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## CALIFORNIA COASTAL COMMISSION

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Hearing Date: 12/9/99

### STAFF REPORT: PERMIT AMENDMENT

**APPLICATION NO:** 4-96-025-A-2

**APPLICANT:** Mark Jason

**AGENT:** Don Schmitz

**PROJECT LOCATION:** Skyhawk Road and Chard Avenue Access to 20556 Betton Drive, Topanga, Los Angeles County

**DESCRIPTION OF PROJECT PREVIOUSLY APPROVED:** Construct a new 4,800 sq. ft., 25 ft. high, two story single family residence, with swimming pool, and involves grading 696 cubic yards of material to construct residence. The project also includes improvements to a 1,790 ft. long access road involving paving, the installation of drainage devices, and approximately 3,016 cubic yards of grading for this portion of the road improvements. Additionally, a below grade 135 foot long retaining wall with an 'Arizona' crossing was approved in a permit amendment (*to replace previous approved drainage device*) to reinforce an embankment along Chard Avenue, cut about 128 cubic yards of material to construct the wall and recompact 128 cubic yards of material as fill on the road after the wall is constructed.

**DESCRIPTION OF AMENDMENT:** Revise road improvements to construct a larger three foot diameter culvert with rip rap dissipater rather than the approved 18" diameter culvert, install erosion control swales along top of cut slopes, reduce approved thirty foot wide road to twenty foot wide except for turnouts, reduce approved grading from 3,016 cubic yards to 2,321 cubic yards on Betton Drive, Chard Avenue and Skyhawk Road, revise approved underground retaining wall to reinforce Chard Ave with soldier pile design *along a 160 foot long section of the road* with less grading to access approved residence at 20556 Betton Drive.

**LOCAL APPROVALS RECEIVED:** Los Angeles County Regional Planning Department, "Approval in Concept", dated 1/29/96; Los Angeles County Building and Safety/ Land Development Division, "Approved", dated May 5, 1999.

**SUBSTANTIVE FILE DOCUMENTS:** Coastal Development Permit No. 4-96-025, Jason; Coastal Development Permit No. 4-96-025-A-1, Jason; Coastal Development Permit No. 4-97-015, Sayles; Coastal Development Permit No. 4-99-164, Olson; Los Angeles County Malibu/Santa Monica Mountains certified Land Use Plan; Supplemental Soils and Engineering Geologic Investigation for Proposed Retaining Wall, by Geosystems, dated September 10, 1999.

**PROCEDURAL NOTE:** The Commission's regulations provide for referral of permit amendment requests to the Commission if:

1. The Executive Director determines that the proposed amendment is a material change, or
2. Objection is made to the Executive Director's determination of immateriality, or
3. The proposed amendment affects conditions required for the purpose of protecting a coastal resource or coastal access.

If the applicant or objector so requests, the Commission shall make an independent determination as to whether the proposed amendment is material (14 Cal. Admin. Code Section 13166). The Executive Director determined that this proposed amendment will be processed as a material amendment.

**SUMMARY OF STAFF RECOMMENDATION:**

*The Commission continued this amendment from the Commission's October 12, 1999 meeting to allow staff to address three issues. These issues are: how can urban pollutants be controlled, will this project as amended have significant adverse environmental impacts on Tuna Canyon, and will the proposed soldier pile retaining wall along a portion of Chard Avenue affect groundwater flows. As a result, an additional condition is added to address residential pollutants. The soldier pile wall will not adversely effect groundwater flows and the project as conditioned will not create any significant adverse environmental impacts in Tuna Canyon.*

Staff recommends that the Commission determine that the proposed development with this proposed amendment, as conditioned, is consistent with the requirements of the Coastal Act. *A total of three new conditions are recommended to address the recommendation of the applicant's engineer and geologist for the proposed soldier pile retaining wall proposed to stabilize a portion of Chard Ave, the removal and disposal of any excess excavated material, and Polluted Runoff Control Plan.*

**STAFF NOTE**

This revised report addresses the issues raised by the Commission at the October 12, 1999 meeting. Changes to the staff report and findings are identified by *italics* for the ease of the reader.

*The issue of conceptual project plans and final detailed plans (working drawings) was raised at the October 12, 1999 Commission meeting. The development review process within a local government jurisdiction along the coast that does not have a Certified Local Coastal Program, such as the County of Los Angeles is a three step review process. The first two steps are conceptual in nature, while the third step is detailed in nature. The first review step for a project is to obtain conceptual approval from the Los Angeles County Department of Regional Planning or the Los Angeles County Planning Commission. This step may also include obtaining a recommendation from the Los Angeles County Environmental Review Board. A project at this initial stage is usually conceptual in nature. Once local approval in concept is obtained, a project may proceed to the California Coastal Commission for the second review step. The second review step by the Commission is also conceptual in nature since the review is based on the plans approved in concept by the County of Los Angeles. However, the coastal development permit process often requires a greater level of project detail with regards to issues such as grading, erosion control, landscaping and habitat protection. The third review step is before the Los Angeles County Department of Building and Safety. The third step is more detailed because detailed drawings are reviewed for consistency with the Uniform Building Code. It is at this time that detailed working drawings are developed from the conceptual County and Commission approved plans. Due to the evolving nature of project plans, it is not uncommon for some projects to require amendments to coastal permits, after the final detailed or working drawings are completed and approved by the Local Building Department. After Los Angeles County completes a certified Local Coastal Program thereby allowing the Commission to delegate Coastal Permit authority to the County, this project review process will become a two step process in this area.*

*The issue of piecemeal development was also raised at the October 12, 1999 Commission meeting. The majority of existing parcels in the Santa Monica Mountains are owned by individual or separate property owners. The development of these parcels is anticipated to occur when these individual or separate owners decide to pursue permit applications. As a result, development of most parcels in this area will be done on what appears to be a piecemeal basis, although there is a great deal of information with regards to biological resources and the adverse cumulative impacts that will occur as development in the Santa Monica Mountains occurs.*

**STAFF RECOMMENDATION:**

The staff recommends that the Commission APPROVE the permit amendment application with special conditions.

**MOTION**

Staff recommends a YES vote on the following motion and adoption of the following resolution and findings:

***I move the Commission Approve with special conditions the coastal permit amendment # 4-96-025-A-2 per the staff recommendation as set forth below.***

*A majority of the Commissioners present is required to pass the motion.*

**I. Approval with Conditions**

The Commission hereby approves the amendment to the coastal development permit, on the grounds that the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, 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 of the Coastal Act, and will not have any significant adverse effects on the environment within the meaning of the California Environmental Quality Act.

**STAFF NOTE:** All Standard (No. 1-7) and Special Conditions (No. 1-6) attached to the original permit (Exhibit 10) shall remain in effect and are incorporated herein. The applicant has met these Special Conditions and the Coastal Permit has been issued. *Three new Special Conditions, Numbers Seven, Eight, and Nine below, are added as a result of this Amendment.*

**A. STANDARD CONDITIONS:**

See Exhibit 10

**B. SPECIAL CONDITIONS:**

See Exhibit 10 for No. 1 – 6

**7. Plans Conforming to Geologic Recommendation (New)**

PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for the review and approval by the Executive Director, evidence of the Geologist and Engineer consultant's review and approval of all project plans. All recommendations contained in the submitted geologic report titled: Supplemental Soils and Engineering Geologic Investigation, dated September 10, 1999, prepared by California Geosystems, shall be incorporated into all final design and construction including embedment depth and soldier pile design. All plans must be reviewed and approved by the consultants.

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 in the proposed development approved by the Commission which may be required by the consultants shall require an amendment to the permit or a new coastal permit.

**8. Removal of Excavated Material (New)**

The applicant shall remove all excavated or cut material consisting of approximately ten (10) cubic yards of material to an appropriate disposal site located outside in the Coastal Zone, or an approved site located in the coastal zone with a valid coastal development permit for disposal of fill material.

**9. Polluted Runoff Control Plan (New)**

*Prior to issuance of the Coastal Development Permit Amendment, the applicant shall submit, for the review and approval of the Executive Director, a Polluted Runoff Control Plan, which, when implemented, will serve to minimize the discharge of pollutants from residential runoff into surface water drainage, and maintain post-development peak runoff rate and average volume, at levels that are similar to pre-development levels, by incorporating structural and nonstructural Best Management Practices (BMPs) into final approved grading, paving and drainage development plans. Appropriate BMPs include, but are not limited to, the following:*

- *Protecting existing vegetation and natural drainage systems;*
- *Incorporating silt traps, catch basins, and oil/water separators into the design of development that increases impermeable surfaces, including private roads and driveways;*
- *Incorporating a BMP maintenance agreement which states that by acceptance of this Coastal Development Permit Amendment, the applicant/owner or successor interests agrees to be solely responsible for regular maintenance including inspection and regular cleaning of these approved BMPs to ensure their effectiveness prior to and during each rainy season from November 1 through April 31 of each year. Debris and other water pollutants contained in BMP device(s) will be contained and disposed of in a proper manner on a regular basis. All BMP traps/separators and/or filters must be cleaned prior to the start the winter storm season, no later than October 15th each year.*

**II. Findings and Declarations**

The Commission finds and declares:

**A. Project Description and Location**

The applicant proposes to revise approved road improvements to construct a larger three foot diameter culvert with rip rap dissipater rather than the approved 18 " diameter culvert, install erosion control swales (*three swales ranging from 90 to 160 feet long*) at top of *three* cut slopes, reduce *width* of approved thirty foot wide road to twenty foot wide except for turnouts, reduce approved grading from 3,016 cubic yards to 2,321 cubic yards on Betton Drive, Chard Avenue and Skyhawk Road, revise approved 135 foot long underground retaining wall to reinforce Chard Ave with a 160 foot long soldier

pile design at the approved "Arizona crossing" (total 180 foot long wall) to access approved residence at 20556 Betton Drive. (Exhibits 1 - 8). The proposed underground retaining wall is located at the approved 'Arizona' crossing where Betton Drive crosses a minor drainage *channel to a twenty acre watershed. An "Arizona" crossing is used to cross minor drainages that flow intermittently during and shortly after rainfall in the watershed. Vehicles cross over a shallow flow of water on a short concrete slightly "v" shaped section of the road.* The proposed soldier piles will be located about eight feet on center along the approximate 160 foot length of the wall. Revising the approved retaining wall to a soldier pile design will result in about 100 cubic yards of grading which is less than the 256 cubic yards of additional grading for the retaining wall as approved in Coastal Permit No. 4-96-025-A-1. The proposed grading reduction for the road includes about 1,165 cubic yards of cut and 1,156 cubic yards of fill. The total amount of grading proposed for this project including the proposed retaining wall is 1,215 cubic yards of cut and 1,206 yards of fill with an export of about ten (10) cubic yards. The applicant proposes to dispose of the extra cut material in an approved disposal site located outside the coastal zone or an approved disposal site located in the coastal zone. These roads access the parcel where a single family residence is approved by the Commission in Coastal Permit No. 4-96-025 (Exhibit 10). The subject site is located within the Tuna Canyon Significant Watershed, south of Tuna Canyon Road and Skyhawk Lane. (Exhibit 1)

In August 1996, the Commission approved coastal permit number 4-96-025 for certain road improvements and a new residence. The approved road improvements consist of paving 1,790 feet of an existing dirt access road (Chard Road and Betton Drive), installing three 18" diameter drainage culverts with rip rap dissipaters, and grading about 3,016 cubic yards of material. The Commission also approved a proposed residence consisting of a 4,800 sq. ft. two story structure with a pool to be accessed across the existing dirt road with the above approved road improvements. On July 7, 1997, the applicant complied with all the conditions required prior to the issuance of the coastal development permit, as a result, the permit was issued to the applicant. A portion of the road improvements have been completed, consisting of the majority of the grading, but not the drainage improvements, erosion control swales, Arizona crossing and proposed soldier pile retaining wall, road paving, or the road grading in the vicinity of the Arizona crossing and the proposed retaining wall. *The applicant proposes to complete only two of the three drainage improvements as part of this application, the third drainage culvert is now part of the approved Coastal Permit No. 4-99-164, Olson project which also included improvements to a portion of West Betton Drive where this third drainage improvement is proposed to be located.*

The location of the proposed soldier pile design retaining wall and 'Arizona' crossing is on two parcels that are not owned by the applicant. However, the applicant has provided evidence of his ingress and egress access easement over the road. The property owners, on whose property the road easement and proposed road improvement are located have been notified by letter of this development pursuant to Section 30601.5 of the Coastal Act. Section 30601.5 of the Coastal Act states that: "All holders or owners of any interests of record in the affected property shall be notified in

writing of the permit application and invited to join as co-applicant." These property owners, Mr. Malcolm Lesavoy (APN 4449-011-037), Mr. Sherman Stacey (APN 4448-006-037), Russel and Irene Manzatt (APN #4448-11-63), Norma Lipman (APN #4448-6-38, Vincent Scipioni (APN #4448-11-68, and Per and Barbara Corbeil (APN #4448-11-36)) have not responded to these letters at this time (Exhibit 9). Any response received by staff to these letters will be provided at the Commission meeting.

**B. Environmentally Sensitive Resource Areas**

The Coastal Act includes a policy protecting environmentally sensitive habitat areas from disruption of habitat values. Section 30240 of the Coastal Act states:

***(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.***

***(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.***

Section 30231 of the Coastal Act is written to protect and enhance, or restore where feasible, marine resources and the biological productivity and quality of coastal waters, including streams:

***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, and minimizing alteration of natural streams.***

The area's habitat values within the Tuna Canyon Significant Watershed are well documented in the staff reports and findings for Coastal Development Permit Number 4-96-025, Jason, and more recently Coastal Permit No. 4-99-164, Olson. Applicable policies of the Malibu/Santa Monica Mountains Land Use Plan (LUP) are also identified, including policies protecting watersheds and ESHA's from individual and cumulative impacts.

*The subject site is located in the Santa Monica Mountains, an area characterized by the formation of several steep coastal canyons, many of which contain significant blue-line streams which often drain several hundred acres of watershed. The project site is*

located *in one such area*, within the Tuna Canyon Significant Watershed. Two upper tributaries to Tuna Canyon Creek, a Commission designated environmentally sensitive habitat area (ESHA), are located on either side of the proposed development. The tributary to the southwest is the 'blue line' designated stream of Tuna Canyon Creek. *Polluted runoff resulting from residential development can significantly impact surface water quality in coastal watersheds, which in turn can lead to poor water quality conditions in coastal bays, lagoons, and estuaries which act as the receiving waters for rivers and streams in the coastal zone.*

*The proposed permit amendment includes expanding a culvert located beneath a private road to three feet in diameter, constructing erosion control swales along the top of cut slopes, and revising an approved retaining wall to reinforce a portion of Chard Avenue. The proposed below grade soldier pile retaining wall will be incorporated into one culvert and into an approved "Arizona Crossing". One culvert is existing on the site, which was approved to be replaced as an 18" culvert in Coastal Permit Number 4-96-025 by the Commission and will be incorporated into this proposed retaining wall. The applicant proposes to revise the approved below grade, 135 foot long retaining wall to reinforce the road embankment. The depth/height of the approved wall varies from a total of six (6) to ten (10) feet, most of which is beneath the roadway. This wall was approved by the Commission in Coastal Permit Amendment No. 4-96-025-A-1 on September 10, 1998. Since then, the applicants have revised the wall to a soldier pile design which consists of about twenty (20) steel "H" beams individually encased in concrete jackets. The entire length of this proposed wall is about 160 feet adjacent to a 20 foot wide "Arizona" crossing beyond the proposed soldier piles. The total length of the wall and "Arizona" crossing is about 180 feet. The wall includes a concrete wall with lagging along the top of the soldier piles to hold the roadway embankment in place.*

It is important to point out that the majority of the soldier pile retaining wall will be located below ground and entirely within the roadway (Exhibits 7 – 8). The proposed concrete reinforcing wall adjacent to the soldier piles will extend above ground about three feet on the east or downhill side of the roadbed *and extend below the roadbed about one foot*. The soldier piles extend beneath the surface of the roadway from about 24 to 30.5 feet deep into bedrock. *The soldier piles are located about eight (8) feet on center providing for an approximate five (5) feet open area between each concrete encased piling.* The wall will be located adjacent to the proposed 'Arizona' crossing. *No soldier piles will be located directly beneath the 'Arizona' crossing, and thus, no soldier piles will be located within the drainage channel. No soldier piles are located within the drainage area on the east side, where the "Arizona" crossing is located. On the west side, where the proposed enlarged three (3) foot diameter drainage culvert is proposed, no soldier piles will be located directly in this drainage area. Therefore, because the proposed soldier piles are located outside the drainage areas and are proposed to be constructed about eight (8) feet apart with an open area of about five (5) feet, no effects on underground water flows is expected. Further, the applicant has submitted a letter from David Cefali, a structural engineer, with Cefali & Associates, dated November 5, 1999, that indicates that the proposed soldier pile wall will not impede the flow of groundwater that may exist on the site (Exhibit 11).*

The applicant proposes to construct the new *enlarged* culvert and the approved 'Arizona' crossing (approved in Coastal Permit No. 4-96-025-A-1) at the time this proposed retaining wall is constructed. *The increased size of the culvert is a requirement of the Los Angeles County Department of Building and Safety to allow the same quantity and velocity of water to pass in the event the culvert entrance is clogged with wood branches or other debris.* It is important to note that the Commission has approved these road improvements, including the *approved 18" diameter culvert*, in Coastal Permit Numbers 4-96-025 and 4-96-025-A-1. The drainage where the 'Arizona' crossing is proposed to be located lead to the 'blue line' stream to the southeast. *The drainage where the replacement culvert is located also leads to the "blue line" stream. The drainage where the "Arizona" crossing is located is identified as a "blue line" stream draining a twenty and one half acre watershed of the uppermost portion of an unnamed drainage tributary to Tuna Canyon Creek. The applicant submitted a letter from Danny Holmes, a registered engineer, with Holmes Enterprises that identified the hydrology calculations of the two watersheds that lead into the two subject drainage tributaries (Exhibit 12). Both watersheds are relatively small, one is 20.5 acres in size, the other is 5.6 acres in size. In addition, Mr. Holmes confirmed that the drainage devices proposed for the road are designed so that there will be no increase in storm water velocities from present conditions.*

*The proposed project also includes drainage swales that are located along the top of cut slopes along the road. The purpose of the swales is to collect water runoff from areas above the cut slope, channel the water so it will not flow down the steepened cut slopes (1 ½: 1 cut slope) and erode the cut slope after it has been hydroseeded. Water from the swale is then drained directly onto the paved roadway to sheet flow across the road to the nearest drainage area leading from the roadway. The effect of the drainage swale is to reduce erosion and sedimentation as a result of widening the roadway.*

Since this area burned in the 1993 Malibu Fire, the re-growth of chaparral vegetation is occurring. Because the subject *road improvement* site is located *along* the uppermost tributaries of Tuna Canyon Creek, a blue line stream, additional protection is provided by the LUP. However, the tributaries in the vicinity of Chard Road are not considered a riparian corridor as they do not include riparian vegetation. Further, the surrounding chaparral vegetation will not be affected as the proposed retaining wall, enlarged drainage culvert, and erosion control swales will be located entirely within the existing dirt roadway. An approximate 50 cubic yards of material will be cut to allow for the construction of the soldier pile retaining wall with the same used as fill on this site, totaling about 100 cubic yards of grading. This amount of grading is a reduction in the 256 cubic yards of equal cut and fill approved to construct the prior concrete retaining wall design as approved by the Commission in Coastal Permit Number 4-96-025-A-1. This reduced amount of grading is judged to be the minimum necessary in order for the applicant to stabilize the existing dirt road and minimize future erosion consistent with the requirements of the Los Angeles County Fire Department and Building and Safety Division. This cut material for the retaining wall is proposed to be compacted on site within the roadway without the need for offsite disposal.

In addition, Coastal Permit Number 4-98-025 includes conditions addressing an erosion control and drainage plan and a road maintenance agreement that remain in effect to further reduce erosion of the road. Further, the applicant proposes to reduce the width of the approved thirty foot road to twenty feet wide, except for turnouts and reduce the approved grading from 3,016 cubic yards to 2,321 cubic yards in addition to the reduction from 256 cubic yards of grading for the approved retaining wall to about 100 cubic yards of grading for the proposed soldier pile design, thereby reducing the approved grading and resulting landform alteration. The reduced amount of grading for the road consists of 1,165 cubic yards of cut and 1,156 cubic yards of fill with an export balance of about ten cubic yards of material. The total amount of grading proposed for this project including the proposed retaining wall is 1,215 cubic yards of cut and 1,206 yards of fill with an export of about ten (10) cubic yards. Special Condition Number Eight (8) requires the applicant to export all excavated material, except for material proposed to be used for fill on site, a difference of about ten cubic yards of material, to an appropriate disposal site located outside of the Coastal Zone or a site located in the Coastal Zone approved for disposal with a valid Coastal Development Permit.

The applicant proposes to increase the size of the approved drainage culvert with a rip rap dissipater at its terminus to carry water from a drainage that crosses beneath Chard Avenue. This approved drainage culvert is *one and one half* feet in diameter which will replace the existing 18 inch diameter drainage culvert. The County of Los Angeles Building and Safety Department has required the applicant to revise this proposed 18" diameter drainage culvert with a larger three foot diameter culvert to adequately carry water and debris flow without clogging and backing up water flow from the drainage against the west embankment along Chard Avenue.

*Polluted runoff resulting from residential development can significantly impact surface water quality in coastal watersheds, which in turn can lead to poor water quality conditions in coastal bays, lagoons, and estuaries which act as the receiving waters for rivers and streams in the coastal zone. The proposed development includes expansion of the diameter of a culvert located beneath the private road, Chard Avenue, and a revision lengthening the retaining wall along Chard Avenue, both which provide access to the applicant's approved residence. An "Arizona" crossing with a rock rip-rap dissipater will be incorporated into the retaining wall design. This culvert, the roadway held in place by the retaining wall, and the "Arizona" crossing will serve to convey drainage from the private road and upstream in the watershed. Major pollutants such as petroleum hydrocarbons can be found from roads and driveways. The Commission finds that controlling pollutants contained in runoff draining from existing and future roads and driveways, will serve to minimize impacts associated with new development, on coastal resources. Therefore, Special Condition No. Nine (9) is necessary to require the applicant to submit a Polluted Runoff Control Plan incorporating appropriate Best Management Practices and the applicant's/owner's maintenance responsibilities into the final approved project plans for the roadway improvements. Appropriate BMPs include, but are not limited to protecting existing vegetation and natural drainage systems and incorporating silt traps, catch basins, and oil/water separators into the design of*

*development that increases impermeable surfaces, including private roads and driveways. Improper maintenance is one of the most common reasons for water quality controls to not function as designed or to fail entirely. It is important to consider who will be responsible for maintenance of a permanent BMP, and what equipment is required to perform the maintenance properly, therefore it is necessary for the applicant to agree to the maintenance provisions in the Polluted Runoff Control Plan Polluted Runoff Control Plan to ensure that they function appropriately, as required by Special Condition No. Nine (9).*

Lastly, since the proposed project will be located beneath and along the edge of an existing dirt road that has been approved for grading and paving improvements with a reduction in grading quantities, no significant new impacts will occur to habitat adjacent to the roadway. The applicant's proposed amendment in fact reduces the potential for adverse impacts on the significant watershed and sensitive habitats as the project now involves less grading and includes an increased size drainage culvert with a rip rap dissipater at its terminus. The amended project results in less potential for erosion of material from the site and sedimentation into the drainages leading to Tuna Canyon Creek.

*As required by Special Condition No. Six in Coastal Permit No. 4-96-025, Jason, the applicant was required to obtain a valid California Department of Fish and Game (DFG) Streambed Alteration Agreement. A review of the revised Streambed Alteration Agreement 5-270-98 (1603 Agreement) indicates that applicant is required to complete a plant palette and planting plan to revegetate and restore native plants in this drainage area. To meet the requirements of this DFG 1603 Agreement, the applicant proposes to plant sycamore and riparian vegetation along the south side of Chard Avenue adjacent to the proposed retaining wall and along the two drainages to mitigate the construction of the retaining wall and drainage devices while reducing erosion and sedimentation along these drainages. Therefore, the proposed project will not adversely affect the habitat of Tuna Canyon Creek.*

Therefore, the Commission finds that the proposed project is consistent, as conditioned, with the protection of environmentally sensitive habitats and creeks as required by Coastal Act Sections 30231 and 30240.

### **C. Geologic and Erosion Hazards**

The Coastal Act includes a policy to protect existing and proposed development from 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, nor destruction of the site nor 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 near the upper portion of Tuna Canyon Road, an area that is generally considered to be subject to a high amount of natural hazards. Geologic hazards common to the Santa Monica Mountains include soil stability concerns, landslides, and erosion. 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 vegetation, thereby contributing to an increased potential for erosion and landslides on property.

The applicant proposes to cut approximately 50 cubic yards of material to construct the below grade retaining wall and compact this 50 cubic yards of material on the roadway at the completion of the proposed project. The Commission approved Coastal Permit Number 4-96-025-A-1 with 256 cubic yards of cut and fill to construct the initial design for the retaining wall, as a result, the applicant's new proposal further reduces the grading necessary for the road improvements. The Commission finds that if this project is constructed during the winter storm season, minimizing site erosion will improve the stability of the site and reduce potential sedimentation into Tuna Canyon Creek that leads to the Pacific Ocean. Erosion during the winter rainy season from November 1 through March 31 can be minimized by requiring the applicant to install sediment basins on site prior to or concurrent to the initial grading necessary to construct the below ground retaining wall and maintained through the development process to minimize sediment from runoff waters during construction. Special Condition number five b (5. b.) of Coastal Permit Number 4-96-025 includes a provision for the installation of sediment basins to ensure erosion and sedimentation is controlled and minimized if construction occurs during the rainy season.

The applicant submitted a report titled: "Supplemental Soils and Engineering Geologic Investigation for Proposed Retaining Wall", by Geosystems, dated September 10, 1999. The report discussed the proposed retaining wall by stating:

It is proposed to construct a retaining wall along eastern edge of Chard Avenue between stations 9+00 to 10+80. The retaining wall will be approximately 180 feet long. Previously, the proposed wall was to be constructed using concrete piles, however, it is now proposed to construct the wall using steel I-beams. The steel I-beam piles are to be spaced at 8 feet on center.

The purpose of the retaining wall is to stabilize Chard Avenue and prevent further loss of roadway material through erosion on the adjacent descending slope. The proposed retaining wall should be founded a minimum of 10 feet below the lowest unsupported bedding plane, as shown on Plate CS-6.

The recommendations of this geology report address the embedment depth and soldier pile design. Based on the findings and recommendations of the consulting geologist and engineer, the Commission finds that the development is consistent with Section

30253 of the Coastal Act so long as all recommendations regarding the proposed development are incorporated into the project plans. The Commission found in the original Coastal Permit Number 4-96-025 that the recommendations in the submitted report titled Preliminary Soils and Engineering Geologic Investigation, by California Geosystems, dated November 20, 1995 needed to be incorporated into the approved plans. Since new recommendations are now proposed for the revised project and the previous Coastal Permit No. 4-96-025 was issued consistent with the prior recommendations of the consulting geologist and engineer, the Commission finds it necessary to require the applicant to submit project plans, addressing the soldier pile retaining wall that has been certified by these consultants as conforming to their new recommendations. This requirement is identified in Special Condition Number Seven (7).

Therefore, the Commission finds that the proposed project, as conditioned to address geologic and erosion hazards, is consistent in Section 30253 of the Coastal Act.

**D. Visual Resources and Landform Alteration**

The Coastal Act includes a policy to protect public views from development to and along the coast and to minimize the alteration of natural landforms. 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 subordinate to the character of its setting.***

The proposed amended project site is located within the roadway of existing dirt and partially paved roads, Chard Road, Betton Drive and Skyhawk Road. The proposed reduction in the road width and grading will reduce previously approved alteration of natural landforms and reduce any public visual impacts. Visibility of the buried drainage culvert and rip-rap dissipater will be very limited, even with the increase in pipe size from 18" to three feet in diameter. The majority of the proposed soldier pile retaining wall will be located below grade within the roadway. As a result, only about three feet of the wall will be visible from the immediate surrounding area to the east. (Exhibit 7). The previously approved retaining wall was also proposed to be primarily below grade with only one and one half feet of the wall visible above grade. The project site is not visible from any public road and only be partially visible from nearby state and federal park lands to the east and south. Within this setting, the public visibility of the proposed project will be very limited and will not adversely impact visual resources. For these

reasons, the Commission finds that the proposed project is consistent with Section 30251 of the Coastal Act.

**E. Local Coastal Program**

Section 30604 of the Coastal Act states that:

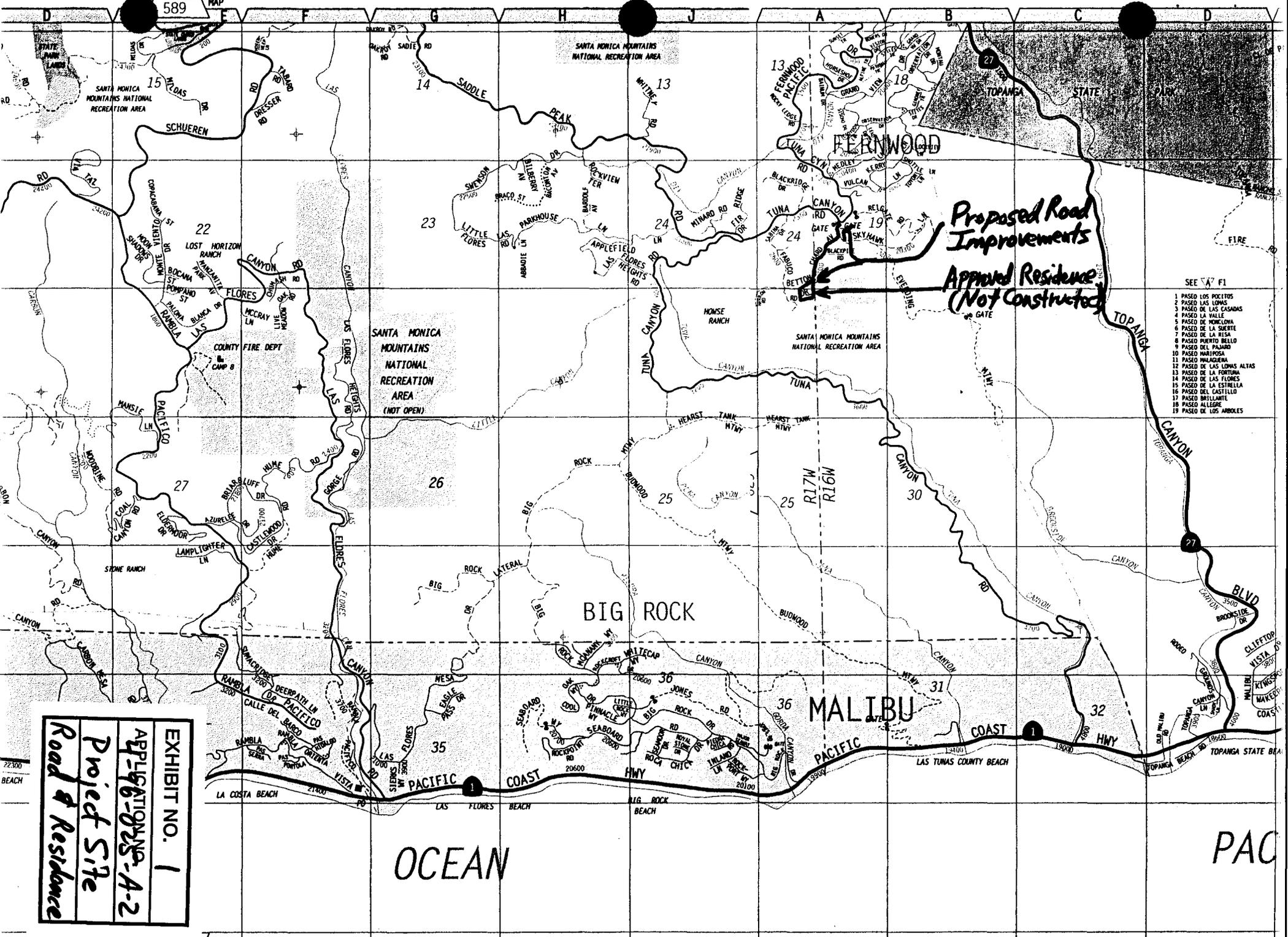
***a) Prior to certification of the local coastal program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with the provisions of Chapter 3 (commencing with Section 30200) of this division and that the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

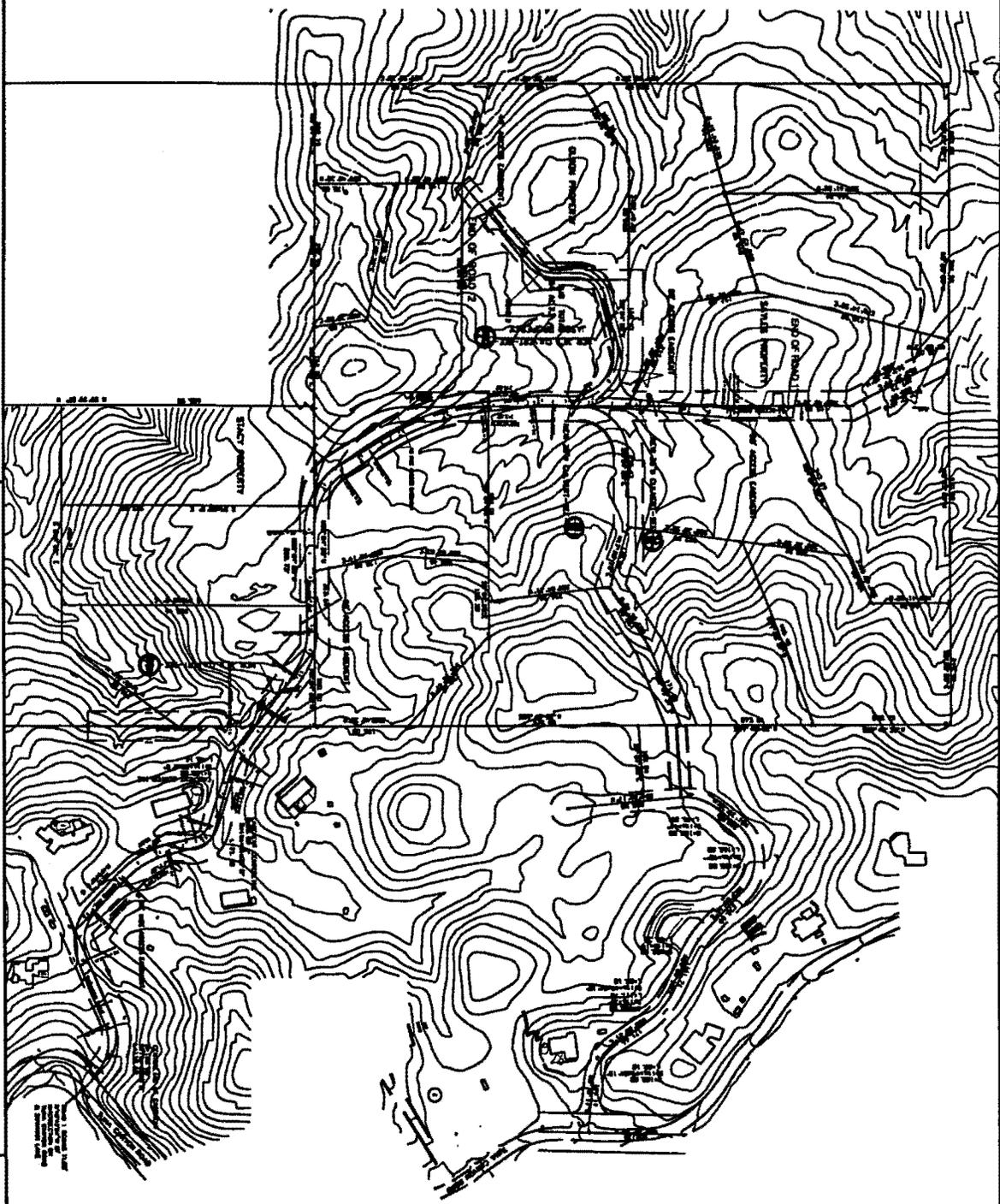
Section 30604(a) of the Coastal Act provides that the Commission shall issue a coastal development permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act. The preceding sections provide findings that the proposed amendment will be in conformity with the provisions of Chapter 3, if certain conditions are incorporated into the project and accepted by the applicant. The proposed amendment 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 amendment, as conditioned, will not prejudice the County of Los Angeles' ability to prepare a Local Coastal Program for this area of Malibu that is also consistent with the policies of Chapter 3 of the Coastal Act as required by Section 30604(a).

**F. California Environmental Quality Act (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.



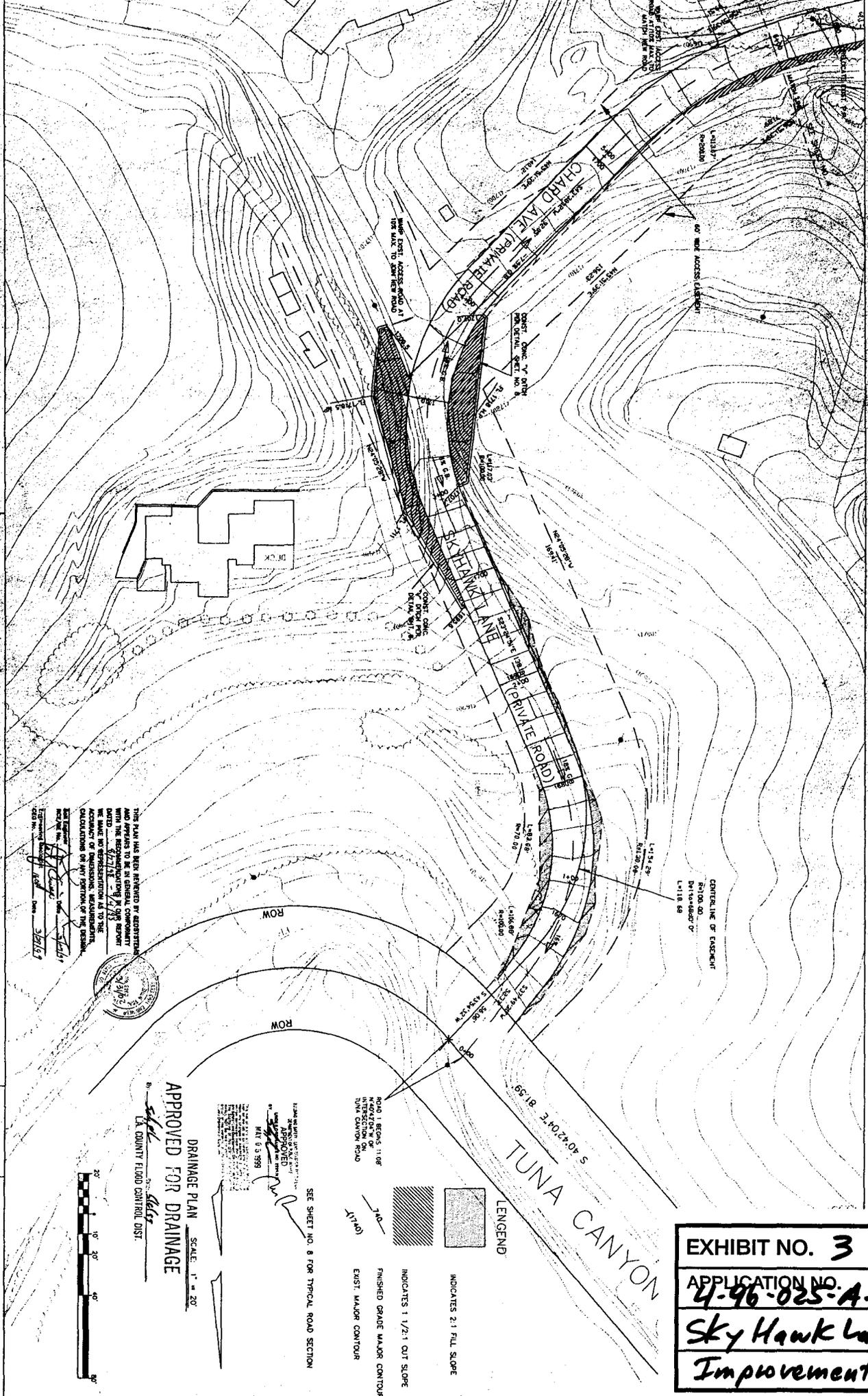


  
**J.E. Structural and Civil Engineering, Inc.**  
 200 White Rd. Hampden, OH 45321  
 (806) 532-1571  
 (806) 532-1596



ROAD PLAN OVERVIEW	
DATE	BY
10/1/76	J.E.
THIS PLAN IS THE PROPERTY OF J.E. STRUCTURAL AND CIVIL ENGINEERING, INC. IT IS TO BE USED ONLY FOR THE PROJECT AND LOCATION SHOWN HEREON. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.	
PROJECT NO.	2
DATE	10/1/76

EXHIBIT NO. 2  
 APPLICATION NO.  
 4-76-025-A-2  
**Road Plan  
 Overview**



**EXHIBIT NO. 3**  
**APPLICATION NO.**  
**4-96-025-A-2**  
**Sky Hawk Lane**  
**Improvements**

**JF**  
**Structural and Civil Engineering**  
 200 White Rd., Moorpark, CA 93021  
 (805) 532-1571  
 (805) 532-1571  
 FOR: Sky Hawk Lane

THIS PLAN HAS BEEN REVIEWED BY REGISTERED PROFESSIONAL ENGINEERS AND APPROVED TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CALIFORNIA ENGINEERING PROFESSIONAL ACT AND THE ACCURACY OF DIMENSIONS, MEASUREMENTS, CALCULATIONS OR ANY PORTION OF THE DESIGN.

DATE: 11/18/96  
 DRAWN BY: J. J. [Signature]  
 CHECKED BY: J. J. [Signature]  
 SCALE: AS SHOWN

**APPROVED FOR DRAINAGE**  
 L.A. COUNTY FLOOD CONTROL DIST.  
 SCALE: 1" = 20'  
 SEE SHEET NO. 8 FOR TYPICAL ROAD SECTION

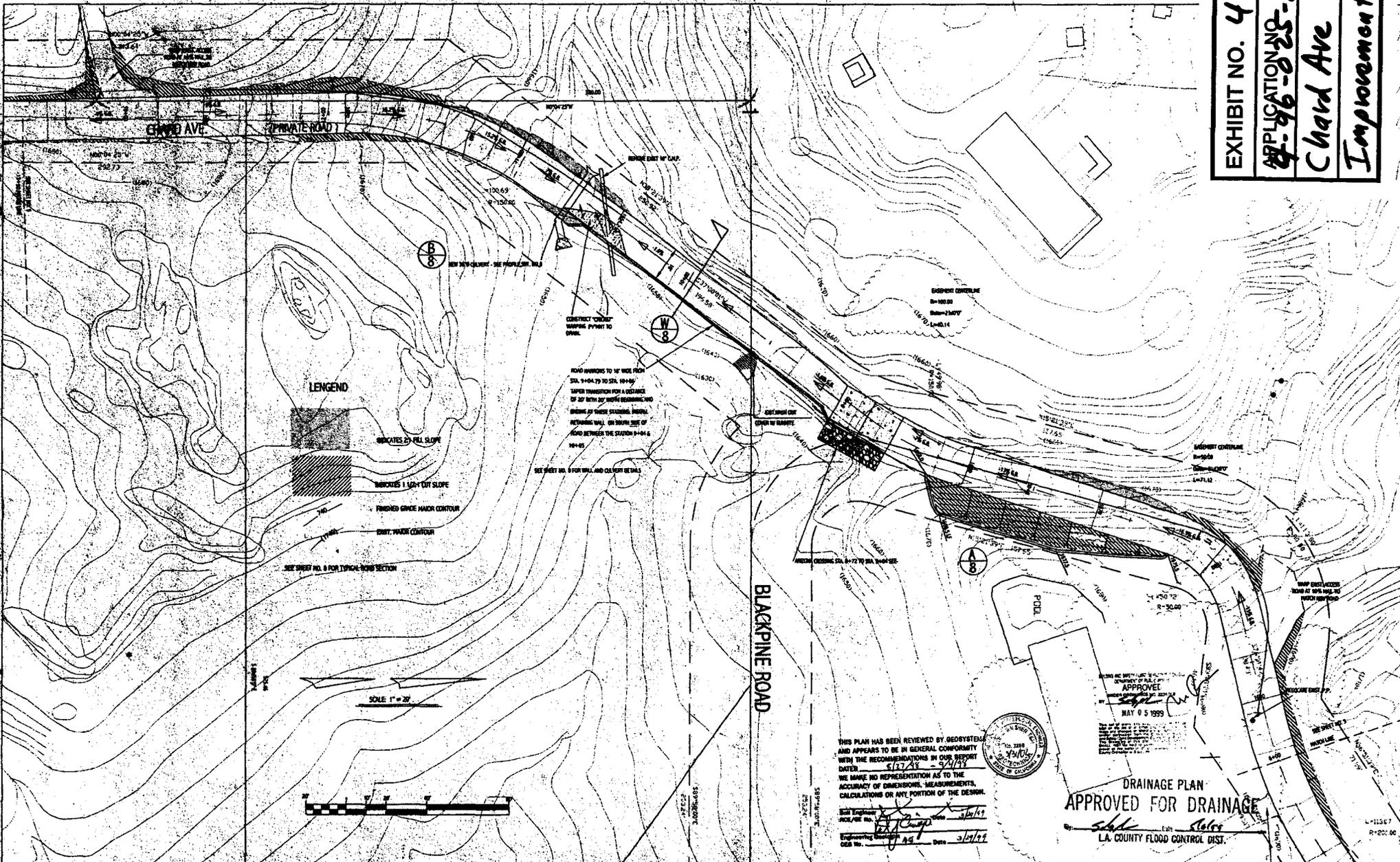
**LEGEND**

- INDICATES 2:1 FILL SLOPE
- INDICATES 1 1/2:1 OUT SLOPE
- FINISHED GRADE MAJOR CONTOUR
- EXIST. MAJOR CONTOUR



DATE: 11-14-96	BY: J. J.
PROJECT: ROAD PLAN FOR PORTION OF SKY HAWK LANE, CHARD AVE, BETHLEHEM DRIVE, AND PARKED ROAD, PALMDALE, CA	BY: J. J.
DRAWING: DRAINAGE PLAN, SHEET NO. 8 OF 8	BY: J. J.

**EXHIBIT NO. 4**  
**APPLICATION NO. 96-225-A-2**  
**Chard Ave**  
**Improvements**



THIS PLAN HAS BEEN REVIEWED BY GEOSYSTEMS AND APPEARS TO BE IN GENERAL CONFORMITY WITH THE RECOMMENDATIONS IN OUR REPORT DATED 5/12/99 - 5/14/99. WE MAKE NO REPRESENTATION AS TO THE ACCURACY OF DIMENSIONS, MEASUREMENTS, CALCULATIONS OR ANY PORTION OF THE DESIGN.



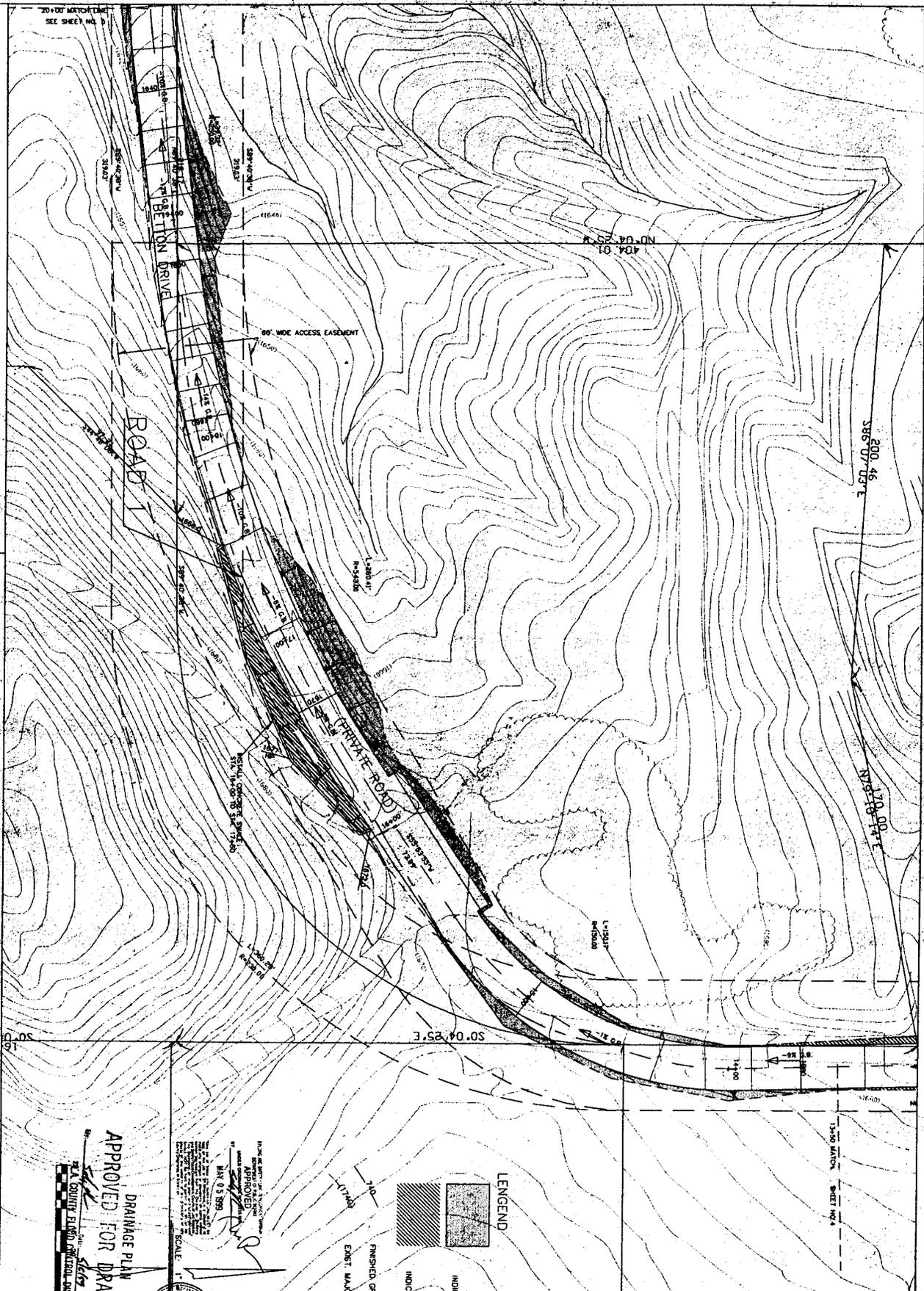
**DRAINAGE PLAN**  
**APPROVED FOR DRAINAGE**  
 MAY 9 5 1999  
 L.A. COUNTY FLOOD CONTROL DIST.



**Holmes Enterprises inc** (805) 532-1571  
**Structural and Civil Engineering** (805) 532-1596  
 200 Wicks Rd Moorpark, CA 93021

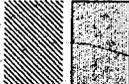
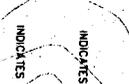
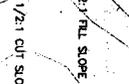


ROAD 1 6+00 TO 13-50	
DATE: 5/14/99	PROJECT: CHARD AVE IMPROVEMENTS
SCALE: AS SHOWN	SHEET: 4 OF 8
DRAWN BY: J. J. [Signature]	
CHECKED BY: [Signature]	
APPROVED BY: [Signature]	




**Holmes Enterprises Inc.**  
 Structural and Civil Engineering  
 200 Wicks Rd., Moorpark, CA 93021  
 (805) 532-1571  
 FAX: (805) 532-1596

**APPROVED FOR DRAINAGE**  
 DATE: 03/26/98  
 BY: [Signature]  
 TITLE: [Title]  
 PROJECT: ROAD 1, STATION 13+50 TO 20+00  
 SHEET NO. 5 OF 8

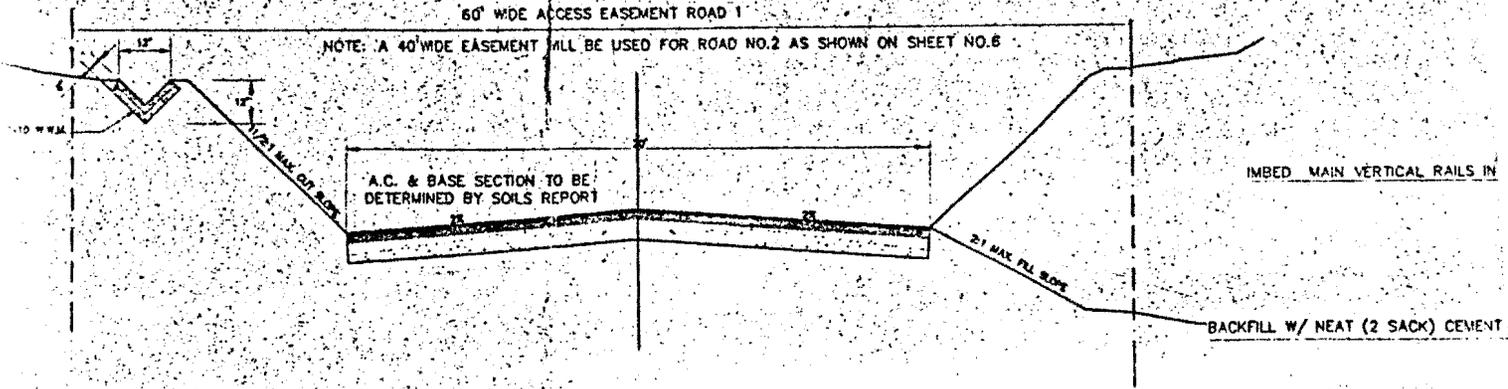
**LEGEND**  
 INDICATES 2% TL SLOPE  
 INDICATES 1/2% C&T SLOPE  
 FINISHED GRADE MAJOR CONTOUR  
 EAST MAJOR CONTOUR

**EXHIBIT NO. 5**  
**APPLICATION NO. 4-96-025-A-2**  
**Chard Ave & Betton Dr. Improvements**

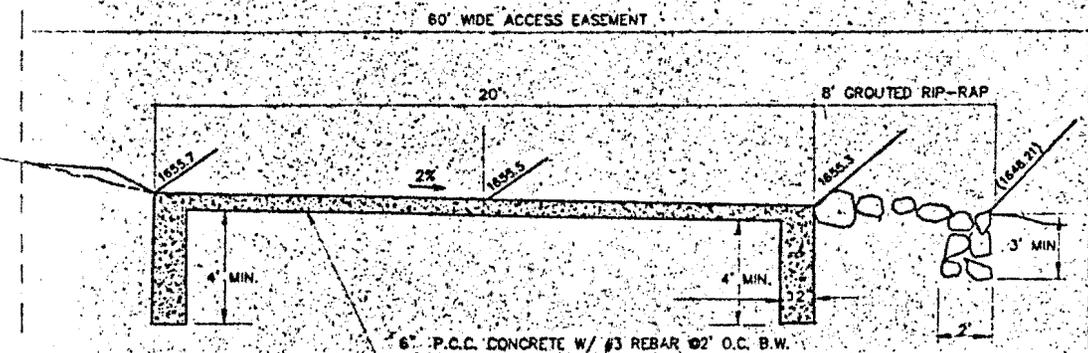
ROAD 1, STATION 13+50 TO 20+00  
 SHEET NO. 5 OF 8  
 PROJECTED BY: [Name]  
 CHECKED BY: [Name]  
 DATE: 03/26/98  
 DRAWN BY: [Name]  
 SCALE: 1" = 40'

EXHIBIT NO. 6  
 APPLICATION NO. 96-088-A.2  
 Road Details

12" WIDE CONC. DRAIN AS SHOWN BELOW AT THE TOP OF ALL CUT SLOPES.  
 ALL SHALL HAVE A MIN. LONGITUDINAL SLOPE OF 2%  
 INDIVIDUAL SHEETS FOR DRAIN LOCATIONS AND OUTLET POINTS  
 MAKE 5'x5' CONC. PAD W/ GROUTED RIP-RAP AT ALL OUTLETS



TYPICAL ROAD SECTION

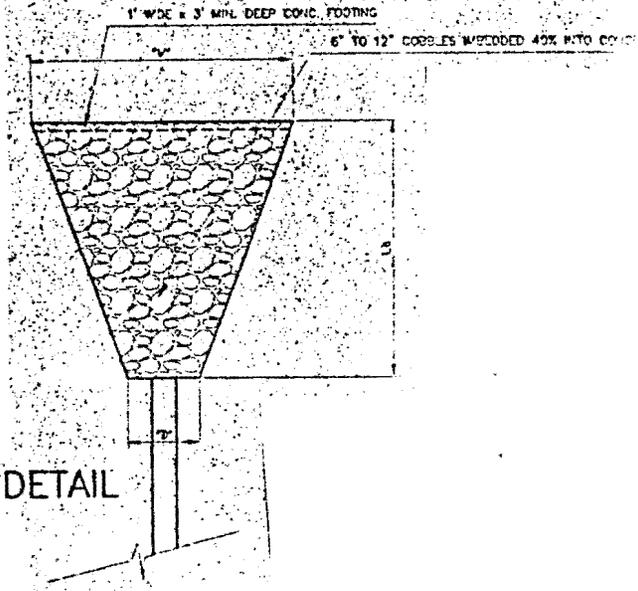


NOTE: FOOTINGS TO MEET LACPWS STANDARDS

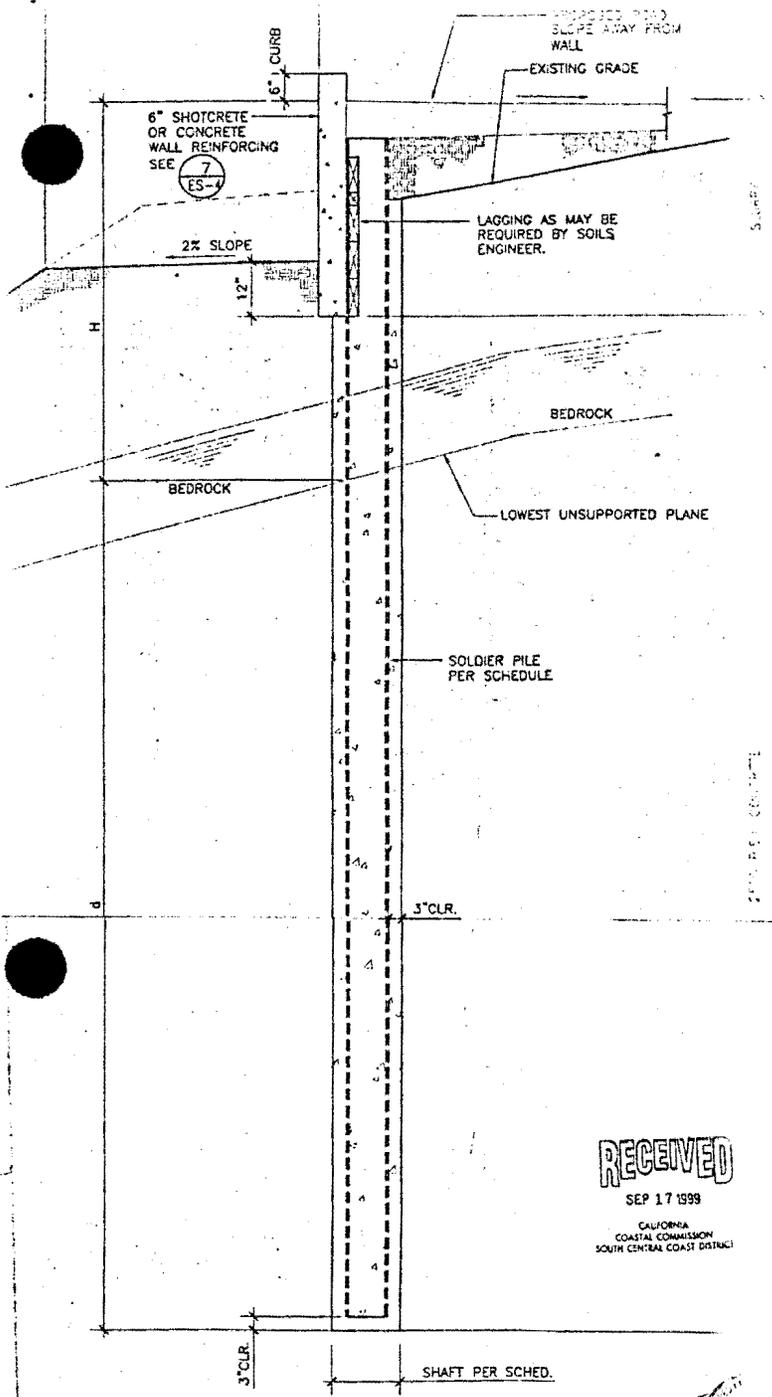
CROSS SECTION

STA. 8+88

ARIZONA CROSSING



OUTLET DETAIL



**RECEIVED**

SEP 17 1999

CALIFORNIA  
COASTAL COMMISSION  
SOUTH CENTRAL COAST DISTRICT

SECTION

1

ES-1

EXHIBIT NO. 7
APPLICATION NO. 4-96-025-A-2
Chard Road
Retaining Wall



CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA  
89 SOUTH CALIFORNIA ST., SUITE 200  
VENTURA, CA 93001  
(805) 641 - 0142



November 18, 1999

Vince Scipioni  
20400 Skyhawk Lane  
Topanga, CA 90290

RE: Coastal Development Permit Application No. 4-96-025-A-2, Mark Jason, Chard Road access to 20556 Betton Drive, Malibu

Dear Mr. Scipioni;

This office has received an application from Mark Jason to construct a below grade 180 foot long soldier pile retaining wall and "Arizona" crossing to reinforce the embankment along a portion of Chard Road and construct drainage swales along cut slopes to access Mr. Jason's Coastal Commission approved residence at 20556 Betton Drive, Malibu. The application is filed and scheduled for a public hearing at the Coastal Commission's December 7 - 10, 1999 meeting in San Rafael.

Coastal Act Section 30601.5 states as follows:

All holders or owners of any interests of record in the affected property shall be notified in writing of the permit application and invited to join as co-applicant.

Because our records in the application file indicate that you are the owner of a fee interest in the property across which the road improvements are proposed, the Commission is notifying you of the application pursuant to Section 30601.5. With this letter, staff are inviting you to join this application as a co-applicant if you so choose. If you wish to join as a co-applicant, you may indicate your agreement by signing and returning a copy of this letter. If you have any questions or need further information about this application and the proposed project, please call me at the number above .

Sincerely,

James Johnson  
Coastal Program Analyst

AGREED:

\_\_\_\_\_

Name (Print)

\_\_\_\_\_

Signature

\_\_\_\_\_

Property Address

cc: Donald Schmitz  
496025A2jasoncos

EXHIBIT NO. 9
APPLICATION NO. 4-96-025-A-2
Co-Applicant Letters

**CALIFORNIA COASTAL COMMISSION**

SOUTH CENTRAL COAST AREA  
89 SOUTH CALIFORNIA ST., SUITE 200  
VENTURA, CA 93001  
(805) 641-0142



Page 1 of 4  
Date: July 7, 1997  
Permit No. 4-96-025

**COASTAL DEVELOPMENT PERMIT**

On August 15, 1996, the California Coastal Commission granted to Mark Jason Permit 4-96-025, this permit subject to the attached Standard and Special conditions, for development consisting of:

Construction of a new 4,800 sq. ft., 25'-0", 2 story single family residence, with a swimming pool, involving 596 cubic yards of grading. The project also involves improvements to a 1,790' access road involving paving, the installation of 3 rip-rap drainage devices and approximately 3,016 cubic yards of grading and is more specifically described in the application on file in the Commission offices.

The development is within the coastal zone in Los Angeles County at 20556 Betton Drive, Topanga.

Issued on behalf of the California Coastal Commission by

**RECEIVED**

JAN 18 1999

CALIFORNIA  
COASTAL COMMISSION  
SOUTH CENTRAL COAST DISTRICT

PETER DOUGLAS  
Executive Director

*John Ainsworth*  
By: John Ainsworth  
Title: Regulatory Supervisor

**ACKNOWLEDGMENT**

The undersigned permittee acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

The undersigned permittee acknowledges that Government Code Section 818.4 which states in pertinent part, that: "A public entity is not liable for injury caused by the issuance. . . of any permit. . ." applies to the issuance of this permit.

**IMPORTANT:** THIS PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGEMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE. 14 Cal. Admin. Code Section 13158(a).

Date

*7-20-97*

A6: 8/95

Signature of Permittee

EXHIBIT NO. 10
APPLICATION NO. 4-96-025-A-2
Coastal Permit 4-96-25
page 1 of 4

COASTAL DEVELOPMENT PERMIT

Page 2 of 4  
Permit No. 4-96-025

STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
4. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
5. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.
6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

SPECIAL CONDITIONS:

1. Future Development:

Prior to the issuance of a coastal development permit, the applicant shall execute and record a document, in a form and content acceptable to the Executive Director, stating that the subject permit is only for the development described in the Coastal Development Permit No. 4-96-025; and that any future structures, additions or improvements to the property, including but not limited to clearing of vegetation, that might otherwise be exempt under Public Resource Code Section 30610(a), will require a permit from the Coastal Commission or its successor agency. However, fuel modification consistent with the requirements of the Los Angeles County Fire Department's fuel modification standards is permitted. The document shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens and any other encumbrances which the E determines may affect the interest being conveyed.

EXHIBIT NO. 10
APPLICATION NO. 4-96-025-A-2
Coastal Permit 4-96-25
page 2 of 4

EXHIBIT NO. 10

APPLICATION NO.

4-96-025-A-2

Coastal Permit 4-96-025

page 3 of 4

COASTAL DEVELOPMENT PERMIT

Page 3 of 4

Permit Application No. 4-96-025

2. Plans Conforming to Geologic Recommendation

All recommendations contained in the Preliminary Soils and Engineering Geologic Investigation, dated November 20, 1995, prepared by California GeoSystems, shall be incorporated into all final design and construction including foundations, grading and drainage. All plans must be reviewed and approved by the consultants. 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 in the proposed development approved by the Commission which may be required by the consultants shall require an amendment to the permit or a new coastal permit.

3. Wild Fire Waiver of Liability

Prior to the issuance of the coastal development permit, the applicants shall submit a signed document which shall indemnify and hold harmless the California Coastal Commission, its officers, agents and employees against any and all claims, demands, damages, costs, expenses of liability arising out of the acquisition, design, construction, operation, maintenance, existence, or failure of the permitted project in an area where an extraordinary potential for damage or destruction from wild fire exists as an inherent risk to life and property.

4. Road Maintenance Agreement

By acceptance of this Coastal Development Permit, the applicant agrees that should the proposed improvements to the access road or the proposed drainage structures fail or result in erosion, the applicant/landowner or successor interests shall be solely responsible for any necessary repairs and restoration along the entire length of the access road as it crosses Skyhawk Lane, Chard Road and Betton Drive.

5. Erosion Control and Drainage Plan

Prior to the issuance of the Coastal Development Permit, the applicant shall submit for the review and approval of the Executive Director, a erosion control and drainage plan designed by a licensed engineer. The plan shall incorporate the following criteria:

- a) All disturbed areas on the subject site shall be planted and maintained for erosion control and visual enhancement purposes according to the submitted landscape plan within thirty (30) days of final occupancy of the residence. Such planting shall be adequate to provide ninety (90) percent coverage within one (1) year and shall be repeated, if necessary, to provide such coverage.

COASTAL DEVELOPMENT PERMIT

Page 4 of 4  
Permit Application No. 4-96-025

- b) Should grading take place during the rainy season (November 1 - March 31), sediment basins (including debris basins, desilting basins, or silt traps) shall be required on the project site prior to or concurrent with the initial grading operations and maintained through the development process to minimize sediment from runoff waters during construction. All sediment should be retained on-site unless removed to an appropriate approved disposal location.
- c) The drainage plan shall illustrate that run-off from the roof, patios, driveway and all other impervious surfaces on the subject parcel are collected and discharged in a non-erosive manner which avoids ponding on the pad area. Site drainage shall not be accomplished by sheetflow runoff. Should the residential project's drainage structures fail or result in erosion, the applicant/landowner or successor interests shall be responsible for any necessary repairs and restoration.

6. Required Approvals

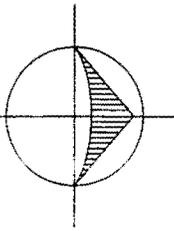
Prior to the issuance of a coastal development permit, the applicant shall provide to the Executive Director of the Commission; a copy of a valid California Department of Fish & Game Streambed Alteration Agreement, or evidence that such an agreement is not required.

3947C/JA/dp

EXHIBIT NO. 10
APPLICATION NO. 4-96-025-A-2
Coastal Permit 4-96-25
page 4 of 4

CEFALI & ASSOCIATES, INC.

CONSULTING STRUCTURAL ENGINEERS



November 5, 1999

California Coastal Commission  
89 South California Street, Ste #200  
Ventura, CA 93001-2801

RECEIVED  
NOV 08 1999

CALIFORNIA  
COASTAL COMMISSION  
SOUTH CENTRAL COAST DISTRICT

ATTENTION: James Johnson  
SUBJECT: Ground subsurface groundwater penetration.  
REFERENCE: Chard Avenue retaining wall, Topanga Canyon, CA  
Engineers Job No. 99222

Dear James:

The proposed soldier pile wall will not impede the flow of groundwater that may exist at the site.

If you have any questions please do not hesitate to contact the undersigned.

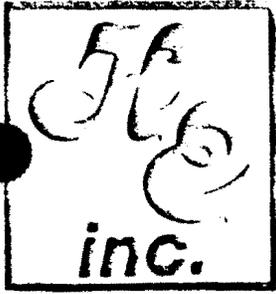
Yours very truly,

CEFALI & ASSOCIATES, INC.  
*a California Corporation*

David Cefali, S.E.

4344 Laurel Canyon Boulevard Suite 3  
Studio City, California 91604  
818 752.1812 fax 818 752.1819

EXHIBIT NO. 11
APPLICATION NO. 4-96-025-A-2
Retaining Wall
& Groundwater



*J.F. Enterprises inc.*

(805) 532-1571

FAX (805) 532-1596

May 5, 1999

Mr. Jerry Sayles  
43143 23<sup>rd</sup> Street West  
Lancaster, CA 93536

RE: Chard, Betton and Fabucco Road Plans

Dear Mr. Sayles:

Please be advised that the drainage devices incorporated in our road repair plans referenced are designed so that there is no increase in storm water velocities from present conditions.

Very truly,

Danny P. Holmes  
RCE 24769

RECEIVED

MAY - 6 1999

Calabases Dist  
Building and Se  
Development

EXHIBIT NO. 12
APPLICATION NO. 4-96-025 A.2
Drainage
Letter 1 of 2

# HOLMES ENTERPRISES, INC.

Structural and Civil Engineering

200 Wicks Road • Moorpark, CA 93021 • (805) 532-1571

PROJECT FABUCCO

LOCATION SKYHAWK / CHARD, ET AL TDPANGA

DATE 1-12-98

## HYDROLOGY CALCS

### DRAINAGE AREA

AREA 1 FABUCCO & BETTON WEST  
 AREA 2 " " EAST  
 AREA 3 SKYHAWK @ BLACK PINE

5.5 AC.
5.6 AC.
20.5 AC.

RUNOFF  
 7.8 CFS  
 8.0 CFS  
 29.2 CFS

CULVERT SIZE  
 24" Ø  
 24" Ø  
 ARIZONA

\* AREA DETERMINED USING SATDESKS

HYDROLOGICAL  
 P.P.S. S.I.  
 Q.S.E. E.T.B.

USE A DIST. FOR OVERLAND FLOW OF 700' & AVE SLOPE = .07% W/MANNING  
 N=0.4 FOR LIGHT BRUSH

$$T_c = 6.93 \times 700^{.4} \times (.07)^{.3} = 14.2 \text{ MIN.}$$

FOR ZONE M & 50 YEAR STORM, I = 3.56 IN./HR.

USE C = 0.4 (95% UNDEVELOPED)

$$Q = CIA = 0.4 \times 3.56 \times A = 1.42A$$

FOR CULVERTS, MAX. HEADWATER DEPTH = 2'; ∴ HW/d ≈ 1.0

FROM BUREAU OF PUBLIC WORKS CHART, FOR B.F.P.S. & HW/d = 1

W/Q = 10 CFS, D = 20" - USE 24" Ø

FOR SKYHAWK @ BLACK PINE, THERE IS NOT ENOUGH DEPTH FOR CULVERT ∴

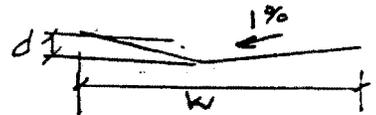
USE ARIZONA CROSSING

$$Q = 29.2 \text{ CFS} \quad V = 3 \text{ FPS}, \quad \text{AREA REQ'D} = 9.7 \text{ ft}^2$$

$$\text{FOR A 1\% SLOPE, } A = 2 \left[ \frac{W(d + 0.01W)}{2} \right]$$

LET D = .5'

$$Q = W = 12', \quad A = 2 \times 12 \times \left( \frac{.5 + 0.01 \times 12}{2} \right) = 7.4 \text{ ft}^2$$



PROBIS FROM  
 CENTER - 30' HIGH  
 SW SLOPE



EXHIBIT NO. 12
APPLICATION NO. 4-96-025-A-2
Drainage
Letter 2 of 2