significant amount of site disturbance. Dr. Stickel has stated that he is sensitive to the issue of site preservation and Native American concerns and presumably does not object to conditions whose purpose is maintenance of the site's integrity. I recommended:

> The site will be protected from unnecessary disturbance during excavation. Sifting of soil will be conducted off site. It appears that the western edge of parcel is off site. The screening station should be located beyond areas where artifacts were observed on the surface. Care will be taken to avoid disturbance of the surface of the site. Unless a controlled surface collection is conducted, artifacts will be left in place. No



100 feet

scale

Map of project, mapped surface artifact locations, and features

> motor vehicles will be permitted to drive on the site. Buckets and wheelbarrows will be used to transport soil to the screening station. Excavations will be backfilled with clean sand.

Purpose of the Phase 2 study

In my review of the November proposal, I discussed the status of existing knowledge and outlined the goals of the Phase 2 study. I concluded that the Phase 2 study should gather additional information to 1) define boundaries, 2) evaluate the project's impacts, and 3) develop measures to mitigate potential adverse impacts. These are not the goals of the proposed study.

Dr. Stickel states his goals at the end of his proposal:

> Once the salient information of the test phase results are obtained (including the combined data from Stages I and II and the results from the tests of the hypotheses are available, the assembled data will then be compared to the CEQA guidelines and the data based significance of the portion of the site established.
>
> A complete draft Test Phase (Phase 2) report will then be written that will include recommendations for the mitigation (Phase 3) CRM work period.

Apparently Dr. Stickel's goals are to determine significance according to CEQA and propose a project that would spend time excavating at the site. The statement of goals raises more questions than it answers. What is the salient information? Is it differences in frequencies of midden constituents? How will the hypotheses be tested? What measures will be used to test the hypotheses?

The site is significant according to CEQA guidelines. Determination of significance should not be the focus of the Phase 2 study. In addition to designing measures to work at the site, measures to avoid impacts should be proposed. There is no indication that the proposed Phase 2 study will attempt to identify significant impacts or develop measures adequate to mitigate them.

In my previous review, I suggested how the proposed Stage 1 program (assuming that careful recovery procedures would be used) could provide important information. I suggested:

> The proposed first stage testing program could gather information useful for determining relative costs of data salvage programs for the proposed project. Figure 2 of the proposal indicates the locations of excavations that will be conducted as part of the first stage of the Phase 2 study. Information concerning the costs of data salvage can be used to determine whether salvage is a practical or feasible means of mitigation. If data salvage is not a feasible mitigation measure, it will be necessary to determine if the project can be redesigned to reduce impacts to a level where data recovery is feasible.

After completion of the first stage of the Phase 2 program, the scope of additional field work necessary to define boundaries, evaluate impacts, and design mitigation programs will be determined.

I proposed a condition that described the contents of a report that would be useful for environmental review. I described the contents of the Stage 1 report:

A report will be submitted prior to approval of further Phase 2 studies. The report will include: 1. tables listing the artifacts found by excavation unit and level, 2. a table listing the times spent excavating soil, times spent sifting soil and drying and sorting and bagging screen residues, and times spent cataloguing material for each excavation, 3. conclusions concerning the results of the Stage 1 study, and if necessary, 4. a work plan for further Phase 2 studies.

The report will include discussion of differences in interpretation of Early period sites reflected in the literature. The report will include discussion of issues related to the study of Early period sites in the Santa Monica Mountains and adjacent areas. Reports describe observations of distribution of artifact types at Early period sites in the Santa Monica Mountains at VEN-1019, LAN-451, and LAN-266. The discussion will describe the potential of site LAN-803 to resolve issues and provide useful information concerning early Malibu society.

Groundstone tools, chipped stone tools, residues resulting from the use and retouching of tools, and stone tool manufacturing debitage recovered will be described in the report. The descriptions will assist in the identification of the types of activities such as food and material processing and tool manufacture that occurred at areas tested.

The report conclusions will discuss the utility of the information gathered for distinguishing site boundaries and explain how further excavations will provide information necessary to accomplish the goals of a Phase 2 evaluation.

The report will provide information concerning the amounts of time spent for excavation, sorting and cataloguing for each excavation unit to enable comparison of costs of excavating in different site areas.

A complete list of causes of soil disturbance that will result from construction and use of the project will be included in the Stage 1 report. The Stage 1 report will include an analysis of the impacts to the archaeological record that will result from the disturbance.

I suggested several approaches for documentation of features and activity areas at the site during second stage studies. I observed:

It may be possible to make a map of soil color (or an enhanced air photograph of soil color) and use it with the map of surface artifacts, and the data from the Stage 1 program to define many parts of the site.

The map of the project indicates that possible structure depression is in the development area. To determine if the depression is an indicator of a buried pit structure it is necessary to excavate a trench through it to observe and record the soil profile. If a buried structure is present, features may be discovered below or near its floor.

At sites of similar age, cairns of metates are often found in cemeteries. Probes or remote sensing could be used to locate concentrations of rocks that may be metate cairns. If concentrations of rocks are located, excavations adequate to identify their contents should be conducted.

Conclusions

The revised proposal does not address concerns expressed in my review of the initial proposal. On the basis of his comments concerning another project it appears that Dr. Stickel will refuse to respond to comments in a constructive manner. I suggest that the City refuse to accept the proposal. This review and my previous review describe the components of an adequate program. Dr. Stickel can devise an acceptable program from my comments.

Review of A Phase 2 (Test Phase) of Archaeological Site CA-LAN-803 at 25126 Pacific Coast Highway, Malibu, California. prepared by E. Gary Stickel

Project address also listed as 25134 Pacific Coast Highway (PPR 98-235)

Analysis of data gathered by the Phase 2 excavations

I analyzed the data contained in the catalogue from the test excavations before reading the test report conclusions. The information gathered indicates the presence of small artifacts below the plow zone in the vicinity of STP 5, 6 and 7 where few artifacts were observed on the surface. The information gathered from the other test excavations is consistent with my observations of the distribution of artifacts on the site surface.

For my analysis, I summarized the catalogue data so that I could compare with data from other sites and compare the different areas excavated within the site. I tabulated the catalogued artifacts according to the mesh size needed to recover them. I used width of artifacts as a proxy for mesh size. I used measurements of the diagonal spaces of hardware cloth (screens), and sizes of beads recovered from different excavations (King 1982) to estimate the widths of flakes that would pass through different mesh sizes. Objects wider than 7 mm were classified as being retained in 4 mesh screens and those with widths greater than 3.5 mm were classified as being retained in 8 mesh screens. Objects with widths greater than 2.0 mm will be retained in 16 mesh screens.

Many artifacts I have tabulated as small enough to pass through a larger mesh size are probably thick or irregularly shaped and would actually be retained in a screen with a larger mesh size. The table therefore contains larger numbers of artifacts for smaller meshes than would be found if the artifacts were actually size sorted through meshes. The frequencies of small flakes and shatter is less than expected if all the products of stone flaking were present in the excavations. Less than 2% of the artifacts from the test excavations were less than 3.5 mm in width. Either stones were flaked at workshop locations away from the tested areas or the artifact recovery procedures failed to collect most small flakes and shatter. Artifact materials listed in the catalogue include cherts, chalcedony, fused shale, quartzite, and metavolcanic (apparently andesite and rhyolite). The relative frequencies of these stone materials is similar to the frequencies of chipped stone materials observed during surface mapping in the areas tested. The following tables summarize information from the catalogue.

Table 1: Frequencies of Chipped Stone Artifacts from Shovel Test Pits

	4 mesh				8 mesh				16 mesh			
Excavation	chert	chalc	metavo	quartzite	chert	chalc	metavo	quartz	chert	chalc	Total	T/m2
STP 1	2				1						3	12
STP 4	1			1					1		3	12
STP 5	8	1			1	3					13	52
STP 6	5	3			1						9	36
STP-7	12	1			4					1	18	72
STP-8					1						1	4
STP-9	8		1		3	2	1				15	60
STP-10	4	1	1	1							7	28
STP-11	5				1						6	24
STP-12	3	1	1		1						6	24
STP-13	7				2						9	127
STP-14	3	2			1						6	85
STP-15	2										2	28
STP-16	4				1						5	71
STP-17					1						1	14
STP-19	2	1									3	42
STP-20	3				1						4	57
STP-21	1	1									2	28
STP-22	2	1			1						4	57
STP-23	1		1					1			3	42
STP-24	2	1		1	1						5	71
STP-25	6+1 core	1		1 chop	6	1					16	226
STP-26	2										2	28
STP-27	1				1						2	28
STP-28	2				3						5	71
STP-31	1										1	14
Total	81	14	4	3	31	6	1	1	1	1	151	

Table 2: Frequencies of Chipped Stone Artifacts from Test Pit 1

	4 mesh				8 mesh				16 mesh		
Excavation	chert	chalc	metavo	quartzite	chert	chalc	metavo	quartz	chert	chalc	Total
TP1, 0-10	17	8	1	1	9	4					40
TP1, 10-20	15	7		1	10	5					38
TP1, 20-30	26	5	1	1	12	7			1	2	55
TP1, 30-40 A	15	7			4	3			1	1	31
TP1, 30-40 B	13	6	1		3	1		1			25
TP1, 40-50	5	1	1		3	1	1				12
Total	91	34	4	3	41	21	1	1	2	3	201

also two 8 mesh size fused shale flakes found in TP1 one in 10-20 other in 20-30 cm level

Table 3: Frequencies of Chipped Stone Artifacts from Test Pit 2

	4 mesh			8 mesh		
Excavation	chert	chalc	quartzite	chert	chalc	Total
TP2, 0-10	7	2	1	3	1	14
TP2, 10-20	3	2			1	6
Total	10	4	1	3	2	20

Table 4: Frequencies of Chipped Stone Artifacts from Test Pit 3

	4 mesh				8 mesh		16 mesh	
Excavation	chert	chalc	metavo	quartzite	chert	chalc	chalc	Total
TP3, 0-10	9				2			11
TP3, 10-20	3	2			1	1		7
TP3, 20-30	6	2		1	2		1	12
TP3, 30-40	2	2	1					5
Total	20	6	1	1	5	1	1	35

Table 5: Frequencies of Chipped Stone Artifacts from Test Pit 4

	4 mesh				8 mesh		16 mesh	
Excavation	chert	chalc	metavo	quartzite	chert	chalc	chert	Total
TP4, 0-10	10	5			1	1		17
TP4, 10-20	13	4	1	1	1	4		24
TP4, 20-30					6		2	8
TP4, 30-40	1	1						2
Total	24	10	1	1	8	5	2	51

also one 16 mesh metavolcanic in 20-30 cm level

After tabulating the artifacts, I mapped the frequencies of artifacts recovered from the excavations. To map the relative frequencies of artifacts found in different size excavations, I computed the relative areas of a 30 cm circle and 50 and 100 cm squares to enable comparison of the amounts of material found in different site areas. I multiplied the numbers of artifacts from 50 cm squares by 4 and the artifacts from 30 cm diameter holes by 14.15 to estimate the number of artifacts that would be expected per square meter. (The actual area sampled in lower levels of many of the 30 cm diameter excavations was less than estimated because many pits were conical shaped and less soil than estimated was excavated from lower levels- the report does not provide information concerning volumes of soil excavated from different levels). Figure 1 presents information concerning the densities of artifacts found in test excavations. The size of the squares around test excavation locations indicates the relative frequencies of artifacts found in the test excavations. The highest density of artifacts was found in STP 25. A core and a chopper were found in this excavation. Artifacts were also recovered from deeper levels in this excavation than most nearby excavations. It appears that this excavation was in or near the edge of the main residential area at the site.

The second and third highest densities were near the eastern edge of the area with the highest density of chipped stone artifacts. The test excavations were near the edges or outside the areas of highest concentrations of artifacts mapped on the surface of the site. The test excavations recovered 461 artifacts. Over 626 artifacts were recorded when I mapped the surface of the site. No test excavations were placed in the area containing a concentration of types of artifacts associated with houses. The test excavations did not significantly increase knowledge concerning CA-LAN-803. They do not provide information that changes evaluation of the significance of the site.

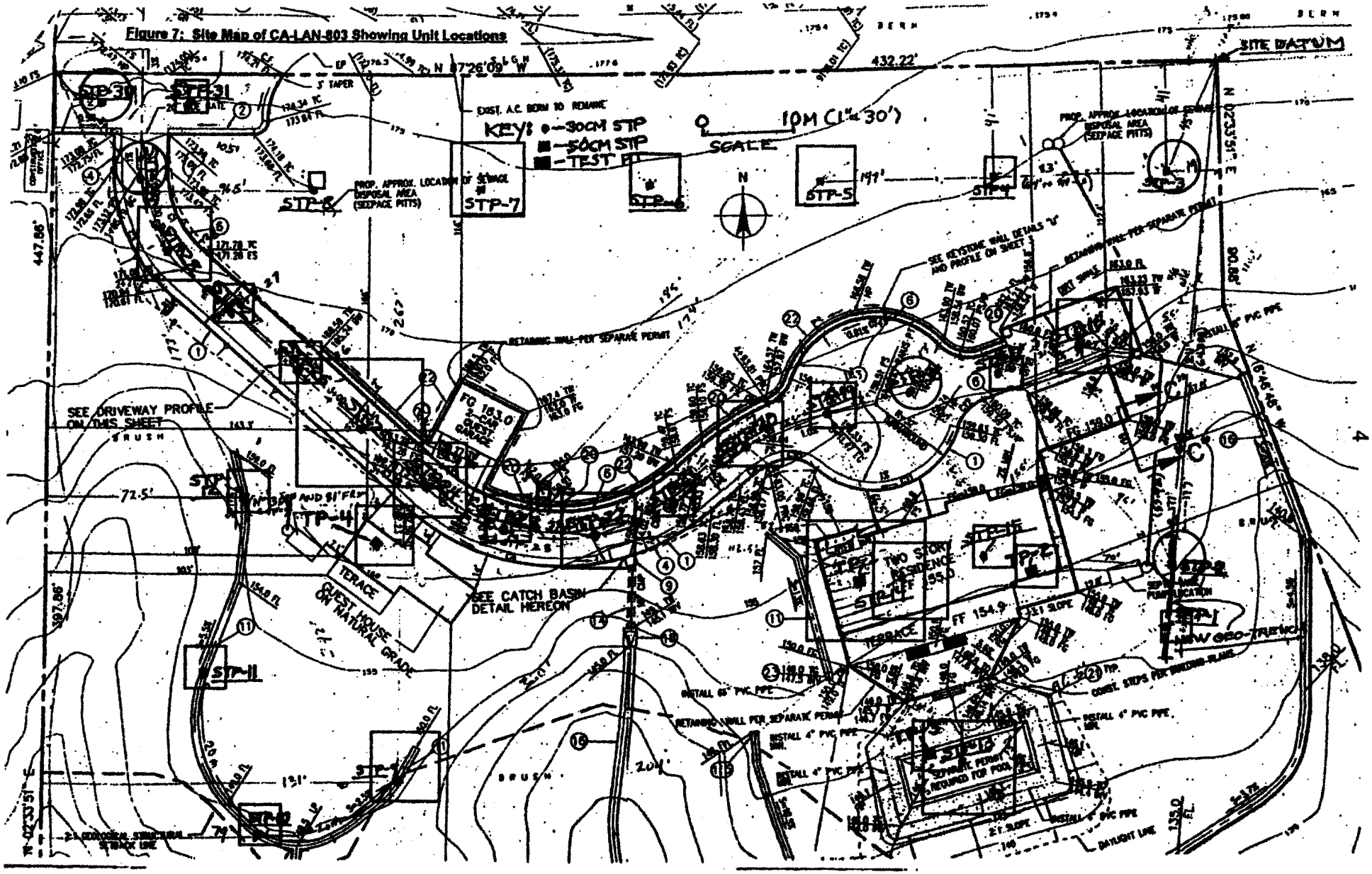


Figure 1: Artifact density of test excavations

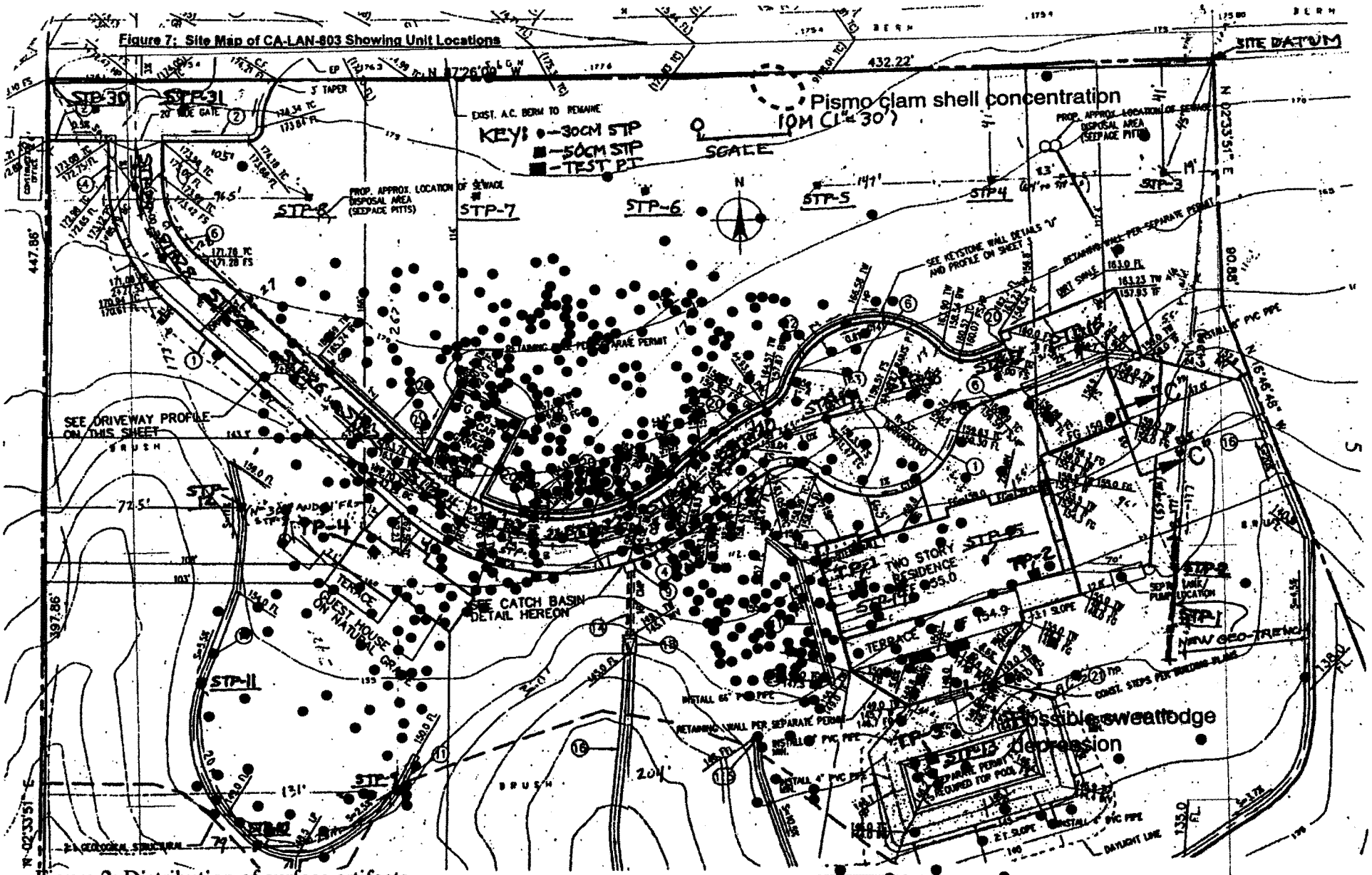


Figure 2: Distribution of surface artifacts

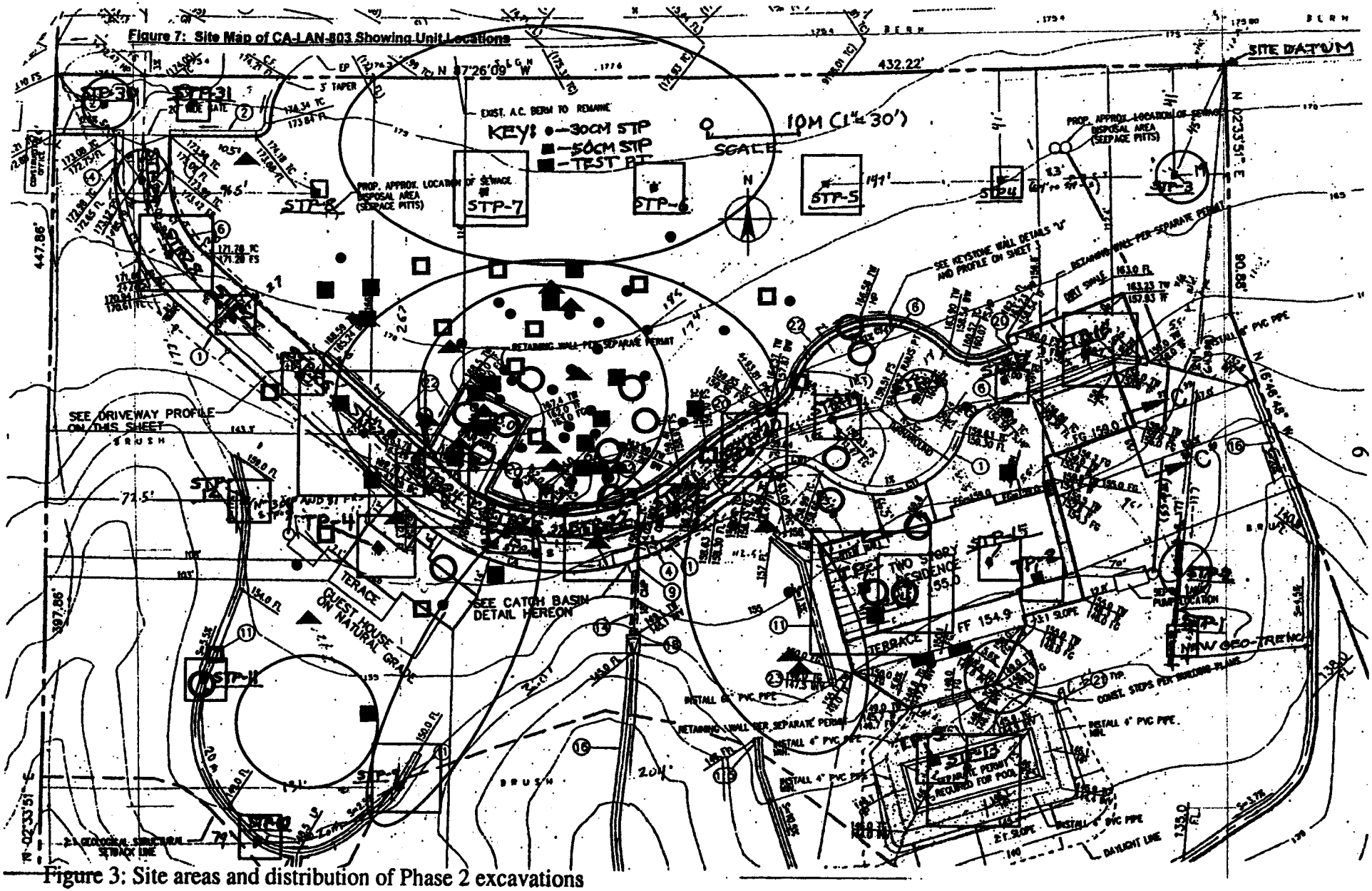


Figure 3: Site areas and distribution of Phase 2 excavations

Discussion of Stickel conclusions

The following discussion is an analysis of the conclusions in the Stickel report. In most cases I strongly disagree with the conclusions. My conclusions are based on the results of the test excavations, my observations of the surface artifacts at the site, my studies at other sites of similar occupation period that contained similar artifacts, and my extensive knowledge of sites in Malibu and southern California. I believe I am uniquely qualified to evaluate the significance of CA-LAN-803.

I have specialized in the study of California archaeology and ethnohistory. My dissertation Evolution of Chumash Society explains changes in beads and ornaments in the Santa Barbara Channel during the last 7000 years. It also organizes important background information concerning changes in technology and site locations. I am the author of a chapter concerning the archaeology of protohistoric and historic native sites in the California Volume of the Handbook of North American Indians published by the Smithsonian Institution. I have conducted archaeological studies in Malibu since 1961. I am presently inventorying archaeological sites in the SMMNRA for the NPS and my research has involved recording Early period sites. One of my research goals is the discovery of changes in settlement distribution over time. My research involves establishing historic baselines with information concerning the locations of historic settlements and the identification of the sites of the historic settlements that contain early historic period artifacts. The distributions of historic settlements is then compared with the distributions of sites of earlier periods. This comparison has enabled the identification of shifts in settlement locations and changes in settlement distributions.

I am a recognized expert concerning Early period sites in southern California. I was recently requested to write the section: The Early Southern California Tradition (southern California Early period) 8000 BP - 3000 BP for the *Encyclopedia of Prehistory*- North America Volume. The Encyclopedia will cover the world and all of human prehistory and is being organized by Human Relations Area Files. I have submitted my manuscript. The Encyclopedia will be published by Kluwer Academic. I also recently co-authored a chapter "Middle Holocene adaptations in the Santa Monica Mountains" (Gamble and King 1997). The chapter discusses Early period sites. The chapter is in a collection published by the UCLA Institute of Archaeology. I have discussed research needed concerning Early period sites.

Dr. Stickel's conclusions begin on page 41 of his report. The first conclusion is Dr. Minch's interpretation that the possible sweatlodge depression was made by the recent actions of a tractor. I first observed the depression during my mapping of surface artifacts in 1997. After its discovery, equipment used to conduct geological studies drove through the depression. The site was disked for weed abatement in the spring of 1998. The driving of equipment through the area decreased the clarity of definition of the depression. The tractor tracks that Dr. Minch describes as causing the depression were left after my discovery and were probably the result of disking in 1988. They could not have caused the formation of the depression. I have excavated semi-subterranean houses in California, Utah and Idaho. I have discovered pits remaining from sweatlodge structures in southern California sites. On the basis of my observations experience and on site consultation with geo-archaeologist Jeff Parsons, I believe that there is a good possibility that the depression indicates the presence of a subterranean pit structure.

Stickel concludes that only a few tools were found in comparison with a site he excavated in Palos Verdes. In evaluating LAN-803, he consistently compares it to a site he excavated in Palos Verdes that he designates OTPV-5. No report concerning the site is referenced, use of a temporary designation indicates a site record form has not been filed at the UCLA Information Center. It is not possible to assess Stickel's comparisons when he controls the information available concerning the site. It is not clear from Stickel's discussion when the site was occupied, Stickel says "initially

hypothesized to be the same age as LAN-803." There are reports (published and manuscripts on file at UCLA) concerning sites in Malibu that were occupied at the same time as the project site. Information from these reports should be used for comparisons not information available only to Gary Stickel. The proportions of artifact types from other Malibu sites such as LAN-267, LAN-266, and LAN-958 are more relevant to evaluating LAN-803 than a site in Palos Verdes.

The observed proportion of shaped tools to refuse from making and using stone tools is not unusual for an Early period site in Malibu. The amount of debitage in a site is largely due to the ease of acquiring material and the quality of stone. The quality determines the amount of waste material the stone produces. The relative frequencies of debitage to tools also varies between different areas of sites. If Stickel had excavated in the area that artifacts indicate houses were present he would probably have found lower proportions of debitage to shaped tools. The proportions would probably be more similar to those from STP-25.

Stickel states that no stone bone or charcoal was recovered. These types of remains are probably mostly broken up or dissolved. There may be remains preserved in the area not investigated where artifacts associated with houses are concentrated. Faunal and floral remains are often found best preserved in the vicinity of house locations. The length of occupations at sites influences the degree of preservation of animal remains. The greater amount of shell and bone deposited at a site the greater are the chances of preservation of bone and shell. Soils at sites that have been enriched in calcium caused by the decay of shell and bone preserves remaining bone and shell better than soils with less calcium. Two of the largest sites in Malibu that were occupied at the same time as LAN-803 are LAN-267 and LAN-30. These sites had higher densities of shell and artifacts than LAN-803. The preservation is the result of occupation at these sites for a longer period of time than LAN-803. The length of occupation at a site results in different opportunities for archaeological research. At sites occupied for shorter lengths of time, activity areas are often more distinct than they are at sites occupied for long lengths of time where the use of particular areas is more apt to change.

Stickel states that no diagnostic or time marker artifacts were recovered. He does not define what characterizes a diagnostic or time marker artifact. Perhaps he would consider no artifact found in early Early period sites to be temporally diagnostic. All artifacts observed during mapping of artifacts on the surface and from excavations are similar to artifacts found at sites that date to Early period Phase x (6000-4000 BC). The artifacts include distinctive types of manos, metates, unnotched points, and other tools. No artifacts that are commonly found in sites occupied after 4000 BC including notched points, contracting stem points, mortars and pestles were found.

Stickel states that no human bone was recovered. Cemeteries are expected on the basis of discoveries at similar sites. Human bone has only been found in cemeteries at other early Early period sites. If any of the test excavations were placed in a cemetery they apparently missed hitting burials. Burials found in Early period Phase x cemeteries often have spaces between metate cairns large enough to accommodate a 50 centimeter square. The size of cemetery expected to be present at LAN-803 is small enough to have been completely missed by the testing program. It is most probable that the testing program failed to excavate in cemeteries.

Stickel states that the site covers the relatively flatter upper slopes of the property. It was originally recorded on the parcel adjacent to the east and an area of the site is present on the adjacent parcel . I agree with Stickel that the entire project area is within an archaeological site. This is supported both by surface observations and the results of the test excavations. Stickel states the site area is 10,859 square meters. This number appears smaller than the area where artifacts were found. A very exact number is given. It is not explained how the measurement was made. Stickel excavated 8.3 square meters for his testing program. This is 0.076% of his estimated site area. The test excavations were not scattered randomly or uniformly across the site but were located within areas identified by particular project elements.

Stickel discusses the depth of the site. The smaller volume of soil excavated from lower levels and a procedure that is biased toward finding artifacts near the surface probably affected the determination of depth. If Stickel's two level procedure is used and two artifacts are present in the 0-10 cm level they will be discovered using his procedure. If they are in the 30-40 cm level they will not be discovered because the excavation will not be excavated past three levels without artifacts being found. Testing was all marginal to the main activity areas defined on the basis of concentrations of artifacts on the surface of the site. It is probable that soils are deeper in some of these areas.

After abandonment of a settlement, wood and thatch are destroyed by termites, molds and other organisms, the earth covered roofs of sweatlodges collapse and basins formed by excavations for houses and subterranean sweatlodges begin to be filled by soil that washes in. Soil is dynamic and if observed over time moves. Earthworms bring large amounts of small soil particles to the surface every year. Gophers bring particles up to two inches in diameter to the surface. Over time the actions of biological and geologic process continue to alter the composition of sites. Different sized artifacts begin to be sorted by size in the soil with large objects concentrated near the bottom of the active soil and medium sized objects concentrated near the surface of the soil. Models run on computers have generated distributions that match observation of artifact distributions at sites abandoned for different lengths of time. The longer a site has been abandoned the greater it is apt to be altered.

Stickel states that no house remains were found. He avoided excavation in areas where artifacts associated with houses were found. Expectations of house floors in an over 6000 year old site on the crest of a ridge in Malibu is unrealistic. Features including clusters of artifacts and rocks are apt to be found but compacted house floors are probably no longer present. After abandonment of a settlement, wood and thatch are destroyed by termites, molds and other organisms, the earth covered roofs of sweatlodges collapse and basins formed by excavations for houses and subterranean sweatlodges begin to be filled by soil that washes in. Soil is dynamic and if observed over time moves. Earthworms bring large amounts of small soil particles to the surface every year. Gophers bring particles up to two inches in diameter to the surface. Over time the actions of biological and geologic process continue to alter the composition of sites. Different sized artifacts begin to be sorted by size in the soil with large objects concentrated near the bottom of the active soil and medium sized objects concentrated near the surface of the soil. Models run on computers have generated distributions that match observation of artifact distributions at sites abandoned for different lengths of time. The longer a site has been abandoned the greater it is apt to be altered.

Stickel apparently confuses the activity areas that I defined during mapping of surface artifacts with features that he found in areas less than 1 meter square. The areas I defined were over 100 square meters in area. Stickel appears unable to understand anything I have said concerning the site. He claims that his failure to discover small clusters of artifacts refutes the presence of large areas I identified with different artifact frequencies. The different frequencies are documented by the mapping of surface artifacts. Stickel has a copy of my map and notes yet he does not use the data in his analysis. Figure 4 summarizes my observations from surface mapping and test excavations at CA-LAN-803 Stickel avoided excavation in all of the hatched areas indicated on the map. If the areas indicated on the map are separate activity areas I would consider the site very complex.

On page 44 Stickel concludes that the site is a factory for stone tool manufacture used by people at an unidentified adjacent settlement. The artifacts at LAN-803 indicate the presence of a residential area at the site. Stickel's excavations were outside this area and other areas of highest concentration of surface artifacts. He explains the manos as indicating a kind of bakery site where flour is ground to be taken to peoples homes. In all California and Southwestern settlement sites I am familiar with, grinding implements are concentrated in houses. Stickel's determination is reminiscent of another archaeologist's determination that the ethnohistoric village of Mescalitan

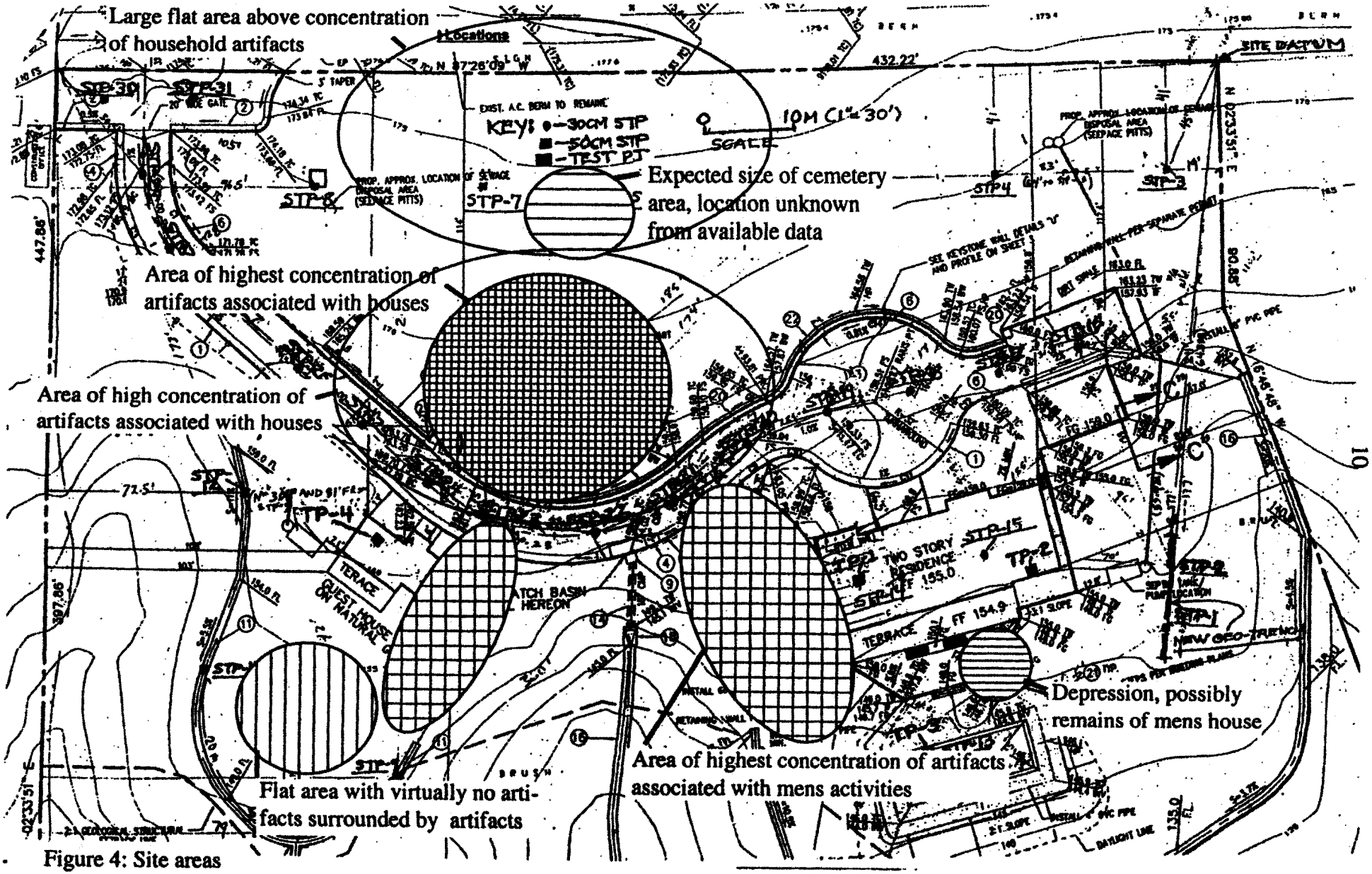


Figure 4: Site areas

considered by members of the Portola expedition to be the largest town they saw in California was a seasonal fishing camp. Stickel's determination is unacceptable. His failure to reference pertinent literature concerning similar Early period sites in the Malibu area demonstrates a lack of professional responsibility.

Significance

The City Zoning Ordinance defines important cultural resource
9381. Definitions
D. "Important cultural resource" shall meet one of the following criteria:
1. Is associated with an event or person of either
   a. recognized significance in California or American history or
   b. recognized scientific importance in prehistory; or
2. Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions; or
3. Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind; or
4. Is at least 100 years old and possesses substantial stratigraphic integrity; or
5. Involves important research questions that historical research has shown can be answered only with archaeological methods.

The site is at least 100 years old and possesses substantial stratigraphic integrity. Stratigraphic integrity means that the site has not been altered so that the locations of features such as houses are obscured. The site was occupied between 6000-4000 BC and is the best example of a whole residential settlement site left in the City. It is also one of the older sites identified in the City. There is apparently relatively little overlap of deposits at the site from later occupations. Sites with greater time depth of occupation are more apt to have specific activity areas obscured. CA-LAN-803 is probably the best preserved whole site that was occupied during the early Early period that remains along the coasts of Los Angeles and Ventura Counties. Archaeologists have not mapped the organization of any of the sites that have been destroyed or damaged by development. Damage or destruction of site LAN-803 will result in the loss of important information concerning lifeways and social organization of early Malibu residents. The organization of surface artifacts indicates that this early settlement contained many of the features characteristic of historic California native settlements. Understanding the organization of the site and the types of activities conducted at different areas of sites will result in appreciation for our native history. The site has value for the development of a society that values all people. The site has value for destroying European colonial racist attitudes that were used to justify the expropriation of lands from native peoples and continue to linger as their settlements, cemeteries and shrines are destroyed. The site can provide important information concerning the development of native societies and the evolution of religion. If the site were properly excavated it would provide information that would challenge theories concerning the evolution of North American societies. Discovery of early ceremonial mound complexes in the Eastern United States and other information concerning early societies is changing our perceptions of the development of societies in North America

The site can provide important information concerning the development of native societies and the evolution of religion. If the site were properly excavated it would provide information that would challenge theories concerning the evolution of North American societies. Discovery of ceremonial mound complexes in the Eastern United States that date from the same time period and other information concerning early societies is changing our perceptions of the development of societies in North America

Inventory of Malibu archaeological sites.

Table 6 provides information concerning all sites recorded at the UCLA information center and additional as yet unrecorded sites identified by the City archaeologist during recent surveys and seed gathering expeditions. This table provides a context for assessing sites

The categories in Table 6 are:

List - sequence generally goes from east to west
Site # - Official site number- preceded by prefix CA-LAN- . Blank entries are sites not officially recorded
General Location - Area of Malibu
Site type - Classification as settlement , camp or other type of site. Settlements are generally distinguished from camps on the basis of types and frequencies of artifacts. Historic settlements are identified in the mission registers.
Occupation periods - Periods are defined in King 1990 and Bennyhoff and Hughes. Early ca 6000-800 BC, early Middle ca 800BC- AD 700, late Middle ca AD 700-1200, Late Phase 1 ca AD 1200-1500, Late Phase 2 and early historic AD 1500-1804. The choice of the periods used is based on ability to accurately assign sites to particular periods.

The Early period is approximately 5,000 years long and major changes in artifact frequencies and choices of locations for archaeological sites occurred during the period.
Size - This is a somewhat subjective measure. Sites that have large areas are not always listed as large. If only a few artifacts were found over a large area or concentrated in small areas the site may be listed as small. The size relates to estimated settlement size more than area covered. Sites that are similar in size to the sites of the historic settlement of Humaliwo are classified as large. The largest sites of earlier time period are classified as large. Within time periods sites are classified in relation to the other sites of the time period.

Present Condition - statement of disturbance and context
half or less - less than half of the site remains
bad damage - the site is badly damaged, the extent of damage is often not clearly documented, many of these are probably over half destroyed.
Future plans - projects that are or have been proposed on the site.
Ownership - private, government, or other public entities (MWD, MRT)
Year record - the year that the site was recorded
Recorded by - the person or persons that recorded the sites
Comment- Historic name and other information concerning the site
visit - site visited by City archaeologist Chester King

There are a finite number of archaeological sites in Malibu. The 108 sites listed are a large portion of the total number that are or were present. Many of the recorded sites have been totally destroyed. At any one time, there were between 3-15 settlements in the City of Malibu. During the last 10,000 or more years of human residence in Malibu, settlements were abandoned and new settlements were formed. Movements of settlements and camps to new locations resulted in the formation of new archaeological sites.

All of the historic villages listed in the San Fernando and San Buenaventura Mission registers were recorded as archaeological sites before 1960. No medium or large sized Early period or other period settlements have been recorded since Malibu became a City. Most of the Phase 2 studies that have been required by the City of Malibu are at sites that were recorded prior to 1980. New sites continue to be identified. It appears that most unidentified sites are parts of or adjacent to recorded sites or are small sites. Most unrecorded sites are probably small camp sites near the coast between Zuma Creek and Steep Hill Canyon.

Table 6: Status of Malibu Archaeological Sites

List	Site #	General Location	Site type	Occupat-ion periods	Size	Present Condition	half or less	bad dam age	Future plans	Ownership	Year recor d	Recorded by	Comment	v i s i t
1	265	E of Carbon Canyon	Settlement ?	Early?	sml	unknown, bulldozing has recently occured in area	?	X	cliffing. Road improvement after slides	private	1961	C. King	-	x
2	268	E of Carbon Canyon	Settlement ?	Early?	sml	remains of site lost in landslide	X		cliffing. Road improvement after slides	private	1961	C. King		x
3	450	E of Carbon Canyon	Settlement	Early	sml-med	unknown				private	1971	Matis Lab		
4	517	E of Carbon Canyon	shell midden	?	sml	under road- possibly destroyed	X			pw and private	1973	Leonard		x
5	195	E of Carbon Canyon	burial, shell midden	Middle and Late?	sml	under highway - possibly all destroyed	X		road maintenance	Caltrans possibly private	1951	Eberhart		x
6	1306	E of Carbon Canyon	shell midden	Middle and Late?	sml	small area of intact deposit remains in road cut	X		cliffing. Road improvement after slides	Caltrans possibly private	1985	Romani and Palmer		x
7	190	E of Carbon Canyon	Settlement	Middle date	med	under houses- possibly most of site destroyed		X		private	1952	Eberhart	c 14 - 3460+200	x
8	1415	E of Carbon Canyon	Settlement	Middle and Late?	med	under parking lot at Dukes, probably most destroyed	X			private & possibly Caltrans	1988	Romani		x
9	1415	E of Carbon Canyon	Settlement	Phase L2a	med	under pavement, probably much destroyed		X		pw and private	1988	Romani		x
10	1105	Central Malibu	Settlement	Early	sml	damaged by grading possibly most intact		X	House construction	private	1981	Singer and Romani		x
11	1106	Central Malibu	Settlement	Early	sml	removed by grading	X			private	1981	Singer and Romani		x
12	471	Central Malibu	Settlement	Early?	sml	removed by grading	X			private	1972	Coleman		x

13	267	Central Malibu	Settlement	Early x	med -lg	large part destroyed by grading, intact areas remain	X			private	1961	C. King and Glassow		x
14	1449	Central Malibu	disturbed midden	Middle and Late?	-	disturbed midden found between LAN-264 and 690	X			Caltrans & private	1988	Romani, Larson, Lotahs	3' below pave	x
15	690	Central Malibu	Town	Middle and Late	lg	under pavement, much of site destroyed by construction of Dean Witter building		X		Caltrans & private	1983	Aycock/ Singer	Historic Humaliwo	x
16	264	Central Malibu	Town	Middle and Late	lg	most in State Park under parts of Serra Rd				pw, State, private?	1959	R.S. Watson	Historic Humaliwo	x
17	387	Central Malibu	Ranch center	Spanish and Mexican	lg	appears good				private	1969	T. King	Tapia ranch center	x
18	404	Central Malibu	artifact cluster - core tools	?	sml	possibly damaged by grading		?	possible fill site	school	1969	Chartkoff & Gutman		x
19	1417	Central Malibu	shell midden	?	unk now n	buried under development - possibly intact areas present		?		pw and private	1988	Wlodarski 'and Larson	under 4-5' fill, midden ca 3' thick	x
20	266	Central Malibu	Settlement	Early	med	disturbed field			planned to be capped for Hotel construction	private	1961	C. King		x
21	1715	Central Malibu	artifacts probably part 266	?	sml	disturbed field		?	planned to be graded away for Hotel	private	1990	RMW Paleo	mano, 3 cores. many flakes	x
22	255	Puerco Canyon	Settlement ?	Early	sml-med	field and unknown destroyed	?	X		private & Caltrans	1960	record lost		x
23	479	Puerco Canyon	Settlement ?	Early	sml-med	site in yard	?	X		private	1972	J. Jones		
24	19	Puerco Canyon	Town	Early, possibly Middle/La te areas	lg	various degrees of development, some open field	?	X	House construction and comercial development	private	1949	Bierman and Eberhart		x
25	1151	Puerco Canyon	Settlement	Early	med	main area removed by grading	X			private	1984	VanHorn		x

26	**803**	**Puerco Canyon**	**Settlement**	**Early**	**med**	**field, limited disturbance by geological testing**			**House construction**	**private**	**1978**	**Hector, Rering, Hart**		x
27	263	Puerco Canyon	Settlement ?	Early	sml	residence built on site, possibly intact parts remain	X			private	1960	Verburg and Redelings		
28	310	Corral & Solstice Cyns	Settlement ?	Early	sml	field				private	1965	Romoli		
29	311	Corral & Solstice Cyns	Settlement	Late	sml-med	field, historic house site				private	1965	Romoli & Apostolides		x
30	1298	Corral & Solstice Cyns	Settlement	Late ?	sml	field				private	1987	Dillon		
31	226	Corral & Solstice Cyns	shell midden	?	sml	destroyed or severely damaged	X			private	1960	Verburg & Redelings		
32	0	Corral & Solstice Cyns	shell midden	Early	sml	plowed field		X		MWD	1999	King et al		x
33	210	Corral & Solstice Cyns	Settlement	Middle/Late	med -lg	much destroyed by grading, significant buried areas remain		X		private & Caltrans	1950	Eberhart	Historic Lojostogni	x
34	189	Escondido Canyon	Settlement	Early	med	much destroyed by grading intact areas remain	X			private	1950	Eberhart		x
35	1107	Escondido Canyon	Settlement	Early	med	disturbed by house and roads, much intact		X	House construction	private	1980	Singer and Wessel		x
36	1879	Escondido Canyon	Settlement	Early	med	field, dirt road			House construction	private	1989	Becker-RMW Pale		x
37	2049	Escondido Canyon	Settlement	Early	sml	destroyed or severely damaged	X			private	1992	C. King		x
38	223	Escondido Canyon	cave	?	-	natural area				private	1961	King and Chandonet	from Ken Carpenter	
39	207	Ramirez Canyon	Large Settlement	Middle/Late	lg	destroyed or severely damaged	X			private	1948	Peck	Historic Sumo	x
40		Ramirez Canyon	Settlement	Middle ?	med -lg	pasture, geological test trenches				private	1999	C. King		x
41	222	Ramirez Canyon	Settlement	Early and early Middle	lg	areas destroyed by grading intact areas remain	?	X		private	1950	Eberhart		x

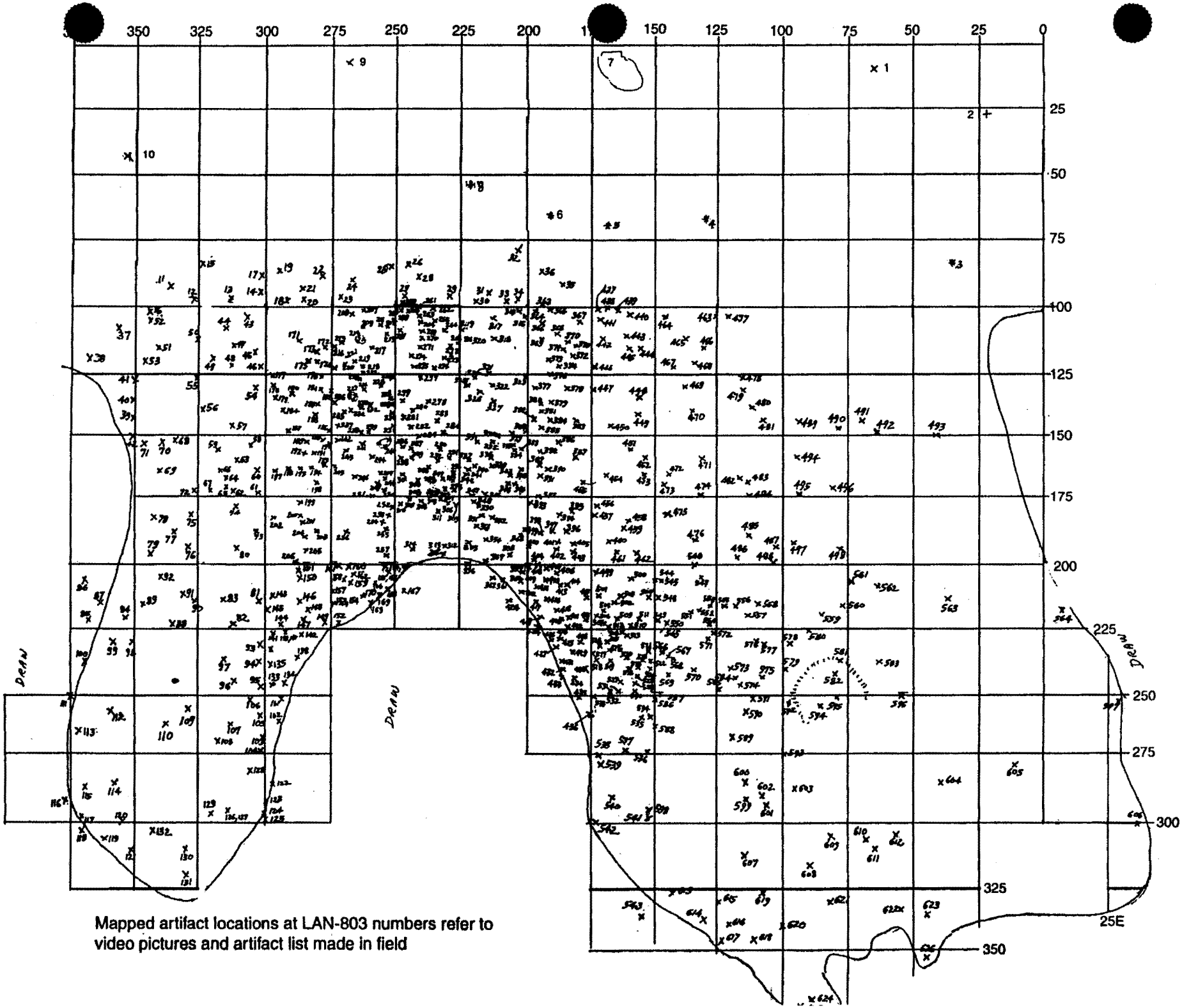
42	30	Ramirez Canyon	Settlement	Early	lg	areas destroyed by grading intact areas remain		X		private	1967	C. King		x
43	1425	Ramirez Canyon	Settlement	Early	med	most destroyed by grading intact areas remain	X			private	1988	Love		x
44	1131	Ramirez Canyon	chipped stone, steatite	Late?	sml	unknown, good when recorded				private	1983	Dillon		
45	2172	Ramirez Canyon	Camp ?	?	sml	in area of dirt road		?	House construction	private	1993	Brandon Lewis		x
46	458	Above Point Dume	Camp ?	?	sml	destroyed by grading- Salls 1988	X		-	private	1972	Leonard	pismo clam and mussel 20x30m	
47	1734	Above Point Dume	Camp ?	?	sml	unknown		?		private	1990	Stickel	bead, flakes, shell	
48		Above Point Dume	Camp ?	Early	sml	plowed field			House construction	private	1998	C. King		x
49	2048	Above Point Dume	Settlement	Early	sml	plowed field- some damage from discing			House construction	private	1992	C. King		x
50		Above Point Dume	?	Early?	?	plowed field				private	1996	C. King		
51	451	Point Dume	Settlement	Early	med -lg	large part of site in developed residential lots			House construction	private	1972	Bell, Evans, Coleman. Leonard, Jones		x
52	452	Point Dume	Settlement	Early?	med	destroyed or buried by development of street and existing single family residences		X		private	1972	Leonard		x
53	453	Point Dume	Settlement	Early	med	destroyed or severely damaged	X			private	1972	Coleman, Leonard, Nauman		x

54	454	Point Dume	Settlement and camps ?	Early-Late	lg	with both well and poorly preserved areas		X	House construction	public and private	1972	Coleman, Leonard, Nauman		x
55	2036	Point Dume	part 454	Late?	sml	some intact areas - buried deposits unknown extent		X		private	1992	Singer		x
56	198	Zuma Creek	Camp ?	Early-early Middle	lg	houses etc. on site, most of site appears intact		X	House additions	pw & private	1948	Peck		x
57	1012	Zuma Creek	Settlement ?	Early	sml	field		?		private	1978	Singer		
58	40	Zuma Creek	Settlement	Early	med	destroyed or severely damaged	X			private	1947	Mohr		x
59	196	Zuma Creek	Settlement	Early	sml	destroyed or severely damaged	X			private	1948	Peck		
60	174	Zuma Creek	Settlement	Early and early Middle	med	destroyed or severely damaged	X			private	1947	Mohr		
61	199	Zuma Creek	Camp ?	Middle or Late?	sml	destroyed or severely damaged	X			?	1948	Peck		x
62	200	Zuma Creek	Settlement	Early	sml	destroyed or severely damaged	X			private	1948	Peck		
63	201	Zuma Creek	Settlement	Middle or Late?	med	areas destroyed by grading intact areas remain		X		Caltrans, C. Beach, private	1948	Peck		x
64	292	Zuma Creek	Settlement	Late period Phase 1	sml-med	development on site, much of site probably preserved under fill				pw & private	1963	Leonard		x
65		Trancas	Camp ?	Early	sml	field				private	1994	C. King		x
66	1121	Trancas	Camp ?	?	sml	field				school district	1981	Singer and Martinez		
67	2384	Trancas	Camp ?	?	sml-med	yard areas of developed lots				private	1996	Bleitz and Bleitz		x
68		Trancas	Camp ?	?	sml	field			House construction	private	1998	C. King		x

69		Trancas	Camp ?	Middle?	sml	yard			House construction	private	1999	C. King		x
70		Trancas	Camp ?	Middle/Late	sml	yard			tennis court	private	1999	C. King		x
71	2143	Trancas	Camp ?	early Middle	sml	field			House construction	private	1993	C. King		x
72	335	Trancas	Camp ?	Early-early Middle	sml-med	field with fill			House construction	private	1965	Singer		x
73	513	Trancas	Camp ?	Early-early Middle	sml-med	destroyed or severely damaged	X		House construction	private	1972	Decker		x
74	197	Trancas	Settlement	early Middle	med ?	destroyed or severely damaged		X	commercial redevelopment	private	1969	Beaton		x
75	1065	Trancas	Camp ?	?	med	field				private	1980	Rosen, Hector, Dillon, Beroza		
76	499	Trancas	Camp ?	?	med	field			House construction	private	1972	UCLA - SAMO		x
77	500	Trancas	Camp ?	?	med	dirt road through part of site			House construction	private	1972	UCLA - SAMO		x
78	2028	Trancas	Camp ?	?	med	field				private	1992	C. King		x
79	1429	Trancas	Camp ?	?	med -lg	destroyed by grading in 1998	X			private	1984	C. King		
80	1621	Trancas	Camp ?	Middle/Late	sml	unknown				private	1988	Singer		
81	2101	Trancas	Camp ?	Middle/Late	sml	part of site intact unknown amount destroyed by construction		X		private	1993	Singer		x
82	1041	Steep Hill-Encinal Cyn	Settlement	Middle	sml	a large part of the site appears intact				private	1979	Chace		
83	958	Steep Hill-Encinal Cyn	Settlement	Early	sml	totaly destroyed by grading	X			private	1978	Chace		x
84	1402	Steep Hill-Encinal Cyn	Settlement	Early and poss later	sml	unknown				private	1988	Bleitz-Salls		

85	114	Steep Hill-Encinal Cyn	Settlement	Middle/Late	lg	housing tract on site, intact areas remain		X		pw & private	1956	Rozaire		x
86	2268	Steep Hill-Encinal Cyn	Settlement	Middle/Late ?	med -lg	residence developed on site, probable intact areas		X	Studio constr	private	1994	C. King		x
87	1714	Steep Hill-Encinal Cyn	Settlement	Early	sml	unknown				private	1990	L. White		
88	1029	Steep Hill-Encinal Cyn	Camp - Settlement	Late	sml	unknown				private ?	1979	Breitborde, Zak, Handy, Padon		
89	478	Charmalee Park	rs w midden	Middle/Late ?	sml	field				private	1972	Jones		x
90	470	Charmalee Park	rs w midden	Late	sml	field				private	1972	Coleman		
91	472	Charmalee Park	rs w midden	Late	sml	park				Malibu Parks	1972	Nauman, Leonard		
92	966	Charmalee Park	open Camp	Early, Late	sml	park				Malibu Parks	1978	Romani		
93	1057	Charmalee Park	open Camp	Late	sml	park				Malibu Parks	1980	Singer		
94	1058	Charmalee Park	open Camp	Middle/Late ?	sml	park				Malibu Parks	1980	Singer		
95	512	Charmalee Park	open Camp	?	sml	destroyed for park entrance	X			Malibu Parks	1972	UCLA - SAMO		
96	1030	Charmalee Park	rs w midden	Middle/Late ?	sml	park				Malibu Parks	1980	Piper		
97	1056	Charmalee Park	rs w midden	Middle/Late ?	sml	park				Malibu Parks	1980	Romani, Corbin, Singer		
98	1082	Charmalee Park	open Camp	?	sml	park				Malibu Parks	1980	Piper		
99	217	W of El Matador State Beach	Settlement	early Middle ?	sml	much destroyed by house construction, intact areas remain	X			private	1967	C. King		x
100	384	W of El Matador S.B.	Settlement	Early/ Middle/Late	med ?	field, highway cut-much intact deposit		X		private	1969	Mayhew		x

101	480	W of El Matador S.B.	Camp ?	?	sml	Field with areas of fill				private ?	1972	Coleman		
102	29	W of El Matador S.B.	Settlement	Middle/Late ?	med ?	housing tract, one or more vacant lots		X	House construction	private	1967	Leonard and T.King		x
103	28	W of El Matador S.B.	Settlement	Middle/Late ?	med ?	field, roadcut, historic house site		X		private	1967	Leonard and T.King		x
104	2017	W of El Matador S.B.	Settlement	Middle/Late ?	unk	buried site				Caltrans and private	1991	Neil Kaptain		
105	718	W of El Matador S.B.	shell on ridge	?	sml	unknown				private ?	1973	Leonard		
106	269	W of El Matador S.B.	buried midden	?	sml	buried shell midden - possibly since destroyed				MRT	1969	West		
107	352	W of El Matador State Beach	Settlement	Early and early Middle	med	tennis club development destroyed much	X			MRT	1967	Leonard and T. King	Early x & early Middle period cemeteries found at site	x
108	180	W of El Matador State Beach	Settlement	Early	med	reservoir dug in, landscaped for new develop.		X		private	1967	West		x
109	641	W of El Matador S.B.	rockshelter	?	sml	park not recently disturbed- poss not site				MRT	1974			x



Mapped artifact locations at LAN-803 numbers refer to video pictures and artifact list made in field

803 surf artifact list

Number	South	West	Artifact	Date recorded	illus page	unplowed
1	0	75	andesite possible scraper	8/5/97		
2	50	25	andesite possible scraper	8/5/97		
3	75	50	chert point fragment	8/5/97	8	
4	50	150	chert flake	8/5/97		
5a	50	175	chert utilized flake scraper	8/5/97	12	
5b	50	175	andesite large flake	8/5/97		
6	50	200	quartz flake	8/5/97		
7	0	175	pismo clam shell concentration	8/5/97		
8a	50	225	chert flake scraper	8/5/97	13	
8b	50	225	sandstone possible ground	8/5/97		
9	0	300	chert core	8/5/97		
10	25	375	andesite chopper	8/5/97	18	
11	75	350	andesite flake	8/5/97		
12	75	350	quartzite chopper/hammer	8/5/97	15	
13	75	325	andesite chopper/hammer	8/5/97	16	
14	75	325	chert flake	8/5/97		
15	75	325	andesite biface mano	8/5/97	2	
16	100	350	andesite flake	8/5/97		
17	75	325	chert core	8/5/97	14	
18a	75	300	quartzite flake- hammer fragment	8/5/97		
18b	75	300	chert flake	8/5/97		
19	75	300	andesite hammer	8/5/97	16	
20	75	300	andesite flake	8/5/97		
21a	75	300	chert flake	8/5/97		
21b	75	300	quartz flake	8/5/97		
22	75	300	chert core	8/5/97		
23	75	275	andesite flake	8/5/97		
24a	75	275	quartzite hammer	8/5/97	15	
24b	75	275	andesite scraper	8/5/97		
25	75	275	sandstone possible metate fragment	8/5/97		
26	75	250	chert core	8/5/97		
27	75	250	chert scraper	8/5/97	10	
28	75	250	quartzite chopper/hammer	8/5/97	17	
29	75	250	quartz flake	8/5/97		
30	75	225	sandstone mano	8/5/97	1	
31	75	225	andesite hammer	8/5/97	16	
32	75	225	sandstone triface mano	8/5/97	3	
33	75	225	quartzite core fragment	8/5/97		
34	75	225	chert flake	8/5/97		
35	75	200	chert flake scraper	8/5/97	13	
36	75	200	chert retouched scraper	8/5/97	12	
37a	100	375	silty chert blade segment	8/5/97	13	
37b	100	375	andesite flake	8/5/97		
38a	100	375	chert small core	8/5/97		
38b	100	375	chert cobble core	8/5/97		

39	125	375	chalcedony core/scraper/graver	8/5/97	9	
40a	125	375	quartzite flake off hammer	8/5/97	16	
40b	125	375	quartzite chopper fragment	8/5/97	17	
40c	125	375	quartzite core fragment	8/5/97		
41	125	375	quartz flake scraper	8/5/97	12	
42	150	375	chert flake	8/5/97		
43a	100	325	andesite flake	8/10/97		
43b	100	325	chert scraper	8/10/97	14	
44a	100	325	andesite core/hammer	8/10/97	17	
44b	100	325	andesite mano fragment	8/10/97	?	
45	100	325	andesite spall	8/10/97		
46	100	325	quartzite scraper	8/10/97	22	
47	100	325	schist? tool	8/10/97	6	
48	100	325	andesite scraper plane	8/10/97	21	
49	100	325	chert chunk	8/10/97		
50	100	350	bone fragment- deer, human?	8/10/97		
51	100	350	chert chunk	8/10/97		
52	100	350	andesite flake	8/10/97		
53	100	350	chert flake	8/10/97		
54a	125	325	andesite chunk	8/10/97		
54b	125	325	chert flake	8/10/97		
55	125	350	pismo clam shell	8/10/97		
56	125	325	quartzite small hammer/chopper	8/10/97	7	
57a	125	325	quartz scraper or point fragment	8/10/97	8	
57b	125	325	andesite chunk or scraper plane	8/10/97	21	
58	150	325	sandstone biface mano	8/10/97	1	
59	150	325	andesite chunk-flake	8/10/97		
60	150	325	andesite flake	8/10/97		
61	150	325	chert flake scraper	8/10/97		
62	150	325	andesite chopper/hammer	8/10/97	16	
63	150	325	chert flake scraper	8/10/97	13	
64	150	325	chert chunk or core and chert scraper	8/10/97	12	
65	150	325	andesite flake	8/10/97		
66	150	325	quartzite core	8/10/97		
67	150	325	andesite flake	8/10/97		
68	150	350	chert flake	8/10/97		
69	150	350	andesite core	8/10/97		
70	150	350	chert core	8/10/97		
71	150	350	chert flake	8/10/97		
72	150	350	chert large flake	8/10/97		
73	175	325	andesite chopper	8/11/97	17	
74	175	325	chert flake	8/11/97		
75a	175	350	andesite chopper	8/11/97	17	
75b	175	350	chert scraper	8/11/97	10	
76	175	350	andesite hammer	8/11/97	15	
77a	175	350	chert worked	8/11/97	14	

77b	175	350	chert flake	8/11/97		
78a	175	350	chert flake scraper	8/11/97	13	
78b	175	350	quartzite flake-spall	8/11/97		
79	175	350	chert graver	8/11/97	9	
80	175	325	andesite flake	8/11/97		
81	200	325	andesite flake	8/11/97		
82	200	325	chert scraper	8/11/97	12	
83	200	325	quartzite flake	8/11/97		
84	200	375	chert core	8/11/97		
85	200	375	andesite flake	8/11/97		
86	200	375	andesite flake	8/11/97		
87	200	375	andesite flake	8/11/97		
88	200	350	quartzite chopper	8/11/97	17	
89	200	350	chert flake	8/11/97		
90a	200	350	chert graver	8/11/97	9	
90b	200	350	chert flake	8/11/97		
91a	200	350	chert flake	8/11/97		
91b	200	350	andesite flake	8/11/97		
91c	200	350	andesite flake	8/11/97		
91d	200	350	chert flake	8/11/97		
92	200	350	quartzite possible mano	8/11/97		
93	225	325	andesite flake	8/11/97		
94	225	325	chert flake	8/11/97		
95	225	325	quartzite flake	8/11/97		
96	225	325	chert flake	8/11/97		
97	225	325	chert core	8/11/97		
98	225	375	chert flake	8/11/97		
99	225	375	chert scraper	8/11/97	14	
100	225	375	quartzite hammer	8/11/97	15	
101	250	300	chert flake scraper/graver	8/12/97	9	unplowed
102a	250	300	chert flake	8/12/97		unplowed
102b	250	300	chert flake	8/12/97		
102c	250	300	chert flake	8/12/97		
103	250	325	chert flake	8/12/97		unplowed
104	250	325	chert flake	8/12/97		unplowed
105	250	325	quartzite flake off hammer	8/12/97		
106	250	325	chert flake	8/12/97		
107	250	325	andesite chopper/hammer	8/12/97	17	
108	250	325	andesite spall-flake	8/12/97		
109	250	350	andesite flake	8/12/97		
110	250	350	andesite scraper plane	8/12/97	21	
111	250	400	andesite flaking hammer	8/12/97	7	
112	250	375	chert core	8/12/97		
113	250	375	chert flake	8/12/97		
114	275	375	schist object	8/12/97	6	
115	275	375	chert chunk	8/12/97		

116	275	400	andesite flake	8/12/97		unplowed
117a	275	375	chert flake	8/12/97		unplowed
117b	275	375	chert scraper/graver	8/12/97	9	unplowed
118	300	375	chert flake	8/12/97		unplowed
119	300	375	chert flake	8/12/97		unplowed
120	275	375	chert flake	8/12/97		
121	300	375	chert flake	8/12/97		unplowed
122a	275	300	chert flake	8/12/97		unplowed
122b	275	300	chert flake	8/12/97		unplowed
123	275	325	quartz flake	8/12/97		unplowed
124	275	325	chert flake	8/12/97		unplowed
125a	275	325	chert flake	8/12/97		unplowed
125b	275	325	chert flake	8/12/97		unplowed
126a	275	325	chert flake	8/12/97		unplowed
126b	275	325	chert flake	8/12/97		unplowed
127	275	325	chert flake	8/12/97		unplowed
128	275	325	chert flake	8/12/97		unplowed
129	275	325	chert point fragment	8/12/97	8	
130	300	350	chert flake	8/12/97		unplowed
131	300	350	andesite flake	8/12/97		unplowed
132	300	350	chert flake	8/12/97		
133	225	300	andesite flake	8/12/97		
134	225	300	chert chunk	8/12/97		unplowed
135	225	300	chert flake	8/12/97		
136	225	300	quartzite flake	8/12/97		
137	225	300	chert chunk	8/12/97		
138	225	300	chert flake	8/12/97		
139	225	300	chert flake	8/12/97		
140	225	300	chert flake	8/12/97		unplowed
141	225	300	chert flake	8/12/97		
142	225	300	chert chunk-core	8/12/97		unplowed
143	200	300	andesite chunk-core	8/12/97		
144a	200	300	andesite hammer fragment	8/12/97	16	
144b	200	300	chert scraper	8/12/97	10	
145	200	300	andesite chunk	8/12/97		
146	200	300	slate-schist knife	8/12/97	6	
147	200	300	sandstone biface mano fragment	8/12/97	1	
148	200	300	chert flake	8/12/97		
149	200	300	chert flake	8/12/97		unplowed
150a	200	300	chert core-chunk	8/12/97		
150b	200	300	quartzite flaking hammer	8/12/97	7	
151	200	300	andesite flake	8/12/97		
152	200	275	chert scraper	8/12/97	13	unplowed
153	200	275	chert flake	8/12/97		unplowed
154a	200	275	andesite flake	8/12/97		unplowed
154b	200	275	chert chunk	8/12/97		unplowed

155a	200	275	andesite core fragment	8/12/97		unplowed
155b	200	275	chert flake scraper	8/12/97	9	unplowed
156	200	275	chert flake	8/12/97		
157	200	275	andesite flake	8/12/97		
158	200	275	chert chunk	8/12/97		
159	200	275	quartzite chopper/hammer	8/12/97	18	
160	200	275	andesite flake	8/12/97		
161	200	275	chert flake	8/12/97		
162	200	275	chert flake	8/12/97		
163	200	275	chert small flake	8/12/97		unplowed
164	200	275	chert flake	8/12/97		
165a	200	275	sandstone mano fragment	8/12/97	1	unplowed
165b	200	275	chert core	8/12/97		unplowed
165c	200	275	chert chunk	8/12/97		unplowed
165d	200	275	chert flake	8/12/97		unplowed
165e	200	275	chert flake	8/12/97		unplowed
166	200	275	chert flake	8/12/97		
167	200	250	andesite flake	8/12/97		unplowed
168	200	275	andesite flake	8/16/97		
169	200	275	chert flake	8/16/97		
170	200	275	chert knife/graver/scraper	8/16/97	8	
171	100	300	andesite hammer	8/16/97	16	
172	100	300	sandstone probable mano fragment	8/16/97		
173a	100	300	andesite chopper	8/16/97	18	
173b	100	300	chert flake	8/16/97		
174	100	300	sandstone possible metate fragment	8/16/97		
175	100	300	chert chunk	8/16/97		
176	125	300	chert core	8/16/97		
177	125	300	chert flake	8/16/97		
178	125	300	quartzite flake	8/16/97		
179	125	300	sandstone fine grained possible ground	8/16/97		
180	125	300	andesite flake	8/16/97		
181	125	300	probable metate fragment	8/16/97	5	
182	125	300	sandstone mano fragment	8/16/97	4	
183a	125	300	chert chunk	8/16/97		
183b	125	300	chert chunk	8/16/97		
184	125	300	andesite flake	8/16/97		
185	125	300	andesite flake	8/16/97		
186	125	300	andesite flake	8/16/97		
187	125	300	andesite chopper	8/16/97		
188	150	300	quartzite chunk-chopper?	8/16/97		
189	150	300	chert core	8/16/97		
190	150	300	sandstone mano fragment 2 pieces	8/16/97	4	
191	150	300	andesite chopper fragment	8/16/97	18	
192	150	300	chert chunk	8/16/97		
193	150	300	andesite scraper	8/16/97	22	

194	150	300	andesite chopper/hammer	8/16/97	18	
195	150	300	chert scraper	8/16/97	12	
196	150	300	chert core	8/16/97		
197	150	300	andesite? mano fragment	8/16/97		
198	150	300	quartzite "flake"-chopper?	8/16/97		
199	175	300	schist metate? fragment	8/16/97	5	
200	175	300	chert scraper	8/16/97	10	
201	175	300	andesite flake	8/16/97		
202a	175	300	chert biface	8/16/97	14	
202b	175	300	quartzite chunk-chopper?	8/16/97		
203	175	300	andesite flake	8/16/97		
204	175	300	quartz flake	8/16/97		
205	175	300	quartzite flake	8/16/97		
206a	175	300	chert chunk	8/16/97		
206b	175	300	chert chunk	8/16/97		
207	100	275	chert core	8/16/97		
208	100	275	sandstone possible mano fragment	8/16/97		
209	100	275	sandstone biface mano pit in one face, one fac	8/16/97	3	
210	100	275	sandstone FAR	8/16/97		
211	100	275	chert scraper	8/16/97	9	
212	100	275	chert scraper	8/16/97	12	
213a	100	275	andesite hammer fragment	8/16/97		
213b	100	275	sandstone possible groundstone	8/16/97		
214a	100	275	quartzite flake	8/16/97		
214b	100	275	chert core/chunk	8/16/97		
214c	100	275	chert chunk	8/16/97		
215	100	275	chert scraper	8/16/97	10	
216	100	275	chert flake	8/16/97		
217	100	275	sandstone metate fragment	8/16/97	5	
218	100	275	andesite flake	8/16/97		
219	100	275	andesite flake	8/16/97		
220	100	275	chert core	8/16/97		
221	100	275	andesite flake	8/16/97		
222	125	275	andesite hammer	8/16/97	16	
223	125	275	sandstone mano fragment	8/16/97	4	
224	125	275	chert flake	8/16/97		
225	125	275	andesite flaking hammer	8/16/97	7	
226	125	275	sandstone biface mano fragment one flat other	8/16/97	3	
227a	125	275	andesite scraper plane	8/16/97	18	
227b	125	275	andesite flake	8/16/97		
227c	125	275	quartzite scraper	8/16/97	22	
228	125	275	sandstone FAR	8/16/97		
229	125	275	chert flake	8/16/97		
230a	125	275	sandstone thin metate fragment	8/16/97	5	
230b	125	275	sandstone FAR	8/16/97		
231	125	275	chert flake	8/16/97		

232	125	275	quartz crystal-core?	8/16/97		
233a	125	275	sandstone mano fragment	8/16/97	4	
233b	125	275	chert core	8/16/97		
234	125	275	chert flake	8/16/97		
235a	125	275	andesite chopper	8/16/97	20	
235b	125	275	andesite core fragment	8/16/97		
236	125	275	andesite chopper/hammer	8/16/97	18	
237	125	275	quartzite flaking hammer	8/16/97	7	
238	125	275	quartzite flaking hammer	8/16/97	6	
239	125	275	chert flake scraper	8/16/97	12	
240a	150	275	andesite hammer	8/17/97	16	
240b	150	275	andesite flake	8/17/97		
240c	150	275	sandstone possible ground fragment	8/17/97		
241	150	275	quartzite spall	8/17/97		
242a	150	275	andesite core/hammer	8/17/97	16	
242b	150	275	cherty siltstone flaked	8/17/97		
243	150	275	chert core	8/17/97		
244a	150	275	sandstone wedge mano	8/17/97	3	
244b	150	275	quartzite flake	8/17/97		
245	150	275	sandstone flaking hammer fragment	8/17/97	7	
246	150	275	sandstone probable mano fragment	8/17/97		
247	150	275	chert flake	8/17/97		
248	150	275	quartzite flake	8/17/97		
249	150	275	andesite flake from hammer	8/17/97		
250	150	275	chert flake	8/17/97		
251	150	275	sandstone mano fragment flat	8/17/97	4	
252	175	275	sandstone mano fragment	8/17/97	4	
253	175	275	andesite chunk	8/17/97		
254	175	275	chert flake	8/17/97		
255	175	275	andesite flake	8/17/97		
256	175	275	andesite chunk-flake	8/17/97		
257	175	275	andesite flake	8/17/97		
258	75	250	andesite chopper	8/17/97	20	
259	100	250	andesite chopper/hammer	8/17/97	18	
260	100	250	quartz flake	8/17/97		
261	100	250	chert core	8/17/97		
262	100	250	chert core fragment	8/17/97		
263	100	250	andesite chopper	8/17/97	20	
264	100	250	sandstone mano fragment	8/17/97	4	
265	100	250	chert flake	8/17/97		
266	100	250	sandstone mano fragment flat/domed biface	8/17/97	3	
267	100	250	chert flake scraper	8/17/97	13	
268	100	250	chert chunk	8/17/97		
269a	100	250	andesite flake	8/17/97		
269b	100	250	andesite flake	8/17/97		
270	100	250	chert flake-chunk	8/17/97		

271	100	250	chert flake	8/17/97		
272	100	250	andesite flake	8/17/97		
273	100	250	sandstone biface mano fragment	8/17/97	2	
274	100	250	chert domed scraper	8/17/97	14	
275	100	250	chert side scraper on blade	8/17/97	8	
276	100	250	chert core	8/17/97		
277a	125	250	andesite chopper	8/18/97	20	
277b	125	250	sandstone mano fragment	8/18/97	1	
278	125	250	chert chunk-flake	8/18/97		
279a	125	250	sandstone triface mano frag	8/18/97	3	
279b	125	250	chert core "scraper"	8/18/97		
280	125	250	andesite scraper plane/hammer	8/18/97	20	
281	125	250	andesite flake	8/18/97		
282	125	250	sandstone poss mano/hammer- kitchen tool	8/18/97	6	
283	125	250	sandstone biface mano fragment	8/18/97	1	
284	125	250	andesite chopper/hammer	8/18/97	19	
285a	150	250	silty chert flake	8/18/97		
285b	150	250	sandstone biface mano frag	8/18/97	2	
286	150	250	quartzite flake	8/18/97		
287	150	250	quartzite flake	8/18/97		
288	150	250	quartzite chopper or scraper plane fragment	8/18/97	17	
289	150	250	andesite core-chunk	8/18/97		
290a	150	250	andesite chopper/hammer	8/18/97	19	
290b	150	250	sandstone mano fragment	8/18/97	4	
291	150	250	andesite flake	8/18/97		
292	150	250	quartzite chunk	8/18/97		
293	150	250	sandstone metate fragment	8/18/97	5	
294	150	250	quartzite flaking hammer	8/18/97	7	
295	150	250	sandstone mano frag biface?	8/18/97	4	
296a	150	250	sandstone biface mano- flat-flat	8/18/97	2	
296b	150	250	andesite flake	8/18/97		
297	150	250	andesite chopper	8/18/97	19	
298	150	250	andesite core/hammer	8/18/97	15	
299	150	250	sandstone mano or metate fragment	8/18/97	5	
300a	150	250	chert scraper	8/18/97	11	
300b	150	250	chert scraper	8/18/97	11	
301	150	250	quartzite chopper	8/18/97	19	
302	150	250	sandstone mano fragment	8/18/97	4	
303	150	250	andesite flake	8/18/97		
304	150	250	chert scraper	8/18/97	11	
305	175	250	andesite flake hammer	8/18/97	7	
306	175	250	chert core	8/18/97		
307	175	250	chert flake	8/18/97		
308	175	250	chert chunk	8/18/97		
309	175	250	andesite flake	8/18/97		
310	175	250	andesite flake	8/18/97		

311	175	250	chert flake	8/18/97		
312	175	250	sandstone mano or pestle fragment	8/18/97	4	
313	175	250	andesite chopper	8/18/97	20	
314	175	250	andesite flake scraper	8/18/97	22	
315	100	225	chert core-chunk	8/22/97		
316	100	225	andesite flake	8/22/97		
317	100	225	quartz flaked	8/22/97		
318	100	225	sandstone mano fragment	8/22/97	4	
319	100	225	chert flake scraper?	8/22/97		
320	100	225	silty chert core	8/22/97		
321	125	225	chert scraper/graver	8/22/97	9	
322	125	225	rhyolite? biface mano flatish faces	8/22/97	2	
323	125	225	chert chunk-core	8/22/97		
324	125	225	andesite poss artifact one flake removed possil	8/22/97		
325	125	225	quartzite core/hammer	8/22/97	15	
326	125	225	siltstone possible flaking hammer	8/22/97		
327	125	225	silty chert chunk	8/22/97		
328	125	225	andesite? mano fragment	8/22/97	4	
329	125	225	chert chunk	8/22/97		
330	150	225	sandstone flaking hammer fragment	8/22/97	7	
331	150	225	quartzite flaked object	8/22/97		
332	150	225	quartzite drill?	8/22/97		
333	150	225	quartz flake	8/22/97		
334	150	225	quartzite flake	8/22/97		
335	150	225	quartzite flake	8/22/97		
336	150	225	quartzite flake	8/22/97		
337	150	225	sandstone mano fragment	8/22/97	4	
338a	150	225	sandstone metate fragment	8/22/97	5	
338b	150	225	chert flake	8/22/97		
339	150	225	quartzite flake scraper	8/22/97	22	
340	150	225	chert chunk	8/22/97		
341	150	225	quartzite flake	8/22/97		
342	150	225	quartzite chopper battered edge	8/22/97	20	
343	150	225	siltstone possible scraper	8/22/97		
344	150	225	chert core	8/22/97		
345	150	225	andesite chunk=flake	8/22/97	11	
346	150	225	chert flake scraper	8/22/97	11	
347	150	225	chert flake scraper	8/22/97		
348	175	225	rhyolite flake	8/22/97		
349	175	225	sandstone mano fragment	8/22/97	4	
350	175	225	quartzite large flake	8/22/97		
351	175	225	chert scraper concave and convex	8/22/97	10	
352	175	225	andesite flake	8/22/97		
353	175	225	chert chunk	8/22/97		
354	175	225	andesite chunk	8/22/97		
355	175	225	quartzite flake	8/22/97		

356	175	225	chert flake	8/22/97		
357	175	225	chert flake	8/22/97		
358	175	225	andesite flake	8/22/97		
359	200	225	chert flake	8/22/97		
360	200	225	chert object	8/22/97		
361	200	225	bone ? fragment	8/22/97		
362	200	225	andesite flake	8/22/97		
363	75	200	chert core-chunk fragment	8/22/97		
364	100	200	chert chunk	8/22/97		
365	100	200	andesite flake	8/22/97		
366	100	200	chert chunk	8/22/97		
367	100	200	andesite flake	8/22/97		
368	100	200	chert chunk	8/22/97		
369	100	200	chert flake	8/22/97		
370	100	200	sandstone possible mano fragment	8/22/97		
371	100	200	andesite flake	8/22/97		
372	100	200	andesite flake	8/22/97		
373a	100	200	chert flake scraper	8/22/97	10	
373b	100	200	chert chunk	8/22/97		
374	100	200	chert flake	8/22/97		
375	100	200	chert chunk	8/22/97		
376	125	200	chert chunk	8/22/97		
377a	125	200	chert flake	8/22/97		
377b	125	200	andesite chunk	8/22/97		
378	125	200	chert flake	8/22/97		
379	125	200	chert chunk	8/22/97		
380	125	200	quartz flaked	8/22/97		
381	125	200	chert core	8/22/97		
382	125	200	andesite chopper/hammer	8/22/97	19	
383	125	200	chert flaked	8/22/97		
384	125	200	chert flake	8/22/97		
385	125	200	andesite chunk	8/22/97		
386	150	200	andesite core poss scraper	8/22/97		
387	150	200	chert flake scraper	8/22/97	11	
388a	150	200	chert chunk	8/22/97		
388b	150	200	chert chunk	8/22/97		
389	150	200	chert core scraper	8/22/97	8	
390	150	200	quartzite hammer fragment	8/22/97	15	
391a	150	200	chert flake	8/22/97		
391b	150	200	chert flake	8/22/97		
391c	150	200	andesite chunk	8/22/97		
392	150	200	chert core	8/22/97		
393	175	200	andesite flake	8/22/97		
394	175	200	andesite flake	8/22/97		
395	175	200	chert chunk	8/22/97		
396	175	200	chert flake scraper	8/22/97	11	

397	175	200	chert scraper	8/22/97	11	
398a	175	200	andesite flake	8/22/97		
398b	175	200	andesite flake	8/22/97		
398c	175	200	quartz worked	8/22/97		
399	175	200	chert flake	8/22/97		
400	175	200	siltstone flake	8/22/97		
401a	175	200	andesite flake	8/22/97		
401b	175	200	chert flake scraper	8/22/97	10	
402a	175	200	chert scraper fragment	8/22/97		
402b	175	200	chert scraper fragment	8/22/97		
403	175	200	quartz flake	8/22/97		
404	175	200	quartzite flake	8/22/97		
405	175	200	andesite mano fragment	8/22/97		
406	200	200	quartz flaked	8/24/97		
407a	200	200	chert flake	8/24/97		
407b	200	200	siltstone flake-spall	8/24/97		
408	200	200	chert point tip	8/24/97	8	
409	200	200	andesite flake fragment	8/24/97		
410	200	200	andesite cortex based scraper	8/24/97	22	
411	200	200	quartzite flake scraper	8/24/97	22	
412	200	200	chert flake scraper	8/24/97	13	
413	200	200	andesite flake	8/24/97		
414a	200	200	chert flake	8/24/97		
414b	200	200	chert chunk	8/24/97		
415	200	200	chert chunk-flake	8/24/97		
416	200	200	chert chunk	8/24/97		
417a	200	200	chert flake	8/24/97		
417b	200	200	chert flake	8/24/97		
418a	200	200	chert flake	8/24/97		
418b	200	200	quartz flake	8/24/97		
419	200	200	chert flake	8/24/97		unplowed
420	200	200	chert chunk	8/24/97		
421	200	200	andesite flake	8/24/97		
422	200	200	chert flake	8/24/97		
423	200	200	chert flake	8/24/97		
424	200	200	chert flake	8/24/97		unplowed
424xa	200	200	chert flake	8/24/97		unplowed
424xb	200	200	chert flake	8/24/97		unplowed
424xc	200	200	chert core fragment	8/24/97		unplowed
425	225	200	chert domed scraper	8/24/97	14	
426	225	200	chert flake scraper	8/24/97	12	
427a	225	200	chert flake	8/24/97		unplowed
427b	225	200	quartzite flake	8/24/97		unplowed
428	225	200	andesite flake	8/24/97		
429	225	200	quartzite flake	8/24/97		
430	225	200	quartzite flake	8/24/97		unplowed

431a	225	200	chert flake	8/24/97		unplowed
431b	225	200	chert flake	8/24/97		unplowed
431c	225	200	chert flake	8/24/97		unplowed
432	225	200	chert flake	8/24/97		unplowed
433a	225	200	chert scraper	8/24/97	14	unplowed
433b	225	200	chert flake	8/24/97		unplowed
433c	225	200	chert flake	8/24/97		unplowed
433d	225	200	quartzite flake	8/24/97		unplowed
434a	225	200	chert scraper	8/24/97		unplowed
434b	225	200	chert chunk	8/24/97		unplowed
435	250	200	chert scraper	8/24/97	10	unplowed
436	250	175	chert flake	8/24/97		unplowed
437	100	175	chert flake	8/24/97		
438	100	175	quartzite hammer	8/24/97	15	
439	100	175	chert flake	8/24/97		
440	100	175	andesite? mano? 3 faces?	8/24/97		
441	100	175	chert flake scraper	8/24/97	13	
442	100	175	chert flake possible scraper	8/24/97		
443	100	175	andesite scraper	8/24/97	12	
444	100	175	andesite flake	8/24/97		
445	100	175	chert flake graver?/scraper?	8/24/97		
446	100	175	chert flake	8/24/97		
447	125	175	chert chunk	8/24/97		
448	125	175	quartzite chopper	8/24/97	19	
449	125	175	andesite large flake	8/24/97		
450	125	175	sandstone biface (fine-hard) mano fragment	8/24/97	1	
451	150	175	chert scraper/graver	8/24/97	9	
452	150	175	chert scraper on chunk	8/24/97	14	
453	150	175	andesite flake	8/24/97		
454	150	175	chert flake	8/24/97		
455	150	200	quartzite flake	8/24/97		
456	175	175	chert flake	8/24/97		
457	175	175	andesite core/scraper plane?	8/24/97		
458	175	175	rhyolite metate fragment	8/24/97	5	
459	175	175	schist chunk	8/24/97		
460	175	175	andesite chopper	8/24/97	19	
461	175	175	chert core	8/24/97		
462	175	175	chert core	8/24/97		
463	100	150	chert core-chunk fragment	8/26/97		
464	100	150	andesite chopper	8/26/97	19	
465	100	150	andesite flaking hammer	8/26/97	7	
466	100	150	chert flake	8/26/97		
467	100	150	chert flake	8/26/97		
468	100	150	andesite? flaking hammer	8/26/97	7	
469	125	150	incised siltstone	8/26/97	6	
470	125	150	sandstone metate fragment	8/26/97	5	

471	150	150	chert chunk	8/26/97		
472	150	150	sandstone flaking hammer	8/26/97	7	
473	150	150	chert flake	8/26/97		
474	150	150	chert flake possible tool	8/26/97		
475	175	150	sandstone flaking hammer	8/26/97	7	
476	175	150	andesite flake	8/26/97		
477	100	125	mussel shell	8/26/97		
478	125	125	andesite scraper plane	8/26/97	21	
479	125	125	quartzite flake scraper	8/26/97	22	
480	125	125	chert flake	8/26/97		
481	125	125	andesite flake	8/26/97		
482	150	125	andesite flake	8/26/97		
483	150	125	chert chunk "core"	8/26/97		
484	150	125	chert chunk	8/26/97		
485	175	125	sandstone flaking hammer	8/26/97	6	
486	175	125	chert flake	8/26/97		
487	175	125	andesite scraper plane	8/26/97	21	
488a	175	125	chert flake	8/26/97		
488b	175	125	chert chunk	8/26/97		
489	125	100	rhyolite biface mano fragment	8/26/97	1	
490	125	100	sandstone biface mano fragment	8/26/97	1	
491	125	75	chert core possible scraper	8/26/97		
492	125	75	chert flake	8/26/97		
493	125	50	chert scraper	8/26/97	14	
494	150	100	chert burin	8/26/97	9	
495	150	100	chert chunk	8/26/97		
496	150	100	quartzite hammer	8/26/97	15	
497	175	100	chert flake	8/26/97		
498	175	100	rhyolite flake	8/26/97		
499	200	175	chert flake	8/26/97		
500	200	175	andesite flake	8/26/97		
501	200	175	chert flake	8/26/97		
502	200	175	chert core	8/26/97		
503	200	175	quartzite flake	8/26/97		
504a	200	175	chert flake	8/26/97		
504b	200	175	chert chunk	8/26/97		
505a	200	175	andesite flake	8/26/97		
505b	200	175	andesite spall	8/26/97		
505c	200	175	sandstone metate frag fit to 507	8/26/97	5	
506	200	175	chert core carinate scraper	8/26/97	14	
507	200	175	sandstone metate frag fit to 505c	8/26/97	5	
508	200	175	quartz flaked	8/26/97		
509	200	175	andesite flake	8/26/97		
510	200	175	andesite core	8/26/97		
511	200	175	sandstone shaped biface mano fragment	8/26/97	2	
512	200	175	andesite flake	8/26/97		

513	225	175	andesite flake	8/26/97		
514	225	175	chert flake	8/26/97		
515	225	175	chert chunk	8/26/97		
516	225	175	chert flake	8/26/97		
517	225	175	siltstone core/scraper plane?	8/26/97		
518	225	175	quartzite flake	8/26/97		
519	225	175	chert flake	8/26/97		
520	225	175	andesite flake	8/26/97		
521	225	175	quartzite flake -hammer fragment	8/26/97		
522	225	175	andesite flake	8/26/97		
523	225	175	andesite flake	8/26/97		
524	225	175	chert flake	8/26/97		
525	225	175	andesite flake	8/26/97		
526	225	175	quartzite chopper	8/26/97	17	
527	225	175	chert flake	8/26/97		
528	225	175	quartzite chopper/core	8/26/97		
529	225	175	silty chert scraper	8/26/97	13	
530	225	175	andesite flake	8/26/97		
531a	225	175	chert flake	8/26/97		
531b	225	175	chert flake	8/26/97		
532	225	175	andesite flake	8/26/97		
533a	250	175	chert flake	8/27/97		unplowed
533b	250	175	chert flake	8/27/97		unplowed
534	250	175	chert flake	8/27/97		
535	250	175	chert flake	8/27/97		
536	250	175	chert flake burin	8/27/97	9	
537	250	175	chert scraper/graver/burin	8/27/97		
538	250	175	andesite flake	8/27/97		unplowed
539	275	175	chert chunk	8/27/97		unplowed
540	275	175	chert flake	8/27/97		unplowed
541	275	175	chert core	8/27/97		
542	275	175	chert flake	8/27/97		unplowed
543	325	175	chert flake	8/27/97		unplowed
544	200	150	chert core	8/27/97		
545	200	150	chert flake	8/27/97		
546	200	150	chert chunk	8/27/97		
547	200	150	quartzite flake	8/27/97		
548a	200	150	andesite flake	8/27/97		
548b	200	150	chert flake scraper	8/27/97	13	
549	200	150	chert chunk	8/27/97		
550	200	150	silty chert scraper	8/27/97	13	
551	200	150	chert flake	8/27/97		
552	200	150	chert flake	8/27/97		
553	200	150	sandstone poss flaking hammer fragment	8/27/97		
554a	200	150	chert chunk	8/27/97		
554b	200	150	quartzite core/hammer	8/27/97		

555	200	125	chert chunk possible scraper	8/27/97		
556	200	125	andesite flaking hammer	8/27/97	7	
557	200	125	chert chunk	8/27/97		
558a	200	125	chert flake	8/27/97		
558b	200	125	chert flake	8/27/97		
559a	200	100	andesite flake	8/27/97		
559b	200	100	chert flake	8/27/97		
560	200	100	chert chunk	8/27/97		
561	200	75	chert chunk	8/27/97		
562	200	75	chert flake knife	8/27/97	8	
563	200	50	quartzite flake	8/27/97		
564	200	0	chert flake	8/27/97		unplowed
565	225	150	chert flake scraper	8/27/97	12	
566	225	150	quartzite flake	8/27/97		
567	225	150	andesite flake	8/27/97		
568	225	150	andesite chunk	8/27/97		
569	225	150	chert carinate scraper	8/27/97	14	
570a	225	150	andesite flake	8/27/97		
570b	225	150	chert flake	8/27/97		
571	225	150	chert chunk	8/27/97		
572	225	150	chert flake knife?	8/27/97		
573	225	125	chert chunk	8/27/97		
574	225	125	chert chunk	8/27/97		
575	225	125	sandstone FAR probable mano fragment	8/27/97		
576	225	125	chert flake	8/27/97		
577	225	125	quartzite flake	8/27/97		
578	225	100	chert flake	8/27/97		
579	225	100	chert flake	8/27/97		
580	225	100	chert flake scraper	8/27/97	10	
581	225	100	chert core	8/27/97		
582	225	100	chert chunk	8/27/97		
583a	225	75	chert chunk	8/27/97		
583b	225	75	chert chunk	8/27/97		
584	225	125	chert like carinate scraper	8/27/97	14	
585	225	125	andesite flake	8/27/97		
586	250	150	chert flake	8/31/97		
587	250	150	chert core-chunk	8/31/97		
588	250	150	chert flake	8/31/97		
589	250	125	chert chunk	8/31/97		
590	250	125	quartz flaked	8/31/97		
591	250	125	chert flake	8/31/97		
592a	250	100	chert flake	8/31/97		
592b	250	100	chert flake	8/31/97		
593	250	100	chert flake	8/31/97		
594	250	100	chert core	8/31/97		
595	250	100	chert flake	8/31/97		

596	250	75	andesite flake	8/31/97		
597	250	25E	chalcedony flake	8/31/97		
598	275	150	chert flake	8/31/97		
599	275	125	chert flake	8/31/97		
600	275	125	quartzite scraper plane/core	8/31/97	21	
601	275	125	chert flake	8/31/97		
602	275	125	chert flake	8/31/97		
603	275	100	sandstone possible metate fragment	8/31/97		
604	275	50	chert primary flake- probably natural	8/31/97		
605	275	25	chert chunk- core fragment?	8/31/97		
606	275	25E	chert chunk probably natural	8/31/97		
607	300	125	chert flake	8/31/97		
608	300	100	chert core/chunk	8/31/97		
609	300	100	chert chunk	8/31/97		
610	300	75	chipped quartz	8/31/97		
611	300	75	chert flake	8/31/97		
612	300	75	quartzite flake	8/31/97		
613	325	150	chert chunk	8/31/97		
614	325	150	chert chunk	8/31/97		
615	325	125	chert flake	8/31/97		
616	325	125	chert flake	8/31/97		
617	325	125	chert flake	8/31/97		
618	325	125	chert flake	8/31/97		
619	325	125	chert flake	8/31/97		
620	325	100	chert chunk/burin	8/31/97	9	
621	325	100	chert graver	8/31/97	9	
622	325	75	chert flake-core fragment	8/31/97		
623	325	50	chert flake	8/31/97		
624	350	100	chert flake	8/31/97		
625	350	100	chert flake	8/31/97		
626	350	50	chert flake	8/31/97		

Rebuttal to Dr. Chester King's Criticisms of the Archaeological Project Conducted at the Dr. Trento Property in Malibu, California
by Dr. E. Gary Stickel
January 17, 2000

Introduction

A set of documents, prepared by Dr. Chester King, were sent by Dr. King to the California Coastal Commission addressed to Mr. Steve Hudson. The intent of the mailing was to discredit the work of my archaeological team and I and the Native Americans via an critique on the reports I wrote on the project involving archaeological site CA-LAN-803, located in the City of Malibu. A portion of the site rests on the property located at 25126 Pacific Coast Highway, in the City of Malibu. The property is being developed into a residence by its owner Dr. Alfredo Trento. As will be seen below, Dr. King's critique is scientifically invalid. It is filled with false allegations, inferences that do not follow from their premises, ,appeals to a persons' feelings rather than to their logic, false and misleading statements, misinterpretations, misrepresentations, misconstrued concepts and data taken out of context and wrongly manipulated, all of which is used to support his agenda. Dr. King presents his criticisms under a false cloak of scientific "concern" about the cultural resources on the property. His critique must be seen in context. Despite the fact that I've have tried for many years to interact with him as a colleague, Dr. King has been constantly adversarial and non-cooperative. Apparently, he hasn't singled me out exclusively, for it is a well known fact that most local archaeologists will not work in Malibu because of his adversarial and uncooperative behavior. As for the Dr. Trento project, Dr. King has been adversarial and non-cooperative from the very beginning. He tried to obstruct the project at every opportunity. Even though it was agreed upon, he failed to visit the site, failed to help me select locations for the excavations (also agreed upon). And when he finally came to the site on 2/16/99, he proceeded to complain about the project in general and argued (even though the evidence was clear and was abundantly presented to him by me and my crew), that we had not reached *sterile* (i.e. the non-cultural soil or substrate below the soil containing artifacts and ecofacts)(see attached memos from my crew; and my memo to Mr. Ewing of 2/18/99). His demands that we conduct the project exclusively his way (his various "conditions") were rejected by me and the project Chumash as unreasonable and better methods and approach were presented in my proposal (Stickel 1998; dated Nov. 16, 1998). The Director of Planning, Mr. Craig Ewing, reviewed my proposal and Dr. King's criticisms and contentions and overruled him as did the Cultural Resources Review Committee for the City of Malibu (comprised of Native Americans and archaeologists). Both approved our program over Dr. King's objections and the project was permitted to proceed. Dr. King seems to be attempting to seriously discredit me and the Native Americans involved with the project, not only from the Dr. Trento project but from working in Malibu altogether. Dr. King's "sour grapes" motivations for this critique are therefore not objective and are not based on sincere scientific concerns. That his motivations for this critique are not legitimate is proven by the manner in which he has both generated and disseminated his critique. He generated his critique (which can be seen in its entirety below) by focusing on my Phase 2 (test phase) report (Stickel 1999b). He never mentions my Phase 3 (mitigation report; Stickel 1999c) even though he has had that more updated and more complete report for months. Why? I think the answer lies, from Dr. King's unfair point of view, that he wanted to focus on the earlier Phase 2 report (submitted last July 1999) because it was less complete and thus if would provide him with more "ammunition" in his attempt to make us look as bad as possible. It should be noted here that Dr. King obviously had the Phase 3 report because he makes reference to artifacts that we found during the mitigation phase and which are only discussed n the Phase 3 report, but he fails to mention that fact in his critique. The manner in which Dr. King sent out his "critique" is even more professionally questionable.. Per the National Codes of Ethics, *if Dr. King had any legitimate criticisms of my work he should have presented them to me first and directly months ago* (my reports were turned in last July, 1999 [Stickel 1999b] and last October 1999 [Stickel 1999c]). Dr. King has had ample time to present them to me. Since my reports were submitted last summer, I have phoned him many times (about the Dr. Trento project and other projects), but he has never returned any of my phone calls. Why? Also if Dr. King had legitimate concerns about the ancient Chumash site, why didn't he even discuss these with the project's Chumash Native American

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EXHIBIT 13n
CDP 4-99-169 (Trento)
Letter from Dr. Gary Stickel

Monitor, Ms. Carol Pulido? He has completely avoided her. Instead he chose to ignore those required protocols. Instead and with obvious calculation, he waited until just before the Coastal Commission Hearing on Dr. Trento's project came up (it was schedule Thursday, January 13, 2000). His timing was obviously intentional and engineered to deprive me of a chance to adequately defend the project and to cause, yet another delay to Dr. Trento (who has fully cooperated with the project's archaeological program and with the Chumash Native Americans involved with the project); he has succeeded already with part of his agenda as Dr. Trento had to ask for a rescheduling of the hearing to give us a chance to address his generated critique

. As it may be seen with my responses below, Dr. King's concerns are false, his criticisms are unjustified and unscientific. Dr. King should be more concerned about his own professional behavior, such as the "possible human bone" that he claims he had found on the site 3 years ago (King 1997), yet he failed to properly get the bone identified and report it (if it were human) to the Native American Community (per City of Malibu requirements), and despite our requests for this bone, he has failed to provide it. Yet Dr. King has the effrontery to still mention this bone in his criticisms of our work. This is but one of the many justifiable retorts to Dr. King that are presented below and collectively they should dispel any doubts about the legitimacy of Dr. King's criticisms.

Preface to Responses

In his cover letter to Mr. Steve Hudson of the California Coastal Commission, Dr. King that the project should have a qualified archaeologist and Native American Monitor, suggesting that it did not. I have a Ph.D. in Anthropology from UCLA (1974) and 35 years experience in local archaeology. I have published both locally, Nationally and Internationally. I am qualified. The project's Chumash Native American was Ms. Carol Pulido, who has also had a great deal of experience in Monitoring her ancestors' sites and Ms. Pulido is directly related to the ancient Chumash of Malibu. She is also qualified.

Even though my Phase 2 report was submitted last July, 1999 (Stickel 1999b) and the Phase III (mitigation report) was submitted last October, 1999 (Stickel 1999c), I have never heard one word of criticism from Dr. King. Also I phoned Dr. King 6 or 7 times over the last few months and he never returned any of my calls. I phoned and got him once last November when we discussed another project. He did not mention any of his so-called concerns or complaints about the Dr. Trento site (CA-LAN-803) project. Also both Ms. Carol Pulido and I saw Dr. King recently in the field at the Trancas Market last Nov. 30, 1999 and he never mentioned to us any criticisms or concerns of the Dr. Trento project at that time either. One is left with the questions: why didn't Dr. King return any of my phone calls? Why didn't Dr. King phone me or fax/mail me with any criticisms over that long period of time last summer and fall? Even though he has had ample time to do so, why didn't he professionally contact me or Ms. Pulido?. Now he has seen fit to send out his critique. on my work them to all the organizations, colleagues, persons and Native Americans. I have never seen any of the documents of his critique package until the day before the scheduled Coastal Commission Hearing (or on 1/12/2000). Even then, I did not receive the critique directly from Dr. King (as per standard professional practice), but instead I received them from the developer, Dr. Trento, who had to obtain them from the Coastal Commission. If Dr. King was interested in any legitimate scientific concerns about the site he would have contacted me directly and months ago. Also it is obvious that he didn't want me to have the critique in advance of the Coastal Commission Hearing so that I could prepare a suitable rebuttal of defense. These breaches of professional conduct cast serious doubts on the legitimacy of Dr. King's criticisms.

The documents that Dr. King submitted to the Coastal Commission included a cover letter addressed to Mr. Steve Hudson [dated "January 3, 1999" sic as it must be 1/3/2000], the correspondence addressed to "Mary Ann DeHaven" [dated "December 2, 1998], a letter to "Craig Ewing" (dated "January 10, 1999), a "Review of A Phase 2 (Test Phase) of Archaeological Site CA-LAN-803 at 25126 Pacific Coast Highway, Malibu, California. prepared by E. Gary Stickel" document with no author listed, but it is obviously Dr. King who prepared it. Those documents were followed by photocopies of

letters Dr. King obtained to support him from the "Sierra Club" (dated "January 7, 2000" which alleged that "proper preservation" was not being upheld for the site), and the "Surfers Environmental Alliance" (dated "1/6/2000" which referred to me as an "hired-gun experts". . . " hired to make naked assertions, conclusionary recital, and unsupported opinions, to support coastal development in areas where significant resources exist"). Those documents were followed by a 9 page "Inventory of Malibu archaeological sites"(no author listed but it was presumably Dr. King's work), a copy of Dr. King's map of alleged artifact locations on the subject parcel, followed by a 15 page catalog , and lastly followed by 21 pages of alleged photographs of artifacts from the site. Those documents comprised the total package as far as I know.

Although Dr. King is the City Archaeologist for the City of Malibu, he did not contact the various organizations and persons in that capacity because both reports that I have written for the project have been accepted and approved by the City of Malibu (Craig Ewing, Director of Planning, City of Malibu, 2000, personal communication). In addition, both reports have been approved by the Cultural Resources Review Committee of the City of Malibu (i.e. both have heard Dr. King's complaints but have overruled him and approved the reports, their methodology, their conclusions and their mitigation recommendations; Craig Ewing, personal communication, 2000). Moreover, the Chumash who were involved in the project and who reviewed our reports, also have completely accepted the methodology, the reports and their conclusions and mitgation recommendations and the content of the reports. However, now, long after the facts, Dr. King has sent his criticisms to an unknown number of my colleagues in addition to the listed organizations (i.e. to other third parties). For on 1/12/ 2000 I received a phone call from Dr. John Johnson of the Santa Barbara Natural History Museum wherein he informed me that Dr. King had sent him the critique documents as well. Dr. King's anathema has therefore been sent to a number of organizations and individuals without him ever having taken the proper professional steps to have sent the criticisms to me directly (either via the City of Malibu or as a colleague). This breach of behavior certainly obviates any intent, on his part, to be legitimately concerned about the site and its welfare on a scientific basis (as he alledges). For if he were concerned about the science of the project he would have contacted me directly, per required professional standard practice, to discuss as a cooperating colleague his differing points of view and I certainly would have been receptive to such behavior, and if the data supported his views I would be open to them. However, he chose instead to be surreptitious and devious, to disseminate his attack behind my back. One is therefore left with the questions of why he chose to act as he did? It would appear that the answer (which will become clear as this rebuttal unfolds) is that Dr. King is upset that he was overruled and consequently he wants to reassert his control. archaeology in Malibu. The second reason, which is probably linked to the first, is that Dr. King is anti-development to the extreme and correspondingly he has been adversarial about the project from its inception. His unfounded and adversarial objections to my original proposal for the conduct of the project (Stickel 1998), led me to propose to the City that if he didn't behave in a cooperative manner, I could not conduct the project. I was assured by the City that Dr. King's role was advisory and that the City's Planning Department and the City's Cultural Resources Review Committee would decide what was appropriate. We proceeded on the project but Dr. King continued to be adversarial and negative to both my crew and I (c.f. my memo to Mr. Ewing of the City of 18 February 1999, and the memos from my crew to me, all attached hereto).

Since 18 February 1999, I have not heard or received any comments on the project from Dr. King. Now the documents that Dr. King has just sent out (January 2000), due to the manner in which he did so, is in violation of the Code of Ethics of the Society of American Archaeology and the Code of Ethics of the Society of Professional Archaeologists: such as Sections: II, 2.2 (a) "An Archaeologist shall not: Falsely or maliciously attempt to injure the reputation of another archeologist." and, given Dr. King's behavior towards the Native Americans on the project, he is in violation of section I 1.1 (c) "Be sensitive to, and respect the legitimate concerns of, groups whose culture histories are the subjects of archeological investigations." The latter is a serious point, because my reports, their conclusions and

their recommendations were all made in careful consultation with the Chumash on the project (Ms. Carol Pulido, Monitor and Ms. Ruth Frazee, Crew Member).

I have organized my rebuttal in the following manner: I will present copies of Dr. King's statements first and then I will provide my *responses* in order to refute each statement.

DR. KING COVER LETTER OF CRITIQUE PG. 1

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P.O. Box 826
Topanga, California 90290
(310) 455-2981

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JAN 6 1999
COASTAL COMMISSION
SOUTH CENTRAL COAST DISTRICT

California Coastal Commission
89 South California Street, Suite 200
Ventura, California 93001

Application No 4-99-189

January 3, 1999

Dear Steve Hudson,

The enclosed two groups of documents concern archaeological site LAN-803. The first group of documents relate to the Phase 2 study. The first document in this group was prepared to define the recommended scope of work. The second was prepared as a review of the initial work plan proposed by Dr. Stickel. The third was a review of a resubmitted work plan. The forth document is a review of the Phase 2 program. It is clear from these documents that Dr. Stickel conducted a program that was contrary to the program I had outlined and that his conclusions are very different from mine. He ignored the information obtained during the Phase 1 study. He was given a map of artifact locations and a list of all the surface artifacts keyed to the map before he conducted his study.

Response: I never received the documents that Dr. King refers to in the first paragraph. This is a serious breach of professional conduct. It is true that I conducted a "...program that was contrary to the program I (Dr. King) had outlined and that conclusions are very different from mine." The "program" that Dr. King wanted me to mechanically implement for him was excessive (as he wanted to dig units across the entire property regardless of the proposed development plan). His "program" would have taken over a year in field work alone and would have cost hundreds of thousands of dollars. In professional and reasonable contrast, we excavated 32 STPs (Shovel Test Probes) and six 1x1 meter units. With the exception of a row of 50x50 cm units across the northern part of the parcel (STPs 3-8; see attached map, Figure 7) and a rim of STPs around the southwestern area of the site (STPs 9-12), and the two STPs (STPs 1-2) along a new geological trench, the distribution and spacing of which Dr. King had agreed to previously (Craig Ewing, personal communication, 2000), all the STP, Test Pit and Mitigation Units were placed in the areas of high impact for the parcel (i.e. the access driveway, the main house, swimming pool, guest house and guest house garage). These excavations were designed to provide the relevant information needed to assess the significance of the parcel and at the same time to minimize the disturbance to the parcel via the destructive digging of archaeological units. Dr. King's program would have resulted in far more disturbance to the parcel and was thus deemed excessive, destructive and unnecessary.

My conclusions are very different from Dr. King's because Dr. King assumes that all sites are *habitation sites*. Based on his observations of surface remains only, he asserted the site was a habitation site with structures (i.e."houses" and a "sweatlodge"). My interpretation is based on a formal research design that makes no *a priori* assumptions about the site. The test of my hypothesis was based on excavated data and the surface artifacts. And my tested results indicated that the site was not a habitation site but that the site served for most of its time period of utilization as a lithic production site and, possibly, during its recentmost utilization, as evidenced by its surface distribution of artifacts (the manos and mano fragments), it served in addition as a floral resource processing site. In short, the data indicates that site CA-LAN-803 was a production/processing site and not a habitation site. The hypothesis is supported by many test expectations, such as the fact that the site lacked FARs (Fire Affected Rocks) that would have been present due to the cooking, heating and lighting fires at a habitation site.

I did not "...ignore the information obtained (by Dr. King) during the Phase 1 study." I considered his data and his interpretations. But we found his data to be incorrect and his interpretations unjustified by the recovered data.

CRITICISM: The second group of documents includes a map of artifacts observed on the surface, a list of the artifacts observed on the surface that is keyed to the map and illustrations of selected artifacts that are referred to in the artifact list. This is the basic information obtained during the Phase 1 study. The list of artifacts and the illustrations document the similarity with collections from the Sweetwater Mesa site (LAN-267), the Zuma Creek site and many other Early period settlements in the Malibu and Santa Barbara coastal areas. Counter to Stickel's assertion that the site has little variability, it has the full range of artifacts usually found in Early period Phase x sites and these are found in similar ratios.

Response: Dr. King asserts that his map of surface artifacts proves that the portion of site CA-LAN-803, on the Trento property, is a habitation site similar to the other sites he cites in the paragraph. As stated above, the data did not prove the site to be a habitation site. Dr. King's comparisons are therefore spurious.

As for Dr. King's assertion that I was trying to minimize the variability of the data for the site (as Dr. King states "... it has the full range of artifacts usually found in Early period...sites..."). In terms of the data from the Test Phase Report (Stickel 1999b), (which he claims he is critiquing in his package), we only found 3 utilized flakes, 1 scraper, 2 core fragments, 1 core and 1 chopper. All the rest of the data was debitage. The four test pits of the test phase (1 x 1 meter in sixe) yielded only 1 additional tool type: a bi-facial knife. In addition, there was only a few more formal tools: 1 scraper, 1 incipient chopper, 4 utilized flakes, 2 spent cores and 7 core fragments. The rest was debitage as with the STPs. That data set hardly comprises to this researcher "a full range of artifacts" found at a habitation site. Dr. King can only provide more variability for his interpretation with the surface collected data (and our carefully collected surface collection of artifacts differed from his substantially; see below). My assessment, is that the site portion (of site CA-LAN-803) that was on the Trento property did not have a full range of artifacts and features that would support a habitation site hypothesis.

CRITICISM:

The presence of distinctive residential areas, men's working areas, a possible sweat lodge depression and flat areas with few artifacts surrounded by artifacts indicates that many of the features of historic Chumash settlements, including sweatlodges, dancing areas, shrines, playing courts and cemeteries were present in settlements 7000 years ago. Recent discoveries of earth mound complexes in the southeastern United States indicates that features of historic settlements were present at a similar time in other areas of North America. In anthropological circles, it is commonly believed that societies living during Early period Phase x did not have complex settlements. If the depression is the remains of a sweatlodge, its excavation would be the earliest documentation of sweatlodges in North America. Further study of the site could document the organization of ancient native society in Malibu and dispel many racist beliefs about native peoples.

Response: The subsurface data collected from the 31 STPs and the four test pits did not provide data indicative of any activity areas. Therefore one has to rely on the surface distribution of artifacts. Our carefully produced map of the surface artifacts does not show evidence of "distinctive residential areas", separate "men's working areas" (for if the assumption is used that lithic production was performed by men, there was lithic debitage (waste flakes..etc.) distributed virtually over the entire property. This is echoed by the distribution of cores and hammer stones (see attached map of the surface distribution; our Figure 10). There are no clear "flat areas with few artifacts surrounded by artifacts" (of what types?). Also, there was no evidence of "sweatlodges, dancing areas, shrines, playing courts and cemeteries" despite Dr. King's wish for them.

Dr. King's citation of "earth mound complexes in the southeastern United States" is irrelevant. The two site areas are not of a similar time. The southeastern mound builder sites date to a much later in time such as the great mound site of Etowah, Geogia which dates about 1000 years ago (whereas Dr. King believes the site CA-LAN-803 to dates to "7000 years ago."). King's citation of the Mound Builder sites is a farfetched attempt to ascribe false importance and significance to site 803. The Mound Builder sites were not only much later in time but they were built by cultures with large populations with complex social organizations far more complex than the small populations and probable egalitarian social organization of the Early Period People of the Chumash area during the Early Period (assuming for the moment that the site dates to that period). Site CA-LAN-803 is significant in its own right as it has yielded data important to a scientific understanding of site variability during the Early Period. We don't have to cite cultures of vastly different time periods and cultural complexities to justify ascribing significance to site CA-LAN-803.

As for Dr. King's alleged "sweatlodge" on the parcel, the depression in question, as far as I am concerned, was along a long linear small gully, and that it was most probably natural geologic small sump area on that drainage and was not a structure feature (see my Memo of 2/18/99 attached). Dr. John Minch, in my reports (Stickel 1999b and c), stated his opinion that the feature had been created by a tractor turn around. I have excavated a sweat lodge at the Chumash Rincon Site (CA-SBa-1), and in my opinion the above factors account for the depression. I agree with Dr. King, however, in that further study of the site "could document the organization" of part of the ancient Chumash Culture. King also added the concept of "racist beliefs" and if he meant by that a back-handed attempt to characterize me, I would have great umbrage at such name calling. I coordinated with one of the most prominent and qualified Chumash Native Americans to be the Monitor for the project, Ms. Carol Pulido. Both other Chumash and Gabrielino (the neighboring Tribe of the greater Los Angeles area) were crew members on the project and they together formed a high percentage of the crew. All project procedures, analyses, project interpretations and mitigation recommendations were reviewed with the Native Americans and they fully agreed with them. Dr. King should chose his words more carefully.

CRITICISM: I suspect that the Phase 2 archaeological study which exceeded 2 square meters of excavation was conducted without the required coastal permit. A phase 2 study should be conducted using state of the art archaeological procedures to determine the positive value of different site areas for understanding the organization of a whole settlement. This study could be used to carefully design a program to salvage significant information. The design and conduct of the testing program should be conducted under the supervision of a panel of expert archaeologists.

Sincerely, Chester King

Response: I disagree with almost all of his comments here. I have no comment on the coastal permit comment. But, as for his next comment, we did use "state of the art archaeological procedures." I am fully aware of modern methods too (e.g. I have published the most extensive remote sensing study ever conducted in Europe, on Lake Neuchatel in Switzerland, wherein I utilized side scan sonar, a magnetometer and a sub-bottom profiler (Stickel and Garrison 1987). I have selected the methods and the procedures for the project that area appropriate given the nature of the project and the limits of costing stipulated in CEQA and by the City ofMalibu. We have determined the "positive value" of the site. The different site areas that Dr. King "sees" in the data do not exist and have not been proven by him. As for "...understanding the organization of a whole settlement." The site (it is not a "settlement"or habitation site) extends beyond the boundaries of theTrento property. It was not, nor should it be, the goal of the project to study the entire site (both on and offTrento's property) and make Dr.Trento pay for it. We were to study the data on his parcel and we did so. As for Dr. King's last comment in the paragraph. He said our project should be conducted "under the supervision of a panel of expert archaeologists," as if we were derelict is doing so in some manner. I was informed by the City that Dr. King had already set up such a panel of experts and that that panel had listened to Dr. King's complaints about my project and then they had ruled in my favor and against him. It would appear that Dr. King doesn't like it if his own set-up panel disagrees with him and so now he wants a new one that will rubber stamp his demands.

CRITICISM: Memo to Craig Ewing
Archaeological Evaluation at 25126 Pacific Coast Highway, Malibu, California, PPR-98-235.
From: Chester King
October 21, 1998

On September 16, 1997, I completed a Phase 1 archaeological study for the parcel at 25126 Pacific Coast Highway. During the Phase 1 study, I mapped 626 surface artifact locations in the project area. I observed that the distribution of different frequencies of artifact types in different areas of the site indicated the presence of the organization of a settlement and observed the presence of a slight depression that may indicate the presence of the location of a semisubteranian structure. The artifacts found at the site indicate that most occupation at the site occurred during the early part of the Early period approximately 6000-8000 years ago. The organization of surface artifacts and features indicates that this early settlement contained many of the features characteristic of historic California native settlements.

MEMO TO CRAIG EWING (of Oct 21, 1998)

insert King pg. 1 para 1

Response: Dr. King says he mapped "...626 surface artifact locations." and that that data led him to all of his conclusions (i.e. that the site is of the "Early period approximately 6000-8000 years ago," and that the "organization of the artifacts and *features* indicates that this early settlement contained many of the *features* characteristic of historic California native settlements." Dr. King found no *features* at the site, but simply surface artifacts. Features are clusters of artifacts and/or ecofacts such as a fire hearth, an earth oven, a lithic work station which have limited and definable dimensions and parameters. Since a habitation site can have a high number of features (cf. Stickel 1999a), his use of the word is misleading and it is a attempt to falsify the data to fit his mental notion of what a habitation site is comprised of. The site may date to his ascribed time period. It may not be that old. The lack of diagnostic artifacts (aside from the two projectile points) makes the temporal assessment difficult. For example, the projectile points, beads and features at a site I recently excavated at Palos Verdes indicated a Middle and Lake Period Occupation of the site. However when we dated the bottom of the cultural deposit the date ran to the late Early Period (hence all three major time periods were represented at the site (Stickel 1999a). Nevertheless, I was willing to present Dr. King's hypothesis of the chronological placement of the site in my reports.

Dr. King claims he found and mapped 626 surface artifacts at the site. We made an extremely careful surface mapping of the site (which was facilitated by a recent plowing of the site so visibililty was good). I have a highly experienced crew. One of them was a Ph.D. Candidate with many years of experience both in conducting and directing field projects. Also, our Chumash Monitor, Ms. Carol Pulido and the other Native Americans on the project were keen on finding every last artifact on the surface. Despite our careful inspection, we located 201 artifacts not the 626 Dr. King claims were there. We were so careful that we relocated a net weight (cat. no. CA-LAN-803/99-488) that Dr. King had mentioned in his Phase I report. However, our thoroughness paid off in that we located a projectile point that Dr. King had missed (cat . no. CA-LAN-803/99-544). We scoured the property but we could only locate the 201 artifacts. We are confident that that was the real distibution and not the 626 artifacts that Dr. King claims was on the parcel.

CRITICISM: Of the 105 archaeological sites recorded within the jurisdiction of the City of Malibu, CA-LAN-803 appears to be the most intact whole site. It is probably the best preserved site that was occupied during the Early period that remains along the coasts of Los Angeles and Ventura Counties. Archaeologists have not mapped the organization of the sites that have been destroyed or damaged by development. Damage or destruction of site LAN-803 will result in the loss of important information concerning lifeways and social organization of early Malibu residents.

insert King /ewing-pg 1-para 2

Response: Dr. King claims that CA-LAN-803 is the "... most intact whole site..." in Malibu. He also states that it is the "...best preserved site" along both the Los Angeles and Ventura Counties. I don't see the published evidence to support those claims and his statements have to remain unsupported hyperbole until the evidence is unquestionably available. Regardless of his claims, the site, although we found it had been disturbed, has some preservation. And in no manner did I discount the significance of the site due to its preservation parameters. I agree that "damage or destruction of site LAN-803 will result in the loss of important information." However the vast majority of the site on the parcel is going to be preserved, not destroyed as King is trying to assert (and as he well knows). The main house and pool areas were moved into locations to minimize their impacts on the main part of the site as shown by the

CRITICISM: One piece of a large bone, possibly human was observed on the surface of LAN-803. One or more cemeteries are expected to be associated with the settlement. Cemeteries have been found near the crest of hills at many Early period settlements. A cemetery may be located north of the probable house cluster or may be in other places.

Response: King claims he found a "large bone, possibly human" on the surface of the site LAN-803. This claim has been unprofessionally made for several reasons. Despite my request for this bone, Dr. King has never produced it. If he found a bone during his Phase 1 project at the site three years ago, back in September of 1997, per professional standard practice in this state, and as stipulated in the City of Malibu cultural resource Ordinance, he was required to immediately have the bone properly identified by a human osteologist (human bone expert), and if it were human, then he was required to contact the coroner and the relevant Native Americans, theChumash, and the Native American Heritage Commission in Sacramento. We did not find this alleged bone and he has failed to produce the bone, let alone have it properly identified and reported. TheChumash Native Americans on the project are upset, that if he had truly found a bone that could be human what did he do with it? Is he keeping it at home? Why didn't he get it properly identified and comply with the reporting process? And because of his failure to properly handle the alleged bone situation, why is he still harping that there is a human bone (and potential thereby for a cemetery on the site) when he can't produce the bone? His handling of this manner is inexcusable.

CRITICISM: Site LAN-803 covers a large part of the parcel. In my Phase 1 report, I recommended that the project be designed to avoid impacting potentially sensitive areas. The project design submitted for planning review has not avoided the site. A larger area of the site will be impacted than indicated on the preliminary plan submitted when the Phase 1 report was prepared. It will be necessary to conduct a Phase 2 study. Phase 2 studies are defined in the Zoning Ordinance:

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Response: I agree that CA-LAN-803 covers most of the parcel. We proved that with good data. King then states that he "...recommended that the project be designed to *avoid impacting potentially sensitive* areas. The project design submitted for planning review has not avoided the site." This is an illogical and misleading statement. Since we proved that the site extends across most of the parcel (except for a small portion in the northwestern-most corner of the parcel), the "site" cannot be avoided totally, as King would like, or no development could take place at all. The truth of the matter is that the project was designed to minimize impacts to the "sensitive" areas of the site, once we knew where they were. For instance, the main house is located in an area that had a light surface scatter of artifacts (compare attached Figs. 7 and 10), the guest house is located in an area on the southwestern lobe of the site which also had a light surface scatter and the sub-surface data from all those areas contained mostly debitage with very few tools. The pool area was moved off of the feature which Dr. King thinks is a "sweatlodge" but which I and two geologists think is a natural sump/disturbed area. The heaviest concentration of surface artifacts were located from our Secondary Datum 3 to the area between our Secondary Datums 1 ands 2 (see Fig. 10). These areas were avoided as much as possible with the exception of the guest car garage (which was mitigated at the City's request by two 1x1 meter units).

CRITICISM: Section 9383. Cultural Resource Review

F. Phase II Evaluation

1. Applicability

Where, as a result of the Phase I Inventory, the Director determines that the project may have an adverse impact on cultural resources, a Phase II Evaluation of cultural resources shall be required and a negative declaration, mitigated negative declaration, focused environmental impact report, or an environmental impact report shall be prepared. All Phase II Evaluations shall be conducted by a qualified archaeologist and, where the Phase I Inventory indicates the presence of prehistoric or ethnohistoric Chumash cultural resources, the evaluation shall also be conducted in consultation with a qualified Chumash cultural resources monitor.

2. Definition

Phase II Evaluations are investigations intended to gather any additional data necessary to assess the importance of the cultural resources identified in Phase I Inventories, to define site boundaries of the cultural resources, to asses the site's integrity, to evaluate the project's potential adverse impacts on cultural resources, and to develop measures to mitigate potential adverse impacts. Phase II Evaluation proposals shall be designed on a project-specific basis and must be guided by a research design/work plan that clearly identifies the study goals and articulates the proposed methods of data collection and analysis with the goals.

Data collection methods may include a number of subsurface exploration techniques, including excavation of auger holes, test pits, or trenches.

3. City Review and Approval

The Director shall review and approve all Phase II design/work plans prior to any testing or excavations. The Director shall also review and approve all reports resulting from Phase II Evaluations. Where, as a result of the Phase II Evaluation, the Director determines that the project will not have an adverse impact on important cultural resources, no further cultural resource review of the project shall be required.

RITICISM: (CONT.)

I understand that it is desired to excavate an additional geotest trench in the site area. The trench project can be evaluated separately as a geotest project or can be evaluated as part of the total project. If it is desired to first evaluate only the test trench, a Phase 2 proposal can be submitted for the trench project.

The following sections from the Phase 1 report have been modified in the light of recent information including following field visits and the plan submitted for the proposed project

RECOMMENDATIONS FOR A PHASE 2 STUDY

After a project is submitted for planning review, the project applicant should obtain the services of a professional archaeologist to prepare a Phase 2 archaeological study. Phase 2 archaeological studies are conducted to determine significance of archaeological sites and design mitigation programs to recover or preserve significant information and cultural

Response: I have no comment on this page (the single spaced portion of which is "boiler plate" from the City's ordinance) except for Dr. King's comment in the last paragraph, and that is that I am a professional archaeologist (I hold a Ph.D. and I have 35 years experience conducting archaeological projects in Malilbu and elsewhere in southern California). I have taught at UCLA, and at three local State Universities. And I have been very committed to properly conducting research at Native American sites and I have tried to preserve and save many sites.

CRITICISM: values. Proposals for the Phase 2 program must be submitted for review to the City of Malibu prior to conducting the program. The Phase 2 report should provide information necessary to prepare a mitigated negative declaration or a focused EIR. Testing programs for evaluation of archaeological sites in Malibu are required to be conducted under the supervision of a Chumash cultural resource consultant. The testing program should be designed to efficiently obtain information necessary to evaluate the site and design mitigation programs.

Response: King implies that we did not follow proper procedures : "Phase 2 program must be submitted for review to the City..." when it was properly submitted. He implies that we do not have a proper Chumash Consultant, when we did in the person of Ms. Carol Pulido. King implies that our testing program was not designed to efficiently obtain necessary information for the evaluation of the site, when in fact our program was much more efficient and appropriate than the overkill approach that Dr. King wanted (i.e. explore the entire site with a very high number , 60 or more 1x1 meter pits, etc.).

CRITICISM: After the locations of earth disturbing elements of the project have been determined, test programs should be conducted in the areas that will be effected by the project. It is recommended that the test program include controlled unit excavations. Controlled excavations are used to determine site area boundaries, to determine small artifact content of site deposits, acquire information concerning soil development and to develop mitigation programs. The types of excavation should be based on initial information concerning types and frequencies of remains and the types of impacts which are expected. Procedures which are relatively standard in Santa Monica Mountain archaeological studies were used at Oak Park Zone III (King with others 1991). The research design for Phase 2 evaluations should include a map indicating placement of excavations.

Response: Dr. King implies that we were not digging in the "areas that will be affected by the project" when in fact our units were placed in the areas of high impact for the project (i.e. the main house, driveway, etc.). Dr. King states that our excavations were not geared to "determine site area boundaries," and "small artifact content" when in fact our units (32STPs and six 1x1 meter units) were successful in defining the site boundaries on the property as well as the depth of the cultural deposit across the site and the artifact and ecofact content of the site including "small artifacts."

Dr. King claims that his methods are standard when they are not. For instance Dr. King does not use probability sampling, as we did , for the placement of his units which is serious failure as Probability Sampling is the best method to place units in such sites (cf.Renfrew and Bahn 1993: 66).

CRITICISM: The number and density of excavations should be based on the types of impacts that are expected and the apparent significance of areas that will be disturbed as a result of project construction. Soil disturbing activities will probably include: 1) excavations for foundations for structures, 2) grading for a driveway, 3) excavations for utility lines (water, gas, telephone, cable and electricity),4) excavations for septic systems and associated pipelines, 5) excavation of pools, 6) excavations for landscaping (holes to plant trees and shrubs), and 7) excavations for slope stabilization. All possible impacts should be identified in Phase 2 evaluation studies.

Response: The number and density of our excavations were based on the types of impacts (including the foundations for structures, grading for driveways, etc.).

CRITICISM: Excavations should be placed in areas that will be excavated during project construction. Cemeteries may be less than 20 feet in diameter and testing should be conducted at intervals of 10 meters (30 feet) or less in areas which will be excavated or graded to provide a reasonable opportunity to locate them. It is estimated that the site deposits are less than a meter (3 feet) deep. It is recommended that the test excavations be dug in 10 cm levels soils to subsoil. Soil from the excavation units should be screened through 16 mesh per inch screen and all residues laboratory sorted. Sidewalls of excavation units should be profiled by a person with training in geomorphology of archaeological soils. During excavation, indications of features or burials should be looked for. Information concerning

CRITICISM: Proposals should provide information that demonstrates familiarity with research interests of archaeologists who conduct research in the area. Proposals should provide a research design that clearly relates procedures that will be used to accomplish project goals. Proposals should provide detailed descriptions of field and laboratory procedures that will be used. Proposals should make a commitment for curation of collections.

Response: The proposal (Stickel 1998) did provide the relevant information on past research of other archaeologists including Dr. King (as his research interests). The proposal had a *clear research design*, with specific hypotheses, including their test expectations, and the research goals of the project all specified. There were descriptions of both field and laboratory procedures and contrary to Dr. King's implication, a provision was stipulated for the curation of the excavated data. At this time all of the data from the project has been curated at the Santa Barbara Museum of Natural History.

CRITICISM!

Chester King
P.O. Box 826
Topanga, California 90290
(310) 455-2981

To Mary Ann DeHaven

December 2, 1998

Concerning 25134 Pacific Coast Highway Phase 2 proposal

Background

I have reviewed the scope of work for a Phase 2 program at 25134 Pacific Coast Highway prepared by Gary Stickel. The Phase 2 testing program is to assess impacts of construction of a new single family residence on prehistoric archaeological site CA-LAN-803 and design measures to avoid or reduce identified impacts. The Phase 2 testing program is proposed in response to requirements of the Malibu Zoning Ordinance.

(ORIGINAL WAS PAGES 1-8)

Response: All of Dr. King's criticisms contained in his memo to Mary Ann DeHaven are repeats of those contained in his comments to Mr. Craig Ewing, Director of Planning of the City of Malibu. Since I have addressed all of those, both above and below here, I will not waste time by repeating responses to the comments he makes to Mary Ann DeHaven.

CRITIQUE!

Chester King
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To Craig Ewing

January 10, 1999

Concerning 25134 Pacific Coast Highway Phase 2 proposal

I have reviewed the revised scope of work for a Phase 2 program at 25134 Pacific Coast Highway prepared by Gary Stickel on December 21, 1998. The first 18 pages of the proposal are identical to the proposal prepared on November 16, 1998.

King to CRAIG EWING 2memo of Jan. 10, 1999
Insert King/Ewing2
Response: Dr. King makes the non-sequitur comment that the first 18 pages of the revised proposal are the same as the original one. That was because the same pages were relevant.

CRITICISM; Approximately two pages of discussion are added to the original proposal. The additions do not address my concerns with the previous proposal. The added material includes a discussion of sampling procedure to be used for the second stage testing program and a discussion of analysis and report writing. The discussion of sampling does not define the boundaries of the areas to be sampled, it does not describe the sizes and frequencies of the activity areas or features that are to be identified or the required level of probability that pertinant features will be identified. Discussion of the parameters of the sampling program would enable the scale of the second stage testing program to be estimated. The proposed stratified random sampling program will probably require extensive excavations if statistically significant results are to be obtained.

Response: King asserts that the additional pages of the proposal do not address "his concerns." That was because I addressed the issues and covered them adequately. King states that the sampling discussion does not cover the areas to be sampled when in fact it did as we used a stratified sampling procedure (and each sampling strata was each area of the greatest impact, e.g. the main house area, guest house area, etc.; cf. Stickel 1999c: 34-35). King states that my proposal does not "describe the sizes and frequencies of the activity areas or features." They cannot be described until they are discovered and found during excavation. His comment is illogical. He talks about the "required level of probability that pertinent features will be indentified." If Dr. King understood sampling theory (which he apparently does not), one cannot scientifically specify the probability of identification until the features or data have been discovered. Then the probability of their site occurrence will depend on their frequency in the sample. If no features are found (which was the case when we excavated), there is a virtually nil probability of finding features across the site.. Dr. King's remaining comments about sampling in the paragraph shows that he does not understand the use of probability sampling.

CRITICISM; My main concern is that the proposed program may result in a product that fails to satisfy the requirements of the zoning ordinance and fails to provide information adequate to enable the planning department to prepare a CEQA study.

Response: Dr. King's stated concerns here are bogus. Our program did satisfy the cultural resources management requirements of the zoning ordinance as it provided *adequate information for the required* evaluations. This was judged to be so by the City ofMalibu, Director of Planning, Mr. CraigEwing and by the City's Review Committee for Cultural Resources who have both approved our reports as appropriate and adequate to prepare a CEQA study.

CRITICISM:

In my previous review, I did not discuss my concerns but rather proposed a set of conditions that addressed my concerns. The conditions I proposed were similar to those proposed for another project that Dr. Stickel is working on in Malibu. The procedures described in the condition are procedures I have used and are the procedures I would use if I was conducting the Phase 2 study. The conditions were for the purpose of clarifying the procedures that would be used to conduct the study because the proposal did not describe procedures that would be used. Dr. Stickel's response to my proposed conditions for the other project revealed that he is proposing to use procedures that differ significantly from my conditioned procedures. In the proposal, he does not describe his initial sorting procedures. The procedures are apparently referred to by the phrase "full recovered data" on page 19 first paragraph and by the phrase "recovered artifacts and ecofacts" on page 20 last paragraph.

insert King/Ewing2; pg.1, para 4

Response: Dr. King claims that my proposal (Stickel 1998) did not describe procedures that we would use on the project. His claim is not true. The procedures were adequate and were accepted by the City and City's Cultural Resources Review Committee. Our procedures are different from those demanded by Dr. King with good reasons as stated above..

CRITICISM: FIELD SORTING OF SCREEN RESIDUES

Dr. Stickel's response to my proposed condition describing procedures to recover and process artifacts indicates he has his field crew sort out the materials that are to be further analyzed in the field. Material not bagged is dumped in the field. Each person screening determines what is sent to the lab.

Response: This section is Dr. King's diatribe about our screening and sorting procedures. He states that "Each person screening determines what is sent to the lab." This is not true. The screening station is supervised by the Field Director and the writer (Principal Investigator). In addition, the Native American Monitor, Ms. Pulido very carefully supervised the screening and sorting for the project. Moreover, the field crew was liberal about data collection in the field and therefore what data they included (from the smallest micro material to the largest artifacts) in the data bags to be taken into the lab. This was evident because my Lab Director and I personally reviewed all data in the lab. And a lot of data had to be edited out until the actual cultural data from micro flakes to our largest sized data was finalized.

Most archaeological excavators in the area where Chumash languages were spoken prior to Spanish colonization stopped using field sorting procedures over 20 years ago. Archaeologists have regularly sorted all material remaining in screens in laboratories. In Santa Barbara County, County guidelines require laboratory sorting of material remaining in screens from excavations conducted for Phase 2 and Phase 3 studies.

Response: His statement that "most" archaeological excavators are using his methods is not true from my experience and he has to prove that bald statement. His statement that the procedures used in Santa Barbara County are exclusively the same as his is untrue. The project Native American Monitor, Ms. Carol Pulido has informed me that she has seen several projects in Santa Barbara County, including one in progress right now, which is screening and sorting in the field. Moreover, Dr. John Johnson, Curator of Archaeology at the Santa Barbara Museum of Natural History, informed me recently that where he is aware that some archaeologists are using the same procedures at Dr. King, there are others who are not. And Dr. Johnson was not aware that Dr. King's procedures were the listed in the County guidelines as Dr. King asserts.

CRITICISM: Field sorting of materials that remained in screens was standard procedure in 1960 when I started working on archaeology projects. We most often used 4 mesh per inch screens although occasionally we used 8 mesh screens or 2 mesh screens. Excavations were often square and measured 5 fe or 2 meters on a side. There was a greater emphasis on excavation of features and less emphasis o small artifact recovery. Most funded excavations were for the purpose of salvaging information from sites that were being destroyed by reservoir or highway projects. Excavations were not conducted for environmental assessments. There were no legal procedures that allowed for preservation.

insert King's wrtg pgs/para

Response: No comment.

CRITICISMS When we used dry screening, soil was often shoveled directly from an excavation into a screen. Th screen was then shook until soil fell through; remaining soil was rubbed through screens as well as could be done; and the remaining residues were then shook to the end of the screen away from the screener. The residues were then moved in small quantities across the screen toward the screener. Artifacts that were observed during this process were taken out of the screen and placed in a bag. As material was sorted, chunks of soil and rock were allowed to accumulate at the end of the scree near the sorter. The field sorting process could be repeated until few artifacts were found and the remaining contents of the screen were then dumped into the pile of screened soil. All observed artifacts were placed into bags. The contents of the bag were later further sorted in a laboratory. After the screen was dumped, the excavator shoveled more soil into the screen and the screening a field sorting process was repeated. Often we did not save flakes bones without articular ends or many other categories of artifacts during field screening. We mostly collected shaped artifacts an tools that are usually large enough to be retained in 4 mesh screens. Each individual that sorted material from the screens independently decided what to save and what to discard. Eight mesh screens were the finest mesh screens used. It is not possible to field sort most artifacts out of 16 mesh screens.

Response: I don't have much to comment on Dr. King's reminiscing here except that he said he did not save "flakes bones" (sic)...." I always saved mine at that time at my excavations.

Dr. King's statement that "It is not possible to field sort most artifacts out of 16 mesh screens" is wrong. I would argue that it is even easier to sort data, especially shell fragments and small lithic flakes, whose shiny surfaces reflect the sunlight better, as they are whetted by the wet screening process.

CRITICISM: Since the late 1970s, wet screening and laboratory sorting of all screen residues has been standard procedure for cultural resource management studies and archaeological research studies in the Chumash area. Cost and the needs of management studies have led to excavation of smaller samples using techniques to consistently recover small artifacts. The excavation of smaller samples is driven both by cost considerations and desires to minimally damage sites that might be preserved. The Santa Barbara County guidelines for Phase 2 and Phase 3 projects requires laboratory sorting of all materials that remain in screens. Laboratory sorting of all material that remains in screens has been adopted to obtain replicable results and reduce differences between samples that inevitably result from errors. I have found that no archaeologists are perfect and that we all make errors of observation and recordation. The adoption of strict standardized procedures for collecting data reduces errors and usually allows for identification and correction of errors that do occur. Some of the reasons that laboratory sorting has become standard procedure in much of California are:

Response: Here Dr. King reminisces about the "1970s" and mentions "wet screening" as if I was unaware of it. In fact, I had been exposed to wet screening in Switzerland long before it was used here and I was one of the archaeologists who introduced it here in California. Dr. King has conveniently forgotten that.

Dr. King, being repetitious again mentions the Santa Barbara County guidelines regarding screening and sorting. I responded to that above.

CRITICISM: 1. If field sorters are extremely conscientious and try to recover all artifacts it takes more time to sort material under less than optimal conditions and lengthens the time spent in the field. Even if the sorters are conscientious individual differences in visual acuity is apt to introduce differences in recovery and the difference can not be measured. By saving all material that is retained in the screens it is possible to check all sorts and standardize recovery rates.

insert King no. 1

Response: Dr. King's attack on field sorters is illogical and wrong. He assumes that field sorters are less experienced, capable, and consciencious than lab people. I have not found that to be the case. As a matter of fact, on the Dr. Trento project we had Native Americans who were extremely keen on finding every tiny micro flake (e.g. small thinning flakes). And our Native American Monitor, Ms.. Carol Pulido took pride in finding every tiny bit of data and she watched the screen like a hawk. Bringing a bag of unsorted raw data (that includes non-cultural rocks, pebbles, pea-gravels, roots, etc. in addition to the cultural data) into a lab with artificial light is not better than scanning the same raw data in the field. Until I've seen good scientific studies, that use controls, to test which one is better, I'll have to rely on my own experience which tells me that field sorting is superior and permits better standardization of data. This was especially verified to me when, due to the liberal data collection procedures of the field sorters, we had to edit out so many raw items as not being cultural in the lab. We maintained standardized recovery rates in the field, despite Dr. King's carping.

CRITICISM: 2. Small objects that pass through 8 mesh screens and remain in 16 mesh screens are not possible to differentiate from small gravels and large sand while they are wet. They are most efficiently sorted in the lab. They are also most efficiently sorted under magnification.

Response: His above statement is simply not true. In fact, it is easier to see shell fragments and small micro flakes because they are wet and reflect the sun light better than under artificial light. Small data is not "more efficiently sorted in the lab." To sort through pea gravels, etc. in the lab compounds and wastes valuable time that is better spent in the observation, identification, and measurement of specimens for the data catalog.

CRITICISM: 3. Frequencies of different gravel sizes in different parts of the soil profile reflects the length of time that soil has developed since abandonment. I have found that consistent collection of non-cultural materials can unexpectedly aid in interpretation of the distributions of cultural materials. Non-cultural materials can be compared to cultural materials to determine if they have similar histories of being sorted by gophers and earthworms. In the Sweetwater Mesa report, I discussed the distribution of different sizes of non cultural and cultural materials in the soil profile of a control excavation that I laboratory sorted.

Response: His statement that "Frequencies of different gravel sizes. . .reflects the length of time that soil has developed since abandonment," is unsound scientifically. There is no established correlation of frequencies of gravel sizes and length of time of soil development or build up (cf. Butzer 1982). Gravel frequencies and sizes are due to the alluviation across the site which varies each year. In dryer years there will be little in the way of the presence of gravels in the soil (as we found the case to be stratigraphically at the site. In a wet year (especially an El Nino type of year) the increased rainfall will lead to the washing in of many gravels of all sizes (as we found the case to be at the site in some levels). There is no reliable published study on how gophers and earthworms disturb a site (although obviously they do).

Dr. King mentions his "Sweetwater Mesa report", but typically, he does not properly cite his own report or provide the reference to it in his critique (both professional requirements).

CRITICISM: 4. Laboratory sorting reduces the amount of observer error. Standardized recovery is necessary if samples are to be statistically compared. Statistically significant differences between collections from different site areas can easily result from errors or differences between sorters. I analyzed a collection made in the early 70s by a field class for community college teachers to help them improve their weekend field classes. The students in the class had master degrees in anthropology and many had experience teaching archaeology field classes. I attempted to map the frequencies of animal bone recovered from the excavations to show where bone was concentrated in the site. The collection had been made by sorting the residues remaining in screens in the field. The soil from some excavations was sifted through 8 mesh per inch screens and the soil from other excavations was sifted through 4 mesh per inch screens. I found that differences in recovery were sometimes greater than differences that apparently reflected differences between site areas and found it impossible to map more detail than presence of bone in excavated areas. In two adjacent excavations, more small bone was recovered by excavators using a 4 mesh per inch screen than excavators using 8 mesh screen. The differences were probably due to a multiplicity of causes. Perhaps the excava-

RITICISM; PURPOSE OF THE PHASE 2 STUDY

In my review of the November proposal, I discussed the status of existing knowledge and outlined the goals of the Phase 2 study. I concluded that the Phase 2 study should gather additional information to 1) define boundaries, 2) evaluate the project's impacts, and 3) develop measures to mitigate potential adverse impacts. These are not the goals of the proposed study.

insert : King/Ewing 2 pg. 7 "purpose of Phase 2 study

Response: Dr. King mentions his "review" but does not cite a specific reference to it. But he lists 3 goals as if we did not address them. So to respond we did: 1) define the site's boundaries, 2) we did evaluate the project's impacts and therefore we dug our STP and 1 x 1 meter units in those high impact areas, and 3) we did develop mitigation measures that were reasonably accepted by the City and the City's Cultural Resources Review Committee and over Dr. King's objections.

RITICISM; Dr. Stickel states his goals at the end of his proposal:

> Once the salient information of the test phase results are obtained (including the combined data from Stages I and II and the results from the tests of the hypotheses are available, the assembled data will then be compared to the CEQA guidelines and the data based significance of the portion of the site established.
>
> A complete draft Test Phase (Phase 2) report will then be written that will include recommendations for the mitigation (Phase 3) CRM work period.

Apparently Dr. Stickel's goals are to determine significance according to CEQA and propose a project that would spend time excavating at the site. The statement of goals raises more questions than it answers. What is the salient information? Is it differences in frequencies of midden constituents? How will the hypotheses be tested? What measures will be used to test the hypotheses?

The site is significant according to CEQA guidelines. Determination of significance should not be the focus of the Phase 2 study. In addition to designing measures to work at the site, measures to avoid impacts should be proposed. There is no indication that the proposed Phase 2 study will attempt to identify significant impacts or develop measures adequate to mitigate them.

Response: Dr. King asks "what is the salient information?" It was obviously all the artifacts and ecofacts that we excavated on the project from the 32 STPs and from the six 1 x1 meter units we dug at the site. We noted differences in cultural deposit constituents (for instance the cultural deposit contained virtually no shell or bone [the latter with only 3 specimens, all animal bone; Stickel 1999c]). Dr. King asks what measures were used to test the hypotheses? The test expectations (and data needed to test them) were clearly presented in the Research Design in the original proposal (Stickel 1998).

I agree with Dr. King that the "...site is significant according to CEQA guidelines." However, we determined that with data we derived from our Phase 2 work. Dr. King made his mind up before the facts were even dug out of the ground. How can one determine the full significance of a site before the data is dug up and is available for study? Is Dr. King advocating a psychic approach to determining site significance?

Dr. King then makes the surprising statement that "Determination of significance should not be the focus of the Phase 2 study." *That goal is the main goal of a Phase 2 study.* If a site is very significant, it will require more excavation and research effort than a site that is relatively insignificant (such as a surface scatter of debitage only).

Dr. King incorrectly states that there "... is no indication that the proposed Phase 2 study will attempt to identify significant impacts or develop measures adequate to mitigate them." We accomplished both of those goals. Apparently Dr. King does not believe that adequate mitigation of the site will occur until the entire site is excavated and then only by him (as he apparently doesn't trust other colleagues).

CRITICISM: In my previous review, I suggested how the proposed Stage 1 program (assuming that careful recovery procedures would be used) could provide important information. I suggested:

> The proposed first stage testing program could gather information useful for determining relative costs of data salvage programs for the proposed project. Figure 2 of the proposal indicates the locations of excavations that will be conducted as part of the first stage of the Phase 2 study. Information concerning the costs of data salvage can be used to determine whether salvage is a practical or feasible means of mitigation. If data salvage is not a feasible mitigation measure, it will be necessary to determine if the project can be redesigned to reduce impacts to a level where data recovery is feasible.

insert king/ewing2 pg. 7 last para

Response: This is "boiler plate" from Dr. King's standard Phase 1 reports which is the standard procedures of the City.

CRITICISM:

> After completion of the first stage of the Phase 2 program, the scope of additional field work necessary to define boundaries, evaluate impacts, and design mitigation programs will be determined.

I proposed a condition that described the contents of a report that would be useful for environmental review. I described the contents of the Stage 1 report:

> A report will be submitted prior to approval of further Phase 2 studies. The report will include: 1. tables listing the artifacts found by excavation unit and level, 2. a table listing the times spent excavating soil, times spent sifting soil and drying and sorting and bagging screen residues, and times spent cataloguing material for each excavation, 3. conclusions concerning the results of the Stage 1 study, and if necessary, 4. a work plan for further Phase 2 studies.
>
> The report will include discussion of differences in interpretation of Early period sites reflected in the literature. The report will include discussion of issues related to the study of Early period sites in the Santa Monica Mountains and adjacent areas. Reports describe observations of distribution of artifact types at Early period sites in the Santa Monica Mountains at VEN-1019, LAN-451, and LAN-266. The discussion will describe the potential of site LAN-803 to resolve issues and provide useful information concerning early Malibu society.

Groundstone tools, chipped stone tools, residues resulting from the use and retouching of tools, and stone tool manufacturing debitage recovered will be described in the report. The descriptions will assist in the identification of the types of activities such as food and material processing and tool manufacture that occurred at areas tested.

The report conclusions will discuss the utility of the information gathered for distinguishing site boundaries and explain how further excavations will provide information necessary to accomplish the goals of a Phase 2 evaluation.

The report will provide information concerning the amounts of time spent for excavation, sorting and cataloguing for each excavation unit to enable comparison of costs of excavating in different site areas.

A complete list of causes of soil disturbance that will result from construction and use of the project will be included in the Stage 1 report. The Stage 1 report will include an analysis of the impacts to the archaeological record that will result from the disturbance.

insert king/ewing pg. 8.
Response: Dr. King has repeated this entire section from above (in his documents). My responses above address all of these demands.

CRITICISM: I suggested several approaches for documentation of features and activity areas at the site during second stage studies. I observed:

Insert king/ewing pg. 8 last sentence.
Response: Dr. King's sentence is irrelevant as, despite our concerted effort to find features and activities areas (as we abundantly were able to find elsewhere;Stickel 1999a), we did not find them at that portion of site CA-LAN-803 on the Dr. Trento parcel.

CRITICISM: It may be possible to make a map of soil color (or an enhanced air photograph of soil color) and use it with the map of surface artifacts, and the data from the Stage 1 program to define many parts of the site.

insert King/ewing2 pg. 9.
Response: The soil colors were consistent across the site and did not indicate any correlation with the main set of artifacts. Note that only 5 formal artifact specimens (i.e. tools and implements not waste flakes or debitage) were found underground in the STP excavations and the six excavation units only yielded together 25 formal artifacts (tools and implements), whereas there were 201 formal artifacts which were exclusively distributed on the site's surface.

CRITICISM: The map of the project indicates that possible structure depression is in the development area. To determine if the depression is an indicator of a buried pit structure it is necessary to excavate a trench through it to observe and record the soil profile. If a buried structure is present, features may be discovered below or near its floor.

Response: Dr. King repeats his demand for a costly excavation of his "possible structure depression" A.K.A. "sweatlodge". My comments above are still germane here, the depression, is, in all likelihood, a natural alluvially generated feature not a sweatlodge. And since we moved the *swimming pool area* was moved off of the depression at my suggestion there is no compelling need to do an exploratory excavation of it except to cater to Dr.King's obsession with it and to thereby cost the developer more money which is unjustified and unnecessary.

CRITICISM: At sites of similar age, cairns of metates are often found in cemeteries. Probes or remote sensing could be used to locate concentrations of rocks that may be metate cairns. If concentrations of rocks are located, excavations adequate to identify their contents should be conducted.

Response: Dr. King mentions "sites of similar age." What sites? Where is his references? Have those sites been dated by radiocarbon? How does Dr. King know his un-named sites are similar in age to CA-LAN-803 when the site has not been objectively dated by radiometric means. He assumes they are of the same age. Assumptions don't equal scientific proof.

He mentions "cairns of metates", not only did we not find such "cairns" we did not find any metates or clear metate fragments at all.. Dr. King says the latter is associated with "cemeteries". If so, maybe that is one of the reasons there is no evidence of a cemetery on the site as we did not find any cairns of metates.

Dr. King's suggestion of using "remote sensing" would be inappropriate for the site (this is based on my extensive experience with remote sensing; for example, I have published the most extensive remote sensing project, using multiple remote sensing methods, in Europe to date [Stickel and Garrison 1987).

CRITICISM: CONCLUSIONS

The revised proposal does not address concerns expressed in my review of the initial proposal. On the basis of his comments concerning another project it appears that Dr. Stickel will refuse to respond to comments in a constructive manner. I suggest that the City refuse to accept the proposal. This review and my previous review describe the components of an adequate program. Dr. Stickel can devise an acceptable program from my comments.

Response: My revised proposal responded to comments in a reasonable manner.
The only way to "address (Dr. King's) concerns" about the project, would be to cave in to all his demands which would have amounted to a project of immense and unrealistic high costs (hundreds of thousands of dollars) way beyond what the City of Malibu and CEQA would require. Dr. King's recommendation that the City should refuse my proposal was rejected by both the Director of Planning, Mr. Craig Ewing and by the City's Cultural Resources Review Committee (with Dr. King was instrumental in setting up himself). Our accepted program was then implemented with success to achieving the stated goals.

CRITICISM: Review of A Phase 2 (Test Phase) of Archaeological Site CA-LAN-803 at 25126 Pacific Coast Highway, Malibu, California. prepared by E. Gary Stickel

Project address also listed as 25134 Pacific Coast Highway (PPR 98-235)

Analysis of data gathered by the Phase 2 excavations

I analyzed the data contained in the catalogue from the test excavations before reading the test report conclusions. The information gathered indicates the presence of small artifacts below the plow zone in the vicinity of STP 5, 6 and 7 where few artifacts were observed on the surface. The information gathered from the other test excavations is consistent with my observations of the distribution of artifacts on the site surface.

Response: Dr. King's "analysis" of the data we recovered is scientifically flawed for many reasons which are discussed below. Even his title block fails to list himself as the author of the document (listed with page nos. 1-11). His first statement in the first paragraph, that his analysis indicated to him that "...small artifacts " (were present)"below the plow zone in the vicinity of STP 5, 6 and 7 where few artifacts were observed on the surface, " is incorrect, actually we found surface artifacts in the area and they were somewhat relatively dense in the area of STP 7 (near our Secondary Datum 2, "SD-2"; see our Figure 10 attached). He does grant me that the "...information gathered from the other test excavations is consistent with my observations..."

CRITICISM: For my analysis, I summarized the catalogue data so that I could compare with data from other sites and compare the different areas excavated within the site. I tabulated the catalogued artifacts according to the mesh size needed to recover them. I used width of artifacts as a proxy for mesh size. I used measurements of the diagonal spaces of hardware cloth (screens), and sizes of beads ~~recovered from different~~ excavations (King 1982) to estimate the widths of flakes that would pass through different mesh sizes. Objects wider than 7 mm were classified as being retained in 4 mesh screens and those with widths greater than 3.5 mm were classified as being retained in 8 mesh screens. Objects with widths greater than 2.0 mm will be retained in 16 mesh screens.

Response: In this paragraph on his procedure of analysis, Dr. King states that he used the "...sizes of beads recovered from different excavations (King 1982) to estimate the widths of flakes that would pass through different mesh sizes." Why didn't he use the sizes of micro-flakes, since those are the data he claims we missed by using our 1/16 inch mesh screens? Also he fails again to provide his reference to his "different excavations (King 1982)."

CRITICISM: Many artifacts I have tabulated as small enough to pass through a larger mesh size are probably thick or irregularly shaped and would actually be retained in a screen with a larger mesh size. The table therefore contains larger numbers of artifacts for smaller meshes than would be found if the artifacts were actually size sorted through meshes. The frequencies of small flakes and shatter is less than expected if all the products of stone flaking were present in the excavations. Less than 2% of the artifacts from the test excavations were less than 3.5 mm in width. Either stones were flaked at workshop locations away from the tested areas or the artifact recovery procedures failed to collect most small flakes and shatter. Artifact materials listed in the catalogue include cherts, chalcedony, fused shale, quartzite, and metavolcanic (apparently andesite and rhyolite). The relative frequencies of these stone materials is similar to the frequencies of chipped stone materials observed during surface mapping in the areas tested. The following tables summarize information from the catalogue.

Response: Dr. King's analysis is flawed here too as is his consequent unjustified conclusions. Evidence (such as the presence of crude choppers) exists at this site suggesting that initial flaking procedures were predominant at the site, rather than refined flaking (i.e. flaking to finish a tool into a desired final finished form). Also, who is to say that smaller debitage (i.e. secondary reduction flakes, thinning flakes, shatter) can not generally exceed 3.5 mm in width, based on types of the tools/implements generated on this site for specific activities?

Table 1: Frequencies of Chipped Stone Artifacts from Shovel Test Pits

	4 mesh				8 mesh				16 mesh			
Excavation	chert	chalc	metavo	quartzite	chert	chalc	metavo	quartz	chert	chalc	Total	T/m2
STP 1	2				1						3	12
STP 4	1			1					1		3	12
STP 5	8	1			1	3					13	52
STP 6	5	3			1						9	36
STP-7	12	1			4					1	18	72
STP-8					1						1	4
STP-9	8		1		3	2	1				15	60
STP-10	4	1	1	1							7	28
STP-11	5				1						6	24
STP-12	3	1	1		1						6	24
STP-13	7				2						9	127
STP-14	3	2			1						6	85
STP-15	2										2	28
STP-16	4				1						5	71
STP-17					1						1	14
STP-19	2	1									3	42
STP-20	3				1						4	57
STP-21	1	1									2	28
STP-22	2	1			1						4	57
STP-23	1		1					1			3	42
STP-24	2	1		1	1						5	71
STP-25	6+1 core	1		1 chop	6	1					16	226
STP-26	2										2	28
STP-27	1				1						2	28
STP-28	2				3						5	71
STP-31	1										1	14
Total	81	14	4	3	31	6	1	1	1	1	151	

DEBITAGE ONLY MATERIALS. MESH SIZES DOUBLE AURORIMATIONS. DISTINGUISHE WHETHER A FLAKE IS OF ONE TYPE OR ANOTHER (E.G., 8 mesh vs. 16 mesh)

Table 2: Frequencies of Chipped Stone Artifacts from Test Pit 1

	4 mesh				8 mesh				16 mesh		
Excavation	chert	chalc	metavo	quartzite	chert	chalc	metavo	quartz	chert	chalc	Total
TP1, 0-10	17	8	1	1	9	4					40
TP1, 10-20	15	7		1	10	5					38
TP1, 20-30	26	5	1	1	12	7			1	2	55
TP1, 30-40 A	15	7			4	3			1	1	31
TP1, 30-40 B	13	6	1		3	1		1			25
TP1, 40-50	5	1	1		3	1	1				12
Total	91	34	4	3	41	21	1	1	2	3	201

also two 8 mesh size fused shale flakes found in TP1 one in 10-20 other in 20-30 cm level

Table 3: Frequencies of Chipped Stone Artifacts from Test Pit 2

	4 mesh			8 mesh		
Excavation	chert	chalc	quartzite	chert	chalc	Total
TP2, 0-10	7	2	1	3	1	14
TP2, 10-20	3	2			1	6
Total	10	4	1	3	2	20

Table 4: Frequencies of Chipped Stone Artifacts from Test Pit 3

	4 mesh				8 mesh		16 mesh	
Excavation	chert	chalc	metavo	quartzite	chert	chalc	chalc	Total
TP3, 0-10	9				2			11
TP3, 10-20	3	2			1	1		7
TP3, 20-30	6	2		1	2		1	12
TP3, 30-40	2	2	1					5
Total	20	6	1	1	5	1	1	35

Table 5: Frequencies of Chipped Stone Artifacts from Test Pit 4

	4 mesh				8 mesh		16 mesh	
Excavation	chert	chalc	metavo	quartzite	chert	chalc	chert	Total
TP4, 0-10	10	5			1	1		17
TP4, 10-20	13	4	1	1	1	4		24
TP4, 20-30					6		2	8
TP4, 30-40	1	1						2
Total	24	10	1	1	8	5	2	51

also one 16 mesh metavolcanic in 20-30 cm level

Response: These "analysis" tables are exercises in the obvious. Since we utilized 1/16" mesh screen, all the larger artifacts "caught" in Dr. King's "8 mesh" and "4 mesh" were obvious caught and retrieved by our1/16" mesh screens. Also Dr. King's tables do not accurately reflect our data. His tables do no list types of debitage, only materials and mesh sizes. His tables do not automatically determine whether a flake is of one type or another (e.g. 8 mesh vs. 16 mesh).

CRITICISM:

CONICAL PORTIONS WERE LARGELY IN STERILE LEVELS

After tabulating the artifacts, I mapped the frequencies of artifacts recovered from the excavations. To map the relative frequencies of artifacts found in different size excavations, I computed the relative areas of a 30 cm circle and 50 and 100 cm squares to enable comparison of the amounts of material found in different site areas. I multiplied the numbers of artifacts from 50 cm squares by 4 and the artifacts from 30 cm diameter holes by 14.15 to estimate the number of artifacts that would be expected per square meter. (The actual area sampled in lower levels of many of the 30 cm diameter excavations was less than estimated because many pits were conical shaped and less soil than estimated was excavated from lower levels- the report does not provide information concerning volumes of soil excavated from different levels). Figure 1 presents information concerning the densities of artifacts found in test excavations. The size of the squares around test excavation locations indicates the relative frequencies of artifacts found in the test excavations. The highest density of artifacts was found in STP 25. A core and a chopper were found in this excavation. Artifacts were also recovered from deeper levels in this excavation than most nearby excavations. It appears that this excavation was in or near the edge of the main residential area at the site...

reckless extrapolation

insert king analysis pg. 3 table 3,4,5

Response: The same comment about Dr. King's Table 1 and 2 apply here also.

Dr. King continues to describe his method. But then he mistakenly states "...many pits were conical shaped" to criticize the excavation. Actually it was not "many" butsome. And the conical portions of those STP pits were down in the sterile parts of the deposit. Although Dr. King argued that we did "not know what: we were doing", we previously showed him that sterile (meaning a deposit with no cultural

data of artifacts orecofacts [e.g. shell fragments or bones]), was defined clearly at the DrTrento property by a soil with a high clay content, by distinctive soil color and bwertisols (large vertical cracks that occur in such soils). The conical nature of some of theSTPs was due to the extreme hard soil of the sterile deposit, which was not humanly possible to excavate in a perfect cylindrical shape as in an ideal world.

Dr. King's comment about the data in STP-25 in not germane. We agree that more data was found in that STP. This is correlated with the relatively high density of surface artifacts found between our Secondary Datums (SD-1 and SD-2; see our Figure 10, attached). His conclusion that that data is sufficient to say that the excavation was in a "main residential area" is not supported by the evidence and the test expectations we tested for the hypothesis as to whether the site was a habitation site or not. The hypothesis was rejected based on the lack of evidence.

CRITICISM: The second and third highest densities were near the eastern edge of the area with the highest density of chipped stone artifacts. The test excavations were near the edges or outside the areas of highest concentrations of artifacts mapped on the surface of the site. The test excavations recovered 461 artifacts. Over 626 artifacts were recorded when I mapped the surface of the site. No test excavations were placed in the area containing a concentration of types of artifacts associated with houses. The test excavations did not significantly increase knowledge concerning CA-LAN-803. They do not provide information that changes evaluation of the significance of the site.

Response: King's analysis is flawed here too. Our test excavations were not near the edges or outside the areas of the highest concentrations of artifacts mapped on the surface. Our Test Pit 4 was placed near our Secondary Datum 1 (SD-1) which was in a dense area. Also STPs 20-27 ran across some of the densest surface mapped artifact area on the site (see our Figure 10 attached). The latter was what de facto occurred, because the test units (STPs and Test Pits) were placed in the proposed areas of high impact (construction areas for the main house, guest house, driveway, etc.). They were not placed to blindly comply with Dr. King's unsupported notion of his hypothetical village. Dr. King claims he mapped "over 626 artifacts" (also see King 1997). Despite our careful surface inspection of a recently plowed parcel (i.e. surface observation was good), our scouring intensive site survey located 201 surface finds of formal artifacts (e.g. mano fragments, choppers, etc.). Dr. King implies that we missed a lot of data, whereas we not only relocated a small incipient net weight (cat. no. CA-LAN-803/99-488) that he had mentioned in his Phase 1 (site survey) report (King 1997), we also found a smaller artifact that Dr. King had missed, which was a small unfinished dart point of chert (cat. no. CA-LAN-803/99-544). We were thorough and consciencious as were the Chumash Native Americans who helped us find the data and who were keen on finding every last formal artifact and waste flake. Dr. King's other "data" was simply not present.

Also Dr. King asserts that his "concentration of types of artifacts" represented "houses." This is a reckless extrapolation from the data. When I pressed Dr. King when he visited the site on what were his test expectations for determining if a site was a habitation site or not? He said that the presence of manos was enough to prove that the site was a habitation site (i.e. manos=houses=habitation). Manos alone are neither necessary or sufficient to prove a site is a habitation site. Manos (which were used in conjunction with metates as food processors for floral resources, usually) can be found with houses or they can be separate. A habitation site hypothesis has to be established by several confirming test expectations, not just one. We rejected the habitation site hypothesis due to many factors: 1) there was no direct evidence of houses (no floors, circular areas of artifacts or lack thereof, etc., 2) there were no features (e.g. a house's fire hearth), 3) there were no food preparation areas in evidence, 4) there was a restricted range of artifacts (as opposed to a habitation site where a full range of artifacts is to be expected (e.g. beads, ceremonial artifacts, drills, metates, etc.); 5) there was a virtual entire lack of ecofacts (e.g. food remains as a habitation site is the primary locus for the consumption of food, it should have food remains in evidence but we found only 3 bone fragments and no shell fragments below the surface [the surface fragments, all but 3 specimens, were restricted to a small shell scatter oval located near Pacific Coast Highway (which Dr.King did not think was contemporary with the main site); i.e. the proverbial question "where's the beef?"; 6)There was a virtual lack of FARs (Fire Affected Rocks) that are produced either intentionally and/or unintentionally when village fires are made for cooking, heating and lighting activities all associated

with habitation. Only 3 FARs were seen (cat. nos. CA-LAN-803/99-536 [a surface find], -803-768 and -803-32 both found in one STP-32 only [the latter was an STP placed in the shell scatter mentioned above and which was not, according to Dr. King contemporary with the main site]. The surface FAR could have been easily generated by the numerous brush fires that have swept the area and which has caused the City of Malibu to require that the annual grass growth be cut down each year to diminish the fire hazard. In short, the testing of the hypothesis showed that the site is most probably not a habitation site. That situation stands in contrast to a site we recently excavated irPalos Verdes (OTPV-5) which conformed to all of the above test expectations (seeStickel 1999a).

I take exception to Dr. King's last two statements on pg. 3. Our test excavations (Phase 2) did significantly increase knowledge concerning site CA-LAN-803 and it did provide information relating to determining the significance of the site.

insert king pg. 4 map.

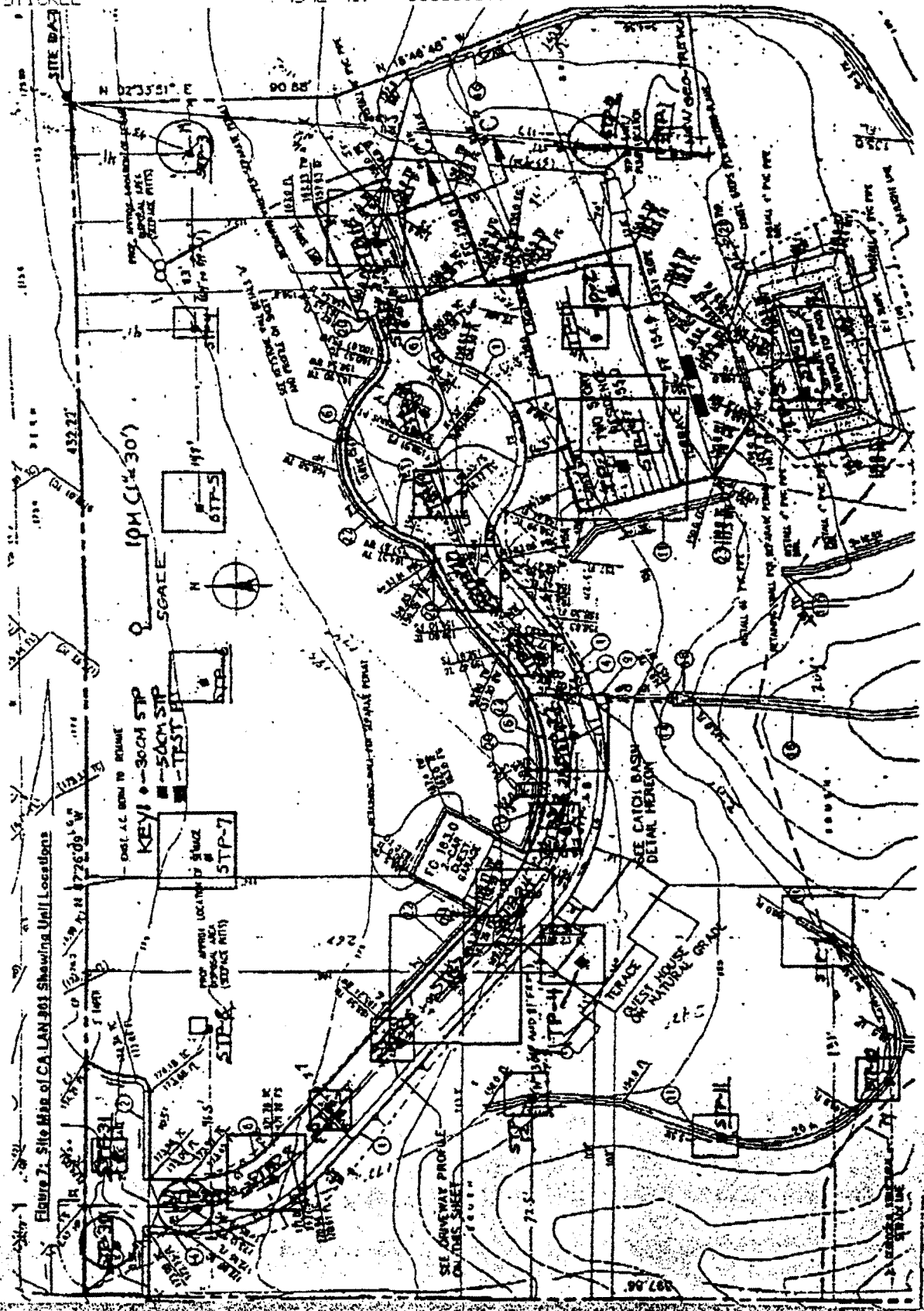

Figure 1: Artifact density of test excavations

Response: The comments on the flawed nature of Dr. King's analysis made above casts doubt on the validity of his "Figure 1: Artifact density of test excavations" map.

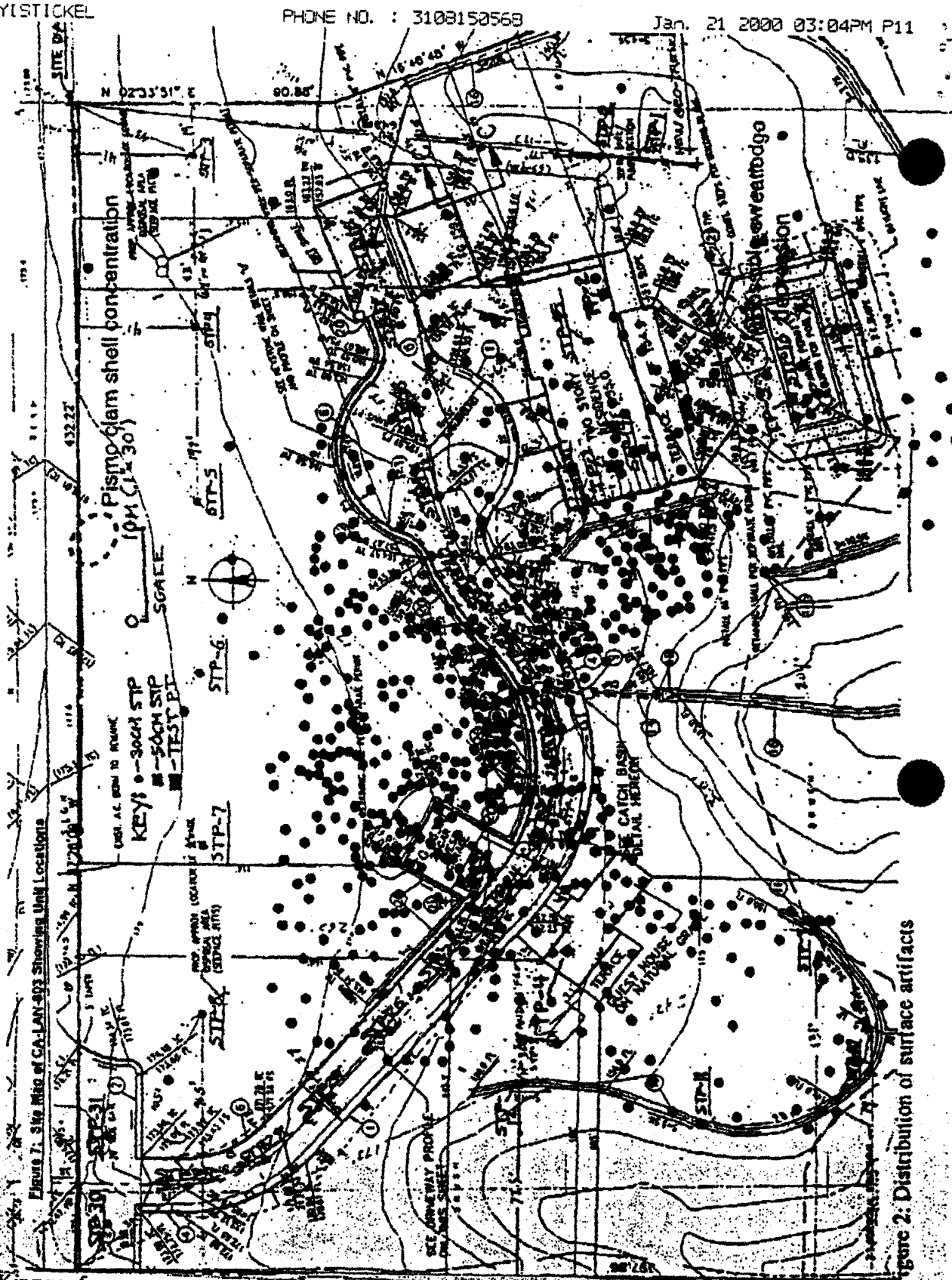

Figure 2: Distribution of surface artifacts

insert King pg. 5

Response: Also as discussed above, this map (Dr. King's "Figure 2: Distribution of surface artifacts") is simply not accurate. An accurate map showing the actual distribution of the formal artifacts on the site is shown in our Figure 10 (attached).

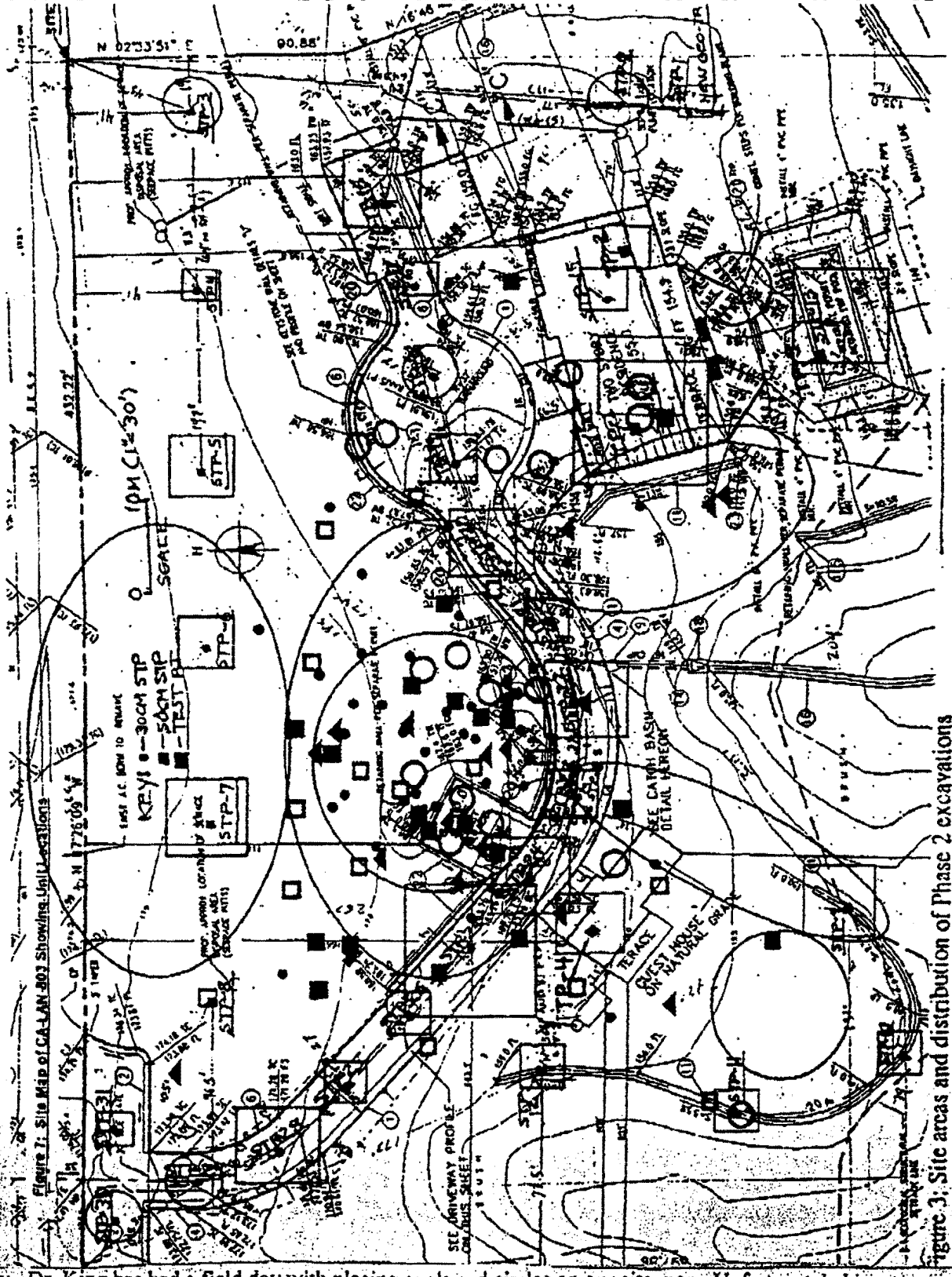

Figure 3: Site areas and distribution of Phase 2 excavations

Response: Dr. King has had a field day with placing ovals and circles on our site map. Unfortunately his depictions are in error. For example, the circle he has drawn in the lower left hand side of the map (the southwest corner; which is hard to determine because he cut our north arrow off the map), appears to be devoid of data when in fact he failed to present the fact that we had found artifacts within his circle such as 2 utilized flakes, 1 scraper and 1 core. Dr. King's Figure 3 map is a misrepresentation of the actual data.

CRITICISM: **Discussion of Stickel conclusions**

The following discussion is an analysis of the conclusions in the Stickel report. In most cases I strongly disagree with the conclusions. My conclusions are based on the results of the test excavations, my observations of the surface artifacts at the site, my studies at other sites of similar occupation period that contained similar artifacts, and my extensive knowledge of sites in Malibu and southern California. I believe I am uniquely qualified to evaluate the significance of CA-LAN-803.

Response: Dr. King says "I strongly disagree with the conclusions in the Stickel report." What he is really saying is that he refuses to acknowledge that the facts just do not support his preconceived and biased interpretation that the site is a habitation site. I based my conclusions on the tests we made of our hypotheses and whether or not the test expectations supported them or not (i.e. as discussed above the test expectations were not met to support the habitation site hypothesis). As his last statement in the paragraph indicates, Dr. King, would have us just trust the fact that he is the all-knowing expert.

Dr. King's ego thus goes over the top when he states "I believe I am uniquely qualified to evaluate the significance of CA-LAN-803." This arrogant statement is an insult to the Chumash, such as the project monitor Ms. Carol Pulido, with whom I consulted in determining the type of the site and its significance. Why does Dr. King think he is uniquely qualified to determine site significance over the Chumash who are more connected to the site and are just as committed (if not more) than Dr. King to see to their ancestors' sites are respected and preserved? Dr. King is also scientifically irresponsible in taking such an attitude. Science is not about others blindly following gurus who say they know it all. Even the theories of Einstein had to be tested (and are still being tested) to prove their validity. Dr. King's attitude was shot down long ago in Archaeology by Lewis Binford who stated that such "great men" interpretations are ludicrous and that the data should be presented in such a way that any scientific archaeologist can assess the data (and in this case determine the significance of the site)(cf Binford and Binford 1968). Dr. King wants us to rely on the knowledge in his head rather than see the data for ourselves. I doubt that many archaeologists will accept Dr. King's notions unquestionably.

CRITICISM: I have specialized in the study of California archaeology and ethnohistory. My dissertation Evolution of Chumash Society explains changes in beads and ornaments in the Santa Barbara Channel during the last 7000 years. It also organizes important background information concerning changes in technology and site locations. I am the author of a chapter concerning the archaeology of protohistoric and historic native sites in the California Volume of the Handbook of North American Indians published by the Smithsonian Institution. I have conducted archaeological studies in Malibu since 1961. I am presently inventorying archaeological sites in the SMMNRA for the NPS and my research has involved recording Early period sites. One of my research goals is the discovery of changes in settlement distribution over time. My research involves establishing historic baselines with information concerning the locations of historic settlements and the identification of the sites of the historic settlements that contain early historic period artifacts. The distributions of historic settlements is then compared with the distributions of sites of earlier periods. This comparison has enabled the identification of shifts in settlement locations and changes in settlement distributions.

I am a recognized expert concerning Early period sites in southern California. I was recently requested to write the section: The Early Southern California Tradition (southern California Early period) 8000 BP - 3000 BP for the *Encyclopedia of Prehistory*- North America Volume. The Encyclopedia will cover the world and all of human prehistory and is being organized by Human Relations Area Files. I have submitted my manuscript. The Encyclopedia will be published by Kluwer Academic. I also recently co-authored a chapter "Middle Holocene adaptations in the Santa Monica Mountains" (Gamble and King 1997). The chapter discusses Early period sites. The chapter is in a collection published by the UCLA Institute of Archaeology. I have discussed research needed concerning Early period sites.

Response: Dr. King feels compelled to convince us of his "unique" knowledge with two paragraphs of his experience. His ego runs again rampant when he claims that he is the expert on "Early period sites" (implying that he is the main one).

He cites one reference only, but again he does not bother to give us the full reference (nor any bibliography) at the end.

CRITICISM: Dr. Stickel's conclusions begin on page 41 of his report. The first conclusion is Dr. Minch's interpretation that the possible sweatlodge depression was made by the recent actions of a tractor. I first observed the depression during my mapping of surface artifacts in 1997. After its discovery, equipment used to conduct geological studies drove through the depression. The site was disked for weed abatement in the spring of 1998. The driving of equipment through the area decreased the clarity of definition of the depression. The tractor tracks that Dr. Minch describes as causing the depression were left after my discovery and were probably the result of disking in 1988. They could not have caused the formation of the depression. I have excavated semi-subterranean houses in California, Utah and Idaho. I have discovered pits remaining from sweatlodge structures in southern California sites. On the basis of my observations experience and on site consultation with geo-archaeologist Jeff Parsons, I believe that there is a good possibility that the depression indicates the presence of a subterranean pit structure.

Response: Dr. King again brings up his imagined "sweatlodge" issue. He misrepresents my interpretation on the depression as I think it is a natural sump feature because it is on a line of a small gully that runs into it and out of it. Two geologists (including Dr. John Minch) agree with me. Dr. King tries to discount Dr. Minch's interpretation that the feature was created by tractor. Dr. King unequivocally states that there has been no vehicular activity of that kind on the site until 1998, when such equipment has, in all probability, been on the property for decades. Also, why has the "clarity" suddenly been reduced only in a matter of a year or so? Dr. King does not refer to the small gully I refer to. And as I've said several times above, I had the developer move the swimming pool off the feature. So there will be no impact to the depression. Therefore his point is irrelevant. But Dr. King is obsessed with forcing the developer to pay for a needless excavation of the feature.

CRITICISM: Stickel concludes that only a few tools were found in comparison with a site he excavated in Palos Verdes. In evaluating LAN-803, he consistently compares it to a site he excavated in Palos Verdes that he designates OTPV-5. No report concerning the site is referenced, use of a temporary designation indicates a site record form has not been filed at the UCLA Information Center. It is not possible to assess Stickel's comparisons when he controls the information available concerning the site. It is not clear from Stickel's discussion when the site was occupied. Stickel says "initially hypothesized to be the same age as LAN-803." There are reports (published and manuscripts on file at UCLA) concerning sites in Malibu that were occupied at the same time as the project site. Information from these reports should be used for comparisons not information available only to Gary Stickel. The proportions of artifact types from other Malibu sites such as LAN-267, LAN-266, and LAN-958 are more relevant to evaluating LAN-803 than a site in Palos Verdes.

Response: King criticizes me for referring to my recent excavation of site OTPV-5 in Palos Verdes. Dr. King is wrong that I did not reference the report on that site. I did so in my mitigation report (Stickel 1999c). Dr. King had my mitigation report since last October. So he knew the reference was in that report. Dr. King is right, the site record form has not been filed at UCLA, but it will be shortly filed there.

Dr. King has another cheap-shot criticism here: "It is not possible to assess Stickel's comparisons when he controls the information available concerning the site." If Dr. King truly wanted the Palos Verdes site report, all he had to do was request it from me and I would have given him a copy. But he never asked me for a copy, yet he wants to complain that I "control" the information?

Dr. King says that I'm not clear about when the site was occupied. That is because we do not have a clear radiocarbon or other dates for the site yet. Dr. King apparently can just look at non-diagnostic artifacts (hammerstones and choppers) and somehow tell how old they are. I prefer objective scientific methods.

Dr. King again refers to sites and reports but fails to provide their identifications and references for the sites he claims are the same age as CA-LAN-803. Dr. King does specifically mention sites LAN-267, LAN-266 and LAN-958 (again he fails to provide report references) which he says are more relevant. They would not necessarily be more relevant if they are habitation sites, since our tested hypotheses indicates that CA-LAN-803 was not a habitation site. Dr. King needs to justify his blanket claims.

CRITICISM: The observed proportion of shaped tools to refuse from making and using stone tools is not unusual for an Early period site in Malibu. The amount of debitage in a site is largely due to the ease of acquiring material and the quality of stone. The quality determines the amount of waste material the stone produces. The relative frequencies of debitage to tools also varies between different areas of sites. If Stickel had excavated in the area that artifacts indicate houses were present he would probably have found lower proportions of debitage to shaped tools. The proportions would probably be more similar to those from STP-25.

insert King comments pg.8 para 2

Response: Dr. King provides no reference to a report to justify his first sentence statement. The amount of debitage in a site is not largely due to the ease of acquiring material and the quality of the stone; it is directly due to the amount and type of flaking that is conducted at a site. Quality of the stone (such as a high quality chert) can yield more micro-flakes if fine flaking and retouch is conducted at a site. I agree with Dr. King's fourth sentence. Dr. King is wrong in his next sentence again. We did excavate in the area where Dr. King claims there are houses on the site (see Units 5 and 6 on our Figure 7 attached), we did not find Dr. King's hoped for difference (it should be noted that Dr. King fails to mention he has reviewed our Phase 3, mitigation report as he prefers, for some reason, to focus on my Phase 2 [test phase] report which obviously does not have the full data that the Phase 3 report contains)..

CRITICISM: Stickel states that no stone bone or charcoal was recovered. These types of remains are probably mostly broken up or dissolved. There may be remains preserved in the area not investigated where artifacts associated with houses are concentrated. Faunal and floral remains are often found best preserved in the vicinity of house locations. The length of occupations at sites influences the degree of preservation of animal remains. The greater amount of shell and bone deposited at a site the greater are the chances of preservation of bone and shell. Soils at sites that have been enriched in calcium caused by the decay of shell and bone preserves remaining bone and shell better than soils with less calcium. Two of the largest sites in Malibu that were occupied at the same time as LAN-803 are LAN-267 and LAN-30. These sites had higher densities of shell and artifacts than LAN-803. The preservation is the result of occupation at these sites for a longer period of time than LAN-803. The length of occupation at a site results in different opportunities for archaeological research. At sites occupied for shorter lengths of time, activity areas are often more distinct than they are at sites occupied for long lengths of time where the use of particular areas is more apt to change.

Insert King pg. 8, para 3

Response: Dr. King is incorrect in stating that I said there was no bone found at the site (we found 3 bones at the site during our Phase 3; two from Unit 5 and 1 from the surface; these were reported in my Phase 3 report (Stickel 1999c) as Dr. King well knows). So Dr. King is wrong is suggesting those data would not preserve when obviously we found 3 bones. Dr. King says there may be remains preserved in his "houses." As stated above, we did dig two mitigation units (Units 5 and 6) in his alleged house areas. So it is not true that we did not dig there. Dr. King goes on to lecture about preservation at sites.

Dr. King again assumes (and has not proven) that site CA-LAN-803 is an "occupation site" or habitation site whereas our data shows it to be a production/processing site (Stickel 1999c). Dr. King's blanket statement that the longer a site is occupied the better will be its preservation is not scientific fact. Preservation at a site depends on a variety of factors such as the acidity of the soil and the weather and micro-environmental conditions at a site. If a site is in a dry cave in the desert, preservation can be excellent. But if a site is in an area with marked seasonal changes and if that site has high acidic soils, there will be bad preservation at the site regardless of how many bones or shell people left there (cf. Butzer 1982).

Dr. King's last statement is not valid. Sites occupied for a short period of time can have distinct activity areas or visible features. But I've excavated at sites (e.g. the Champreveyres Site in Switzerland, that was occupied for thousands of years; Neolithic, Bronze and Iron Ages and it had an amazing array of distinct activity areas and features; and locally my recent excavation at Palos Verdes (site OTPV-5) had a site that was occupied over the three major chronological periods (i.e. Early, Middle and Late Periods) and yet the site had distinct activity areas and many features (Stickel 1999c).

CRITICISM: Stickel states that no diagnostic or time marker artifacts were recovered. He does not define what characterizes a diagnostic or time marker artifact. *Perhaps he would consider no artifact found in* early Early period sites to be temporally diagnostic. All artifacts observed during mapping of artifacts on the surface and from excavations are similar to artifacts found at sites that date to Early period Phase x (6000-4000 BC). The artifacts include distinctive types of manos, metates, unnotched points, and other tools. No artifacts that are commonly found in sites occupied after 4000 BC including notched points, contracting stem points, mortars and pestles were found.

Response: Dr. King again misrepresents our reporting. For some reason he focuses on the Phase 2 report (Stickel 1999b) whereas he had access to our Phase 3 report since last October 1999 (Stickel 1999c). Therefore we did not have any time marker artifacts in the Phase 2 data but we did find two projectile points in the Phase 3 data. Dr. King claims that the site has "distinctive types of manos, metates, unnotched points and other tools." Manos are not distinctive of the Early Period. They have been found at many Middle Period sites. For instance I found manos at a Middle Period Chumash Cemetery at Point Rincon long ago (Stickel 1968). Manos can also be found at Late Period Chumash sites and it has been well known that ethnohistoric Chumash had manos and metates (cf. Landsberg 1965: 125). As I mentioned above, we found no clear evidence of "metates" at the site. The "unnotched points" Dr. King refers to are the ones we recovered in our Phase 3 work (Stickel 1999c). As noted above, Dr. King, for his own reasons has focused on our Phase 2 report, but here when he refers to the points he is obviously referring to our Phase 3 (mitigation report; Stickel 1999c). Why didn't Dr. King review our more complete Phase 3 report? Dr. King is accurate that we did not find other points, and we did not find any mortars and pestles.

CRITICISM: Stickel states that no human bone was recovered. Cemeteries are expected on the basis of discoveries at similar sites. Human bone has only been found in cemeteries at other early Early period sites. If any of the test excavations were placed in a cemetery they apparently missed hitting burials. Burials found in Early period Phase x cemeteries often have spaces between metate cairns large enough to accommodate a 50 centimeter square. The size of cemetery expected to be present at LAN-803 is small enough to have been completely missed by the testing program. It is most probable that the testing program failed to excavate in cemeteries.

insert King pg. 8 para 5

Response: The whole paragraph claims that we missed the human bone and cemetery at the site. Here again, Dr. King fails to conform to the scientific method. No matter how much one may wish for some data, a scientist goes on the data that is obtainable and present, not hypothetical data. We excavated 32 STPs and six (6) 1 x 1 meter units and we absolutely did not find any human bone or cemeteries. Thus the evidence(not wishful thinking) does not indicate any cemetery at the site. Apparently Dr. King would not be satisfied until the entire site were to be excavated at a costs of millions of dollars.

CRITICISM: Stickel states that the site covers the relatively flatter upper slopes of the property. It was originally recorded on the parcel adjacent to the east and an area of the site is present on the adjacent parcel. I agree with Stickel that the entire project area is within an archaeological site. This is supported both by surface observations and the results of the test excavations. Stickel states the site area is 10,859 square meters. This number appears smaller than the area where artifacts were found. A very exact number is given. It is not explained how the measurement was made. Stickel excavated 8.3 square meters for his testing program. This is 0.076% of his estimated site area. The test excavations were not scattered randomly or uniformly across the site but were located within areas identified by particular project elements.

insert King pg. 8, para 6

Response: Regarding Dr. King's statement that 'Stickel states the site area is 10,859 square meters. This number appears smaller than the area where artifacts were found." *First Dr. King is confused as site* CA-LAN-803 is larger than the Dr. Trento parcel and extends beyond it. Thus we calculated the site area on the subject parcel , not the entire site area. The site area measurement was made by dividing the site area on the parcel into adjacent geometric areas that could be calculated. We included all areas where artifacts were found and basically the areas above the steep, brush covered slopes and washes. It should be noted that there was no attempt to deny that the site extended beyond the eastern boundary of the parcel.

Dr. King's last sentence has two statements that are both wrong. The test pits were randomly placed within the high impact areas (e.g. main house, quest house areas and swimming pool areas each of which was considered as a random sampling "stratum"). Moreover, his second statement is wrong because 31 (of the 32) of the STPs were placed "uniformly across the site" as specified intervals (see our Figure 7 attached). Note that the STPs placed along the driveway area were spaced at 10 meter intervals due to Dr. King's assertion that cemeteries are spaced about 30 feet apart at Early Period sites.

CRITICISM: Stickel discusses the depth of the site. The smaller volume of soil excavated from lower levels and a procedure that is biased toward finding artifacts near the surface probably affected the determination of depth. If Stickel's two level procedure is used and two artifacts are present in the 0-10 cm level they will be discovered using his procedure. If they are in the 30-40 cm level they will not be discovered because the excavation will not be excavated past three levels without artifacts being found. Testing was all marginal to the main activity areas defined on the basis of concentrations of artifacts on the surface of the site. It is probable that soils are deeper in some of these areas.

Response: Dr. King harps here again on the "smaller volume of soil" from the lower levels. What he fails to mention is that only some of the STPs had conical lower parts excavated due to the extreme hardness of the soil. The reason the soil was so hard is that those portions of the STPs were down in the sterile substrate, which was defined on the basis of high clay content, distinctive soil color, and by vertisols (vertical natural cracks that occur in such soils). We had excavated over 60 such sterile levels and we showed these to Dr. King when he finally came out to the site on 2/16/99, but yet he refused to acknowledge that the levels were sterile when they clearly were so (see my memo to Craig Ewing of 2/18/99 attached). Also Dr. King fails to mention here our 6 -1 x 1 meter units which did not have decreased sized lower levels.

Dr. King again complains of the two-level rule when it was clear there were no artifacts or ecofacts (i.e. no cultural deposit) in the distinctive substrate (with its distinctive soil, soil hardness, color and the vertisols). It is therefore not probable that cultural material lies buried at the site. This was also proven when we inspected the geo-trench located east of the main house area (see our Figure 7 attached).

Dr. King repeats that "Testing was marginal to the main activity areas..."which is not true. Test Pit 1 was in the vicinity of the surface artifact cluster around our Secondary Datum 3 (SD-3), and Test Pit 4 was in the vicinity of the densest surface artifacts near SD-1 (compare our figures 7 and 10 of our maps).

CRITICISM: After abandonment of a settlement, wood and thatch are destroyed by termites, molds and other organisms, the earth covered roofs of sweatlodges collapse and basins formed by excavations for houses and subterranean sweatlodges begin to be filled by soil that washes in. Soil is dynamic and if observed over time moves. Earthworms bring large amounts of small soil particles to the surface every year. Gophers bring particles up to two inches in diameter to the surface. Over time the actions of biological and geologic process continue to alter the composition of sites. Different sized artifacts begin to be sorted by size in the soil with large objects concentrated near the bottom of the active soil and medium sized objects concentrated near the surface of the soil. Models run on computers have generated distributions that match observation of artifact distributions at sites abandoned for different lengths of time. The longer a site has been abandoned the greater it is apt to be altered.

CRITICISM: Stickel states that no house remains were found. He avoided excavation in areas where artifacts associated with houses were found. Expectations of house floors in an over 6000 year old site on the crest of a ridge in Malibu is unrealistic. Features including clusters of artifacts and rocks are apt to be found but compacted house floors are probably no longer present. After abandonment of a settlement, wood and thatch are destroyed by termites, molds and other organisms, the earth covered roofs of sweatlodges collapse and basins formed by excavations for houses and subterranean sweatlodges begin to be filled by soil that washes in. Soil is dynamic and if observed over time moves. Earthworms bring large amounts of small soil particles to the surface every year. Gophers bring particles up to two inches in diameter to the surface. Over time the actions of biological and geologic process continue to alter the composition of sites. Different sized artifacts begin to be sorted by size in the soil with large objects concentrated near the bottom of the active soil and medium sized objects concentrated near the surface of the soil. Models run on computers have generated distributions that match observation of artifact distributions at sites abandoned for different lengths of time. The longer a site has been abandoned the greater it is apt to be altered.

insert king pg. 9 para 2 , page 3.

Response: Dr. King lectures on site formation processes and differential preservation in general in this paragraph. He mentions "Models run on computers...." but, as usual doesn't provide any references. All of his concepts were better handled by MikeSchiffer (1987) with his "Formation Processes of the Archaeological Record" book. Dr. King's statement that the longer a site has been abandoned, the greater it is likely to be altered, is but common sense.

CRITICISM: Stickel apparently confuses the activity areas that I defined during mapping of surface artifacts with features that he found in areas less than 1 meter square. The areas I defined were over 100 square meters in area. Stickel appears unable to understand anything I have said concerning the site. He claims that his failure to discover small clusters of artifacts refutes the presence of large areas I identified with different artifact frequencies. The different frequencies are documented by the mapping of surface artifacts. Stickel has a copy of my map and notes yet he does not use the data in his analysis. Figure 4 summarizes my observations from surface mapping and test excavations at CA-LAN-803 Stickel avoided excavation in all of the hatched areas indicated on the map. If the areas indicated on the map are separate activity areas I would consider the site very complex.

Response: No, Dr. King, I am not confusing your alleged "activity areas" with features found within 1 meter units. Dr. King makes the condescending statement that "Stickel appears unable to understand anything I have said..." I understand him very well but I disagree with him because the data is not there to support his contentions. I did not use his map of surface mapped artifacts because it was inaccurate. We found that to be the case when we found every observable formal artifact (201 in number) on the site's surface.. Dr. King refers to his Fig. 4 in his critique with his geometrically perfect ovals and circles marked on it and assumes that that is real data. The real data of surface mapped artifacts may be seen on our Figure 10 (attached). The reader may note that Dr. King's contention that his "manos" (which are his "female" artifacts) are separate from the "male" activity area artifacts (presumably the choppers, hammerstones, etc.). However if one looks at Figure 10 (whereon we have marked the actual distribution of the manos, it may be seen that they are distributed across most of the site and they are intermingled with the so-called male artifacts. Dr. King also fails to mention the mano/hammerstones (that were intermingled with the concentration of surface artifacts between our Secondary Datums 1 and 2 (see our Figure 10 attached).

Using his Figure 4, Dr. King claims that I "avoided excavation in all (his)...hatched areas." He tries to imply I was somehow trying to irresponsibly avoid the main site areas. Dr. King's hatched areas on his Fig. 4 are not in the high impact areas as he well knows. When the truth of the matter is we excavated our test pits in the *areas of high impact* (such as the main house and the guest house areas). The reason was to avoid damaging the site as much as possible by putting the units in those areas that would be damaged the most. Dr. King's twisting and selectivity of "his facts" is even amplified when we point out here that (even though he had my Phase 3 report;Stickel 1999c), Dr. King fails to mention that we dug two 1 x 1 meter mitigation units in his heaviest hatched area or the areas he claims the houses and evidence of habitation are on the site (see next page), yet we still did not find any evidence of habitation. We did find an unfinished project point (cat. no. CA-LAN-803/99-753 in Unit 6 which, does not support a habitation site hypothesis but its unfinished status nicely supports our alternative hypothesis that the site had mainly

served as a lithic tool production site. Dr. King accuses me of ignoring data when he refuses to accept the repetitive data we obtained from our mitigation Phase 3.

CRITICISMS On page 44 Stickel concludes that the site is a factory for stone tool manufacture used by people of an unidentified adjacent settlement. The artifacts at LAN-803 indicate the presence of a residential area at the site. Stickel's excavations were outside this area and other areas of highest concentration of surface artifacts. He explains the manos as indicating a kind of bakery site where flour is ground to be taken to peoples homes. In all California and Southwestern settlement sites I am familiar with, grinding implements are concentrated in houses. Stickel's determination is reminiscent of another archaeologist's determination that the ethnohistoric village of Mescalitan

Response: Dr. King additionally misrepresents me here. I did not use the prosaic word "factory". I said our data shows that the site, during most of its usage was utilized as a lithic production site. Dr. King's second sentence is not supported by the many test expectations we considered in our test of whether the site was a habitation site or not. That is, there is no evidence that the site was a "residential ...site" as Dr. King insists. Dr. King repeats himself with his third sentence in the paragraph. My response to the same criticism is presented above.

Dr. King again misrepresents my thoughts on the site. I never said that the ":...manos as indicating a kind of bakery site..." I admitted the possibility that the manos may have been used for processing floral resources at the site, but only during its latest utilization as all of the manos and mostly mano fragments were found on the surface. Dr. King's statement that manos=houses which equals settlements is not an established proven fact. Manos (which had to be used in conjunction with metates and we found no evidence of metates on the site at all), could have been used with portable metates (which would have been removed) to grind floral resources which then could have been taken to the residence areas nearby but not on the Dr. Trento property since we found no Fire Affected Rock or any of the other test expectations of a habitation site (evidence which I have found abundantly at another site for comparative purposes ; Stickel 1999c).

Also when Dr. King's mentions his knowledge of "California and Southwestern settlement sites", he is referring to ethnographic data. That data is based on ethnographic work over the last 100 years for the most part. Anthropology refers to that ethnographic information as the "ethnographic present." It is scientifically unsound to make the assumption that the ancient Chumash people behaved the same way thousands of years ago as they did in the ethnographic present. As Prof. Binford said long ago, if we make that naïve assumption, we have no reason to dig archaeological sites since we would presumably know everything from the ethnographic record (Binford and Binford 1968). We need to dig archaeological sites precisely because we do not know how people behaved or the total nature of their culture, especially in sites thousands of years old.. Dr. King's approach would deny science the ability to discover new patterns of culture which Dr. King's biases would not allow him to even consider.

Dr. King ends the paragraph by comparing me to an unnamed archaeologist's ("another archaeologist") work at "Mescalitan." King also fails to mention the archaeologist's report. So the comparison is improperly presented and cannot be evaluated unless the archaeologist's work would have to be read and compared to see if it is even relevant to the subject project.

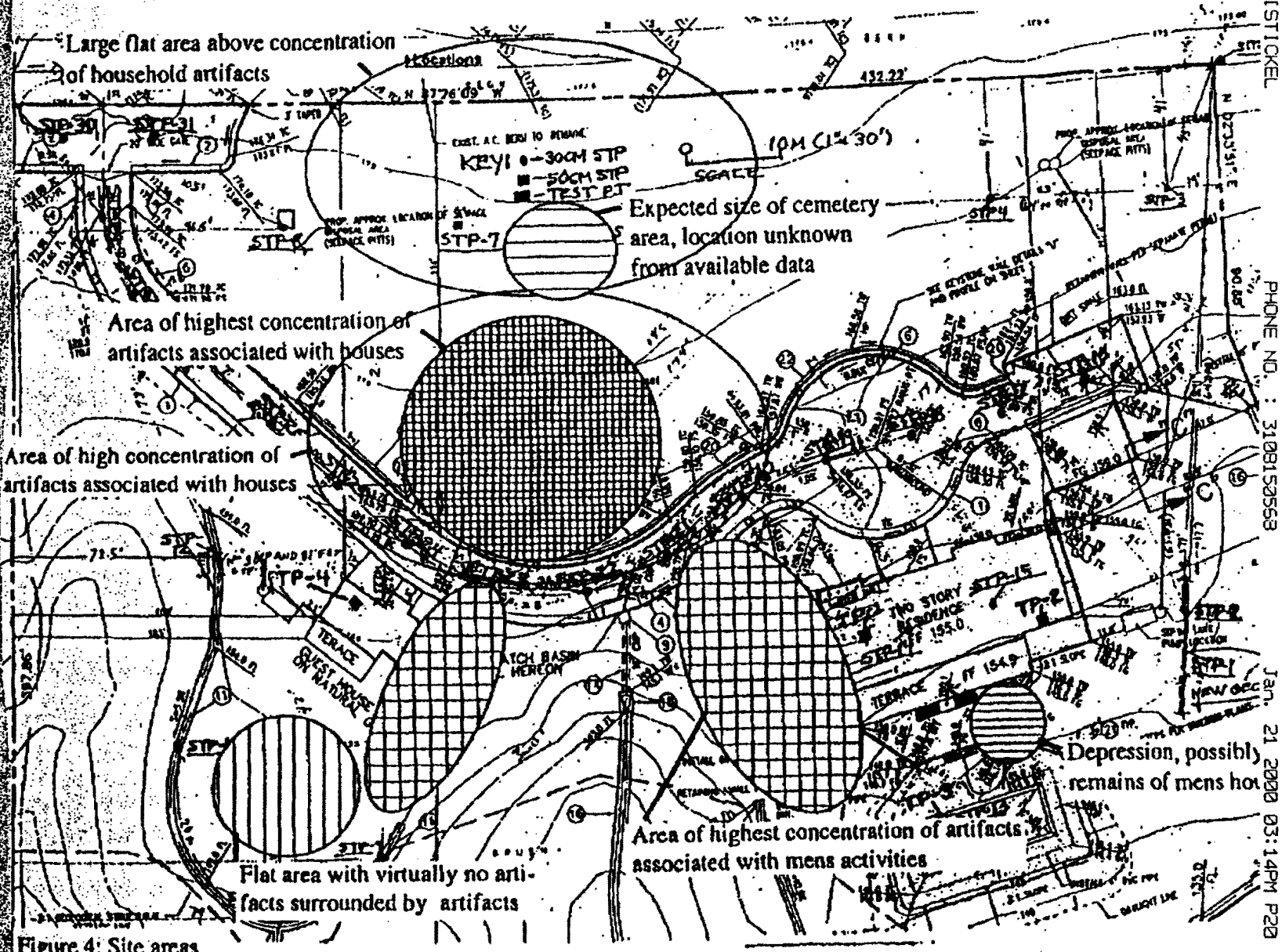

Figure 4: Site areas

insert king fig. 4 pg. 10

Response: Dr. King's map is bogus for reasons discussed on the last page above.

CRITICISM: (CONT.) considered by members of the Portola expedition to be the largest town they saw in California a seasonal fishing camp. Stickel's determination is unacceptable. His failure to reference pertinent literature concerning similar Early period sites in the Malibu area demonstrates a lack of professional responsibility.

I'm not in a position to judge Dr. King's attack on his unnamed archaeologist, but given Dr. King's attack on our work, I'd certainly like to review the archaeologists work myself and not accept Dr. King's views without the evidence.

Response: Dr. King states that my "determination is unacceptable" to him. He said that ad nauseum above already. I will repeat here that it was acceptable to the Chumash Monitor, Ms. Carol Pulido (who is writing a separate response to Dr. King), it was acceptable to the City of Malibu's Director of Planning, Mr. Craig Ewing, and it was acceptable to the City's Cultural Resources Review Committee. Dr. King's additional attack on my referencing, to wit, which, he says, "demonstrates a lack of professional responsibility" is ludicrous in view of the fact that throughout his entire critique package he has constantly failed to properly cite his own work or any of the many references he makes to other scholars and he does not even provide a bibliography for the references he does cite (an absolute professional responsibility). Apparently Dr. King thinks he is above conforming to his own stated professionalism.

CRITICISM: **Significance**

The City Zoning Ordinance defines important cultural resource

9381. Definitions

D. "Important cultural resource" shall meet one of the following criteria:

1. Is associated with an event or person of either
   a. recognized significance in California or American history or
   b. recognized scientific importance in prehistory; or
2. Can provide information which is both of demonstrable public interest and useful addressing scientifically consequential and reasonable archaeological research questions; or
3. Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind; or
4. Is at least 100 years old and possesses substantial stratigraphic integrity; or
5. Involves important research questions that historical research has shown can be answered only with archaeological methods.

insert: king's significance

Response: This is "boiler plate" referring to the City's Ordinance. Dr. King should have just cited it instead of trying to inflate the length of his diatribe with reproducing it.

CRITICISM: The site is at least 100 years old and possesses substantial stratigraphic integrity. Stratigraphic integrity means that the site has not been altered so that the locations of features such as houses are obscured. The site was occupied between 6000-4000 BC and is the best example of a whole residential settlement site left in the City. It is also one of the older sites identified in the City. There is apparently relatively little overlap of deposits at the site from later occupations. Sites with greater time depth of occupation are more apt to have specific activity areas obscured. CA-LAN-803 is probably the best preserved whole site that was occupied during the early Early period that remains along the coasts of Los Angeles and Ventura Counties. Archaeologists have not mapped the organization of any of the sites that have been destroyed or damaged by development. Damage or destruction of site LAN-803 will result in the loss of important information concerning lifeways and social organization of early Malibu residents. The organization of surface artifacts indicates that this early settlement contained many of the features characteristic of historic California native settlements. Understanding the organization of the site and the types of activities conducted at different areas of sites will result in appreciation for our native history. The site has value for the development of a society that values all people. The site has value for destroying European colonial racist attitudes that were used to justify the expropriation of lands from native peoples and continue to linger as their settlements, cemeteries and shrines are destroyed. The site can provide important information concerning the development of native societies and the evolution of religion. If the site were properly excavated it would provide information that would challenge theories concerning the evolution of North American societies. Discovery of early ceremonial mound complexes in the Eastern United States and other information concerning early societies is changing our perceptions of the development of societies in North America

The site can provide important information concerning the development of native societies and the evolution of religion. If the site were properly excavated it would provide information that would challenge theories concerning the evolution of North American societies. Discovery of ceremonial mound complexes in the Eastern United States that date from the same time period and other information concerning early societies is changing our perceptions of the development of societies in North America

(FOR RESPONSE SEE NEXT PAGE)

Response: Dr. King asserts the site's significance. I have said in both my reports, (Stickel 1999b, 1999c) which Dr. King fails to cite, that I too think the site is significant and worthy of further cultural resources management. Dr. King then goes on to make incorrect or unsupported assertions about the site. The site does not "possess substantial stratigraphic integrity" (that should refer to sites with well defined stratigraphy with multiple cultural levels well defined, that was not the case at CA-LAN-803). The site, rather, had some stratigraphic integrity. Then Dr. King goes on to define "Stratigraphic integrity means that the site has not been altered so that the locations of features such as houses are obscured." Dr. King is contradicting himself as on his Page 9 above he mentions that compacted house floor features are probably not preserved at the site. Dr. King's definition of "Stratigraphic integrity" is not the generally accepted one in the science of archaeology (cf. Renfrew and Bahn 1993).

Without qualification he states that the site dates to "6000-4000 BC" and without any radiocarbon or other objective dating method to back him up. His statement, at best is a hypothesis, not a proven fact. Dr. King rambles on about the site's potential, and his insistance that his unproven claim that the site is a habitation site ("settlement"), again without any published or referenced scientific data to support his claims, is unacceptable..

Then Dr. King claims that the site will suffer "Damage or destruction," presumably if my interpretations are not rejected. Dr. King has promoted this unjustified and irresponsible concept to get attention from the State's Coastal Commission and others. The truth is that that part of site CA-LAN-803 that is on the Dr. Trento parcel, will not be "destroyed" in its entirety as Dr. King is claiming.

A small portion of it will be destroyed for construction of the main house, etc. The further truth, and for the mitigation part of the project, the main house was placed in an area that did not have the main concentration of surface artifacts (which was also confirmed by our 32 STPs and by the six (6) 1 x 1 meter excavated units.

Finally, Dr. King makes it appear that I have written off the site and that I do not think it can yield important data. That is a gross misrepresentation. If fact I stated in my reports that the site can yield important data and that further cultural resources management measures should be implemented. Dr. King also ignores that fact. The construction activities on the parcel will be monitored by both a qualified archaeologist and a qualified Chumash Native American Monitor. And even though we did not find any evidence of human bone, let alone a cemetery, in the unlikely event they should be encountered they will be immediately and professionally be addressed in contrast to the way Dr. King handled the bone that he claimed was human, which he found three years ago, but did nothing to identify whether if was human or not (and if it was human why has he kept it so long?).

It may be seen by the responses above, that Dr. King's critique is unjustified. It is grossly repetitive, rambling on with the same repeated criticisms page after page, with wild claims and charges all of which have been answered by the responses above. There is no merit to his criticisms, and the main point is that his criticisms are irrelevant in the sense that the site is not going to be totally destroyed (as he claims). Rather the vast majority of the site is going to be preserved under the present plan. The cultural resources monitoring and work at the parcel are not over as Dr. King implies, but they are on-going and should any significant data be encountered it will be professionally and efficiently addressed. Lastly, the fact that Dr. King has had my Phase 2 (test phase) report (Stickel 1999b) since last July, 1999 and my Phase 3 (mitigation) report since last October 1999 (Stickel 1999c), and the fact that Dr. King has never presented any criticism of that work until this late date, just before the Coastal Commission hearing on the Dr. Trento project (to be held last Thursday, Jan. 13, 2000), coupled with the fact that Dr. King did not present any of these criticisms to me directly and first (a professional requirement), calls into serious question his motives for this breach of professional behavior and ethics. Dr. King needs to more concerned about his own conduct such as the manner in which he has handled the alleged human bone he says he found at the site three years ago, but has yet to produce it or its identification.

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