CITY OF LOS ANGELES INTER-DEPARTMENTAL CORRESPONDENCE

GEOLOGY AND SOILS REPORT CORRECTION LETTER

LOG # 78625-03

SOILS/GEOLOGY FILE - 2

LAN

DATE:

June 19, 2015

To:

Jim Tokunaga, Deputy Advisory Agency

Department of City Planning

200 N. Spring Street, 7th Floor, Room 750

FROM:

John Weight, Grading Division Chief

Department of Building and Safety

VESTING TENTATIVE TRACT:

71886

LOTS:

1 to 20

LOCATION:

26900 S. Western Avenue

CURRENT REFERENCE REPORT/LETTER(S) Geology/Soils Addendum Rpt Oversized Documents	REPORT No. J.N. 13-107	DATE(S) OF <u>DOCUMENT</u> 05/21/2015	PREPARED BY Petra Geosciences
PREVIOUS REFERENCE	REPORT	DATE(S) OF	
REPORT/LETTER(S)	No.	DOCUMENT	PREPARED BY
Geology/Soils Report	JB 20111-B	06/21/2005	The J Byer Group
Correction Letter	Log #50445	01/20/2006	LADBS
Fault survey report		05/18/2011	Advanced Geoscience
Fault Rupture Study	L-923	06/25/2012	Group Delta
Geology/Soils Report	LA-1073	07/03/2012	Group Delta
Correction Letter	Log #78625	02/28/2013	LADBS
Geology/Soils Addendum Rpt	J.N. 13-107	12/24/2014	Petra Geosciences
Correction Letter	Log #78625-01	01/14/2015	LADBS
Geology/Soils Addendum Rpt	J.N. 13-107	01/27/2015	Petra Geosciences
Correction Letter	78625-02	02/25/2015	LADBS

The Grading Division of the Department of Building and Safety has reviewed the current report dated May 21, 2015, for the proposed developments under Vesting Tentative Tract Map No. 71886. The current report provides a response to Grading Division's previous correction letter of 2/22/13 (Log #78625), and a supplemental fault investigation study, and a response to Grading Division's correction letter of 1/14/15 (Log #78625-01).

The proposed improvements will include a 20-lot subdivisions for the construction of 4 to 5-story apartment buildings, 2 to 3-story single family and multi family residential units, a 5-story concrete parking structure, new roads, soil-nail walls, and retaining walls. According to the reports, the project site is about 61.5 acres previously occupied by U. S. Navy. Existing structures and utilities on site have been removed.

The consultants note that a key issue for this study is to ascertain whether a potential trace of the Palos Verdes Fault System transects the site. The previous fault survey and recommendations by others, identified a fault crossing the project site and that a 50-foot structural setback zone on each side of the fault was

recommended. To assist in ascertaining whether the PV Fault transects the site, the current consultants excavated several fault trenches.

The subsurface materials consist of up to 25 feet of fill over alluvium, terrace, and San Pedro Formation Quaternary Bedrock of siltstone and shale. The subsoils have low to high expansive potential. Existing fill is mostly in the central portion, and cuts are along the north and northeast sides. Existing fill slopes are as high as 30 feet in the northwest with 2:1 (horizontal: vertical) gradient, and existing cut slopes are as high as 60 feet in the north with 2:1 to 1.5:1 gradients. The current report recommends regrading these slopes to a gradient of 2:1, and over-excavating the existing fill and unsuitable materials. A sub-drainage system will be provided at the previous canyon bottom, which crossed the site from northwest to southeast, upon the over-excavation. The proposed backfill will be about 40 feet in depth, and can be as deep as 50 feet. Settlement monitoring will be evaluated after the actual removal depth has been determined. The proposed temporary excavations will be by open cuts. The current report indicates that no shoring will be required.

The current report recommends to support the proposed structures with spread footings and post-tension slabs bearing on the compacted fill. Proposed cut slopes will be up to 10 feet high, and will be buttressed by stabilizing fill (page 14 of 1/27/15 report). A series of retaining walls, up to 45 feet in height, will be constructed along the north and northeast perimeter. Excavations for these retaining walls will be as deep as 45 feet. A soil nail wall up to 40 feet high will be constructed along the north property limit. The final plans for the soil nail wall have not yet been finalized.

The site is located within the Seismic Landslide Hazard Zone as mapped by the State of California. The reports indicates all the existing and proposed slopes will be graded to a gradient of 2:1 (horizontal: vertical). The seismic stability analysis in the report of 7/3/12 also demonstrates the slopes have the factor of safety as required by Code.

The review of the current report dated May 21, 2015, cannot be completed at this time and will be continued upon submittal of an addendum to the reports which shall include, but not be limited to, the following:

- 1. The lithological units depicted on the trench logs presented on Plates D-1, D-2, D-4, and D-5, appear to be reversed, oldest units on the top and youngest units on the bottom, based on the lithologic units key presented by the consultants. Please correct as appropriate.
- 2. The consultants depict three units in the San Pedro Formation as E1, E2, and E3. It is not clear on the key for Trench #2, how are these unit different?
- 3. The log for Trench 2A at STA 35 appears to depict surface fault rupture filled in by artificial fill. The depression in the ground suggests that the fault has a geomorphic expression. Discuss the significance of this finding.
- 4. The consultants depict on the log for Trench T-2 that the fault offsets unit E2. Discuss the significance of this offset.
- 5. On the trench log for T-2 af and E2 are depicted on the same plane or elevation. Complete the log and clearly depict how af and E2 are associated.
- 6. The key to trench log T-2, Plate D-2, is missing the heading for the San Pedro Formation units. At the top of the key is only the heading for fill. Please correct.

- 7. The key to trench log T-2A, Plate D-3, is missing the heading for the San Pedro Formation units. At the top of the key is only the heading for fill. Please correct.
- 8. As previously requested, the extent of the hypothesized intraformational fault(s) noted in T-2 and T-2A by the consultants appears to need additional information to be clearly determined. Provide additional trenches to the west of and parallel to T-2 and east of and parallel to T-2A to determine the lateral extent of these faults. Setback zones may be required based on the findings of these additional trenches.
- 9. For Geotechnical Map Plates 3 through 7, only Plate 3 has an Explanation or key describing lithologies, boring locations, trench locations, contours, contacts, etc. This same Explanation must be depicted on the other Geotechnical Plates 4 through 7.
- 10. Provide representative cross sections through the proposed soldier pile walls, similar to Sections C-C' and D-D' for the proposed soil nail walls.
- 11. As previously requested, place the bearing of the fault trench on the trench logs.
- 12. Reference to page 16 of the 05/21/2015 report, the same horizontal ground acceleration value of 0.22g shall be used for cantilevered retaining walls, revise recommendations accordingly.
- 13. Provide recommendations for the proposed soil nail wall to satisfy the draft document "Recommended Guidelines for Permanent Soil Nails" dated 08/23/2000 by the California Soil Nail Committee, and "Manual for Design & Construction Monitoring of Soil Nail Walls", Publication No. FHWA0-IF-03-017, by U.S. Department of Transportation, Federal Highway Administration.

The project engineering geologist and soils engineer shall prepare a report containing the corrections indicated in this letter. The report shall be in the form of an itemized response. It is recommended that once all correction items have been addressed in a response report, to contact the report review engineer and/or geologist to schedule a verification appointment to demonstrate compliance with all the corrections. Do not schedule an appointment until all corrections have been addressed. Bring three copies of the response report, including one unbound wet-signed original for microfilming in the event that the report is found to be acceptable.

JTW/YL:jtw/yl Log No. 78625-03 213-482-0480

cc: SFI Bridgeview LLC, Owner Allan Catap, Applicant Petra Geosciences, Inc., Project Consultant SP District Office