US Army Corps of Engineers

SAN FRANCISCO DISTRICT

PUBLIC NOTICE

NUMBER: 24263S DATE: May 24, 2000
RESPONSE REQUIRED BY: June 23, 2000

Regulatory Branch
333 Market Street
San Francisco, CA 94105-2197

PROJECT MANAGER: Clyde Davis TELEPHONE: (415) 977-8449 Email: cdavis@spd.usace.army.mil

1. **Introduction:** Avalon Homes (Contact: Mr. Neal Allen, 40480 Encyclopedia Circle, Fremont, California 94538, (510)354-0898)) has applied for a Department of the Army permit to do landslide repair along Toroges Creek and implement a bank stabilization plan for Creek B, in the City of Fremont, Alameda County, California. Fills into Corps jurisdiction will be 40 cubic yards in Toroges Creek and 392 cubic yards into Creek B. This application is being processed pursuant to the provisions Section 404 of the Clean Water Act (33 U.S.C. 1344).

2. **Project Description:** As shown in the attached drawings, the applicant plans to do stream bank stabilization and landslide repair on two creeks (see figure 2) within the Avalon Homes development project (see figure 1). The Mission Peak Company had filled small portions of Toroges Creek, Aqua Fria Creek and Creek B under Nationwide Permit to repair and stabilize channel banks and install storm drainage structures to serve the Avalon residential subdivision. That work was completed in October 1997, however, storms which occurred in 1998 caused damage along Toroges Creek and Creek B which now require new authorization to repair. The proposed repairs are necessary to avoid a heightened risk of damage to property.

The proposed stream bank stabilization and landslide repair on Toroges Creek (see figure 3) is located 600 feet down stream from the point where Avalon Height Terrace crosses Toroges Creek. The creek meandered and cut into the toe of the slope below lot 19. This bank erosion caused the slope to fail into the creek (see figure 7). The proposed repair will require the installation of 180 feet of gabion type Geoweb retaining wall (see figure 4) along the base of the north creek bank. The landslide can then be repaired above the Geoweb retaining wall with biotechnical measures used to restore the channel and hillside.

Creek B runs through a highly erosive geologic formation with steep, unstable channel side slopes. Active landslides are present along most of the length of the creek (see figures 8 through 10), and erosion is continuous along portions of the channel. Above average precipitation over the past few years has resulted in increased storm water runoff causing excessive erosion in a 910-foot reach of the stream channel downstream of the Malibu Terrace outfall near the Avalon Park Development. The steep gradient drops 135 feet in one 675 foot reach and the creek flow line has incised more than 16 feet, causing slumping and failure of the channel banks. Continued channel erosion and bank failure threatens several facilities (see figure 8), including the Alameda County Water District pump station, the Avalon Community Park, and Avalon Height Terrace, the main access road for the Avalon community. The proposed restoration plan has been developed to restore this section of the creek for the purposes of (1) minimizing the continuing impact to the natural creek, (2) reducing down stream sediment loads, (3) insuring the long-term stability of a restored channel, and (4) protecting existing threatened facilities. The 600-foot-long tributary to the north of Creek Line B is highly erosive and will also be restored as part of the plan.

The proposed repair (see figure 5) will involve grading and filling a portion of Creek B and its tributary to lessen the channel gradient and stabilize the slopes. The creek will be recreated along a portion of the fill and planted with wetland and

riparian species native to the region. Biotechnical measures will be installed to stabilize the newly graded channel and slopes. A shallow basin, to be developed as a seasonally ponding freshwater wetland habitat, will be created near the confluence of the tributary and Creek B (see figure 6). The ravine will be filled downstream of the basin with a concrete conduit provided to carry the flow to the stable lower reaches of the drainage. An overflow drain from the basin will receive the creek flow during periods of runoff. A maintenance road will be built across Creek B to provide access to the detention basin.

This creek restoration will permanently fill 1,510 linear feet of stream channel along Creek B and its tributary. At an average width of 4.5 feet along the Creek and 2 feet along the tributary, the project will impact approximately 5,295 square feet (0.12 acre) of jurisdictional area. Approximately 950 linear feet of stream channel will be restored on top of the fill, resulting in a net loss of a 560-foot reach of Creek B and its tributary. Because the recreated channel and floodplain will be up to 21 feet wide compared to the existing 4.5-foot-wide channel, the project will result in a net gain in area vegetated with wetland and riparian species of approximately 14,700 square feet. The restoration plan will include the creation of a 7,000 square foot shallow wetland at the confluence of Creek B and its tributary. This wetland plus the area of the floodplain along the recreated portion of the channel will result in the creation of approximately 27,000 square feet (0.62 acre) of wetland and riparian habitat.

The recreated channel will be developed as a vegetated drainage with a series of rock-armored steps or cascades alternating with gentle vegetated slopes of varying lengths not exceeding five percent (5%) grade. The rock will be buried to grade level on the flanks of the channel and will extend to above the 100-year flood event (Figure 3). The channel bottom and floodplain will be further stabilized with a heavy planting of native sedges and rushes. These plants will coalesce into a solid mat with roots capable of carrying the anticipated water flow. Native riparian trees and shrubs will be planted along the channel floodplain and lower slopes. Trees and shrubs will receive supplemental irrigation until established.

Repair of the landslide along Toroges Creek will require bank reconstruction along approximately 180 feet of channel, resulting in displacement of the low flow channel to the south. At an average width of approximately 3 feet, the project will impact approximately 540 square feet (0.012 acre) of jurisdictional area. Revegetation of the restored area along Toroges Creek will be accomplished using the native wetland species mixes proposed for Creek B. The channel bottom and floodplain will be stabilized with plantings of native sedges and rushes. These plants will form a solid mat of roots and tops capable of carrying the anticipated water flow. No permanent loss of wetland habitat will occur as a result of the project.

The proposed repair will require approximately 50,000 cubic yards of material. The needed material will be generated by cutting the north bank to a 3:1 slope. The proposed cut will help to stabilize the north bank by removing existing landslide deposits, and the new 3:1 slope will be more stable than the existing 1:1 slope. The eroded channel will then be filled, at the east end of the slide the fill will match the existing channel elevation. The south bank will be reestablished by use of a 3:1-fill slope starting at the top of bank down to the new flow line. This will move the channel several feet to the north. At the intersection of Avalon Heights Terrace and Capitola Terrace a maintenance road will be built across Creek B creating the wetland pond. Drainage from the wetland pond will require the installation of 380 feet of 42-inch concrete pipe.

3. **State Approvals:** Under Section 401 of the Clean Water Act (33 U.S.C. Section 1341), an applicant for a Corps permit must obtain a State water quality certification or waiver before a Corps permit may be issued. The applicant has provided the Corps with evidence that he has submitted a valid request for State water quality certification to the San Francisco

Bay Regional Water Quality Board. No Corps permit will be granted until the applicant obtains the required certification or waiver. A waiver shall be explicit, or it will be deemed to have occurred if the State fails or refuses to act on a valid request for certification within 60 days after the receipt of a valid request, unless the District Engineer determines a shorter or longer period is reasonable for the State to act.

Those parties concerned with any water quality issues that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, by the close of the comment period of this public notice.

4. **Environmental Assessment:** Corps of Engineers has assessed the environmental impacts of the action proposed in accordance with the requirements of the National Environmental Policy Act of 1969 (Public Law 91-190), and pursuant to Council on Environmental Quality's Regulations, 40 CFR 1500-1508, and Corps of Engineers' Regulations, 33 CFR 230 and 325, Appendix B. Unless otherwise stated, the Preliminary Environmental Assessment describes only the impacts (direct, indirect, and cumulative) resulting from activities within the jurisdiction of the Corps of Engineers. The documents used in the preparation of this Preliminary Environmental Assessment are on file in Regulatory Branch, Corps of Engineers, 333 Market Street, San Francisco, California.

The Preliminary Environmental Assessment resulted in the following findings:

a. IMPACTS ON THE AQUATIC ECOSYSTEM

(1) Physical/Chemical Characteristics and Anticipated Changes

Streamflow – Surface flows are present in these drainages all year during wet years and will be maintained by diverting them during construction. This will be a short term minimal impact.

Erosion/Sedimentation Rate – The success of the creek restoration will be evaluated by (1) the effectiveness of the grading and bank stabilization in minimizing erosion and sedimentation in the restoration area and (2) overall condition and function of created riparian and wetland habitat. One measurable performance criterion will be total suspended solids (TSS). The objective will be that stream flows downstream of the restoration sites will not exceed TSS in stream flows upstream of the restoration sites by more than 20% immediately following storm events exceeding 1 inch during the first year following construction. This will be a long term beneficial impact.

(2) Biological Characteristics and Anticipated Changes

Wetlands (Special Aquatic Site) – Creek B has very little wetland or riparian vegetation due to extensive scour, however, there is a small debris basin in the tributary to Creek B which is approximately 360 square feet in area. Toroges Creek has riparian scrub willow habitat that will be minimally disturbed by the bank stabilization. After restoration of these disturbed areas are made, there will be a net gain of riparian habitat which will be a long term beneficial impact.

Endangered Species – The Corps is not currently aware of the occurrence of any federally listed endangered or threatened species on the project site. If adverse impacts to any federally listed threatened or endangered species are identified, the Corps will initiate consultation with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service as required by Section 7 of the Endangered Species Act.

b. IMPACTS ON RESOURCES OUTSIDE THE AQUATIC ECOSYSTEM

(1) Physical Characteristics and Anticipated Changes

Air Quality – Project activity would have minor, short-term impacts on air quality in the vicinity of the project site. Based on the relative minor size of the proposed project and limited to an evaluation of air quality impacts only within Corps of Engineers' (Corps) jurisdictional areas, the Corps has determined that the total direct and non-direct project emissions would not exceed the de minimis threshold levels of 40 CFR 93.153. Therefore, the proposed project would conform to the State air quality implementation Plan (SIP) for California.

Noise Conditions – Construction activity would have minor, short term impacts on the ambient noise levels in the project site vicinity.

Geologic Conditions – Project goals are to stabilize the erosion on these two drainages. Erosive conditions will be remediated by reducing the stream gradient of Creek B and stabilizing the side slopes. This will be a long term beneficial impact.

(2) Biological Characteristics and Anticipated Changes

Riparian Habitat (Not in Corps' Jurisdiction) – Central coast riparian scrub is an early successional, disturbance-adapted community dominated by willow species. This community is scattered in small stands along Toroges Creek and protected areas of Creek B. In the absence of flooding disturbance, central coast riparian scrub on the project site would likely be replaced by sycamore alluvial woodland over time. Heavy runoff during winter storm events, however, results in ongoing scour and the persistence of this community in small patches. In recent years, erosion and scouring along the portion of Creek B proposed for restoration has prevented willows from becoming established. Understory vegetation and recruitment of tree and shrub species is sparse throughout project site riparian communities as a result of cattle grazing.

Cut and fill areas above the 100-year event elevation will be seeded with a native grass mix. Native riparian trees and shrubs will be planted along the channel floodplain and lower slopes. This will restore the riparian corridor to these drainages. This is considered a major long term beneficial impact.

(3) Socioeconomic Characteristics and Anticipated Changes

Aesthetic Quality – Repair and revegetation of the deeply eroded drainage adjacent to the main access road to the residential development will be a visual improvement.

Public Health and Safety – The vertical drop into the Creek B at the failure zone is in excess of 16 feet adjacent to the Avalon Community Park and represents a significant hazard to park visitors. This repair will have a long term beneficial impact.

(4) Historic – Cultural Characteristics and Anticipated Changes

A Corps of Engineers' archaeologist is currently conducting a cultural resources assessment of the permit area, involving review of published and unpublished data on file with city, State, and Federal agencies. If, based upon assessment results, a field investigation of the permit area is warranted, and cultural properties listed or eligible for listing on the National Register of Historic Places are identified during the inspection, the Corps of Engineers will coordinate with the State Historic Preservation Officer to take into account any project effects on such properties.

c. SUMMARY OF INDIRECT IMPACTS

None have been identified.

d. SUMMARY OF CUMULATIVE IMPACTS

None have been identified.

e. CONCLUSIONS AND RECOMMENDATIONS

Based on an analysis of the above identified impacts, a preliminary determination has been made that it will not be necessary to prepare an Environmental Impact Statement (EIS) for the subject permit application. The Environmental Assessment for the proposed action has, however, not yet been finalized and this preliminary determination may be reconsidered if additional information is developed.

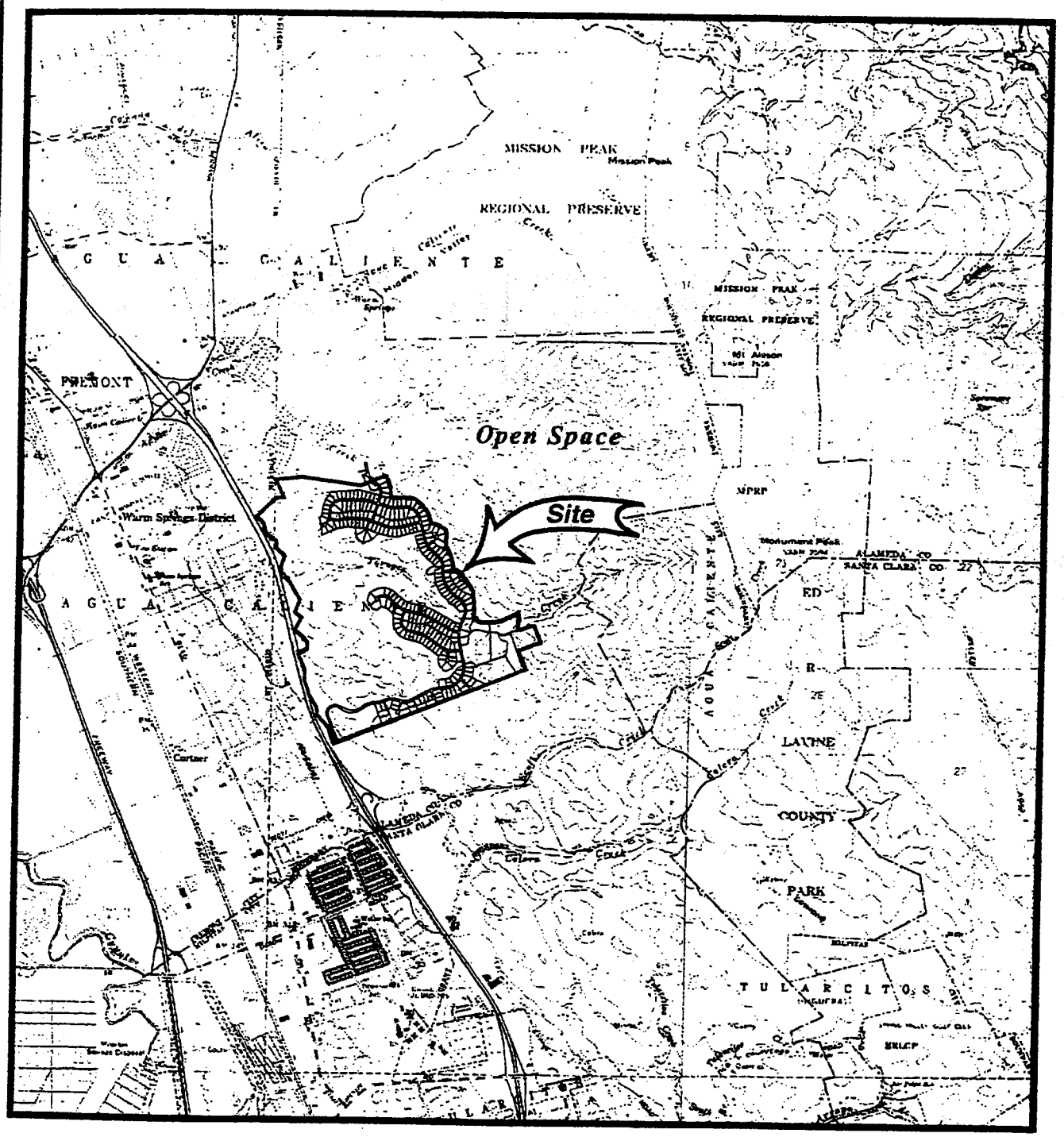
5. **Alternatives Analysis:** Evaluation of this activity's impacts includes application of the guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)).

6. **Public Interest Evaluation:** The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts that the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision will reflect the national concern for both protection and utilization of important resources. All factors that may be relevant to the proposal must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

7. **Consideration of Comments:** The Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

8. **Submission of Comments:** Interested parties may submit in writing any comments concerning this activity. Comments should include the applicant's name, the number, and the date of this notice and should be forwarded so as to reach this office within the comment period specified on page one of this notice. Comments should be sent to: Regulatory Branch, Attention: Clyde Davis. It is Corps policy to forward any such comments that include objections to the applicant for resolution or rebuttal. Any person may also request, in writing, within the comment period of this notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Additional details may be obtained by contacting the applicant whose address is indicated in the first paragraph of this notice, or by contacting Clyde Davis of our office at telephone (415) 977-8449. Details on any changes of a minor nature that are made in the final permit action will be provided on request.

File No. NAC-2454-15
October 1999



Approximate Scale 1:50,000

1 0 1 2 Miles

1 0 1 2 Kilometers

Base: U.S.G.S. 7.5 minute Milpitas (1980), Niles (1980), La Costa Valley (1968) & Calaveras Reservoir (1980) Quadrangles
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Earth Systems Consultants Northern California	Avalon Creeks Evaluation Fremont, California	**SITE LOCATION** Figure 1

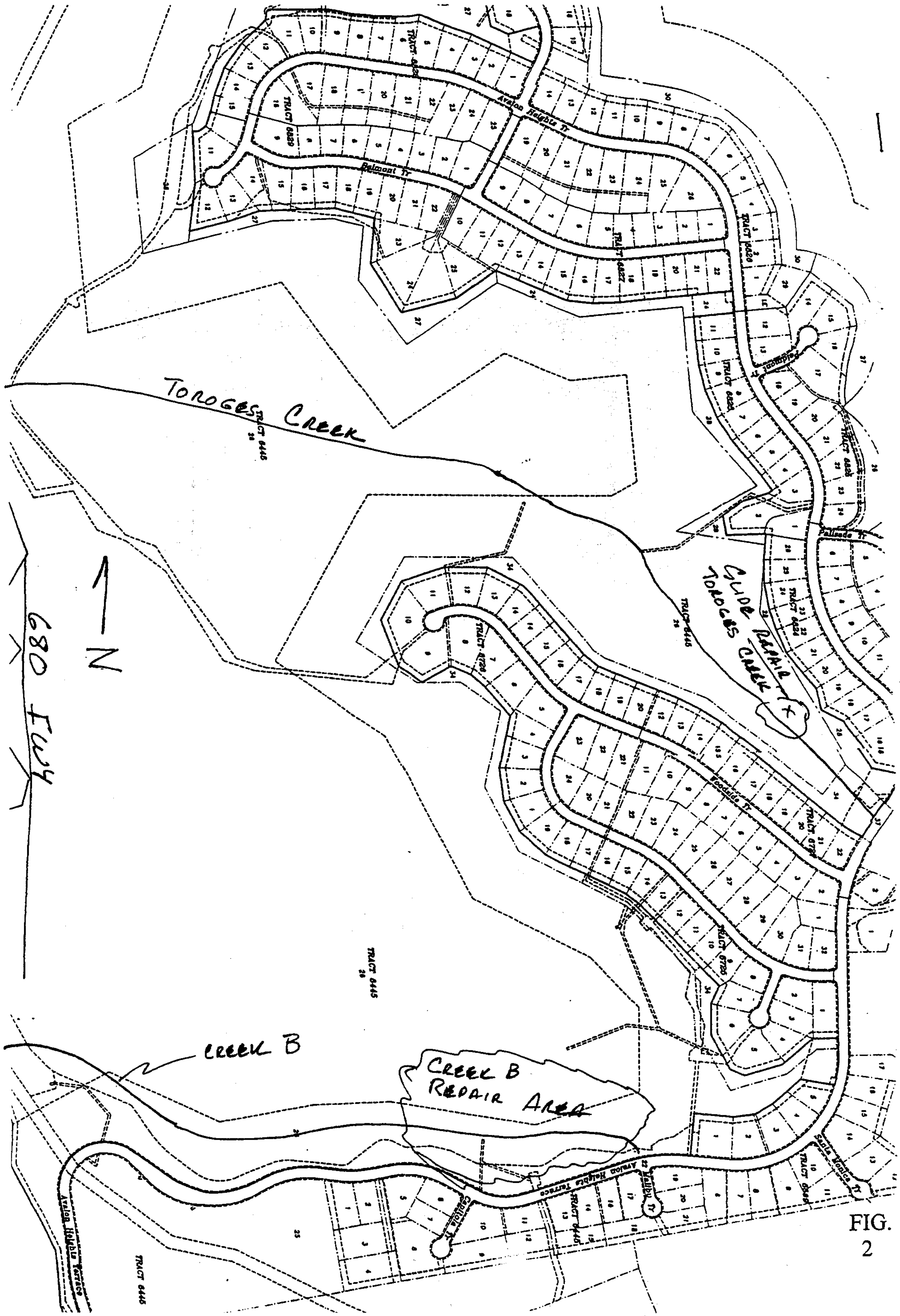
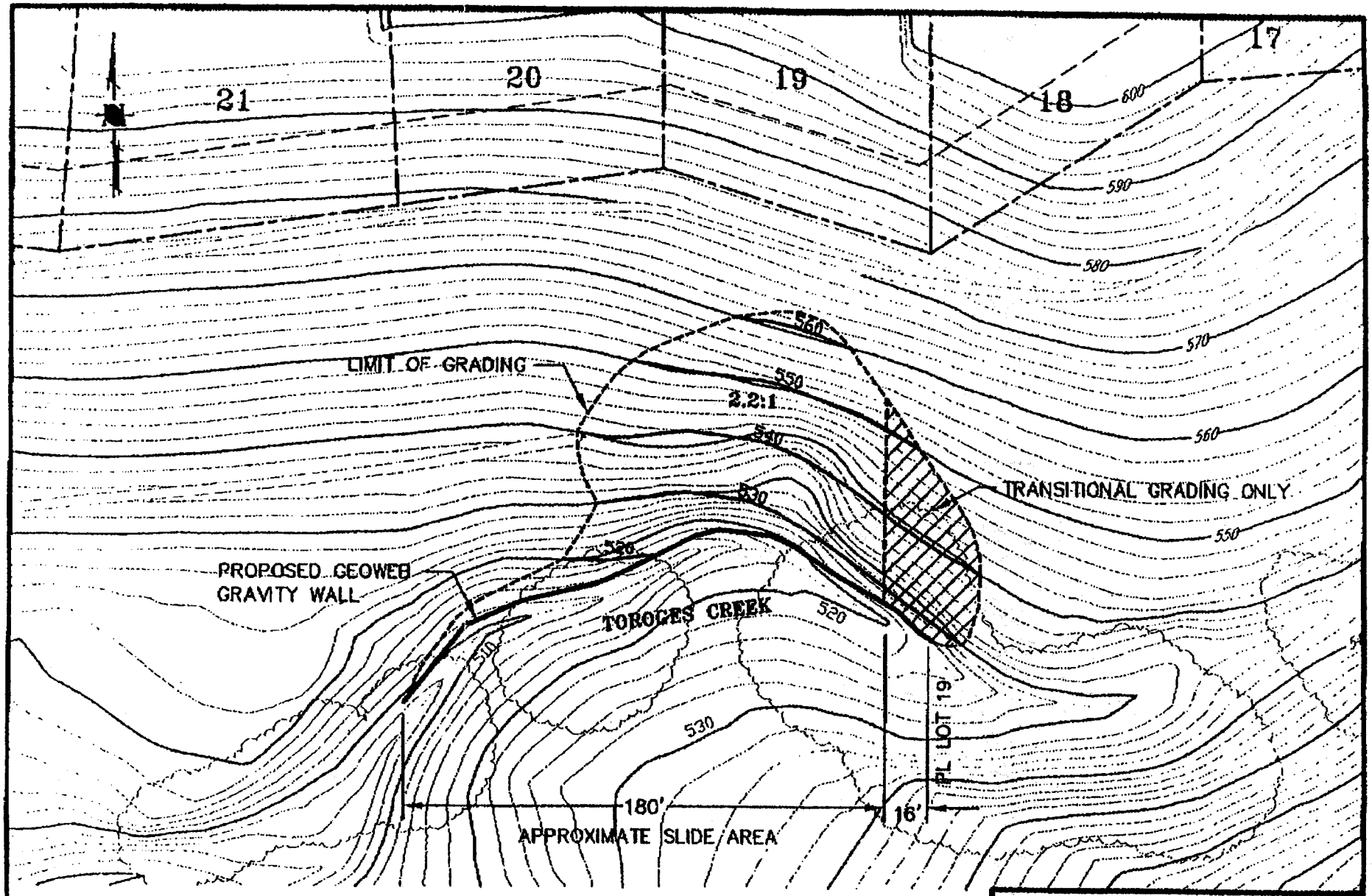

TOROGES CREEK
N
680 FWY
SLIDE REPAIR
TOROGES CREEK
CREEK B
CREEK B
REPAIR AREA

FIG. 2



TOROGES CREEK SLIDE REPAIR

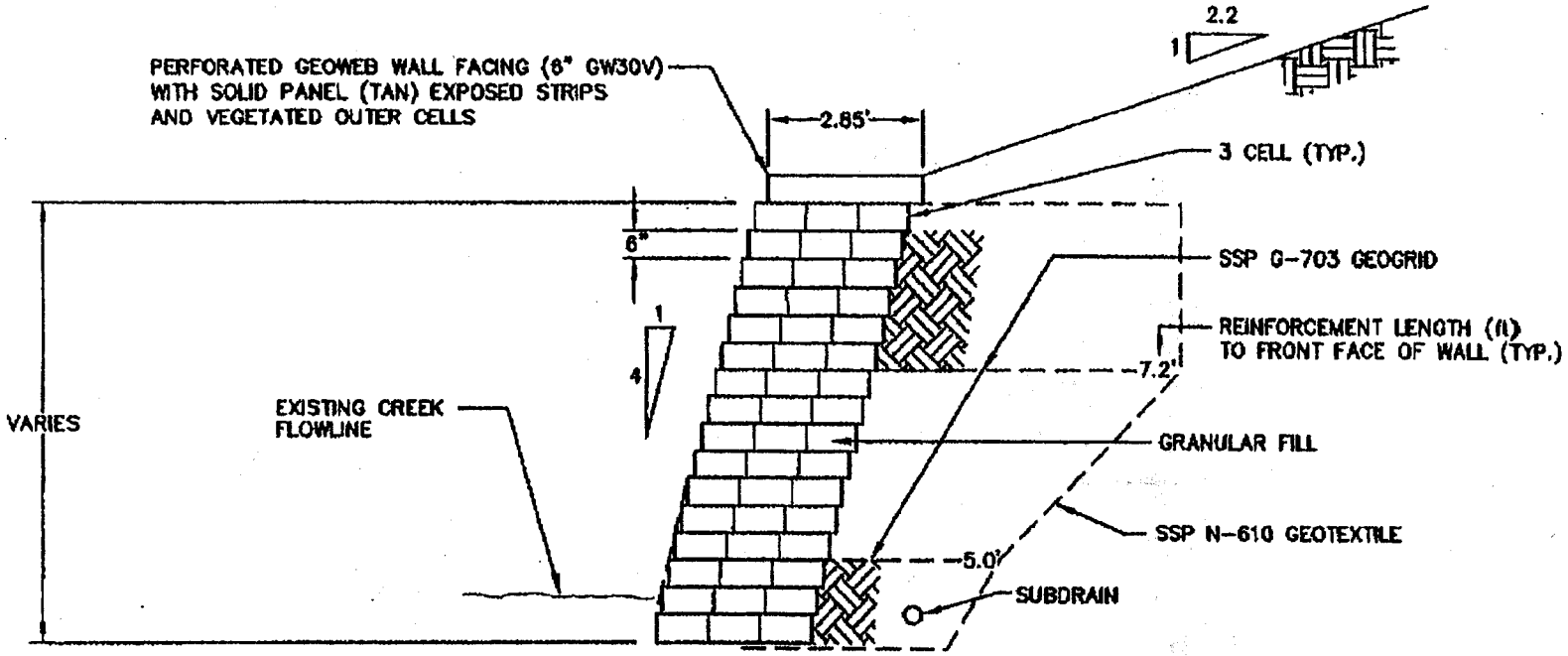
SCALE: 1" = 50'

TOROGES CREEK

FIG. 3

AVALON HOMES

2/22/00



GEOWEB GRAVITY WALL

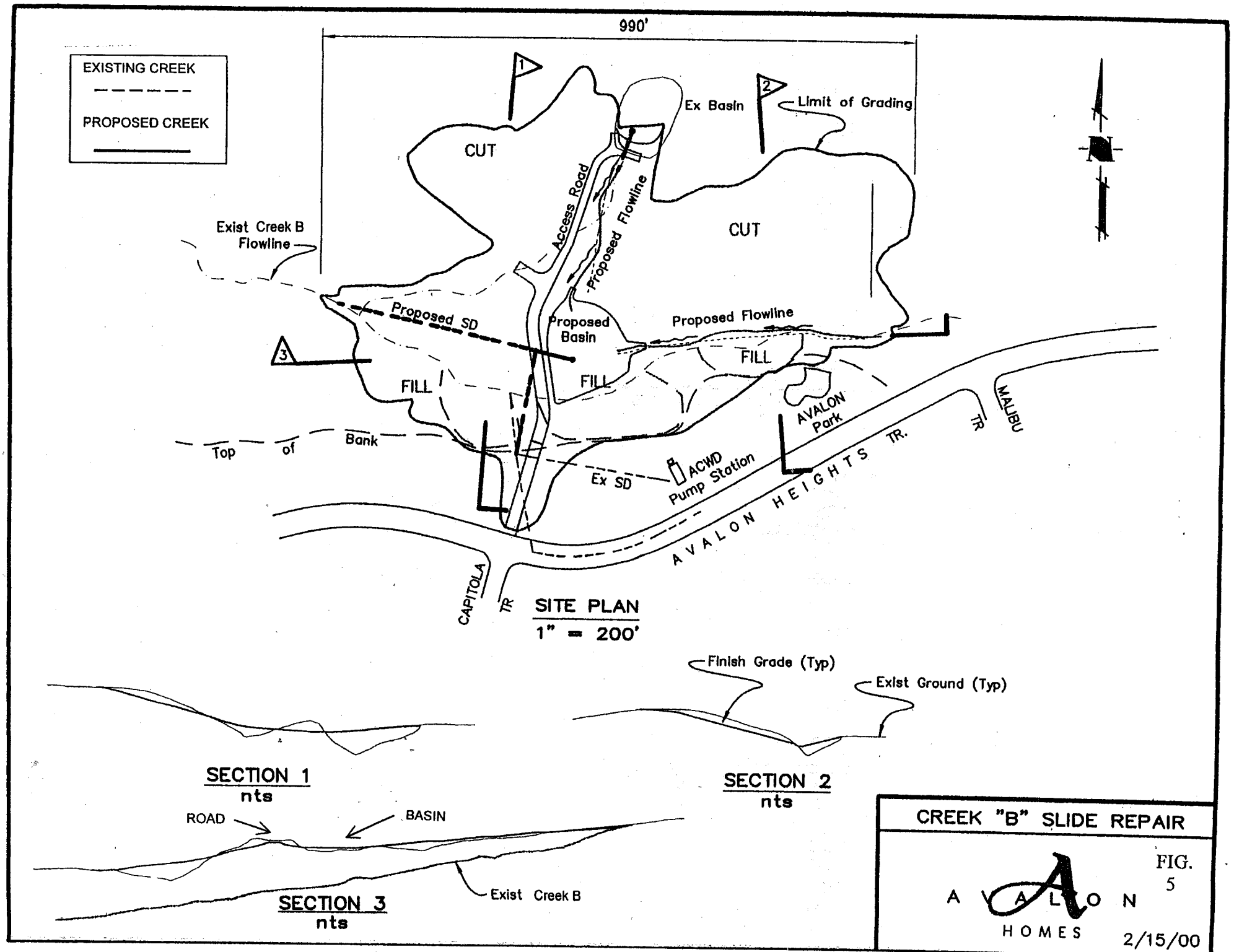
SCALE: NTS

TOROGES CREEK

FIG. 4

AVALON HOMES

2/22/00


990'
EXISTING CREEK
PROPOSED CREEK
1
2
3
Ex Basin
Limit of Grading
CUT
CUT
Access Road
Proposed Flowline
Exist Creek B Flowline
Proposed SD
Proposed Basin
Proposed Flowline
FILL
FILL
FILL
Top of Bank
Ex SD
ACWD Pump Station
AVALON Park
MALIBU TR
AVALON HEIGHTS TR.
CAPITOLA TR
SITE PLAN
1" = 200'
Finish Grade (Typ)
Exist Ground (Typ)
SECTION 1
nts
SECTION 2
nts
ROAD
BASIN
Exist Creek B
SECTION 3
nts
CREEK "B" SLIDE REPAIR
FIG. 5
AVALON HOMES
2/15/00

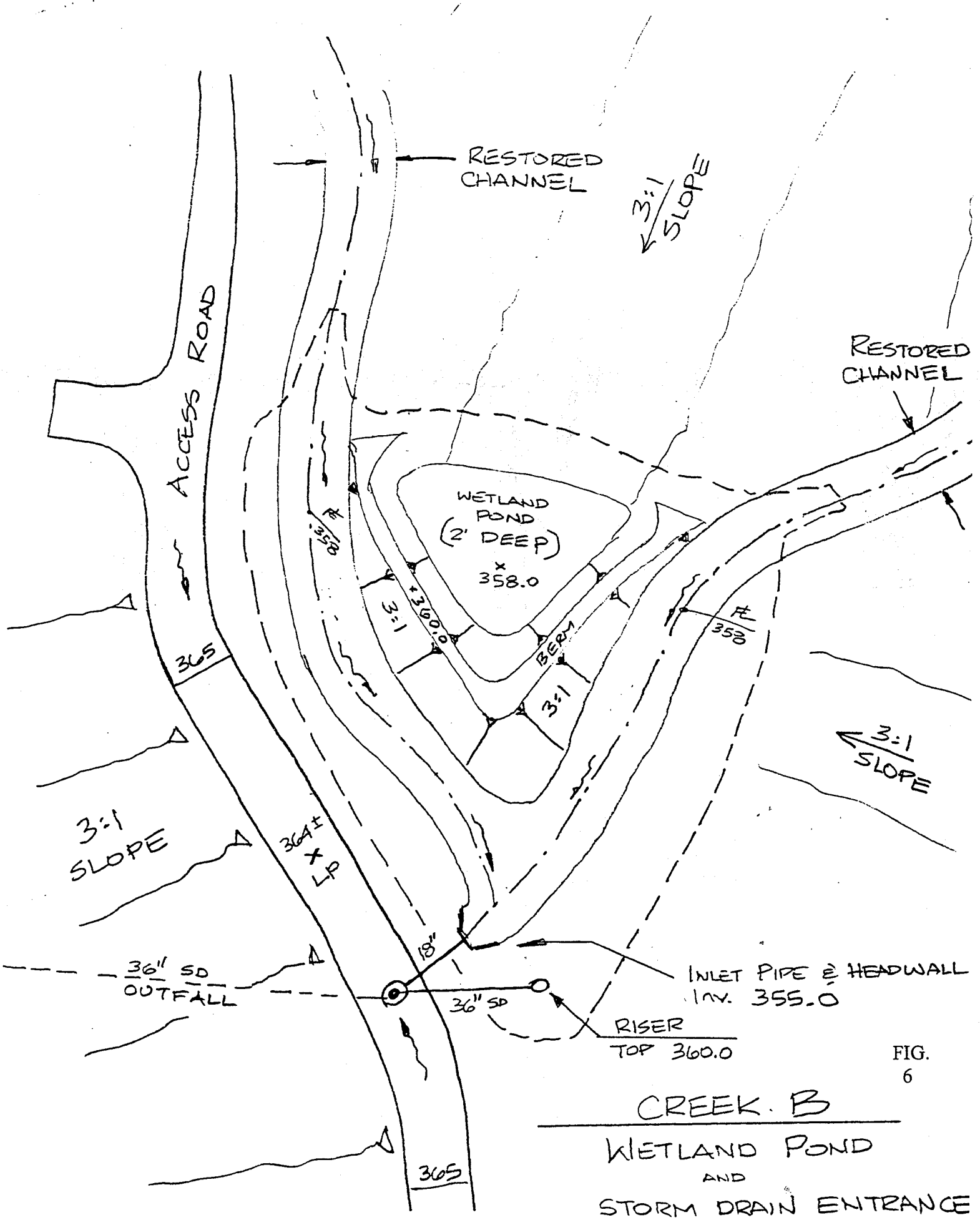


FIG. 6

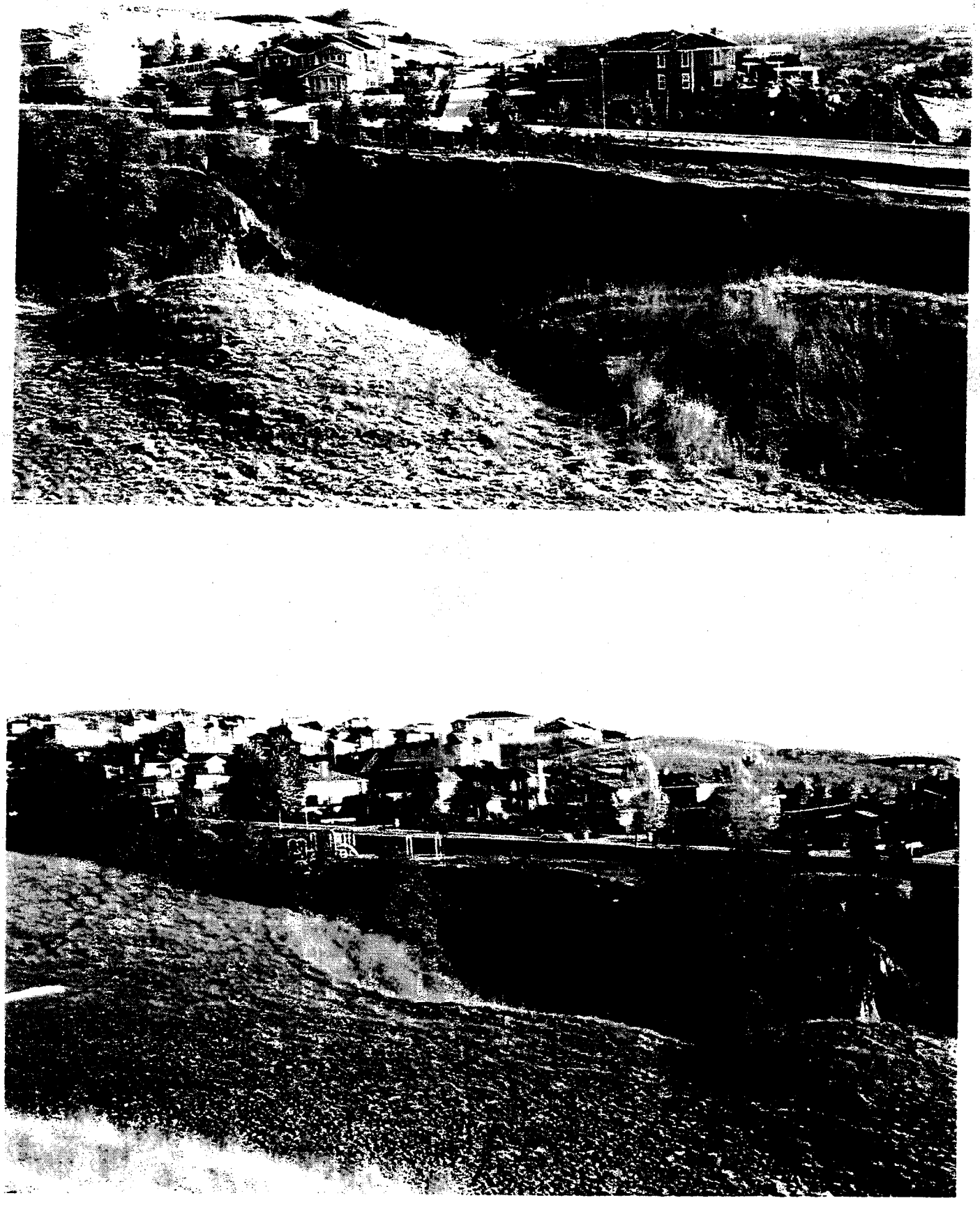
CREEK B

WETLAND POND AND STORM DRAIN ENTRANCE

5-2-00

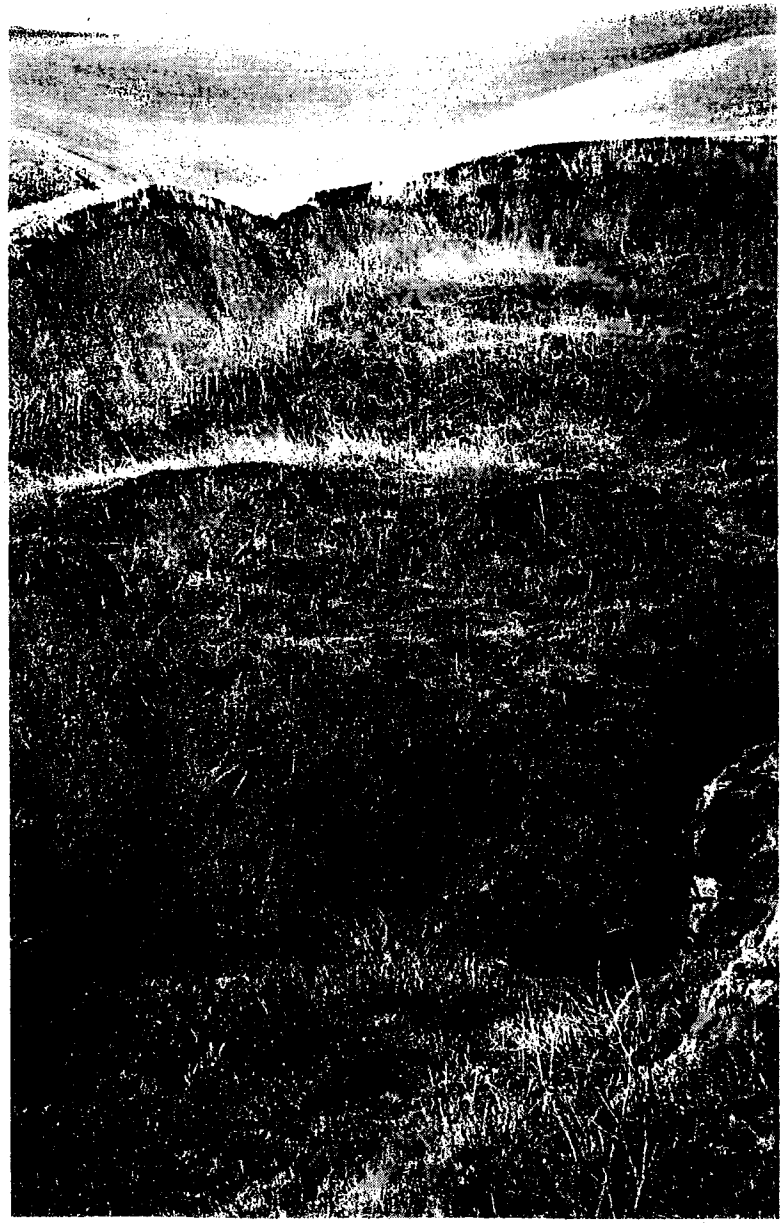
TOROGES CREEK-
PHOTOGRAPHS SHOWING AREA OF PROPOSED STREAM BANK STABILIZATION

FIG.
7



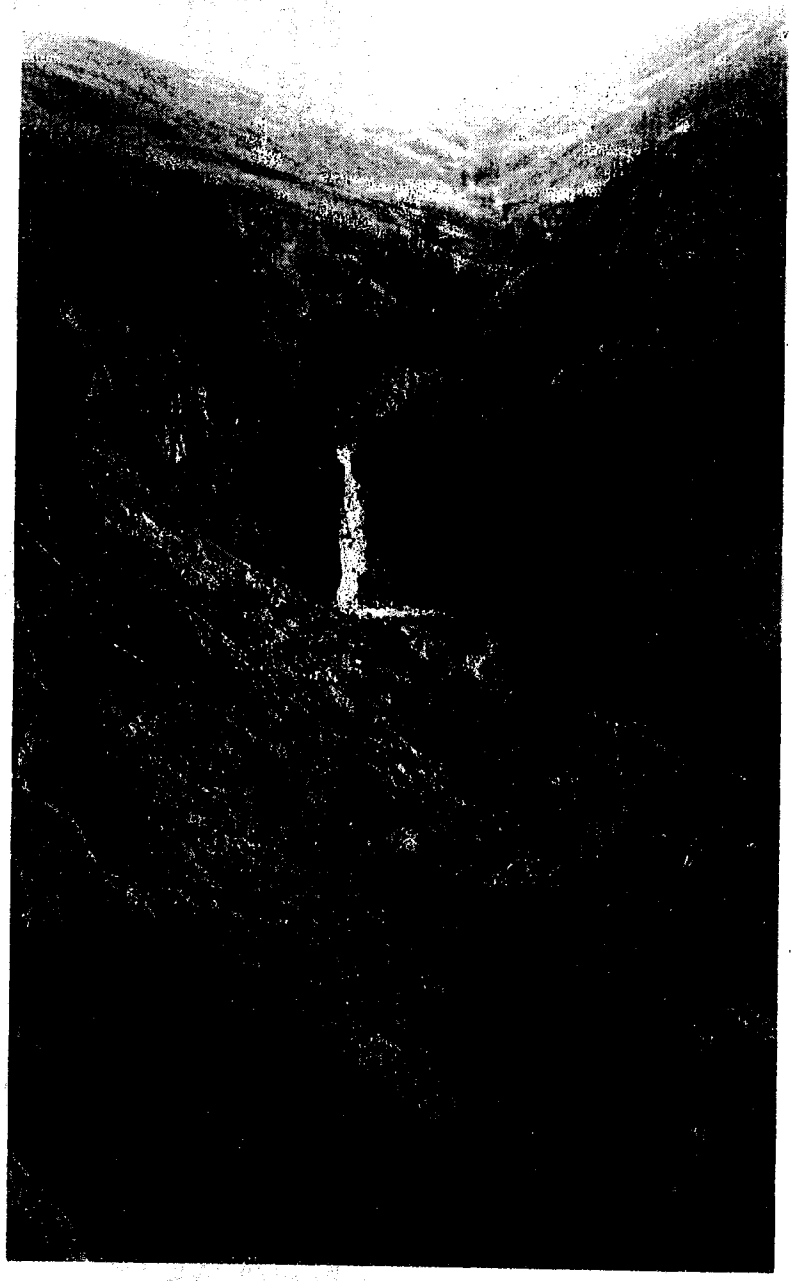
CREEK B
VIEW SHOWING THE LANDSLIDING ALONG THE SOUTH BANK
AVALON COMMUNITY PARK AND THE ACWD PUMP STATION

FIG.
8



CREEK B
VIEW OF THE NORTH BANK LOOKING AT THE APPROXIMATE LOCATION OF THE PROPOSED WETLAND POND

FIG. 9



CREEK B
VIEW LOOKING WEST FROM THE MID-POINT OF THE LANDSLIDE AREA

FIG.
10