

CALIFORNIA COASTAL COMMISSION

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Commission Action:



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STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-00-071

APPLICANT: City of Malibu

PROJECT LOCATION: Corral Canyon Road, between mileposts 4.18 and 4.47, Malibu, Los Angeles County

PROJECT DESCRIPTION: Reconstruction of approximately 1,362 lineal feet of Corral Canyon Road at a new alignment approximately 80 feet west and upslope of the existing location to circumvent existing landslide, including 6,728 cubic yards of grading (4,932 cubic yards cut, 1,796 cubic yards fill), asphalt paving, and drainage improvements along Corral Canyon Road, between mileposts 4.18 and 4.47, approximately one mile up Corral Canyon Road and one half of a mile north of Pacific Coast Highway in Malibu, Los Angeles County.

LOCAL APPROVALS RECEIVED: Department of Water and Power, City of Los Angeles, Right of Entry, March 21, 2001; Work Permit, License, and Release of Liability Agreement between the City of Malibu and the Mountains Recreation and Conservation Authority, March 26, 2001; and City of Malibu, Approval, March 10, 2000.

SUBSTANTIVE FILE DOCUMENTS: "Archaeological Reconnaissance, Recommendation, and Commentary on Archaeological Site Associated with Corral Canyon Road Project," Brandon S. Lewis, Ph.D., Archaeologist, field visit of May 31, 2001; "Archaeological Reconnaissance and Recommendations for Archaeological Studies at a Corral Canyon Road Project," Chester King, Malibu City Archaeologist, Topanga Anthropological Consultants, July 5, 2000; "Geotechnical Evaluation of Landsliding and Stabilization Alternatives, Corral Canyon Road," Bing Yen & Associates, Inc., March 30, 1999; Coastal Development Permit 4-00-074 (Los Angeles County Department of Public Works); Emergency Permits 4-01-057-G and 4-01-116-G; and the certified Malibu/Santa Monica Mountains Land Use Plan.

SUMMARY OF STAFF RECOMMENDATION: Staff recommends **approval** of the proposed project with five (5) special conditions regarding geotechnical recommendations; restoration, revegetation, erosion control, and monitoring; assumption of risk; archaeological resources; and removal of excavated material.

The proposed project is for the reconstruction of approximately 1,362 lineal feet of Corral Canyon Road at a new alignment approximately 80 feet west and upslope of the existing location to circumvent existing landslide, including 6,728 cubic yards of grading (4,932 cubic yards cut, 1,796 cubic yards fill), asphalt paving, and drainage improvements along Corral Canyon Road, between mileposts 4.18 and 4.47, one mile up Corral Canyon Road and one half of a mile north of Pacific Coast Highway in Malibu, Los Angeles County. A blue line stream is located downslope, approximately 4,000 feet east of the project site. The riparian corridor along this stream is designated as an environmentally sensitive habitat area by the previously certified Los Angeles County Malibu/Santa Monica Mountains Land Use Plan (LUP).

Special Condition One (1) requires all final project plans to be in conformance with the geotechnical recommendations of the applicant's consultant. **Special Condition Two (2)** requires the applicant to submit a restoration, revegetation, and erosion control plan in order to minimize erosion on site and ensure slope stability and to monitor the success of those plans. **Special Condition Three (3)** requires the applicant to acknowledge the potential hazards on the project site and waive any claim of liability against the Coastal Commission for damage to life or property which may occur. In addition, **Special Condition Four (4)** requires the applicant to conduct a Phase II archaeological investigation in order to mitigate for any archaeological resources on site and a Phase III investigation, if recommended by the Phase II study. Finally, **Special Condition Five (5)** requires that the applicant dispose of excess excavated material to an appropriate location outside of the Coastal Zone or to a location within the Coastal Zone, in which case a coastal development permit or amendment to this permit will be required.

I. STAFF RECOMMENDATION

MOTION: *I move that the Commission approve Coastal Development Permit No. 4-00-071 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. **Interpretation.** Any questions of intent or interpretation of any term or condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. Special Conditions

1. **Plans Conforming to Geotechnical Consultant's Recommendations**

All recommendations contained in the reports prepared by Bing Yen & Associates, Inc., including those March 30, 1999 and July 13, 2001 shall be incorporated into all final design and construction, including recommendations concerning design, grading and drainage, and must be reviewed and approved by the consultant prior to commencement of development. Prior to issuance of the coastal development permit, the applicant shall submit evidence to the Executive Director of the consultant's review and approval of all final design, grading, and drainage plans.

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

2. Restoration, Revegetation, and Erosion Control Plan and Monitoring Program

Within 30 days of Commission approval of Coastal Development Permit 4-00-071, the applicant shall submit a restoration, revegetation, and erosion control plan and monitoring program, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director. The restoration, revegetation, and erosion control plan shall be reviewed and approved by the geotechnical consultant to determine whether the plans are in conformance with all geologic recommendations. The plans shall identify the species, extent, and location of all plant materials and shall incorporate the following criteria:

A. Revegetation and Erosion Control Plan

- (1) All graded and disturbed areas on the subject site shall be planted and maintained for erosion control purposes. 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 February 5, 1996. Invasive, non-indigenous plant species, which tend to supplant native species, shall not be used. Existing invasive vegetation on site, if any, shall be removed.
- (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 ninety (90) percent coverage within five (5) 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.

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 thirty (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 (5) years from the completion of construction activity, the applicant shall submit for the review and approval of the Executive Director, a revegetation monitoring report, prepared by a licensed landscape architect or qualified resource specialist, that certifies the on-site landscaping is in conformance with the revegetation plan approved pursuant to this special condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

If the revegetation monitoring report indicates the landscaping is not in conformance with or has failed to meet the performance standards specified in the revegetation plan approved pursuant to this permit, the applicant, or successors in interest, shall submit a revised or supplemental revegetation plan for the review and approval of the Executive Director. The revised revegetation 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. Assumption of Risk, Waiver of Liability, and Indemnity Agreement

Prior to issuance of the coastal development permit, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, which states that the applicant acknowledges and agrees (i) that the site may be subject to hazards from landslide, erosion, and slope failure; (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.

4. Archaeological Resources

Prior to issuance of a coastal development permit, the applicant shall conduct a Phase II archaeological investigation, as specified in the archaeological reports prepared by Chester King, dated July 5, 2000 and Brandon S. Lewis, of field visit dated May 31, 2001, and shall submit the Phase II report for the review and approval of the Executive Director. All final recommendations for the management of the cultural resources set forth in the resultant Phase II report shall be incorporated by reference into this special condition.

By acceptance of the coastal development permit the applicant agrees to have a qualified archaeologist(s) and appropriate Native American consultant(s) present on-site during all grading, excavation, and site preparation that involve earth moving operations. The number of monitors shall be adequate to observe the 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 an area of intact buried cultural deposits are discovered during operations, grading work in this area shall be halted and an appropriate data recovery strategy be developed, by the applicant's archaeologist, and the Native American consultant consistent CEQA guidelines and implemented, subject to the review and approval of the Executive Director.

5. 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 dumpsite be located in the Coastal Zone, a coastal development permit shall be required.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description and Background

The proposed project is for the reconstruction of approximately 1,362 lineal feet of Corral Canyon Road at a new alignment approximately 80 feet west and upslope of the existing location to circumvent existing landslide, including 6,728 cubic yards of grading (4,932 cubic yards cut, 1,796 cubic yards fill), asphalt paving, and drainage improvements along Corral Canyon Road, between mileposts 4.18 and 4.47, one mile up Corral Canyon Road and one half of a mile north of Pacific Coast Highway in Malibu, Los Angeles County (see Exhibits 1 and 2).

The proposed repair includes regrading the roadway above the headscarp of the active landslide failure (see Exhibits 3, 4, and 5). The new alignment is designed to follow the natural contours of the slope, to the extent feasible, and will maintain a setback distance of approximately 30 feet from the active headscarp of the existing landslide. Corral Canyon Road was originally constructed over 50 years ago, although landslides since March 1998 have begun to impact this portion of the road. Although cracking and deformation of this portion of Corral Canyon Road was noted in March of 1998, approximately 700 feet of the roadway are now impacted by the active landslide.

Corral Canyon Road is a two lane road with a roadbed that is approximately 22 feet wide and a 40 foot wide right of way. The grade of the portion of the road that ascends through the landslide is approximately nine percent and the slope gradient ranges from 2:1 to 3.5:1 (horizontal to vertical) to the unnamed canyon below. Drainage facilities along the road consist of culverts and drains that concentrate on conveying runoff into natural drainage tributaries. The property located upslope of the road is owned by the Los Angeles Department of Water and Power (LADWP), while the property located downslope is owned by the Mountains Recreation and Conservation Authority (MRCA). The applicant has obtained permission from both agencies to perform the subject road realignment.

The subject application was submitted on April 3, 2000 and remained incomplete for filing purposes until July 17, 2001. The City of Malibu has applied for emergency permits in the past to address the current situation. On March 19, 2001, the City of Malibu applied for Emergency Permit 4-01-057-G to perform emergency road repairs on Corral Canyon Road consisting, in part, of a temporary detour around the landslide, removal of landslide material, removal and recompaction, replacement of a culvert pipe, installation of rip rap, installation of geotextiles or other erosion control fabric, vegetation, and construction of a drainage channel. Although this emergency permit was approved, the Public Works Director from the City of Malibu informed Coastal Commission staff in a telephone conversation on July 16, 2001 that the City does not intend to pursue these remedial measures or Emergency Permit 4-01-057-G. The Public Works Director stated in that conversation with staff that the City has now obtained funding to move forward with the current application under consideration, which should provide a more comprehensive solution to the landslide along this portion of Corral Canyon Road. Although the main failure along this portion of the roadway occurred in 1998, rainstorms in March of 2001 have necessitated closing the northbound lane and restricting traffic to vehicles weighing less than five tons. Although

the previous emergency permit was approved by the Commission, on June 25, 2001, the Commission received a second application for an emergency permit from the City of Malibu, Emergency Permit 4-01-116-G. This emergency permit application requested approval for the work proposed under the current application, but was not authorized, in part due to the pending hearing of this regular permit application at the August 2001 Commission meeting.

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 that 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.

The proposed project is for the reconstruction of approximately 1,362 lineal feet of Corral Canyon Road at a new alignment approximately 80 feet west and upslope of the existing location to circumvent existing landslide, including 6,728 cubic yards of grading (4,932 cubic yards cut, 1,796 cubic yards fill), asphalt paving, and drainage improvements along Corral Canyon Road, between mileposts 4.18 and 4.47, one mile up Corral Canyon Road and one half of a mile north of Pacific Coast Highway in Malibu, Los Angeles County.

The proposed repair includes regrading the roadway above the headscarp of the active landslide failure. According to the applicant's geotechnical consultant, the new alignment is designed to follow the natural contours of the slope, to the extent feasible, and will maintain a setback distance of approximately 30 feet from the active headscarp of the existing landslide. Corral Canyon Road was originally constructed over 50 years ago, although landslides since March 1998 have begun to impact this portion of the road. Although cracking and deformation of this portion of Corral Canyon Road was noted in March of 1998, approximately 700 feet of the roadway are now impacted by the active landslide. Remediation of the larger regional landslide is beyond the scope of the proposed project.

Corral Canyon Road is a two lane road with a roadbed that is approximately 22 feet wide and a 40 foot wide right of way. The grade of the portion of the road that ascends through the landslide is approximately nine percent and the slope gradient ranges from 2:1 to 3.5:1 (horizontal to vertical) to the unnamed canyon below. Drainage facilities along the road consist of culverts and drains that concentrate on conveying runoff into natural drainage tributaries. The property located upslope of the road is owned by the Los Angeles Department of Water and Power (LADWP), while the property located downslope is owned by the Mountains Recreation and Conservation Authority (MRCA). The applicant has obtained permission from both agencies to perform the subject road realignment.

All grading to reconstruct the failed slope will be implemented in accordance with the project plans prepared by engineers for the City of Malibu. The "Geotechnical Evaluation of Landsliding and Stabilization Alternatives" and "Update Report for Proposed Repair," prepared by Bing Yen & Associates, Inc., dated March 30, 1999 and July 13, 2001 indicate that the proposed project is suitable from a geotechnical standpoint and will serve to generally stabilize this portion of Corral Canyon Road.

In their March 30, 1999 report, the applicant's geotechnical consultant states:

The landslide has not attained a state of equilibrium and continues to move downslope at an average rate of approximately 1-inch per month. The landslide-affected roadway has a potential for catastrophic failure that is increased by additional rainfall within the affected area. . . .

In an emergency effort to stabilize the roadway, the City authorized installation of several hydraugers to dewater the upper landslide mass. Seven hydraugers were installed. [S]ix of the seven hydraugers are not producing significant volumes of water. The stabilizing effect of the hydraugers on the landslide will be minimal.

Bing Yen & Associates, Inc., also analyzed the potential alternatives to remediating this portion of Corral Canyon Road affected by landsliding. In the report entitled "Geotechnical Evaluation of Landsliding and Stabilization Alternatives," the City of Malibu conducted an alternatives analysis for the proposed project. One alternative listed is continued maintenance of the roadway with the use of geogrid reinforcing materials and/or low weight fill materials if large scale movements continue to occur. The estimated cost for this was \$5,000 to \$10,000 per month with moderate short-term success. Another alternative would be structural stabilization of the existing roadway. The applicant's consultant states that not only would this alternative cost between \$3 and \$5 million, but would also be physically impractical as the loads to be retained may exceed the shear strength capacity of the in-place bedrock materials. The final alternative explored was the construction of a keyway and fill butress, which would involve removal of a transverse section of the landslide mass and replacement of the material as compacted, engineered fill. This option would require approximately 100,000 to 200,000 cubic yards of cut and fill, which would result in greater adverse impacts to environmental and visual resources. Due to concerns regarding feasibility, cost, and environmental impacts, the applicant selected the realignment alternative that is the subject of the current application.

With respect to the alternative selected by the City of Malibu under consideration in this application, in that report the consultant states:

This alternative involves relocation of the existing roadway to the south (upslope) from the current active landslide. Road relocation would entail conventional cut and fill grading to establish a roadway bypassing the currently active slide mass. Drainage from the existing portions of the roadway would be bypassed around the active landslide. Site specific earthwork recommendations shall be included in a PS&E package if this mitigation alternative is implemented. This approach has the advantage of being readily implemented in an emergency situation, is relatively inexpensive, and will provide a relatively stable roadway over the short to medium term. Slope stability analyses indicate that with current conditions, the realigned roadway will maintain a factor of safety above 1.2 assuming continued vertical movements of the existing landslides of less than 20 feet. . . .

In their report dated July 13, 2001, Bing Yen & Associates, Inc., also state:

When Corral Canyon Road was originally constructed over 5 decades ago, the stability of the road was most likely marginal. Historic, stereo-pair aerial photographs suggest landslides encroached within 50 feet of the roadway. Since the road was originally constructed, it has performed fairly well until March 1998 when the recent landslides began to impact the road. Based on slope stability analyses, the original road might have failed the first winter after it was built – instead it survived for decades. The same slope-stability situation applies to the proposed realignment and should be viewed in that context.

Slope stability analyses of the "long-term" condition of the realignment indicate factors of safety in the range of 1.0 to 1.1. This analysis was performed using the conservative assumption that the entire slide mass located below the proposed realignment failed and provided no buttressing support to the bedrock along the alignment. This analysis represents the worst-case scenario and is the type of analyses that the City would require for a proposed residential development.

An additional analysis was performed of the "short-to medium-term" condition assuming that the active slide mass dropped 20 vertical feet, thus providing some buttressing for the upslope bedrock. Factors of safety for this analysis ranged from 1.2 to 1.4. This analysis represents a likely scenario if nothing is done to stabilize the landslide other than drainage improvements, which are considered critical.

Further, in that report, Bing Yen & Associates, Inc., also state:

Regardless of what decisions are made regarding the stabilization of the active landslides affecting Corral Canyon Road, consideration should be given to providing long-term control of storm-water runoff along the roadway. Comprehensive drainage control improvement alternatives should be evaluated in order to alleviate the potential erosion and slope stability problems resulting from the existing drainage conditions along Corral Canyon Road.

This report goes on to state that the landslide has continued to move, concluding:

The proposed roadway realignment will serve as a temporary roadway and may be subject to failure at some time in the future. However, the realigned roadway should provide a safer alternative than currently exists at the site.

The March 30, 1999 report also states:

Based on our review of 1952 aerial photographs and review of mapping of the area by others . . . , several ancient landslides exist within the study area. The largest of these landslides, consists of a large ancient landslide north of the subject site extending from near the study area, to Corral Canyon to the east. Additional geomorphic evidence from aerial photograph research and helicopter reconnaissance indicates that active and ancient landsliding exist both further to the west and south of the USGS mapped landslide.

As such, the proposed project to realign this portion of Corral Canyon Road will serve to temporarily improve relative geologic stability while minimizing adverse effects to coastal resources. However, the proposed grading activity, although necessary to remediate a hazardous landslide condition, will still result in potential erosion of the steep slopes on the subject site. The Commission finds that 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. Therefore, to ensure that the project site is adequately revegetated, **Special Condition Two (2)** requires the applicant to submit a revegetation plan that indicates species, extent, and location of all plant materials to be used in a revegetation program. To ensure that the revegetation effort is successful, five years from the completion of construction activity, the applicant shall submit for the review and approval of the Executive Director, a revegetation monitoring report that certifies that the on-site landscaping is in conformance with the revegetation plan approved pursuant to this special condition. In addition, to ensure that onsite erosion is minimized during grading operations, **Special Condition Two (2)** also requires the submittal of a temporary erosion control measure plan for the 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, swales, and sediment basins.

In addition, **Special Condition Two (2)** also requires the applicant to submit a restoration and revegetation plan for the subject site, including the area where the road exists that will no longer be used. The portion of the roadway that will no longer be utilized due to the realignment shall be removed, with restoration to the natural slope and revegetation of the area with native plant species, as discussed below. The restoration plan must be reviewed by the applicant's geotechnical consultant, as also required by **Special Condition Two (2)**, in order to ensure that the site is stabilized as is feasible.

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/foilage 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)** specifically requires all of the proposed disturbed and graded areas on the subject site to be stabilized with native vegetation.

As discussed above, the proposed project will serve to increase geologic stability on the subject site. However, the reports submitted by Bing Yen & Associates, Inc., dated March 30, 1999 and July 13, 2001 indicate that the potential for landslide activity on the project site may not be completely eliminated. In addition to the inherent risk of landslide, the Malibu Coast Fault is located approximately 300 to 400 feet south of this portion of Corral Canyon Road, while the Solstice Fault is located approximately 100 feet to the south.

Based on the information submitted by the City of Malibu, the proposed development is located in an area of the Coastal Zone that has been identified as subject to slope failure, landslide, erosion hazards, wildfire, and earthquake. Although the proposed project will serve to increase geologic stability of the project site, there remains some inherent risk to development on the site. The Coastal Act recognizes that certain development, such as the proposed project, may involve the taking of some risk. The policies of the Coastal Act require the Commission to establish the appropriate degree of risk acceptable for the proposed development and to determine the appropriate party to assume the risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use one's property. As such, the Commission finds that due to the unforeseen possibility of landslide, erosion, slope failure, wildfire, and earthquake, the applicant shall assume these risks as a condition of approval. Therefore, **Special Condition Three (3)** requires the applicant to waive any claim of liability against the Commission for damage to life or property that may occur as a result of the permitted development. The applicant's assumption of risk, 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.

In addition, 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 3,136 cubic yards 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 Five (5)** requires the applicant to remove all excavated material 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 dumpsite be located in the Coastal Zone, a coastal development permit or amendment shall be required.

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. Archaeological Resources

Section 30244 of the Coastal Act states:

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 Malibu and 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 that remain intact.

Pursuant to field visits by both Chester King of Topanga Anthropological Consultants and Brandon S. Lewis, Archaeologist, a shell midden was identified in a portion of the area where the applicant is proposing to realign Corral Canyon Road. In his report, Brandon S. Lewis estimates the area of the site to be approximately 10 by six meters. The applicant has submitted an archaeological report entitled, "Archaeological Reconnaissance and Recommendations for Archaeological Studies at a Corral Canyon Road Project," prepared by Chester King, dated July 5, 2000. The findings of that report indicated that there are, in all likelihood, archaeological resources on site. That report states:

On March 14, 2000, I visited the project area in the company of Rick Morgan, City Engineer[.] We walked the route of the proposed realignment of Corral Canyon Road and spent approximately 40 minutes at the project site. I discovered an archaeological site that was observed as an area that contained the remains of shells including California Mussels (Mytilus californianus) and Pismo Clams (Tivela stultorum). On March

17, I returned to the site and spent an hour and a half plotting the distribution of shellfish remains on a map of the road project.

The report prepared by Chester King further states and recommends:

The project will result in grading away the archaeological site deposits. It appears that the project will completely destroy the integrity of the site. It is necessary to determine the significance of the area which will be affected and design a mitigation program to recover or preserve significant information and cultural values. To obtain necessary information it is necessary to conduct subsurface archaeological investigations. It will be necessary to obtain the services of a professional archaeologist to prepare a testing plan to assess the project area (a Phase 2 archaeological study).

Furthermore, the report received by the Commission on June 20, 2001 that was prepared by Brandon S. Lewis states:

The paucity of the shell detritus recovered, its limited aerial distribution, and the absence of any additional artifact class suggest the likelihood of a very ephemeral archaeological site. While many mitigation options are available (ranging from site monitoring to an extensive Phase II investigation), I recommend that a limited Phase II evaluation be undertaken. At most, I feel that 3 units (50 X 50cm or 1X1M) would suffice to identify site integrity, depth, and extent. A second option would be to excavate a single unit in the center of the shell scattering along with the incorporation of an STP (Shovel Test Pit) program. Both methodologies, I believe, would adequately inform the archaeologist as to whether a Phase III investigation is needed.

As a result, according to the two archaeological reports submitted, the proposed project may result in potential adverse effects to archaeological resources from grading and construction activity. As such, potential adverse effects may occur to those resources as a result of the proposed development and, therefore, reasonable mitigation measures should be required pursuant to Section 30244 of the Coastal Act.

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 and artifact recovery). In this case, both archaeological consultants have recommended that a Phase II study be performed in order to identify on site resources and mitigate for any adverse impact posed by the proposed development. As stated above, depending on the outcome of the Phase II investigation, a Phase III study may also be recommended and required. 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 involves earth moving operations.

Therefore, to ensure that adverse effects to archaeological resources are minimized during the construction of the proposed development, **Special Condition Four (4)** requires the applicant to 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. The number of monitors shall be adequate to observe the activities of each piece of active earth moving equipment. In addition, 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 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(s), and the Native American consultant(s) consistent with California Environmental Quality Act (CEQA) guidelines.

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

D. Visual Resources

Section 30251 of the Coastal Act 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. Section 30251 of the Coastal Act states:

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.

The proposed grading is required to construct the realigned portion of Corral Canyon Road upslope from the headscarp of the landslide. Minimization of site erosion will add to the stability of the slope, however, and reduce adverse effects to the visual resources on the subject site. Erosion can best be minimized by requiring the applicant to landscape the remediated slope with native plants, compatible with the surrounding environment. Furthermore, **Special Condition Two (2)** requires the applicant to restore and revegetate the portion of the road that will no longer be used following the realignment. This will further aid in minimizing negative effects to the visual resources of the subject site. The project is situated on a scenic ridgeline along Corral Canyon Road, and was designated as a scenic ridgeline and visual resource under the Malibu/Santa Monica Mountains LUP. Further, the project site will also be visible from the Corral Canyon Trail and possibly from the Coastal Slope Trail, both to the north of the project site (see Exhibit 6). Therefore, in order to ensure that any potential adverse effects to public views resulting from the proposed development are minimized, **Special Condition Two (2)** is required to ensure that the portion of the site where the road will

no longer be used is restored, that the project site is revegetated, and that all disturbed and graded areas will be stabilized and vegetated with native plant species.

Therefore, for the reasons discussed above, the Commission finds that the proposed project, as conditioned, is consistent with Section 30251 of the Coastal Act.

E. Local Coastal Program

Section 30604 of the Coastal Act states:

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).

F. 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 that 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.

SEE 627 MAP

SEE 588 MAP

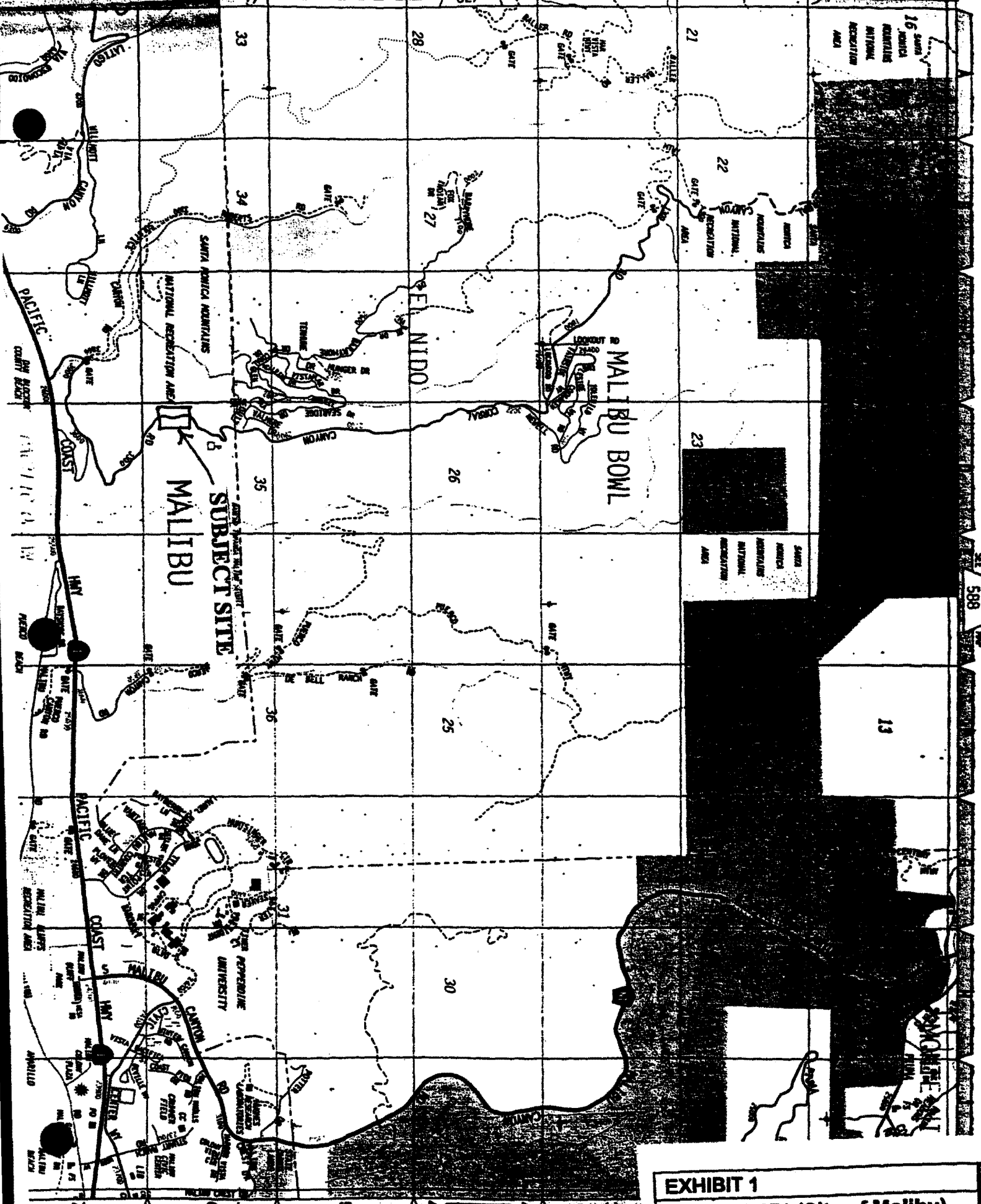


EXHIBIT 1
CDP 4-00-071 (City of Malibu)
Location Map

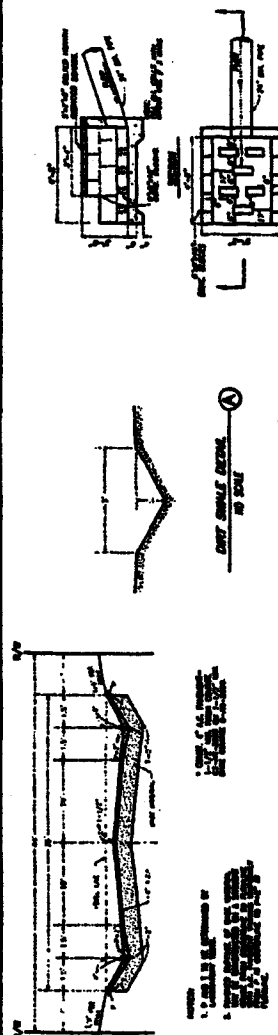
SEE 629 MAP

INDEX TO SHEETS

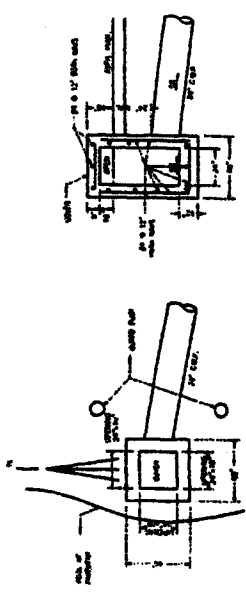
SHEET	PLANS
1	TITLE SHEET
2	GRADING PLAN
3	STREET PLANS
4	STREET PLANS

RECORD DRAWING MADE AS EXHIBIT - 21494
 THE COUNTY ENGINEER'S OFFICE IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION CONTAINED HEREIN NOR FOR THE CONSEQUENCES OF ANY ACTION TAKEN THEREON.
 THE CITY ENGINEER'S OFFICE IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION CONTAINED HEREIN NOR FOR THE CONSEQUENCES OF ANY ACTION TAKEN THEREON.

1. This project is located on the City of Malibu, California, and is a reconstruction project in the City of Malibu.
 2. The project is located on the City of Malibu, California, and is a reconstruction project in the City of Malibu.
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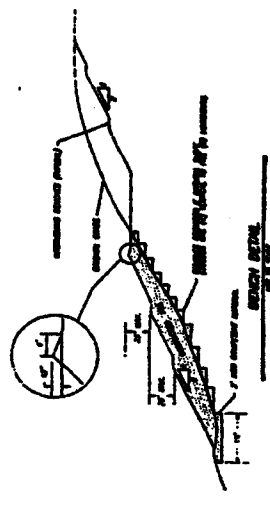
VELOCITY REDUCER
 1/2" SCALE



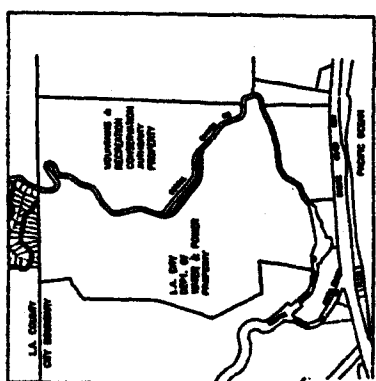
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 1/2" SCALE

PLAN VIEW
 1/2" SCALE

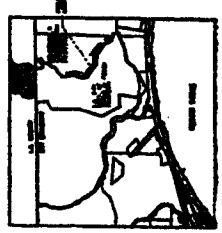
CATCH BASIN
 1/2" SCALE



KEY MAP
 1/2" SCALE



CORNAL CANYON ROAD
 TYPICAL SECTION
 1/2" SCALE



LOCALITY MAP
 1/2" SCALE

CORNAL CANYON ROAD RECONSTRUCTION
CITY OF MALIBU
STREET IMPROVEMENTS
TYPICAL SECTIONS
BENCH MARK
STANDARD NOTES
KEY MAP

PLANS PREPARED BY: [Signature]
 CHECKED BY: [Signature]
 DATE: [Date]

CITY OF MALIBU
 ENGINEER: [Signature]

EXHIBIT 2
CDP 4-00-071 (City of Malibu)
Key Map, Sections, and Details

- GENERAL NOTES:**
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF MALIBU SPECIFICATIONS AND THE CALIFORNIA STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITIONS.
 2. THE GRADING AND DRAINAGE PLAN SHALL BE CONSIDERED AS PART OF THE GRADING AND DRAINAGE PLAN.
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PLANS PREPARED BY:

DATE: 1/15/00

BY: [Signature]

CHECKED BY: [Signature]

APPROVED BY: [Signature]

REVISIONS:

NO.	DESCRIPTION	DATE
1	AS SHOWN	1/15/00

APPROVED:

CITY OF MALIBU

DATE: 1/15/00

BY: [Signature]

GRADING AND DRAINAGE PLAN

CORRAL CANYON ROAD RECONSTRUCTION

CITY OF MALIBU

GRADING AND DRAINAGE PLAN

SCALE 1" = 40'

FEBRUARY 8, 2000

ST001

CP 99-05

2 of 4

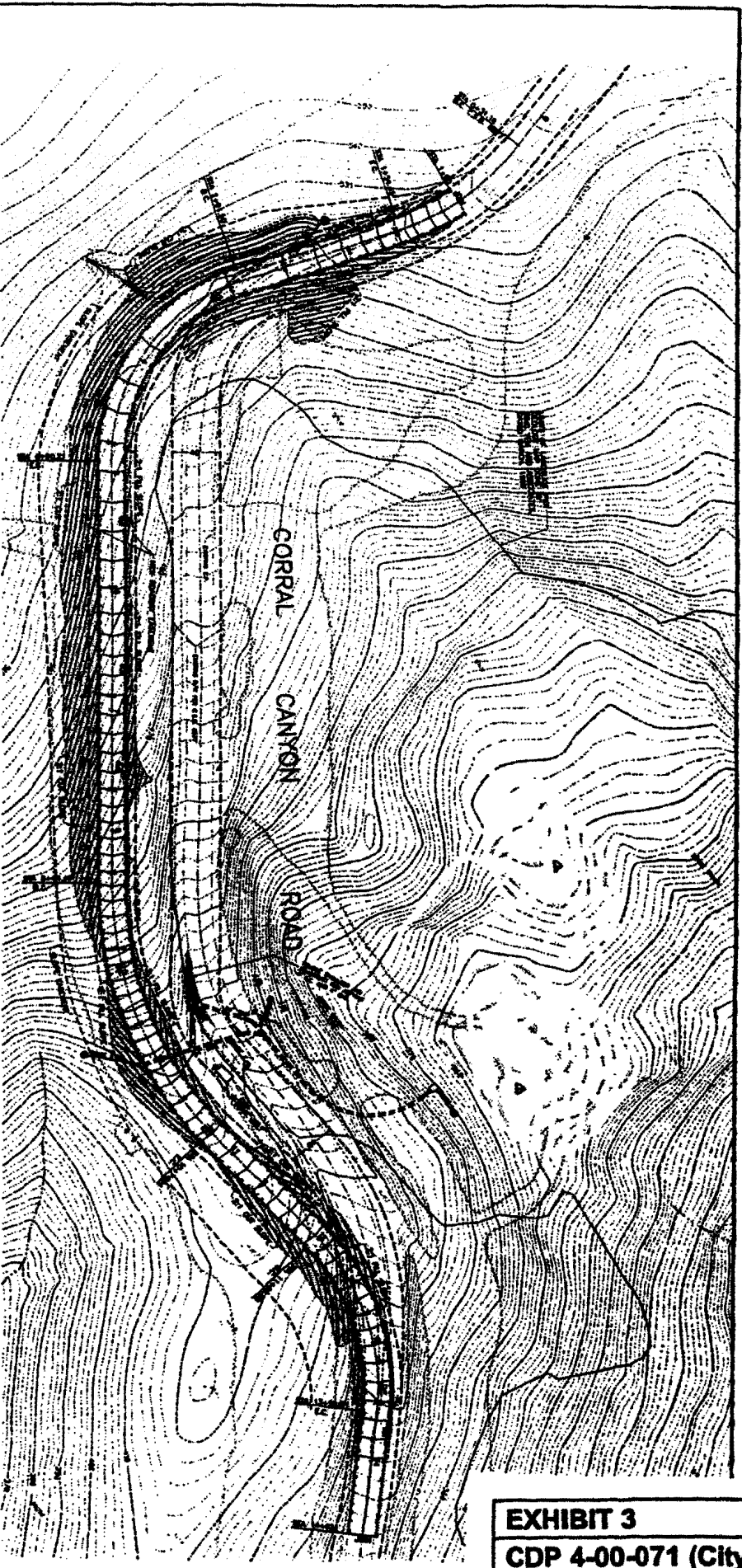
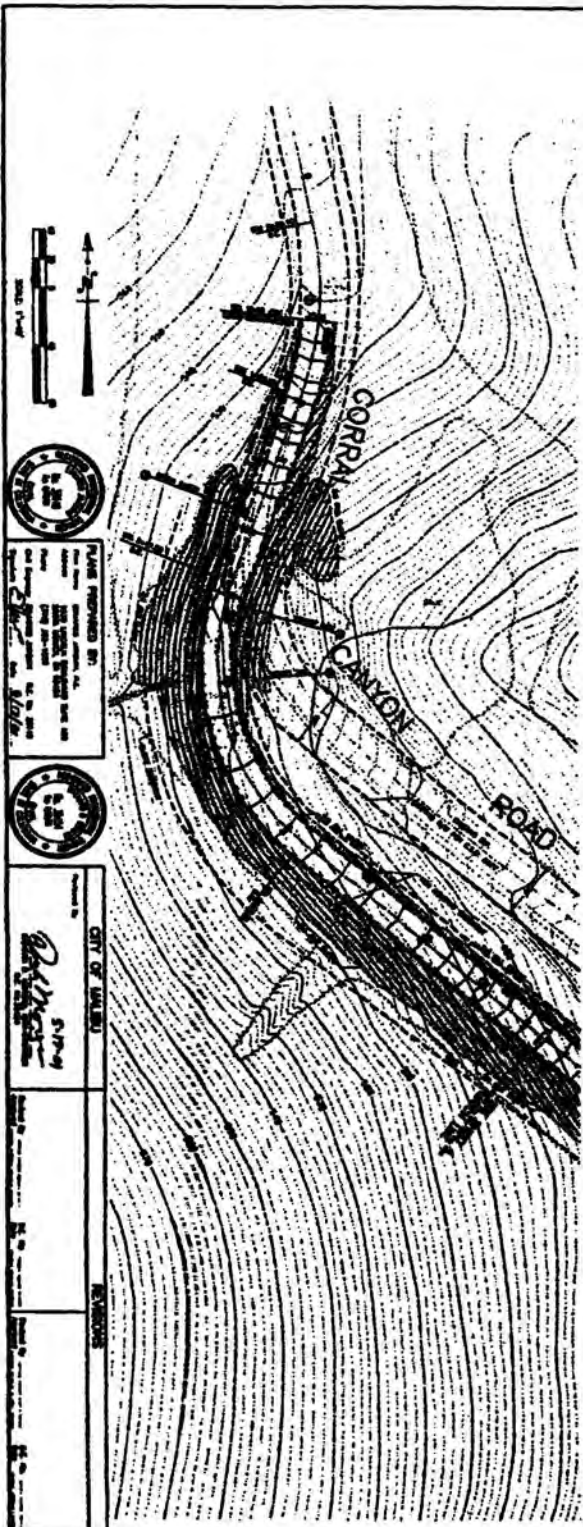


EXHIBIT 3
CDP 4-00-071 (City of Malibu)
Grading & Drainage Plan-1 of 3



CITY OF MALIBU
 STREET IMPROVEMENTS
 PLAN & PROFILE
 CORRAL CANYON ROAD RECONSTRUCTION
 SHEET 3 OF 4
 PROJECT # CP 98-03
 DATE 3/98

NO.	DESCRIPTION	DATE
1	PREPARED BY	
2	CHECKED BY	
3	APPROVED BY	
4	DATE	



EXHIBIT 4
CDP 4-00-071 (City of Malibu)
Grading & Drainage Plan-2 of 3



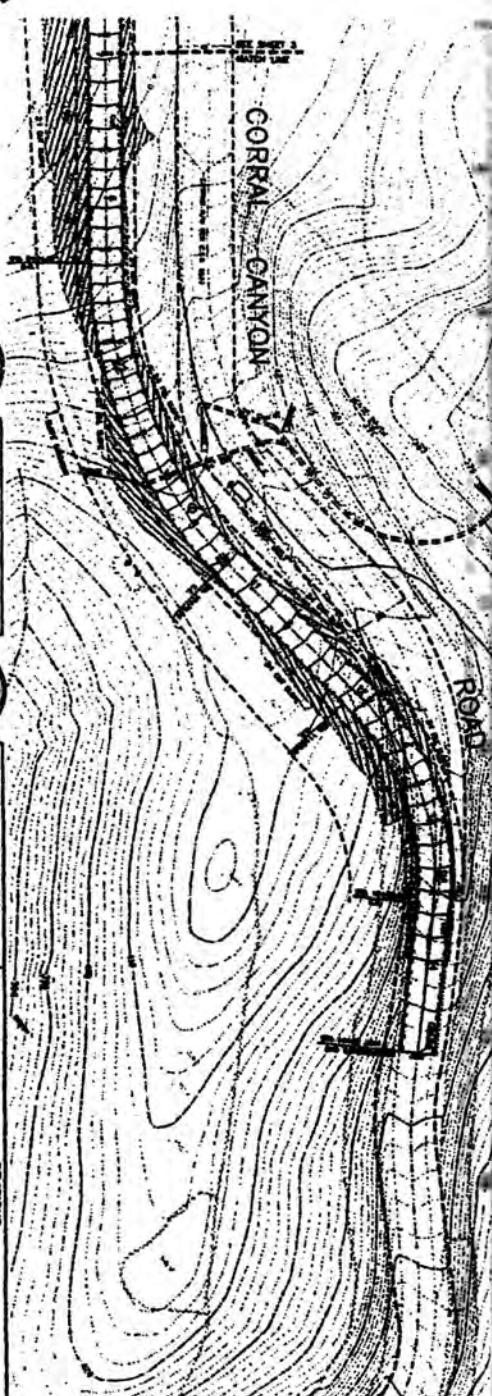
PLANS PREPARED BY:
 PROJECT NO. 98-03
 SHEET NO. 4 OF 4
 DATE 12/31/01



APPROVED BY:
 CITY OF MALIBU
 DATE 12/31/01

REVISIONS

NO.	DATE	DESCRIPTION



NO.	DATE	DESCRIPTION

CONSTRUCTION NOTES:
 1. SEE SHEET 3 FOR GENERAL NOTES AND SPECIFICATIONS.
 2. SEE SHEET 4 FOR PROFILES.

CITY OF MALIBU
 STREET IMPROVEMENTS
 PLAN & PROFILE
 CORRAL CANYON ROAD RECONSTRUCTION
 SHEET 4 OF 4
 PROJECT No. 98-03

EXHIBIT 5
 CDP 4-00-071 (CITY

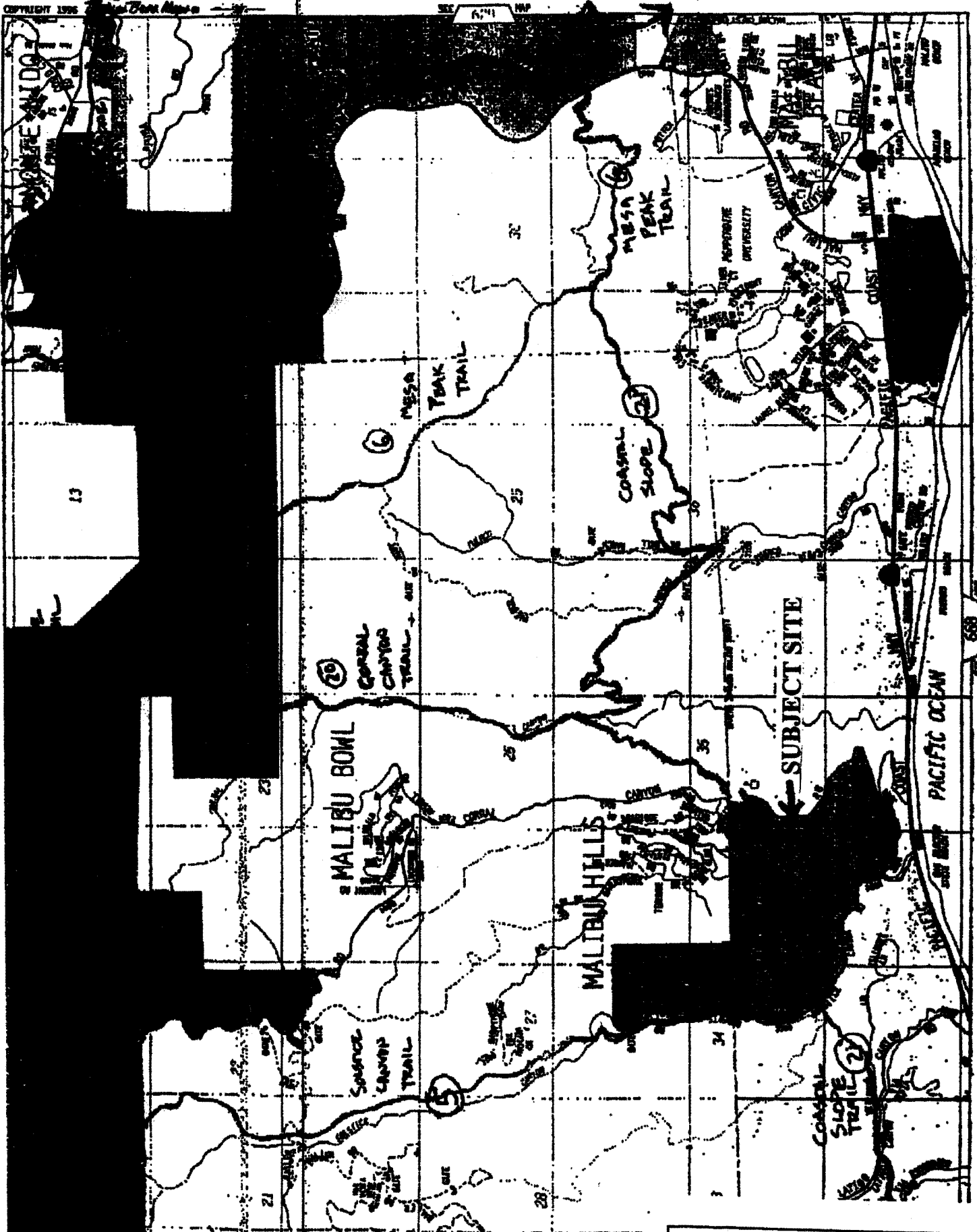


EXHIBIT 6
CDP 4-00-071 (City of Malibu)
Trails Map

Post: Fax No: 7671
 TO: SABINA HASEWELL
 FROM: [Signature]