CALIFORNIA COASTAL COMMISSION
South Central Coast
89 S. California St. Ste. 200
Ventura, CA 93001-2801
(805) 641-0142

RECORD PACKET COPY

Filed: 7/31/96
49th Day: 9/18/96
180th Day: 1/27/96
Staff: TAD-VNT
Staff Report: 9/19/96
Hearing Date: 10/8-11/96
Commission Action:

W10f

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-96-120

APPLICANT: Los Angeles County Public Works Department

AGENT: Dennis Hunter & Ali Babanalbandi - LACPWD

PROJECT LOCATION: 21500 Calle Del Barco, City of Malibu, Los Angeles County.

PROJECT DESCRIPTION: Construction of a 400,000 gallon steel water tank, pump, pressure regulating station, and 1,950 cu. yds. of grading (1,800 cu. yds. cut and 150 cu. yds. fill).

Lot area:	7,847 sq. ft.
Building coverage:	2,463 sq. ft.
Pavement coverage:	2,637 sq. ft.
Landscape coverage:	2,747 sq. ft.
Parking spaces:	NA
Ht abv fin grade:	24'-0"

LOCAL APPROVALS RECEIVED: None Required.

SUBSTANTIVE FILE DOCUMENTS: Geotechnical Report, dated September 26, 1995, prepared by the LACPWD Materials Engineering Division; Negative Declaration, dated June 1995, Adopted by the Board of Supervisors October 10, 1995, Permit 5-91-258 (L.A. Co. Water Works District 29), Permit 4-93-016 (L.A. Co. Public Works).

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends that the Commission determine that the proposed project, as conditioned, is consistent with the requirements of the California Coastal Act. Staff further recommends special conditions regarding; a revegetation & landscaping program, and interim erosion control plans.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

I. Approval with Conditions.

The Commission hereby grants a permit, subject to the conditions below, for the proposed development 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 impacts on the environment within the meaning of the California Environmental Quality Act.

II. Standard Conditions.

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

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

3. Compliance. All development must occur in strict compliance with the proposal as set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

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

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

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

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

II. Special Conditions.

1. Revegetation and Erosion Control Plans.

Prior to issuance of permit, the applicant shall submit landscaping and interim erosion control plans prepared for review and approval by the Executive Director. The plans shall incorporate the following criteria:

(a) All graded and disturbed areas on the subject site shall be planted and maintained for erosion control and visual enhancement purposes. To minimize the need for irrigation and to screen or soften the visual impact of development all landscaping shall consist primarily of native and drought resistant plants (as listed by the California Native Plant Society, Santa Monica Mountains Chapter, in their document entitled Recommended Native Plant Species for Landscaping Wildland Corridors in the Santa Monica Mountains, dated October 4, 1994). Invasive, non-indigenous plant species which tend to supplant native species shall not be used. Such planting shall be adequate to provide 90 percent coverage within one (1) year and shall be repeated, if necessary, to provide such coverage.

(b) Description of temporary drainage and erosion control features such as sandbagging, tarping, or any alternative best management practices for containing stockpiled material and minimizing erosion from staging and construction areas. The temporary plans shall be illustrated in plan view.

(c) Time frame for the placement and removal of the temporary erosion control measures, and a maintenance schedule and criteria for maintenance.

III. Findings and Declarations

The Commission hereby finds and declares:

A. Project Description

The County of Los Angeles Public Works Department proposes the construction of a partially buried, 24'-0" high, 400,000 gallon steel water tank for the storage of potable water. This project also involves the construction of retaining walls, a small booster pump station, and pressure regulating station with associated piping. The proposed project includes 1,950 cu. yds. of grading, with 1,800 cubic yards of cut in order to place the tank 4' below the existing grade of the site. The applicant proposes to transport all excess cut materials to either a landfill location outside the coastal zone or to a site within the coastal zone which has valid permits to accept fill material. The exact location of fill disposal will be determined by the applicant when the proposed project is implemented. The applicant further proposes to install landscape materials, including an irrigation system, following construction activities at the site. However, revegetation plans have not been developed to date.

The new water tank is needed to replace the 200,000 gallon La Costa water tank which was destroyed during the 1993 Old Topanga Firestorm. The replacement tank is to be constructed on a lot directly adjacent to the lot which contained the original water tank. All that remains of the previous tank is a concrete shell which the applicant proposes to keep in place. The proposed site for the new tank previously contained a single family residence that was destroyed by the 1993 firestorm. This lot was condemned and acquired by the County of Los Angeles in June of 1996.

The proposed project site is a 0.14 acre, flat, rural lot, at the end of a cul-de-sac in the La Costa area of the City of Malibu. This area consists of numerous, and densely clustered, single family residences. Although there do exist several undeveloped steep slopes adjacent to the project site, no significant vegetation or habitat areas exist or will be impacted by the proposed development. The proposed project site is not located within view of Pacific Coast Highway, public beaches, or public view areas. As such, the proposed project will not adversely impact visual resources.

The Commission has previously approved permits for the construction of water storage tanks [5-91-258 (L.A. Co. Water Works District 29) and 4-93-016 (L.A. Co. Public Works)]. These permits were approved with conditions regarding geologic stability and landscaping.

This proposed project was originally scheduled for consideration on the consent calendar at the September Commission hearing. Mr. Bengt Hellsten spoke before the Commission about the proposed project site. Mr. Hellsten submitted information about the stability of the site and requested that the project not be approved on the consent calendar. The permit application was removed form the consent calendar and subsequently scheduled as a regular calendar item for the October Commission hearing. Mr. Hellsten's concerns are discussed in Section C. below.

B. Grading/Landform Alteration & Visual Resources

Section 30251 of the Coastal Act states that:

> The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character 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.

In addition, the Malibu/Santa Monica Mountains Land Use Plan contains policies which have been found to be consistent with the Coastal Act and, therefore, may be looked to as guidance by Commission staff in the analysis of a project's conformity with Coastal Act policy. The LUP contains the following policies regarding landform alteration and the protection of visual resources which are applicable to the proposed development:

P82 Grading shall be minimized for all new development to ensure the potential negative effects of runoff and erosion on these resources are minimized.

P90 Grading plans in upland areas of the Santa Monica Mountains should minimize cut and fill operations in accordance with the requirements of the County Engineer.

P91 All new development shall be designed to minimize impacts and alterations of physical features, such as ravines and hillsides, and processes of the site (i.e., geological, soils, hydrological, water percolation and runoff) to the maximum extent feasible.

P125 New development shall be sited and designed to protect public views from LCP-designated scenic highways to and along the shoreline and to scenic coastal areas, including public parklands. Where physically and economically feasible, development on sloped terrain should be set below road grade.

P129 Structures should be designed and located so as to create an attractive appearance and harmonious relationship with the surrounding environment.

P130 In highly scenic areas and along scenic highways, new development (including buildings, fences, paved areas, signs, and landscaping) shall:

be sited and designed to protect views to and along the ocean and to and along other scenic features, as defined and identified in the Malibu LCP.

minimize the alteration of natural landforms.

be landscaped to conceal raw-cut slopes.

P134 Structures shall be sited to conform to the natural topography, as feasible. Massive grading and reconfiguration of the site shall be discouraged.

P135 Ensure that any alteration of the natural landscape from earthmoving activity blends with the existing terrain of the site and the surroundings.

The applicant proposes the construction of a partially buried, 24'-0" high, 400,000 gallon steel water tank. This project also involves the construction of retaining walls, a small booster pump station, and a pressure regulating station with associated piping, as well as approximately 1,950 cubic yards of grading.

The visual impact of this project is limited to the lots directly adjacent to the project site. The grading associated with this development is to occur below the existing grade of the flat lot. This is so the structure can be placed 4' below the existing grade, which will minimize the visual impacts of

the project. Furthermore, due to the fact that the tank is to be built on an existing lot at the end of a cul-de-sac located in an area densely clustered with single family residences, the proposed water tank will not be visible from Pacific Coast Highway, public beaches, or public viewing areas. As such, the project will not adversely impact visual resources.

However, to ensure that any visual impacts which may result from disturbance of the site are minimized to the greatest extent feasible, and to also ensure that erosion and sedimentation control is provided, the Commission finds it necessary to require the applicant to submit a revegetation and erosion control plan for the site. This plan shall require the applicant to revegetate those portions of the site disturbed by construction with native and drought tolerant vegetation, which will in turn provide erosion control to the site, and restore the scenic and visual qualities of the area to a level compatible with the surrounding environment. Additionally, the required interim erosion control plans for areas disturbed by grading and development activities will indicate the best management practices that should be implemented to control erosion and sedimentation on site. The use of best management practices will help to ensure that sedimentation is controlled on site until such time that revegetation efforts are completed, and will ensure that all of the impacts of the proposed grading are mitigated. The Commission finds that the project as conditioned, is consistent with Section 30251 of the Coastal Act.

C. Geologic Stability

Section 30253 of the Coastal Act states:

> 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.

In addition, the Malibu/Santa Monica Mountains Land Use Plan contains policies which have been found to be consistent with the Coastal Act and, therefore, may be looked to as guidance by Commission staff in the analysis of a project's conformity with Coastal Act policy. The LUP contains the following policies regarding geologic hazards which are applicable to the proposed development:

> P147 Continue to evaluate all new development for impact on, and from, geologic hazard.
>
> P148 Continue to limit development and road grading on unstable slopes to assure that development does not contribute to slope failure.

The applicant proposes the construction of a partially buried, 24'-0" high, 400,000 gallon steel water tank. This project also involves the construction of retaining walls, a small booster pump station, and pressure regulating

station with associated piping, as well as approximately 1,950 cubic yards of grading.

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

The Materials Engineering Division of the Los Angeles County Department of Public Works (LACPWD) investigated the geologic stability of the proposed project site and their findings are contained in a Geotechnical Report, dated September 26, 1995. The LACPWD drilled four exploratory borings to obtain information about the geologic structure of the proposed project site. Of the four borings, two had to be abandoned prior to completion when subsurface utilities were encountered. Boring B-1 is located adjacent to the proposed site of the water tank. Boring B-4 is located on the site of the proposed water tank. These borings revealed a thick layer of artificial fill, weathered rock and rock. The depth to rock was 23 to 35 feet in boring B-1 and 38 feet in boring B-4. The report states that the fill material encountered was placed in a non-engineered manner on the existing natural slope to fill a pre-existing drainage course.

On the basis of previous studies as well as their subsurface investigation, the LACPWD concluded that the the proposed project site is not underlain by an active landslide. The boundary of the Calle del Barco landslide is shown as located 220 feet southeast of the site. The report states that:

> Michael (reference 1) mapped a queried contact of an ancient landslide, extending N-NW form the U.S.G.S. Calle del Barco Landslide toward the drainage located NE of the subject site. It would therefore include the ascending slope east of the subject site. To date, no substantiating evidence, inclusive of subsurface exploration, is available to support the presence of this landslide. Scattered outcrops in this area show bedding attitudes that follow the regional trends, and do not show the chaotic or southerly dip of bedding often found in the Calle del Barco landslide area. Our subsurface exploration for the site, and exploration done by geotechnical consultants for 21500 Calle del Barco (reference 3), did not encounter slide debris. It is our conclusion that the postulated landslide does not exist.

The LACPWD report concludes that the proposed project site exhibits static and seismic factors of safety above minimum County requirements and that development of the site is feasible from a geotechnical standpoint. The report also finds that the fill material on the site is not suitable for support of the proposed water tank foundation. The report recommends that the water tank be supported on caissons founded in bedrock.

On the basis of the applicant's geotechnical report, staff recommended that the Commission find the proposed project consistent with Section 30253 and that the project be considered on the consent calendar. As noted above, Mr.

Bengt Hellsten spoke before the Commission about the proposed project site at the September hearing. Mr. Hellsten is the owner of a property adjacent to the proposed project site. Additionally, he was the owner of the project site before the County of Los Angeles acquired the property through eminent domain. Mr. Hellsten submitted information about the stability of the site. The information submitted is contained in exhibits 6, 8, and 9. Exhibit 6 is Mr. Hellsten's letter requesting the project be scheduled for a public hearing. Exhibits 8 and 9 are geotechnical reviews prepared by independent consultants retained by Mr. Hellsten. Exhibits 5, 7, and 10 are LACPWD's responses to this information. Mr. Hellsten's consultants drilled an additional boring a further distance from the LACPWD borings. The report states that:

> The log of this boring, with limited laboratory tests, is presented on Plates 2, 3, and 4. Below, 9 feet of uncompacted fill, landslide debris was observed. At 27 feet, a westerly dipping clay surface was observed (slip surface?) and seepage water seemed perched on the clay layer which was about 1/8 inch thick. Below 27 feet to the depth explored, 56 feet, Keith Ehlert downhole logged "jumbled" siltstone and claystone bedrock fragments.

The consultants also made slope stability calculations for the slopes north and northeast of the proposed tank locations. The report states that: "These calculations indicate factors of safety lower than normally acceptable for "stable" slopes". While these findings were submitted to the LACPWD for their consideration, the consultant report does not conclude that the tank site is unsuitable for the proposed development. The report does state that:

> The County plans to construct a retaining wall below your study up to about 13 feet in height, supported by conventional footings bearing on the same fill that supports your entry fence. The stability of such a wall would be questionable. Support of the wall with piles would be our recommendation.

Exhibit 7 shows the County's response to the consultants' reports. This response states, in part, that:

> The analyzed slopes have no adverse effect on the tank site. The factors of safety calculated are consistent with County policy for this type of project. Also there is adequate setback between the toe of the slopes and the tank site...
>
> The presence of landslide debris does not in and of itself mean that the site is unsafe.
>
> The consultant's recommendation to put the retaining wall on piles will be considered.

The LACPWD response concludes that the consultants' report does not state that the site is unsuitable, or unsafe for the intended use. In addition to the concerns raised by Mr. Hellsten, Exhibit 13 is a comment letter from the Malibu City Geologist and Exhibit 12 is the LACPWD response. The City letter also raises the possibility of the Calle del Barco landslide extending to the

area including the proposed project site. LACPWD has reviewed and responded to the comments of the City of Malibu and Mr. Hellsten. Their geologists and engineers have concluded that the proposed project site is not underlain by a landslide and it will be stable, and that as such, it is suitable for the proposed water tank.

Based on the conclusions and recommendations of the LACPWD, the Commission finds that the development is consistent with Section 30253 of the Coastal Act so long as the geologic recommendations are incorporated into the project and implemented during construction. In order to minimize erosion and provide further geologic stability by minimizing surface runoff, the Commission finds it necessary to require the applicant to submit a revegetation and erosion control plan for all areas of the site disturbed by development activities. This plan will require the applicant to landscape the site with native and drought tolerant vegetative for visual enhancement and erosion control purposes. Additionally, this condition requires the applicant to submit interim erosion control plans for areas disturbed by grading and development activities which indicate the best management practices that should be implemented to control erosion and sedimentation on site. The use of best management practices will help to ensure that sedimentation is controlled on site until such time that revegetation efforts are completed. Only as conditioned is the proposed project consistent with Section 30253 of the Coastal Act.

D. Local Coastal Program.

Section 30604 of the Coastal Act states that:

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

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

E. CEQA.

Section 13096(a) of the Commission's administrative regulations requires Commission approval of Coastal Development Permit applications to be supported

by a finding showing the application, as conditioned, to be consistent with any applicable requirement of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(i) 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 impact which the activity may have on the environment.

As conditioned to prepare and implement a revegetation and erosion control plan, there will be no negative impacts caused by the proposed development which have not been adequately mitigated. Therefore, the proposed project, as conditioned, is found to be consistent with CEQA and the policies of the Coastal Act.

TAD-VNT
2127M

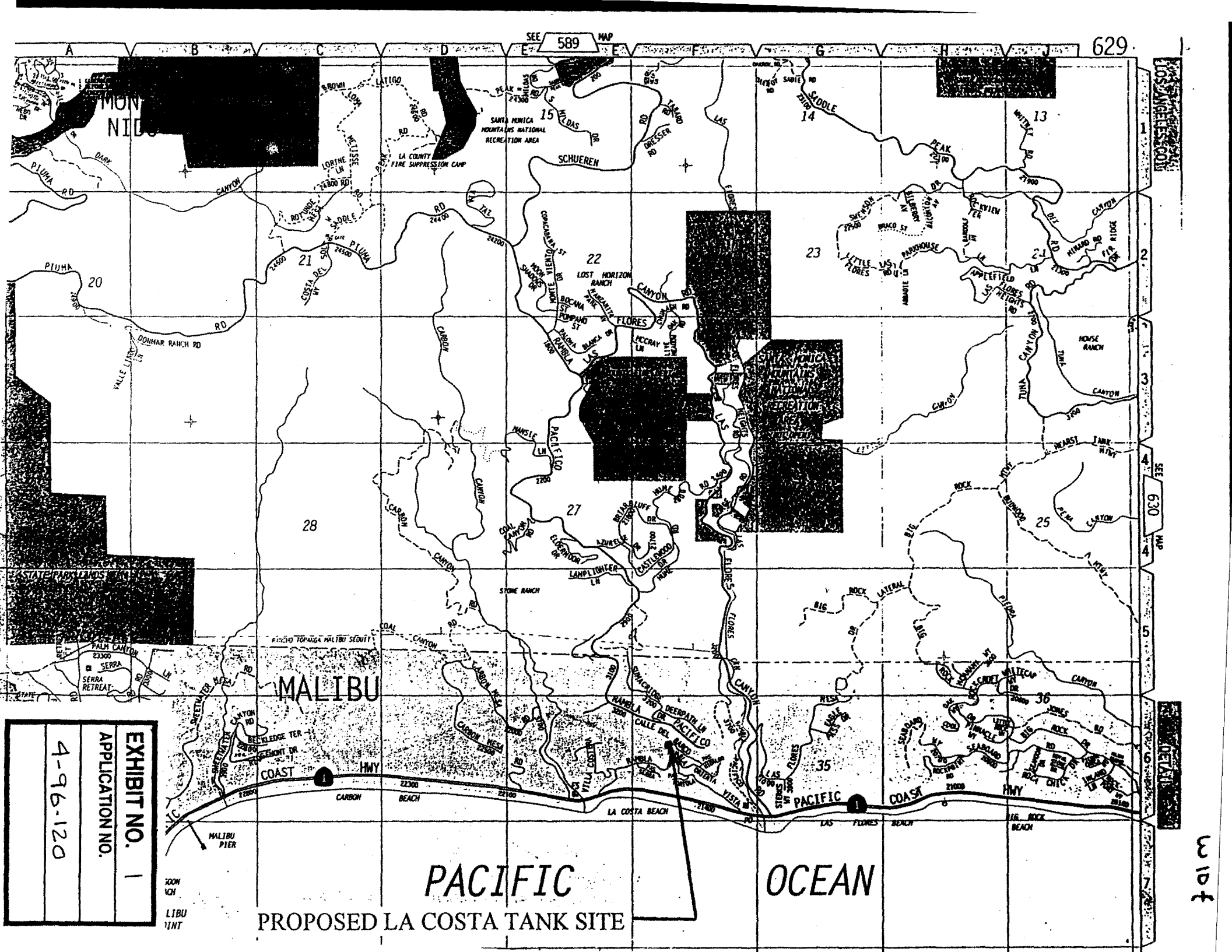


EXHIBIT NO. 1
APPLICATION NO.
4-96-120

3 of 4

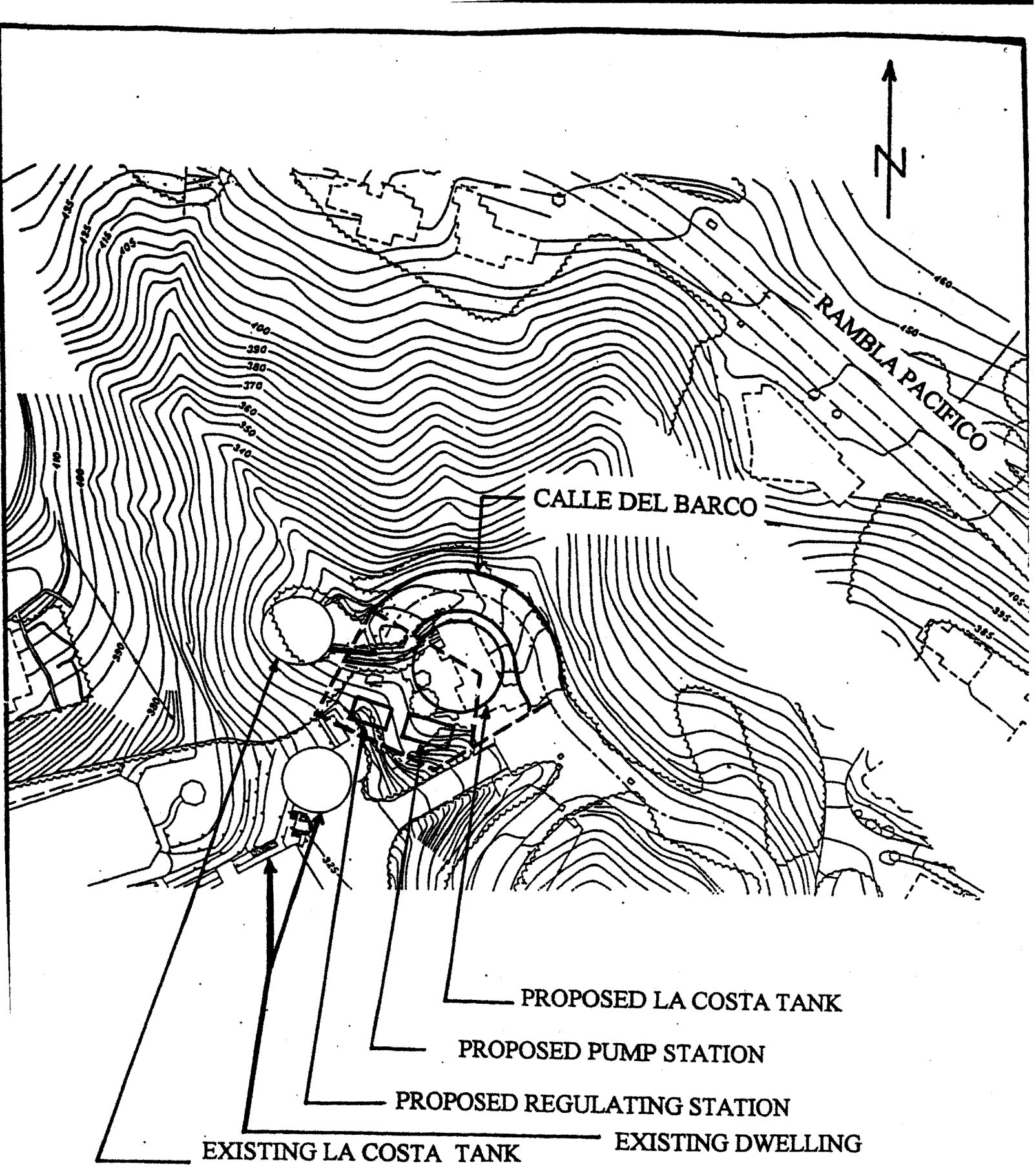
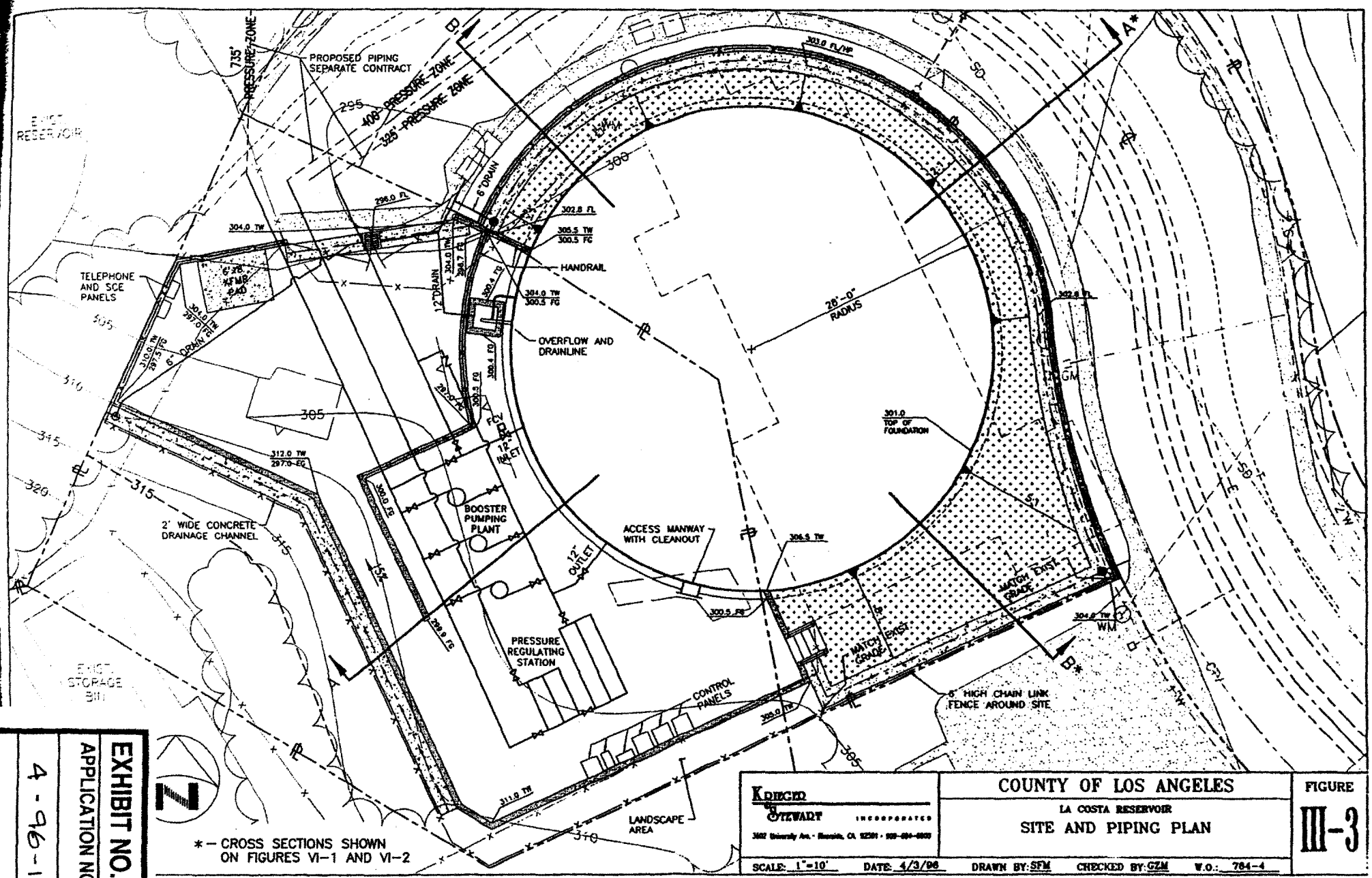


EXHIBIT NO. 2
APPLICATION NO.
4-96-120



*— CROSS SECTIONS SHOWN ON FIGURES VI-1 AND VI-2

KDIEGO STEWART INCORPORATED

COUNTY OF LOS ANGELES

LA COSTA RESERVOIR

SITE AND PIPING PLAN

FIGURE III-3

SCALE: 1"=10' DATE: 4/3/96 DRAWN BY: SFM CHECKED BY: GZM W.O.: 784-4

EXHIBIT NO. 3

APPLICATION NO. 4-96-120

BENGT T. HELLSTEN
21500 CALLE DEL BARCO • MALIBU, CALIFORNIA 90265

City Manager
City of Malibu
23555 Civic Center Way
Malibu, CA 90265-4804

Sept.13,1996

Re. Project of construction of 400.000 gallon watertank on 21500 Calle Del Barco, Malibu.

At today's hearing at Eureka of California Coastal Commission this project was taken off Consent Calendar until the Oct.8-11 hearing time in Los Angeles.

The reason was the unclear situation regarding the geological stability of the property (see the enclosed report by Coastline Geotechnical Consultants, dated June 11, 1996, and also my address to the Coastal Commission today).

Los Angeles County submitted a Geotechnical report dated Sept. 26, 1995, which has not taken into account the Coastline repor dated June 11, 1996.

Re. Geologic Stability:
Section 30253 of the Coastal Act states:
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 ...

In addition, the Malibu/Santa Monica Mountains Land Use Plan contains policies regarding geologic hazards which are applicable to the prosed development of a watertank:

P147 Continue to evaluate all new development for impact on, and from geologic hazard.

P148 Continue to limit development and road gr unstable slopes to assure that developmen contribute to slope failure.

EXHIBIT NO. 4
APPLICATION NO. 4-96-120
1 of 2

What happens to a massive watertank built on an established landslide, when an earthquake of 6-7-8 on the Richter scale happens?

What is City of Malibu's liability exposure in case of a failure in this case?

Section 30604(a) of the Coastal Act provides that the Commission shall issue a Coastal Permit only if the project will not prejudice the ability of the local government having jurisdiction to prepare a Local Coastal Program which conforms with Chapter 3 policies of the Coastal Act.

I strongly recommend that the City of Malibu objects to this project at once in writing, since it is not in conformance with the Local Coastal Program of City of Malibu.

Yours sincerely,

Bengt T. Hellsten
Tel.310-456-3121, fax 310-456-8680.

Encl. Report by Coastline Geotechnical Consultants
My address today to the Commission.

cc. California Coastal Commission
Diane Stanfield, Baker & Hostetler
Craig H. Millet, Gibson, Dunn & Crutcher

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone (818) 458-5100

HARRY W. STONE, Director

ADDRESS ALL CORRESPONDENCE TO
P.O.BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

September 19, 1996

IN REPLY PLEASE
REFER TO FILE: W-0

Mr. Jack Ainsworth
California Coastal Commission
South Central Coast Area
89 South California Street, 2nd Floor
Ventura, CA 93001

Dear Mr. Ainsworth:

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 29, MALIBU
PROPOSED LA COSTA WATER TANK - COASTAL PERMIT NO. 4-96-120

As discussed, this is in response to the letter dated September 6, 1996, sent to California Coastal Commission by Mr. Bengt T. Hellsten expressing his concern on the instability of the proposed tank site.

According to the geologic and geotechnical report prepared by our geologists and soil engineers dated September 26, 1995 (a copy was sent to you previously with application package) the site is stable. Data in the report illustrates that the site has a static and seismic factor of safety above minimum requirements. Therefore, the site is adequate for construction of the water tank.

In addition, enclosed are responses to Mr. Hellsten and Mr. Martin, of Coastal Geotechnical Consultants, Inc., from Los Angeles County Waterworks District No. 29, regarding their concerns.

Furthermore, Mr. Hellsten and Mr. Martin attended the hearing held on June 13, 1996 by the Los Angeles County Board of Supervisors and were given the opportunity to speak on the issues (see enclosed copy of the minutes of the meeting). Enclosed for your use are fourteen self-addressed stamped envelopes. We intend to attend the next upcoming Coastal hearing in October 1996.

If you have any questions, please contact Mr. Ali Babanajbandi at (818) 458-7196.

Very truly yours,

HARRY W. STONE
Director of Public Works

Dean Efstathiou
DEAN D. EFSTATHIOU
Assistant Deputy Director
Waterworks and Sewer Maintenance Division

AB:dh/WW4993.ab

Enc

Post-it Fax Note 7671	Date	# of pages ▶ 13
To Jack Ainsworth	From Dolores	
Co./Dept.	Co.	
Phone #		
Fax # (805)641-1732		

EXHIBIT NO. 5
APPLICATION NO. 4-96-120
Response to 9/6 Letter

BENGT T. HELLSTEN
21500 CALLE DEL BARCO • MALIBU, CALIFORNIA 90265

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

Sept.6,1996

Re. Permit no. 4-96-120 - Proposed construction of 400.000 gal. watertank on an established landslide in Malibu La Costa area, 21500 Calle Del Barco.

Per the enclosed report dated June 11, 1996, by Coastline Geotechnical Consultants, Inc., the County of Los Angeles Dep. of Public Works proposes to construct a massive 400.000 gallon watertank on a known landslide. The weight of this large watertank is the equivelant of a 19 storey building of which its foundation is anchored in an unstable landslide. This is creating a disaster-in-waiting
There can certainly be no public interest or necessity that requires a water tank to be built upon a landslide!

I suggest that you remove this application from the Consent Calendar.

Yours sincerely,

Bengt T. Hellsten

COMMENTS ON THE COASTLINE GEOTECHNICAL CONSULTANTS INC REPORT OF JUNE 11, 1996

- It is our understanding that the soils consultant (Richard Martin) retained the services of the engineering geologist (Keith Ehlert) to down-hole log the boring. However, the log of the boring is interpreted by Martin. There are apparent inconsistencies, or errors between the geotechnical engineering log and the interpretations presented in the text. No geologic log was submitted.

- The analyzed slopes have no adverse effect on the tank site. The factors of safety calculated are consistent with County policy for this type of project. Also, there is adequate setback between the toe of the slopes and the tank site.

- Soil strength parameters used to determine the stability of the ascending slopes have not been substantiated. These parameters appear to be very conservative.

- The presence of landslide debris does not in and of itself mean that the site is unsafe.

- The consultant's recommendation to put the retaining wall or piles will be considered.

CONCLUSION

The report does not state that the site is unsuitable, or unsafe, for the intended use.

EXHIBIT NO. 7
APPLICATION NO. 4-96-120
Response (LACP)
to 6/11/96 report

KEITH W. EHLERT

Consulting Engineering Geologist

June 12, 1996

Mr. Richard Martin
Coastline Geotechnical
1446 W. 178th Street
Gardena, CA 90248-3202

REFERENCE: REPORT OF LIMITED GEOTECHNICAL ENGINEERING AND ENGINEERING GEOLOGY STUDIES
Vicinity of 21510 Calle del Barco
Malibu, California
Report by Coastline Geotechnical dated June 11, 1996

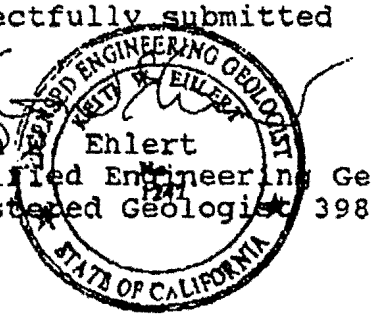
I will not be able to attend the City Council Meeting scheduled for June 13, 1996 due to previous commitments. I am testifying as an expert witness in a legal case.

On June 7, 1996, I down-hole logged boring BC1 shown on Drawing 1 included with your referenced report. It is my opinion that the earth materials observed in the boring consist of landslide debris. In 1993, I down-hole logged a boring drilled about 100 feet southeast of boring BC1 (shown as BE on your Figure 1). It is my opinion that the earth materials observed in this boring also consisted of landslide debris.

I have reviewed your referenced report and agree with the findings presented.

If you have any questions regarding the information presented in this letter, please contact my office.

Respectfully submitted



Keith W. Ehlert
Certified Engineering Geologist 1242
Registered Geologist 3982

EXHIBIT NO. 8
APPLICATION NO. 4-96-120

27520 Hawthorne Boulevard, #195 • Rolling Hills Estates, CA 90274
(310) 544-7686 • Fax (310) 544-9332

COASTLINE GEOTECHNICAL CONSULTANTS, INC.

CONSULTING GEOTECHNICAL ENGINEERS

1446 W. 178 TH STREET
GARDENA, CALIFORNIA 90248-3202

(310) 217-1504

June 11, 1996

Project No. 770C-056

Mr. Bengt Hellsten
21500 Calle del Barco
Malibu, CA 90265

Subject: Limited Geotechnical Engineering and Engineering Geology Studies
Vicinity of 21510 Calle del Barco
Malibu, California

Dear Mr. Hellsten:

At your request, in coordination with Keith Ehlert, engineering geologist, one test boring was drilled in Calle del Barco, in front of your entry driveway, on June 7, 1996. The location of the boring, and borings by others, are shown on the attached Plot Plan, Plate 1. The boring location was selected to be away from the centerline of the buried ravine, and within an area previously mapped as questionable older landslide by Eugene D. Michael, geologist, in 1978.

The log of this boring, with limited laboratory tests, is presented on Plates 2, 3 and 4. Below 9 feet of uncompacted fill, landslide debris was observed. At 27 feet, a westerly dipping clay surface was observed (slip surface?) and seepage water seemed perched on the clay layer which was about 1/8 inch thick. Below 27 feet to the depth explored, 56 feet, Keith Ehlert downhole logged "jumbled" siltstone and claystone bedrock fragments.

Mr. Ehlert also indicated that he drilled another boring southeast of the current boring location in 1993, and encountered similar contorted bedrock conditions, with slick clay surfaces and seepage at 40 feet.

As discussed with Public Works of Los Angeles County, in a meeting in Alhambra on May 30, 1996, we were concerned about the depth of drilling and downhole logging. In addition, the slide would have involved material on the eastern slope of the buried ravine, while the Lockwood borings would have been on the western slope.

Calculations are included on Plates 5 and 6 for the slopes north and northeast of the

EXHIBIT NO. 9
APPLICATION NO. 4-96-120
1 of 5

proposed tank location. These calculations indicate factors of safety lower than normally acceptable for "stable" slopes.

Photo 3, attached, was taken after the Malibu fire of 1993. A potential landslide on the slope was observed on the slope analyzed (Section D-D'), which failed after the photograph was taken.

Fill settlement and/or creep of the fill and landslide debris have caused damage to your entry gate (Photo 4). The County plans to construct a retaining wall below your study (Photo 1), up to about 13 feet in height, supported by conventional footings bearing on the same fill that supports your entry fence. The stability of such a wall would be questionable. Support of the wall with piles would be our recommendation.

These findings are being transmitted to Public Works for their review.

Very truly yours,

COASTLINE GEOTECHNICAL CONSULTANTS, INC.

Richard A. Martin, RGE 563

REGISTERED PROFESSIONAL ENGINEER
RICHARD A. MARTIN
No. 563
EXP. 9-30-97
GEOTECHNICAL
STATE OF CALIFORNIA

RAM/mrg

Distribution:
(1) Addressee
(3) Fred Gharib
(1) Keith Ehlert

SUMMARY OF BORING Nº 1

DATE DRILLED 6-7-96 ELEVATION 300

DRY DENSITY (PCF)	FIELD MOISTURE (% DRY WT.)	SAMPLES B	SAMPLES U	DEPTH (FEET)	DESCRIPTION	COLOR	CONSISTENCY
				0	FILL: CLAY - sandy with rock fragments	Brown, Orange, Brown	Firm
				5			
112	16.3			10	SLIDE DEBRIS: CLAY - contains many rock fragments, clasts of siliceous rock.	Brown, Orange Brown Mottled	Firm
				15	Broken bedrock with clay		
110	16.4			20			
118	14.3						
				25	Continued on Next Page		

Limited Geotechnical Engineering & Geology Studies
Vicinity of 21510 Calle del Barco
Malibu, California

Project No. 770C-056

Plate No. 2

COASTLINE GEOTECHNICAL CONSULTANTS

DATE DRILLED 6-7-96

SUMMARY OF BORING No. 1 (Continued)

ELEVATION 300

DRY DENSITY (PCF)	FIELD MOISTURE (% DRY WT.)	SAMPLES B	SAMPLES C	DEPTH (FEET)	DESCRIPTION	COLOR	CONSISTENCY
					CLAYEY - Slip Surface @ 27 feet		
					SLIDE DEBRIS: (?) BEDROCK - jumbled, clasts of siliceous rock	Brown, Orange Brown, Mottled	Firm
118	14.5		■	30			
127	11.1		■				
					Claystone and Siltstone, jumbled, clasts of siliceous rock.	Gray and Light Gray	Very Firm to Hard
				35			
				40			
123	10.0		■	45			
				50	Continued on Next Page		

Limited Geotechnical Engineering & Geology Studies
Vicinity of 21510 Calle del Barco
Malibu, California

Project No. 770C-056

Plate No. 3

COASTLINE GEOTECHNICAL CONSULTANTS

SUMMARY OF BORING No. 1 (Continued)

DATE DRILLED 6-7-96 ELEVATION 300

DRY DENSITY (PCF)	FIELD MOISTURE (% DRY WT.)	SAMPLES B	SAMPLES C	DEPTH (FEET)	DESCRIPTION	COLOR	CONSISTENCY
				55	SLIDE DEBRIS: SILTSTONE - Fractured and jumbled	Gray	Hard
					End of Boring @ 56 feet Water Seepage @ 27 feet Caving @ 27 feet and 42 feet due to water seepage		

Limited Geotechnical Engineering & Geology Studies
Vicinity of 21510 Calle del Barco
Malibu, California

Project No. 770C-056

Plate No. 4

COASTLINE GEOTECHNICAL CONSULTANTS

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

HARRY W. STONE, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O.BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

June 11, 1996

EXHIBIT NO. 10
APPLICATION NO. 4-96-120
1 of 2
response to 5/20 memo

IN REPLY PLEASE REFER TO FILE:
W-0

Mr. Bengt T. Hellsten
21500 Calle Del Barco
Malibu, CA 90265

Dear Mr. Hellsten:

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 29, MALIBU
LA COSTA WATER TANK SITE

This is in response to Mr. Richard Martin's memo (copy enclosed) of May 20, 1996 to you regarding the preliminary findings at the existing and proposed tank sites.

On May 30, 1996, we met with Mr. Martin of Coastline Geotechnical Consultant, Inc. to discuss his memo. Our Materials Engineering Division has advised us that the cost to mitigate the slide at the existing site is estimated to be $2.3 million. In addition, the District must acquire additional property outside of the existing easement at a considerable cost to mitigate an adjacent unstable slope.

Mr. Martin agreed that the existing tank site is unstable due to potential landslides from adjacent steep slopes. It is our opinion that Mr. Martin felt that the mitigation required at the existing site was economically unfeasible.

According to the geologic and geotechnical report prepared by Materials Engineering Division on September 26, 1995, the proposed site is adequate for construction of the water tank and it meets our minimum 1.50 static factor of safety. This factor of safety is contingent upon the stability of the Calle Del Barco landslide being maintained. As indicated in the Section VI of the Preliminary Design Concept Report for the proposed La Costa tank dated April 8, 1996 (a copy was sent to you on April 16, 1996), the proposed tank will be constructed entirely on deep caissons.

This tank will be constructed from steel material and will meet the current design criteria set forth by the American Water Works Association (AWWA). It will be designed to withstand the maximum credible earthquake for the area. Furthermore, the Calle Del Barco landslide is away from the proposed location and across from Calle Del Barco Road. Therefore, Calle Del Barco Road and the existing

homes in the vicinity will all be affected by a landslide before it affects the proposed reservoir. In addition, the time spent for this to occur would not be immediate. Therefore, a remediation plan could be implemented to stabilize the proposed tanks site at a later date if conditions are warranted.

With regards to the existing site, the underlying owner has expressed interest in reacquiring the existing easement, but we have not yet entered into formal negotiations at this time.

We have conducted all the necessary investigations and studies and determined that the proposed tank site provides the greatest public benefit with the least private injury. It is our intent to continue with the hearing of June 13, 1996 to acquire your property, since your consultant has not provided us with any feasible solutions to mitigate the instability of the existing site or calculations to contradict the conclusions and recommendations in our report for the stability and development of the proposed site.

A courtesy set of construction drawings for the proposed tank will be forwarded to the City of Malibu once they become available. Please direct any further questions to Mr. Ali Babanalbandi at (818) 458-7196 regarding this matter.

Very truly yours,

HARRY W. STONE
Director of Public Works

Dean Efstathiou

DEAN D. EFSTATHIOU
Assistant Deputy Director
Waterworks and Sewer Maintenance Division

AB:cs
WW4642.ab

Enc.

cc: Mr. Richard Martin
Coastline Engineering
Ms. Maria Chong Castillo

SOUTHLAND GEOTECHNICAL CONSULTANTS, INC.
CONSULTING GEOTECHNICAL ENGINEERS
46 W. 178 TH STREET
ARDENA, CALIFORNIA 90248-3202
(310) 217-1504

EXHIBIT NO. 11
APPLICATION NO. 4-96-120
1 of 2

MEMO

TO: Bengt Hellsten DATE: May 20, 1996

FROM: Rich Martin PROJECT NO. 770C-056

SUBJECT: Preliminary Findings
LaCosta Waterworks Reservoir 53

To date, I have reviewed numerous reports prepared by various consulting geotechnical engineers and engineering geologist, discussed the project with Chris Dean, geologist with the City of Malibu and reviewed records on the monitoring of the Calle del Barco Landslide, maintained by Bing Yen and Associates, with Greg Silver, geotechnical engineer. In addition, I spoke with Maria Castillo of Supervisor Yaroslavsky's office, Fred Gharib and Dennis Hunter from Los Angeles County Public Works, and consulted with Mark Treibold of Pacific Geology Consultants, Inc.

Based upon the data collected, I have performed an analysis of the existing and proposed tank sites, and have concluded that neither site is free from being affected by potential landsliding. The slopes west and north of the existing tank, and the slopes north and northeast of the proposed tank site all calculate to have factors of safety less than 1.5, the Code minimum for stable slopes. These calculations must be considered as approximate, due to the fact that there is no current topographic map of the area, and there has been no site specific investigation of the slopes.

Stabilization of the properties can be achieved by grading or structural strengthening techniques. Grading would be a limited option due to the fixed maximum elevation of the tank bottom established by the County. It is understood from Dennis Hunter that soldier piles and tiebacks were explored by the County for the existing tank site, and they arrived at a repair cost of $2 million. We have not seen any information on this design.

The installation of soil nails (see attached) is a possibility. I stared to investigate this option, but felt I was wasting my time without an accurate topographic map or subsurface data.

The County is behind schedule to get this project started, and may argue that using Lockwood-Singh's information should be good enough for design. I must disagree, based upon my research. The area has a complex geology, which has not been presented by the County.

According to the City, the County does not need their approval for construction. The City has requested, in writing, to review the County's plan, but have received no response to date. Therefore, no one is required to make critical review of the County's plans, which is required of all private property owners in the area of the proposed construction.

The failure of the water lines were directly associated with the activation of the Calle del Barco Landslide, along with the heavy rains between December 1977 and March 1978. The installation of soldier pile walls, hydraugers, and dewatering wells has slowed the landslide, but has not stopped movement. It seems that it would be very difficult to justify the statement that the construction of the water tank and waterlines would have no affect on the stability of the area.

What will be done with the existing tank site? Can the County walk away from the property, knowing it is currently unstable, without being exposed to failure liability?

Richard A. Martin, RGE 563

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

HARRY W. STONE, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O.BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

September 21, 1995

IN REPLY PLEASE REFER TO FILE. W-0

Mr. Michael B. Phipps, City Geologist
City of Malibu
23555 Civic Center Way
Malibu, CA 90265

Dear Mr. Phipps:

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 29, MALIBU
LA COSTA TANK SITE

Enclosed please find a copy of a memo prepared by the Materials Engineering Division of this Department of Public Works in response to your letter dated August 21, 1995 regarding reviewing our Negative Declaration for the subject project. Because of the concerns which you expressed in your letter, we would appreciate a written acknowledgment of your concurrence with the conclusions of our geologists as stated in the memo.

If you have any questions, please contact Mr. Ali Babanalbandi at (818) 458-7196.

Very truly yours,

HARRY W. STONE
Director of Public Works

Dean Efstathiou
DEAN D. EFSTATHIOU
Assistant Deputy Director
Waterworks and Sewer Maintenance Division

AB:cs
WW4010.ab

Enc.

EXHIBIT NO. 12
APPLICATION NO. 4-96-120
response to City memo

September 19, 1995

TO: Dean Efsthathiou
Waterworks and Sewer Maintenance Division

Attention Dave Howard

FROM: Lynn D. Nicholson
Materials Engineering Division

RESPONSE TO CITY OF MALIBU LETTER
PROPOSED LA COSTA WATER TANK, 21510 CALLE DEL BARCO

In response to the City of Malibu's letter dated August 21, 1995, and your memorandum dated August 24, 1995, we present the following with respect to the subject water tank site. The following item numbers refer to similarly numbered paragraphs in the City's letter:

Item 1: The site is not underlain by the Calle del Barco Landslide. The boundary of the repaired 1978 Calle del Barco Landslide is located 220 feet southeast of the site; the boundary of the Calle del Barco Landslide as mapped by the U.S. Geological Survey (USGS) is located 130 feet southeast of the site. Slope inclinometer SI-5, reported as recently showing movement, is located within the boundaries of the USGS mapped Calle del Barco Landslide. The postulated western extension of the ancient landslide by Michael (1978) was mapped as a queried contact. No subsurface exploration was performed at the time, and no other evidence exists to date to substantiate its existence. In addition, subsurface exploration conducted by the Department for this project, and exploration conducted by geotechnical consultants for the residence at 21500 Calle del Barco, encountered no evidence of landslide debris. Consequently, we do not believe the postulated extension of the landslide is a valid interpretation.

More importantly, stability calculations performed for the repair of the 1978 active slide considered the additional loading of the USGS mapped Calle del Barco Landslide. It should be noted, however, that the analysis assumed that the landslide would be adequately drained to eliminate hydrostatic forces. Therefore, as long as water levels are maintained below the slide plane, the landslide should remain adequately stable.

Item 2: In the unlikely worst case scenario, should the Calle del Barco Landslide fail, the proposed tank site might be indirectly impacted by the downslope destabilization of the canyon fill on which the tank will be founded. However, in that case we believe the headward progression of the failure

would occur over a period of time long enough to allow implementation of a remediation plan.

Item 3: The seismic parameters as addressed in the seismicity section of the project report should be used for the design of the tank and appurtenances. A leak detection and collection system should be incorporated into the design of the new tank to prevent any release of water into the foundation. This recommendation is included in the forthcoming project report.

The geotechnical investigation for the proposed site has been completed, however the project report has not been administratively approved for release. The general conclusion contained in the Negative Declaration that "there are no geologic hazards present at the site which would make it unsuitable for its proposed use" is still valid and is verified by findings in the project report.

Should you have any questions regarding this matter, please contact Lidia Lustig or James Shuttleworth at Extension 4923.

M. Johnson, Head
Geology Investigations Section

MJ:sm
ME-5/5:LaCosta.CDB

City of Malibu
23555 Civic Center Way, Malibu, California 90265
(310) 456-CITY Fax (310) 456-3356
Building and Safety

August 21, 1995

Mr. Ali Babanalbandi
Waterworks and Sewer Maintenance Division
County of Los Angeles, Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803-1331

Dear Mr. Babanalbandi:

This letter is in response to the Los Angeles County Waterworks District No. 29 proposal to construct a 400,000 gallon water tank, pump station, and regulating station on a lot at 21500 Calle Del Barco in the City of Malibu (Letter to Ms. Joyce Parker, dated July 24, 1995). We understand that the proposed tank will increase the capacity of the water system to meet Waterworks Districts and Fire Department standards in the La Costa Area.

According to the Negative Declaration submitted with the aforementioned letter, a complete geologic study of the site was performed by the Materials Engineering Division of the Department of Public Works. They concluded that "*...there are no geologic hazards present at the site which would make it unsuitable for its proposed use.*" However, we would like to express our concerns regarding the site's location with respect to the Calle Del Barco Landslide located east of the proposed tank site. A report on the Calle Del Barco Landslide by E. D. Michael, dated September 1, 1978, discusses the reactivation of a portion of the Landslide east of the tank site, as well as a map depicting a postulated older portion of the slide extending to the west under the proposed tank site. We respectfully request that the Materials Engineering Division of the Department of Public Works provide the City with a copy of the geologic report for our review. We have the following concerns regarding the tank site and Calle Del Barco Landslide:

1. The tank is underlain by the ancient portion of the Calle Del Barco Landslide that has been inactive until recently. Significant movement has been noted in Slope Inclinometer SI-5, located adjacent to the proposed tank site. Plots of the data are available at Bing Yen and Associate's office, and in a forthcoming monitoring report for the Calle Del Barco Landslide Assessment District.

2. Distress has recently been noted by Bing Yen and Associates along the curb at the base of the retaining wall on the north side of Rambla Orienta. This distress may be due to accelerated movement of the Calle Del Barco