CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA 89 SOUTH CALIFORNIA ST., SUITE 200 VENTURA, CA 93001 805.585.1800

## Fri 11 d

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#### STAFF REPORT: REGULAR CALENDAR

**APPLICATION NO.:** 4-04-040

APPLICANT:

Karen Walker Gindick

AGENTS: Don Schmitz,

Charles Santos, Schmitz and Associates

**PROJECT LOCATION**: 19537 Cave Way, Topanga, Los Angeles County

**PROJECT DESCRIPTION:** Construct a 400 sq. ft. residence on a grade beam and friction pile foundation, a 400 sq. ft. carport and demolition of an unpermitted 400 sq. ft. storage shed. In addition, the project includes the request for after-the-fact approval for an existing septic system and the demolition of a previously-existing residence.

Lot area: Building coverage: Pavement coverage: Landscaped Area: Ht. abv. fin. grade: Parking spaces: 5,599 sq. ft. 800 sq. ft. 600 sq. ft. 1,040 sq. ft. 16.25 ft. 2 spaces

#### SUMMARY OF STAFF RECOMMENDATION

The project site is located on the western slope of the Topanga Canyon Watershed near the intersection of Fernwood Pacific Drive and Cave Way. A prior residence was demolished on the site as a result of 1996 Los Angeles County demolition permit, and a 400 sq. ft. storage shed has existed at least since 1998 on the site, however, no coastal development permits were obtained. Staff recommends **Approval** of the proposed project with special conditions addressing plans conforming to geologic recommendations, landscape, erosion control and fuel modification plans, drainage and polluted runoff control plans, assumption of risk, waiver of liability and indemnity, future development restriction, deed restriction, and condition compliance.

The applicant had withdrawn a prior application for the same development in November 2003 when the staff recommended denial on the basis of geologic hazards. The applicant has revised the proposed project to address the stability of the proposed residence located on an ancient landslide mass about 20 feet thick. The project is now proposed with a grade beam and friction pile foundation embedded into bedrock to provide adequate stability for the residence.

LOCAL APPROVALS RECEIVED: Approval in Concept (PP45689), Los Angeles County Regional Planning Department, dated 10/4/02; Approval in Concept for Sewage Disposal

**SUBSTANTIVE FILE DOCUMENTS**: Coastal Permit No. 4-98-054; Limited Geologic & Soils Engineering Exploration by Subsurface Designs Inc., dated December 1, 2002; Coastal Permit Application No. 4-02-159 (Sloggy); Clarification Letter by Subsurface Designs Inc., dated October 23, 2003; Coastal Permit No. 4-99-035, Login; Coastal Permit No. 4-00-142, Hosseini; Coastal Permit No. 4-02-048, Toberman; Coastal Permit No. 4-01-054 Malibu Hillside; An Analysis of the Small Lot Subdivision with Regard to Santa Monica Mountains Comprehensive Planning Commission's Subdivision Policies, dated August 15, 1978, by Richard McClure and Dale Bricker.

#### I. STAFF RECOMMENDATION:

#### <u>MOTION</u>: I move that the Commission approve Coastal Development Permit No. 4-04-040 for the development proposed by the applicant.

#### STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote. Failure of this motion will result in denial of the permit 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 on the ground that the development will conform 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 would comply with the California Environmental Quality Act because there are no feasible mitigation measures or alternatives that would substantially lessen the significant adverse impacts of the development on the environment.

#### II. Standard Conditions.

1. <u>Notice of Receipt and Acknowledgment</u>. 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. <u>Expiration</u>. 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. <u>Interpretation</u>. Any questions of intent or interpretation of any term or condition will be resolved by the Executive Director or the Commission.

**4.** <u>Assignment</u>. 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. <u>Terms and Conditions Run with the Land</u>. 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 GEOLOGIC RECOMMENDATION

By acceptance of this permit, the applicant agrees to comply with the recommendations contained in the submitted reports titled: Clarification Letter Proposed Residential Reconstruction, dated February 17, 2004, by Subsurface Designs, Inc. These recommendations shall be incorporated into all final design and construction including: foundation design, review of construction and/or grading plans, landscape and erosion control plans, and foundation excavation inspection. 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.

#### 2. LANDSCAPE, EROSION CONTROL, AND FUEL MODIFICATION PLANS

**PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit revised landscaping and erosion control plans, prepared by a licensed landscape architect or a qualified resource specialist, for review and approval by the Executive Director. The revised plans shall incorporate the following criteria:

#### A) Landscaping and Erosion Control Plans

1) All graded & disturbed areas and the existing graded building pad areas on the subject site shall be planted and maintained for erosion control purposes within (60) days of receipt of the certificate of occupancy for the residence. To minimize the need for irrigation all landscaping shall consist primarily of native/drought resistant plants as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled <u>Recommended List of Plants for Landscaping in the Santa Monica</u> <u>Mountains</u>, dated February 5, 1996. Invasive, non-indigenous plan species which tend to supplant native species shall not be used.

- 2) All cut and fill slopes on the subject site shall be stabilized with planting at the completion of final grading. Planting should be of native plant species indigenous to the Santa Monica Mountains using accepted planting procedures, consistent with fire safety requirements. Such planting shall be adequate to provide 90 percent coverage within two (2) years, and this requirement shall apply to all disturbed soils;
- Plantings shall be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with applicable landscape requirements;
- 4) The Permittee shall undertake development in accordance with the final approved plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Coastal Commission - approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is required.
- 5) Vegetation within 20 feet of the proposed residence and carport and driveway may be removed to mineral earth, vegetation within a 200 foot radius of the main structure may be selectively thinned in order to reduce fire hazard. However, such thinning shall only occur in accordance with an approved long-term fuel modification plan submitted pursuant to this special condition. The final fuel modification plan shall include details regarding the types, sizes and location of plant materials to be removed, and how often thinning is to occur. In addition, the applicant shall submit evidence that the Final Fuel Modification Plan has been reviewed and approved by the Los Angeles County Fire Department, Forestry Division, Fire Prevention Bureau. Any irrigated lawn, turf and ground cover planted within the fifty foot radius of the proposed house shall be selected from the most drought tolerant species or subspecies, or varieties suited to the Mediterranean climate of the Santa Monica Mountains.
- 6) The final drainage/erosion control plan shall be implemented within 30 days of completion of final grading. By acceptance of this permit, the applicant agrees to maintain the drainage devices on a yearly basis in order to ensure that the system functions properly. Should the devices fail or any erosion result from the drainage from the project, the applicant or successor in interests shall be responsible for any necessary repairs and restoration.

#### B) Interim Erosion Control Plan

- The landscape/erosion control 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 to be left undisturbed such as native trees and vegetation 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 geo-fabric covers or other appropriate cover, install geo-textiles or mats on all cut or fill slopes and close and stabilize open trenches as soon as possible. These erosion measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained through out the development process to minimize erosion and sediment from runoff waters during construction. All sediment should be retained on-site unless removed to an appropriate approved dumping location either outside the coastal zone or to a site within the coastal zone permitted to receive fill.

3) The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geo-textiles 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 date of the receipt of the Certificate of Occupancy for the residence the applicant shall submit for the review and approval of the Executive Director, a landscape monitoring report, prepared by a licensed Landscape Architect or qualified Resource Specialist, that certifies the on-site landscaping is in conformance with the landscape plan approved pursuant to this Special Condition. The monitoring report shall include photographic documentation of plant species and plant coverage.

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

#### 3. DRAINAGE AND POLLUTED RUNOFF CONTROL PLAN

**PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit for the review and approval of the Executive Director, final drainage and runoff control plans, including supporting calculations. The plan shall be prepared by a licensed engineer and shall incorporate structural and non-structural Best Management Practices (BMPs) designed to control the volume, velocity and pollutant load of stormwater leaving the developed site. In addition to the specifications above, the plan shall be in substantial conformance with the following requirements:

- (a) Selected BMPs (or suites of BMPs) shall be designed to treat, infiltrate or filter stormwater from each runoff event, up to and including the 85<sup>th</sup> percentile, 24-hour runoff event for volume-based BMPs, and/or the 85th percentile, 1-hour runoff event, with an appropriate safety factor, for flow-based BMPs.
- (b) Runoff shall be conveyed off site in a non-erosive manner.
- (c) Energy dissipating measures shall be installed at the terminus of outflow drains.
- (d) The plan shall include provisions for maintaining the drainage system, including structural BMPs, in a functional condition throughout the life of the approved development. Such maintenance shall include the following: (1) BMPs shall be inspected, cleaned and repaired when necessary prior to the onset of the storm season, no later than September 30<sup>th</sup> each year and (2) should any of the project's surface or subsurface drainage/filtration structures or other BMPs fail or result in increased erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system or BMPs and restoration of the eroded area. Should repairs or restoration become necessary, prior to the commencement of such repair or restoration work, the applicant shall submit a repair and restoration plan to the Executive Director to determine if an amendment or new coastal development permit is required to authorize such work.

#### 4. ASSUMPTION OF RISK, WAIVER OF LIABILITY AND INDEMNITY

By acceptance of this permit; the applicant acknowledges and agrees (i) That the site maybe subject to hazards from landslides, ground movement, or wildfire; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, agents, and employees with respect to the Commissions 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.

#### 5. FUTURE DEVELOPMENT RESTRICTION

This permit is only for the development described in Coastal Development Permit No.4-04-040. Pursuant to Title 14 California Code of Regulations Section 13250(b)(6), the exemptions otherwise provided in Public Resources Code Section 30610 (a) shall **not** apply to the entire property. Accordingly, any future improvements to the entire property, including but not limited to the residence, carport, and clearing of vegetation, or grading other than as provided for in the approved fuel modification landscape and erosion control plan prepared pursuant to Special Condition Number Two (2), shall require an amendment to Permit No. 4-04-040 from the Commission or shall require an additional coastal development permit from the Commission or from the applicable certified local government.

#### 6. DEED RESTRICTION

**Prior to issuance of the coastal development permit** the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to these permits, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property (hereinafter referred to as the "Standard and Special Conditions"); and (2) imposing all Standard and Special Conditions of these permits as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the applicant's entire parcel or parcels. The deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property.

#### 7. CONDITION COMPLIANCE

Within 90 days of Commission action on this coastal development permit application, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

#### III. Findings and Declarations

The Commission hereby finds and declares:

#### A. Project Location, Description and History

#### 1. Project Location

The subject lot is located on the west hillside of Topanga Canyon below Fernwood Pacific Drive in the Topanga area of County of Los Angeles. (Exhibit 1). The subject lot slopes up from Cave Way with a physical relief of about 30 feet. There are two relatively flat pads where the proposed residence on lot 015 (APN 4446-028-015) and where the 'as built' storage shed and the proposed detached carport are located. The subject lot is located within the Fernwood Small Lot Subdivision.

#### 2. Project Description

The applicant proposes to construct a one story, 400 sq. ft. single family residence on a grade beam and friction pile foundation located on one lot (APN 4446-028-015), construct a 400 sq. ft. carport and demolish an unpermitted storage shed. The project also includes a request for after-the-fact approval for demolition of the former 1,000 sq. ft. residence and the construction of an existing septic system (Exhibits 2-5). In the vicinity of the subject lot, there are a number of residences located along Cave Way to the north and south and others

along Fernwood Pacific Drive. The applicant owns the adjoining lot and residence located to the south of the subject lot. The project site does not include any environmentally sensitive habitat and is not visible from any public roadway or trail.

#### 3. Project History

Based on the Commission's historic records the lot was created prior to 1978 as identified in "An Analysis of the Small Lot Subdivision with Regard to Santa Monica Mountains Comprehensive Planning Commission's Subdivision Policies" dated August 15, 1978, by Richard McClure and Dale Bricker. According to the applicant, the site included a house as early as 1930s and was identified on Los Angeles County Assessor records in 1948. A site plan stamped by the Department of Public Works Building and Safety Division, received July 16, 1998 from the applicant, indicates that a number of residential and deck additions to the original 400 sq. ft. cabin with chemical toilet and kitchen sink were made in 1993 by the prior owner. The applicant submitted a letter from Los Angeles District Attorney's office dated September 25, 1993 concluding the settlement of the case "People v. Paul F. C. Sylvester Case No. 93 M00614. Attached to this letter was a list of Building and Safety Conditions requesting the owner to either demolish the structure or bring it into compliance in a timely manner. In 1995, the applicant after acquiring the property obtained a Los Angeles County Building Demolition Permit (BL 9503150002) to demolish the structure. The structure was demolished without benefit of a Coastal Development Permit in 1995. In 1996, the applicant obtained a Building Permit (BL 9605080037) to "convert home to original 400 sq. ft. This permit is for bringing the existing structure to pre-violation status only." However, it appears that the structure was demolished in 1995 prior to the applicant obtaining a building permit to construct a new residence.

The applicant submitted a prior application for a Coastal Development Permit (4-98-054) on February 19, 1998 to replace a one room single family residence located on a county maintained road and demolish the existing shed. The application indicated that the existing house was demolished at the request of Los Angeles County. Staff confirmed that the former structure was demolished at a February 28, 1998 site visit, although some remnants of the structure remained on site. Staff determined that the application was incomplete in a letter dated March 19, 1998 requesting numerous additional pieces of information including a comprehensive, current, site specific geology and soils report prepared in accordance with the Guidelines for Engineering Geologic Reports, prepared by the State Board of Registration for Geologists and Geophysicists (11/93). Due to a landslide identified on the subject lot, staff also requested a current County Building Department "Approved" Geologic Review Sheet indicating review and conceptual approval of the geology report and proposed project. On July 16, 1998, July 9, 2003 and February 3, 2003, staff received additional application materials partially addressing the information requested in the March 19, 1998 incomplete letter. On February 3, 2003, the applicant submitted the "Limited Geologic & Soils Engineering Exploration" by Subsurface Designs, dated December 1, 2002. Staff filed the application as complete without the above information to allow the Commission the opportunity to consider an action on this project.

This application was scheduled for the Commission's October 7, 2003 meeting with a staff report recommending denial which was completed on September 18, 2003. The applicant

extended the time for the Commission to act on this application an additional 90 days. The applicant provided further information addressing the geologic and soils engineering concerns raised in the prior Staff Report dated September 18, 2003. On October 24, 2003, the applicant submitted a letter dated October 24, 2003 from Charles Santos, Schmitz & Associates, a "Clarification Letter" dated October 23, 2003 from SubSurface Designs Inc., a copy of the "Limited Geologic & Soils Engineering Exploration dated December 1, 2002 by SubSurface Designs Inc., and a second set of site, foundation, floor and elevation plans stamped "Approved in Concept" by the Los Angeles County Department of Regional Planning. This application was scheduled for final action at the Commission's December 11, 2003 meeting. The applicant withdrew this application from consideration by the Commission.

#### 4. Current Application

On April 9, 2004, the applicant submitted a new application for the same proposal for a replacement residence however it now includes a deepened friction pile and grade beam foundation. This application was filed on May 5, 2004 and was scheduled for the September 2004 agenda. The applicant submitted a geology report titled: "Clarification Letter Proposed Residence Reconstruction" on April 9, 2004 confirming the stability of the proposed residence with a deepened foundation. Staff requested additional information that was provided. As requested by staff, the applicant extended the Commission's review under the Permit Streamlining Act to allow this project to be considered at the Commission's November 2004 meeting. The Commission must act on this application by December 21, 2004 or no later than the December 8-10, 2004 Commission meeting.

#### B. Geologic and Fire Hazards

Coastal Act Section 30253 provides 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.

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#### 1. Geology

Section 30253 of the Coastal Act requires that new development assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area.

As stated previously, the applicant proposes to construct a 400 sq. ft. residence on a grade beam and friction pile foundation, 400 sq. ft. carport and demolish an unpermitted storage shed, and after the fact demolition of an existing residence and construction of a septic system. (Exhibits 1-4).

The applicant has submitted numerous geologic reports in support of application number 4-98-054 that was withdrawn by the applicant in December 2003. These reports are summarized in the staff report dated 11/07/03 for application number 4-98-054.

The applicant has since redesigned the proposed foundation for the residence to include a grade beam foundation on caissons/friction piles extending into underlying bedrock to provide support for the project. The applicant submitted a new geology report addressing the site geology and the proposed new foundation in the report "Clarification Letter Proposed Residence Reconstruction" dated February 17, 2004 by Subsurface Designs, Inc. The report indicates that the slopes on the site range from 1:1 to 2:1. This report identifies natural soil/slopewash deposits up to eight feet thick over approximately twenty feet of landslide material consisting of fractured and broken sandstone. Under the soil and landslide debris is sedimentary bedrock known as the Fernwood member of the Topanga Formation. This bedrock consists of a yellowish-brown, very hard, cemented, fine to coarse-grained sandstone.

This report also identifies a shallow, slump type soil failure behind the existing retaining wall along the northwest pad margin. This slope failure is about fifteen feet wide and twenty feet long. Saturation of soils within the steep cut behind the wall likely contributed to failure. The report discusses the landslide by stating:

#### Geologic Structure

According to the referenced geologic maps prepared by Yerkes and Campbell (1980) and Dibblee (1992), the subject property and majority of the Fernwood area are located within the confines of an ancient slide mass. The slide is a relatively old feature that is likely to be several thousand to tens of thousands of years old. The Fernwood slide mass is relatively stable and typically small failures occur within this area during periods of intense, heavy rainfall. The majority of failures that occur are surficial in nature in that they only involve the upper soil horizon.

As noted above, the subject property and surrounding areas are underlain by a relatively thick sequence of landslide debris (28.0' in DH-01). The base of the slide is marked by a 1" wide, polished, clay gouge that exhibits a northeast strike accompanied by a dip of 28 degrees to the southeast. Bedrock increases dramatically in hardness and is well structured below the basal slip surface.

The potential for future erosion and soil slippage exists, therefore, it is recommended that the slope area(s) be planted with an erosion retardant ground cover adhering to the following criteria:

- Is effective in preventing surface erosion;
- Is drought tolerant;
- has a relatively low surface mass weight;
- has a fairly deep and extensive root system;
- requires a minimum of maintenance by owner;
- has a low irrigation demand.

It requires approximately 2 to 3 years before an adequate erosion-retardant ground cover can be established on a slope. It is recommended that you consult with a landscape architect to determine specific botanicals that will serve as an effective erosion-retardant ground cover for your area.

This geology report recommends that the:

"proposed reconstruction of the cabin is considered feasible provided that the structure is supported by foundations extended into the underlying bedrock below natural soil/slope wash and ancient landslide affected bedrock. The following are recommendations for friction piles that may be utilized for design purposes.

The Code requires foundation setbacks for construction adjacent to slopes. The Code requires deepened foundations for building planned on or adjacent to descending slopes steeper than 3:1 (h:v). The setback corresponds to a horizontal distance equal to one-third of the vertical height of the slope, with a minimum distance of five feet (5') and a maximum distance of forty feet (40'). This distance is measured from the slope face to the lowest edge of the footing.

All earth materials derived from the excavations of foundations shall be removed from the site or placed as certified compacted fill. Fill temporarily stockpiled on site should be placed in a stable area, away from slopes, excavations and improvements. Earth materials shall not be cast over any descending slopes in an uncontrolled manner.

The minimum friction piles diameter is thirty inches (30"). All friction piles should extend into the competent bedrock a minimum of twenty feet (20"). The friction piles may be proportioned using a skin friction value of 650 pounds per square foot of shaft exposed to the competent bedrock. Further, friction piles shall be considered fixed at an embedment depth of four feet (4') into the recommended bearing material.

All friction piles should be tied in both horizontal directions with grade beams. All friction piles should be designed to resist a creep force of 1000 pounds per lineal foot for each foot of shaft exposed to the natural soil/slope wash and ancient landslide affected bedrock above the competent bedrock. ...

The final construction and/or grading plans shall be reviewed and approved by the consultants. This is required to determine if the recommendations of the report have been properly understood and carried forth in the design drawings. All deep foundation excavation must be performed under the continuous review of a representative of this office. Further, the foundation excavations shall be down hole logged to determine the depth of the slide."

This geology report concludes with a Los Angeles County Code Section 111 Statement as follows:

"It is the finding of this firm, based upon the subsurface data, that the proposed reconstruction of the cabin supported by piles extending into competent bedrock will not be affected by settlement, landsliding, or slippage. Further, the proposed development will not have an adverse effect on off-site property."

The Commission staff's geologist, Mark Johnsson reviewed the above clarification letter, Proposed Residence Reconstruction, dated February 17, 2004 by SubSurface Designs Inc., and the proposed project plans. He states in a memo to Commission staff dated June 23, 2004, that:

I have reviewed the clarification letter by Subsurface Design Inc., dated 17 February 2004 and signed by John Mahn and Mark Triebold. The letter reports on the site geology, drainage, and slope stability and is identical in these sections to the report dated 1 December 2002 which I reviewed earlier. As I indicated to you previously, it is undisputed that the site lies on a landslide, and apparently that landslide has not shown historic movement. The reports contain a slope stability analysis that indicates a factor of safety of 1.834, far in excess of the industry standard of practice of 1.5. However, the shear strength parameters used in this analysis were collected from a sample of landslide debris collected above the slide plane. I previously indicated to you that the sample was collected at a depth of 5 feet in boring DH-01. Upon discussion with Mr. Mahn, I have learned that in actuality the sample used was collected at a depth of 15 feet. In any case, this is far above the slide plane that was encountered at a depth of 28 feet. The ultimate shear strength obtained from this sample is guite high; but it would be anticipated that the shear strength of material along the slide plane would be considerably lower. Further, as this is an existing slide plane, an ultimate shear strength is not appropriate, but residual. Finally, I indicated previously that consideration should be given to using remolded samples of the slide gouge encountered at 26 feet to most accurately predict shear strengths. Justification should be provided as to the suitability of a drained test such as the direct shear test. For these reasons, I cannot be confident that the FS (factor of safety) of 1.8 obtained from the slope stability analysis accurately portrays the actual factor of safety against sliding along the existing slide plane.

The 17 February 2004 report does, however, recommend that the building be founded on piers extending into the underlying bedrock below the landslide deposits. These piles are to be at least 30 inches in diameter and extend a minimum of 20 feet into competent bedrock underlying the landslide debris. No calculations are provided to

indicate that such a construction will provide a 1.5 (static) and 1.1 (pseudostatic) factor of safety, but this in part is due to the difficulty that Subsurface Design had in obtaining well-justified shear strength parameters for the slide plane itself. These pile diameters and depths exceed what is typically required to provide secure foundations beneath unstable materials, even on steeply sloping lots such as this, and in my opinion will be sufficient to assure the stability of the proposed building.

All other recommendations in the report concerning drainage, grading plans, and disposal of excavated materials should be made a condition of the permit.

The recommendations in this geology report addresses the following issues: foundation design, review of construction and/or grading plans, landscape and erosion control plans, and foundation excavation inspection. Based on the findings and recommendations of the consulting engineer and engineering geologist, 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. Therefore, the Commission finds it necessary to require the applicant to submit project plans that have been certified in writing by these consultants as conforming to their recommendations, as noted in **Special Condition Number One** for the final project design.

Minimizing erosion of the site is important to reduce geological hazards on the site and minimize sediment deposition in the drainages leading to Topanga Canyon Creek. A Landscape and Final Fuel Modification Plan for the proposed development should incorporate the use of native species and illustrate how these materials will be used to provide erosion control to those areas of the site disturbed by development activities. These plans should also illustrate that vegetation will be "thinned" rather than "cleared" for fuel modification purposes, thus allowing for the continued use or existing native plant materials for on-site erosion control. The thinning, rather than complete removal, of native vegetation helps to retain the natural erosion control properties, such as extensive and deep root systems, provided by these species. The applicant's consulting engineer and engineering geologist also recommends that the slope areas be planted with erosion retardant ground cover adhering to criteria identified in the Clarification Letter noted above.

In addition to controlling erosion during grading operations, landscaping of the graded and disturbed areas of the project will enhance the stability of the site. Long-term erosion can be minimized by requiring the applicant to revegetate the site with native plants compatible with the surrounding environment. Invasive and non-native plant species are generally characterized as having a shallow root structure in comparison with their high surface / foliage weight. The Commission has found that such plant species do not serve to stabilize slopes and may adversely affect the overall stability of a project site. Native species. alternatively, tend to have a deeper root structure and aid in preventing erosion. Invasive, non-indigenous plant species tend to supplant species that are native to the Malibu / Santa Monica Mountains area. Increasing urbanization in this area has already caused the loss or degradation of major portions of native habitat and native plant seed banks through grading and removal of topsoil. Special Condition Number Two requires that a Landscape Plan and Fuel Modification Plan be submitted to reflect the proposed project and be approved by the Los Angeles County Fire Department, Forestry Division, Fire Prevention Bureau as a

Final Plan. The Commission also finds that in order to ensure site stability, all disturbed and sloped areas on-site shall be landscaped primarily with appropriate native plant species, also as specified in **Special Condition Number Two**.

The proposed project with the replacement residence and new carport will increase the amount of impervious coverage on-site which may increase both the quantity and velocity of stormwater runoff. If not controlled and conveyed off-site in a non-erosive manner, this runoff may result in increased erosion, affect site stability, and impact downslope water quality in the ESHA designated Topanga Canyon Creek. As a result, site drainage needs to be collected and distributed in a non-erosive manner. Because of the slopes on-site and the resultant potential for significant water velocities and soil erosion, it is important to adequately control site drainage through runoff detention, velocity reduction, and/or other best management practices (BMPs). Interim erosion control measures implemented during construction will minimize short-term erosion and enhance site stability. The applicants have submitted a storm water runoff control plan to partially address this issue. To ensure that runoff is conveyed off-site in a non-erosive manner, the Commission finds it necessary to require the applicant, through Special Condition Numbers Two and Three, to submit drainage / erosion control plans conforming to the recommendations of the consulting engineering geologist and engineer for review and approval by the Executive Director and to assume responsibility for the maintenance of all drainage devices on-site.

Due to the fact that the proposed project is located in an area subject to extraordinary potential for damage or destruction from landslide and earth movement, the Commission can only approve the project if the applicant assumes the liability from these associated risks. Through **Special Condition Number Four**, the assumption of risk, waiver of liability and indemnity condition, the applicant acknowledges the nature of the landslide and earth movement hazard which exists on the site and which may affect the safety of the proposed development.

Regarding future developments or improvements, certain types of development to the property, normally associated with a single-family and carport that might otherwise be exempt, have the potential to be impacted by the geologic instability of the subject lot. It is necessary to ensure that any future development or improvements normally associated with the entire property, which might otherwise be exempt, is reviewed by the Commission for compliance with the geologic hazard policy, Section 30253 of the Coastal Act. **Special Condition Number Five,** the Future Development Restriction, will ensure that the Commission will have the opportunity to review future projects for compliance with the Coastal Act.

Finally, **Special Condition Number Six** requires the applicant to record a deed restriction that imposes the terms and conditions of this permit as restrictions on use and enjoyment of the subject properties and provides any prospective purchaser with recorded notice that the restrictions are imposed on the subject property.

Based on a review of the above information and the February 17, 2004 Clarification Letter prepared by the applicant's consulting engineering geologist and engineer, the Commission finds that the proposed development will minimize risks to life and property from geologic hazards, and assure stability and structural integrity, as required by Section 30253 of the

Coastal Act. Therefore the Commission finds that the proposed development, as conditioned, is consistent with Coastal Act Section 30253.

#### 2. Fire Hazard

The Coastal Act also requires that new development minimize the risk to life and property in areas of high fire hazard. The Coastal Act also recognizes that new development may involve the taking of some risk. Coastal Act policies require the Commission to establish the appropriate degree of risk acceptable for the proposed development and to establish who should 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 his property.

Vegetation in the coastal areas of the Santa Monica Mountains consists mostly of coastal sage scrub and chaparral. Many plant species common to these communities produce and store terpenes, which are highly flammable substances (Mooney in Barbour, <u>Terrestrial Vegetation of California</u>, 1988). Chaparral and sage scrub communities have evolved in concert with, and continue to produce the potential for frequent wild fires. The typical warm, dry summer conditions of the Mediterranean climate combine with the natural characteristics of the native vegetation to pose a risk of wild fire damage to development that cannot be completely avoided or mitigated. The subject site burned in the 1993 Malibu fire.

Due to the fact that the proposed project is located in an area subject to an extraordinary potential for damage or destruction from wild fire, the Commission can only approve the project if the applicant assumes the liability from these associated risks. Through the assumption of risk, waiver of liability and indemnity special condition, the applicant acknowledges and appreciates the nature of the fire hazard which exists on the site and which may affect the safety of the proposed development, as incorporated by **Special Condition Number Four**.

The Commission finds that, only as conditioned, is the proposed project consistent with Section 30253 of the Coastal Act.

#### C. <u>Water Quality</u>

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

Section 30231 of the Coastal Act states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of

waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, minimizing alteration of natural streams.

As described in detail in the previous sections, the applicant is proposing to replace a 400 sq. ft. residence with deepened foundations and construct a carport and after the fact septic system as described above. The proposed building location is located upslope from Topanga Canyon Creek to the east, a stream that contains sensitive riparian habitat. The site is considered a "hillside" development, as it involves sloping hillside terrain with soils that are susceptible to erosion.

The proposed development of the replacement residence and new carport will result in an increase in impervious surface at the subject sites, which in turn decreases the infiltrative function and capacity of existing permeable land on site. Reduction in permeable space therefore leads to an increase in the volume and velocity of stormwater runoff that can be expected to leave the site. Further, pollutants commonly found in runoff associated with residential use include petroleum hydrocarbons including oil and grease from vehicles; heavy metals; synthetic organic chemicals including paint and household cleaners; soap and dirt from washing vehicles; dirt and vegetation from yard maintenance; litter; fertilizers, herbicides, and pesticides; and bacteria and pathogens from animal waste. The discharge of these pollutants to coastal waters can cause cumulative impacts such as: eutrophication and anoxic conditions resulting in fish kills and diseases and the alteration of aquatic habitat, including adverse changes to species composition and size; excess nutrients causing algae blooms and sedimentation increasing turbidity which both reduce the penetration of sunlight needed by aquatic vegetation which provide food and cover for aquatic species; disruptions to the reproductive cycle of aquatic species; and acute and sublethal toxicity in marine organisms leading to adverse changes in reproduction and feeding behavior. These impacts reduce the biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes and reduce optimum populations of marine organisms and have adverse impacts on human health.

Therefore, in order to find the proposed developments consistent with the water and marine resource policies of the Coastal Act, the Commission finds it necessary to require the incorporation of Best Management Practices designed to control the volume, velocity and pollutant load of stormwater leaving the developed sites. Critical to the successful function of post-construction structural BMPs in removing pollutants in stormwater to the Maximum Extent Practicable (MEP), is the application of appropriate design standards for sizing BMPs. The majority of runoff is generated from small storms because most storms are small. Additionally, storm water runoff typically conveys a disproportionate amount of pollutants in the initial period that runoff is generated during a storm event. Designing BMPs for the small, more frequent storms, rather than for the large infrequent storms, results in improved BMP performance at lower cost.

For design purposes, with case-by-case considerations, post-construction structural BMPs (or suites of BMPs) should be designed to treat, infiltrate or filter the amount of stormwater

runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate safety factor (i.e., 2 or greater), for flow-based BMPs. The Commission finds that sizing post-construction structural BMPs to accommodate (infiltrate, filter or treat) the runoff from the 85<sup>th</sup> percentile storm runoff event, in this case, is equivalent to sizing BMPs based on the point of diminishing returns (i.e. the BMP capacity beyond which, insignificant increases in pollutants removal (and hence water quality protection) will occur, relative to the additional costs. Therefore, the Commission requires the selected post-construction structural BMPs be sized based on design criteria specified in **Special Condition Number Three**, and finds this will ensure the proposed development will be designed to minimize adverse impacts to coastal resources, in a manner consistent with the water and marine policies of the Coastal Act.

Furthermore, interim erosion control measures implemented during construction and post construction landscaping will serve to minimize the potential for adverse impacts to water quality resulting from drainage runoff during construction and in the post-development stage. Therefore, the Commission finds that **Special Condition Number Two** is necessary to ensure the proposed development will not adversely impact water quality or coastal resources.

Finally, the proposed development include the installation of an on-site private sewage disposal system to serve the residential structures. The applicant has submitted a Septic Approval in Concept from the Los Angeles County Health Department confirming that a sewage disposal system may be constructed on the subject parcel, determining that the systems meet the requirements of the plumbing code. The Commission has found that conformance with the provisions of the plumbing code is protective of coastal resources.

For the reasons set forth above, the Commission finds that the proposed projects, as conditioned to incorporate and maintain a drainage and polluted runoff control plan, are consistent with Section 30231 of the Coastal Act.

#### D. Violation

Development has occurred on the subject site without the required coastal development permit, including the demolition of a one story, approximate 1,000 sq. ft. single family residence (most of this residence was enlarged over time by a previous owner without a valid coastal permit), construction of a 400 sq. ft. detached 'as built' storage structure and existing septic system. The subject application proposes to replace the former residence as a 400 sq. ft. residence, remove the 'as built' storage shed, construct a carport, and retain the existing septic system.

In order to ensure that the unpermitted development component of this application is resolved in a timely manner, the Commission finds it necessary to require the applicant to fulfill all of the Special Conditions as a prerequisite to the issuance of this permit, as required by **Special Condition No. Seven** within 90 days of Commission action. Only as conditioned, is the proposed development consistent with the Coastal Act.

Although development has taken place prior to submission of this permit application, consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Commission review and action on this permit application does not constitute a waiver of any legal action with regard to any alleged violations nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal permit.

#### 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 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 project will be in conformity with the provisions of Chapter 3. 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 will not prejudice the County of Los Angeles' ability to prepare a Local Coastal Program for this area which is also consistent with the policies of Chapter 3 of the Coastal Act, as required by Section 30604(a).

#### F. <u>CEQA</u>

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a 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 any significant adverse effects on the environment within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed project, is the environmentally preferred alternative and as proposed has been adequately mitigated to be inconsistent with CEQA and the policies of the Coastal Act.

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