



Contractor's License #643881

Accutite Environmental Engineering

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February 3, 1994

Ms. Juliet Chin
Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Rm. 350
Oakland, CA 94621

ALCOAT
H1AZMAT
GAFEB-8 PM 4:20

SITE: Z-RENTALS, 711 CLEVELAND STREET, ALBANY, CA 94710

Dear Ms. Chin:

Please find attached a brief report summarizing the geologic findings at the referenced site based on the Caltrans subsurface investigation. Included are partial drawings of the Caltrans soil boring logs and vicinity drawings.

Based on the Caltrans investigation, we believe a site specific approach is warranted. Accutite requests that the Regional Board assess the necessity of monitoring wells for this particular site.

Please respond by February 24, 1994 on the recommended action for this site.

Regards,
Accutite Environmental Engineering

Amy P. Marden-Breckenridge
Project Engineer

cc: Frank and Bob Zichichi, Z-Rentals

ZRentaGW

Z-RENTALS, 711 CLEVELAND STREET, ALBANY, CA 94710

Background:

The subject site lies just east of Highway 80 and half a mile south of Central Avenue in Albany and is approximately twenty feet above mean sea level. One 2,000 gallon gasoline and one 500 gallon diesel underground storage tank (UST) were removed in May 1993. An over excavation of contaminated soil was performed in August 1993. However, the contamination was found to migrate under the nearby corrugated steel building. Groundwater was not encountered in the excavation which terminated at a depth of eleven feet due to hard sandstone.

Geological Conditions:

The USGS Preliminary Geological Map of the Richmond Quadrangle, Alameda and Contra Costa Counties show the referenced site to be located on alluvium surficial deposit and next to graywacke sandstone. see attached maps.

Caltrans Subsurface Investigation:

On January 9, 1993, Caltrans drilled two soil borings on the subject site for a structural investigation. Figures 1 and 2 show the locations of the two borings (labeled 93-4 and 93-5, located in Parcel #51139). The borings extended approximately 43 feet into the subsurface (twenty feet below mean sea level). Groundwater was not detected in either boring. Graywacke sandstone was encountered at one foot below surface grade (bsg) in boring 93-5 (Figure 4) and seven feet bsg in boring 93-4 (Figure 3). The borings were advanced with diamond core drilling due to the hardness of the sandstone. Both borings were closed immediately after drilling.

Conclusions:

The former underground storage tanks were located in an alluvium deposit three feet above Franciscan graywacke sandstone. Due to the geology of the site, migration of petroleum contaminants would be extremely slow. In addition, groundwater was not encountered down to forty three feet bsg, or thirty two feet into sandstone.

Recommendations:

Based on the Tri-Regional Guidelines (pg. 10), Groundwater investigations are divided into two categories. Category #1: Seasonal high groundwater less than 50 feet (Shallow Ground water). Category #2: Seasonal high groundwater greater than 50 feet (Deep Groundwater). The subsurface investigation performed in January 1993 (during the rainy season) at the subject site shows that groundwater does not exist down to 43 feet below the surface grade. Based on this information the site would be defined by category #1. However, the Guidelines also state *'Therefore "deep" ground water has a minimum 35-40 foot buffer zone from the tank bottom to the ground water. The Regional Board staff believe that this zone may, in specific instances, adequately prevent pollutant migration into the ground water.'* Tank bottom was located 8 feet below surface grade (bsg). By subtracting the depth of tank bottom from the depth of the boring, a buffer zone of 35 feet is defined. This buffer zone consists of 3 feet of clay and 32 feet of sandstone. Based on the Caltrans investigation, we believe a site specific approach is warranted. Accutite requests that the Regional Board assess the necessity of monitoring wells for this particular site.



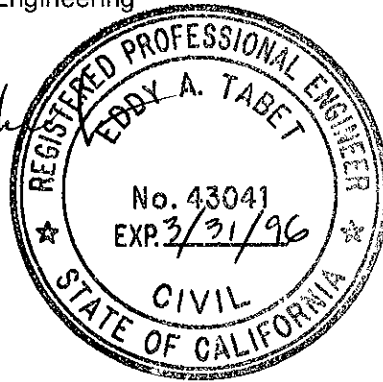
Limitations:

Our services consist of professional opinions, conclusions, and recommendations made today in accordance with generally accepted engineering principles and practices. This warranty is in lieu of all other warranties, either expressed or implied.

Accutite Environmental Engineering



Eddy A. Tabet, P.E.
Senior Engineer

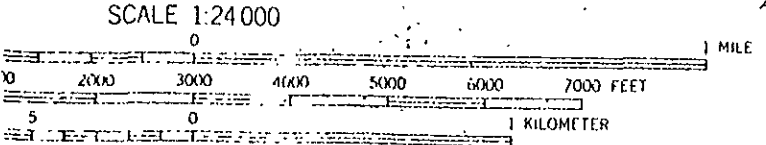


Amy P. Marden-Breckenridge
Project Engineer





CO-OAKLAND BAY BRIDGE 4.4 MI. SAN FRANCISCO (CIVIC CENTER) 12 MI. (17) OAKLAND WEST 1559 IV SE (123) 17'30" OAKLAND (MAC ARTHUR BLVD) 3.3 MI. ALAMEDA (CITY HALL) 9.2 MI. 563 INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.

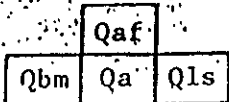


Prelim. geol. map of the Richmond quadrangle, ALAMEDA AND CONTRA COSTA COUNTIES, CALIF.



DRANGLE, ALAMEDA AND CONTRA COSTA COUNTIES, CALIF.

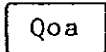
by Thomas W. DIBBLEE, Jr. 1980



Surficial deposits

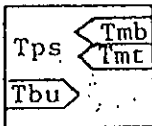
Qaf; artificial fill
 Qbm; bay mud
 Qa; alluvium
 Qls; landslide debris*

Unconformity



Older alluvium

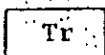
Unconformity



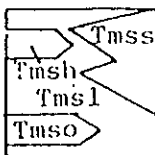
Nonmarine sedimentary and volcanic rocks (includes Contra Costa Group and Orinda Formation)

Tps; weakly consolidated pebble conglomerate, sandstone, claystone and siltstone
 Tmb; Moraga Formation, basalt
 Tmt; Moraga Formation, tuff breccia
 Tbu; unnamed basalt

Unconformity



Rhyolitic volcanic rocks



Marine sedimentary rocks

Tmss; sandstone, gray,

Holocene

Pleistocene

Pliocene

QUATERNARY

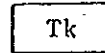
TERTIARY

13

rocks
 Tmss; sandstone, gray, massive
 Tmsl; siltstone (or mudstone), massive, locally sandy
 Tmsh; shale, light gray, massive to platy, siliceous to sandy
 Tms0; Sobrante Sandstone

Miocene

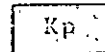
Unconformity



Kreyenhagen Formation (?)

Marine micaceous claystone

Eocene

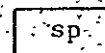


Panoche Formation (?)

Micaceous shale and sandstone

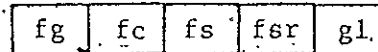
Upper Cretaceous

CRETACEOUS



Serpentinite

TRASSIC AND/OR CRETACEOUS



Franciscan assemblage

fg; greenstone
 fc; chert
 fs; graywacke sandstone
 fsr; sheared greenstone, sandstone and chert in a sheared shale matrix
 gl; glaucophane blueschist and related schists


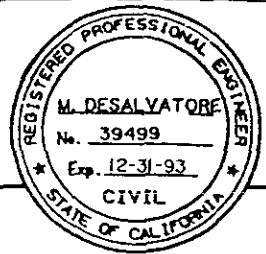
Key: 711 Cleveland Ave., Albany
 Qa, fs

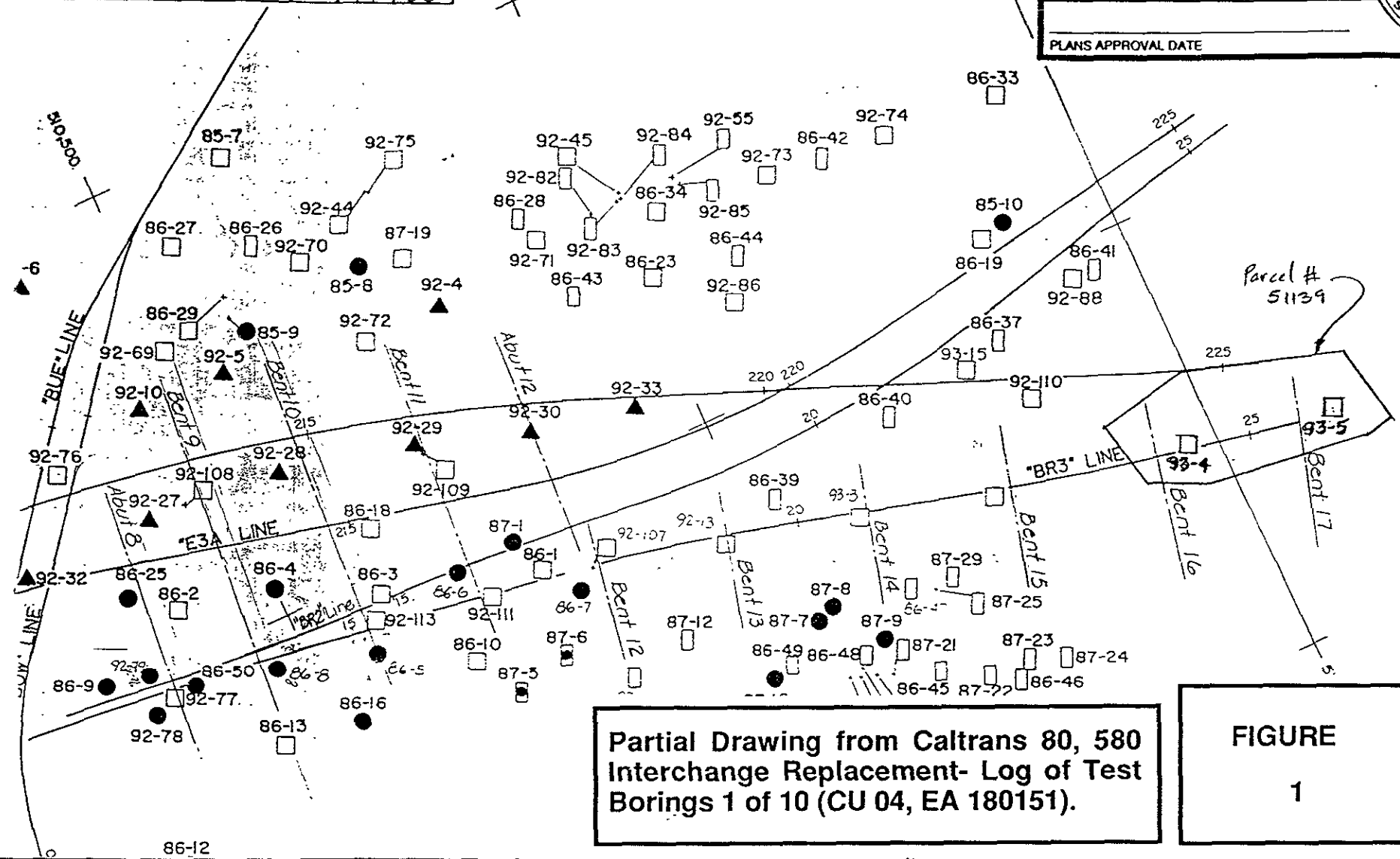
* Only a few landslides have been mapped. For a more complete map of landslide deposits, see Nilsen, 1973.

"BR2" & "BR3" LINES

BRIDGE NO.	80, 580 INTERCHANGE REPLACEMENT	
33-51R		
POST MILE	7.3	
LOG OF TEST BORINGS 1 OF 10		

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)										SHEET	OF
	2-1-93	2-23-93									49	58

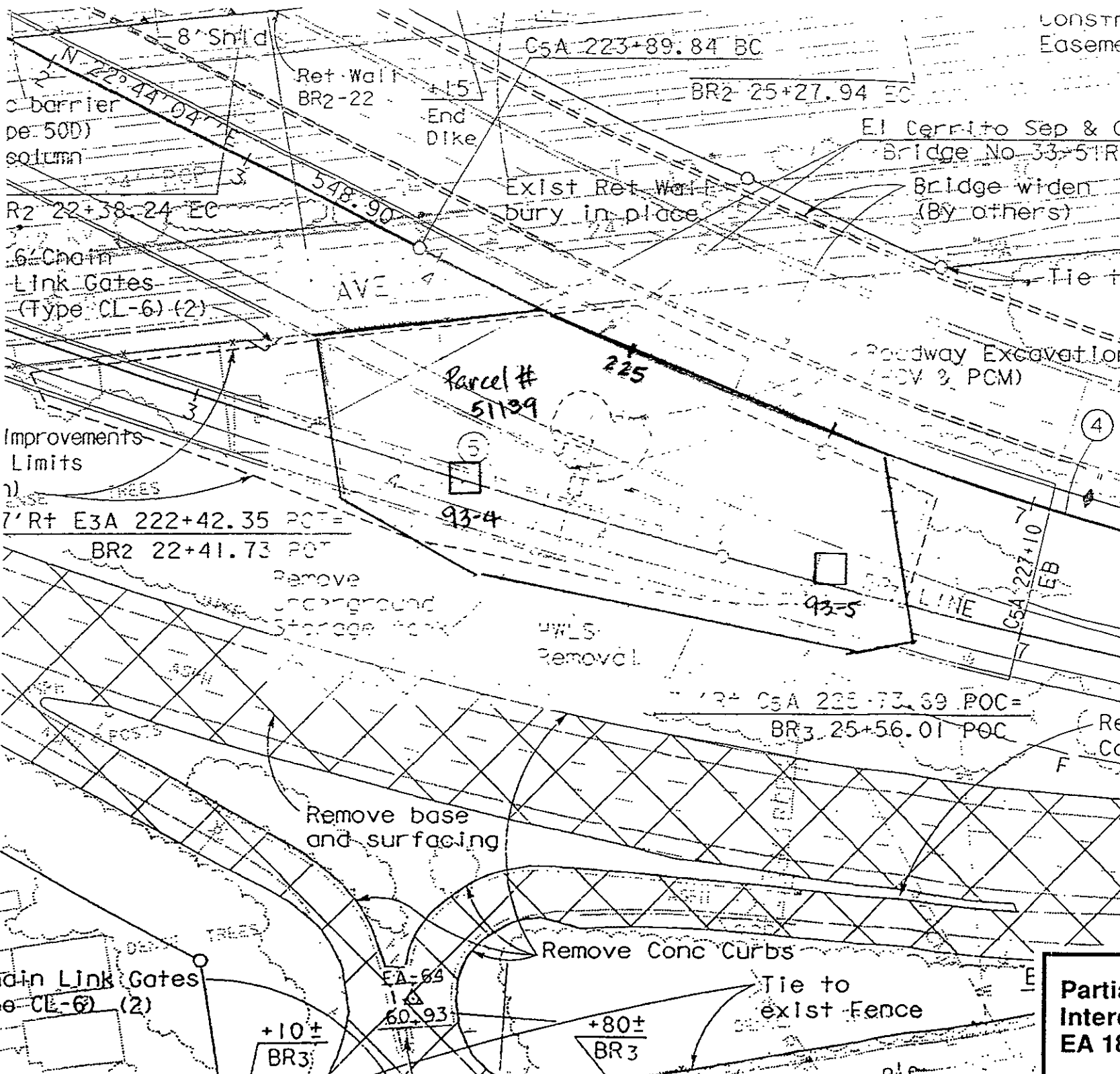
04	Ala	80,580
 REGISTERED ENGINEER - CIVIL		
		
PLANS APPROVAL DATE		



Partial Drawing from Caltrans 80, 580 Interchange Replacement- Log of Test Borings 1 of 10 (CU 04, EA 180151).

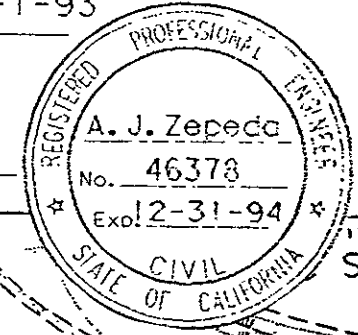
FIGURE 1

DIVISION OF NEW TECHNOLOGY, MATERIALS AND RESEARCH		ENGINEERING GEOLOGY BRANCH		FIELD INVESTIGATION:		State of CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF STRUCTURES STRUCTURE DESIGN	
AWN BY	K. WAHL	9-92		M. DESALVATORE/T. CROSBY					
CHECKED BY									
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						0 1 2 3		CU 04 EA 180151	



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO. TOTAL SHEETS
04	Ala	80,580	6.5/8.0	47.3/48.0

Alberto J. Zepeca 3-1-93
 REGISTERED CIVIL ENGINEER
 PLANS APPROVAL DATE



Partial Drawing from Caltrans 80, 580 Interchange Replacement (CU 04175, EA 180151).

FIGURE 2

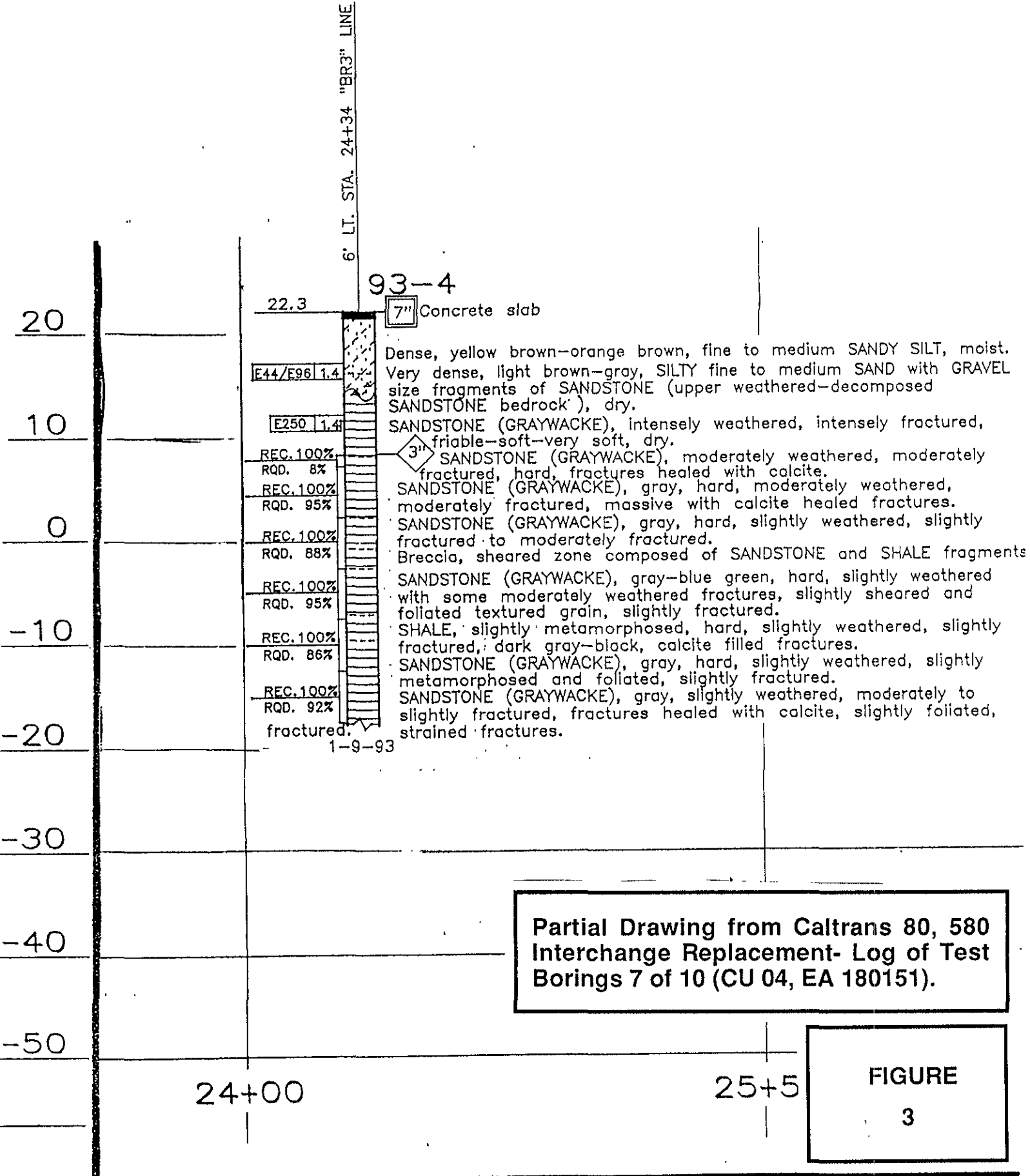
93-4 boring
w/in the area
of Zickler's property

Bent 16

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala	80, 580			

REGISTERED ENGINEER - CIVIL

PLANS APPROVAL DATE



Partial Drawing from Caltrans 80, 580 Interchange Replacement- Log of Test Borings 7 of 10 (CU 04, EA 180151).

FIGURE 3

CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test

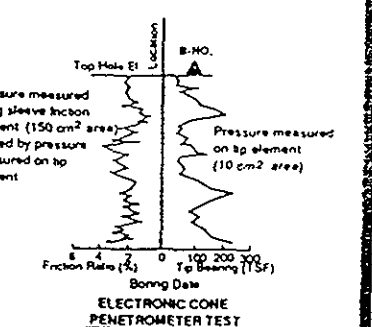
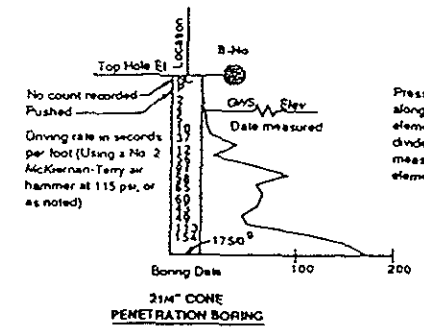
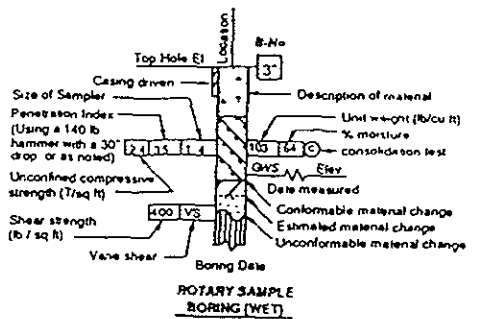
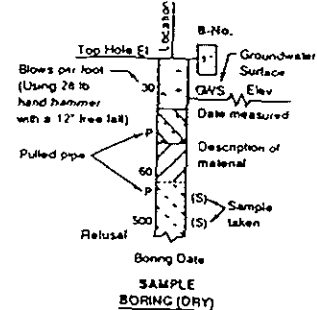
Penetration Index (Blows / Ft)	Consistency	
	Granular	Cohesive
0-4	Very loose	Very soft
5-9	Loose	Soft
10-19	Slightly compact	Stiff
20-34	Compact	Very stiff
35-69	Dense	Hard
>70	Very dense	Very hard

LEGEND OF EARTH MATERIALS

- GRAVEL
- SAND
- SILT
- CLAY
- SANDY CLAY or CLAYEY SAND
- SANDY SILT or SILTY SAND
- SILTY CLAY
- CLAYEY SILT
- PEAT and/or ORGANIC MATTER
- FILL MATERIAL
- IGNEOUS ROCK
- SEDIMENTARY ROCK
- METAMORPHIC ROCK

LEGEND OF BORING OPERATIONS

- 2 1/4" CONE PENETROMETER
- SAMPLE BORING (DRY)
- ROTARY SAMPLE BORING (WET)
- AUGER BORING (DRY)
- TEST PIT
- DIAMOND CORE BORING
- JET BORING
- ELECTRONIC CONE PENETROMETER



NOTE Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis

Cone Penetrometer dimensions and testing procedures are in accordance with ASTM standard D 3441-79, or as noted

Partial Drawing from Caltrans 80, 580 Interchange Replacement- Log of Test Borings 7 of 10 (CU 04, EA 180151).

FIGURE 5