# T.I.N. ENGINEERING COMPANY

**Geotechnical • Structural • Environmental**

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File No.: 250083
April 12, 2025

Ms. Lynn Johnson
32322 Conqueror Drive
Rancho Palos Verdes, California 90275

SUBJECT: Site Geologic Reconnaissance Report for Existing Residential Property at 32322 Conqueror Drive, Rancho Palos Verdes, California

REFERENCES:
1. Thomas W. Dibblee, Ir., Geologic Map of the Palos Verdes Peninsula and Vicinity, Redondo Beach, Torrance, and San Pedro Quadrangles, Los Angeles County, California, 1999.
2. Moore and Taber, Topographic and Geologic Map Compilation, Greater Klondike Canyon area, dated September 9, 1988.
3. Donald R. Warren, Compacted Fill Map, Tract Nos. 22387 and 22835, dated January 15, 1956.

Dear Ms. Johnson:

In accordance with your authorization, we have completed this site geologic reconnaissance report for the existing residential property at 32322 Conqueror Drive in the City of Rancho Palos Verdes of the Los Angeles County. The subject site consists of a level building pad, an approximately 1 ½:1 ascending cut slope to the east, and a small slope to the south. The level building pad is currently occupied by a one-story, single family, residential building with an attached garage. An existing 2- to 3-foot high garden wall is located at the toe of the eastern ascending slope. The southern descending slope is approximately 12 feet high. The existing residential building is not equipped with eaves and gutters.

Based upon the compacted fill map by Donald Warren, Reference 3, no fill grading was performed at the subject. However, It appears that a minor fill grading was performed on the southwest side of the southern descending slope.

Based upon the regional geologic map by Moore and Taber, Reference 2, the subject site is covered with shale bedrock. The bedrock bedding was dipping into Southeast. It appears that a

dip-in bedding condition was encountered which provides a favorable geologic condition at the subject site.

## Opinions, Conclusions, and Recommendations

Based upon the site reconnaissance made on March 28, 2025, reviews of the regional geologic map by Moore and Taber, and the past grading information by Donald R. Warren, we have herein provided the following opinions, conclusions, and recommendations:

1. The subject site is considered to be geologically stable.

2. Concrete cracks were observed on the front retaining/garden walls. The integrity of the wall should be evaluated by the structural engineer.

3. Slight settlement was observed on the southwest side of the existing residential building. Paving the landscaping area on the southern side yard with a concrete slab or pavers could help prevent surface runoff from being spread throughout the south side of the existing residential building. Excess surface runoff on the south side of the residence may cause distress on the southwest side of the residential building.

4. Eaves and gutters should be installed for the existing residential building. Area drains should be installed in the rear yard to the east and the side yard to the south.

5. Neither surficial nor gross instability were observed at the subject site. The eastern ascending slope is covered with ivy. The existing sprinkle system on the slope should be periodically checked for leaks. The leaks from the sprinkler system on the slope may result in slope erosion.

6. No springs or seepage was observed on the site.

7. In review of the regional geologic map by Dibblee, Plate 1, there are no any landslides and/or slumps existed on-site slopes that could adversely affect the residence.

8. No active or potentially active faults are known to traverse or trend toward the site. The site is not situated within the boundaries of an Alquist-Priolo Special Studies Zone.

9. The subject site is not located within the potential seismic hazard zones (liquefaction zones) mapped by the State as shown on Plate 3. The subject site is not located within a seismically-induced landslide hazard zone. The potential of the seismically-induced landslide at the subject site is to be minimal.

10. It appears that the existing house is in generally a fair condition. With implementation of the suggestions contained in this report, with particular emphasis on providing and maintaining drainage control facilities on and around the site. It is reasonable to expect this property to

perform satisfactorily for its remaining economic life, barring damage that could result from ground shaking due to seismic events.

The subject site is located approximately 2 miles southerly of the Palos Verdes fault. This fault is the controlling fault with regard to maximum ground shaking at the subject site. The safety element of the Los Angeles County General Plan indicates that the Palos Verdes fault is active.

Because of the site's proximity to the active Palos Verdes fault, it is our opinion that this fault is the primary fault of concern to the subject site and will be the principal source of earthquakes that might have the greatest affect at the subject site. The Palos Verdes fault is expected to have a Maximum Moment Magnitude of 7.0 - 7.25 every 900 years. The slip rate of the Palos Verdes fault is assumed to be 3 mm/year, and is predominantly strike slip but with about 15 percent vertical component (Bruce A. Schell).

It is important to recognize that the potential damage from earthquakes is a risk common to all of southern California. The subject site could be subjected to severe and destructive ground shaking from earthquakes that occur on one of the several active faults that are located in southern California.

The subject site, as with all sites in Southern California, will experience significantly strong seismic ground motions caused by activity on regional faults in some time in the future.

Neither soil/ geologic investigation nor soil testing was performed on the subject site. The above described findings and conclusions are provided based upon the site observation made by us on March 28, 2025. The above described findings and statements of professional opinions do not constitute a guarantee or warranty, expressed or implied.

Thank you for this opportunity to be of service. If you have any questions regarding this opinion letter, please contact the undersigned at the letterhead location.

Very truly yours,

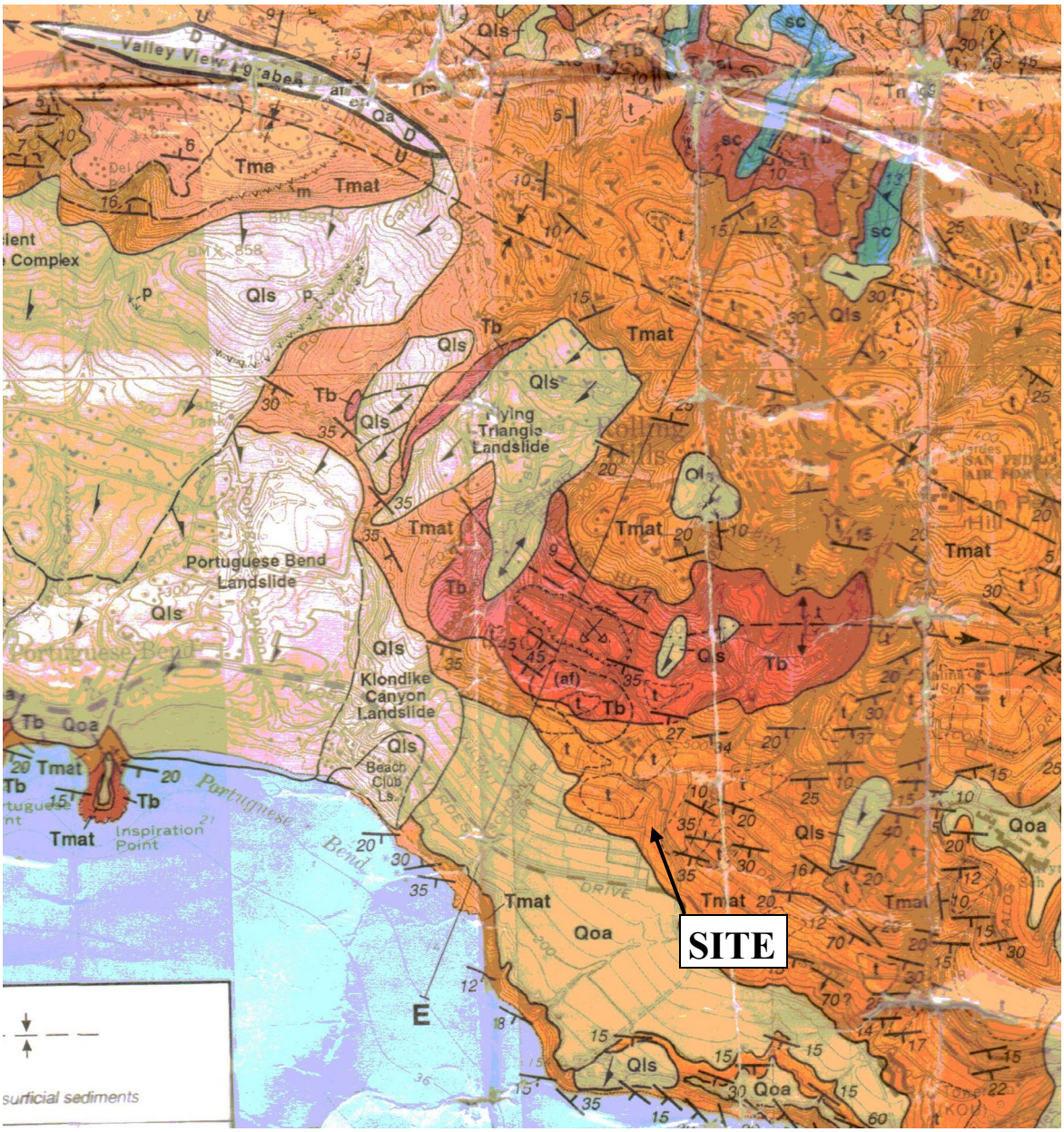
T.I.N. ENGINEERING COMPANY


Tony S. C. Lee, M.S., P.E.
Project Engineer

TSCL:ir

Enclosures:
Regional Geologic Map by Dibble..... Plate 1.1
Regional Geologic Map by Moore and Taber..... Plate 1.2
Compacted Fill Map by Donald R. Warren..... Plate 2
Liquefaction Map ..... Plate 3

Distribution: Client (1, by Email)

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SCALE 1" = 2,000'

SOURCE:
GEOLOGIC MAP OF THE PALOS VERDES PENINSULA AND VICINITY, REDONDO BEACH, TORRANCE, AND SAN PEDRO QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA BY THOMAS W. DIBBLEE, JR., 1999

# REGIONAL GEOLOGIC MAP BY DIBBLEE

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|---|---|---|
| **JOB No. :** 250083 | **DATE:** April 12, 2025 | **P L A T E** 1.1 |

**SITE:** Ms. Lynn Johnson
32322 Conqueror Drive, Rancho Palos Verdes, California


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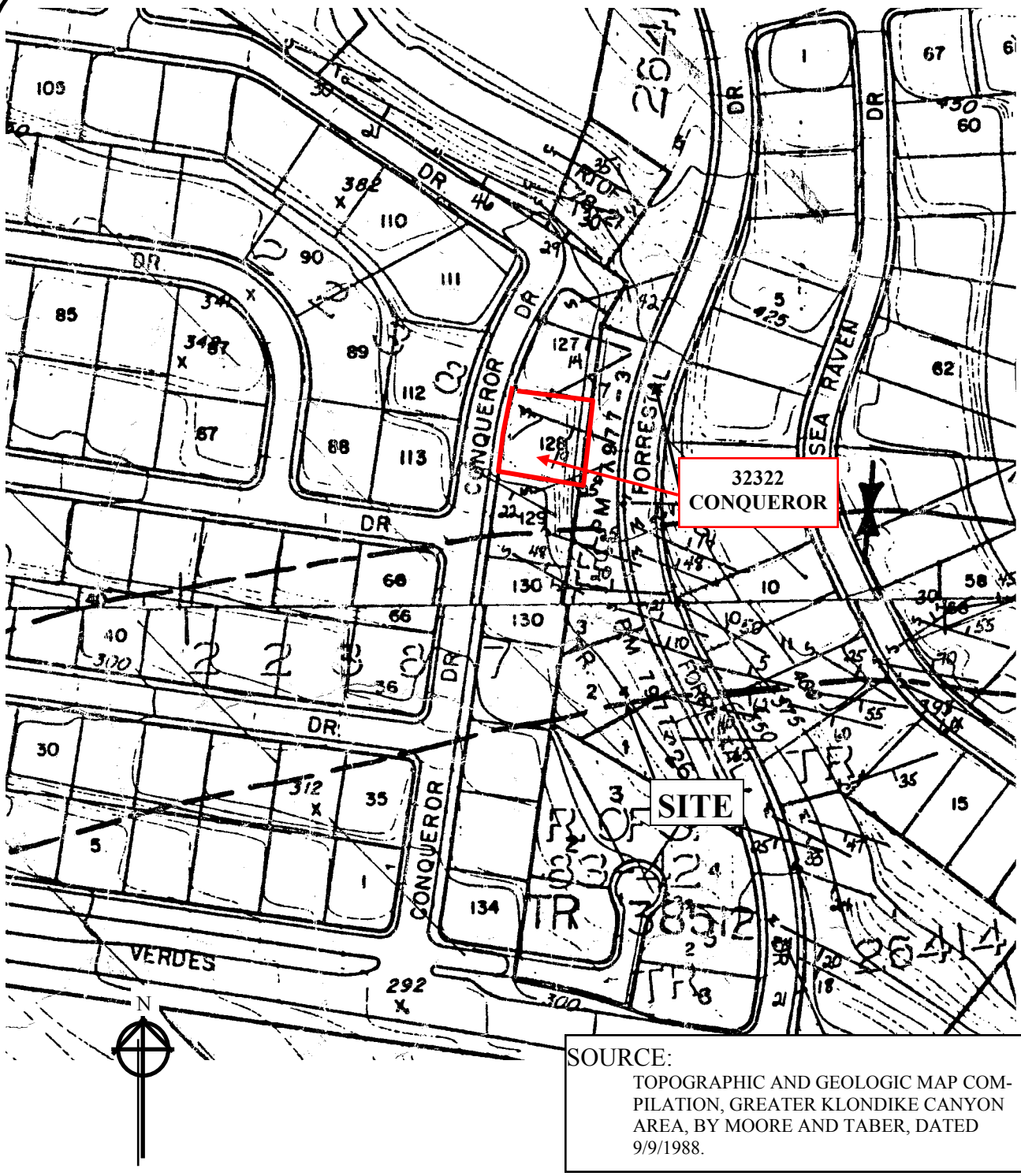


SCALE 1" = 200'

SOURCE:
TOPOGRAPHIC AND GEOLOGIC MAP COMPILATION, GREATER KLONDIKE CANYON AREA, BY MOORE AND TABER, DATED 9/9/1988.

# REGIONAL GEOLOGIC MAP

| | | |
|---|---|---|
| **JOB No. :** 250083 | **DATE:** April 12, 2025 | **PLATE** 1.2 |

**SITE:** Ms. Lynn Johnson
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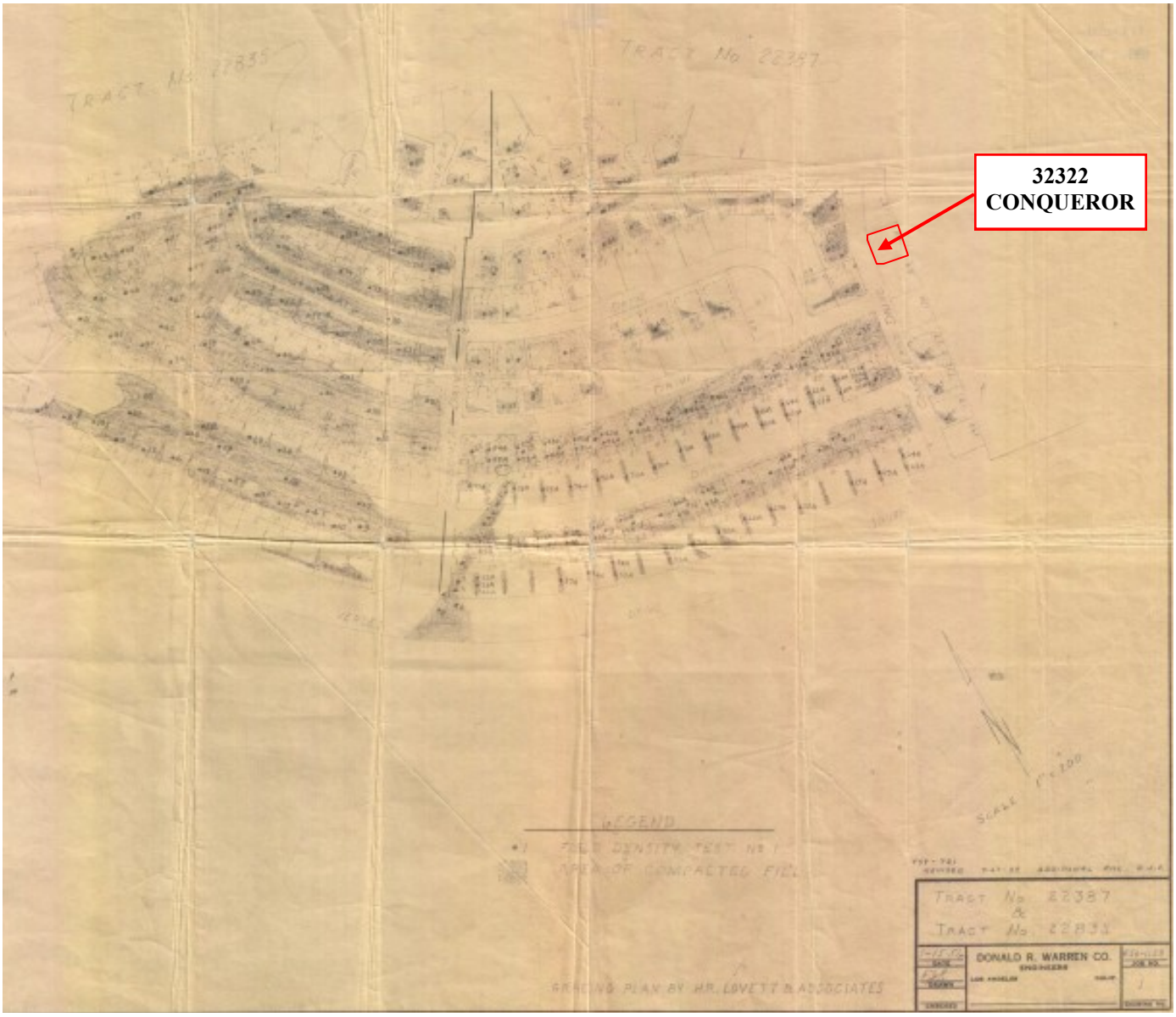


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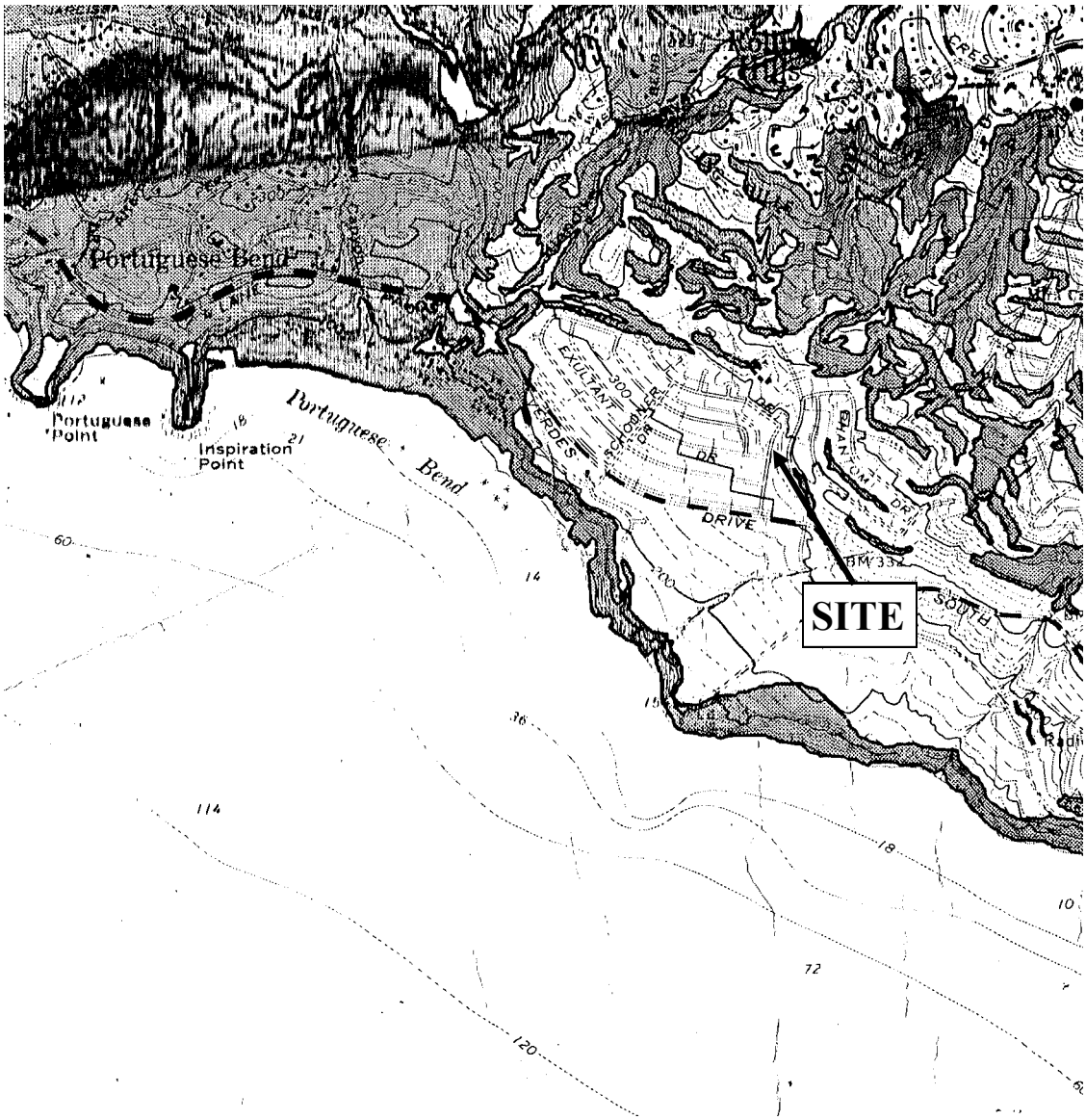
|---|---|---|
| **MS. LYNN JOHNSON**<br>**32322 CONQUEROR DRIVE**<br>**RANCHO PALOS VERDES, CALIFORNIA** | **COMPACTED FILL MAP** | |
| | NOT TO SCALE | PLATE 2 |
| **DATE: APRIL 12, 2025**<br>JOB NO.: 250083 | **T.I.N. ENGINEERING COMPANY** | |

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SCALE 1" = 2,000'

MAP EXPLANATION

Zones of Required Investigation:

Liquefaction
Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslides
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

SOURCE:
SEISMIC HAZARD ZONES OFFICE MAP
REDONDO QUADRANGLE, STATE OF
CALIFORNIA, MARCH 25, 1999

# SEISMIC HAZARD ZONES

**JOB No. :** 250083 | **DATE:** April 12, 2025 | **PLATE** 3

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